

FIWP: STRUCTURAL STEEL

Project Number:	1000		
FIWP number & revision number:	FIWP 8120. 121		
All related CWP and revision number:	CWP-8120-2		
Area/System/SubSystem/Discipline:	Area 8120 - Structural		
Work will be performed : Greenfield			
Prepared by:	Ron Planner	Date:	1 Feb 06
Revised by:	Ron Planner	Date:	15 Feb 06
Issued by:	Iron Mike, Structural Superintendent	Date:	22 Feb 06
Released by:	Boss Man Bill, Area Superintendent	Date:	1 Mar 06
Assigned to:	Sam Oilsand, Foreman	Date:	15 Mar 06
Reason to Recall:		Date:	
Completed by:	Wil Engineer, Structural Field Engr	Date:	7 Apr 06

Scope:

Install bridge crane steel in the Compressor Shelter and access stairway from the Compressor Shelter to the east/west pipe rack. The Compressor Shelter is located in the NE corner of Area 8120. The bridge crane steel runs the entire length of the Compressor Shelter along the north and south walls at approximately elevation 85'. The stairway is at the west end of the Compressor Shelter and runs plant north to the top of the pipe rack. The stairway starts at elevation 85' and goes to elevation 102' at the top of the pipe rack. The platform at elevation 85' is approximately 31' feet above the existing grade with clear access from the west side of the Compressor Shelter.

Deliverable:

Completed installation of the bridge crane steel in preparation of the bridge crane arrival on 15 April 06. Complete the stairway installation to allow the ongoing pipe and electrical installation at elevation 102' of the east/west pipe rack.

Activities:

This work represents two (2) weeks of work for the crew.

The structural steel crew will shake out the steel for the described work and stage the materials for delivery to the west end of the Compressor Shelter. This will take two days. The erection team will commence installing approximately 15 tons of bridge crane steel starting at the east end north side then moving to the south side. This will be time consuming work due to the congestion and amount of work that will be performed from manbaskets.

The bolt up crew will start the preassembly of the stair stringers and treads along with the landing platforms at ground level on the west end of the Compressor Shelter. All handrails and grating will be installed at grade.

The bolt up crew will move to the north side bridge crane steel once the erection crew moves to the south side. We will have to watch the movement of the manlift's so as not to interfere with the two work activities on either side of the shelter.

Once erection is complete in the Compressor Shelter the erection team will move on to the installation of the stairway and landing platforms.

A reminder that the sheeting contractor will be working on the outside of the north and south walls while we are doing our erection on the inside.

Resources:

Equipment: (See Construction Equipment Schedule for details)

3990T Crane; 65T Mobile; 2 – 80 foot manlift; 3 – flatbed trailers(part time); air compressor; 2 – welding machines; 4 – 50 retractable connectors

Tools:

3 – impact guns; 1 – mag drill; 2 – 20' extension ladders; 200' welding lead; hammer wrenches – 1 ¼", 1 5/8"; selection of wire slings and shackles;

Materials:

All steel is available in the steel laydown yard reference grid 12B ; bolts and nuts; 3X3 shims; grating clips; bridge crane rail hold down brackets; all these items are at the warehouse bagged and tagged reference location row 2 shelf B3.

1/2" inch wire rope and Crosby clips

Labour:

1 – working foreman; 4 – journeyman IW; 2 – apprentice; 2 – helpers; 2 - operators

Work Instructions:

All manlift operators must have project certification.

Several pieces of equipment are installed at the east end of the building and must be protected from weld splatter and falling tools. Use scaffolding frames with 5/8 inch plywood and fire blanket to cover the equipment.

Red flag the selected areas of overhead work.

Work closely with Jim Siding, foreman for GOOD Enclosures INC, working on the outside of the north wall of the Shelter.

Safety Equipment:

Barricade tape; fire extinguishers; safety harness and lanyards;

Drawings:

Compressor Shelter -	Isometric View	Dwg 8120-stru-112 rev 3;
-	Framing Sheets	Dwg 8120-stru-113 rev 2 Sheets 1 to 5
-	Elevations	Dwg 8120-stru-110 rev 2 Sheets 1 to 4
-	Stair Sections	Dwg 8120-stru-114 rev 1
-	Sections & Details	Dwg 8120-stru-115 rev 2 Sheets 1 to 3

Vendor Info.

Big Steel Fabricators (BFS) have included all erection drawings with appropriate piece marks. They have supplied nuts and bolts with a 10% bump. A set of erection drawings are attached and the nuts and bolts are bagged and tagged in Bin 72/ Row 6 at the

main warehouse.

Special Conditions:

We will be working at heights for a lot of this FIWP so take time in the morning and after lunch to reinforce '**working at heights**' safety standard.

Permit required when access to Compressor Shelter is blocked during setting of crane rails.

The 2 – apprentice have just recently joined the project so they must be teamed with a journeyman while working at heights.

Quality Control:

All bolts are to be tortured per the project spec 8120-stru-S2 rev 1. Specs including weld procedures are attached.

Notify Wil Engineer for a spot check on bolt tensioning. CYY Crane Company will inspect all crane rail supports prior to rail installation.

Interdependencies:

This work package is dependent on the availability of 2 – 80' manlifts which are currently being used by electricians running cable tray. One week prior to start of work confirm the availability on the equipment and order short term rental if electrical work is not complete.

Risk Planning:

At this time there is no known risk that would prevent the work package from proceeding.

Reverse Punch List (Error Proofing):

We have recently experienced some quality issues related to bolt tensioning. After each bolt is tensioned the nut will be marked with a yellow mark to indicate the work is complete.

We have also had some issues with the BFS's piece marks not matching the deliver inventory. Our experience has shown that the piece mark on the steel is correct and matches the erection drawing. If this occurs notify Jim Bob Receiver at the warehouse.

Lessons Learned:

To be added at completion of the job. Team meeting to be held with Ron Planner to capture the LL.

List of Attachments:

1. Three Week Area Schedule
 2. Construction Equipment Schedule
 3. Material Report
 4. Weld Procedures
 5. Specs
 6. Access/Egress Permit
 7. Quantity and Unit Rate Report
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