SOUTH DAKOTA SCIENCE AND TECHNOLOGY AUTHORITY

REQUEST FOR PROPOSALS

4850L Restroom Pipe Network

RFP #2025-07

Site Visit:	June 5, 2025 (at 7:15am)
Pre-Registration Deadline for Site Visit:	June 3, 2025 (by 2:00pm)
Submit Questions By:	June 17, 2025 (by 3:00pm)
Questions & Answers Posted:	June 24, 2025 (by 4:00pm)
Proposal Due Date:	July 1, 2025 (by 3:00pm)

1. PURPOSE:

This Request for Proposal (RFP) is issued by the South Dakota Science and Technology Authority (SDSTA) for procurement and installation of a piping network that will connect an already installed prepackaged wastewater treatment plant to underground restrooms located on the 4850L at the Sanford Underground Research Facility (SURF). An individual contractor will be selected for a fixed price contract based on the total of the quantities and unit costs listed on the project bid sheet, and overall supplied information package. Documents included with this RFP include:

A. Draft Contract #2025-07 *(Attachment A)*
B. Draft Construction General Conditions Agreement *(Attachment B)*
C. Bid Security Form (to be submitted with proposal)
D. Payment and Performance Bond Form (informational – to be submitted with contract)
E. SDSTA Bid Sheet *(Attachment D)*
F. SDSTA Design Documents
    a. Complete set of engineering drawings (Drawings – 4850L Ross Campus Restrooms.pdf) *(Attachment F.a)*
    b. SDSTA Specifications (Ross Campus Restrooms Div 01 + Specs r3) *(Attachment F.b)*
G. General Information & Photos (Piping Network Info R1.pdf) *(Attachment G)*
H. Contractor Pre-Qualification & ESH Questionnaire *(Attachment H)*

2. PROJECT BACKGROUND:

Currently restroom facilities for most of the underground footprint of the Sanford Lab consist of portable toilet cassettes. Portable toilet cassettes allow the SDSTA to provide restrooms for the underground including remote areas that are not part of this project scope. However, these portable toilet cassettes are also used in higher traffic areas, like the 4850L between the Ross and Yates shafts. Using these cassettes in higher traffic areas creates logistical issues relating to frequent trips to the surface to have the units emptied and cleaned. The SDSTA plans to phase out these portable toilet cassettes in higher traffic areas with standard flush toilets serviced by a compact wastewater treatment plant (WWTP) (Figure 1).

The primary location for underground science at the Sanford Underground Research Facility (SURF) is the 4850 level. The 4850 level is split into three primary areas called Ross, LBNF and Davis Campuses. SURF is planning for the eventual need to support up to 250 SDSTA employees, researchers, and contractors between these three lab areas on a temporary or permanent basis. Once a researcher/employee is underground, they generally do not come back to the surface until the end of the workday.

The restroom facilities around the Davis Campus lab spaces are furnished with flushing toilets that discharge into a small WWTP (Figure 1) that treats the waste before it enters the primary dewatering system. This system has been installed for over 4 years and is monitored by SURF WWTP operators.

The Ross and LBNF Campuses use standard portable toilets strategically placed throughout campuses to provide the underground population with restroom services. Once a week all portable toilets are checked, and the full ones are brought to the surface for cleaning by a local sanitary vendor. All cleaned toilets are then taken back underground to their previous locations. This method of operation works on a small scale but will become economically and logistically challenging as the underground population scales up to 250 people.

Figure 1. Wastewater Treatment Plant (Left) and Restroom Enclosure with flush toilets (Right)

To eliminate this time-consuming process, SURF installed a treatment system like what's being used at the Davis Campus but on a larger scale. The system consists of prepackaged WWTP and strategically placed restrooms. The WWTP will be installed in the Grizzly area (green square in Figure 2) at the Ross Campus. The treatment plant will treat the waste from strategically placed bathrooms (red circles in Figure 2) to reduce the need for portable toilets. The focus of this RFP

will be for a contractor to purchase and install the piping network needed to connect the restroom locations to the WWTP and the treated discharge line from the WWTP.

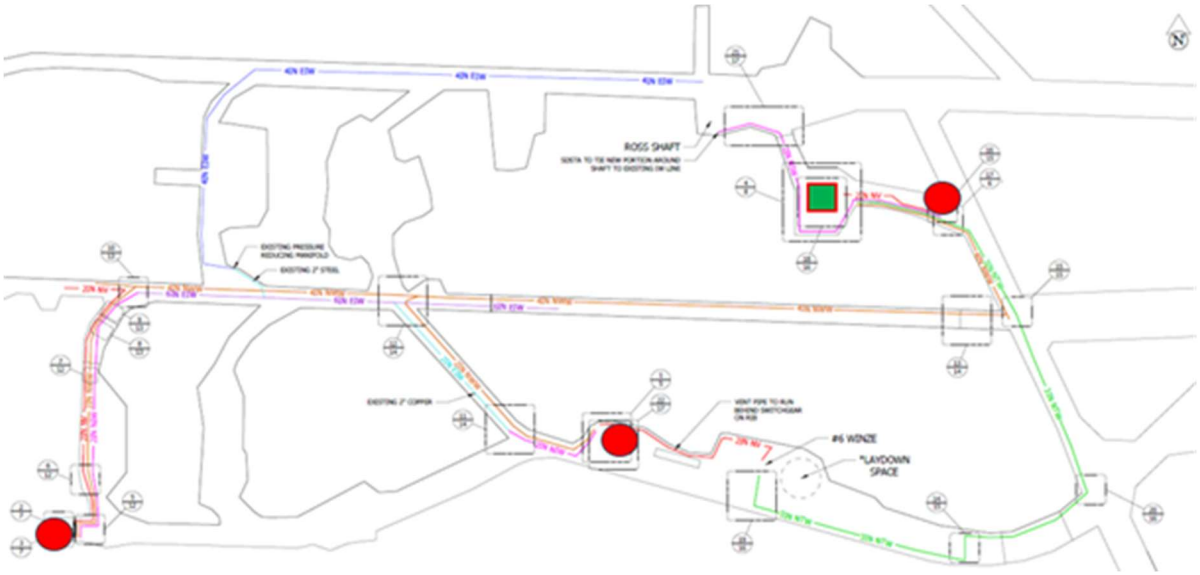

Figure 2: Treatment plant (green square) Ross Campus Restroom Locations (red circles)

3. EXISTING CONDITIONS:

The Grizzly area, restroom locations and connecting drifts (Figure 3) are the primary work areas for this project. More photos of the work areas are provided in Attachment G. These photos are provided to give bidders a general idea of the work area for this project. These photos are provided for information purposes only. The actual work area conditions may change slightly depending on the construction activities that are happening at the time of construction.

Figure 3. (left to right) Grizzly area, Restroom locations, Connecting drifts

General access and site conditions are summarized by the following:

Offeror Parking:

Both the Ross and Yates shafts provide access to the 4850L Grizzly area. For this project, the Ross shaft will be the primary access for the contractor. Parking and space surrounding the Ross shaft is limited by all the existing construction activities happening on the surface and underground. The Offeror will be required to shuttle their workers to/from the Ross using the

following arrangement:

- Offeror employees park their personal vehicles in the administrative parking lot.
- Employees bored a shuttle/personal vehicle (provided by the Offeror)
- Shuttle transports workers (approximately 1 mile) to the Ross shaft
- Offeror parks shuttle in designated parking area and walks approximately 200 ft to the Ross shaft for transportation underground.

The shuttle route and designated parking areas are shown in Attachment G. The Offeror will be required to leave the keys in the shuttle so it can be moved by SDSTA if needed.

General Access, Work Area, & Sanitation: Access to the 4850L Grizzly area is provided by the Ross shaft. The Grizzly area is approximately 400 feet from the Ross Shaft. Restroom locations are approximately 1500 feet from the shaft. Additional photos of the access route and work areas are shown in Attachment G. The specific areas include:

- 4850L station near the Ross shaft
- #6 Winze restroom location
- Refuge chamber restroom location
- Drifts leading to the restroom locations
- 4850L drift leading to the Grizzly area
- Grizzly area WWTP and restroom location

SDSTA has portable toilets on the 4850L. The contractor will be allowed to use these portable toilets for the duration of the project. The toilets are pumped weekly.

Ross Shaft Access & Working Near the Shaft: The offeror will be required to work within the Ross cage times. The following cage time is available for offeror access to the 4850L and associated work areas: Cage time down 7:30, Cage times up 4:30pm.
All portions of work requiring use of the conveyance will be performed by SDSTA crews. The offeror will be required to coordinate equipment deliveries with SDSTA. The general workflow of this arrangement will be as follows:
Offeror Load Transportation to/from the 4850L Station area

- Offeror notifies/coordinates with SDSTA for load movement
  - 1 day notice for material/load transportation that fit inside the cage
- Offeror delivers loads to the Ross Complex (near headframe/station)
- SDSTA loads conveyance with offeror's supplied loads
- SDSTA delivers loads at least 20 ft from the Ross Shaft (headframe/station)
- Offeror transports loads where needed (Grizzly area, restroom locations, and connecting drifts). This will require the offeror to provide a cart/trailer for the supplies and a method for transporting/handling them around the 4850 such as a small diesel ATV, trailer, and walk behind skid steer (MT100) or other load handling equipment that can fit on the cage. The contractor is ultimately responsible for determining the equipment that is needed.
- For all cases, the offeror will be responsible for ensuring that the transported loads are packaged/bundled in manageable individual lots that can be easily loaded on the cage. SDSTA will not repackage contractor loads for transport underground.

Material/Equipment Access: The offeror will be required to provide the equipment needed to install the piping network. This may include the following:

- Personnel lift such as an all-terrain scissor lift to access heights up to 15ft.
- Material handling/staging equipment such as a Bobcat MT100 walk behind for handling/staging materials underground.
- Transport equipment such as a small diesel ATV and trailer to move materials from the Ross shaft to the staging/work areas

Additionally, all materials & equipment brought underground must fit inside the Ross cage. These limits are:
Ross Cage Limits:

- Height = 122 inches
- Width = 53 inches
- Length = 144 inches
- Max Load = 13,500 lbs

The above equipment is provided as examples only the offeror is ultimately responsible for determining and providing the equipment needed for this project.

Refuge Chamber Work Area Requirements: The refuge chamber at the 4850L (Figure 4) is designed to shelter up to 250 people in the event of an underground emergency. The refuge chamber must continue to function and be ready for use while the contractor is working in this area. To ensure refuge chamber functionality while the contractor is working in this area the contractor shall:

- Set up their fabrication/staging area outside of the refuge chamber keeping most of their tools and supplies from cluttering the refuge chamber. This will require the contractor to make multiple trips in/out of the refuge chamber while cutting/hanging pipe.
- Have an immediate temporary method for sealing pipe penetration holes made in the block walls, which are required for this project, in the event the refuge chamber must be used during construction. The method of sealing must prevent smoke from entering the chamber. This could consist of fire stop putty or covers.

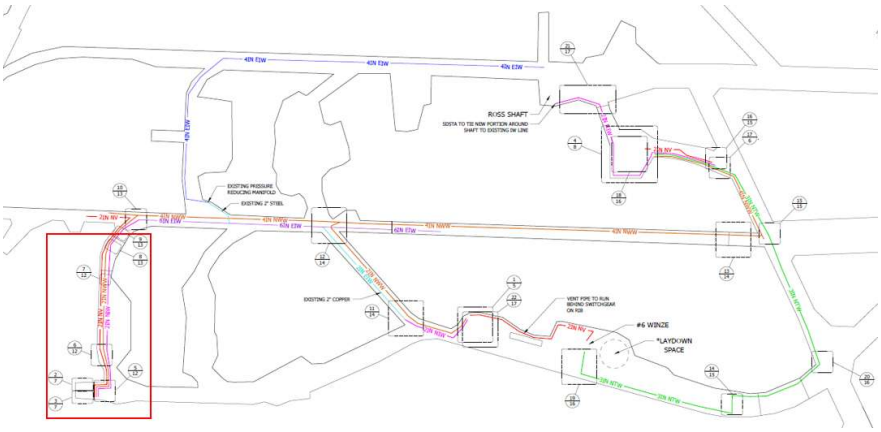

Figure 4: Refuge Chamber Area (Red Rectangle)

4. SCOPE OF WORK:

The scope of the Ross Campus Restrooms - Piping Network Installation is detailed in ATCH F & G. The above plans should be used in conjunction with the summarized list of activities below for the overall project scope:

- Item A: New Industrial Water Piping
  - Offeror to supply and install HDPE piping for industrial water
  - Includes all fittings, connections to equipment, materials, and hangers/supports
  - Includes offeror coordinating tie ins with SDSTA for water outages
- Item B: New Treated WWTP Discharge Piping
  - Offeror to supply and install HDPE piping for treated water
  - Includes all fittings, connections to equipment, materials, and hangers/supports
- Item C: New Restroom Waste Piping
  - Offeror to supply install HDPE piping for restroom waste as shown in
  - Includes all fittings, connections to equipment, materials, and hangers/supports
- Item D: New Restroom Vent Piping
  - Offeror to supply and install HDPE piping for venting
  - Includes all fittings, connections to equipment, materials, and hangers/supports
- Item E: Ancillary Project Work
  - Equipment procurement noted on the drawings (refuge chamber toilet, sinks etc).
  - Wall penetrations called out on the drawings
  - Any mobile equipment or other equipment needed
- Note all mobile equipment must be Teir 4 diesel
- Item F (Option): Accelerated Schedule
  - Same scope as items A-E above except the contractor completes the work within 60 days from notice to proceed. If this timeline isn't possible, propose the shortest duration available.

The offeror shall review the cage dimensions carefully to ensure their materials and equipment can fit in the cage or be brought down in pieces and assembled underground. All piping must be less than 144 inches in length.

5. TECHNICAL EVALUATION CRITERIA:

A best value selection process will be used to award this contract. The selection criteria are listed below. Selection will be made based on tradeoffs between price and non-price evaluation criteria.

a. The offeror's total project package compared to the technical requirements defined in ATCH F & G.

b. Specialized experience and technical competence in:

- Commercial installation of HDPE piping up to 4inches in diameter
- Commercial plumbing

6. SUBMISSION REQUIREMENTS:

Submission Requirement: General

Proposals should be provided in digital format as a pdf file with standard letter size format. Note that there is a 30-page limit for proposals. Proposals must contain the following:

- Locations (addresses) of the following:
  - Company headquarters
  - Nearest branch office
- Primary points of contact for the proposed team.
- Personnel specific organization chart. Note that the named subcontractors and outside associates or consultants must be used for project execution, and any change must be approved in advance by the SDSTA.
- Any exceptions to the draft contract, terms and conditions, or other RFP materials.

Submission Requirement: Similar Projects

Describe at least two similar commercial HDPE plumbing projects that the bidder has completed within the past five years. Example projects should be for commercial areas like SDSTA's (overhead installation in an industrial environment) or more complex projects showcasing the offeror's capability to perform this work. Examples should note the customer, contact info (name, phone, email), location, and date of the project and extent of the services provided or length of the established relationship.

Submission Requirements: Installation Process

Provide the following descriptions/narratives to help SDSTA understand the offeror's proposed installation plan and how that plan is adequately captured in their project cost and schedule.

Provide a description of how the offeror plans to install this piping network and equipment knowing all items must be shipped in pieces and assembled underground. The description shall include:

a. Offeror's plan for transporting materials from the Ross shaft station at the 4850L to the work areas and handling the material
b. Offeror's plan for installing pipe in areas up to 15 ft off the ground
c. Offeror's plan for connecting pipe sections together (fusing, quick couplings, etc)
d. Anticipated equipment needed for the installation.
e. Any other key means and methods.

Submission Requirement: Safety

Provide a description of the safety programs of contractor personnel and subcontractors who would be performing work at SURF under this contract. Demonstrate the firm's understanding and awareness of all ESH issues that will be present on this project.

- Include safety records for the past three years (incident/injury records, OSHA 300 logs, and EMR data) of contractors and subcontractors who would be performing work at SURF under this contract.

Submission Requirement: Quality Control & Testing

Provide a description of the QC programs of contractors and subcontractors who would be performing the work under this contract. QC manuals will not count toward the page limit.

Submission Requirement: Schedule

Proposed schedule/work plan. Offerors shall provide the basic schedule, outlined below, and specific number of calendar days required for project completion after Notice to Proceed (NTP) on Attachment E (SDSTA bid sheet):

- Lead time
- Mobilization
- Installation
- Demobilization
- Project Complete (total days)

Total days will be used to establish the contract completion date.

Submission Requirement: Price

Provide a project pricing breakdown using the SDSTA bid sheet (ATCH E). The offeror's fixed price shall constitute full payment for the work, materials, services, quality control testing, other items required, and include all applicable federal, state use, sales, and local taxes, duties, permits, and all the Subcontractor's other obligations related to such work.

Submission Requirement: Mandatory Site Visit

All offerors are required to attend an onsite pre-proposal conference & site visit June 5, 2025 from 7:15am - 12:30pm MT at the SURF, 630 East Summit Street, Lead South Dakota. Pre-registration is required. Email mnisly@sanfordlab.org by 2:00pm on June 3, 2025 to receive instructions and directions. Only companies represented at the pre-proposal conference will be eligible to submit proposals. Contractors' subcontractors are encouraged, but not required, to attend.

7. DELIVERABLES:

Refer to this document and the technical specifications for deliverables required after contract award. While not a complete list, key deliverables include:

- Quality Control & Testing Programs
- Test Reports
- As Built Drawings (if applicable)
- O&M Manuals and Warranties
- Training records for all owner training (if selected).
- Copies of training materials developed and used for owner training (if selected).

8. PROPOSALS DUE:

Offerors should submit an electronic copy (pdf format) of the proposal no later than 3:00 p.m. on July 1, 2025, to mnisly@sanfordlab.org. Late submissions will not be accepted.

Questions are due by 3:00pm on June 17, 2025.

Questions & Answers will be emailed to all prospective offerors and posted to the sanfordlab.org website no later than 4:00pm on June 24, 2025

Proposals shall be valid for 60 days. The proposal 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 offerors by SDSTA.

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

Revision History

Rev	Date	Section	Paragraph	Summary of Change	Authorized by
02	12/17/2024	NA	NA	Change document number and minor typo corrections	CCR 1043
03	3/19/2025	8	NA	Added proposal expiration guidance and addressed minor issues from internal audit	CCR 1085