PROPOSED PATH

OVERFLOW

APRON

PROPOSED FIELD STONE SLABS 6'-12" THICK, 2'-4" x 2'-4"
Location and placement of slabs to be identified with Engineer

PROPOSED CONTOUR

PROPOSED OVERFLOW

PROPOSED APRON

PROPOSED FIELD STONE SLABS

FIELD STONE SLABS, 6"-12" THICK, 2'-4' x 2'-4'
Location and placement of slabs to be identified with Engineer

EXISTING SOIL

CROSS-SECTION A

NOT TO SCALE

FIELD STONE SLABS, 6"-12" THICK, 2'-4' x 2'-4'
LOCATION AND PLACEMENT TO BE IDENTIFIED WITH ENGINEER

SEED AND PLANT EROSION CONTROL BLANKET

TOP EXISTING SOIL EROSION CONTROL BLANKET
REVEGETATION PLAN

Know what's below. Call before you dig.

PLUG LIST

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Wetness Coefficient</th>
<th>Michigan Wetland Category</th>
<th>Conservation Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>Acrocallis issuensis</td>
<td>Swamp Milkweed</td>
<td>5</td>
<td>OBL</td>
<td>6</td>
</tr>
<tr>
<td>Ep</td>
<td>Eupatorium perfoliatum</td>
<td>Boneset</td>
<td>4</td>
<td>FAC+</td>
<td>4</td>
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<tr>
<td>Rn</td>
<td>Rhus glabra</td>
<td>Blackberry</td>
<td>3</td>
<td>SRE</td>
<td>3</td>
</tr>
<tr>
<td>Hi</td>
<td>Hordeum vulgare</td>
<td>Barley</td>
<td>1</td>
<td>FAC</td>
<td>1</td>
</tr>
<tr>
<td>Ty</td>
<td>Typha angustifolia</td>
<td>Narrow-leaved Typha</td>
<td>5</td>
<td>FAC</td>
<td>5</td>
</tr>
<tr>
<td>Tm</td>
<td>Typha maxima</td>
<td>Tall Typha</td>
<td>5</td>
<td>FAC</td>
<td>5</td>
</tr>
<tr>
<td>En</td>
<td>Eutrochium maculatum</td>
<td>Joe-pye Weed</td>
<td>5</td>
<td>OBL</td>
<td>5</td>
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<tr>
<td>Cv</td>
<td>Carex vulpinoidea</td>
<td>Fox Sedge</td>
<td>5</td>
<td>OBL</td>
<td>5</td>
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<tr>
<td>Lo</td>
<td>Leersia oryzoides</td>
<td>Cut Grass</td>
<td>5</td>
<td>OBL</td>
<td>5</td>
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<tr>
<td>Vh</td>
<td>Verbena hastata</td>
<td>Blue Vervain</td>
<td>4</td>
<td>FAC</td>
<td>4</td>
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<tr>
<td>Vm</td>
<td>Vernonia missurica</td>
<td>Missouri Ironweed</td>
<td>1</td>
<td>FAC</td>
<td>1</td>
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</table>

SHRUB LIST

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>QTY</th>
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<tbody>
<tr>
<td>Rhododendron catawbiense</td>
<td>Catawba Rhododendron</td>
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</tr>
<tr>
<td>Cornus sericea</td>
<td>Red Osier Dogwood</td>
<td>10</td>
</tr>
<tr>
<td>Spiraea alba</td>
<td>Meadow Sweet</td>
<td>5</td>
</tr>
</tbody>
</table>

SEED MIX

<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>LBS/AC</th>
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</thead>
<tbody>
<tr>
<td>Andropogon gerardii</td>
<td>Big Blue Stem</td>
<td>5.000</td>
</tr>
<tr>
<td>Andropogon scoparius</td>
<td>Little Blue Stem</td>
<td>5.000</td>
</tr>
<tr>
<td>Bouteloua curtipendula</td>
<td>Seeded Oats</td>
<td>5.000</td>
</tr>
<tr>
<td>Elymus canadensis</td>
<td>Canada Wild Rye</td>
<td>8.000</td>
</tr>
<tr>
<td>Elymus virginicus</td>
<td>Virginia Wild Rye</td>
<td>8.000</td>
</tr>
<tr>
<td>Glyceria striata</td>
<td>Fowl Manna Grass</td>
<td>1.000</td>
</tr>
<tr>
<td>Panicum virgatum</td>
<td>Switch Grass</td>
<td>1.000</td>
</tr>
<tr>
<td>Sorghastrum nutans</td>
<td>Indian Grass</td>
<td>10.00</td>
</tr>
<tr>
<td>Sporobolus heterolepis</td>
<td>Oat Grass</td>
<td>0.500</td>
</tr>
<tr>
<td>Sporobolus cryptandrus</td>
<td>Dropped Grass</td>
<td>0.000</td>
</tr>
<tr>
<td>Asperula sativa</td>
<td>Sedge Grass</td>
<td>20.00</td>
</tr>
<tr>
<td>Trifolium multiflorum</td>
<td>Annual Rye</td>
<td>65.00</td>
</tr>
<tr>
<td>Trifolium polymorphum</td>
<td>Annual Rye</td>
<td>65.00</td>
</tr>
</tbody>
</table>

TOTAL 69.00
PLANT ALL SHRUBS VERTICAL.

SCARIFY BOTTOM AND SIDEWALLS OF PLANTING PIT.

4" BARK MULCH TO COVER ENTIRE PLANTING HOLE. TAPER MULCH TO BASE OF PLANT.

BACKFILL WITH MIX OF 50% IMPORTED TOPSOIL AND 50% EXCAVATED SITE SOIL & TAMP LIGHTLY

PRUNE ALL DEAD OR DAMAGED BRANCHES

WATER TO SATURATE BACKFILL MATERIAL WITHIN 8 HOURS OF PLANTING

IF CONTAINER STOCK IS ROOT BOUND, MAKE 4 VERTICAL CUTS IN EACH ROOT BALL WITH SHARP BLADE

NOTES:
ENSURE THAT ROOTS ARE POINTING DOWNWARD IN THE HOLE. WHEN CLOSING PLANTING HOLE, ENSURE NO AIR POCKETS ARE LEFT IN HOLE. WATER TO SATURATE BACKFILL MATERIAL WITHIN 1 HOUR OF PLANTING

PROVIDE 3" SOIL SAUCER AROUND EACH PLANT

OPEN PLANTING PIT TO BE TWICE THE SIZE OF PLUG ROOT

ROOT COLLAR SQUARE TO FINISH GRADE

PROVIDE 3" SOIL SAUCER AROUND EACH PLANT

BACKFILL WITH EX. SOIL

3" TYP.

NOT TO SCALE

HERBACEOUS PLANTING DETAIL

SHRUB PLANTING DETAIL

OVERFLOW OUTLET DETAIL

OVERFLOW DETAIL
SD-6: 10' 2'-0" 16" 12" 16" DEEP 4x12 RIPRAP
FINISH GRADE

PIPE SECTION
PIPE: EXTEND RIPRAP 1' BEYOND END OF DISCHARGE PIPE AND ON GEOTEXTILE FABRIC (CONTINUOUS) NONWOVEN

SD-5: 10' CLEARED AND GRUBBED COMPACTED SUBGRADE SIDE SLOPE TO TOP OF PIPE CULVERT (PIPE)

8'' THICK LIMESTONE FINES 2% CROWN OR CROSS SLOPE

NOTE: APPLY HERBICIDE TO ALL VEGETATION WITHIN THE LIMITS OF FUTURE TRAIL. STRIP ALL ORGANIC SOIL, SALVAGE TO THE SIDE OF TRAIL FOR REUSE IN SHOULDER RECONSTRUCTION.

BACKFILL EDGE OF TRAIL WITH 4" MIN. DEPTH TOPSOIL. FINE GRADE AND SEED ALL DISTURBED AREAS COMPACTED OR UNDISTURBED SUBGRADE

MISCELLANEOUS
NOT TO SCALE

CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET P.O. BOX 8647 ANN ARBOR, MI 48107-8647 734-794-6410 www.a2gov.org 11-10-2017 FOR BID
**Native Plantings:**

1. Native plant material shall be of native plant material of genotypes from the central north central states only, in, in, m., and from a recognized Nursery of this Region. Native sources for tree, shrubs, and flowers shall be located before branching out to other central north central states. Native plantings include: all tree, shrub, and flowers installed in the wetland mitigation and wetland enhancement areas.

2. Plants shall be nursery grown in accordance with good horticultural practices and must meet applicable requirements of type and size. Plants shall be sound, healthy, vigorous, well branched, and free of insect and disease. Plants shall be adaptable to site conditions. Trees shall be excavated, balled, and burlapped including top roots and shall not be root balled. Respect minimum storage times for plant stock.

3. Native plant areas shall be reseeded after May 15 (when soil is free of frost and in workable condition) but not before June 30 or directed by consultant.

4. Fencing, plant species, and seedings as indicated on the plans. Plant stock shall be true to their name (genus and species) as specified. Cultivars and species shall not be used without prior approval of consultant.

5. Native tree and shrub installations shall be installed at the time of planting. The contractor shall be responsible for the development of the planting operation, including the design of the planting layout, selection of species, and the overall aesthetic and functional requirements of the planting.

6. Sow native seed at a species rate of pounds per acre indicated on the drawing. Lightly rake to incorporate seed into soil. Do not cover seed more than 1/4 inch with soil. Seeding method selected shall ensure complete coverage. Every effort shall be made to achieve adequate density and uniformity of cover. Seeding method selected shall be in accordance with the USDA Natural Resources Conservation Service guidelines.

7. Native plants shall be planted at a species rate of pounds per acre indicated on the drawing. Lightly rake to incorporate seed into soil. Do not cover seed more than 1/4 inch with soil. Seeding method selected shall ensure complete coverage. Every effort shall be made to achieve adequate density and uniformity of cover. Seeding method selected shall be in accordance with the USDA Natural Resources Conservation Service guidelines.

8. All stockpile and storage areas shall be returned to their original grade and restored ground surfaces after stored material has been removed.

9. Erosion shall be repaired by the contractor. The contractor shall apply erosion control blankets to all areas where erosion control is necessary. Erosion control blankets shall be installed where the contractor is responsible for the installation of erosion control blankets.

10. Mixture for trees, shrubs, and rain gardens shall be coarse grade oak or maple bark aged at least one year and uniform in color and texture.

**Maintenance and Warranty Period:**

1. Plant materials shall be free of disease, insect pests, eggs, or larvae. Plants shall be free of kinked, circling, or girdling trunk surface and center roots, and shall not be root-bound. Respect maximum storage times for plant stock.

2. All plants stock shall be watered by the contractor to ensure the health and vigor of the planted materials. The contractor shall water as needed based on natural rainfall during the warranty period. Watering shall continue so long as water is needed to reach the depth specified in the plans.

3. Native planting areas shall be installed after May 15 (when soil is free of frost and in workable condition), but before June 30 or after October 15, but before November 15 (prior to freezing) as directed by consultant.

4. Site preparation—cut any existing vegetation to a 4-inch height and any roughness as necessary to prior to seeding native seed. Lightly scarify so that the seed is smooth and free of large clumps. Seeding shall be firm, but not compact. Seed mixture acids scarifying, 40% water.

5. Follow seed supplier's recommendations for seed installation. Seed mining selected shall ensure complete coverage of designated area. All seed mixtures are with seed in seedling at additional cost to owner.

6. Do not sow seed where standing water or frost is present. Do not sow seed at a species rate of pounds per acre indicated on the drawing. Lightly rake to incorporate seed into soil. Do not cover seed more than 1/4 inch with soil. Seeding method selected shall ensure complete coverage. Every effort shall be made to achieve adequate density and uniformity of cover. Seeding method selected shall be in accordance with the USDA Natural Resources Conservation Service guidelines.

7. Mulch: Material shall be clean seed-free wheat or oat straw to protect seeded areas from invasive species. Frequently found in common straw. Mulch shall not contain more than 5% foreign matter by weight and must be free of seeds and other materials. Cover seed with a minimum of 4-inch straw mulch material, where necessary or as directed by consultant. Include mulch in planting.

8. Contractor shall repair damaged vegetation and erect soil over root zone of negatively impacted vegetation. Re-seed all disturbed areas to pre-existing conditions.

9. Notify the owner prior to and following any maintenance activity.

10. Final acceptance of work will be subject to acceptance by project manager and owner at the end of guarantee period.

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12. All delays in completion of planting operations which extend the planting into more than one planting season shall extend the warranty period correspondingly.

13. All work shall be performed in accordance with good horticultural practices and must meet applicable requirements of type and size. All work shall be done in accordance with the plans and specifications.

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**Stormwater Volumes:**

<table>
<thead>
<tr>
<th>Stormwater Runoff Area</th>
<th>Drainage Area</th>
<th>Calculated 1st Flush Volume</th>
<th>Basin</th>
<th>Volume Required to Capture 1st Flush</th>
<th>Volume Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Square Feet</td>
<td>Acreage</td>
<td>R3</td>
<td>R3</td>
<td>R3</td>
<td>R3</td>
</tr>
<tr>
<td>1</td>
<td>370,250</td>
<td>8.5</td>
<td>15,428</td>
<td>A</td>
<td>18,913</td>
</tr>
<tr>
<td>2</td>
<td>83,635</td>
<td>1.9</td>
<td>3,485</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:**

- Stormwater runoffs are calculated using the Rational Method.
- Drainage areas are determined using the SCS Unit Hydrograph Method.
- Basins are determined using the EPA Stormwater Management Model (SWMM).
- Volume required to capture 1st flush is calculated using the Urban Stormwater Management Model (USWMM).
- Volume provided is calculated using the EPA Stormwater Management Model (SWMM).

**Summary:**

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