

ADDENDUM No. 1

RFP No. 25-53

LIBERTY STREET CREEK RESTORATION

Updated Due Date: January 8, 2026 at 2:00 P.M. (local time)

The information contained herein shall take precedence over the original documents and all previous addenda (if any), and is appended thereto. **This Addendum includes nineteen (19) pages.**

The Proposer is to acknowledge receipt of this Addendum No. 1 by signing and submitting Attachment B, including all attachments in its Proposal by so indicating in the proposal that the addendum has been received. Proposals submitted without acknowledgement of receipt of this addendum may be considered non-conforming.

The following forms provided within the RFP Document should be included in submitted proposal:

- Attachment B - General Declarations
- Attachment D - Prevailing Wage Declaration of Compliance
- Attachment E - Living Wage Declaration of Compliance
- Attachment G - Vendor Conflict of Interest Disclosure Form
- Attachment H - Non-Discrimination Declaration of Compliance

Proposals that fail to provide these completed forms listed above upon proposal opening may be rejected as non-responsive and may not be considered for award.

I. CORRECTIONS/ADDITIONS/DELETIONS

Changes to the RFP documents which are outlined below are referenced to a page or Section in which they appear conspicuously. Offerors are to take note in its review of the documents and include these changes as they may affect work or details in other areas not specifically referenced here.

Section/Page(s)	Change
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Section I.G – Sealed Proposal Submission/Page 4:

Remove: “**All proposals are due and must be delivered to the City on or before December 23, 2025 by 11:00 a.m. (local time).**”

Replace with: “**All proposals are due and must be delivered to the City on or before January 8, 2026 by 2:00 p.m. (local time).**”

Section I.P – Schedule/Page 8:

Remove: Activity/Event / Anticipated Date table.

Replace with:

Activity/Event	Anticipated Date
Pre-Proposal Meeting	December 11, 8:30 a.m. (Local Time)
Written Question Deadline	December 15, 2025, 5:00 p.m. (Local Time)
Addenda Published (if needed)	December 16, 2025
Proposal Due Date	January 8, 2026 2:00 p.m. (Local Time)
Selection/Negotiations	January 13, 2026
Expected City Council Authorization	February 17, 2026*

* Pending EGLE Permit Acquisition by February 9, 2026

The above schedule is for information purposes only and is subject to change at the City's discretion.

Section III.E – Schedule of Pricing/Cost / Page 15:

Revised quantity of Medium and Large trees

Added Pay Item 10041.00 Landscape Maintenance and Warranty,
2nd Year

Replaced with Page Add1-15 herein.

Detailed Specifications

DS-2-3 – Project Schedule & Payment:

Changed dates, eliminating EGLE permit restrictions within the stream.

Replaced with Page Add1-DS-2 herein.

DS-5 – Access Allowance:

Remove: “any additional permit fees”.

Include: “Fifty percent shall be paid upon completion of the access route and fifty percent shall be paid upon restoration of the access route to its original condition or better.”

DS-32 – Native Plant Plugs:

Remove: “Space plugs on 24-inch centers in a staggered pattern. Evenly distribute in random group throughout planting area as shown on the plans.”

Replace with: “Space plug clusters at 3 feet O.C., evenly distributed in random groups throughout the planting area as shown on the plans.”

Plans

Sheet 01 – Access Plan:

Revised Staging and Laydown area in Virginia Park.
Revised notes to reflect this revision.

Sheet 02 – Project Notes:

Revised proposed tree miscellaneous quantities.
Previously 30 medium and 30 large
Revised totals 60 medium and 60 large

Sheet 03 – SESC Plan:

Revised access routes to reflect revised staging and laydown area

Sheet 19 – Project Details:

Revised Note 1 for the Plant Plug Detail

II. QUESTIONS AND ANSWERS

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the RFP. Respondents are directed to take note in its review of the documents of the following questions and City responses as they affect work or details in other areas not specifically referenced here.

Question 1: Can you provide the name of the supplier for the stone ledges from previous projects mentioned at the Pre-Bid?

Answer 1: Napoleon Stone, www.napoleonstone.com

Question 2: The plans call for rolling compaction of the subgrade below all "structures"- does this include in-stream structures or only building structures?

Answer 2: Roller compaction of the subgrade is not necessary for in-stream structures.

Question 3: The specs say that seeding is to be protected by a "Turf reinforcement blanket", can 700 gram coir matting be used for this purpose?

Answer 3: Use North American Green BioNet C700BN or approved equal. Absolutely no plastic netting shall be allowed.

Question 4: Can you confirm that it is acceptable to work in the wet on this project?

Answer 4: Yes, it is acceptable to work in the wet on this project. Contractor to follow all specifications shown on the plan

Question 5: Referring to the City of Ann Arbor's tree specification, will there be a plant schedule of tree species provided?

Answer 5:

City of Ann Arbor - Native Tree Species List	
Aspen, trembling (<i>Populus tremuloides</i>)	Maple, red (<i>Acer rubrum</i>)
Basswood; linden (<i>Tilia americana</i>)	Maple, sugar (<i>Acer saccharum</i>)
Beech, American (<i>Fagus grandifolia</i>)	Musclewood; Blue beech; American hornbeam (<i>Caprinus caroliniana</i>)
Birch, yellow (<i>Betula alleghaniensis</i>)	Oak, black (<i>Quercus velutina</i>)
Blackgum (<i>Nyssa sylvatica</i>)	Oak, bur (<i>Quercus macrocarpa</i>)
Butternut (<i>Juglans cinerea</i>)	Oak, chinkapin (<i>Quercus muehlenbergii</i>)
Cedar, eastern red (<i>Juniperus virginiana</i>)	Oak, Dwarf chinkapin (<i>Quercus prinoides</i>)
Cedar, northern white: arborvitae (<i>Thuja occidentalis</i>)	Oak, red (<i>Quercus rubra</i>)
Crabapple, wild (<i>Malus coronaria</i>)	Oak, shingle (<i>Quercus imbricaria</i>)
Dogwood, flowering (<i>Comus florida</i>)	Oak, swamp white (<i>Quercus bicolor</i>)
Hackberry (<i>Celtis occidentalis</i>)	Oak, white (<i>Quercus alba</i>)
Hawthorn, cockspur (<i>Crataegus crus-galli</i>)	Pawpaw (<i>Asimina triloba</i>)
Hawthorn, downy (<i>Crataegus mollis</i>)	Plum, Americana (<i>Prunus americana</i>)
Hickory, bitternut (<i>Carya cordiformis</i>)	Redbud (<i>Cercis canadensis</i>)
Hickory, pignut (<i>Carya glabra</i>)	Sassafras (<i>Sassafras albidum</i>)
Hickory, shagbark (<i>Carya ovata</i>)	Sycamore (<i>Platanus occidentalis</i>)
Ironwood; Hop-hornbeam (<i>Ostrya virginiana</i>)	Tuliptree (<i>Liriodendron tulipifera</i>)
Maple, black (<i>Acer nigrum</i>)	Walnut, black (<i>Juglans nigra</i>)

Tree species will be selected based on proposed location to be planted.

Question 6: Detail for Plant plug notes have the plugs to be planted at 3ft o.c., but diagram looks to show that the clusters of 5-9 plants are planted on 3 ft o.c.? Or specification for Native plant plugs reads to space plugs on 24-in centers in staggered pattern?

Answer 6: Place plant plugs in clusters of 5-9 plants 3 ft O.C. according to diagram and detail. The wording found in the Native Plant Plug specification has been updated.

Question 7: In the specification for bank stabilization, toe wood K. it states to install Live Stakes – Is there a plant schedule for quantity and species?

Answer 7: No live stakes are to be used for this project. Wherever live stakes are called for within the plans and specifications, plant plugs shall be used. The plant schedule is located on Sheet 19 of the plans and in the Detailed Specification for Restoration.

Question 8: Is there a clear detail for the live branch layering/live staking, when looking at the toewood section provided on Sheet it is difficult to see where the willow cuttings are going if those are the live stakes?

Answer 8: No live stakes shall be used for this project, as noted in Answer 7. The sections shown on Sheet 19 are for graphic purposes only. See the Toe Wood General Notes on Sheet 19 for construction sequence of the Toe Wood structure.

Question 9: For landscape maintenance, is it possible to fill water tanks at the City of Ann Arbor yard, or is it necessary to obtain a fire hydrant permit?

Answer 9: Yes, bulk water can be purchased at the City's Wheeler Facility located on Stone School Road. Creek water is also acceptable for use, if available.

Question 10: If contract is awarded outside of the dormant cutting period for live stakes, will the schedule be extended into November/December of 2026 to obtain these at the next available dormancy?

Answer 10: No live stakes shall be used. Start of project will be on March 9. If a schedule extension to obtain plantings during the next dormancy is necessary, the extension of time will be reviewed by the city.

Question 11: The bid form refers to Landscape Maintenance and Warranty, 1 year; however, in the specifications for bank stabilization, toewood it states all plant materials and seed mixes to be in vigorous condition during and at the end of a period of two years from the date of provisional Acceptance?

Answer 11: The bid form has been updated to include "Landscape Maintenance and Warranty, 2nd Year – Lsum" to reflect this.

Question 12: For seed mixes is hydroseeding the only accepted method?

Answer 12: No.

Question 13: Is there a specification for erosion control blanket and stapling pattern?

Answer 13: The staple pattern is to be used for the installation of a low-to-moderate kinetic energy area. Please see the diagram below. Follow installation instructions per Article 12, SD-SESC-4, or per manufacturer's specifications.

STAPLE PATTERN "C"

1.75 staples/yd² (2.1 staples/m²) using 6 in (15.2 cm), 11 ga. wire "U" staples. 8 in (20.3 cm) staples and longer may be used for loose soils. 9 ga. staples or heavier may be necessary in hard or rocky soils.

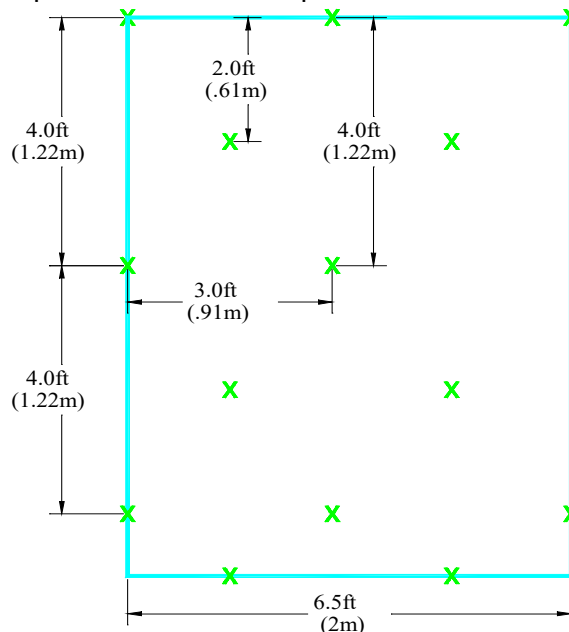


Figure 1: Low/Moderate Kinetic Energy Erosion Control Blanket Installation

Question 14: Can wood chips from chipped trees not used for habitat structures be blown back into the forested area away from the creek?

Answer 14: No, but a portion of the chipped wood may be used to supplement existing pathways. The rest must be disposed of offsite.

Question 15: Due to the winter shut down of aggregate wash plants are variations to the proposed washed natural stone gradations allowed?

Answer 15: No.

Question 16: Due to the winter season, sod mats will not be available locally for the toe wood, can alternate means and methods be employed?

Answer 16: Yes. See the notes for Toe Wood located on plan Sheet 19.

Question 17: Is it required that the contractor perform the creek cleaning and excavation of the creek in a dry state? Can the work be done without diverting flow of the creek, and perform work in the wet?

Answer 17: The work does not have to be done in a dry state. Diverting the flow is at the contractor's discretion, but a diversion plan must be submitted and approved by the City.

Question 18: Sheet 02 of the plan set under permitting notes the contractor shall strictly follow all permit conditions. Please provide the permit conditions for the noted permits the contractor is to follow. If they are not available what should the contractors assume for the bid.

Answer 18: An example of permit conditions anticipated for the site with the exception of Section Y.1, grayed out for emphasis:

Authority granted by this permit is subject to the following limitations:

- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
- B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31 of the NREPA.
- C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
- D. All work shall be completed in accordance with the approved plans and specifications submitted with the application and/or plans and specifications attached to this permit.
- E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved.
- F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with 2013 PA 174 (Act 174) and comply with each of the requirements of Act 174.
- G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits, or complying with other state statutes.
- H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
- I. Permittee shall notify EGLE within one week after the completion of the activity authorized by this permit by completing and forwarding the attached preaddressed postcard to the office addressed thereon.
- J. This permit shall not be assigned or transferred without the written approval of EGLE.
- K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific state act, federal act, and/or rule under which this permit is granted.
- L. All dredged or excavated materials shall be disposed of in an upland site (outside of floodplains, unless exempt under Part 31 of the NREPA, and wetlands).
- M. In issuing this permit, EGLE has relied on the information and data that the permittee has provided in connection with the submitted application for permit. If, subsequent to the issuance of a permit, such information and data prove to be false, incomplete, or inaccurate, EGLE may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
- N. The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents, and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representative of the permittee, undertaken in connection with this permit. The permittee's obligation to indemnify the State of Michigan applies only if the state: (1) provides the permittee or its designated representative written notice of the claim or cause of action within 30 days after it is received by the state, and (2) consents to the permittee's participation in the proceeding on the claim or cause of action. It does not apply to contested case proceedings under the Administrative Procedures Act, 1969 PA 306, as amended, challenging the permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.
- O. Noncompliance with these terms and conditions and/or the initiation of other regulated activities not specifically authorized shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, EGLE may initiate criminal and/or civil proceedings as may be

Answer 18 continued:

deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.

- P. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity from EGLE. Such revision request shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by EGLE prior to being implemented.
- Q. This permit may be transferred to another person upon written approval of EGLE. The permittee must submit a written request to EGLE to transfer the permit to the new owner. The new owner must also submit a written request to EGLE to accept transfer. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties that includes all the above information may be provided to EGLE. EGLE will review the request and, if approved, will provide written notification to the new owner.
- R. Prior to initiating permitted construction, the permittee is required to provide a copy of the permit to the contractor(s) for review. The property owner, contractor(s), and any agent involved in exercising the permit are held responsible to ensure that the project is constructed in accordance with all drawings and specifications. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by the permit.
- S. Construction must be undertaken and completed during the dry period of the wetland. If the area does not dry out, construction shall be done on equipment mats to prevent compaction of the soil.
- T. Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the need to acquire applicable permits from the County Enforcing Agent (CEA).
- U. Authority granted by this permit does not waive permit requirements under the authority of Part 305, Natural Rivers, of the NREPA. A Natural Rivers Zoning Permit may be required for construction, land alteration, streambank stabilization, or vegetation removal along or near a natural river.
- V. The permittee is cautioned that grade changes resulting in increased runoff onto adjacent property is subject to civil damage litigation.
- W. Unless specifically stated in this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the water body are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.
- X. For projects with potential impacts to fish spawning or migration, no work shall occur within fish spawning or migration timelines (i.e., windows) unless otherwise approved in writing by the Michigan Department of Natural Resources, Fisheries Division.
- Y. Work to be done under authority of this permit is further subject to the following special instructions and specifications:

1. No work on dredging within the water authorized by this permit is allowed between March 1 and June 30 due to critical spawning, migration, and recreation use periods.

- 2. Prior to commencement of excavation along the shoreline, the entire areas because exposed shall be enclosed by a turbidity curtain to prevent off-site siltation. The turbidity curtain shall not be installed as a dam, but rather around the area of raw shoreline allowing streamflow to pass in the remaining channel. The turbidity curtain shall be installed to extend from the bed of the waterbody to a point above the existing water's surface. The turbidity curtain shall be maintained for the duration of the project and shall be left in place after completion of the shoreline portion of the project.

EGLE

Answer 18 continued:

3. To prevent the spread of invasive species, equipment, machinery, and timber mating shall be washed prior to arrival at a new location and when travelling from an area dominated by invasive species to an area not dominated by invasive species within the same route. Soils, organic matter, and all plant material shall be removed from equipment, including the undercarriage.
4. The permittee and contractors will take steps to minimize the risk of spreading terrestrial and aquatic invasive species during this project and will take measures to prevent spread, where feasible, including:
 - a. Visually inspecting and removing any plants or mud from footwear (boots, hip-boots, and waders)
 - b. Visually inspecting and removing and properly disposing of any plants and mud from field equipment (nets, shovels, rakes, etc.) and vehicles.
 - c. Draining all water from vehicles and equipment, prior to leaving the site and before entering a new waterbody.
 - d. Thoroughly drying equipment (5-7 days if possible) between sites, when possible.
 - e. Disinfecting vehicles and equipment between sites (e.g. diluted bleach solution, heated pressure washer) when possible. Disinfection should be conducted away from surface waters, where the disinfecting solution will not enter any storm sewers and/or surface waters.
 - i. Typical diluted bleach solution treatment is ½ cup (4 fluid ounces) bleach to 5 gallons of water, applied by spraying or by sponge so surface is thoroughly exposed to bleach solution for ten minutes.
 - ii. Typical heated pressure wash is 140 degrees Fahrenheit, sprayed for 5-10 seconds.
 - iii. Thoroughly washing vehicles and boats between sites (e.g. drive-through car wash)
 - f. Using only native plants and seed for restorations and best management practices.
5. If invasive aquatic or terrestrial plants are removed from a site, the permittee will take steps to minimize the spread of these species. Dispose of invasive plant material by bagging and transporting to a landfill, composting, or burning, as appropriate and in compliance with local and state laws.
6. Prior to the initiation of any permitted construction activities, a sedimentation barrier shall be constructed immediately down gradient of the construction site. Sedimentation barriers shall be specifically designed to handle the sediment type, load, water depth, and flow conditions of each construction site throughout the anticipated time of construction and unstable site conditions. The sedimentation barrier shall be maintained in good working order throughout the duration of the project. Upon project completion, the accumulated materials shall be removed and disposed of at an upland (non-wetland, non-floodplain) site and stabilized with seed and mulch. The sedimentation barrier shall then be removed in its entirety and the area restored to its original configuration and cover.
7. All raw areas in uplands resulting from the permitted construction activity shall be effectively stabilized in sod and/or seed and mulch (or other technology specified by this permit or project plans) in a sufficient quantity and manner to prevent erosion and any potential siltation to surface waters or wetlands. Temporary stabilization measures shall be installed before or upon

Answer 18 continued:

commencement of the permitted activity, and shall be maintained until permanent measures are in place. Permanent measures shall be in place within five (5) days of achieving final grade.

8. No work shall be done in the stream during periods of above-normal flows except as necessary to prevent erosion.
9. Authority granted by this permit does not waive permit or program requirements under Part 91 of the NREPA or the need to acquire applicable permits from the CEA. To locate the Soil Erosion Program Administrator for your county, visit <https://www.michigan.gov/egle/about/organization/water-resources/soil-erosion/sesc-overview> and select "Soil Erosion and Sedimentation Control Agencies".
10. The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee's obligation to acquire any local, county, state, or federal approval or authorization necessary to conduct the activity.
11. No fill, excess soil, or other material shall be placed in any wetland, floodplain, or surface water area not specifically authorized by this permit, its plans, and specifications.
12. This permit does not authorize or sanction work that has been completed in violation of applicable federal, state, or local statutes.
13. The permit placard shall be kept posted at the work site in a prominent location at all times for the duration of the project or until permit expiration.
14. This permit is being issued for the maximum time allowed and no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by EGLE, will be for a five-year period beginning on the date of issuance. If the project is not completed by the expiration date, a new permit must be sought.
15. "As-Built" construction plans of the project shall be submitted to this office within 30 days of project completion. The "as-built" plans shall be sealed and signed by a licensed professional engineer registered in the State of Michigan, and shall certify the project has been completed in accordance with this permit.
16. Under Appendix G of the Michigan Building Code 2009, a local building permit is required for development located in flood hazard areas.
17. The project is located within a community that participates in the National Flood Insurance Program (NFIP). As a participant in the NFIP, the community must comply with the Michigan Building Code (including Appendix G and listed supporting materials); the Michigan Residential Code; and Title 44 of the Code of Federal Regulations, Part 60, Criteria for Land Management and Use. The community is also responsible to ensure that its floodplain maps and studies are maintained to show changes to flood elevations and flood delineations as described in 44 CFR, Part 65, Identification and Mapping of Special Hazard Areas.

EGLE

Question 19: What material is the existing sanitary sewer? Has it been lined?

Answer 19: 12-inch Clay. In July 2025 the sanitary sewer was inspected. The sanitary sewer is not lined.

- Question 20: The proposed creek depicts 4 crossings of the existing sanitary sewer. The separation of the proposed work to the top of the existing sanitary depicts .3'-3.5', not including thickness of pipe. What precautions should the bidding contractors assume when working close to the existing sanitary sewer.
- Answer 20: See Utility notes located on plan Sheet 2. The location with a separation of 0.3' has been modified to increase the separation.
- Question 21: Would the city consider encasing the existing sanitary sewer at the proposed crossings. Any damage to the existing pipe could cause a significant environmental impact.
- Answer 21: No. See Article 10: Construction Specifications, Section II: Utilities, Subsection F. Crossing Existing Structures & Facilities.
- Question 22: Can TV inspections of the existing sanitary please be provided.
- Answer 22: The 2017-2018 CCTV record can be provided upon request.
- Question 23: Please confirm the contractor will not be responsible for any tree mitigation for trees removed for all ingress and egress to the sites.
- Answer 23: The contractor will not be responsible for any tree mitigation.
- Question 24: The proposed access for the contraction of this project is from Virginia Park. Please confirm the contractor can remove existing vegetation and grade as needed to provide access to perform the work.
If not, please provide an access path plan with grading and removal limits.
- Answer 24: See sheet 1 of the project plans. The construction access route will be reviewed and approved in the field.
- Question 25: Significant clearing and grading will be required to access the proposed work area from the park to the POB of the first area and the area between the two sperate areas.
Has a wetland delineation been performed in the Liberty Knoll Commons and Fairglen Commons easements?
Please confirm the contractor is not responsible for providing wetland delineation or a permit to access the work areas within the easement.
- Answer 25: No. A wetland delineation has not been performed. The Contractor will not be responsible for providing wetland delineation. EGLE will provide all required permits.
- Question 26: Do all woods chips need to be removed for the clearing and tree removal activities?
- Answer 26: See the Answer to question 14.
- Question 27: Per the progress clause work on the first phase of the work is to start February 16, to March 31. Work at this time of the year can be limited due to existing frost or conversely extremely wet. If it is wet there will be significant rutting of the haul road to access the area with the needed material and construction equipment. Should all this work be completed in the "dry" season?
- Answer 27: March 9 is the revised start date of the project. Tree removal work must be completed by March 31. The remainder of this project can be completed by June

30. The contractor shall provide equipment and materials to facilitate access and restoration, as paid by the Access Allowance pay item.

Question 28: Item 01004.71 DS_Access Allowance

How will this lump sum item be paid?

Is this a lump sum item that will be paid in full and set by the bidding contractor?

What are the additional permit and traffic control fees that are the contractor's responsibility to pay in this item.

Answer 28: 50% of the Allowance will be paid once the access path is ready to be used, and the remaining 50% will be paid after work is substantially complete.

This item will be paid in full and be set by the contractor.

Any additional permitting fees will be funded internally by the City, and will not be the contractor's responsibility.

Question 29: The special provision for "Creek Cleanout" calls for over excavation fill to be Type F-7A. Please provide the material gradation and property for Type F-7A.

Answer 29: Utilize the same type of stone as the pay item "DS_Natural Stone – Cyd"

Question 30: Can an approved source be provided for the instream structure cross-vane rock materials.

Answer 30: Napoleon Stone, www.napoleonstone.com

Question 31: Please provide an approved source or supplier for the ledge rock.

Answer 31: Napoleon Stone, www.napoleonstone.com

Question 32: Please provide the testing frequency and produce for the ledge rock material.

Answer 32: There will be no testing for ledge rock material. A submittal for the ledge rock will be required per the specification.

Question 33: The Toe Wood Specification call for all work to be incidental as noted in the special provision. Does this include all seeding and plantings as noted in the special provision? If seeding and plantings for the toe wood are incidental what are the limits and locations for the specified restoration and wetland plugs.

Answer 33: The seeding and plantings are not incidental to the toewood.

Question 34: Can the stream flow be bypass pumped and dumped off?

Answer 34: Yes. A bypass pumping plan is to be provided, reviewed, and approved by the owner and project engineer.

Question 35: Will the creek require a complete bypass of the flow for the proposed construction?

Answer 35: No.

Question 36: How will the final grade and elevations of the creek be verified and accepted.

Answer 36: The inspector will check the grades during construction, and ultimately produce an as-built. The layout will be performed by the City.

Question 37: Please confirm if the tree removal item will be paid when it is used as Toe Wood.

Answer 37: Yes, the tree removal item will be paid when it is harvested for use as Toe Wood.

Question 38: Can all existing cut material be used to establish onsite fills.

Answer 38: The approximate volume of cut is 14,000 Cyd. The approximate volume of fill is 800 Cyd. The Contractor is responsible for calculating the volume of cut and fill separately for their estimating purposes. Onsite soils may be utilized as onsite fill, given acceptable properties.

Question 39: The restoration specification has specific requirements for the topsoil to be used. Will all topsoil required for this project be imported?

Is salvaged onsite topsoil allowed for restoration and seeding?

If salvaged onsite topsoil is used what are the testing requirements?

Answer 39: If existing onsite material is sufficient to meet the standards for topsoil as outlined in the Ann Arbor Standard Specifications and the Detailed Specification for Restoration, then salvaged soils can be used. A sample of salvaged topsoil must be sent to HRC for testing and verification.

Question 40: Due to holidays, receiving quotes for materials and sub-work can be challenging with many people taking time off. Please consider extending the bid due date till 1/9/2026 to ensure competitive pricing.

Answer 40: The bid due date has been extended to 1/8/2026.

Offerors are responsible for any conclusions that they may draw from the information contained in the Addendum.

E. Schedule of Pricing/Cost - 20 Points**UNIT PRICE BID**

ITEM NO.	PAY ITEM DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL COST
01000.00	General Conditions, Max. \$75,000	1	Lsum	\$	\$
01002.00	Project Clean-Up and Restoration	1	Lsum	\$	\$
01003.00	Digital Audio Visual Coverage	1	Lsum	\$	\$
01004.71	DS_Access Allowance	1	Lsum	\$	\$
01021.00	Erosion Control, Inlet Protection, Fabric Drop	2	Ea	\$	\$
01022.00	Erosion Control, Silt Fence (As Needed)	500	Ft	\$	\$
01023.00	Erosion Control, Mud Mat	170	Syd	\$	\$
01024.71	DS_Erosion Control, Instream Sediment Trap	2	Ea	\$	\$
01030.00	Tree Protection Fence	2500	Ft	\$	\$
02000.01	Tree, Rem 6 In. - 12 In.	32	Ea	\$	\$
02000.02	Tree, Rem 13 In. - 19 In.	6	Ea	\$	\$
02000.03	Tree, Rem 20 In. - 29 In.	3	Ea	\$	\$
02000.04	Tree, Rem 30 In. - 39 In.	2	Ea	\$	\$
02000.05	Tree, Rem 40 In. and larger	1	Ea	\$	\$
02060.71	DS_Creek Cleanout	0.47	Sta	\$	\$
02070.71	DS_Wall Removal	60	Ft	\$	\$
03050.71	DS_Bank Stabilization, Toe Wood (Furnished by Owner)	150	Lft	\$	\$
03050.72	DS_Bank Stabilization, Toe Wood (Furnished by Contractor)	150	Lft	\$	\$
03080.71	DS_Earthwork (Incl. cutting, filling, grading, balancing, hauling, and disposal)	3.98	Sta	\$	\$
06041.71	DS_Riprap, Plain	14	Cyd	\$	\$
06044.71	DS_Instream Structure, Cross Vane	2	Ea	\$	\$
06044.72	DS_Instream Structure, Ledge Rock	65	Fft	\$	\$
06044.73	DS_Instream Structure, Constructed Riffle	7	Ea	\$	\$
06045.71	DS_Natural Stone	5	Cyd	\$	\$
10000.01	Tree, Medium, B&B	60	Ea	\$	\$
10000.02	Tree, Large, B&B	60	Ea	\$	\$
10010.71	DS_Native Plant Plugs	910	Ea	\$	\$
10040.00	Landscape Maintenance and Warranty, 1 Year	1	Lsum	\$	\$
10041.00	Landscape Maintenance and Warranty, 2nd Year	1	Lsum	\$	\$
10060.71	DS_Restoration, Side Slope Native Seed Mix (As Directed)	1100	Syd	\$	\$
10060.72	DS_Restoration, Bankfull Bench Seed Mix (As Directed)	300	Syd	\$	\$
10060.73	DS_Restoration, Native Upland Woodland Seed Mix (As Directed)	900	Syd	\$	\$

BASE BID TOTAL

\$

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
PROJECT SCHEDULE AND PAYMENT

AA:TCB

1 of 3

12/17/2025

Description

The entire work under this Contract shall be completed in accordance with, and subject to, the scheduling requirements as outlined below, and all other requirements of the Contract Documents.

1. The Contractor shall begin mobilizing on or before **March 9, 2026**, and only upon receipt of the fully executed Contract and Notice to Proceed. Appropriate time extensions shall be granted if the Notice to Proceed is delayed beyond this date.
2. The Contractor shall have tree removals completed by **March 31, 2026**.
3. Work along the Creek Plan Stations 0+00 to 3+35 and 6+00 to 7+50, including, but not limited to, clearing and grubbing, wall removal, creek cleanout, earthwork, instream structures and natural stone installation, plantings, and restoration, as well as restoration of the access route, shall be substantially completed before **June 30, 2026**.
4. The following workday, hour and other work restrictions are imposed by the City of Ann Arbor.

Contractor operations shall be limited by local municipality work time, noise and dust ordinance:

- Monday through Friday: 7:00 am – 8:00 p.m.
- Saturday: 7:00 a.m.– 8:00 p.m.; Notice given to City of Ann Arbor no less than 48 hours and no more than 5 days in advance
- Sunday: Only with written approval from the City of Ann Arbor

No work shall be performed on Holidays as follows, unless approved by the City of Ann Arbor:

- Memorial Day, Monday, May 25, 2026
- Independence Day, Friday, July 3, 2026 and Saturday, July 4, 2026
- Labor Day, Monday, September 7, 2026

City Council approval is expected on or before **February 17, 2026**. The Contractor shall not begin the work without approval from the Project Engineer, and in no case before the receipt of the Notice to Proceed.

Contractor will be furnished with the Contract before the aforementioned City Council meeting. The Contractor shall provide required Bonds and Insurance Certificate to the City within **ten (10) days** in order to expedite routing of the Contract upon City Council approval. A pre-construction meeting will be held on February 25, 2026.

Prior to the start of any construction, the Contractor shall submit a detailed schedule of work for the Engineer's review and approval. Work shall not be started until a schedule is approved in writing by the Engineer. The proposed schedule must fully comply with the scheduling requirements contained in this Detailed Specification. The Contractor shall update the approved

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PROJECT STAGING AND ACCESS NOTES:

THE LIBERTY STREET CREEK RESTORATION PROJECT IS LOCATED IN THE FAIRGLEN COMMONS (PRIVATE PARK) AND THE LIBERTY KNOLL COMMONS (PRIVATE PARK) IN THE CITY OF ANN ARBOR.

WORK PROPOSED INVOLVES OPEN CREEK CLEANOUT AND BANK STABILIZATION FROM P.O.B. STA. 0+00 AT THE EXISTING 24" RCP PIPE TO THE EXISTING 87" x 63" CMP ARCH PIPE AT STA. 3+33 +/-, NO WORK IS PROPOSED ALONG THE ENCLOSED PORTION OF THE CREEK. WORK CONTINUES FROM THE EXISTING 87" x 63" CMP TO THE P.O.E. AT THE INVERT OF THE EXISTING 87" x 63" CMP AT STA. 7+44 AT THE RIGHT-OF-WAY OF WESTWOOD APARTMENT DRIVE.

PROPOSED LAYDOWN AND STAGING AREA WILL BE LOCATED IN VIRGINIA PARK.

THE EXISTING BALL FIELD AND BASKETBALL COURT WILL NOT BE USED FOR THIS PURPOSE AND SHALL BE PROTECTING DURING CONSTRUCTION ACTIVITIES.

PRIMARY ACCESS TO THE LAYDOWN AND STAGING AREA WILL BE THROUGH SILLER TERRACE OFF OF W. LIBERTY STREET ALONG THE SOUTHWEST PROPERTY LINE OF VIRGINIA PARK (SEE PLAN).

ACCESS TO THE WORK AREA WILL BE THROUGH THE EXISTING UTILITY EASEMENTS IN LIBERTY KNOLL COMMONS AND FAIRGLEN COMMONS PRIVATE PARKS. THE ACCESS PATH SHALL HAVE A MAXIMUM WIDTH OF 12 FEET IN ORDER TO LIMIT THE AMOUNT OF DISTURBANCE TO EXISTING VEGETATION.

UPON COMPLETION OF CONSTRUCTION THE ACCESS PATH MAY REMAIN TO PROVIDE EASE OF ACCESS FOR MAINTENANCE OF EXISTING UTILITIES.

A PRECONSTRUCTION SITE VISIT WILL BE NECESSARY TO DECIDE WHICH TREES WILL NEED TO BE REMOVED TO FACILITATE THE ACCESS TO THE PROJECT AREA. NO TREES SHALL BE REMOVED WITHOUT PRIOR CONSENT FROM THE OWNER AND THE PROJECT ENGINEER.

IF NECESSARY THERE ARE SECONDARY ACCESS LOCATIONS THAT MAY BE USED BUT ONLY WITH PRIOR APPROVAL FROM THE OWNER AND THE PROJECT ENGINEER.

THE CONTRACTOR MAY PROPOSE OTHER ACCESS AND STAGING AREAS AT THE PRECONSTRUCTION MEETING. ALL STAGING AND ACCESS AREAS MUST BE APPROVED BY THE OWNER AND PROJECT ENGINEER.

THE CONTRACTOR SHALL SUBMIT A PROJECT SCHEDULE, PHASING PLAN, STAGING AREA PLAN AND SEQUENCE OF CONSTRUCTION AT THE PRECONSTRUCTION MEETING FOR THE OWNER AND PROJECT ENGINEER'S APPROVAL PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

AT THE PRECONSTRUCTION MEETING THE CONTRACTOR SHALL PROVIDE A "MEANS AND METHODS" TO ACCESS THE WORK AREA AND TO PERFORM THE PROPOSED WORK. THESE "MEANS AND METHODS" MUST BE APPROVED BY THE OWNER AND THE PROJECT ENGINEER PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

FAIR STREET

GLEDALE CIRCLE

SITE PHOTO P-1

EX. BALL FIELD

VIRGINIA PARK

EX. BASKETBALL COURT

VIRGINIA AVENUE

PROJECT LAYDOWN AND STAGING AREA

PROPERTY PROTECTION FENCE, TYPICAL

EXISTING ACCESS GATE AND SIGNAGE - SEE SITE PHOTO P-1 THIS SHEET

SILLER TERRACE

W. LIBERTY STREET

PRIVATE ESMT. FOR PUBLIC UTILITIES

P.O.E. STA. 7+44 EX. 87" x 63" CMP INV.

FAIRGLEN COMMONS (PRIV. PARK) AND PRIV. ESMT. FOR PUBLIC UTILITIES

EX. 87" x 63" CMP INV.

NO WORK IN THIS AREA

PRIVATE ESMT. FOR PUBLIC UTILITIES

FAIRGLEN COMMONS (PRIV. PARK) AND PRIV. ESMT. FOR PUBLIC UTILITIES

EX. 87" x 63" CMP INV.

LIBERTY KNOLL COMMONS (PRIV. PARK) AND PRIV. ESMT. FOR MAINTENANCE OF EXISTING STORM AND SAN. SEWER

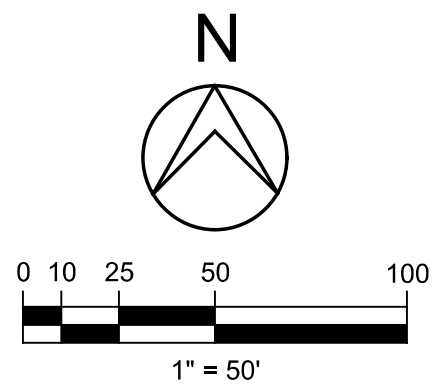
20' WIDE STORM AND SAN. SEWER ESMT.

30' WIDE STORM AND SAN. SEWER ESMT.

LIBERTY KNOLL COMMONS (PRIV. PARK) AND PRIV. ESMT. FOR MAINTENANCE OF EXISTING STORM AND SAN. SEWER

PRIMARY ACCESS GENERAL NOTES:

1. THERE ARE EXISTING SIGNS, STEEL GATE WITH CONCRETE BOLLARDS AND SPLIT RAIL WOOD FENCE AT THE PROPOSED SITE ACCESS OFF OF SILLER TERRACE INTO VIRGINIA PARK TO ACCESS THE PROJECT LAYDOWN AND STAGING AREA. SEE SITE PHOTO P-1.
2. IF NECESSARY, THE CONTRACTOR SHALL REMOVE, SALVAGE AND REINSTALL THESE SITE AMENITIES AS NEEDED IN ORDER TO ACCESS THE SITE.
3. SEE SHEET 02 "PROJECT NOTES". "MISCELLANEOUS ITEMS OF WORK".
4. WORK SHALL BE CONSIDERED INCIDENTAL TO THE PAY ITEM "General Conditions, Max. \$ - Lsum".
5. INSTALL PROPERTY PROTECTION FENCE AS NEEDED TO PROTECT THE EXISTING VIRGINIA PARK AREA AS INDICATED. PAID FOR UNDER THE MISCELLANEOUS AND AS NEEDED QUANTITY "DS_Fence Protective (As Needed) - Ft". SEE SHEET 02.



Know what's below. Call before you dig.

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
P.O. BOX 8647
ANN ARBOR MI 48106-8647
www.a2gov.org



CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

LIBERTY STREET CREEK RESTORATION

ACCESS PLAN

SCALE
1" = 50'

SHEET No.

01

DRAWING No.

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GENERAL NOTES:

THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MDOT 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THE 2025 PUBLIC SERVICES STANDARD SPECIFICATIONS UNLESS OTHERWISE SPECIFIED IN THE STANDARD SPECIFICATIONS, DETAILS OR SPECIAL PROVISIONS AND THE SPECIFICATIONS CONTAINED HEREIN.

COOPERATION BY THE CONTRACTOR: NO ADDITIONAL COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR ANY DELAY OR INCONVENIENCE DUE TO MATERIAL SHORTAGES OR REASONABLE DELAYS DUE TO THE OPERATIONS OF SUCH OTHER PARTIES DOING WORK INDICATED OR SHOWN ON THE PLANS OR IN THE PROPOSAL OR FOR ANY REASONABLE DELAYS IN CONSTRUCTION DUE TO THE ENCOUNTERING OF EXISTING UTILITIES THAT MAY OR MAY NOT BE SHOWN ON THE PLANS.

THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES FOR NOISE LEVELS, VIBRATIONS, OR ANY OTHER RESTRICTIONS WHILE PERFORMING ANY CONSTRUCTION OPERATIONS WITHIN THIS CONTRACT, COSTS TO BE INCLUDED IN THE RESPECTIVE ITEM OF WORK.

THE CONTRACTOR SHALL, BEFORE EACH DAYS WORK, DETERMINE AND EVALUATE THE LOCATION OF ALL UNDERGROUND FACILITIES IN THE AREA. IF LOCATION STAKES HAVE BEEN MOVED OR DO NOT APPEAR CORRECT, THE CONTRACTOR SHALL NOT EXCAVATE UNTIL ALL UTILITIES HAVE HAD AN OPPORTUNITY TO CHECK OR RESTAKE THEIR LOCATIONS. ANY DELAYS INCURRED, DUE TO THE CHECKING OR RESTAKING OF UTILITIES SHALL NOT BE A BASIS FOR ADDITIONAL COMPENSATION.

THERE WILL BE NO ADJUSTMENT IN THE CONTRACT UNIT PRICE REGARDLESS OF THE PERCENTAGE OF INCREASE OR DECREASE ABOVE OR BELOW THE CONTRACT QUANTITY FOR ANY ITEM OF WORK.

IT IS THE INTENT THAT ALL GOVERNMENT CORNERS ON THIS PROJECT BE PRESERVED AND THAT, WHERE NECESSARY, MONUMENT BOXES BE PLACED OR ADJUSTED AT THE CONTRACTORS EXPENSE WHETHER SHOWN OR NOT.

THE LOCATION OF ALL PUBLIC UTILITIES SHOWN ON THESE PLANS ARE TAKEN FROM THE BEST AVAILABLE DATA. THE CITY OF ANN ARBOR & HUBBELL, ROTH AND CLARK, INC. WILL NOT BE HELD RESPONSIBLE FOR ANY OMISSION OR VARIATIONS FROM THE LOCATIONS SHOWN. PURSUANT TO ACT 53 OF THE PA OF 1974 AS A CONDITION OF THIS CONTRACT NOTICE SHALL BE GIVEN TO MISS DIG PRIOR TO UNDERGROUND WORK TO BE PERFORMED IN ACCORDANCE WITH THIS CONTRACT. PHONE (800)-482-7171 OR 647-7344.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXCAVATE AHEAD AND ADJUST DEPTH OF UTILITIES ACCORDINGLY IN ORDER TO AVOID ANY POTENTIAL CONFLICTS. ANY DAMAGE INCURRED TO UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND WILL BE REPAIRED IMMEDIATELY AT NO COST TO THE OWNER.

STAGING AND ACCESS:

SEE PLAN SHEET 01 "ACCESS PLAN" FOR DESCRIPTION AND RECOMMENDATIONS FOR THE STAGING AND LAYDOWN AREAS ALONG WITH THE RECOMMENDED ACCESS ROUTE TO THE PROPOSED SITE.

CONSTRUCTION NOTES:

THE LOCATION AND DEPTH OF EXISTING UTILITIES ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

THE LOCATION OF MATERIAL STOCKPILES AND ONSITE STAGING AREAS SHALL BE APPROVED BY THE CITY OF ANN ARBOR AND THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PROPERTY BEYOND THE SLOPE STAKE LINE, INCLUDING EXISTING FENCING, LAWN, TREES, SHRUBBING, PAVEMENT, ETC.

STREAM BANK DIRECTION:

ALL LEFT AND RIGHT STREAM BANKS / CROSS SECTIONS ARE REFERENCED LOOKING UPSTREAM PER PLAN.

PERMITS:

EGLE PERMIT No. PENDING

WCWRC DRAIN PERMIT No. PENDING

CITY OF ANN ARBOR SESC No. PENDING

NOTE:
THE CONTRACTOR SHALL STRICTLY FOLLOW ALL PERMIT CONDITIONS SET FORTH.

CONSTRUCTION STAKING:

GRADING LIMITS, ELEVATIONS, AND LOCATIONS OF STRUCTURES AND BANK TREATMENTS SHALL BE STAKED BY THE ENGINEER. THE CONTRACTOR SHOULD PROVIDE 72 HOURS NOTICE OF STAKING NEEDS PRIOR TO WORK COMMENCING. THE CONTRACTOR SHALL MAINTAIN ALL STAKING THROUGH THE DURATION OF THE PROJECT.

LIMITS OF DISTURBANCE (LOD) SHOWN ON THE PLANS IS APPROXIMATE. THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO THAT ALL WORK PERFORMED IS WITHIN THE PROJECT AREA.

UTILITIES:

ALL UTILITIES WITHIN THE ZONE OF INFLUENCE OF PROPOSED WORK ARE TO BE FIELD LOCATED AND HAND DUG INCLUDED IN THE UNIT BID PRICES FOR APPROPRIATE ITEMS.

ALL GAS FACILITIES SHALL BE PROTECTED AND SUPPORTED PER MICHCON OR CONSUMER ENERGY STANDARDS AS APPLICABLE.

PRIOR TO WORK ON FACILITIES BELONGING TO THE ABOVE AGENCIES, A MINIMUM OF 72 HOURS NOTICE MUST BE GIVEN IN ORDER TO INSURE PROPER INSPECTION BY THE RESPECTIVE AGENCIES.

CONCRETE, GRADE S3, SHALL BE USED TO ENCASE UTILITIES THAT ARE IN CLOSE PROXIMITY TO THE PROPOSED CONSTRUCTION ONLY AS DIRECTED BY THE ENGINEER.

ALL EXPLORATORY WORK REQUIRED FOR LOCATING EXISTING UTILITIES SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONSTRUCTION OF THE PROJECT.

THE EXISTING UTILITIES LISTED HEREIN AND SHOWN ON THESE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AS OBTAINED FROM SURVEYS AND FROM UTILITY RECORD MAPS. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO SATISFY HIMSELF AS TO THEIR ACCURACY OR OF HIS RESPONSIBILITY IN CASE UTILITIES HAVE BEEN CONSTRUCTED, RELOCATED OR REMOVED. OWNERS OF PRIVATE UTILITIES WILL NOT BE REQUIRED TO MOVE ADDITIONAL POLES AND STRUCTURES THAT ARE NOT SPECIFICALLY INDICATED AS SUCH ON THE PLANS.

THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK, AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO INSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.

FOR PROTECTION OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL DIAL 800-482-7171 A MINIMUM OF 3 WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS, PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY LINES. ALL "MISS DIG" PARTICIPATING WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE CONTRACTOR SHALL PROTECT ALL SIDE DRAIN STORM OUTLETS DURING CONSTRUCTION. ALL SIDE DRAIN OUTLETS MUST REMAIN UNOBSTRUCTED AND SHALL NOT BE COVERED WHEN PORTIONS OF THE EXISTING DRAIN ARE FILLED IN. IF DISTURBED, OUTLETS SHALL BE RESET AS NECESSARY TO PROVIDE POSITIVE FLOW TO THE CREEK.

THE CONTRACTOR SHALL PROTECT ALL SANITARY MANHOLES DURING CONSTRUCTION. THERE ARE MULTIPLE SANITARY SEWER CROSSINGS NOTED ON THE PLAN SHEETS. THE CONTRACTOR SHALL PROTECT THE EXISTING SANITARY SEWER AT THESE LOCATIONS. PRIOR TO ANY WORK, THE CONTRACTOR SHALL FIELD VERIFY THE DEPTH AND LOCATION OF THE SANITARY SEWER AND IF NECESSARY HAND DIG AT THESE LOCATIONS.

HEAVY EQUIPMENT ACCESS AND OPERATION:


THE CONTRACTOR SHALL STAY WITHIN THE LIMITS OF CONSTRUCTION AND MINIMIZE THE AREA AND DURATION OF DISTURBANCE AT ALL TIMES. ALL OTHER TREE CLEARING NECESSARY TO CONSTRUCT THE PROJECT PER THE PLANS AND FOR SITE ACCESS SHALL BE MINIMIZED TO THE EXTENT POSSIBLE, AND APPROVED BY THE CITY OF ANN ARBOR AND THE PROJECT ENGINEER.

THE CONTRACTOR SHALL USE REASONABLE MEASURES TO AVOID SOIL COMPACTION BY HEAVY EQUIPMENT.

CONTRACTOR SHALL USE EQUIPMENT SUITABLE FOR WORK IN THE CREEK. THE INSPECTOR RESERVES THE RIGHT TO EXCLUDE ANY EQUIPMENT HE DEEMS UNACCEPTABLE TO ENTER THE CREEK DUE TO LEAKING FLUIDS, ACCUMULATED SEDIMENT OR OTHER POTENTIAL HAZARDS TO WATER QUALITY. TEMPORARY RIP RAP OR OTHER MEANS AS NECESSARY SHALL BE USED TO PROTECT THE EDGE OF THE CREEK BANK WHEN ENTERING OR EXITING THE CREEK. THE ACCESS PATH WILL BE GRADED AND STABILIZED BY THE CONTRACTOR TO SUPPORT HIS OPERATIONS WHILE MINIMIZING DISRUPTION AND RESTORATION. THE CONTRACTOR SHALL PROVIDE ACCESS PLANS AND DETAILS FOR REVIEW AT THE PRECONSTRUCTION MEETING. ALL COSTS ASSOCIATED WITH THE CONTRACTOR'S CHOSEN MEANS OF ACCESS SHALL BE INCIDENTAL TO THE PROJECT AND INCLUDED IN OTHER LINE ITEMS AS NECESSARY. THE CONTRACTOR WILL NOT BE COMPENSATED FOR EXCESS CLEARING, GRADING, OR RESTORATION DUE TO THE CONTRACTOR'S OPERATIONS SELECTED.

TRACK HOES USED FOR VANE, BOULDER, AND TOE WOOD INSTALLATION SHALL BE EQUIPPED WITH A SWIVEL BUCKET AND HYDRAULIC THUMB.

TREE REMOVAL WORK:

TREES DESIGNATED FOR REMOVAL ARE SHOWN AS SUCH . TREES SHALL BE REMOVED IN THEIR ENTIRETY INCLUDING ROOT WADS, ETC. AND USED IN THE CONSTRUCTION OF THE TOE WOOD BANK STABILIZATION STRUCTURES AS DIRECTED BY THE PROJECT ENGINEER.

REMOVAL OF SHRUBS, BRUSH AND TREES LESS THAN 6 INCH IN DIAMETER (DBH) AS SHOWN ON THE PLANS OR AS DIRECTED SHALL BE PAID FOR UNDER THE MISCELLANEOUS AND AS NEEDED QUANTITY "General Conditions, Max. \$ - Lsum".

ALL WOODY MATERIAL FOR THE TOE WOOD STRUCTURES MUST BE APPROVED BY THE PROJECT ENGINEER.

NO TREES SHALL BE REMOVED WITHOUT PRIOR CONSENT FROM THE OWNER AND THE PROJECT ENGINEER.

EARTH REMOVAL:

EXCAVATED MATERIAL TO CONSTRUCT THE NEW CREEK SHALL BE KEPT ON SITE AND USED AS FILL WHERE NEEDED.

ANY EXTRA MATERIALS REMAINING MAY BE TEMPORARILY STOCKPILED ON SITE. SEE "SPOILS" NOTE THIS SHEET.

SOIL EROSION, SILT FENCE:

SOIL EROSION SILT FENCE IS NOT DEPICTED ON THE PLANS AND IS CONSIDERED AN "AS NEEDED" QUANTITY. SOIL EROSION SILT FENCE SHALL BE PLACED AROUND ALL TEMPORARY SPOIL AREAS AND AROUND THE PROJECT LAYDOWN AND STAGING AREA TO PREVENT RUNOFF OF MATERIALS TO SURROUNDING AREAS. PAID FOR UNDER THE MISCELLANEOUS AND AS NEEDED PAY ITEM "DS_Erosion Control, Silt Fence (As Needed) - Ft".

SPOILS :

SPOILS MAY BE TEMPORARILY STORED ON SITE. SPOILS INCLUDING DIRT AND TREES, ETC. SHALL BE USED WHERE NEEDED FOR BANK STABILIZATION, i.e. TOE WOOD STRUCTURES. ANY REMAINING STORED SPOILS SHALL HAVE EROSION CONTROL SILT FENCE AND / OR OTHER CONTAINMENT MEASURES PLACED AROUND THE SITE TO PREVENT RUNOFF. TEMPORARY SEEDING AND MULCHING OF STOCKPILED SPOIL AREAS MAY BE NECESSARY WHERE THEY ARE TO REMAIN FOR MORE THAN ONE MONTH. UPON COMPLETION OF WORK, ANY REMAINING SPOILS SHALL BE REMOVED OFFSITE TO A SUITABLE LANDFILL BY THE CONTRACTOR AND THE SPOILS AREA RESTORED WITH TOPSOIL, SEED AND MULCH PER THE CONTRACT SPECIFICATIONS.

CONSTRUCTION FENCING:

CONSTRUCTION / PROTECTION FENCING SHALL BE INSTALLED AT THE OWNER'S OR ENGINEER'S DIRECTION. FENCING SHALL BE PAID FOR UNDER THE MISCELLANEOUS AND AS NEEDED QUANTITY "DS_Protection Fence - Ft".

RESTORATION:

RESTORATION OF THE SITE SHALL BE IN ACCORDANCE WITH THE FOLLOWING AND SHALL BE PAID FOR AS INDICATED BELOW:

ALL DISTURBED AREAS IN THE CREEK BANK SHALL BE RESTORED WITH SPECIFIED SEED MIX AS INDICATED ON THE PLANS AND IN THE SPECIFICATIONS.

REMOVE ALL CONSTRUCTION EQUIPMENT, EXCESS MATERIALS, DEBRIS, ETC., ESTABLISH FINE GRADE, AND RESTORE (PER PLANS AND SPECIFICATIONS). ALL COSTS FOR THE LABOR, EQUIPMENT AND MATERIALS SHALL BE CONSIDERED INCIDENTAL TO RESTORATION ITEMS.

REMOVE ANY HAUL ROADS OR ACCESS ROADS, MATERIAL STOCKPILES, AND CONSTRUCTION FENCING. THIS SHALL BE CONSIDERED INCIDENTAL TO PROJECT ITEM.

ALL PAVEMENT DAMAGED DURING CONTRACTOR OPERATIONS SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR TO THE CITY OF ANN ARBOR SPECIFICATIONS.

WATER REQUIRED FOR SOD AND SEEDING SHALL BE INCLUDED IN THE CONTRACT COST FOR THESE ITEMS. WATER REQUIRED FOR COMPACTION SHALL BE INCLUDED IN THE COST OF CONSTRUCTION FOR THIS PROJECT. CONTRACTOR SHALL WATER THE PLANTINGS AND SEEDED AREAS DAILY FOR A MINIMUM OF 14 DAYS WITH AN ADDITIONAL FOUR (4) WATERING EVENTS IN THE FOLLOWING TWO WEEKS AFTER THE DAILY WATERING. WATERING SHALL NOT OCCUR ON SATURDAYS, SUNDAYS, OR IMMEDIATELY AFTER RAIN EVENTS. ALL EXCEPTIONS SHALL BE APPROVED BY THE PROJECT ENGINEER.

ALL AREAS DISTURBED BY THE CONTRACTOR AND / OR HIS SUBCONTRACTOR(S) BEYOND THE NORMAL CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE RESTORED AS SPECIFIED OR DIRECTED BY THE ENGINEER. NO ADDITIONAL PAYMENT OR COMPENSATION WILL BE ALLOWED FOR THIS ACTIVITY. THIS INCLUDES RESTORATION TO ALL MATERIAL STORAGE OR STAGING AREAS.

ALL DISTURBED AREAS TO BE RESTORED WITHIN SEVEN (7) DAYS OF COMPLETION.

CONTRACTOR TO CHECK ON SEED AND SOD GROWTH & SUPPLEMENT AS NEEDED. COSTS FOR RESEEDING AND RESODDING TO BE CONSIDERED INCIDENTAL TO RESTORATION ITEMS.

TREE PLANTINGS:

TREE PLANTINGS ARE PROPOSED FOR THIS PROJECT. SEE MISCELLANEOUS AND AS NEEDED QUANTITIES THIS SHEET.

TREE LOCATIONS AND SPECIES SHALL BE DETERMINED BY THE OWNER AND / OR THE PROJECT ENGINEER. THE PROJECT ENGINEER SHALL STAKE THE LOCATION OF THE PROPOSED TREES.

CARE SHOULD BE TAKEN WHEN CHOOSING THE PROPOSED TREE LOCATIONS AS EXISTING STORM AND SANITARY SEWERS ARE IN THE PROJECT AREA. IT IS IMPERATIVE THAT THE PROPOSED TREE LOCATIONS AND THEIR ROOT SYSTEMS WILL NOT BE IN CONFLICT WITH SAID UTILITIES.

SEE DETAIL SHEETS FOR PLANTING DETAILS.

CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS FOR SPECIAL LANDSCAPING REQUIREMENTS AND MAINTENANCE AND GUARANTEE STANDARDS FOR PROPOSED PLANTINGS.

MAINTENANCE RESPONSIBILITIES:

ONCE RESTORATION OF ALL DISTURBED AREAS HAS BEEN COMPLETED AND SEEDING HAS BEEN ESTABLISHED BY THE CONTRACTOR, IT WILL BE THE CITY OF ANN ARBOR'S RESPONSIBILITY TO MAINTAIN ALL AREAS INSIDE AND OUTSIDE OF THE MAIN CHANNEL (LIBERTY CREEK).

SEQUENCE OF CONSTRUCTION - SOIL EROSION AND SEDIMENTATION CONTROL:

1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN THE SEDIMENT TRAP AND TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY PRIOR TO AND DURING THEIR CONSTRUCTION ACTIVITIES.
2. INSTALL ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES.
3. REMOVE VEGETATION AND DEBRIS AS DESCRIBED IN THE CREEK PER THE PLANS.
4. BEGIN CONSTRUCTION.
5. CONSTRUCT RESTORATION IMPROVEMENTS TO THE LIBERTY STREET CREEK.
6. COMPLETE CONSTRUCTION.
7. STABILIZE ALL DISTURBED AREAS WITH TURF REINFORCEMENT MATS AND NATIVE SEED MIX.
8. REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
9. RESTORE CONSTRUCTION AREA AND STAGING / LAYDOWN AREA AND ALL SITE ACCESS POINTS WITH TOPSOIL, SEED AND MULCH.

SOIL EROSION AND SEDIMENTATION CONTROL - GENERAL NOTES:

1. ALL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE WASHTENAW COUNTY WATER RESOURCES COMMISSIONER AND / OR THE CITY OF ANN ARBOR.
2. DAILY INSPECTIONS SHALL BE MADE BY THE CONTRACTOR TO DETERMINE THE EFFECTIVENESS OF THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY REPAIRS SHALL BE PERFORMED WITHOUT DELAY.
3. THE CONTRACTOR SHALL PERIODICALLY CHECK AND MAINTAIN THE PROPOSED SEDIMENT TRAPS AS NEEDED.
4. EROSION AND SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED WITHIN THE LIMITS OF CONSTRUCTION AND NOT ALLOWED TO COLLECT ON ANY OFF SITE AREAS OR IN WATERWAYS. WATERWAYS INCLUDE BOTH NATURAL AND MAN MADE OPEN DITCHES, STREAMS, STORM DRAINS, LAKES, PONDS AND WETLANDS.
5. THE CONTRACTOR SHALL APPLY TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES AS DIRECTED ON THESE PLANS AND WHERE OTHERWISE REQUIRED.
6. THE CONTRACTOR SHALL TAKE ACTIONS AS NECESSARY TO PRESERVE NATURAL VEGETATION OUTSIDE THE LIMITS OF CONSTRUCTION.
7. STABILIZATION OF ALL DISTURBED AREAS SHALL BE ESTABLISHED USING THE APPROPRIATE VEGETATION WITHIN FIVE (5) WORKING DAYS OF THE COMPLETION OF FINAL GRADING.
8. THE CONTRACTOR SHALL SWEEP THE EXISTING STREETS SURROUNDING THE PROJECT SITE AS NEEDED.
9. SOIL EROSION AND SEDIMENTATION CONTROLS WILL BE MAINTAINED WEEKLY AND AFTER EVERY STORM EVENT BY THE CONTRACTOR.
10. TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROLS SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE PROJECT. UPON FINAL RESTORATION THE CONTRACTOR SHALL REMOVE ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
11. ALL SOIL EROSION CONTROL MEASURES AS SHOWN ON THESE PLANS OR AS NEEDED TO COMPLETE THIS PROJECT SHALL BE PAID FOR AT THE UNIT PRICES INCLUDED IN THE PROPOSAL.










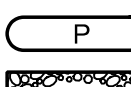



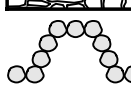
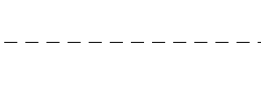


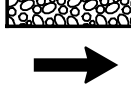
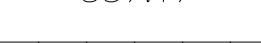






MISCELLANEOUS ITEMS OF WORK:

SEVERAL PAY ITEMS INCLUDED IN THE PROPOSAL ARE NOT SPECIFICALLY SHOWN ON THE PLANS. THESE ITEMS SHALL BE CONSTRUCTED AS DIRECTED BY THE PROJECT ENGINEER OR USED AS NEEDED. THEY ARE:

MISCELLANEOUS AND AS NEEDED QUANTITIES			
No.	DESCRIPTION	QTY	UNIT
1	General Conditions, Max. \$35,000	1	Lsum
2	DS_Access Allowance	1	Lsum
3	Digital Audio Visual Coverage	1	Lsum
4	DS_Fence, Protective (As Needed) *	2500	Ft
5	DS_Erosion Control, Silt Fence (As Needed) *	500	Ft
6	Project Clean-Up and Restoration	1	Lsum
7	Tree, Large, B&B	60	Ea
8	Tree, Medium, B&B	60	Ea
9	DS_Restoration, Side Slope Native Seed Mix (As Directed)	1100	Syd
10	DS_Restoration, Bankfull Bench Seed Mix (As Directed)	300	Syd
11	DS_Restoration, Native Upland Woodland Seed Mix (As Directed)	900	Syd
12	Landscape Maintenance and Warranty, 1 Year	1	Lsum

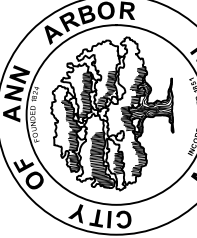
* THE AUTHORITY TO DETERMINE IF AN ITEM IS "AS NEEDED" IS THE OWNERS AND NOT THE CONTRACTORS. THE USE OF "AS NEEDED" ITEMS BY THE CONTRACTOR WITHOUT AUTHORIZATION FROM THE OWNER SHALL BE CONSIDERED PART OF THE CONTRACTOR'S MOBILIZATION RESPONSIBILITIES AND WILL NOT BE PAID FOR SEPARATELY.

LEGEND:

EXISTING:	PROPOSED:
CREEK 	CREEK 
TOP OF TERRACE 	TOP OF TERRACE 
TREE 	LIMITS OF DISTURBANCE 
SANITARY MANHOLE 	TREE, REMOVE 
SANITARY SEWER 	TOE WOOD 
STORM MANHOLE 	POOL 
STORM SEWER 	RIFFLE, CONSTRUCTED 
STORM END SECTION 	RIP RAP 
FENCE, WOOD 	CROSS VANE 
SANITARY EASEMENT 	LEDGE ROCK 
PROPERTY LINE 	STONE 
SPOT ELEVATION 	SITE ACCESS 
BLOCK WALL 	



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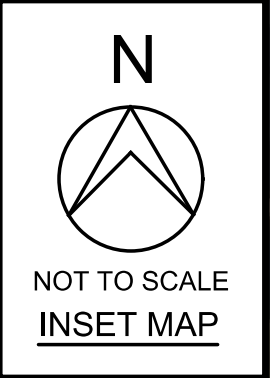
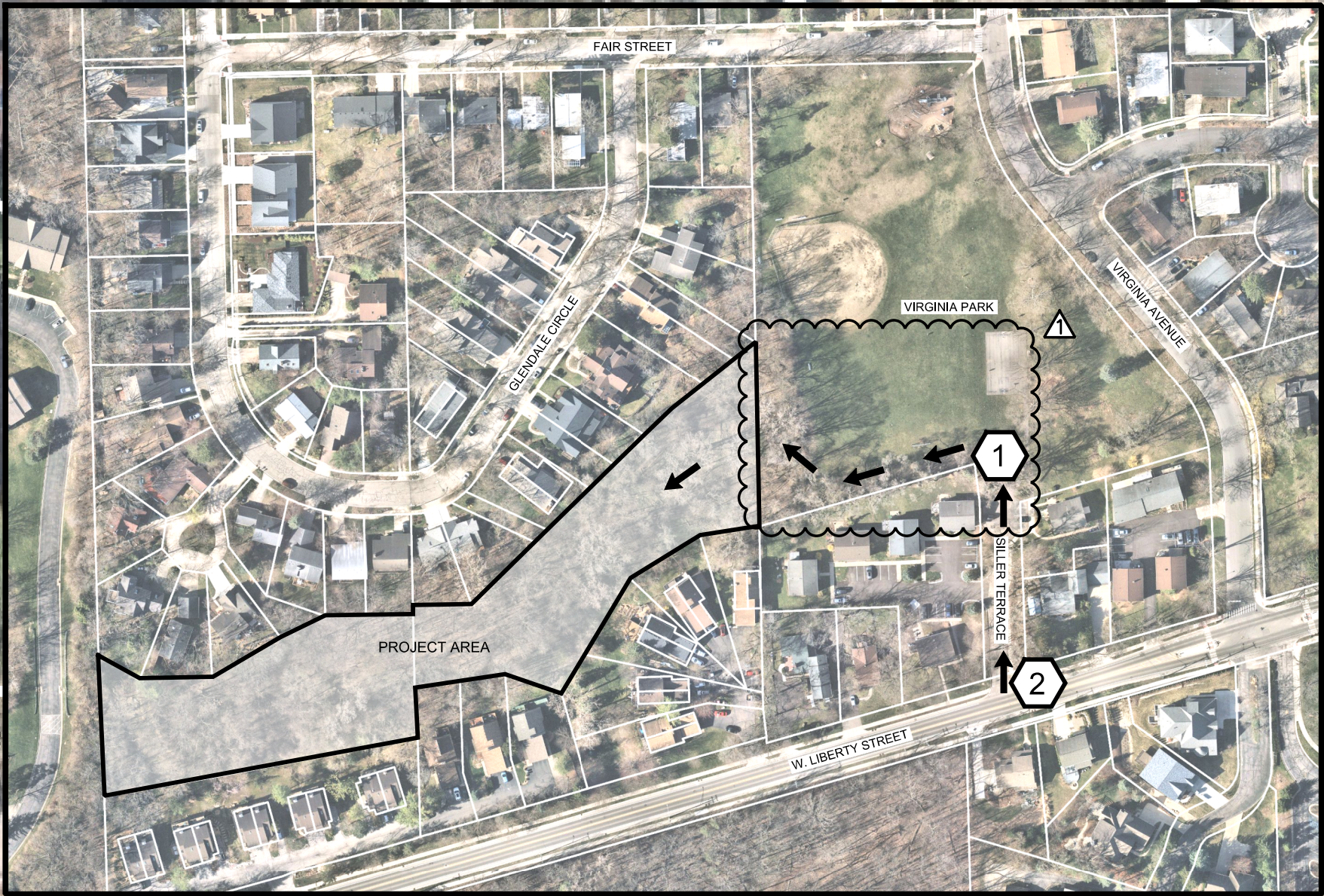
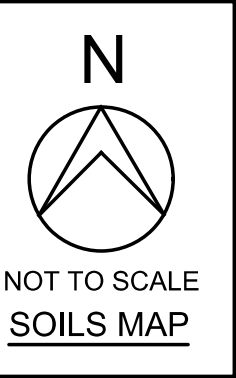
CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
LIBERTY STREET CREEK RESTORATION
PROJECT NOTES

SCALE
NO SCALE
DRAWING No.

SOILS MAP OBTAINED FROM USDA NATURAL RESOURCES CONSERVATION SERVICE WEB SOIL SURVEY



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
WawabB	Wawasee loam, 2 to 6 percent slopes	1.0	28.8%
WawabC	Wawasee loam, 6 to 12 percent slopes	2.4	71.2%
Totals for Area of Interest		3.4	100.0%



SOIL EROSION AND SEDIMENTATION (SESC) QUANTITIES			
No.	DESCRIPTION	QTY.	UNIT
1	Erosion Control, Mud Mat	1	Lsum
2	Erosion Control, Inlet Protection, Fabric Drop	2	Ea
3	DS_Erosion Control, Instream Sediment Trap	2	Ea

SESC LEGEND:	
1	MUD MAT
2	INLET PROTECTION, FABRIC DROP
3	INSTREAM SEDIMENT TRAP

LIBERTY KNOLL COMMONS (PRIV. PARK) AND PRIV. ESMT. FOR MAINTENANCE OF EXISTING STORM AND SAN. SEWER

VIRGINIA PARK

LIMITS OF DISTURBANCE (LOD) - APPROXIMATE

FAIRGLEN COMMONS (PRIV. PARK) AND PRIV. ESMT. FOR PUBLIC UTILITIES

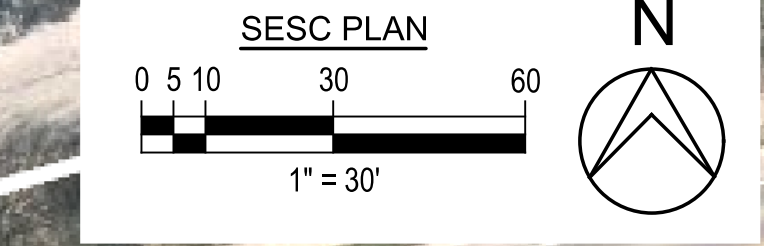
LIBERTY KNOLL COMMONS (PRIV. PARK) AND PRIV. ESMT. FOR MAINTENANCE OF EXISTING STORM AND SAN. SEWER

P.O.E. STA. 7+44
EX. 87" x 63" CMP INV.

30' WIDE PRIV. ESMT FOR SAN. SEWER

FAIRGLEN COMMONS (PRIV. PARK) AND PRIV. ESMT FOR PUBLIC UTILITIES

EX. 87" x 63" CMP INV.



SOIL EROSION AND SEDIMENTATION CONTROL NOTES:

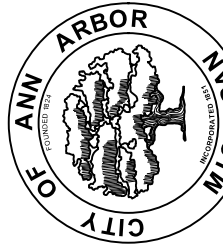
- SEE SHEET 23 FOR SESC STANDARD DETAILS.
- REFER TO SESC LEGEND THIS SHEET FOR SESC CONTROL MEASURES TO BE INSTALLED.
- SILT FENCE THOUGH NOT DEPICTED WILL BE REQUIRED AROUND ALL TEMPORARY SPOIL AREAS AND AROUND THE PROJECT LAYDOWN AND STAGING AREA. SEE SHEET 01 "ACCESS PLAN" AND SHEET 02 "PROJECT NOTES" FOR ADDITIONAL INFORMATION.
- INSTALL MUD MAT AT THE ACCESS POINT INTO VIRGINIA PARK OFF OF SILLER TERRACE. SEE INSET MAP THIS SHEET.
- INSTALL INLET PROTECTION FILTERS AT THE TWO (2) CATCH BASINS AT THE SOUTHEAST CORNER OF SILLER TERRACE AND W. LIBERTY STREET. SEE INSET MAP THIS SHEET.
- INSTALL TWO (2) INSTREAM SEDIMENT TRAPS AT THE LOCATIONS SHOWN. ONE AT THE INLET OF THE EX. 87" x 63" CMP AND ONE AT THE INLET OF THE EX. 24" RCP. SEDIMENT TRAPS SHALL BE FIELD LOCATED BY THE PROJECT ENGINEER.
- SEE SHEET 02 "PROJECT NOTES" FOR ADDITIONAL SOIL EROSION AND SEDIMENTATION CONTROL MEASURES INFORMATION.



Know what's below. Call before you dig.

ADDENDUM No.	J.A.R.	F.B.	ISSUED FOR BIDS	J.A.R.	F.B.	REVISED PER ECL COMMENT	J.A.R.	F.B.	ISSUED FOR ECL PERMIT	J.A.R.	F.B.	ISSUED FOR PRELIMINARY REVIEW	J.A.R.	F.B.	DATE	DRAWN	CHECKED

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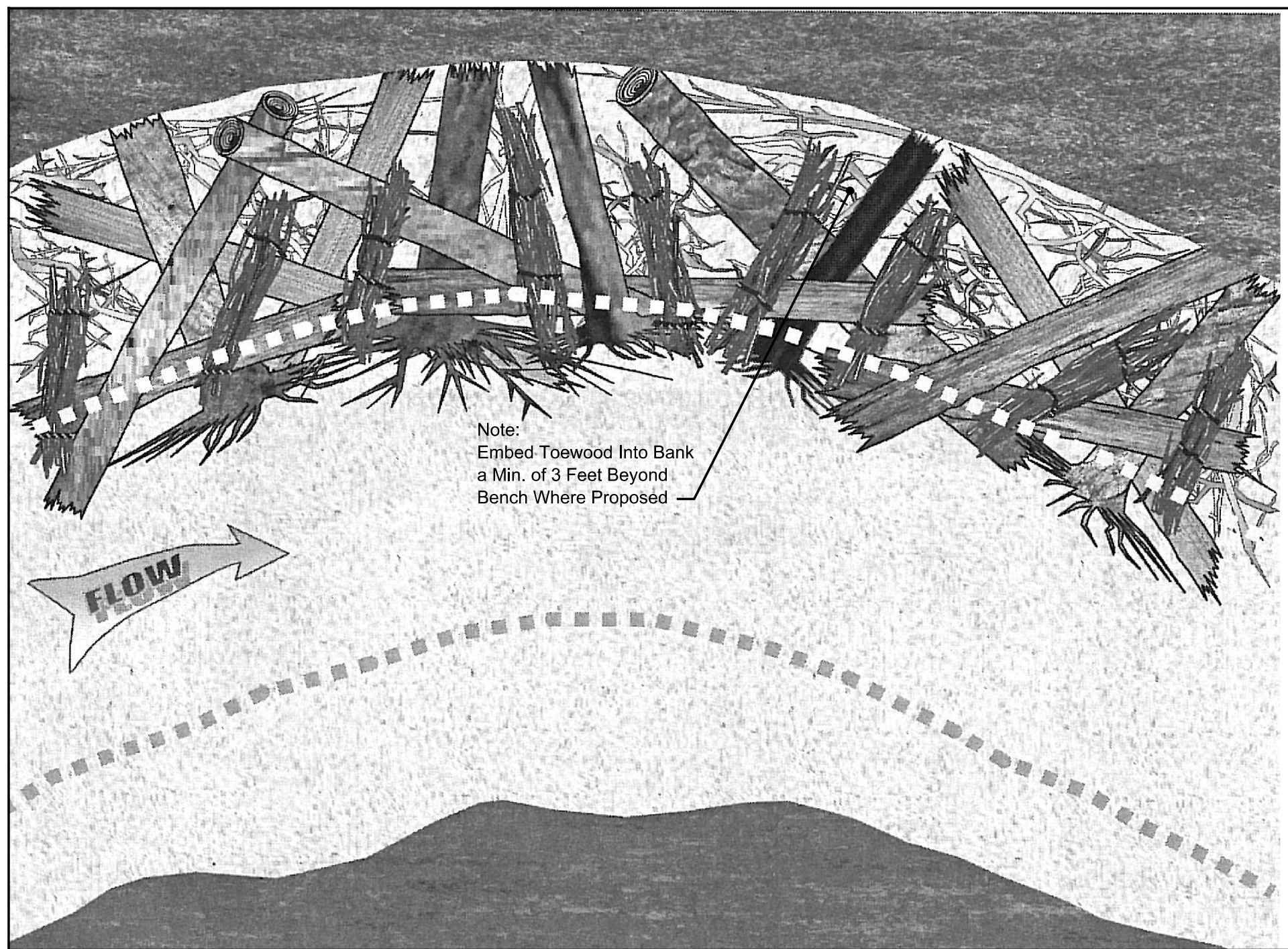


CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

LIBERTY STREET CREEK RESTORATION

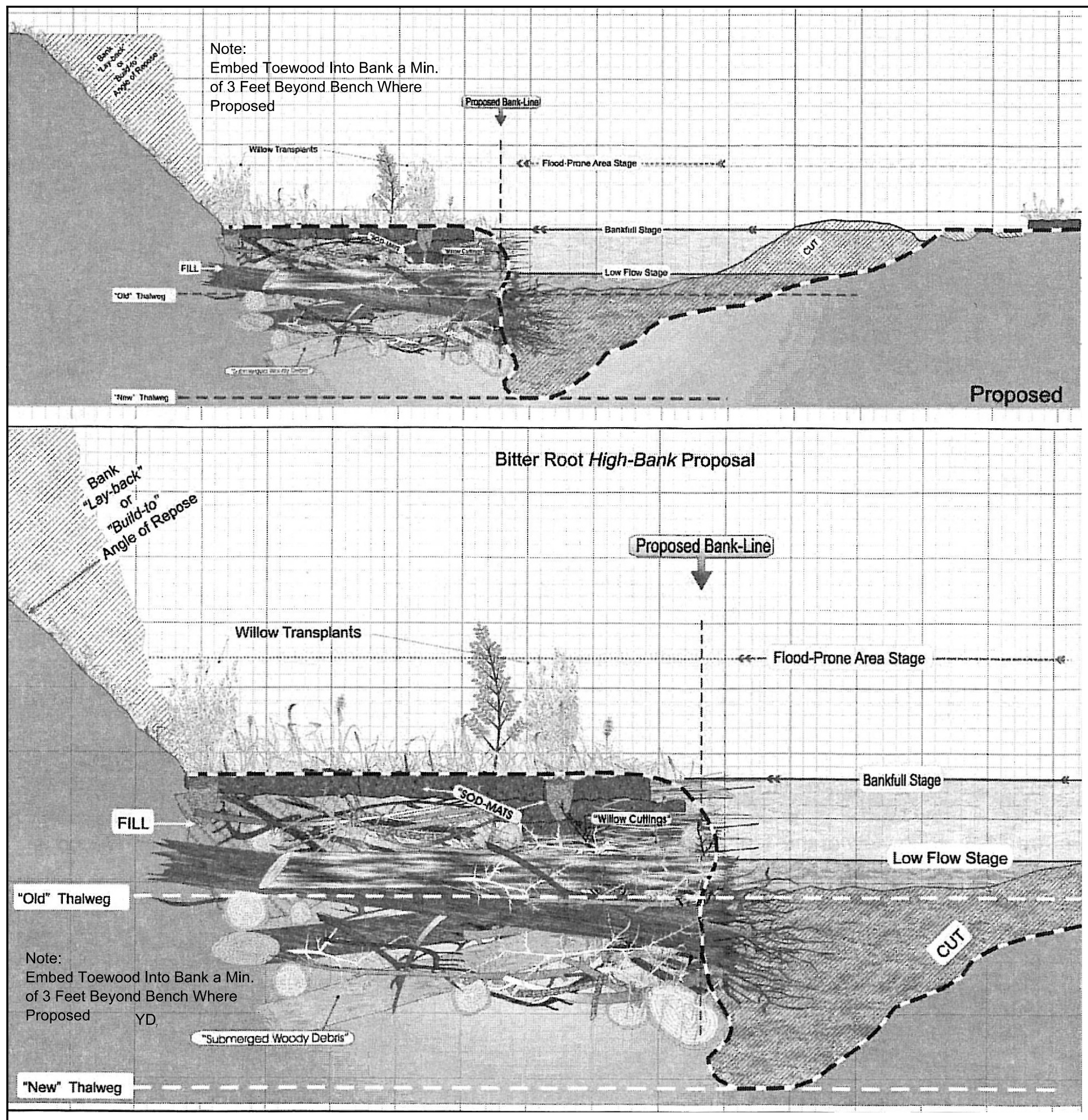
SESC PLAN

SHEET No. 03



TOE WOOD PLAN

NO SCALE

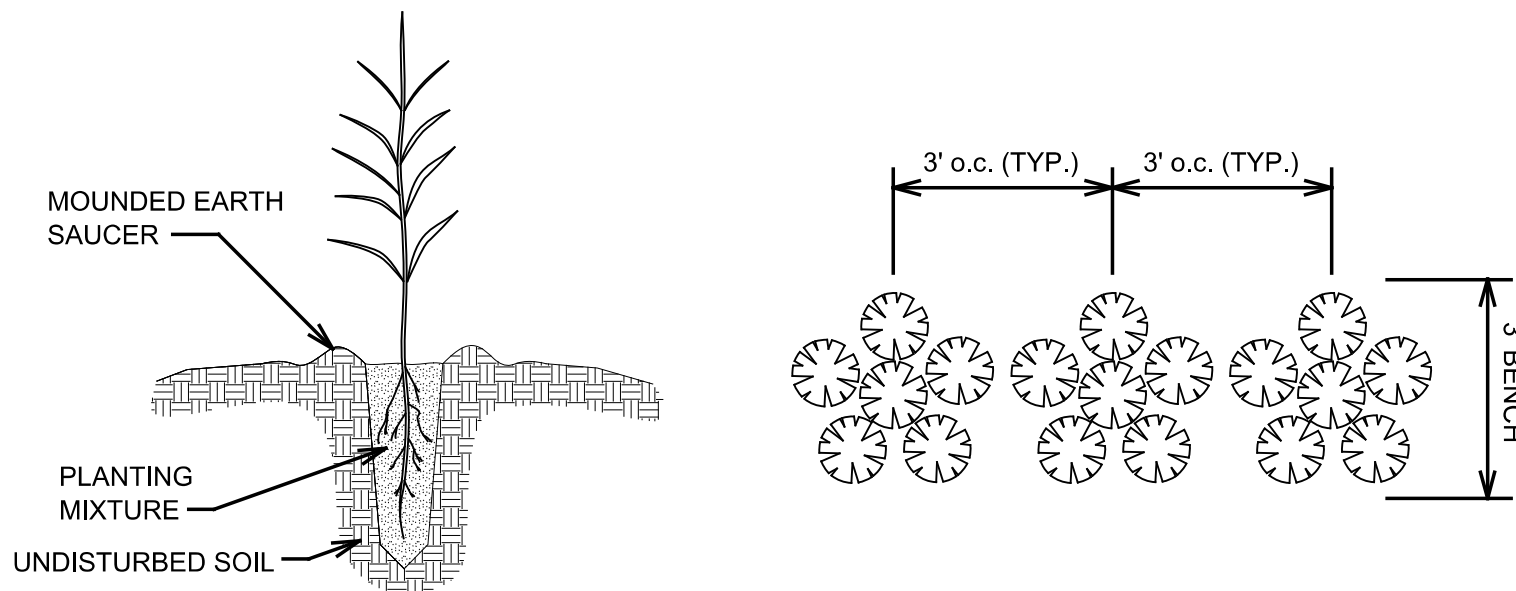


TOE WOOD SECTION

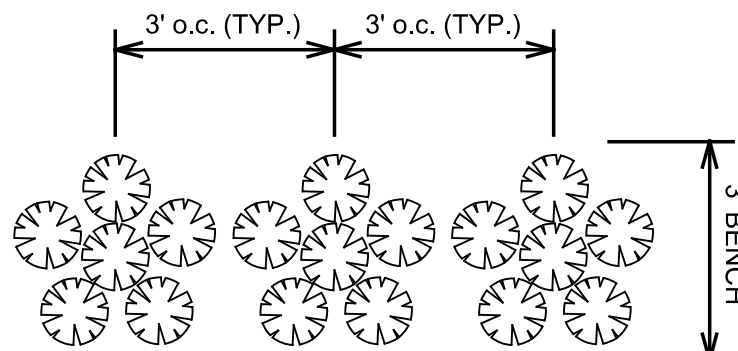
TOE WOOD GENERAL NOTES:

2. ALL WOODY MATERIAL REQUIRED TO CONSTRUCT THE TOE WOOD STRUCTURE SHALL BE TAKEN FROM EXISTING ON SITE MATERIALS THAT HAVE BEEN DESIGNATED FOR REMOVAL, i.e. TREES, LOGS, BRUSH, WOODY DEBRIS, ETC.
3. ADDITIONAL WOODY MATERIAL WILL NEED TO BE BROUGHT IN FROM OFFSITE TO CONSTRUCT THE TOE WOOD STRUCTURE.
4. ANY OUTSIDE MATERIALS MUST FIRST BE APPROVED BY THE OWNER AND / OR THE PROJECT ENGINEER.
5. EMBED THE TOE WOOD INTO THE BANK A MINIMUM OF 3 FEET BEYOND THE BENCH WHERE PROPOSED.
6. COARSE WOODY DEBRIS SHALL CONSIST OF LOGS, ROOTWADS AND LARGE BRANCHES.
7. THE WOOD SHALL BE CONSTRUCTED WITH THE LARGEST MATERIAL PLACED FIRST WITH NO LOGS BEING PLACED PARALLEL TO THE FLOW OF THE RIVER. LOGS SHALL BE PLACED IN A CROSSING PATTERN SUCH THAT EACH LOG IS ANCHORED BY ANOTHER LOG.
8. SMALL/FINE WOODY DEBRIS SHALL CONSIST OF MEDIUM TO SMALL LIMBS, BRANCHES, BUSHES AND/OR LOGS.
9. SMALL/FINE WOODY DEBRIS SHALL BE PLACED ABOVE THE COARSE WOODY DEBRIS WITH THE LARGEST MATERIAL BEING PLACED FIRST AND THE SMALLEST MATERIAL PLACED LAST.
10. ALL WOODY DEBRIS SHALL BE COMPACTED WITH THE EXCAVATOR BUCKET IN ORDER TO REDUCE THE PRESENCE OF VOIDS IN THE SMALL/FINE WOODY DEBRIS LAYER.
11. AT THE UPSTREAM AND DOWNSTREAM LIMITS OF THE TOE WOOD STRUCTURE, TRANSITION THE WOODY DEBRIS BY BURYING THEM SECURELY INTO THE BANK.
12. THE SOIL BACKFILL AND TOPSOIL USED FOR LAYERING WITH THE LIVE BRANCHES SHALL BE FREE OF ANY LARGE ROOTS OR WOODY DEBRIS AND SHALL GENERALLY BE FREE FROM ANY GRAVEL OR COBBLE MATERIAL.
13. SOIL BACKFILL SHALL BE COMPACTED SUCH THAT FUTURE SETTLEMENT OF THE MATERIAL IS KEPT TO A MINIMUM, YET NOT SUCH THAT THE UNDERLAYING BRUSH IS NOT DISPLACED OR DAMAGED.
14. CONTINUE PLACING SOIL BACKFILL, LIVE BRANCHES AND SMALL/FINE WOODY DEBRIS AS NECESSARY UNTIL THE DESIRED HEIGHT IS REACHED.
15. SOD MATS MAY BE USED FOR THE FINAL LAYER OF THE TOE WOOD STRUCTURE.
16. ONCE THE TOE WOOD STRUCTURE IS IN PLACE TO THE DESIGNED BANKFULL ELEVATION, FILL AND GRADE FROM THE TOP FACE OF THE TOE WOOD STRUCTURE TO THE EXISTING GRADE AT THE PROPOSED SLOPE INDICATED ON THE CROSS SECTIONS.

16. INSTALL PLANT PLUGS AS DIRECTED ON TOP OF THE TOE WOOD STRUCTURE BENCH WHERE A BENCH IS PROPOSED.
17. INSTALL TURF REINFORCEMENT MAT AND NATIVE SEED MIX ALONG THE PROPOSED SLOPE.
18. INSTALL ADDITIONAL EROSION CONTROL BLANKET AS NEEDED ALONG THE TOP OF BANK.
19. RESTORE ALL DISTURBED AREAS WITH TOPSOIL AND LAWN SEED MIX.
20. TOE WOOD SHALL BE PAID FOR UNDER THE TWO PAY ITEMS:
"DS_Bank Stabilization, Toe Wood (Woody Material Furnished by Owner) - Lft"
"DS_Bank Stabilization, Toe Wood (Woody Material Furnished by Contractor) - Lft"
21. SEE PLAN AND PROFILE SHEETS FOR TOE WOOD QUANTITIES.



PLANT PLUG
NO SCALE

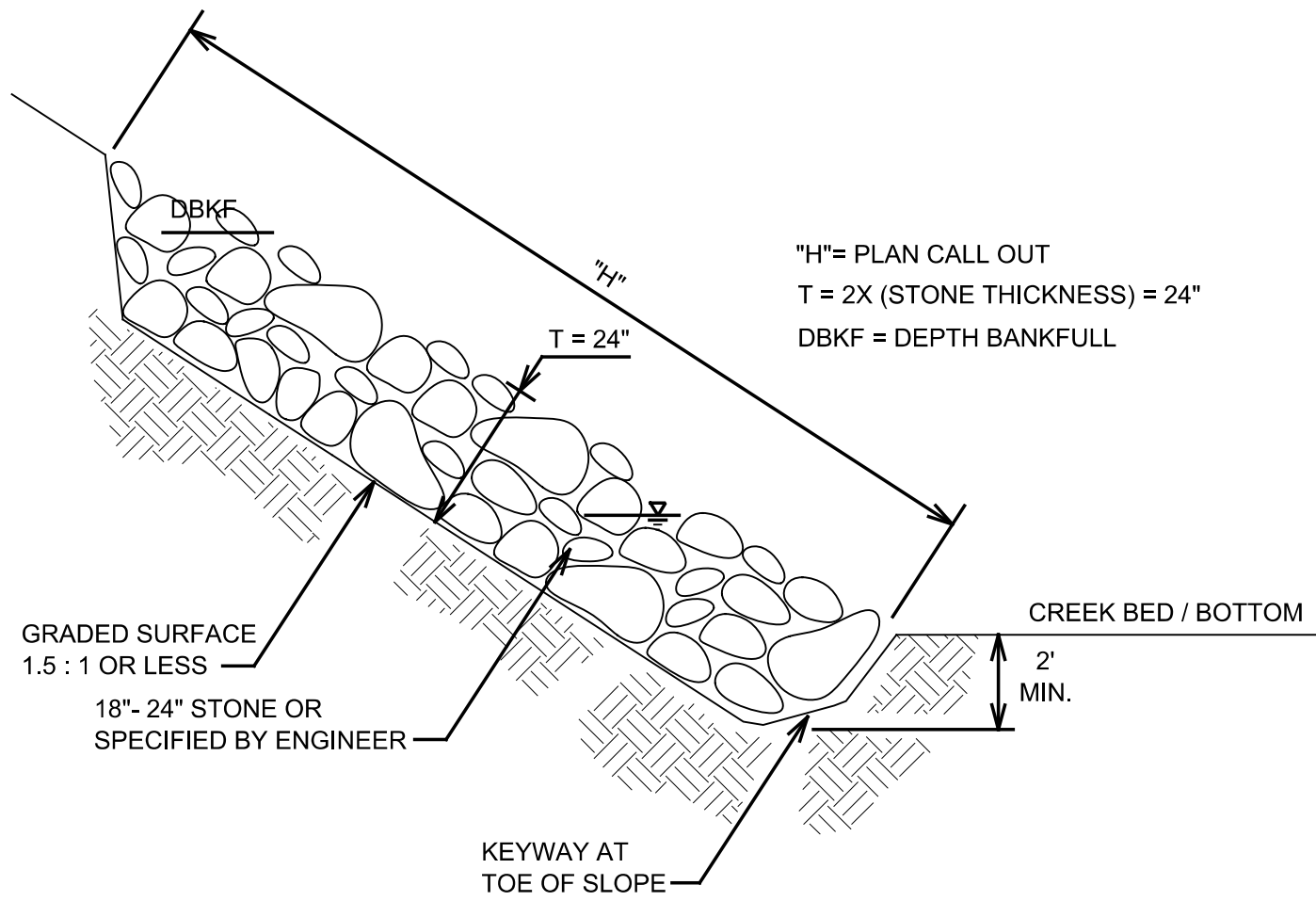


PLANT PLUG PLANTING PATTERN

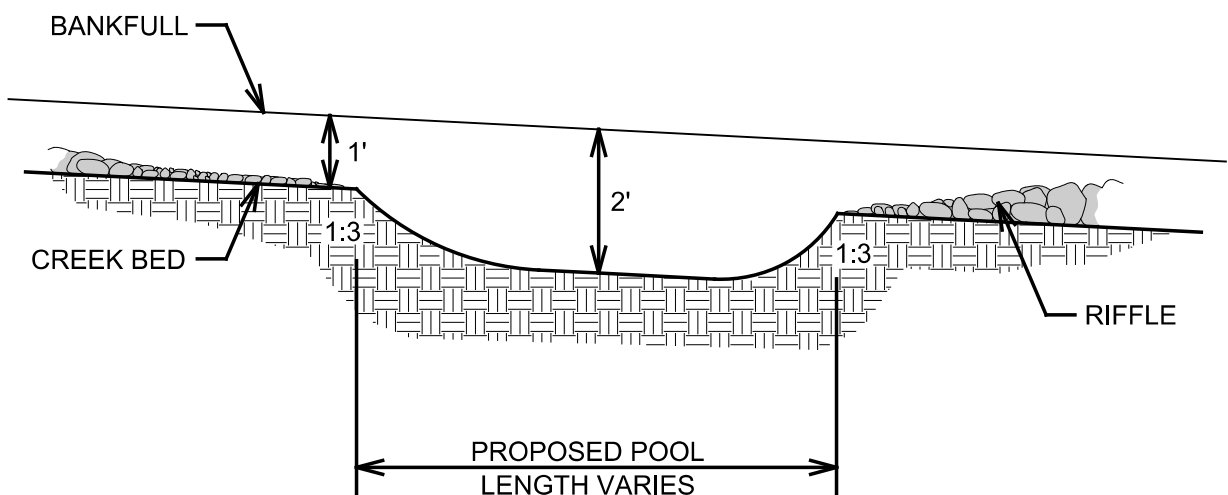
NATIVE SEED MIX AND PLANTINGS LIST

Big Bluestem	Frost Aster
Little Bluestem	Heart-leaved Blue Wood Aster
Side Oats Grama	Turtlehead
Fox Sedge	Canada Thimbleweed
Bebb's Oval Sedge	Marsh Marigold
Crested Sedge	Blue Flag Iris
Palm Sedge	Cardinal Lobelia
Lance-fruited Oval Sedge	Great Blue Lobelia
Great Bulrush	Wild Columbine
Great Spikerush	Pickeral Weed
Dudley's Rush	Purple Coneflower
Canada Wild Rye	Black-eyed Susan
Silky Wild Rye	Common Arrowhead
Virginia Wild Rye	Golden Ragwort

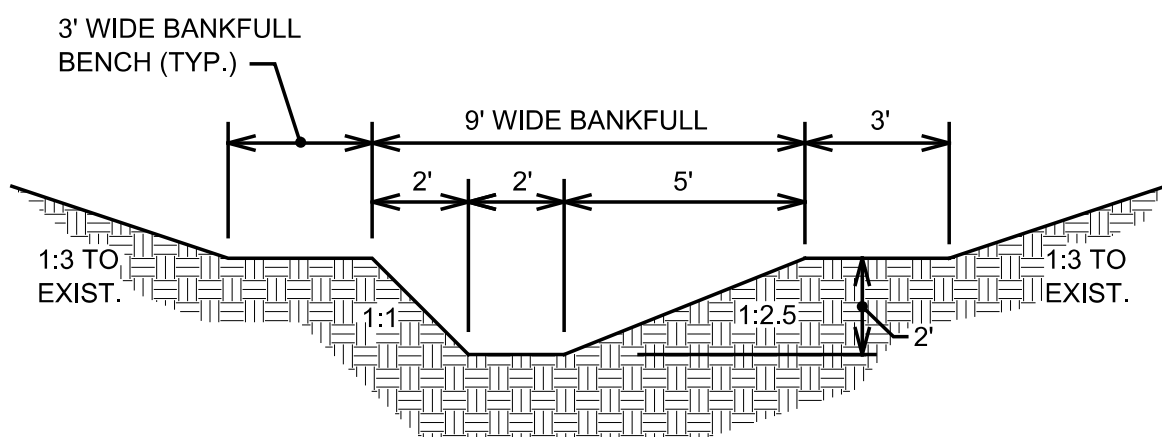
SEE CONTRACT SPECIFICATIONS AND SUPPLIER'S
RECOMMENDATIONS FOR SEED MIX SOWING RATES.



RIP RAP BANK STABILIZATION



POOL PROFILE
NO SCALE



POOL CROSS SECTION
NO SCALE

NOTE:
POOLS SHALL BE CONSTRUCTED AS INDICATED
OR AS DIRECTED BY THE PROJECT ENGINEER.

POOL DETAILS

NO SCALE