

# Statement of Work C-1201797-v3

## 1.0 Scope (aLIGO Photon Calibrators)

This procurement is for the fabrication of the transmitter pylons for the aLIGO photon calibrators. See section 5 for the list of deliverables.

## 2.0 Document Access

Many supplemental documents and specifications are incorporated into and made a part this Statement of Work. Click on the document links to access these documents from the LIGO Document Control Center (DCC) or go on line to the LIGO Public DCC at https://dcc.ligo.org/ to access the DCC#.

## 3.0 Commercial Terms and Applicable LIGO Specifications:

Note: The documents listed below are invoked for this Statement of Work and comprise additional requirements which are integral to this Statement of Work.

• <u>LIGO-C080185-v1</u> LIGO Commercial Items or Services Contract General Provisions

<u>LIGO-Q0900001-v5</u> Advanced LIGO Supplier Quality Requirements

<u>LIGO-Q1100003-v1</u> Acceptable Quality Level (AQL) for Inspection of LIGO Components

## 4.0 Quality System:

Referring to the above referenced LIGO Specification Q0900001, Suppliers should include a copy of their current ISO 9001, AS9100, or TS16949 certification in their bid package. Suppliers lacking current certification should send a copy of their Quality Manual with their bid package.

# 5.0 Parts/Assemblies to be manufactured, Quantity Required, and Inspection requirements:

Note: refer to Section 8.0 for delivery schedule and location

| Drawing #                          | Part Description         | Total Qty: | AQL number<br>(Inspection Frequency) |
|------------------------------------|--------------------------|------------|--------------------------------------|
| <u>LIGO-</u><br><u>D1000675-v3</u> | PhotCal TX Pier Weldment | 7          | 4.0                                  |
| D1000670-v1                        | Grout Plate              | 7          | 4.0                                  |
| D1200395-v1                        | Template                 | 2          | 10                                   |

Note: refer to LIGO-Q1100003-v1 for the AQL table.

Table 1

## 6.0 Manufacturing:

### **6.1 Requirements:**

Suppliers must refer to the LIGO Specifications referenced in Section 3 for additional, and in some cases, non-industry standard requirements.

#### 6.2 Sub-Contracted Work:

 LIGO expects that at least 2/3 (by dollar value) of the contracted work be performed by the Supplier named on the Purchase Order. The Supplier shall be responsible for all subcontracted work.

#### 6.3 Precedence:

The drawings typically represent the finished part as needed for use in service. Suppliers should always contact a LIGO representative to resolve any discrepancies and uncertainties in the documentation or instructions.

## 6.4 Special Instructions:

- 12 gauge 304 stainless steel sheet metal stock will be supplied by Caltech.
- Item 2 in Table 1 requires two bids. The first is to use 6061-T6 aluminum. The second is to use 304L stainless steel.

#### 6.5 Exclusions:

None

## 7.0 End Item Data Package:

Before delivery of the parts, the Supplier shall provide the following data, as a minimum:

- Any as-built modifications (with approval of the LIGO Contracting Officer) as mark-ups to the drawings
- Material certifications
- Inspection reports of all dimensional features for the number of parts specified per the AQL number and referenced in the AQL table <u>LIGO-Q1100003-v1</u> and any other inspection requirements detailed in Section 5 of this SOW
- Certificate of compliance for each part number stating conformance to contract and drawing requirements

# 8.0 Delivery Requirements:

## 8.1 Shipping Containers and Packaging:

The contractor is responsible for providing shipping containers and transportation which protects these parts from damage from the transportation environment (weather, handling, accidents, etc.). Mating edges of parts should be especially protected from damage during shipping.

## 8.2 Shipping Destination(s):

The deliveries are FOB at these destinations, i.e. the Supplier has the responsibility for shipping title and control of goods until they are delivered and the transportation has been completed. The contractor

selects the carrier and is responsible for the risk of transportation and for filing claims for loss or damage.

These items will be shipped to:

LIGO Livingston Observatory (LLO)

Attn: Chris Guido 19100 LIGO Lane Livingston, LA 70754 LIGO Hanford Observatory (LHO)

Attn: Richard Savage / Terry Santini 127124 North Route 10 Richland, WA 99354

# **8.3 Delivery Schedule:**

| ı    | Drawing<br>Number | Description   | Quant.<br>ed   | ENT<br>1BER<br>NENTS    | ASSEMBLY DELIVERY QUANTITIES & SCHEDULE |                 |
|------|-------------------|---------------|----------------|-------------------------|---|-----------------|
| Num  |                   |               | on G           | OMENT<br>UMBEI<br>PONEN | LIGO Hanford,                           | LIGO            |
|      |                   |               |                |                         | WA                                      | Livingston, LA  |
| Item |                   |               | Total<br>Order | WEL] "D" N COM BOM      | June 1, 2012                            | July 2, 2012    |
| 1    | D1000675-v3       | aLIGO PhotCal | 7              | <u>D1000672</u>         | 5                                       | 2               |
|      |                   | Pier Weldment |                | D1000673                |   |                 |
|      |                   |               |                | <u>D1000677</u>         |   |                 |
| 2    | D1000670-v1       | Grout plate   | 7              | n/a                     | 5                                       | 2               |
| 3    | D1200395-v1       | Template      | 2              | n/a                     | 1 (May 1, 2012)                         | 1 (May 1, 2012) |

Table 2