EAST BRANCH OF EUCLID CREEK RESTORATION
AT THE WILLOUGHBY-EASTLAKE SCHOOL OF INNOVATION
WILLOUGHBY HILLS, OHIO
60% DESIGN PLANS

VICTINITY MAP

Sheet Index

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GENERAL NOTES
1. THIS PLAN SET WAS PREPARED BY BIOHABITATS, DESIGN/BUILD CONTRACTOR FOR THE CUYAHOGA SOIL AND WATER CONSERVATION DISTRICT. THE PROJECT WILL BE BUILT BY THE BIOHABITATS DESIGN/BUILD TEAM INCLUDING THE SUBCONTRACTOR MEADOWLAWN LAND SERVICES AS A DESIGN/BUILD, REFINEMENTS TO THE DESIGN DURING CONSTRUCTION.
2. DETAILS AND DIMENSIONS PERTAINING TO PHYSICAL CONDITIONS ON THE PLANS WERE OBTAINED FROM SURVEY, UTILITIES SUBMITTALS AND FIELD VERIFICATIONS. THEY ARE INDICATIVE OF THE EXISTING CONDITIONS, THEY ARE TENTATIVE AND APPROXIMATE.
3. CONDUCT CONSTRUCTION ACTIVITIES SO AS TO ELIMINATE ANY UNNECESSARY NOISE, DUST AND ODORS. DO NOT USE OILS OR ANY OTHER MATERIAL THAT CAUSES TRAFFIC. FOR THE OPERATION OF CONSTRUCTION KEEP CLEAN OF TRASH, DEBRIS, ETC. ALL AREAS OCCUPIED.
4. CONDUCT CONSTRUCTION DURING THE HOURS OF 7AM AND 7PM ON WEEKDAYS REQUEST FROM APPROVAL BY ENGINEER AND CITY OF WILLOUGHBY HILLS TO WORK ON WEEKENDS.
5. KEEP A CONTINUOUS MONITOR AT THE WORK SITE AT ALL TIMES. OTHER ITEMS SPECIFIED FOR PERMIT FOLLOW:
   a. PERFORM TREE CLEARING WITHIN LIMITS OF DISTURBANCE ONLY BETWEEN SEPTEMBER 30TH AND APRIL 1ST.
   b. DO NOT PERFORM WORK IN WETLANDS OR STREAMS UNTIL THE US ARMY CORPS OF ENGINEERS ISSUES A PERMIT.
   c. DISPOSE OF ALL EXCESS EROSION OR EXCAVATED MATERIAL NOT USED AS BACKFILL AT AN UPLAND DISPOSAL SITE OR PLACED WITHIN THE SPECIAL FLOOD HAZARD AREA WITHOUT RAISING THE 100 YR. FLOOD.
   d. DISCHARGE ONLY CLEAN FILL MATERIAL AS DEFINED BY FREE OF OILS, OILS, GREASE, DEBRIS, WOOD, GENERAL REFUSE, PLASTER, BROKEN ASHAL, OR OTHER POTENTIAL HAZARDS.
   e. INSTALL ENSIGN CONTROL DEVICES TO PRECLUDE MOVEMENT OF DREDGED MATERIAL OR DISTURBED SOIL INTO WATERS OF THE US, INCLUDING WETLANDS. PLACE THESE DEVICES IN ACCORDANCE WITH THE APPROPRIATE CONSTRUCTION TECHNIQUES AS INDICATED IN THESE PLANS. REMOVE ALL DEVICES UPON STABILIZATION OF THE AREA.
   f. AT THE REQUEST OF AN AUTHORIZED REPRESENTATIVE OF THE BIOHABITATS DESIGN/BUILD CONTRACTOR, ALLOW ACCESS TO THE PROJECT SITE TO DETERMINE COMPLIANCE WITH THE PERMITS.

UTILITIES
1. THERE ARE EXISTING AERIAL UTILITY LINES WITHIN THE WORK LIMITS OF THIS PROJECT. GIVE SPECIAL ATTENTION TO THE LOCATION OF THESE EXISTING AERIAL UTILITIES WHEN PLANNING CONSTRUCTION ACTIVITIES, INCLUDING MEASURES AND MEANS OF ALL OPERATIONS NECESSARY TO PERFORM THE WORK CONSIDER THE POTENTIAL CONFLICT WITH THE AERIAL LINES WITH THE VEHICLE AND CONSTRUCTION PROCEDURES OF EQUIPMENT USED. IF CONFLICTS ARE IDENTIFIED, CONTACT THE UTILITIES WITHIN THE SMALL OF THE OPERATIONS.
2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM THE UTILITIES OWNERS AND FIELD OBSERVATIONS. CONSIDER LOCATIONS TENTATIVE AND APPROXIMATE. NOTIFY THE UTILITIES OWNERS AND THE OHIO UTILITIES PROTECTION SERVICE IN ACCORDANCE WITH SECTION 1331.04 OF THE "OHIO REVISED CODE" PRIOR TO THE START OF CONSTRUCTION. INCLUDING MAINTENANCE OF KNOWLEDGE.
3. COORDINATE WITH THE UTILITIES COMPANY FOR ALL AERIAL AND UNDERGROUND UTILITY WORK PERFORMED CONCURRENT WITH THE EXISTING WORK PHYSICALLY LOCATE UNDERGROUND UTILITIES IN THE AREAS OF PROPOSED WORK TO ELIMINATE CONFLICTS PRIOR TO PLACING PROPOSED WORK ELEMENTS. OBTAIN ALL OSHA RULES AND REGULATIONS, AND PROTECT THE SAFETY OF ALL PERSONNEL AND EQUIPMENT. ALL TIMES THE FOLLOWING UTILITIES HAVE BEEN IDENTIFIED WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT:

GENERAL CONSTRUCTION SEQUENCE
1. STAKE OUT CONSTRUCTION AS NECESSARY, INCLUDING THE LIMITS OF DISTURBANCE.
   1.1. STAY WITHIN THE LIMITS OF DISTURBANCE AS SHOWN ON THE PLANS AND MAINTAIN DISTURBANCE WITHIN THE WORKING AREA WHEREVER POSSIBLE. LIMITS OF DISTURBANCE ARE FOR EXISTING DISTURBANCE ACTIVITIES ONLY.
   1.2. FLAG ALL TREES WITHIN THE LIMITS OF DISTURBANCE WHICH WILL BE REMOVED FOR CONSTRUCTION ACCESS AND GRADING.
   1.3. LOCATE ON-SITES MATERIALS FOR MAINTENANCE OF STREAM FLUSH AS PROPER. PRIOR TO RESTORING STREAMFLOW UPON COMPLETION OF WORK AT THE END OF THE DAY, REMOVE ANY STOPLYSED MATERIAL WHICH MAY BE FOUND IN THE WORK AREA.
   1.4. USE APPROXIMATELY SIZED TREES TO BE REPLACED AS MATERIAL SOURCE FOR STANDING SNAGS. LOG GRADE CONTROL, AND LARGE WOOD. DO NOT REMOVE TREES WITHIN THE LIMITS OF DISTURBANCE WITHOUT APPROVAL OF THE CUYAHOGA SOIL AND WATER CONSERVATION DISTRICT PROJECT MANAGER OR THEIR REPRESENTATIVE.
   1.5. PERFORM IN-STREAM WORK ONLY DURING DRY WEATHER AND NOT DURING STORM EVENTS.
   1.6. INSTALL STABILIZED CONSTRUCTION ENTRANCE. MANUALLY INSTALL HIGH-VISIBILITY FENCE AS EITHER SHOWN ON PLANS OR DIRECTED BY THE ENGINEER TO PREVENT PUBLIC ACCESS.
   1.7. INSTALL STABILIZED ENTRANCE WITHIN DISTANCE OF THE PERMITTER.
   1.8. INSTALL CONSTRUCTION ENTRANCE.

EAST BRANCH AT EUCLID CREEK STREAM RESTORATION CONSTRUCTION SEQUENCE
2. BEGIN GRADING OPERATIONS. CLEAR AND GRADE THE AREA WHERE CONSTRUCTION IS TAKEN PLACE. MOVE CLEARING AND GRADING IN THE DIRECTION OF THE CONSTRUCTION ONLY AREA THAT CAN BE COMPLETED AND STABILIZED BY THE END OF THE DAY.
   2.1. INSTALL A PUZZLE AND/OR PILLAR AXIAL AS NECESSARY TO DIVERT FLOW AROUND THE AREA. ONLY OPERATE THE LENGTH OF CHANNEL THAT CAN BE COMPLETED IN ONE DAY. DO NOT RELEASE SEDIMENT INTO THE STREAM. PUMP SEDIMENT LADEN WATER INTO A SEDIMENT FILTERING BAG. DISCHARGE ONLY CLEAN WATER INTO THE STREAM.
   2.2. INSTALL CHANNEL CONSTRUCTION AT THE UPPER LIMIT OF THE PROJECT.
   2.3. DURING STREAM CHANNEL AND FLOODPLAIN CONSTRUCTION REFER TO PROPOSED CONDITIONS AND MODIFY SADO PROCEDURES TO ELIMINATE THE CONTACT.
   2.4. PERMENENTLY STABILIZE (SEED AND MULCH) ALL REMAINING FINISHED GRADES; OTHERWISE, INSTALL STABILIZED ENTRANCE AND INSTALL SILD FENCE AROUND THE PERMITTER.

PRE-CONSTRUCTION
1. LOCATE AND MARK EXISTING PROPERTY CORNER MONUMENTS SUCH AS IRON PINS, PIPES, ETC. CLEARLY MARK ALL MONUMENTS IN THE FIELD. PROPERLY PROTECT THEM DURING THE COURSE OF CONSTRUCTION. IF THE EXISTING PROPERTY CORNER MONUMENTS ARE NOT INSTALL EROSION CONTROL DEVICES TO PRECLUDE MOVEMENT OF DREDGED MATERIAL.
   1.5. INSTALL STABILIZED CONSTRUCTION ENTRANCE. MANUALLY INSTALL HIGH-VISIBILITY FENCE AS EITHER SHOWN ON PLANS OR DIRECTED BY THE ENGINEER TO PREVENT PUBLIC ACCESS.
   1.6. INSTALL A PUZZLE AND/OR PILLAR AXIAL AS NECESSARY TO DIVERT FLOW AROUND THE AREA. ONLY OPERATE THE LENGTH OF CHANNEL THAT CAN BE COMPLETED IN ONE DAY. DO NOT RELEASE SEDIMENT INTO THE STREAM. PUMP SEDIMENT LADEN WATER INTO A SEDIMENT FILTERING BAG. DISCHARGE ONLY CLEAN WATER INTO THE STREAM.
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   1.8. DURING STREAM CHANNEL AND FLOODPLAIN CONSTRUCTION REFER TO PROPOSED CONDITIONS AND MODIFY SADO PROCEDURES TO ELIMINATE THE CONTACT.
   1.9. PERMENENTLY STABILIZE (SEED AND MULCH) ALL REMAINING FINISHED GRADES; OTHERWISE, INSTALL STABILIZED ENTRANCE AND INSTALL SILD FENCE AROUND THE PERMITTER.
   1.10. REMOVE TEMORARY FLOW BYPASS MEASURES, IF NECESSARY.

LEGEND
- MAJOR CONTOUR
- MINOR CONTOUR
- PROPERTY LINE
- BASELINE
- LIMIT OF DISTURBANCE
- STORM DRAIN
- OVERHEAD ELECTRIC
- DITCH CENTER LINE
- CREEK CENTER LINE
- 100 YEAR FLOODPLAIN
- CHAINLINK FENCE
- WATER OF THE US
- TREELINE
- BRUSHLINE
- TREE
- HIGH VAL
- MA/M4
- ELECTRIC RIX
- SEWER MANHOLE
- HEATLINE
- METAL POST
- POWER POLE
- BOULDER ENTRANCE
- BOULDER TOE PROTECTION
- TREE REMOVAL
- STANDING SNA
- LARGE WOOD
- STAGGING AND STOPLILING AREA
- STABILIZED CONSTRUCTION ENTRANCE
- RIPRAP
- UTILITY ACCESS ROAD
- VETLAND
- EUCLID CREEK
- EAST BRANCH
- LORAIN/ERIE CANAL
- PROPOSED
- EXISTING
- 60% DESIGN. NOT FOR CONSTRUCTION.
- 30% DESIGN. NOT FOR CONSTRUCTION.
- CLIENT
- CUYAHOGA SOIL AND WATER CONSERVATION DISTRICT
- 3311 PENGROSE AVE, SUITE 103
- PROGRAM MANAGER: ELIZABETH HISER 216.524.6580 EXT 1002
- PHONE: 216.524.6580 EXT 1002
- PHONE: 216.524.6580 EXT 1002
- DATE: 02 OF 14
- PANEL: 2020
- ACCORDING TO THE CONSTRUCTION DRAWINGS.
- 4. DISCHARGE ONLY CLEAN FILL MATERIAL AS DEFINED WITH FREE OF OILS, OILS, GREASE, DEBRIS, WOOD, GENERAL REFUSE, PLASTER, BROKEN ASHAL, OR OTHER POTENTIAL HAZARDS.
- 5. INSTALL ENSIGN CONTROL DEVICES TO PRECLUDE MOVEMENT OF DREDGED MATERIAL OR DISTURBED SOIL INTO WATERS OF THE US, INCLUDING WETLANDS. PLACE THESE DEVICES WITH THE APPROPRIATE CONSTRUCTION TECHNIQUES AS INDICATED IN THESE PLANS. REMOVE ALL DEVICES UPON STABILIZATION OF THE AREA.
- 6. AT THE REQUEST OF AN AUTHORIZED REPRESENTATIVE OF THE BIOHABITATS DESIGN/BUILD CONTRACTOR, ALLOW ACCESS TO THE PROJECT SITE TO DETERMINE COMPLIANCE WITH THE PERMITS.
- 7. DO NOT PERFORM WORK IN WETLANDS OR STREAMS UNTIL THE US ARMY CORPS OF ENGINEERS ISSUES A PERMIT.
- 8. THE LOCATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS WERE OBTAINED FROM THE UTILITIES OWNERS AND FIELD OBSERVATIONS. CONSIDER LOCATIONS TENTATIVE AND APPROXIMATE. NOTIFY THE UTILITIES OWNERS AND THE OHIO UTILITIES PROTECTION SERVICE IN ACCORDANCE WITH SECTION 1331.04 OF THE "OHIO REVISED CODE" PRIOR TO THE START OF CONSTRUCTION. INCLUDING MAINTENANCE OF KNOWLEDGE.
ADD STEPPING STONES FOR PEDESTRIAN ACCESS ACROSS RIFFLE AS DETERMINED BY ENGINEER.

REMOVE RIPRAP AND RECYCLE FOR USE IN RIFFLE CONSTRUCTION.

INSTALL LOG GRADE CONTROL AS DETERMINED IN FIELD.

ADJUST STEPPING STONES FOR PEDESTRIAN ACCESS ACROSS RIFFLE AS DETERMINED IN THE FIELD BY ENGINEER.

LIMITED CLEARANCE UNDER POWER LINES.

INSTALL SITTING BOULDERS.

REPLACE GRAVEL, ORE AS NEEDED.

REPLACE RIPRAP AND RECYCLE FOR USE IN RIFFLE CONSTRUCTION.

INSTALL LOG GRADE CONTROL AS DETERMINED IN FIELD.

ADD STEPPING STONES FOR PEDESTRIAN ACCESS ACROSS RIFFLE AS DETERMINED IN THE FIELD BY ENGINEER.

MATCHLINE SHEET 06

CLIENT
CITY OF CLEVELAND
505 AQUARIUS AVE
Cleveland, OH 44144

PROGRAM MANAGER: ELIZABETH HISER
PHONE: 216.524.6580 EXT 1002

DATE: 2018.09.11
PROPOSED CONDITIONS

HORIZONTAL SCALE
1" = 20'

ISSUES / REVISIONS
60% DESIGN. NOT FOR CONSTRUCTION.
30% DESIGN. NOT FOR CONSTRUCTION.

BY:

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NOT TO SCALE

FORD CROSSING BOULDER RIFFLE
PROFILE INDEX

BOULDER DIMENSIONS (FT)

<table>
<thead>
<tr>
<th>STRUCTURE TYPE</th>
<th>NAME</th>
<th>AXES</th>
<th>LANE</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIE-OUT BOULDER</td>
<td>TYP. EACH SIDE</td>
<td></td>
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</tr>
<tr>
<td>FOOTER-BOULDER</td>
<td>1.5-2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOULDER TOE</td>
<td>1.0-2.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOTE: EXISTING MINIMUM DEPTH FOR SUBSTRATE MATERIAL OR BOULDERS</td>
<td></td>
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<td></td>
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</tbody>
</table>

SUBSTRATE MATERIAL

<table>
<thead>
<tr>
<th>CUMULATIVE % FINER</th>
<th>RIPPLE</th>
<th>BOULDER RIFFLE</th>
<th>NOTE</th>
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</thead>
<tbody>
<tr>
<td>COBBLE (IN)</td>
<td>100</td>
<td>0</td>
<td></td>
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<tr>
<td>100</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: EXISTING RIPRAP ON SITE CAN BE REUSED FOR SUBSTRATE MATERIAL OR BOULDERS.

BOULDER A-XIS

NOT TO SCALE

FORD CROSSING BOULDER RIFFLE
PLAN VIEW

TOE CROSS SECTION

NOTES
1. WIDTHS AT EACH RIFFLE WILL VARY, DEPENDING ON SITE CONDITIONS.
2. ALL AREAS OF FALL, TIME EXISTING STRUCTURAL DEN OtIIN DLAWS TO ELEVATION SPECIFIED ON PROFILE.
3. MAKE EACH RIFFLE BOULDER TOUCH ADJACENT BOULDER ACROSS CROSS SECTION, SO THERE ARE NO GAPS BETWEEN BOULDERS.
4. CUMULATIVE % FINER CAN BE REUSED FOR SUBSTRATE MATERIAL OR BOULDERS.
5. BOULDER TOE MINIMUM DEPTH FOR SUBSTRATE MATERIAL OR BOULDERS.

FORD CROSSING BOULDER RIFFLE
CROSS SECTION - TYPICAL

NOT TO SCALE

KEY MATERIAL:
- GEOTEXTILE MATERIAL WITH 6 INCHES CRUSHED ROCK OR SUBSTRATE MATERIAL
- COVER GEOTEXTILE MATERIAL WITH MINIMUM 6 INCHES CRUSHED ROCK OR SUBSTRATE MATERIAL
NOT TO SCALE
CROSS SECTION
STANDING SNAG
NOTES
1. INSTALL SNAG 1.3 MINIMUM OF LOG LENGTH BELOW GROUND.
2. SNAG LENGTH TO BE 20-30 FT.
3. BREAK ALL EXPOSED ENDS OF LOG. SAWN ENDS ARE UNACCEPTABLE.

STRAIGHT POOL
CROSS SECTION - TYPICAL
NOT TO SCALE

LEFT MEANDER POOL
CROSS SECTION - TYPICAL
NOT TO SCALE

RIGHT MEANDER POOL
CROSS SECTION - TYPICAL
NOT TO SCALE

COBBLE RIFFLE
CROSS SECTION - TYPICAL
NOT TO SCALE

BOULDER TOE PROTECTION
PLAN - TYPICAL
NOT TO SCALE

BOULDER TOE PROTECTION
CROSS SECTION
NOT TO SCALE

SUBSTRATE MATERIAL APPROX. 1 FT DEEP

TOP OF BANK ELEVATION

DEPTH DAMAGES TO PROFILE

12 FT

1 FT

THALWEG

2 FT

3 FT

5 FT

20 FT

25 FT

9.5 FT

3 FT

5 FT

6 FT

5.5 FT

6 FT

7 FT

21.5 FT

THALWEG

TOP OF BANK ELEVATION

SUBSTRATE MATERIAL APPROX. 1 FT DEEP

KEY MATTING INTO SUBSTRATE MATERIAL 1 FT

COCONUT/STRAW MATTING

NOTE 1. EXTEND SUBSTRATE MATERIAL ALONG PROFILE OF STREAM 5 FT IN LENGTH DOWNSTREAM OF BOULDER.

NOTE 2. KEY IN COIR FIBER MATTING BEHIND BOULDER TOE PROTECTION.

NOTE 3. REFER TO PLAN VIEW FOR TOP OF BOULDER ELEVATION.

NOTE 4. PLACE FOOTER BOULDER BOTTOM 1 FT MIN. BELOW THALWEG ELEVATION.
1. Each symbol indicates a different species.
2. IMS: An Individual Minimum Spacing (IMS) distance is assigned to each individual species. See Plant Schedules.
3. OMS: An Overall Minimum Spacing (OMS) distance is assigned to the planting configuration. See Plant Schedules.

Notes:

1. School of Innovation students to finalize and install design.
2. Mark tube height 5 ft minimum.
3. Fasten tubes to stake with minimum of three 11-inch releasable cable ties; one at top, one in the middle, and one 6 inches minimum above the ground.
4. Install 6 ft hardwood guy staking stand or 5 ft center pole 2 ft into ground. Use one stake per tree.
5. Remove tree at direction of landscape ecologist and/or city of Willoughby Hills or natural resources department.
6. Prune lower branches that extend through wire fence.

Planting Details:

- Herbaceous planting - plugs and containers
- Tree planting - container grown
- Shrub planting - container grown

PLANT SPACING - RANDOM

Plan View

NOT TO SCALE

Notes:

1. Each symbol indicates a different species.
2. IMS: An Individual Minimum Spacing (IMS) distance is assigned to each individual species. See Plant Schedules.
3. OMS: An Overall Minimum Spacing (OMS) distance is assigned to the planting configuration. See Plant Schedules.

Herbivory protection:

- Use 5 ft hardwood guy staking stand or 5 ft center pole 2 ft into ground. Use one stake per tree.
- Fasten tubes to stake with minimum of three 11-inch releasable cable ties; one at top, one in the middle, and one 6 inches minimum above the ground.
- Install 6 ft hardwood guy staking stand or 5 ft center pole 2 ft into ground. Use one stake per tree.
- Remove tree at direction of landscape ecologist and/or city of Willoughby Hills or natural resources department.
- Prune lower branches that extend through wire fence.

PLANT SPACING - CLUSTER

Plan View

NOT TO SCALE

Notes:

1. Each symbol indicates a different species.
2. Clusters contain at least 3 individuals but no more than 11.
3. IMS: An Individual Minimum Spacing (IMS) distance is assigned to each individual species. See Plant Schedules.
4. OMS: An Overall Minimum Spacing (OMS) distance is assigned to the planting configuration. See Plant Schedules.
### Plant Composition Schedule - Wetland (0.5 ft above)

<table>
<thead>
<tr>
<th>Species Name</th>
<th>Common Name</th>
<th>Unit</th>
<th>Species Group</th>
<th>Quantity per acre</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic plants</td>
<td>Red oak</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>Sugar maple</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>Yellow birch</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>Red maple</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>Black willow</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>White willow</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>White birch</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>Sour cherry</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
</tbody>
</table>

### Plant Composition Schedule - Riparian Forest

<table>
<thead>
<tr>
<th>Species Name</th>
<th>Common Name</th>
<th>Unit</th>
<th>Species Group</th>
<th>Quantity per acre</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic plants</td>
<td>Red oak</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>Sugar maple</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>Yellow birch</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>Red maple</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>Black willow</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>White willow</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>White birch</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
</tr>
<tr>
<td>Aquatic plants</td>
<td>Sour cherry</td>
<td>L.</td>
<td>Aquatic plants</td>
<td>1.01</td>
<td>10</td>
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</tbody>
</table>

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**THESE ARE DESIGN/BUILD CONSTRUCTION PLANS AND NOT FOR BID.**

**2018.08.16**

**60% DESIGN. NOT FOR CONSTRUCTION.**

**2018.09.11**

**30% DESIGN. NOT FOR CONSTRUCTION.**

---

**Cuyahoga Soil and Water Conservation District**

**East Branch Euclid Creek Restoration**

**Program Manager:** Elizabeth Hiser

**Phone:** 216.524.6580 Ext 1002

---

**CLINTON K. DAVIES & ASSOCIATES, INC.**

**3311 Perkins Ave., Suite 103**

**Cleveland, OH 44106**

**Phone:** 216.524.6580 Ext 1002

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**Planting Schedules**

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**14 of 14**