

**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, PRC**Report No:** NCR-000082**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 28-Feb-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0080**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> U-38, U-27, U-64
<b>Procedural</b>	<b>Procedural</b>	<b>Descriptor:</b>	OBG Closed Ribs

**Description of Non-Conformance:**

The Contractor has fabricated components that do not meet fabrication tolerances. The Contractor has prepared OBG closed ribs whose root faces do not conform to approved working drawings, which specify a root face of  $1.8 \text{ mm} \pm 0.4 \text{ mm}$ . This occurred in 3 out of 3 closed ribs randomly inspected by QA, designated as U-38, U-27 and U-64 which were installed on OBG deck panel DP-065-001.

The photos below show some areas where the root faces do not conform to working drawings.

**Applicable reference:**

Deck Panel Fabrication Procedure (ABF-SUB-000025R02, approved as noted on 01-29-2008), Sheet No. DP-102.

Welding Procedure Specification (WPS) WPS-B-T-2342-U1 (U rib).

**Who discovered the problem:** Alfredo Acuna

**Name of individual from Contractor notified:**

**Time and method of notification:**

**Name of Caltrans Engineer notified:** Stanley Ku

**Time and method of notification:** Verbal notification at 14:20 on 02-28-2008

**QC Inspector's Name:** Sun Wei

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

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

**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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

**Inspected By:** Lowry, Patrick

Quality Assurance Inspector

**Reviewed By:** Lowry, Patrick

QA Reviewer



**DEPARTMENT OF TRANSPORTATION**  
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 Enterprises, a JV  
375 Burma Road  
Oakland CA 94607

**Date:** 10-Mar-2008

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

**Attention:** Dave Williams            Consultant

**Job Name:** SAS Superstructure

**Document No:** 05.03.06-000051

**Subject:** NCR No. ZPMC-0080

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

Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.

Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.

Material or workmanship is not in compliance with contract requirements.

### Enclosed please find the following items:

**NCR No:** ZPMC-0080

### Remarks:

Please see attached Non-Conformance Report for details.

**Transmitted by:** Stanley Ku            Sr. Bridge Engineer

**cc:** Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000051

**Subject:** NCR No. ZPMC-0080

**Dated:** 09-Jul-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000043 Rev: 00

---

**Contractor's Proposed Resolution:**

**Reference Resolution:** ZPMC will improve welder skills and check groove condition more closely.

Please find attached response from ZPMC.

**Submitted by:** Kanapicki, Charles

**Attachment(s):** ABF-NPR-000043R00;

---

**Caltrans' comments:**

**Status:** REJ

**Date:** 10-Sep-2008

The Contractor's response is not acceptable. Please comment on the acceptability of deck panels that have been fabricated with the non-conforming groove weld surfaces.

**Submitted by:** Wright, Doug

**Attachment(s):**

**Date:** 10-Sep-2008

## DEPARTMENT OF TRANSPORTATION

CHINA FABRICATION TEAM  
506 Shangcheng Rd., Pudong New District  
Shanghai 200120, PRC



### REVIEW OF CONTRACTOR'S TRANSMITTAL

To: Dave Williams, American Bridge – Fluor, a Joint Venture  
Gary Pursell, Resident Engineer

Review Date: 07-03-2008

From: Ady Velasco, Structural Materials Representative

Contract No.: 04-0120F4

Date/Time Submittal Received: 06-05-2008/

China Standard Time  
(GMT+08:00)

Contractor's Transmittal #: TL-08-1346 Rev. # 0

<input type="checkbox"/> substantially <b>complies</b> with contract requirements and is approved			
<input type="checkbox"/> substantially <b>complies</b> with contract requirements and is approved as noted.			
<input checked="" type="checkbox"/> Lacks sufficient information and/or contains unacceptable items that must be corrected or prior to resubmittal			
Verbal Notification		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes
Date:		Time:	
Name of individual from Contractor Notified:			
This submittal is a:	<input type="checkbox"/> Welding Report	<input type="checkbox"/> Critical Weld Repair	
	<input type="checkbox"/> Request for Information	<input type="checkbox"/> Heat Straightening Request	
	<input type="checkbox"/> Fabrication Procedures	<input checked="" type="checkbox"/> Other: <u>NCR close out documents</u>	
Submitting Contractor: <u>ABF</u>			
ITEMS REVIEWED	COMPLIES	COMMENTS	
1.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	This transmittal is a revision to a previous response. Please resubmit with all previous revisions attached.	
2.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
3.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
4.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
5.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
6.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
7.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
8.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Add more items here.....# - Item - Complies (Yes or No)-Comments			

Remarks:

Reviewer: Ady Velasco *AV*

Date: 07-03-2008

Construction Concurrence: JK Initial 7/4/08 Date

Received by (ABFJV): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_



Page 1 of 1

Date: 4 June 2008

To: Gary Pursell

From: Steve Lawton

Contract No. 04-0120F4

Dear Gary Pursell

This letter is issued to provide formal response addressing the proposed resolution to NCR ZPMC-0080 for Engineer's review and approval.

ZPMC has summarized the above listed NCR's and has generated an internal NCR for each occurrence.

ABFJV considers the NCR's mentioned as closed.

If further clarifications are needed, please contact me.



Steve Lawton  
Foreign Quality Assurance Manager  
American Bridge Fluor Joint Venture



## TRANSMITTAL LETTER

PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 06/05/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: REVISED NCR-000082 (ZPMC-0080) FOR CLOSURE

SUBMITTED FOR YOUR APPROVAL AND SUBMITTAL TO CALTRANS.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-265 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000082 (ZPMC-0080).
- (3) COPY OF ZPMC INTERNAL NCR NCR-B-022R1

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

  
 \_\_\_\_\_  
 PLAN HOLDER

RECEIVED 05 JUN 2008  
 1323  
 \_\_\_\_\_  
 DATE



\_\_\_\_\_  
 COMPANY

\_\_\_\_\_  
 PHONE NO.

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



No. B-265

# LETTER OF RESPONSE

TO: American Bridge/Flour JV

DATE: 2008-6-4

REGARDING: NCR-000082 (ZPMC-0080)

With this letter of response, ZPMC requests closure for Caltrans NCR-000082 (ZPMC-0080). We agree that problem describe in nonconformance. There are some root face did not conform the approved drawings, we will check the groove condition more times and strongly, on the other hand we still will train the workers to improve the skill.

So ZPMC considers NCR-000082 can be closed.

Please reference attached documentation for acceptance and closure the NCR-000082.

ATTACHMENT:

ZPMC-0080 (NCR-000082)

ZPMC internal NCR

*Zhaoshuangbao*

6.5

<input type="checkbox"/>	APPROVED
<input type="checkbox"/>	APPROVED AS NOTED
<input checked="" type="checkbox"/>	RETURNED FOR CORRECTION
Pursuant to Section 5-1.02	
of the Standard Specifications	
State of California	
DEPARTMENT OF TRANSPORTATION	
Division of Engineering Service	
Office of Structure Construction	
<i>[Signature]</i>	<i>7/4/08</i>
Structure Representative	Date

REVIEWED  
*[Signature]*  
ABF QCM  
5 JUN 08



# Nonconformance Report

## 不符合项报告

*please provide previous revisions*

Project Name: S.F.O.B.B  
项目名称: 美国加州海湾大桥

NCR Number:  
NCR 编号: NCR-B-022R1 (NCR-000082)

Item: Root face don't conform drawings  
名称描述: 留根与图纸要求不符

Item Number:  
件号: APPROVED AS NOTED  
RETURNED FOR CORRECTION

Drawing Number:  
图号

Location: OBG Deck Panel  
位置: 钢箱梁顶板单元

Date: 2008-3-14  
日期: Pursuant to Section 5-1.02 of the Standard Specifications of California

Description of Nonconformance:  
不符合项状态描述:

DEPARTMENT OF TRANSPORTATION  
Division of Engineering Service  
Office of Structure Construction  
Date

The Contractor has fabricated components that do not meet fabrication tolerances. The Contractor has prepared OBG closed ribs whose root faces do not conform to approved working drawings, which specify a root face of 1.8mm ± 0.4mm. This occurred in 3 out of 3 closed ribs randomly inspected by QA, designated as U-38, U27 and U-64 which were installed on OBG deck panel DP-065-001.

合同方没有按照制作公差进行制作。合同方制作 OBG 的 U 肋板的留根时没有遵从图纸上指明的 1.8 毫米 ± 0.4 毫米的要求。QA 在 3 根 U 肋板上随意检查出了 3 个点，分别是要安装在 DP-065-001 上的 U-38、U-27 和 U-64。

Work By: Sun Wei  
施工方: 08.5.20  
Prepared by: Fu Yuhong  
准备: 5.18.  
Reviewed by QCE: zhuo shuangbao  
质量工程师批准: 5.18.

- Drawing Error 图纸错误
- Material Defect 材料缺陷
- Fabrication Error 制作错误
- Other 其他原因

Disposition:  Use as is 回用  
 Repair 返修  
 Reject 拒收

### Recommendation:

建议 加强对 U 肋留根点的抽查检验。扩大检验范围。  
Check root faces of more closed ribs and expand the inspection range.

Prepared by: Sun Wei  
准备: 08.5.20  
Approved by QCA: Hu Gang  
质量经理批准: 2008.5.20

### Reason for Nonconformance:

不符合原因: 由于实际制作中, 对 U 肋的留根是以整体达标进行控制, 故造成局部点的超差。  
In actual fabrication, we controlled the root faces of closed ribs as a whole. Therefore some root faces of closed ribs may exceed fabrication tolerance.

### Prevention of Re-occurrence:

预防措施: 对 U 肋留根区域进行细化检验, 加强检验力度, 增加每根 U 肋的检验区域, 确保留根达到要求。  
Enhance inspection of closed ribs. Check the root faces of more closed ribs and expand the inspection of each closed rib to make sure the root faces meet the requirements.

Approved by/批准: Sun Wei 08.5.20

Technical Justification for Use-As-Is/Repair:  Attachment 附件  
 Non-attachment 无附件

回用, 加强以后, 制作过程中的控制, 加强对 U 肋留根点的抽查检验。  
Use as is. After the control of fabrication process in after time and working inspection of sample, by the root of U ribs.  
Reviewed/批准: Niu Yuhong 05.06.04

Verification:  Acceptable 可接受  
 Unacceptable 不可接受

Verified by QCI/质检确认: Li Yanhua  
08.06.04  
Reviewed by QCA/质检主任审核: Hu Gang  
2008.6.4



DEPARTMENT OF TRANSPORTATION  
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 Enterprises, a JV  
375 Burma Road  
Oakland CA 94607

Date: 10-Mar-2008

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

Attention: Dave Williams Consultant

Job Name: SAS Superstructure

Document No: 05.03.06-000051

Subject: NCR No. ZPMC-0080

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

- Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.
- Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.
- Material or workmanship is not in compliance with contract requirements.

Enclosed please find the following items:

NCR No: ZPMC-0080

Remarks:

Please see attached Non-Conformance Report for details.

Transmitted by: Stanley Ku Sr. Bridge Engineer

cc: Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

File: 05.03.06

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, PRC

Report No: NCR-000082

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 28-Feb-2008

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

NCR #: ZPMC-0080

### Type of problem:

Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006  
 Joint fit-up  Coating  Other  Component: U-38, U-27, U-64  
 Procedural  Procedural  Description: OBG Closed Ribs

### Description of Non-Conformance:

The Contractor has fabricated components that do not meet fabrication tolerances. The Contractor has prepared OBG closed ribs whose root faces do not conform to approved working drawings, which specify a root face of  $1.8 \text{ mm} \pm 0.4 \text{ mm}$ . This occurred in 3 out of 3 closed ribs randomly inspected by QA, designated as U-38, U-27 and U-64 which were installed on OBG deck panel DP-065-001.

The photos below show some areas where the root faces do not conform to working drawings.

### Applicable reference:

Deck Panel Fabrication Procedure (ABF-SUB-000025R02, approved as noted on 01-29-2008), Sheet No. DP-102.

Welding Procedure Specification (WPS) WPS-B-T-2342-U1 (U rib).

Who discovered the problem: Alfredo Acuna

Name of individual from Contractor notified:

Time and method of notification:

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: Verbal notification at 14:20 on 02-28-2008

QC Inspector's Name: Sun Wei

Was QC Inspector aware of the problem:  Yes  No

Contractor's proposal to correct the problem:

### 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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

Inspected By: Lowry, Patrick

Quality Assurance Inspector

Reviewed By: Lowry, Patrick

QA Reviewer

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000051

**Subject:** NCR No. ZPMC-0080

**Dated:** 23-Oct-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000043 Rev: 01

---

**Contractor's Proposed Resolution:**

**Reference Resolution:** Attached are the final visual and magnetic particle examination for closure.  
Please find attached.

**Submitted by:**

**Attachment(s):** ABF-NPR-000043R01;

---

**Caltrans' comments:**

**Status:** CLO

**Date:** 05-Nov-2008

The proposed resolution is acceptable. For the welds in question, NPR-0043R01 includes acceptable VT and MT reports, and NPR-0043R02 includes acceptable UT reports. The Department concurs that Non-Conformance ZPMC-0080 is closed.

**Submitted by:** Wright, Doug

**Date:** 06-Nov-2008

**Attachment(s):**



## TRANSMITTAL LETTER

PROJECT: SAN FRANCISCO OAKLAND BAY BRIDGE

DATE: 10/14/2008

TO: RUBY/ ABFJV QA DEPARTMENT

FROM: ZPMC QA DEPARTMENT

SUBJECT: NCR-000105/000082/000138 (ZPMC-0102/0080/0132) FOR CLOSURE

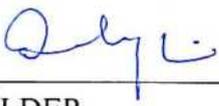
SUBMITTED FOR YOUR APPROVAL.

ENCLOSED WITH THIS TRANSMITTAL IS ONE

- (1) COPY OF LETTER OF RESPONSE WITH NO.B-312 FOR CLOSURE.
- (2) COPY OF NCR WITH NUMBER NCR-000105/000082/000138  
(ZPMC-0102/0080/0132)
- (3) COPY OF INTERNAL NCR-B-036/022R1
- (4) COPY OF THE ZPMC INSPECTION REPORTS.

PLEASE SIGN THIS TRANSMITTAL AND RETURN TO ME.

ACKNOWLEDGEMENT:

  
\_\_\_\_\_  
PLAN HOLDER

RECEIVED 13 OCT 2008  
*1545*  
\_\_\_\_\_  
DATE

  
\_\_\_\_\_  
COMPANY

\_\_\_\_\_  
PHONE NO.

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



No. B-312

## LETTER OF RESPONSE

**TO: American Bridge/Flour JV**

**DATE: 2008-10-14**

**REGARDING: NCR-000105/000082/000138 (ZPMC-0102/0080/0132)**

With this letter of response, ZPMC requests closure for caltrans NCR-000105/000082/000138 (ZPMC-0102/0080/0132) . As the require of the NPR and ABF's response, ZPMC provide the corresponding documents to close these NCR.

The ZPMC-0080 attach the reports of the final visual and magnetic particle examination reports for the DP065-001.

The ZPMC-0102 attach the final visual and magnetic particle examination reports for the DP002-001 and DP137-001.

The ZPMC-0132 attach the final visual and magnetic particle examination reports for the DP051-001

So ZPMC considers NCR-000105/000082/000138 (ZPMC-0102/0080/0132) can be closed .

Please reference attached documentation for acceptance and closure the NCR-000105/000082/000138.

**ATTACHMENT:**

**NCR-000105/000082/000138 (ZPMC-0102/0080/0132)**

**ZPMC internal NCR**

**The ZPMC inspection reports**

*zhuo shuangbao*

*2008.10.14.*

*Handwritten signature*  
*ABS QcM*  
*15 OCT. 08*



DEPARTMENT OF TRANSPORTATION  
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 Enterprises, a JV  
375 Burma Road  
Oakland CA 94607

Date: 10-Mar-2008

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

Attention: Dave Williams Consultant  
Job Name: SAS Superstructure  
Document No: 05.03.06-000051

Subject: NCR No. ZPMC-0080

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

- Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.
- Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.
- Material or workmanship is not in compliance with contract requirements.

Enclosed please find the following items:

NCR No: ZPMC-0080

**Remarks:**

Please see attached Non-Conformance Report for details.

Transmitted by: Stanley Ku Sr. Bridge Engineer

cc: Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

File: 05.03.06

**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, PRC

Report No: NCR-000082

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 28-Feb-2008

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

NCR #: ZPMC-0080

**Type of problem:**

Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006  
 Joint fit-up  Coating  Other  Component: U-38, U-27, U-64  
 Procedural  Procedural  Descripton: OBG Closed Ribs

**Description of Non-Conformance:**

The Contractor has fabricated components that do not meet fabrication tolerances. The Contractor has prepared OBG closed ribs whose root faces do not conform to approved working drawings, which specify a root face of 1.8 mm ± 0.4 mm. This occurred in 3 out of 3 closed ribs randomly inspected by QA, designated as U-38, U-27 and U-64 which were installed on OBG deck panel DP-065-001.

The photos below show some areas where the root faces do not conform to working drawings.

**Applicable reference:**

Deck Panel Fabrication Procedure (ABF-SUB-000025R02, approved as noted on 01-29-2008), Sheet No. DP-102.

Welding Procedure Specification (WPS) WPS-B-T-2342-U1 (U rib).

Who discovered the problem: Alfredo Acuna

Name of individual from Contractor notified:

Time and method of notification:

Name of Caltrans Engineer notified: Stanley Ku

Time and method of notification: Verbal notification at 14:20 on 02-28-2008

QC Inspector's Name: Sun Wei

Was QC Inspector aware of the problem:  Yes  No

Contractor's proposal to correct the problem:

**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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

---

 Inspected By: Lowry,Patrick

Quality Assurance Inspector

Reviewed By: Lowry,Patrick

QA Reviewer



周数 34

日期 2008.06.26

**Visual Weld Inspection Report**  
**焊缝目视检查报告**

Girder/梁: **OBG Urib**

Tower/塔: **NA**

Caltrans Contract No.  
加州合同编号

04-0120F4

Project No.:  
项目名称

San Francisco Oakland Bay Bridge  
美国海湾大桥

Project No.:  
项目编号

ZP06-787

Representative:  
质检代表:

*Lu Jianhua*

CWI:  
检验员:

*Wong Saifa 07/20/01*

Quality Assurance Manager  
~Approval  
质量控制经理:

*Huang*

Weld No. 焊缝编号	Welder I.D.# 焊工识别号	Location 位置	Welding consumables 焊接材料	Undercut 咬边	Porosity 气孔	Overlap 焊瘤	Crater 弧坑	Arc strike 电弧擦伤	Spatters 飞溅	Crack 裂纹	Accept or Reject 接受或拒收	Repair 返修	Accept or Reject after repair 返修后接受 或拒收
DP065-001-001	059468	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc.	NA	NA
DP065-001-002	059378	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP065-001-003	059468	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP065-001-004	059378	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP065-001-005	059361	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP065-001-006	059421	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP065-001-007	059361	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP065-001-008	059421	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP065-001-009	059403	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
DP065-001-010	059416	2G	JW-3	✓	✓	✓	✓	✓	✓	✓	Acc	NA	NA
<input checked="" type="checkbox"/> After root weld <input type="checkbox"/> After CWR or WRR No.:													
<input type="checkbox"/> After cover pass <input type="checkbox"/> After HSR No.:													

Others

#R787-QCP-603

"✓" is no defects. "X" is defects. "NA" is not applicable.



# REPORT OF MAGNETIC PARTICLE EXAMINATION

## 磁粉检测报告

REPORT NO. 报告编号 B787-MT-1894      DATE日期 2008.06.29      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: DP65 OBG U-RIB		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> , 2008
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 B310S	SERIAL NO. 连续编号 5395 5617 5620
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-X-S 12/14mm
WELDING PROCESS 焊接方法	GMAW+SAW	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			
DP065-001-001				ACC.		10%MT
DP065-001-002				ACC.		10%MT
DP065-001-003				ACC.		10%MT
DP065-001-004				ACC.		10%MT
DP065-001-005				ACC.		10%MT
DP065-001-006				ACC.		10%MT
DP065-001-007				ACC.		10%MT
DP065-001-008				ACC.		10%MT
DP065-001-009				ACC.		10%MT
DP065-001-010				ACC.		10%MT

BLANK


EXAMINED BY 主探 <i>Wang Mei</i>	REVIEWED BY 审核 <i>Botinyai</i>
LEVEL - II SIGN 签名 / DATE日期 2008.06.29	LEVEL-II SIGN / DATE日期 2008.6.09
质量经理 / QCM <i>Huigang</i> 2008.07.04	用户 CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE

## NCR PROPOSED RESOLUTION

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

**Attention:** Pursell, Gary  
Resident Engineer

**Ref:** 05.03.06-000051

**Subject:** NCR No. ZPMC-0080

**Dated:** 30-Oct-2008

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000043 Rev: 02

---

### Contractor's Proposed Resolution:

**Reference Resolution:** ZPMC to make the necessary adjustments, See attached UT report.

As shown in the photos and physically verified, it appears that the equipment should be adjusted as the surface profile deteriorates, surfaces and edges shall be smooth, uniform etc.. so as not to adversely affect the quality of strength of the weld. ABF does not agree that the surface profile shown will affect the quality and strength of the weld, however, ABF does recognize that some of the dimensions of the weld preparations shown do not comply with the welding procedure / fabrication plan and request ZPMC to make the necessary adjustments for this purpose. See attached UT report.

### Submitted by:

**Attachment(s):** UT reports; ABF-NPR-000043R02

---

### Caltrans' comments:

**Status:** CLO

**Date:** 05-Nov-2008

The proposed resolution is acceptable. For the welds in question, NPR-0043R01 includes acceptable VT and MT reports, and NPR-0043R02 includes acceptable UT reports. The Department concurs that Non-Conformance ZPMC-0080 is closed.

**Submitted by:** Wright, Doug

**Date:** 06-Nov-2008

**Attachment(s):**



DEPARTMENT OF TRANSPORTATION  
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 Enterprises, a JV  
375 Burma Road  
Oakland CA 94607

**Date:** 10-Mar-2008

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

**Attention:** Dave Williams Consultant

**Job Name:** SAS Superstructure

**Document No:** 05.03.06-000051

**Subject:** NCR No. ZPMC-0080

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

- Non-Conformance with quality control procedures. Please take appropriate corrective action. Recurrence may require further administrative action.
- Non-Conformance with quality control. Records indicate that this is a recurring issue and constitutes a systematic problem in quality control. Within fourteen (14) days, please submit a plan to correct the deficiency.
- Material or workmanship is not in compliance with contract requirements.

**Enclosed please find the following items:**

NCR No: ZPMC-0080

**Remarks:**

Please see attached Non-Conformance Report for details.

**Transmitted by:** Stanley Ku Sr. Bridge Engineer

**cc:** Rick Morrow, Gary Pursell, Stanley Ku, Brian Boal, Jason Tom, Dave Williams

**File:** 05.03.06

**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 #: 04-0120F4City: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, PRC**Report No:** NCR-000082**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 28-Feb-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0080**Type of problem:**

Welding  Concrete  Other   
 Welding  Curing  Procedural  Bridge No: 34-0006  
 Joint fit-up  Coating  Other  Component: U-38, U-27, U-64  
 Procedural  Procedural  Descriptor: OBG Closed Ribs

**Description of Non-Conformance:**

The Contractor has fabricated components that do not meet fabrication tolerances. The Contractor has prepared OBG closed ribs whose root faces do not conform to approved working drawings, which specify a root face of 1.8 mm ± 0.4 mm. This occurred in 3 out of 3 closed ribs randomly inspected by QA, designated as U-38, U-27 and U-64 which were installed on OBG deck panel DP-065-001.

The photos below show some areas where the root faces do not conform to working drawings.

**Applicable reference:**

Deck Panel Fabrication Procedure (ABF-SUB-000025R02, approved as noted on 01-29-2008), Sheet No. DP-102.

Welding Procedure Specification (WPS) WPS-B-T-2342-U1 (U rib).

**Who discovered the problem:** Alfredo Acuna

**Name of individual from Contractor notified:**

**Time and method of notification:**

**Name of Caltrans Engineer notified:** Stanley Ku

**Time and method of notification:** Verbal notification at 14:20 on 02-28-2008

**QC Inspector's Name:** Sun Wei

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

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

**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 Patrick Lowry, 916-227-5719, who represents the Office of Structural Materials for your project.

**Inspected By:** Lowry,Patrick

Quality Assurance Inspector

**Reviewed By:** Lowry,Patrick

QA Reviewer

# Ultrasonic Testing Report for U-rib PJP Welds

REPORT NO. : B787-UT-299

DATE: 08.08.09

PAGE 1 OF 1

PROJECT NO. : ZP06-787

CUSTOMER : CALTRANS

ITEM NO. : OBG U-RIB (DP65)

INSTRUCTION NO.: 04-0120F4

REFERENCING CODE SECTION  
N/A

ACCEPTANCE STANDARD  
ZPQC-UT-02

PROCEDURE NO.  
ZPQC-UT-02

EQUIPMENT

MAKER

MODEL NO.

SERIAL NO.

UT SCOPE

PANAMETRICS

EPOCH-4B

071565311 061488510

CALIBRATION BLOCK

COUPLANT

MATERIAL/THICKNESS

AWS IIW BLOCK TYPE II

C.M.C

A709M-345T2-X / 12 mm

WELDING PROCESS

JOINT TYPE

GMAW/SAW

T-JOINT

**STRAIGHT BEAM TRANSDUCER**

**ANGLE BEAM TRANSDUCER**

Model No.\	FREQUENCY	SIZE	Model No.	ANGLE	FREQUENCY	SIZE
413560213	2.5MHz	∅ 25mm	W-223	70°	3.5MHz	.375/10mm

Panel No.	Weld No.	Accept	Reject	LOP exceeds 20% (mm)			
				Thickness of tested area	Depth of Penetration	Length	Y-Location
	DP065-001-001	*					
	DP065-001-002	*					
	DP065-001-003	*					
	DP065-001-004	*					
	DP065-001-005	*					
	DP065-001-006	*					
	DP065-001-007	*					
	DP065-001-008	*					
	DP065-001-009	*		12.5	9.49	32	4825
	DP065-001-009	*		12.4	9.49	300	9630
	DP065-001-009	*		12.5	9.49	30	9800
	DP065-001-010	*		12.4	9.47	5	235

\* All welds were 15% UT inspected and include 15% tack weld, DP065-001-009 total defect length was exceed the examined length 5%, so extend 100% inspecte, other welds ACC.

\* 所有焊缝经15%UT检测, 包括15%的点焊位置, DP065-001-009缺陷累积长度超过检测长度的5%, 需延伸100%检测, 其他焊缝合格。

	DP065-001-009	*		12.71	9.31	5	545
	DP065-001-009	*		12.5	9.33	20	2430
	DP065-001-009	*		12.61	9.47	20	7880

EXAMINED BY 主探 <i>W. W. Wang</i>	REVIEWED BY 审核 <i>Z. Shuifan</i>
LEVEL-II SIGN / DATE <i>08.8.09</i>	LEVEL-II SIGN / DATE <i>08.8.09</i>
质量经理 / QCM	用户 CUSTOMER
签字 SIGN / 日期 DATE	签字 SIGN / 日期 DATE



**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 #: xx.25A**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, PRC**Report No:** NCS-000170**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 31-Dec-2008**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0080**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:** 28-Feb-2008**Description of Non-Conformance:**

The Contractor has fabricated components that do not meet fabrication tolerances. The Contractor has prepared OBG closed ribs whose root faces do not conform to approved working drawings, which specify a root face of 1.8 mm  $\pm$  0.4 mm. This occurred in 3 out of 3 closed ribs randomly inspected by QA, designated as U-38, U-27 and U-64 which were installed on OBG deck panel DP-065-001.

The photos below show some areas where the root faces do not conform to working drawings.

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

Reference: ABF-NPR-000043

**Corrective action taken:**

Corrective action has been taken as shown by the acceptable VT and MT reports.

**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 Eric Tsang, +(86) 150.0042.2372, who represents the Office of Structural Materials for your project.

**Inspected By:** Tsang, Eric **Quality Assurance Inspector****Reviewed By:** Wahbeh, Mazen **QA Reviewer**