

**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 #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, China**Report No:** NCR-000971**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 17-Jan-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0930**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> SEG 13CW, Weld# SEG3015N-080
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Visually discovered crack on Segment 13CW Longitudinal Diaphragm Stiffener to Floorbeam

**Description of Non-Conformance:**

During Quality Assurance Magnetic Particle Testing (MT) verification of (1) weld located on OBG longitudinal diaphragm stiffener to floor beam, Caltrans (CT) Quality Assurance (QA) inspectors discovered the following issues:

- One Longitudinal toe crack measuring approximately 140mm.
- The crack was discovered visually and verified using Magnetic Particle Testing (MT).
- The weld is a fillet weld joining the floor beam (FB3224A) stiffener (X4486B) to longitudinal diaphragm (LD3036A SPCM).
- The weld is designated as SPCM.
- OBG segment 13CW is located in Bay No. 14
- The member and weld number are identified as follows:

1. SEG3015N-080.

The notice of witness Inspection Number (NWIT) is 08201. The Longitudinal crack is located within an area that has been previously tested and accepted by ABF Quality Control (QC) personnel. As per contract documents the contractor is required to perform 100% visual testing (VT) of these welds.

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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 2 )

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### Applicable reference:

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum the contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents”

AWS D1.5 (02) Section 6.26.1.1 – “The weld shall have no cracks.”

**Who discovered the problem:** Sean McGuire

**Name of individual from Contractor notified:** Peter Ferguson

**Time and method of notification:** 17:00\_1/17/11\_Verbal

**Name of Caltrans Engineer notified:** Sean Eagen

**Time and method of notification:** 09:00\_1/19/11\_Email

**QC Inspector's Name:** Wang Lu

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

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

NA

### 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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<b>Inspected By:</b>	Devey,Jim	SMR
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<b>Reviewed By:</b>	Wahbeh,Mazen	SMR
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**DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge**  
 666 Feng Bin Road Room 708, Changxing Island  
 Shanghai 201913 PR China  
 Tel: 021-56856666 ext 207061 Fax:

**NON-CONFORMANCE REPORT TRANSMITTAL**

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

**Date:** 19-Jan-2011

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

**Dear:** Mr. Charles Kanapicki  
**Job Name:** SAS Superstructure

**Attention:** Mr. Thomas Nilsson Project/Fabrication Manager  
**Document No:** 05.03.06-000928

**Subject:** NCR No. ZPMC-0930

**Reference Description:** Visually discovered crack on Segment 13CW Longitudinal Diaphragm Stiffener to Floorbeam

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:** 13

**Remarks:**

During Quality Assurance Magnetic Particle Testing (MT) verification of (1) weld located on OBG longitudinal diaphragm stiffener to floor beam, Caltrans (CT) Quality Assurance (QA) inspectors discovered the following issues:

- One Longitudinal toe crack measuring approximately 140mm.
- The crack was discovered visually and verified using Magnetic Particle Testing (MT).
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- The weld is designated as SPCM.
- OBG segment 13CW is located in Bay No. 14
- The member and weld number are identified as follows:

1. SEG3015N-080.

The notice of witness Inspection Number (NWIT) is 08201. The Longitudinal crack is located within an area that has been previously tested and accepted by ABF Quality Control (QC) personnel. As per contract documents the contractor is required to perform 100% visual testing (VT) of these welds.

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

Propose a resolution for this non-conformance and provide documentation that the deficiency has been brought into compliance with the contract requirements. Propose a resolution that addresses the apparent failure of Quality Control to identify the indication. Additionally, provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

The response for the resolution of this issue is requested within 7 days.

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# NCT

( Continued Page 2 of 2 )

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**Transmitted by:** Sean Eagen      Transportation Engineer

**Attachments:**    ZPMC-0930

**cc:**    Rick Morrow, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao, Bill Casey

**File:** 05.03.06

**NCR PROPOSED RESOLUTION**

**To:** CALTRANS - SAS Superstructure  
333 Burma Road  
Oakland CA 94607  
**Attention:** Siegenthaler, Peter  
Resident Engineer  
**Ref:** 05.03.06-000928  
**Subject:** NCR No. ZPMC-0930

**Dated:** 23-Feb-2011  
**Contract No.:** 04-0120F4  
04-SF-80-13.2 / 13.9  
**Job Name:** SAS Superstructure  
**Document No.:** ABF-NPR-000920 Rev: 00

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**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC has repaired the indication noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed.

ZPMC has repaired the indication noted in the NCR and is providing NDT documentation after the repair to show the indication has been removed. ABFJV has noted which inspector was responsible for this missed indication and is monitoring his performance as well as all inspector performance, if he continues to miss indications disciplinary action will be undertaken. Based on these actions, ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua  
**Attachment(s):** ABF-NPR-000920R00;

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**Caltrans' comments:**

**Status:** CLO  
**Date:** 23-Feb-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0930 is closed.

**Submitted by:** Eagen, Sean  
**Attachment(s):**

**Date:** 23-Feb-2011



## TRANSMITTAL LETTER

PROJECT: S.F.O.B.B.

DATE:2011-02-21

TO: ROSEMARY/ABF JV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: OBG NCR

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS

ENCLOSED WITH THIS TRANSMITTAL IS ONE COPY OF

(01) LR: No. B-972

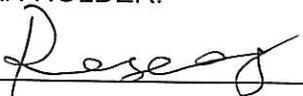
(02) NCR-000971(ZPMC-0930)

B787-MT-35566 R1

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT

PLAN HOLDER:



COMPANY:



DATE: 13:26  
RECEIVED 21 FEB 2011

PHONE NO.

PLAN NUMBER:N/A  
#R787-QCP-102



No. B-972

## LETTER OF RESPONSE

**TO:** American Bridge/Flour

**DATE:** 2011-2-21

**REGARDING:** NCR-000971(ZPMC-0930)

ZPMC acknowledged this problem and has issued an internal NCR. This indication has been removed, repaired and re-tested to be acceptable. ZPMC is providing the NDT record and is requesting closure of this NCR.

**ATTACHMENT:**

NCR-000971(ZPMC-0930)

B787-MT-35566 R1

*Zhang Wei*  
*2/21/11*



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge  
 666 Feng Bin Road Room 708, Changxing Island  
 Shanghai 201913 PR China  
 Tel: 021-56856666 ext 207061 Fax:

**NON-CONFORMANCE REPORT TRANSMITTAL**

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

Date: 19-Jan-2011

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-0930

Job Name: SAS Superstructure

Document No: 05.03.06-000928

Reference Description: Visually discovered crack on Segment 13CW Longitudinal Diaphragm Stiffener to Floorbeam

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: 13

**Remarks:**

During Quality Assurance Magnetic Particle Testing (MT) verification of (1) weld located on OBG longitudinal diaphragm stiffener to floor beam, Caltrans (CT) Quality Assurance (QA) inspectors discovered the following issues:

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

Propose a resolution for this non-conformance and provide documentation that the deficiency has been brought into compliance with the contract requirements. Propose a resolution that addresses the apparent failure of Quality Control to identify the indication. Additionally, provide documentation of the steps taken by the Quality Control Manager to prevent future occurrences.

The response for the resolution of this issue is requested within 7 days.

15.04  
 05.03.06-000928,NCT

Received  
 NCT 000928 19 Jan 11 Page 1 of 2

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NCT

( Continued Page 2 of 2 )

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**Transmitted by:** Sean Eagen      Transportation Engineer

**Attachments:**    ZPMC-0930

**cc:**    Rick Morrow, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao, Bill Casey

**File:** 05.03.06

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 (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, China

Report No: NCR-000971

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 17-Jan-2011

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

NCR #: ZPMC-0930

### Type of problem:

Welding  Concrete  Other Welding  Curing  Procedural Joint fit-up  Coating  Other Procedural  Procedural  Description:

Bridge No: 34-0006

Component: SEG 13CW, Weld# SEG3015N-080

Reference Description: Visually discovered crack on Segment 13CW Longitudinal Diaphragm Stiffener to Floorbeam

### Description of Non-Conformance:

During Quality Assurance Magnetic Particle Testing (MT) verification of (1) weld located on OBG longitudinal diaphragm stiffener to floor beam, Caltrans (CT) Quality Assurance (QA) inspectors discovered the following issues:

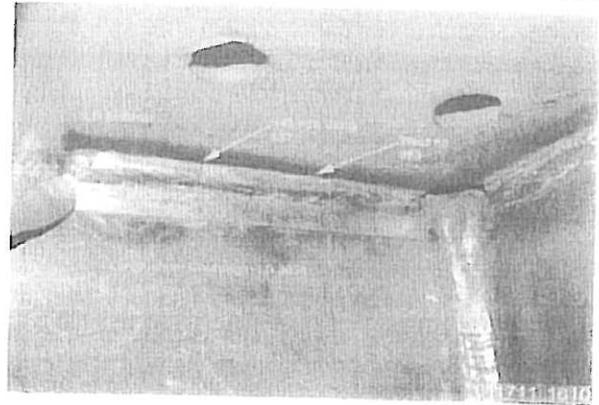
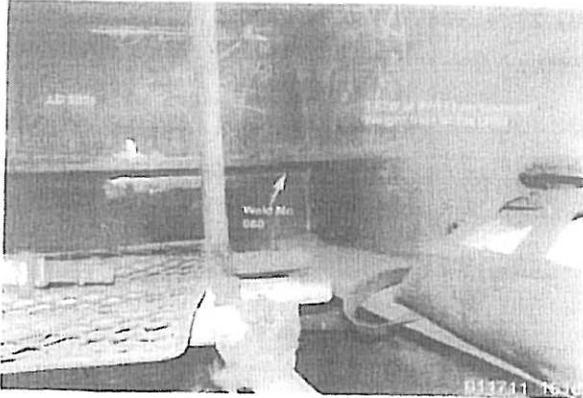
- One Longitudinal toe crack measuring approximately 140mm.
- The crack was discovered visually and verified using Magnetic Particle Testing (MT).
- The weld is a fillet weld joining the floor beam (FB3224A) stiffener (X4486B) to longitudinal diaphragm (LD3036A SPCM).
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- The member and weld number are identified as follows:

1. SEG3015N-080.

The notice of witness Inspection Number (NWIT) is 08201. The Longitudinal crack is located within an area that has been previously tested and accepted by ABF Quality Control (QC) personnel. As per contract documents the contractor is required to perform 100% visual testing (VT) of these welds.

## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



### Applicable reference:

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum the contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents”

AWS D1.5 (02) Section 6.26.1.1 – “The weld shall have no cracks.”

Who discovered the problem: Sean McGuire

Name of individual from Contractor notified: Peter Ferguson

Time and method of notification: 17:00\_1/17/11\_Verbal

Name of Caltrans Engineer notified: Sean Eagen

Time and method of notification: 09:00\_1/19/11\_Email

QC Inspector's Name: Wang Lu

Was QC Inspector aware of the problem:  Yes  No

Contractor's proposal to correct the problem:

NA

### 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: Devey,Jim

SMR

Reviewed By: Wahbeh,Mazen

SMR

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REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-35566R1		DATE日期 2011.01.26		PAGE OF页码 1/1	Revision No: 0	
PROJECT NO. 工程编号: ZP06-787			CONTRACTOR: 用户: CALTRANS			
DRAWING NO. 图号: SEG3015N 13CW longitudinal diaphragm			CALTRANS CONTRACT NO.: 加州工程编号 04-0050F4			
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 <sup>ST</sup> , 2011			
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 USA	MODEL NO. 样式编号 #ES-X	SERIAL NO. 连续编号 13995			
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC			
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm			
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材, 厚度	A709M-345T2/F2-X 28/25mm			
WELDING PROCESS 焊接方法	SMAW	TYPE OF JOINT 焊缝类型	CORNER JOINT			
WELD I.D. 焊缝编号	DISCONTINUITY 不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
SEG3015N-080	1R1			ACC.		100%MT
AFTER B-CWR2759REV0						
BLANK						
EXAMINED BY 主探 Zhong Shenglong <i>zhong sheng long</i>			REVIEWED BY 审核 <i>Yao Chun ping</i>			
LEVEL - II SIGN 签名 / DATE日期 2011.01.26			LEVEL-II SIGN / DATE日期 2011.01.26			
质量经理 / QCM <i>[Signature]</i>			用户CUSTOMER			
签字 SIGN / 日期 DATE			签字 SIGN / 日期 DATE			

**DEPARTMENT OF TRANSPORTATION**

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Office of Structural Materials

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(707) 649-5453  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A


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**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION**


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**Location:** Changxing Island, Shanghai, China**Report No:** NCS-000910**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Feb-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0930**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>Descriptor:</b>	

**Date the Non-Conformance Report was written:** 17-Jan-2011**Description of Non-Conformance:**

During Quality Assurance Magnetic Particle Testing (MT) verification of (1) weld located on OBG longitudinal diaphragm stiffener to floor beam, Caltrans (CT) Quality Assurance (QA) inspectors discovered the following issues:

- One Longitudinal toe crack measuring approximately 140mm.
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- The weld is designated as SPCM.
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The notice of witness Inspection Number (NWIT) is 08201. The Longitudinal crack is located within an area that has been previously tested and accepted by ABF Quality Control (QC) personnel. As per contract documents the contractor is required to perform 100% visual testing (VT) of these welds.

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

Contractor will repair the indication noted in the NCR. NDT report will be provided after weld repair. Contractor will note the inspector responsible for the weld and will monitor his performance. If he misses the indication continuously, disciplinary action will be taken.

**Corrective action taken:**

Contractor repaired the indication, and submitted NDT report showing the weld was acceptable. Contractor has identified the inspector who did the weld and his performance is being monitored.

**Did corrective action require Engineer's approval?**

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## QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( Continued Page 2 of 2 )

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**Yes    No**

**If so, name of Engineer providing approval:**

**Date:**

**Is Engineer's approval attached?            Yes    No**

**Comments:**

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**Inspected By:**    Ng,Michael

Quality Assurance Inspector

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**Reviewed By:**    Wahbeh,Mazen

QA Reviewer