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PLANTING PLAN, DETAILS AND SCHEDULE

PLANTING BARE-ROOTED SEEDLINGS

CARE OF SEEDLINGS UNTIL PLANTED
- Store seedlings in a shaded area with moderate moisture until planting day. Do not allow seedlings to become dry or wilted. Keep seedlings in a location that is protected from wind and extreme temperatures.

CARE OF SEEDLINGS DURING PLANTING
- Handle seedlings by the root ball or opening the root ball slightly. Avoid breaking the root structure. Keep the root ball and roots moist during planting.

TRANSPLANTING
- Gently dig the planting hole using a shovel or spade. The hole should be at least twice the diameter of the root ball.
- Place the seedling into the hole with the root ball centered. Fill the hole with soil, tamping gently to remove air pockets.

TOP OF STREAMBANK
PLANT TAPE STAKES FROM THE TOP OF BANK TO THE TOE OF BANK IN A DIAMOND SHAPED STAGGERED PATTERN TO SPECIFIED SPACING.

NOTES:
1. DO NOT INSTALL STAKES THAT HAVE BEEN SPLIT.
2. STAKES MUST BE INSTALLED WITH BUDS POINTING UPWARDS.
3. STAKES SHOULD BE 1/2 TO 2 INCHES IN DIAMETER AND 2 TO 3 FT. LONG.
4. STAKES SHOULD BE INSTALLED LEAVING 1/5 OF STAKE ABOVE GROUND.

LIVE STAKE DETAIL
- Place stakes at specified intervals, ensuring they are installed perpendicular to the bank.

TUBELING DETAIL
- Place tubelings at the correct depth with the root crown level with the existing ground or slightly higher.

PLANT TUBELING UPRIGHT NOT AT ANGLE
- Place tubelings in the planting hole, ensuring the top is flush with the existing ground.
- Fill the hole with soil, tamping gently to remove air pockets.

NOT FOR CONSTRUCTION
- Live cutting min 2" dia, buds facing upward, square cut top.
SPECIMEN TREE SAVE PLAN
UPPER REACH

1. CONTRACTOR TO DETERMINE
   LO DETERMINE

2. SAFETY FENCE
   CONSTRUCTION

3. TREE PROTECTION
   PLAN VIEW

4. TEMPORARY ACCESS PATH
   NOT FOR CONSTRUCTION

5. DETAIL KEYNOTES
   TREE SAVE AREAS

6. SPECIMEN TREES TO BE SAVED (15 TOTAL)
   SPECIMEN TREES TO BE REMOVED (47 TOTAL)

7. TREE TRUNK PROTECTION
   TEMPORARY ACCESS PATH

8. NOT TO SCALE
   NOT TO SCALE
EXISTING CONDITIONS - LOWER REACH

Field Research and Historical Documentation:
- Head of Reach
- Riffle causing fish passage blockage
- Fish passage blockage, sanitary sewer crossing
- Fish passage blockage, concrete rubble
- Fish passage blockage, riprap
- Extreme Behi PBU-RBU
- Very High Behi PBU-RBU
- Bank collapse, debris and riprap gravel, fish passage blockage
- Concrete rubble causing fish passage blockage

Legend:
- 100-foot Station
- 10-foot Station
- 0-foot Station
- Riprap blockage
- Fish passage blockage
- Sanitary sewer crossing
- Concrete rubble
- Very high PBU-RBU
- Extreme PBU-RBU
- Bank collapse
- Riprap

Design Features Relating to Construction:
- Design is subject to change as deemed necessary by the Department.
EXISTING CONDITIONS - UPPER REACH

The existing conditions include:

- **Concrete Rubble**: Located at several points along the stream.
- **Gabion Failure**: Visible in the middle section of the stream.
- **Failure of Outfall and Associated Gabion Wall**: Found in the lower section.
- **Fish Passage Blockage**: Present at the Sanitary sewer crossing.
- **Concrete Rubble in Stream**: Distributed throughout the stream.

**Lower Reach and Unanimous Tributary**

- **Downstream and Instream Boulders**: Significant obstacles in the flow path.
- **Very High Berm - PBL - R1**: Found at the downstream section.
- **Very High Berm - PBL - E2**: Located in the upper section.
- **Gabion Wall Failure and Undercut Collapse**: Observed near the left side.

**Design Features**

- The design features include modifications to the stream channel to improve flow and reduce erosion. The proposed changes aim to enhance the habitat and provide a safer flow path.

**Project Site**

The project site is located along a stream with significant natural features. The proposed design includes the placement of boulders and the construction of gabion walls to stabilize the banks and improve water flow.

**Legend**

- **Berm Height - Screen**: Various levels indicating the height of the berms.
- **Very High Berm**: Marked in red.
- **Flow Direction**: Indicated with arrows.
- **Cross Sections**: Show the transverse profile of the stream.

**Scale**

The scale provided is necessary for understanding the spatial relationships and dimensions of the proposed changes.

**Unimproved Species**

The unimproved species include native plants and trees that are naturally occurring along the stream. These species contribute to the ecological diversity and health of the ecosystem.

**Native Species**

Native species are crucial for maintaining the natural balance and resilience of the stream ecosystem. The proposed design aims to enhance conditions for these species to thrive.

**Flow**

The flow direction and velocity are critical factors in the design. The proposed changes are intended to improve the flow dynamics and reduce sedimentation.