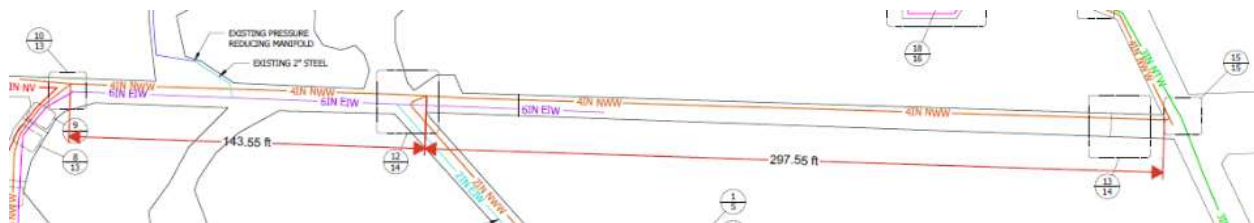


**QUESTIONS & ANSWERS**  
**RFP 2025-07**  
**4850L Restroom Pipe Network**  
**Due 6/24/2025 (SDSTA Response in Blue)**

The South Dakota Science & Technology Authority (SDSTA) has received the following questions regarding the posted RFP at the Sanford Underground Research Facility (SURF) and answered the following questions:

1. Can you or someone on your team provide a version of the plan that is unrestricted? The drawing file available has restrictions that do not allow markups or scaling ability. Also, can you provide a visual scale on the drawings so that I am able to verify the accuracy? There aren't any dimensions shown on the plans for me to check?
  - Here are the unlocked drawings (attached). As for the scale, each sheet lists a scale on the bottom right corner. Example sheet 1 of 17 says scale 1in = 40 ft. On the PDFs to get measurements, the bidders can do the following:
    - Go to Tools "Measure"
    - Right click on the drawing and select "change scale ratio and precision"
    - Set the scale ratio to what's called on the drawing or view they are looking at (ex for Sheet 1 of 17 scale ratio 1in = 40 ft)
    - Grab measurements on the drawing as needed
  - The pipe identification table with lengths were generated from the CAD drawings so if each of these paths are traced, the total footage listed will match what's measured on the PDF.
  - Thank you but in order to get an accurate takeoff for the anchors hangers I need to be able to determine the lengths of each run not the total length of each system.
  - If they followed the steps above, they should be able to get the individual lengths of any section they need on the drawings. I am attaching a screenshot of two measurements I grabbed randomly (143.55 ft & 297.55 ft in the image below) but these could be taken from any point they wish on the drawings. I think this is what they are looking for but let me know if we are not on the same page.



2. For demolition, are Contractors allowed to use oxygen-acetylene torches or other pieces of equipment that might require a hot work permit?
  - Contractors are allowed to use oxygen-acetylene torches, cutters, grinders, welders etc. on this project. The contractor will be required to work with SDSTA and establish a hot work permit before the project begins that lists the hot work tools needed and fire prevention precautions that will be taken while these tools are being used.

3. Is there WWF under the shotcrete on the ribs and back that might interfere with drilling/placing anchors and pipe supports?
  - Yes, in the shotcrete areas see question 6 below for more information.
4. Is there access to power for cabled equipment in the drifts? If so, where are outlets located in relation to the work areas?
  - Yes and no. The refuge chamber area and 6 winze restroom area have 120-volt outlets for corded tools. However, all other areas associated with this project do not have outlets. If the contractor plans to bring down large battery electric equipment, like a man lift, SDSTA will provide a place for the contractor to charge this equipment in the 6 winze laydown area.
5. Are there pull test submittal requirements for embedment anchors? If so, what is the testing criteria?
  - Yes. SECTION 03 2200 lists a requirement for 25% of the anchors be pull tested to 2000 lbs. The contractor shall plan to submit a pull test data sheet for the tested anchors. This does not have to be performed by a third party as long as the contractor performing the pull test is experienced with the task and the equipment is calibrated.
6. Should the Contractor have any plans to remove any existing ground control such as anchors, WWF or shotcrete, to place anchors for the pipes?
  - The contractors underground now are installing a lot of anchors in the shotcrete. The feedback from their installation is that the contractor shall have tools to drill through WWM and rock bolt plates if encountered. If they hit a bolt, they move the hole slightly to avoid the bolt as there is no way to drill through the bolt. The contractor is welcome to ask KAJV what they use so they don't need to re-invent the wheel. Please contact Glen Tonack 1-402-206-8933 for detailed information on how the contractor is currently installing anchors into the shotcrete, what equipment they are using and how they are pull testing them.
  - For areas that don't have concrete, the contractor shall plan to work with SDSTA on establishing the optimal path of hangers when traveling through legacy utilities and legacy tunnel areas. All these areas have a combination of no ground support or exposed rock bolts with 4" aperture welded wire mesh. The contractor shall plan to install pipe supports/hangers over the top of the existing mesh and adjust anchor placement accordingly.
7. Restroom system requirements in spec section 23 2113 refers to metal piping. Will SDSTA require metal piping in the restrooms instead of HDPE?
  - No. SDSTA wants everything for this project to be HDPE. This section referred to the small amount of metal piping and fittings that are coming directly off the booster pumps and the tie in locations on the waste line before transitioning to HDPE as shown on the drawings.
8. What is the material requirement for piping in the restroom for the 1" and 1.5" pipe? Spec Section 23113 only has schedule for 2" and 4".
  - The 1" and 1.5" pipe shall meet the same spec as the 2" pipe (HDPE DR11). The contractor shall plan to add extra supports to these smaller lines in the event they sag between supports when full of water.
9. Can SDSTA provide the detail for the reduction of the NV line (2" to 1.5") and NIW line (2" to 1") from the drifts to the refuge chamber restrooms and booster pump?

- For the NV line 2" to 1.5" – the contractor shall install two 2x2x2 DR11 butt fusion tees on the NV line that is installed on the main rack (one for each restroom at the approximate location of the planned block wall penetration). The branch can point straight to each restroom and install a 2x1.5" butt fusion reducer.
    - Note the NV line can be all 2" if that is cheaper/easier for the contractor. The contractor must still connect this line to the toilet and sink vents.
  - For the NIW line (2" to 1") – The contractor shall install two 2x2x1 DR11 butt fusion reducing tees and two 1" 90s on the NIW line (one for each restroom at the approximate location of the planned block wall penetration). The branch can point straight up/down depending on the elevation of the rack to the hole penetration with the 90 directing the flow to the restroom penetration. The 2" line can continue on the overhead rack to the wall above the booster pump and transition down to the dead-end water drop using a 2" 90 and 2"x1" reducer.
  - For booster pump vent and pumped discharge (2" to 2") – The contractor shall install 2" DR11 butt fusion 90s on each overhead line (one for the pump vent and one for the pump at the wall to transition the lines to the booster pump below).
  - The 90 elbow coming off the pump shall be braced against the rib in all locations to prevent movement during pumping.
  - The contractor is allowed to use HDPE to Groove couplings and fittings for the above bullets as well.
10. Does SDSTA have preference on round vs elongated bowl shape for the Ascent II pumps?
- Please provide the elongated bowl shape.
11. We've been notified by material suppliers that 4" DR13.5 is uncommon for standard HDPE, with DR11 being the more standard size. Is 4" DR11 an acceptable alternative?
- Yes. DR11 is an acceptable alternative for the 4" line.
12. What are the material types for Waste, Vent and Water Inlet piping for the SDSTA procured restrooms?
- The waste is a 4" PVC female socket. The restrooms use a mechanical vent already installed from the factory and don't need connecting to. The water inlet piping is a ¾" garden hose thread female end. See the attached shop drawings for the SDSTA restrooms and the attached photos.
13. Is there a min/max distance from the ribs for the rib mounted hangers to be hung?
- SDSTA requests that the hangers be placed as close to the rib as possible (within 3 inches from rock face) to prevent the threaded rod from bending when the HDPE is secured to it. If the profile of the rock dips/bows substantially in an area where the support is to be placed, then the contractor shall support the span with additional Unistrut bracing or additional threaded rod where the hanger contacts the rock along the span to prevent the threaded rod from bending.
14. What type of rock will the anchors be installed in? Can you provide the type of equipment/tool other contractors use to drill into the rock formation and what an estimated penetration rate is for that type of tool/equipment?

- Review question 6 above and please contact Glen Tonack 1-402-206-8933 for detailed information on how the contractor is currently installing anchors into the shotcrete, what equipment they are using and how they are pull testing them.
15. Can Electric lifts and equipment be used? Is there capacity in existing electrical circuits for charging?
- SDSTA will provide a place for the contractor to charge this equipment in the 6 winze laydown area. The contractor will be responsible for making sure the equipment can traverse to/from the charging area.
16. What are allowable extended working hours so that we can price the alternate?
- The extended working hours available for the accelerated schedule option are a maximum of 7:30am cage down / 6:30pm cage up.
17. SDSTA note to contractors – Read and review amendment 1 that was sent earlier. The contractors must core through the blast door bulkhead and have a means of capturing drilling dust when installing anchors in the utility drift as noted in the amendment.