LONES LEVEE SETBACK
AND FLOODPLAIN RESTORATION
40% DESIGN - NOT FOR CONSTRUCTION
LONES LEVEE SETBACK AND FLOODPLAIN RESTORATION

ACCESS, STAGING AND TESC PLAN

ACCESS, STAGING AND TESC PLAN

Legend:
- NT: HIGH VISIBILITY FENCE
- SF: DIRT FENCE
- AT: STRAW HAYLE

Notes:
1. BACKGROUND RASTER 2017 WAP AERIAL
2. SEE ALSO WARE MANAGEMENT PLAN
1. Filter fabric fences shall be installed along contour whenever possible.
2. Install tree fence to the specifications of Section 07 60 of the Technical Specifications.

NOTES:
1. Plastic construction fence shall be a minimum of 48" high. For trees with limbs that overhang the construction area, the location of the
   tree protection fence shall be determined by the field project representative.

2. Minimum 12" overlap of seams.
3. Bury sheeting into existing soil with min. 4" x 4" trench at toe of
   stock tree.
4. Covering maintained tautly in place by using sandbags or ties on
   ropes with a minimum 10' grid spacing in all directions.
5. Post shall have sufficient strength and durability to support the fence
   through the life of the project.
WATER MANAGEMENT PLAN

LEGEND
- Pumping Discharge
- Shovel Bow
- Pump
- Bulk Bag Overfill
- Fish Removal and Exclusion Area

Know what's below. Call before you dig.
<table>
<thead>
<tr>
<th>AREA</th>
<th>SIZE CLASS</th>
<th>THREE HARVEST</th>
<th>CLEARING</th>
<th>DRUBBING</th>
<th>TYPICAL SAVAGE</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>YES</td>
<td>YES</td>
<td>YES 12&quot;</td>
<td>WEST SETBACK</td>
</tr>
<tr>
<td>04</td>
<td>SMALL</td>
<td>8-11</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MED-LV</td>
<td>12-17</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>30-48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>01</td>
<td>SMALL</td>
<td>8-11</td>
<td>11</td>
<td></td>
<td>NO DOWNSPOUT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MED-LV</td>
<td>12-17</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>30-48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>SMALL</td>
<td>8-11</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MED-LV</td>
<td>12-17</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>30-48</td>
<td>1</td>
<td></td>
<td>NO DOWNSPOUT</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>SMALL</td>
<td>8-11</td>
<td>11</td>
<td></td>
<td>NO DOWNSPOUT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MED-LV</td>
<td>12-17</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LARGE</td>
<td>30-48</td>
<td></td>
<td></td>
<td>NO DOWNSPOUT</td>
<td></td>
</tr>
</tbody>
</table>
CLEARING AND HARVEST PLAN 3

LEGEND

- Tree <12" dia. (species as noted)
- Tree 12"-23" dia. (species as noted)
- Tree >24" dia. (species as noted)
- Tree to be removed
- Tree to be left in place and filled around
  clearing and harvest zone

CLOSING AND HARVEST ZONE BOUNDARY (THP)

CLEARING AND HARVEST PLAN 3

Know what's below. Call before you dig.

2018-07

LONES LEVEE SETBACK
AND FLOODPLAIN RESTORATION

CLEARING AND HARVEST PLAN 3

2018-07
CLEARING AND HARVEST PLAN 4

CLEARING AND HARVEST ZONE

TREE <12" DIA. (SPECIES AS NOTED)
TREE 12"-23" DIA. (SPECIES AS NOTED)
TREE >24" DIA. (SPECIES AS NOTED)
TREE TO BE REMOVED
TREE TO BE LEFT IN PLACE AND FILLED AROUND

CLEARING AND HARVEST ZONE

LEGEND

Christie True, Director

Know what's below. Call before you dig.

Clearing and Harvest Plan 4

LONES LEVEE SETBACK AND FLOODPLAIN RESTORATION

Seattle
801 Second Ave, Ste 1150, Seattle, WA 98104
Tel: (206) 269-0104 / Fax: (206) 269-0098
www.cardno.com

Clearing and Harvest Plan 4

Sheet 13 of 45
2018-07

LONES LEVEE SETBACK
AND FLOODPLAIN RESTORATION

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.

CLEARING AND HARVEST PLAN 4

Sheet 13 of 45
2018-07

Know what's below. Call before you dig.
NOTES:
1. REFER TO FLOODPLAIN JAW DETAILS ON SHEET 33 FOR FLOODPLAIN JAWS TYPE 1-4.
2. CIRCLED ON TYPE 3 AND 4 JAWS INDICATE KEY TREE FOR EACH STRUCTURE. SEE SHEET 33 FOR DETAILS.

SITE PLAN 4

LONES LEVEE SETBACK AND FLOODPLAIN RESTORATION

Know what's below.
Call before you dig.
<table>
<thead>
<tr>
<th>LOG TYPE</th>
<th>LENGTH (FT)</th>
<th>DBH (IN)</th>
<th>ROOTWADE</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>TOTAL</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILE</td>
<td>35</td>
<td>12-20</td>
<td>NO</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>CEDAR</td>
<td>40</td>
<td>18-22</td>
<td>YES</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>PINE</td>
<td>25</td>
<td>18-22</td>
<td>YES</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>RACKING</td>
<td>20-35</td>
<td>8-11</td>
<td>PREPARED</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>10</td>
<td>10</td>
<td>15</td>
<td>10</td>
<td>15</td>
<td>8</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>TEAK</td>
<td>10-15</td>
<td>0.5-5</td>
<td>LOOSE</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
<td>75</td>
</tr>
<tr>
<td>IRONWOOD</td>
<td>30</td>
<td>3-6</td>
<td>LOOSE</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>владелец  дерева</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CHAIN CONNECTOR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNIVERSE</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>TAPPEFE COIL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>APRON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OXBOW JAM LOG SCHEDULE**

**OXBOW JAM LAYERING PLAN**

---

**Know what's below.**
**Call before you dig.**

---

**LONES LEVEE SETBACK AND FLOODPLAIN RESTORATION**
**OXBOW JAM LAYERING PLAN AND LOG SCHEDULE**

---

**Seattle**
801 Second Ave, Ste 1150, Seattle, WA 98104
Tel: (206) 269-0104     Fax: (206) 269-0098
www.cardno.com
FLOODPLAIN WOOD DETAILS 1

TYPE 1 JAM

NOTE:
1) Widths and lengths not shown for clarity

TYPE 2 JAM

NOTE:
1) Widths and lengths not shown for clarity

TYPE 3 JAM

NOTE:
1) Widths and lengths not shown for clarity

TYPE 4 JAM

NOTE:
1) Widths and lengths not shown for clarity

-scale: YTH

Know what’s below.
Call before you dig.

LONES LEVEE SETBACK AND FLOODPLAIN RESTORATION

FLOODPLAIN WOOD DETAILS 1
<table>
<thead>
<tr>
<th>SHEET</th>
<th>SHEETS</th>
<th>1 FLOODPLAIN WOOD DETAILS 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>45</td>
<td>LONES LEVEE SETBACK AND FLOODPLAIN RESTORATION</td>
</tr>
<tr>
<td>2018-07</td>
<td></td>
<td>FLOODPLAIN WOOD DETAILS 3</td>
</tr>
</tbody>
</table>

TO BE DEVELOPED AT 60% DESIGN
Know what's below.
Call before you dig.

BURIED LOG TRENCH SECTIONS

1. Trees shall be confined 30'-36' OSH (WCH) harvested on site and shall not have substitutions. Each trench shall have 3, 60' logs and 3, 30' logs.
2. The logs shall be de-limbed and placed in the trench as directed by field representatives.
3. The excavated log trench to be backfilled with native soil.

B Buried Log Trench Section

NOTES:

- Compact layers below this elevation, no compaction above this elevation.
- Fill and do not compact.
- Compact backfill with excavation bucket in layers as logs are placed.
- Excavate log trench as steeply as possible.
- Salvaged logs.
LONES LEVEE SETBACK
AND FLOODPLAIN RESTORATION
ACCESS ROAD PLAN

ACCESS ROAD PLAN

1. BACKGROUND IMAGE 2017 NAIP AERIAL