

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



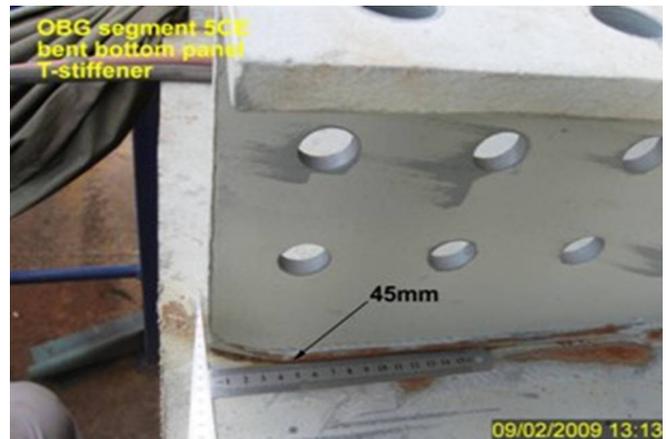
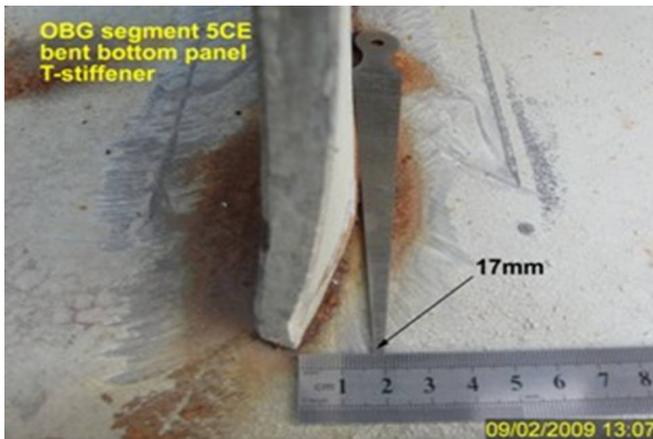
Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.25B**QUALITY ASSURANCE -- NON-CONFORMANCE REPORT****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCR-000429**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 07-Sep-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0403**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Segment 5CE WT-Stiffeners
Procedural	Procedural	Description: Bent WT Stiffener	

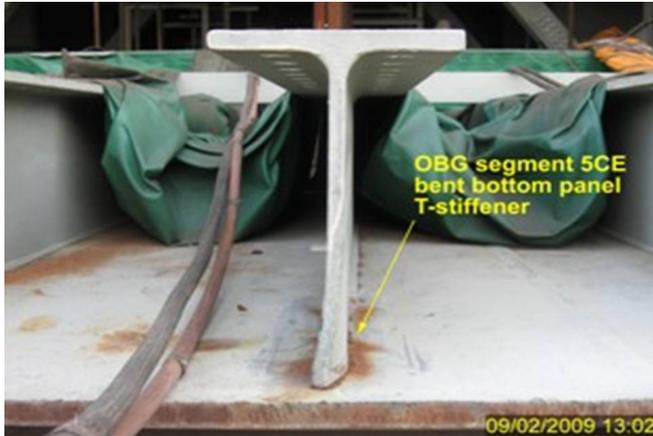
Reference Description: Bent WT Stiffener at OBG Segment 5CE**Description of Non-Conformance:**

During random in process visual inspection of OBG segment 5CE this Quality Assurance inspector (QA) observed one Bottom Panel T-Stiffener that had been damaged during fabrication process. The stiffener in question is located on the west end of this segment at the splice joint to segment 6AE, 7th stiffener from the E4 line.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

1999 Caltrans Standard Specifications section 55-1.04 "In handling and shipping of the steel work, every care shall be taken to avoid bending, scraping or overstressing the pieces. All pieces bent or otherwise injured will be rejected".

Who discovered the problem: Steve Hall

Name of individual from Contractor notified: Kevin Chen

Time and method of notification: 1730 hours, Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 0700 hours, Verbal

QC Inspector's Name: Wang Lu

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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By:	Tsang, Eric	SMR
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Reviewed By:	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: 28-Sep-2009

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: 05.03.06-000392

Subject: NCR No. ZPMC-0403

Reference Description: Bent WT Stiffener at OBG Segment 5CE

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:** 05

Remarks:

During random in process visual inspection of OBG segment 5CE this Quality Assurance inspector (QA) observed one Bottom Panel T-Stiffener that had been damaged during fabrication process. The stiffener in question is located on the west end of this segment at the splice joint to segment 6AE, 7th stiffener from the E4 line.
Please see the attached NCR No. ZPMC-403 for details.

Action Required and/or Action Taken:

Propose a resolution for the identified recurring non-conformance which constitutes a systematic problem on both materials/workmanship and quality control issues with revised procedures to remedy the defected work and to prevent future occurrences. A response for the resolution of this issue is expected within 14 days.

Transmitted by: Ching Chao

Attachments: ZPMC-0403

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Doug Coe, Jason Tom, Contract Files, Ching Chao, Bill Howe

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000392

Subject: NCR No. ZPMC-0403

Dated: 11-Jan-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000471 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: Stiffener was damaged during the fabrication process, as this is an inprocess condition, this stiffener will be heat straightened back to the original location per drawing tolerances.

Stiffener was damaged during the fabrication process, as this is an inprocess condition, i.e, no welding has yet to be performed, this stiffener will be heat straightened back to the original location per drawing tolerances. HSR will be submitted at a later date for closure of this NCR. ABFJV has verbally notified ZPMC production and QA/QC personnel to be aware during handling of material to prevent such non-conformances.

Submitted by: Lawton, Steve

Attachment(s): ABF-NPR-000471R00

Caltrans' comments:

Status: AAP

Date: 11-Jan-2010

Submit HSR prior to stating the HS work.

Submitted by: Howe, Bill

Date: 11-Jan-2010

Attachment(s):

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000392

Subject: NCR No. ZPMC-0403

Dated: 14-Jan-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000471 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: As requested by CT, ZPMC has now provided the appropriate documents. See attached. ZPMC requests closure of this NCR.

As requested by CT, ZPMC has now provided the appropriate documents. See attached. ZPMC requests closure of this NCR.

Submitted by: Lawton, Steve

Attachment(s): ABF-NPR-000471R01;

Caltrans' comments:

Status: CLO

Date: 24-Jan-2010

The documentation submitted by the contractor has been reviewed by the Engineer and is found to be acceptable.

Submitted by: Chao, Ching

Attachment(s):

Date: 24-Jan-2010



No. B-582

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-1-14

REGARDING: NCR-00429 (ZPMC-0403)

With this letter of response, ZPMC requests closure of CT NCR-00429 (ZPMC-0403), what mentioned that CT Inspector observed bent WT stiffener at 5CE.

- As request in ABF-NPR-000471 R0, ZPMC submit approved HSR(B)-327 for you review.

Based on the response above, ZPMC requests closure of this NCR.

ATTACHMENT:

NCR-00429 (ZPMC-0403)

ABF-NPR-000471 R0

HSR(B)-327

A handwritten signature in black ink, appearing to be "L. W.", is located below the attachment list.

1/14/10



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: 28-Sep-2009

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: 05.03.06-000392

Subject: NCR No. ZPMC-0403

Reference Description: Bent WT Stiffener at OBG Segment 5CE

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Material Location: OBG **Lift:** 05

Remarks:

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Transmitted by: Ching Chao

Attachments: ZPMC-0403

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

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



Bay Area Branch
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 (707) 649-5453
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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, P.R. China

Report No: NCR-000429

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 07-Sep-2009

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

NCR #: ZPMC-0403

Type of problem:

Welding **Concrete** **Other**

Welding **Curing** **Procedural** **Bridge No:** 34-0006

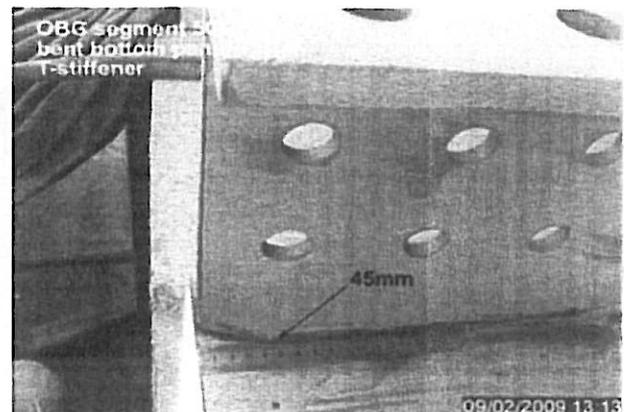
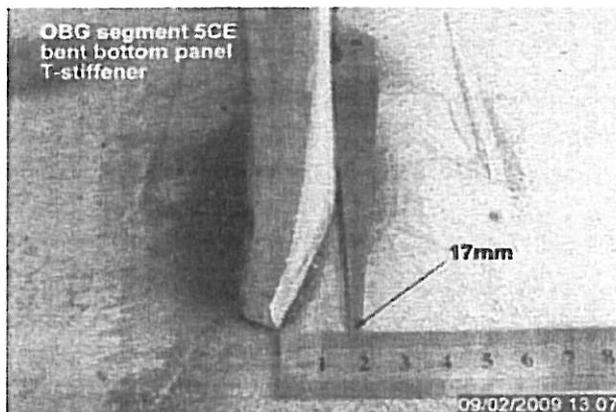
Joint fit-up **Coating** **Other** **Component:** OBG Segment 5CE WT-Stiffeners

Procedural **Procedural** **Description:** Bent WT Stiffener

Reference Description: Bent WT Stiffener at OBG Segment 5CE

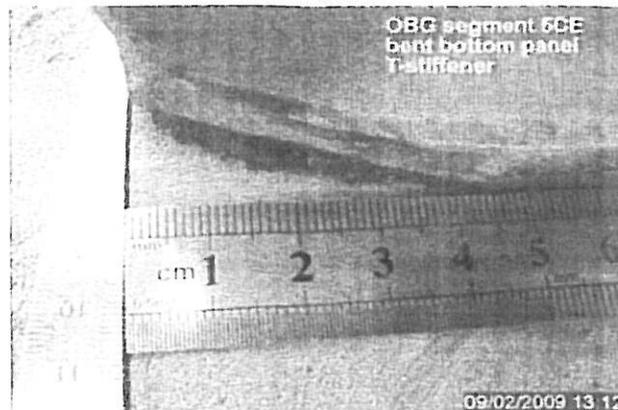
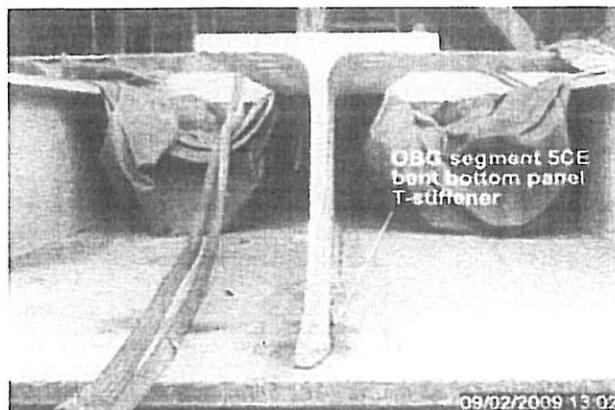
Description of Non-Conformance:

During random in process visual inspection of OBG segment 5CE this Quality Assurance inspector (QA) observed one Bottom Panel T-Stiffener that had been damaged during fabrication process. The stiffener in question is located on the west end of this segment at the splice joint to segment 6AE, 7th stiffener from the E4 line.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



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1999 Caltrans Standard Specifications section 55-1.04 "In handling and shipping of the steel work, every care shall be taken to avoid bending, scraping or overstressing the pieces. All pieces bent or otherwise injured will be rejected".

Who discovered the problem: Steve Hall

Name of individual from Contractor notified: Kevin Chen

Time and method of notification: 1730 hours, Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 0700 hours, Verbal

QC Inspector's Name: Wang Lu

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, +(86) 134.7247.7571, who represents the Office of Structural Materials for your project.

Inspected By: Tsang, Eric

SMR

Reviewed By: Wahbeh, Mazen

SMR



AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV

P.O. BOX 23223 Oakland, CA 94623
Phone (510) 419-0120 / Fax (510) 839-0666

NCR PROPOSED RESOLUTION

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

Dated: 11-Jan-2010

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

Attention: Pursell, Gary
Resident Engineer

Job Name: SAS Superstructure

Ref: 05.03.06-000392

Document No.: ABF-NPR-000471 Rev: 00

Subject: NCR No. ZPMC-0403

Contractor's Proposed Resolution:

Reference Resolution: Stiffener was damaged during the fabrication process, as this is an inprocess condition, this stiffener will be heat straightened back to the original location per drawing tolerances.

Stiffener was damaged during the fabrication process, as this is an inprocess condition, i.e, no welding has yet to be performed, this stiffener will be heat straightened back to the original location per drawing tolerances. HSR will be submitted at a later date for closure of this NCR. ABFJV has verbally notified ZPMC production and QA/QC personnel to be aware during handling of material to prevent such non-conformances.

Submitted by: Lawton, Steve

Attachment(s): ABF-NPR-000471R00

Caltrans' comments:

Status: AAP

Date: 11-Jan-2010

Submit HSR prior to stating the HS work.

Submitted by: Howe, Bill

Date: 11-Jan-2010

Attachment(s):

REVIEW OF CONTRACTOR'S SUBMITTAL

To: Thomas Nilsson, American Bridge/Fluor, a Joint Venture
Gary Pursell, Resident Engineer

Review Date: Oct-29-09

From: Eric Tsang, Structural Materials Representative

Contract No.: 04-0120F4

Date/Time Submittal Received: Oct-10-2009 / 14:00

China Standard Time
 (GMT+08:00)

Contractor's Transmittal #: AFC-CAL-TRN-004349

Rev. # 0

<input type="checkbox"/> substantially complies with contract requirements and is approved	
<input checked="" type="checkbox"/> substantially complies with contract requirements and is approved as noted	
<input type="checkbox"/> Lacks sufficient information and/or contains unacceptable items that must be corrected or prior to resubmital	
Verbal Notification	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes Date: <u>10-27-09</u> Time: <u>14:10</u>
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 checked="" type="checkbox"/> Heat Straightening Request <input type="checkbox"/> Fabrication Procedures <input type="checkbox"/> Other: _____
Submitting Contractor: <u>American Bridge - Fluor, a Joint Venture</u>	
ITEMS REVIEWED	COMPLIES COMMENTS
1. HSR-B 327 Rev.0	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Heat Straightening to WT Stiffener, 5CE

Remarks:

The jack cannot be used to apply additional force, please remove this from the procedure before giving this report to QC.

备注:只能使用千斤顶作为外力。

Reviewer: Jim Simonis 

Date: 10-29-09

Construction Concurrent ce: SJE Initial 10/30/09 Date

Received by (ABFJV): Pearcy Date: 10/30/09 Time: 11:50



火工校正报告

Heat Straightening Report(HSR)

报告号 Report#

HSR(B)-327

版本号 Revision #

0

日期 Date

2009.10.21

美国海湾大桥 San Francisco Oakland Bay Bridge

CALTRANS #04-0120F4

工程编号 JOB#: ZP06-787

装配 Assembly:

质检代表/Quality Control Representative

部装 Sub-Assembly:

梁段 Gird: 5CE RSY25P

质检经理/Quality Assurance Manager-Approval

塔段 Tower:

N/A

焊缝号 Weld No:

N/A

焊缝地图号 Weld Map No:

N/A

情况描述 Description of Condition

Cause 原因

Distortion by impact 撞击变形

Type of Defect 缺陷类型

Distortion by impact 撞击变形

Inspection Method 检查方法

Visual 目检

处置方法 Disposition

缺陷去除方法(Defect Removal Method):

Using hand torch and additional force (jack) as well, Jack shall be used in a manner such that all forces are applied passively.
使用火枪熔以及外力(千斤顶)进行校火,千斤顶只能起到固定作用不能产生塑性变形。

后续NDE(Post-Removal NDE):

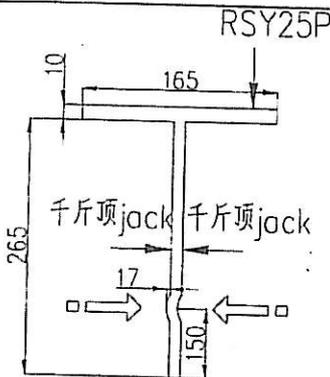
After finishing heat straightening, the weld of the heat area shall perform NDT according to the approved shop drawing 校火后,根据图纸要求对热影响区域进行NDT检测。
Control current, voltage and weld speed according to relevant WPS. If necessary anti-deformation or hold down device can be added. 依据相应的WPS的要求控制电流,电压和焊接速度。如有必要,可使用反变形设施进行校正。

纠正措施(Corrective Action(s)):

实施次数(Number of application): 1~3

最高温度(Maximum temperature): <650°C

简图 Sketch



校火宽度50~150mm 最大变形量约17mm.

The heat straightening width is about 50~150mm, The max deformation is about 17mm.

To be signed when Closing HSR-Verify compliance and all necessary reports are ready to attach

检验员 Inspector:

签字 Signature:

CWI #

II 级探伤 NDE Certification:

Level II

Closing Date:

质检经理 QC Manager

审核日期 Review Date:

Note: All repair work shall be performed in accordance with applicable CALTRANS approved procedures, contract specifications and AWS D1.5 2002.

#R787-QCP-1100

APPROVED AS NOTED
RETURNED FOR CORRECTION
Pursuant to Section 5-1.02
of the Standard Specifications
State of California
DEPARTMENT OF TRANSPORTATION
Division of Engineering Services
Office of Structure Construction

Structure Repair at _____ Date 10/30/09

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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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**QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION****Location:** Changxing Island, Shanghai, P.R. China**Report No:** NCS-000473**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 22-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0403**Type of problem:**

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

Date the Non-Conformance Report was written: 07-Sep-2009**Description of Non-Conformance:**

During random in process visual inspection of OBG segment 5CE this Quality Assurance inspector (QA) observed one Bottom Panel T-Stiffener that had been damaged during fabrication process. The stiffener in question is located on the west end of this segment at the splice joint to segment 6AE, 7th stiffener from the E4 line.

Contractor's proposal to correct the problem:

Perform heat straightening to correct damage.

Corrective action taken:

Contractor submitted Heat Straightening Record as documentation that the damage was corrected. NDT was not required as no welds were affected by this procedure.

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