

Scope of Work
**On-Site Sandblasting,
Priming & Painting
Yates in Place Conveyances**
Sanford Underground Research Facility, Lead, SD

RPB Posted:	July 30, 2020
Mandatory Site Visit	August 6, 2020 (RSVP by end of day August 4)
Written Questions Due:	August 13, 2020 2:00 p.m.
Question & Answers Posted:	August 18, 2020 end of business
Proposals Due Date:	August 24, 2020 2:00 p.m.

1. REFERENCES.

- This task order will be issued a Service Contract **#2020-23**

2. OVERVIEW. South Dakota Science and Technology Authority (SDSTA) has several shaft conveyances that require surface cleaning and painting to preserve structural integrity and to provide corrosion protection. The Yates shaft is a wet shaft that requires constant wetting of the timber sets to preserve the wood structure. As a result, the service environment for any steel structures and conveyances is extremely harsh. There are four Yates conveyances requiring sandblasting & painting services:

- South Cage
- North Work Deck
- South Skip Bonnet
- North Skip Bonnet

This Scope of Work describes the cleaning and recoating services required for the South Cage and North Skip Bonnet only. Both conveyances are currently installed and in service in the shaft. SDSTA will secure and station both conveyances at the collar elevation inside the Yates headframe for access to a sandblasting/painting contractor.

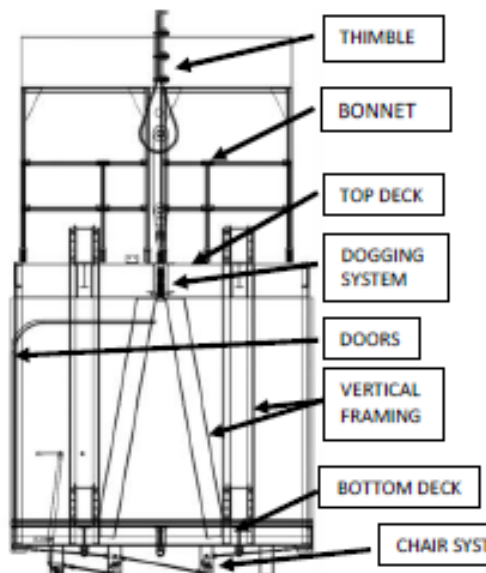
Removal of the conveyances from the shaft is possible, but not desired by SDSTA due to the level of effort and subsequent shaft downtime that will occur as a result of removing the conveyances. Contractors are to quote the project assuming the conveyance will remain in place in the shaft for the performance of the work. Repositioning the conveyance (up or down) may be facilitated for improved equipment access during the project.

3. DESCRIPTION OF WORK. SDSTA desires that a commercial sandblasting and painting contractor provide steel cleaning and painting services to refurbish existing, in-place Yates conveyance structures during the Fall of 2020 (ie October through early December).

- Please quote each conveyance separately, assuming for a base case that both will be done in the same timeframe if refurbishment of both conveyances is awarded (i.e. one mobilization).
- Also provide an optional cost for a separate mobilization should one of the conveyances not be made available during the desired timeframe.
- Provide an anticipated timeline/duration to perform the cleaning/painting services for each unit.
- Assume the South Cage is the priority, the North Skip secondary. The South Cage base case work schedule is to be a single shift overlapping with an existing Yates maintenance 4-day weekend. (Yates Maintenance Weekend Schedule attached for reference). The North Skip work has less impact shaft access and may therefore be performed on single shifts during the week.
- It is desired that shaft access downtime be minimized. Therefore, the Contractor is to propose an alternate schedule and cost to work two shifts (it two 10-hour shifts over a Yates Maintenance 4-day weekend) on the South Cage to reduce the overall number shaft access down-time days.

SOUTH CAGE

The South Cage may be divided into five main sections, listed from the top down and illustrated in the figure below: *Reference OJ Industries Inc South Cage general arrangement drawings attached to this RFP package.*



Thimble: The connection area to the hoist rope.

This area will not be sandblasted and painted.

Bonnet/Top Deck: This “umbrella” cover over the Top Deck was added by SDSTA post initial cage fabrication to provide fall protection for personnel working on top of the cage. This area is to be sandblasted and painted.

Dogging System: This emergency cage stop-arrest (braking system) assembly is a series of cams, pins and springs that will not be sandblasted and painted. This assembly is depicted in more detail in the OJ Industries GA-03 drawing.

Vertical Framing/Cage Walls: This is the main box/cage section of the conveyance which is to be sandblasted and painted. The aluminum roll-up doors and rails are not to be sandblasted/painted. Contractor to remove or otherwise protect the roll-up doors/rails from sandblasting/painting activities.

Bottom Deck/Chairing System: This is bottom section of the cage assembly. The entire bottom structure and chairing system will require sandblasting and painting.

SDSTA desires that this structure be sandblast cleaned per SSPC-SP10 / NACE 2 Near-White Blast cleaning and then recoated per the attached FKC-Lake Shore paint specification. Final coat to be Vermillion Red for the entire structure except for any items that are currently painted yellow which are to be coated Safety Yellow.

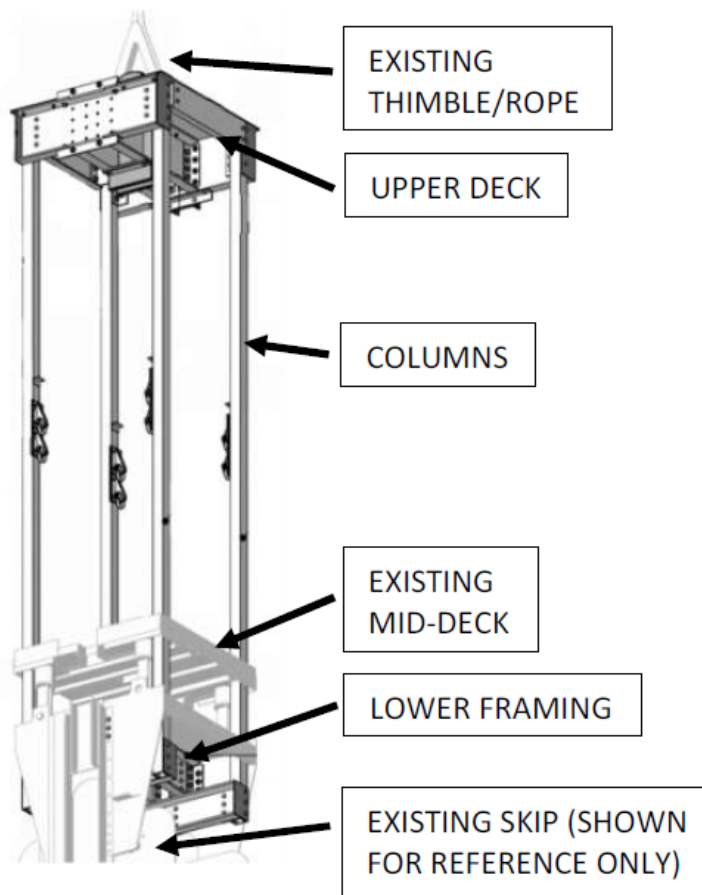
Coating Specification is as follows:

Heavy Service Application

Zinc Primer/Base – PMC AMERCOAT 68HS Zinc Rich Epoxy Primer	2.0 - 5.0 mils
Primer/Base – PMC AMERCOAT 240 Universal Amine Epoxy	4.0 – 6.0 mils
Top Coat – PMC PSX 700 Engineered Siloxane	3.0 – 7.0 mils

NORTH SKIP BONNET

The existing North Skip Bonnet is currently in service in the Yates shaft. *Reference Albertson Engineering Inc drawings attached to this RFP for dimensions and notes.*



Working from the top down:

Thimble/Rope: The very top of the skip bonnet is the area where the skip bonnet is connected to the hoist rope. This area is not to be sandblasted and painted.

Upper Deck & Columns: This entire section is to be sandblasted and painted.

Mid-Deck: This entire section is to be sandblasted and painted.

Lower Framing: This entire section is to be sandblasted and painted. The skip body itself is not to be sandblasted and painted.

The current structure is coated with two coats of red oxide primer (2-3 mils).

There were no current photos of the conveyance available at the time of this RFP.

SDSTA desires that this structure be sandblast cleaned per SSPC-SP10 / NACE 2 Near-White Blast cleaning and then recoated per the attached FKC-Lake Shore paint specification. Final coat to be Vermillion Red for the entire structure except for the tie-off points mounted to the four vertical columns which are to be coated Safety Yellow.

Coating Specification is as follows:

Heavy Service Application

Zinc Primer/Base – PMC AMERCOAT 68HS Zinc Rich Epoxy Primer	2.0 - 5.0 mils
Primer/Base – PMC AMERCOAT 240 Universal Amine Epoxy	4.0 – 6.0 mils
Top Coat – PMC PSX 700 Engineered Siloxane	3.0 – 7.0 mils

Debris from the sandblasting efforts for both conveyances are to be retained and collected by the Contractor and turned over to SDSTA for disposal by SDSTA. Sandblasting media to be Black Diamond brand – “Black Diamond” coal slag or SDSTA approved equal. Safety Data Sheets (SDS) to be provided to SDSTA prior to arrival on site.

Contractor to plan to contain a majority (ie 95+ percent) of the spent blasting media via tarps/tents or other means, and gather/clean-up for turnover to SDSTA for disposal. SDSTA will provide the containers for the spent media; Contractor to contain, gather, and load the containers. Please provide an estimated quantity/volume of material expected so SDSTA Environmental may plan container supply.

It is anticipated that lead concentrations in the existing conveyance coating to be very low based upon previous sampling of similar units (i.e. below 20 mg/kg), however conveyance-specific paint sample lead test data will be provided during the Mandatory Site Visit meeting or during the Question/Answer portion of the RFP timeline.

4. REFERENCES/PICTURES:



Photo #1: Yates South Cage Bonnet area with Thimble attachment to hoist rope.



Photo #2: Yates South Cage with doors open.



Photo #3: Yates South Cage with one of the roll-up doors closed.



Photo #4: Yates South Cage side view. Conveyance is in the background, the Yellow perimeter guard is not part of the SOW.

5. ATTACHMENTS

- OJ Industries Inc General Arrangement Drawings – 5 pages
- Albertson Engineering Drawing Set for the Skip Bonnets – 3 drawings
- FK Lake Shore Painting & Cleaning Specification and paint product cut sheets.
Document QD05-0001, Rev 1 – 30 pages
- Yates Shaft Maintenance Weekend calendar 2020 – 5 months (Aug through Dec)

Submission Requirements

All bidders are required to attend an onsite pre-proposal conference August 6, from 9:00 a.m. - 11:00 a.m. MT at the Sanford Lab, 630 East Summit Street, Lead South Dakota. Pre-registration is required email mbaumann@sanfordlab.org by close of business August 4th to receive instructions and directions. Only companies represented at the pre-proposal bid conference will be eligible to submit proposals.

Written Questions are due by August 13th, 2020 by 2:00 p.m. email to mbaumann@sanfordlab.org. Only companies represented at the pre-proposal bid conference will be eligible to submit bids.

Questions / Answers will be emailed to all prospective bids and posted to the sanfordlab.org website no later than August 18, 2020 end of business.

Bidders should submit an electronic copy (.pdf format) of the proposal no later than 2:00 p.m. August 24, 2020, to: mbaumann@sanfordlab.org.

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 bidders by SDSTA.