Woodland Fish Passage System

**Exhibit D-3,** Engineer's Estimated Raw Quantities

The following table provides engineering estimates of select major material quantities. These estimates are provided for informational purposes only and are based solely on direct measurements from the Design Plans with no supply or installation considerations that are the responsibility of the Contractor and no contingency. Providing these quantities does not relieve Bidders and the awarded Contractor of the obligation to measure and verify all quantities or to ensure pricing in the Price Component Schedule covers all materials inclusive of those quantities necessary to deliver a complete and functional fish passage system in accordance with Contract requirements. Select quantities of the Price Component Schedule have been adjusted for contingency and will therefore not reflect the raw quantities below.

| **Section 1 - Base Bid** | | |
|---|---|---|
| **Item** | **Unit** | **Estimated Quantity** |
| **Rock Excavation** | | |
| Fish Lift Bedrock Excavation | CY | 1241 |
| **Concrete Demolition** | | |
| Fish Ladder Concrete Demolition | CY | 981 |
| **Concrete** | | |
| Foundation Concrete | CY | 338 |
| Fish Lift Concrete | CY | 1,751 |
| Exit Flume Concrete | CY | 237 |
| **Grating** | | |
| 1.5" Thick Galvanized Steel Grating | SF | 3,232 |
| 1" Thick Galvanized Steel Grating | SF | 12 |
| **Piping** | | |
| 24" OD ASME B36.10M STL Pipe | LF | 404 |
| 30" OD ASME B36.10M STL Pipe | LF | 253 |
| 32" OD ASME B36.10M STL Pipe | LF | 75 |
| **Railing** | | |
| Galvanized Steel Railing | LF | 2,783 |
| **Rock Anchors** | | |
| Fish Lift Rock Anchors - #8 75 ksi Galvanized Steel Bar | LF | 156 |
| **Steel** | | |
| Fish Lift Carbon Steel | LB | 183,822 |
| Bypass Flume Carbon Steel | LB | 37,302 |
| Exit Flume Carbon Steel | LB | 130,812 |
| Piping Saddles and Support Structures Carbon Steel | LB | 59,536 |
| **Micropiles** | | |
| Finished Grade to Bedrock | LF | 219 |
| Bedrock Cased | LF | 135 |
| Bedrock Uncased | LF | 216 |
| Grout | CF | 153 |

| Section 2 - Bid Supplement | | |
|---|---|---|
| **Verdantas Design Plans** | | |
| **Item** | **Unit** | **Estimated Quantity** |
| **Grating** | | |
| 1.5" Thick Galvanized Steel Grating | SF | 211 |
| **Piping** | | |
| 6" SCH 40 Stainless Steel Pipe | LF | 317 |
| 36" OD ASME B36.10M STL Pipe | LF | 61 |
| **Railing** | | |
| Galvanized Steel Railing | LF | 126 |
| **Steel** | | |
| Bypass Flume Carbon Steel | LB | 84,379 |
| **Kleinschmidt Intake Design Plans** | | |
| **Item** | **Unit** | **Estimated Quantity** |
| Steel Framing | LB | 220,800 |
| Intake Carbon Steel Trashracks | LB | 182,900 |
| Steel Grating | SF | 1,550 |
| 6" DIA. SS Pipe | FT | 20 |
| Trash Raker Rails | FT | 480 |
| Concrete Footing | CY | 50 |
| Concrete Stoplogs | CY | 33 |
| Concrete Slab | CY | 35 |

| Section 3 – Alternate Access | | |
|---|---|---|
| **Item** | **Unit** | **Estimated Quantity** |
| **Access Bridge** | | |
| 160ft by 13ft Clear width Bridge | EA | 1 |
| 67ft by 13ft Clear width Bridge | EA | 1 |
| **Concrete** | | |
| Access Bridge Abutments, Pier, and Access Road Concrete | CY | 788 |
| **Rock Anchors** | | |
| Access Bridge Rock Anchors - 2" Hollow Core 85 ksi Galvanized Steel Bar | LF | 85 |
| Access Bridge Rock Anchors - #8 Dowels | LF | 196 |