

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-023556**Date Inspected:** 15-May-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai

|                                    |                                    |           |            |                                  |            |           |            |
|------------------------------------|------------------------------------|-----------|------------|----------------------------------|------------|-----------|------------|
| <b>CWI Name:</b>                   | Tian Lei, Liu Fa Wen, Chen Shigang |           |            | <b>CWI Present:</b>              | <b>Yes</b> | <b>No</b> |            |
| <b>Inspected CWI report:</b>       | <b>Yes</b>                         | <b>No</b> | <b>N/A</b> | <b>Rod Oven in Use:</b>          | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
| <b>Electrode to specification:</b> | <b>Yes</b>                         | <b>No</b> | <b>N/A</b> | <b>Weld Procedures Followed:</b> | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
| <b>Qualified Welders:</b>          | <b>Yes</b>                         | <b>No</b> | <b>N/A</b> | <b>Verified Joint Fit-up:</b>    | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
| <b>Approved Drawings:</b>          | <b>Yes</b>                         | <b>No</b> | <b>N/A</b> | <b>Approved WPS:</b>             | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
|                                    |                                    |           |            | <b>Delayed / Cancelled:</b>      | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
| <b>Bridge No:</b>                  | 34-0006                            |           |            | <b>Component:</b>                | OBG        |           |            |

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector R. Hernandez was present during the time noted above and conducted observations relative to the work being performed.

The QA Inspector randomly observed the following work in progress:

## Bay Number 1

Performed verification VT for the component(s) identified as OBG Bike Path Handrail assembly for component listed as BKR-NS-3-PP54, PP56, PP58, PP66, PP68, & PP10. This QA inspector signed green tag #16087.

This inspector noted that there are 30 Bike Path Handrail components identified as BKR-NS-3 that are in various stages of final pick-up and will be ready for final VT in the coming week.

This inspector noted that there are 29 Bike Path Handrail components identified as intermediate BKR-NS that are in various stages of final pick-up and will be ready for final VT in the coming week.

This inspector observed ZPMC personnel welding of components identified as Lift 13 & 14 lifting frame beam.

There are two unidentified traveler rails in this bay.

## Bay Number 2

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There are no components in this bay, nor any work being performed at the time this inspector was in this bay.

### Bay Number 3

There are 8 miscellaneous components identified as Corner Assembly CA3014 at the front of this bay, these components are identified with a Green Tag no. 14801.

### Bay Number 4

There are no components in this bay, nor any work being performed at the time this inspector was in this bay.

### Bay Number 5

The following Traveler Rail components are in this bay waiting further processing: 3022TR1-001, 3020Tr1-001, 3010TR1-001, 3025TR1-001(2), 3025TR1-002, 3023TR1-002, 3023TR1-003, 3011TR3-001, 3009TR1-001, and 3011TR3-016.

The following Bike Path components are in this bay waiting further processing: 26BK2-001, 26BK1-001, 29BK1-001, 29BK2-001, 29BK3-001, 30BK1-001, & 27BK1-001.

ZPMC personnel heat straightening Orthotropic Box Girder (OBG) traveler rail member identified as 3023TR1-001 weld no.(s) 001~011 & 3007TR2-001 weld no.(s) 032, 033, 035~041, & 043. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Tian Lei was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) no. HSR(B)-10291.

### Bay Number 6

There are 28 miscellaneous components identified as GGL-MQ-1504-2-2 at the front of this bay, no work is being performed on these components at the time this inspector identified these components.

### Bay Number7

The following Cantilever Box Bracket Assembly components are in this bay waiting further processing: BKSA21A-001, BKSA015-001 (NDT required on external welds), BKSA018-001 (NDT required on external welds) and 3011TR3-016.

ZPMC personnel heat straightening Orthotropic Box Girder (OBG) Cantilever Box Bracket Assembly member identified as BK3003-001 weld no.(s) 003 & 004. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Liu Fa Wen was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) no. HSR(B)-10354.

This inspector observed ZPMC personnel preparing the following Cantilever Box Bracket Assembly member components for final closure plate fit-up: BK3003-001, BK3002-001, & BK3004-001.

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This inspector observed Cantilever Box Bracket Assembly component identified as BK3001-001 welds 003 & 004 being ground and prepared for initial root pass welding.

FCAW welding of complete joint penetration welds located on Cantilever Box Bracket Assembly component identified as BK19-BKSA014-001 weld no.(s) 005~008. Welder is identified as welder no. 046706. The welding variables recorded by ZPMC QC identified as Mr. Liu Fa Wen appeared to comply with applicable WPS(s) WPS-B-T-2231-ESAB & WPS-B-T-2233-ESAB.

Bay Number 8

This inspector identified Sub Assembly components identified as Saddle Housing components SA7535 and SA7047 being trimmed to final dimensions by flame cutting in this bay today.

Bay Number 9

The following Traveler Rail components are in this bay waiting further processing: 3016TR1-002, 3016TR1-001, 3015TR1-002, 3014TR2-002, 3013TR1-002, 3013TR2-001, 3016TR4-001, 3013TR3-001, 3016TR2-001, 3014TR2-001, 3014TR1-001, 3014TR1-002, 3016TR4-002, 3013TR1-001 and 3013TR2-001.

This inspector observed 8 Bike Path Handrail components in various stages of fabrication waiting further processing.

This inspector observed the following traveler rail components identified as X4025A, X4025B, & X4025C waiting for final NDT inspection and verification.

ZPMC personnel heat straightening Orthotropic Box Girder (OBG) traveler rail member identified as 3009TR2-001 for weld(s) 001~011. Distortion appeared to be caused by welding. ZPMC Quality Control (QC) inspector identified as Mr. Chen Shigang was present to monitor the heat straightening process. The heat straightening appeared to comply with Heat Straightening Report (HSR) no. HSR(B)-10358.

The following components have been green tagged (#16083) and are waiting to moved to the next stage of fabrication: GGL-MQ-1770-X5001A-001~039-001, GGL-MQ-1770-X5001B-001~039-001, GGL-MQ-1770-X8523D-001-001(2), GGL-MQ-1770-X8523F-001-001, GGL-MQ-1770-X8523G-001-001, 002, & 003, GGL-MQ-1770-X8523H-001-001, 002, & 003, GGL-MQ-1770-X8523L-001-001, GGL-MQ-1770-X8523M-001-001, GGL-MQ-1770-X8523E-001-001, GGL-MQ-1770-X8531F-001-001, GGL-MQ-1770-X8531D-001-001, GGL-MQ-1770-X8531G-001~003-001, GGL-MQ-1770-X8531H-001~003-001, GGL-MQ-1770-X8531L-001-001, GGL-MQ-1770-X8531M-001-001.

The following components have been fit-up with machined plates are waiting for further welding: SA7021-001-005, SA7022-001-005,011, SA7023-001-002,012, SA7024-001-004, SA7501-001-007, SA7502-001-001, SA7503-001-005,007, & SA7504-001-003.

Unless otherwise noted above all items observed on this day appeared to be in general compliance with the

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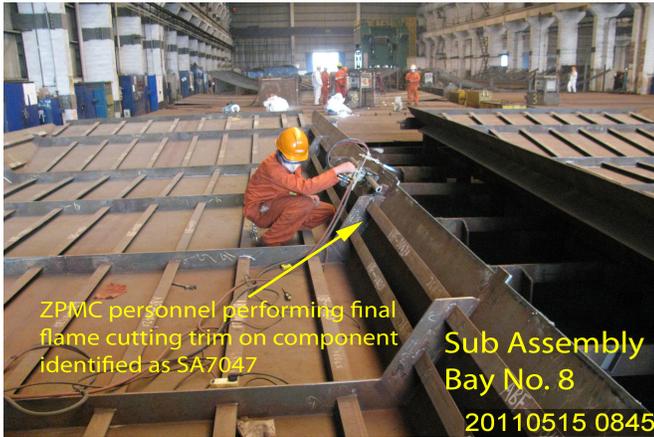
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applicable contract documents



## Summary of Conversations:

Pertinent conversations are included in the body of the report.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 1500-0042-02372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Hernandez,Rene

Quality Assurance Inspector

**Reviewed By:** Hall,Steven

QA Reviewer