**1.0 OVERVIEW**

Contractor shall provide all labor and materials in order to install four aluminum platform systems with stairways and ramps attached for access for the Louisiana Department of Environmental Quality (DEQ). DEQ shall arrange for the existing wood platforms to be removed from the site prior to installation of the aluminum platform. The site shall be prepared with concrete pads before installation of the aluminum platform systems (This shall not be the responsibility of the awarded contractor).

The systems must be installed at the site around existing structures including: two building structures, a chain-link fence, a power pole, power lines, and a monitoring tower. The site includes access to electrical utility only. Utilities for gas and water, as well as restroom facilities, are not available for contractor use.

DEQ shall provide the contractor with access to the site during the installation period. Due to limited space in the existing permanent fenced in area, DEQ shall provide a temporary fence located adjacent to the existing site to secure building materials.

**Site location:**

Capital Ambient Air Monitoring Site

1061 Leesville Ave.

Baton Rouge, LA 70808

**2.0 SCOPE OF WORK:**

Contractor shall provide all materials and labor for the installation of the systems per these specifications and Attachment D, Site Drawing. The systems shall be compliant with the Americans with Disabilities Act (ADA), Federal Specification RR-G-1602C, and the American National Standards Institute (ANSI) Code: A117.1.

The Contractor shall provide final production drawings for DEQ to approve and sign prior to work beginning. The contractor shall not deviate from the specifications provided. Production drawings must provide detailed information and different views of the final platform system, including but not limited to: placement of cross braces, location of footings, placement of any closures (if needed), and riser/tread measurements for stairs.

Installation shall begin within two weeks of receipt of materials. **Actual installation time shall not exceed 2 weeks (14 calendar days).**

**3.0 QUALITY ASSURANCE**

The Contractor shall ensure the following:

* All stairway components of the systems shall conform to the standards of the Occupational Safety and Health Administration (OSHA), Walking-Work Surfaces for Stairways (Standard No. 1910.25).
* Design of the aluminum parts shall conform to the current edition of the Aluminum Association Specifications and Guidelines for Aluminum Structures;
* All exposed surfaces shall be smooth and free of sharp or jagged edges;
* All parts shall comply with all provisions of applicable local building codes; and
* Aluminum welding shall be in accordance with the ANSI/AWS D1.2-90 Gas Metal Arc Welding (GMAW) Process and shall be performed by experienced operators.

**4.0 PRODUCT**

The items provided shall meet the specifications below and configuration as seen in Exhibit I, Site Drawing.

Platform A (shown in green) shall be comprised of the following components:

* One 5’x4’, one 4’x4’, and one 45º angle platform, approximately 20.5” high.
* One 48” wide by 7’ ramp with a ground transition.

Platform B.1 (shown in blue) shall be comprised of the following components:

* Three 5’x5’ and five 5’x4’ platforms, approximately 5’ high.
* One, seven step stairway

Platform B.2 (shown in yellow) shall be accessed from the 5’ Platform B.1 by utilizing a second stairway and shall be comprised of the following components:

* One, 4’x5’ platform, approximately 10’ high.
* This platform shall abut the existing building.

Platform C (shown in grey) shall be comprised of the following components:

* One, 5’x4’ platform, approximately 19.5” high
* One, two step stairway

**4.1 - Engineering:**

* Ramp, platform, and stairway sections shall be designed for a uniform live load of at least 50 lbs./ft2 or a concentrated load of at least 100 lbs./ft2.
* Legs shall be designed to support the ramp, stairways, and platform sections.
* Handrail load capacity shall be at least 100 lbs./lft.

**4.2 - Materials:**

There shall be no rubber or plastic plugs utilized on handrails, guardrails, or any other surface. Any open tube items shall be finished with welded caps of the same material. All welds in these situations shall be of smooth finish.

* Ramp, platform, and stairway:
	+ Sections shall be all aluminum construction from a combination of 5032-H32, 6061 and/or 6063 alloy.

**Specify aluminum alloy bidding:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Ramp and platform:
	+ Walking surfaces shall be made from 1/8” thick aluminum sheet with a perforated-button design for traction and shall meet Federal Specification RR-G-1602 governing slip resistance.
	+ Sides shall be made from an extruded aluminum shape or 2” x 2 ½” aluminum angle.
	+ Understructure shall be made from ¾” square or 1 ¼” aluminum tubing, size varies with width.
	+ Walking surface, sides, and understructure shall be welded together as a unit.
	+ Sections shall have a side safety curb of at least 2” except where a platform meets a building, stair, or ramp.
* Legs:
	+ Legs for ramp, stairs, and platform sections shall be constructed of a brace made from 1 ¼’ square aluminum tubing welded to an aluminum channel (two legs per channel). Leg braces shall be placed at connection points and at the midpoint of the ramp, stairs, and platforms.
	+ All legs shall have adjustable screw-type mounting foot terminating in a flat steel pad with a minimum dimension of 4” x 4” and a minimum of 1/8” thickness. The steel shall be zinc coated, primed and painted “Silver Aluminum” corrosion resistant water based paint or equivalent.
	+ All fasteners shall be made of stainless steel.
* Handrails – Double Bar:
	+ Provided on Platform A and ramp; Platform C and stairway.
	+ Handrails shall be constructed from approximately 1 ½” diameter steel tubing, formed and welded.
	+ Receptor cups shall be constructed from aluminum tubing and welded to the ramp curb.
	+ Ramp rails shall be constructed with end loops.
* Guardrails – Vertical Picket:
	+ Provided on Platforms B.1, B.2, and connected stairways (excludes section of platform next to building).
	+ Top guardrail, bottom support and vertical end posts shall be constructed from approximately 1 ½” outside diameter steel tubing.
	+ Vertical pickets shall be constructed of ½” square (Outside Dimension) steel tubing.
	+ The continuous inside handrail shall be constructed from 1 1/2” diameter steel tubing.

**4.3 - Design:**

All sections shall be fabricated in accordance with Exhibit 1, Site Drawing.

* Ramp:
	+ Walking surface shall be continuous, without gaps.
	+ Sections shall have a side safety curb of at least 2”.
* Platforms:
	+ Shall be fabricated in sections, depended on ramp widths and turning circumference needed.
	+ Walking surface of the platform shall be continuous, without gaps.
	+ All sections shall have a side safety curb of at least 2”, except where platform meets building and where platform meets ramp.
* Stairways:
	+ Designed to reach the 5’ high Platform B.1 and the 10’ high Platform B.2 shall be a 36” usable width.
	+ Designed to reach 19.5” high Platform C shall be a 48” usable width.
* Legs:
	+ Shall be attached to the ramp, platform, and stairway so that they are always perpendicular to the ground. The load shall remain vertical regardless of the slope.
	+ Rough adjustment of the legs shall be in 1” increments with fine adjustment accomplished by a screw-type mounting foot.
* Handrails:
	+ Surfaces shall be smooth and continuous for each ramp section and shall have smooth, interconnecting sections between ramp and platform sections.
	+ The top of the handrail shall be placed between 34” and 38” above the walking surface of the ramp or platform structure.
	+ Handrails shall be mounted in the receptor cups and secured by nut, bolt, and washer fasteners.
	+ Handrails ends shall have a 1’ return at top or bottom locations where they are not connected to other sections or where the handrails do not terminate at a wall or extend into cross traffic. Where the termination point does not have a return the end shall be finished in a rounded termination at the upright support.
	+ Handrails shall be machine primed and finish painted in “Silver Aluminum” corrosion resistant water based paint or equivalent.
* Guardrails – Vertical Picket:
	+ The upper guardrail shall be set at 42” above the walking surface.
	+ Vertical pickets shall be attached to an upper and lower support; so that center-to-center measurements for the vertical picket spacing is 4”or less.
	+ End posts shall support the vertical picket guardrail sections and handrail brackets shall be attached by welding. Inside mounted handrail shall attach to the brackets by means of screws into the bottom of the handrail at support locations.
	+ Vertical picket guardrail sections shall be attached to the overall platform and stairway by inserting vertical posts into receptor cup that have been welded to the safety curb of the ramp/platform, and through bolting of each section.

**5.0 WARRANTY:**

Contractor shall warrant its products to be free from defects in material and workmanship in the regular course of business for a minimum period of 1 year beginning on the date of completion and acceptance of installation.

DEQ will inspect the system and make note of any issues on a punch list. Acceptance will be made after completion of any issues noted in the inspection punch list.