

**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, China

**Report No:** NCR-000981

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

**Date:** 23-Feb-2011

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

**NCR #:** ZPMC-0939

### 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> Lift 13CE, PP124.5 Fit Lug X3627V
<b>Procedural</b>	<b>Procedural</b>	<b>Description:</b>	

**Reference Description:** Missed Longitudinal Crack Discovered by QA for Lift 13CE Fit Lug

### Description of Non-Conformance:

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG segment 13CE this Quality Assurance Inspector discovered the following issue:

- One longitudinal crack measuring 165mm in length in the fit lug (X3627V), fillet attachment weld to the I-rail stiffener (RS3170A), at panel point 124.5 at E3.
- The weld is identified as SEG3011C-080.
- The crack is clearly marked on the material near the weld.
- OBG Segment 13CE is located in fabrication bay 14.

The Notice of Inspection Witness Number (NWIT) is 08367. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 25% inspection of this weld.

For further information, please see the attached pictures below.



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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:** Manuel Teall

**Name of individual from Contractor notified:** Steve Lawton

**Time and method of notification:** 1300 hours, 02/23/11, Verbal

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

**Time and method of notification:** 0800 hours, 02/25/11, 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:** 25-Feb-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-0939

**Job Name:** SAS Superstructure  
**Document No:** 05.03.06-000938

**Reference Description:** Missed Longitudinal Crack Discovered by QA for Lift 13CE Fit Lug

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 the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG segment 13CE this Quality Assurance Inspector discovered the following issue:

- One longitudinal crack measuring 165mm in length in the fit lug (X3627V), fillet attachment weld to the I-rib stiffener (RS3170A), at panel point 124.5 at E3.
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- OBG Segment 13CE is located in fabrication bay 14.

The Notice of Inspection Witness Number (NWIT) is 08367. The indication is located within an area previously tested and accepted by ZPMC Quality Control (QC) personnel. As per the contract documents, ZPMC's QC personnel are required to perform 25% inspection of this weld.

**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.

**Transmitted by:** Sean Eagen Transportation Engineer  
**Attachments:** ZPMC-0939

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# NCT

( Continued Page 2 of 2 )

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**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:** 05.03.06-000938

**Subject:** NCR No. ZPMC-0939

**Dated:** 29-Mar-2011

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000940 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, 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-000940R00;

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### Caltrans' comments:

**Status:** CLO

**Date:** 29-Mar-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0939 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 29-Mar-2011



TRANSMITTAL LETTER

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

DATE:2011-03-29

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-984

(02) NCR-000981(ZPMC-0939)

B787-MT-35609 R0

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT

PLAN HOLDER:

*Rosemary*

COMPANY:



16:00  
RECEIVED 29 MAR 2011

PHONE NO.

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



No. B-984

## LETTER OF RESPONSE

**TO:** American Bridge/Flour

**DATE:** 2011-3-29

**REGARDING:** NCR-000981(ZPMC-0939)

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-000981(ZPMC-0939)

B787-MT-35609 R0

*Zhang Wei*  
*3/29/11*



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:** 25-Feb-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:** 05.03.06-000938

**Subject:** NCR No. ZPMC-0939

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**Transmitted by:** Sean Eagen Transportation Engineer  
**Attachments:** ZPMC-0939

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**NCT**

*( Continued Page 2 of 2 )*

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

**File:** 05.03.06



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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-000981

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

**Date:** 23-Feb-2011

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

**NCR #:** ZPMC-0939

**Type of problem:**

Welding  Concrete  Other

Welding  Curing  Procedural

Joint fit-up  Coating  Other

Procedural  Procedural  Description:

**Bridge No:** 34-0006

**Component:** Lift 13CE, PP124.5 Fit Lug X3627V

**Reference Description:** Missed Longitudinal Crack Discovered by QA for Lift 13CE Fit Lug

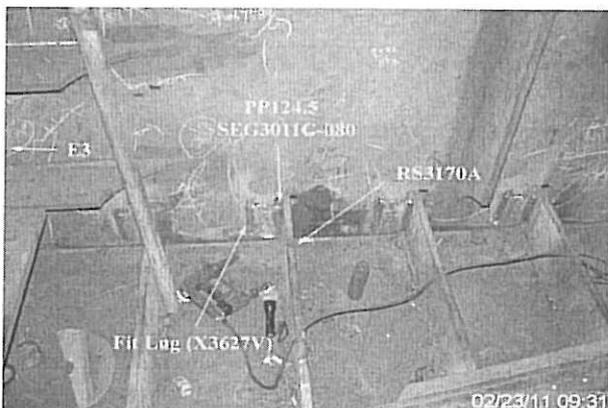
**Description of Non-Conformance:**

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For further information, please see the attached pictures below.



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## QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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( 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:** Manuel Teall

**Name of individual from Contractor notified:** Steve Lawton

**Time and method of notification:** 1300 hours, 02/23/11, Verbal

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

**Time and method of notification:** 0800 hours, 02/23/11, Verbal

**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
<b>Reviewed By:</b>	Wahbeh,Mazen	SMR

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# REPORT OF MAGNETIC PARTICLE EXAMINATION

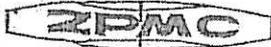
磁粉检测报告

REPORT NO. 报告编号 B787-MT-35609		DATE 日期 2011.02.23	PAGE OF 页码 1/2	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. SEG3011C 图号: 13CE floor beam		CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4		
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 14243	
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 14/25/30mm		
WELDING PROCESS 焊接方法 FCAW		TYPE OF JOINT 焊缝类型 T-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			
SEG3011C-068				ACC.		100%MT
SEG3011C-069				ACC.		100%MT
SEG3011C-070				ACC.		100%MT
SEG3011C-072				ACC.		100%MT
SEG3011C-073				ACC.		100%MT
SEG3011C-074				ACC.		100%MT
SEG3011C-075				ACC.		100%MT
SEG3011C-076				ACC.		100%MT
SEG3011C-077				ACC.		100%MT
SEG3011C-079	1	linear indication	170		REJ.	Y=0
SEG3011C-080				ACC.		100%MT
SEG3011C-082				ACC.		100%MT
SEG3011C-083				ACC.		100%MT
SEG3011C-258				ACC.		100%MT
SEG3011C-259				ACC.		100%MT

EXAMINED BY 主操 You Yongliang <i>You Yongliang</i>	REVIEWED BY 审核 <i>You Yongliang</i>
LEVEL-II SIGN 签名 / DATE 日期 2011-2-23	LEVEL-II SIGN 1 / DATE 日期 2011-2-23
质量经理 / QCM <i>Long J. ...</i>	用户 CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE

FORM 7878C (1/01)



# REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-35609		DATE 日期 2011.02.23	PAGE OF 页码 2/2	Revision No: 0
PROJECT NO. 工程编号: ZP06-787		CONTRACTOR: 用户: CALTRANS		
DRAWING NO. 图号: SEG3011C 13CE floor beam		CALTRANS CONTRACT NO.: 加州工程编号 04-0120F4		
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>th</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 14243	
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 14/25/30mm	
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-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			
SEG3011C-084				ACC.		100%MT
SEG3011C-085				ACC.		100%MT
SEG3011C-086				ACC.		100%MT
SEG3011C-087				ACC.		100%MT
SEG3011C-088				ACC.		100%MT
SEG3011C-089				ACC.		100%MT
SEG3011C-090				ACC.		100%MT
SEG3011C-091				ACC.		100%MT
SEG3011C-092				ACC.		100%MT
SEG3011C-093				ACC.		100%MT
BLANK						

EXAMINED BY 主探 You Yongliang <i>You Yongliang</i> LEVEL - II SIGN 签名 / DATE 日期 2011-2-23	REVIEWED BY 审核 <i>Caro chips</i> LEVEL - II SIGN / DATE 日期 2011-2-23
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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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, China**Report No:** NCS-000955**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 30-Mar-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0939**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:** 23-Feb-2011**Description of Non-Conformance:**

During the Quality Assurance Magnetic Particle Testing (MT) review of welds located on OBG segment 13CE this Quality Assurance Inspector discovered the following issue:

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For further information, please see the attached pictures below.

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

Contractor to repair the indication, and provide the NDT report to prove the weld is acceptable. The performance of the inspector responsible will be monitored and will be disciplined if he continues to miss indications.

**Corrective action taken:**

Contractor repaired the weld. NDT report was provided which shows the weld is acceptable. The inspector responsible was identified and internal NCR issued.

**Did corrective action require Engineer's approval?** Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?**

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## QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

( *Continued Page 2 of 2* )

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**Yes    No**

**Comments:**

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<b>Inspected By:</b>	Ng,Michael	Quality Assurance Inspector
<b>Reviewed By:</b>	Wahbeh,Mazen	QA Reviewer

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