

REQUEST FOR BID: Compact Heavy Duty Load Carrier

RFB Posted: November 22, 2021
Questions Due: December 15, 2021 2:00 P.M.
Question Posted: December 16, 2021
Bid Due Date: January 7, 2022 2:00 P.M.

The South Dakota Science and Technology Authority (SDSTA) is requesting bids for a compact heavy duty load carrier to help transport heavy equipment to/from the underground pump rooms at the Sanford Underground Research Facility, located in Lead South Dakota. Entities interested in bidding on this project are responsible for providing a bid for the following:

- Compact Heavy Duty Load Carrier: Provide SDSTA with a bid for a load carrier that meets the requirements listed in this document

Documents included in this request for bid include:

- A. This request for bid
- B. Support Documents – Compact Heavy Duty Load Carrier.pdf

The RFB is organized as follows:

- Section 1.0 – Background
- Section 2.0 – Scope of Work & Technical Specifications
- Section 3.0 – Bid Submission Requirements

1.0 Background

The pumping system at SURF is responsible for removing all the natural water inflows that accumulate through the vast underground workings. The pumping system removes water from the underground using a deep pool pump and 4 pump rooms. The water is pumped sequentially in “lifts” from the deep pool to pump rooms located at the 5000, 3650, 2450, and 1250 levels and finally to the Waste Water Treatment Plant.

These pump rooms contain large equipment (pumps, motors, electrical gear) that is transported using rail and flat deck rail cars from the shaft to the pump room. Over time, this rail has deteriorated and needs repair. Instead of repairing this rail the SDSTA is interested in purchasing a heavy-duty load carrier that that could be used instead.

Once procured the SDSTA will either remove the existing rail or bring the sill surface up to the top of the rail allowing efficient travel of the load mover.

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2.0 Scope of Work and Technical Specifications

The primary scope of work for this project will be to provide SDSTA with a bid for the following:

- Compact Heavy Duty Load Carrier: Provide SDSTA with a bid for a load carrier that meets the requirements listed in this document
- Specification sheet demonstrating that the load carrier meets the requirements

All bids must meet or exceed the specifications listed in the sections below.

2.1 Technical Specifications Requirements

Review the technical specifications along with the support documents (Compact Heavy Duty Load Carrier.pdf) for extra detail showing where the load carrier will operate. The vendor will be responsible for ensuring the load carrier will be able to operate within this environment area and within the restrictions listed below:

Load Carrier Dimensions and Payload:

- Length less than 80 inches
- Width less than 40 inches
- Height (equipment platform) less than 15 inches
 - This allows the payload to be up to 38.625 inches tall before total height becomes an issue when traveling to the pump room
- Height (overall if higher than equipment platform) less than 50 inches
- Equipment platform must be flat and capable of securing and carrying equipment that is dimensionally larger than the load carrier with attachment points that allow the load to be secured to the carrier.
- Ground clearance greater than 2 inches
- Payload = 10,000 lbs
- Turn radius = zero turn (capable of spinning in place)

Propulsion, travel range, travel surface:

- The load carrier must be self-propelled by one of the following methods:
 - Battery & electric motors
 - Diesel powered. The diesel engine must meet Tier 4 emissions or higher.
- Travel range greater than 1,000 ft with 10,000 lb payload
 - 400 ft to pump room + 400ft from + 200 ft maneuvering = 1,000 ft
- Have a controller capable of going, forward/reverse, left/right
 - Provide the cost of a wireless controller if the option exists

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- The load carrier must be able to travel over compacted dirt/gravel. The travel surface can be wet or dry with shallow (less than 1 inch depth) areas of pooled water. The travel path is level.

2.2 Optional Requirements

- Please provide details for any other possible solutions for equipment transport that may also work in this application.

3.0 Bid Submission Requirements

The vendor shall submit an electronic copy (.pdf format) of the bid no later than 2:00 p.m. January 7, 2022, to: mbaumann@sanfordlab.org. Late submissions will not be accepted.

Questions need to be submitted by December 15, 2021

Questions/Answers will be emailed to all prospective bids and posted to the sanfordlab.org website no later than December 16, 2021

The bid period may be extended at the discretion of SDSTA based on the quantity and/or complexity of questions. Any notices of extension of time to respond will be distributed to all prospective bidders by SDSTA.

All communications regarding this procurement between RFB release and award shall be directed by email to mbaumann@sanfordlab.org. Communications with other SDSTA staff regarding this procurement in advance of the award are not allowed.