

**DEPARTMENT OF TRANSPORTATION**  
 DIVISION OF ENGINEERING SERVICES  
 Office of Structural Materials  
 Quality Assurance and Source Inspection



Bay Area Branch  
 690 Walnut Ave. St. 150  
 Vallejo, CA 94592-1133  
 (707) 649-5453  
 (707) 649-5493

Contract #: 04-0120F4  
 Cty: SF/ALA Rte: 80 PM: 13.2/13.9  
 File #: 69.25B

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

**Location:** Changxing Island, Shanghai, P.R. China

**Report No:** NCR-000618

**Prime Contractor:** American Bridge/Fluor Enterprises, a JV

**Date:** 09-Jan-2010

**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

**NCR #:** ZPMC-0591

### Type of problem:

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b> Segment 12AE Side Panel
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** ZPMC performed Critical Weld Repair without the Engineer's approval for a Side Panel to be used in Segment 12AE

### Description of Non-Conformance:

During in-process observations of the side panels being fabricated in bay 14, the Caltrans Quality Assurance Inspector (QA) observed the following:

- ZPMC personnel perform a Critical Weld Repair (CWR) without the Engineers approval.
- The repair being performed was weld buildup (buttering).
- The amount of buttering is approximately 18mm, the allowable per code in this case is 4mm.
- The material is 16mm thick A709 Grade 345 Seismic Performance Critical Material (SPCM).
- The Side Panel is identified as SP3004C for Segment 12AE.
- The plate number is identified as PL-3052E.



### Applicable reference:

AWS D1.5/2002, Section 12.17.2: Noncritical weld repairs are generally welds to deposit additional weld beads or layers to compensate for insufficient weld size and to fill limited excavations to remove unacceptable edge or surface discontinuities, rollover or undercut, including: (7) Deposition of weld metal up to 10mm deep

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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or ¼ the base metal thickness, whichever is less to correct for length or joint geometry.

AWS D1.5 2002, Section 12.17.4: "All critical repairs to base metal and welds shall be approved by the Engineer prior to beginning the repair..."

**Who discovered the problem:** Subhasis Bera

**Name of individual from Contractor notified:** Sheng Qing Quan

**Time and method of notification:** 1500 hours, 01-09-10, Verbal

**Name of Caltrans Engineer notified:** Bill Howe

**Time and method of notification:** 2300 hours, 01-09-10, Email

**QC Inspector's Name:** Zhong Guo Hui

**Was QC Inspector aware of the problem:** Yes No

**Contractor's proposal to correct the problem:**

N/A

**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 Mazen Wahbeh,(818) 292-0659, who represents the Office of Structural Materials for your project.

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**Inspected By:** Carreon,Albert

Lead Reviewer/Task Leader

**Reviewed By:** Wahbeh,Mazen

SMR

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**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**

333 Burma Road  
Oakland CA 94607  
Tel: Fax:

**NON-CONFORMANCE REPORT TRANSMITTAL**

**To:** AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

**Date:** 10-Jan-2010  
**Contract No:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Dear:** Mr. Charles Kanapicki  
**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager  
**Subject:** NCR No. ZPMC-0591

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000581

**Reference Description:** ZPMC performed Critical Weld Repair without the Engineer's approval for a Side Panel to be used in Segment 12AE

The attached Non-Conformance Report describes an occurrence where the contractor did not comply with a requirement of the contract document as indicated below:

- Material or Workmanship not in conformance with contract documents.
- Quality Control (QC) not performed in conformance with contract documents.
- Recurring QC issue that constitutes a systematic problem in quality control.
- Non-Conformance Resolved.

**Material Location:** OBG **Lift:** 12

**Remarks:**

- During in-process observations of the side panels being fabricated in bay 14, the Caltrans Quality Assurance Inspector (QA) observed the following:
- ZPMC personnel perform a Critical Weld Repair (CWR) without the Engineers approval.
  - The repair being performed was weld buildup (buttering).
  - The amount of buttering is approximately 18mm, the allowable per code in this case is 4mm.
  - The material is 16mm thick A709 Grade 345 Seismic Performance Critical Material (SPCM).
  - The Side Panel is identified as SP3004C for Segment 12AE.
  - The plate number is identified as PL-3052E.

**Action Required and/or Action Taken:**

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

**Transmitted by:** Bill Howe Sr. Transportation Engineer

**Attachments:** ZPMC-0591

**cc:** Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

**To:** CALTRANS - SAS Superstructure  
333 Burma Road  
Oakland CA 94607

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000581

**Subject:** NCR No. ZPMC-0591

**Dated:** 17-May-2010

**Contract No.:** 04-0120F4  
04-SF-80-13.2 / 13.9

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000662 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has performed NDT after the weld built up and is submitting the NDT documentation to show the weld is acceptable.

ZPMC has performed NDT after the weld built up and is submitting the NDT documentation to show the weld is acceptable.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000662R00;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 23-May-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0591 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 23-May-2010



No. B-757

## LETTER OF RESPONSE

**TO: American Bridge/Flour**

**DATE: 2010-5-17**

**REGARDING: NCR-000618(ZPMC-0591)**

ZPMC is providing the NDT record shows the base metal repair is acceptable after buttering. For detail please refer to B-CWR1059. Based on this ZPMC is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000618(ZPMC-0591)

B787-MT-18404

A handwritten signature in black ink, appearing to be 'J. W.' or similar, written in a cursive style.

5/17/10



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
333 Burma Road  
Oakland CA 94607  
Tel: Fax:

## NON-CONFORMANCE REPORT TRANSMITTAL

To: AMERICAN BRIDGE/FLUOR, A JV  
375 BURMA ROAD  
OAKLAND CA 95607

Date: 10-Jan-2010

Contract No: 04-0120F4  
04-SF-80-13.2 / 13.9

Job Name: SAS Superstructure

Document No: 05.03.06-000581

Dear: Mr. Charles Kanapicki

Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Subject: NCR No. ZPMC-0591

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Transmitted by: Bill Howe Sr. Transportation Engineer

Attachments: ZPMC-0591

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao  
File: 05.03.06

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City: SF/ALA Rte: 80 PM: 13.2/13.9  
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**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT**

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Report No: NCR-000618

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 09-Jan-2010

Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

NCR #: ZPMC-0591

**Type of problem:**

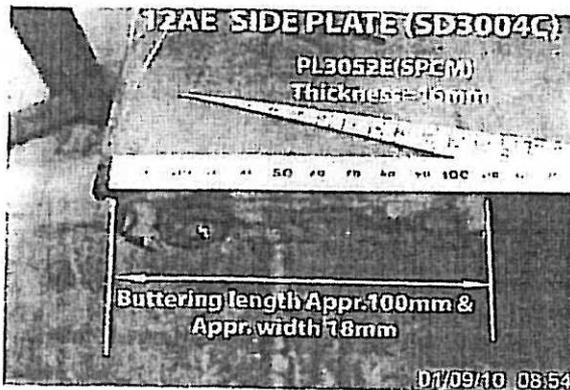
Welding  Concrete  Other   
Welding  Curing  Procedural  Bridge No: 34-0006  
Joint fit-up  Coating  Other  Component: Segment 12AE Side Panel  
Procedural  Procedural  Description:

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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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AWS D1.5 2002, Section 12.17.4: "All critical repairs to base metal and welds shall be approved by the Engineer prior to beginning the repair..."

Who discovered the problem: Subhasis Bera

Name of individual from Contractor notified: Sheng Qing Quan

Time and method of notification: 1500 hours, 01-09-10, Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 2300 hours, 01-09-10, Email

QC Inspector's Name: Zhong Guo Hui

Was QC Inspector aware of the problem:  Yes  No

Contractor's proposal to correct the problem:

N/A

**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 Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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Inspected By: Carreon, Albert

Lead Reviewer/Task Leader

Reviewed By: Wahbeh, Mazen

SMR

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(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000627**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 24-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0591**Type of problem:**

<b>Welding</b>	<b>Concrete</b>	<b>Other</b>	
<b>Welding</b>	<b>Curing</b>	<b>Procedural</b>	<b>Bridge No:</b> 34-0006
<b>Joint fit-up</b>	<b>Coating</b>	<b>Other</b>	<b>Component:</b>
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Date the Non-Conformance Report was written:** 09-Jan-2010**Description of Non-Conformance:**

During in-process observations of the side panels being fabricated in bay 14, the Caltrans Quality Assurance Inspector (QA) observed the following:

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**Contractor's proposal to correct the problem:**

Perform NDT required to verify weld quality.

**Corrective action taken:**

Contractor submitted NDT report verifying weld metal added to plate is in conformance with Contract weld quality requirements.

**Did corrective action require Engineer's approval?** Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?** Yes No**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 Jim Simonis, who represents the Office of Structural Materials for your project.

**Inspected By:** Simonis, Jim

Quality Assurance Inspector

**Reviewed By:** Wahbeh, Mazen

QA Reviewer