

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



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

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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

Report No: NCR-000480

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 15-Oct-2009

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

NCR #: ZPMC-0453

Type of problem:

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Seg 6BW Upper Flange of Floor Beam Panel
Procedural	Procedural	Description: Flange Distortion after weld repair	

Reference Description: Distortion of an upper flange of Floor Beam member at PP43 after weld repair

Description of Non-Conformance:

During random visual inspection of OBG Segment 6BW at panel point 43, Caltrans Quality Assurance (QA) Inspector observed that the FL2-1 Floor Beam designated as FB003-045 was distorted on the upper flange plate X6F after the weld repair at the adjacent weld joint. The adjacent deck panel diaphragm weld that connects to this upper flange plate was changed from a fillet weld to a complete joint penetration (CJP) weld due to fit up issues. The maximum distortion at this upper flange X6F measured 12mm.



Applicable reference:

AWS D1.5/2002 Section 3.4.1: In assembling and joining parts of a structure or of built-up members and in welding reinforcing parts to members, the procedure and sequence shall minimize distortion and shrinkage.

Standard Specifications July 1999, Section 55-3.09; Finish members shall be true to line and free from twists, bends and open joints.

Standard Specifications July 1999, Section 55-3.01; Workmanship and finish shall be equal to the best general

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

practice in modern bridge shops.

AWS D1.5/2002 Section 3.5.1.7

Who discovered the problem: Rodney Patterson

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 1100 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1200 hours, Verbal

QC Inspector's Name: Zhang Wei

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: Carreon,Albert

Lead Reviewer/Task Leader

Reviewed By: Wahbeh,Mazen

SMR



DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge

333 Burma Road
Oakland CA 94607
Tel: Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 17-Nov-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: 05.03.06-000443

Subject: NCR No. ZPMC-0453

Reference Description: Distortion of an upper flange of Floor Beam member at PP43 after weld repair

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:** 06

Remarks:

During random visual inspection of OBG Segment 6BW at panel point 43, Caltrans Quality Assurance (QA) Inspector observed that the FL2-1 Floor Beam designated as FB003-045 was distorted on the upper flange plate X6F after the weld repair at the adjacent weld joint. The adjacent deck panel diaphragm weld that connects to this upper flange plate was changed from a fillet weld to a complete joint penetration (CJP) weld due to fit up issues. The maximum distortion at this upper flange X6F measured 12mm.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval.

Transmitted by: Bill Howe

Attachments: ZPMC-0453

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

File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000443

Subject: NCR No. ZPMC-0453

Dated: 11-Jan-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000465 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: ZPMC request closure of this NCR as this NCR was written prior to ZPMC final dimensional inspection. A "random" observation should be considered a possible incident, but not elevated to NCR status.

ZPMC request closure of this NCR as this NCR was written prior to ZPMC final dimensional inspection. A "random" observation should be considered a possible incident, but not elevated to NCR status.

Submitted by: Lawton, Steve

Attachment(s): ABF-NPR-000465R00;

Caltrans' comments:

Status: REJ

Date: 11-Jan-2010

This NCR will not be closed until it is determined that the specified flatness has been achieved.

Submitted by: Howe, Bill

Attachment(s):

Date: 11-Jan-2010



No. B-566

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-1-9

REGARDING: NCR-000480(ZPMC-0453)

With this letter of response, ZPMC requests withdrawal of CT NCR-000480(ZPMC-0453), what mentioned that CT Inspector observed excessive flatness distortion after welding.

It should be clarified by ZPMC that this CT inspector performed the flatness dimension measurement prior to ZPMC's. The flatness for this location hasn't been accepted by ZPMC. So it could be understood to be in-process status. No non-conformance occurred.

Based on this, ZPMC requests withdrawal of this NCR.

ZPMC also hope such in-process inspection won't turn into NCR.

ATTACHMENT:

NCR-000480(ZPMC-0453)

Handwritten signature

1/9/10

NON-CONFORMANCE REPORT
323 Burma Road
Oakland CA 94607
Tel: 1 415

NON-CONFORMANCE REPORT INFORMATION

To: AMERICAN BRIDGE FLORIDA IV
375 BURMA ROAD
OAKLAND CA 94607
Date: 15-Nov-2008
Contract No: 04-0110F4
04-SF-80-13.2-13.0
Job Name: SAS Superstructure
Document No: 05.03.06-000443

Drawn: Mr. Charles Kanapick
Attention: Mr. Thomas Nilsson - Project/Fabrication Manager
Subject: NCR No. ZPMC-0453

Reference Description: Distortion of an upper flange of Floor Beam member at PP43 after weld repair

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: 06

Remarks:

During random visual inspection of OBG Segment 6BW at panel point 43, Caltrans Quality Assurance (QA) Inspector observed that the FL2-1 Floor Beam designated as FB003-045 was distorted on the upper flange plate X6F after the weld repair at the adjacent weld joint. The adjacent deck panel diaphragm weld that connects to this upper flange plate was changed from a fillet weld to a complete joint penetration (CJP) weld due to fit up issues. The maximum distortion at this upper flange X6F measured 12mm.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval.

Transmitted by: Bill Howe

Attachments: ZPMC-0453

cc: Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Jason Tom, Contract Files, Ching Chao
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 94592-1130
(707) 649-5453
(707) 649-5455

Contract # 09-012024
City: 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-000480

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 15-Oct-2009

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

NCR #: ZPMC-0453

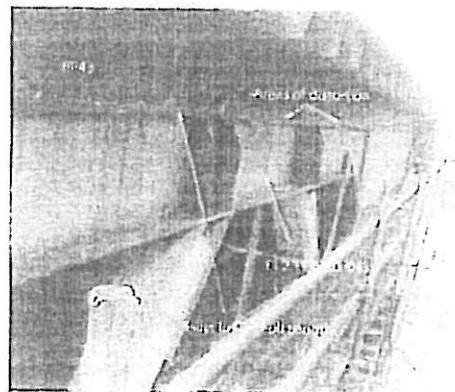
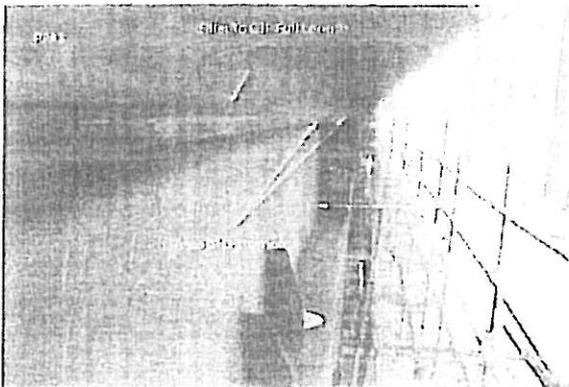
Type of problem:

Welding Concrete Other
 Welding Curing Procedural Bridge No: 34-0006
 Joint fit-up Coating Other Component: OBG Seg 6BW Upper Flange of Floor Beam Panel
 Procedural Procedural Description: Flange Distortion after weld repair

Reference Description: Distortion of an upper flange of Floor Beam member at PP43 after weld repair

Description of Non-Conformance:

During random visual inspection of OBG Segment 6BW at panel point 43, Caltrans Quality Assurance (QA) Inspector observed that the FL2-1 Floor Beam designated as FB003-045 was distorted on the upper flange plate X6F after the weld repair at the adjacent weld joint. The adjacent deck panel diaphragm weld that connects to this upper flange plate was changed from a fillet weld to a complete joint penetration (CJP) weld due to fit up issues. The maximum distortion at this upper flange X6F measured 12mm.



Applicable reference:

AWS D1.5/2002 Section 3.4.1: In assembling and joining parts of a structure or of built-up members and in welding reinforcing parts to members, the procedure and sequence shall minimize distortion and shrinkage.

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QUALITY ASSURANCE - NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

practice in modern bridge shops

AWS D1.5-2002 Section 3.5.1.7

Who discovered the problem: Rodney Peterson

Name of individual from Contractor notified: Peter Shew

Time and method of notification: 1100 hours, Verbal

Name of Caltrans Engineer notified: Chung Chao

Time and method of notification: 1700 hours, Verbal

QC Inspector's Name: Zhang Wei

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:	Carreon,Albert	Lead Reviewer/Task Leader
Reviewed By:	Wahbeh,Mazen	SMR

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000443

Subject: NCR No. ZPMC-0453

Dated: 01-Mar-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000465 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: ZPMC has corrected the distortion noted in the NCR by heat straightening. Attached is the heat straightening report used.

ZPMC has corrected the distortion noted in the NCR by heat straightening. Attached is the heat straightening report used. The flatness of the panel has been verified by a Caltrans inspector and removed from punchlist which shows that is acceptable. Based on this ZPMC request closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000465R01;

Caltrans' comments:

Status: CLO

Date: 17-Mar-2010

The information received is sufficient to resolve this NCR.

Submitted by: Howe, Bill

Date: 17-Mar-2010

Attachment(s):



No. B-630

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-2-28

REGARDING: NCR-000480 (ZPMC-0453)

With this letter of response, ZPMC requests withdrawal of CT NCR-000480 (ZPMC-0453) what mentioned about the flatness issue on FB003-045.

- ZPMC has noticed this problem and HSR1 was issued prior to CT's inspection.
- Attached you can find the HSR1 report what ZPMC used.
- After HS the dimension was accepted and punch list item 197 what mentioned this issue has been confirmed and closed by CT inspector.

Based on the responses above, ZPMC requests withdrawal of this NCR.

ATTACHMENT:

NCR-000480 (ZPMC-0453)

HSR1(B)-7745

A handwritten signature in black ink, appearing to be "Liu" followed by a flourish.

3/1/10

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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, P.R. China

Report No: NCR-000480

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 15-Oct-2009

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

NCR #: ZPMC-0453

Type of problem:

Welding Concrete Other

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

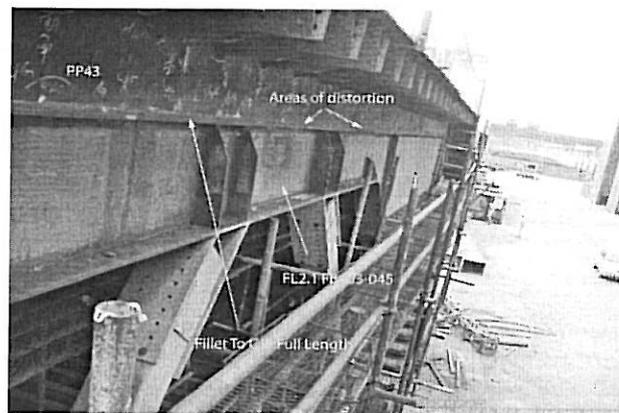
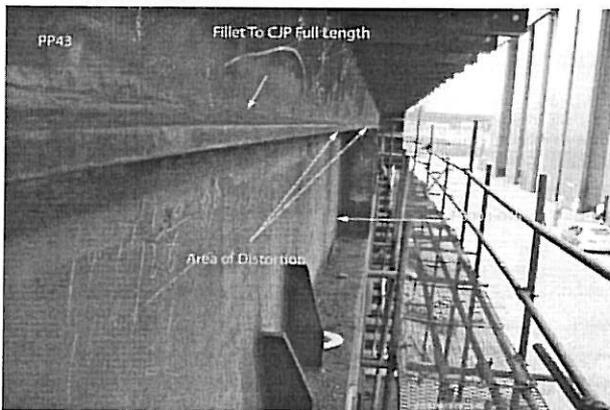
Joint fit-up Coating Other **Component:** OBG Seg 6BW Upper Flange of Floor Beam Panel

Procedural Procedural **Description:** Flange Distortion after weld repair

Reference Description: Distortion of an upper flange of Floor Beam member at PP43 after weld repair

Description of Non-Conformance:

During random visual inspection of OBG Segment 6BW at panel point 43, Caltrans Quality Assurance (QA) Inspector observed that the FL2-1 Floor Beam designated as FB003-045 was distorted on the upper flange plate X6F after the weld repair at the adjacent weld joint. The adjacent deck panel diaphragm weld that connects to this upper flange plate was changed from a fillet weld to a complete joint penetration (CJP) weld due to fit up issues. The maximum distortion at this upper flange X6F measured 12mm.



Applicable reference:

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

practice in modern bridge shops.

AWS D1.5/2002 Section 3.5.1.7

Who discovered the problem: Rodney Patterson

Name of individual from Contractor notified: Peter Shaw

Time and method of notification: 1100 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1200 hours, Verbal

QC Inspector's Name: Zhang Wei

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: Carreon,Albert

Lead Reviewer/Task Leader

Reviewed By: Wahbeh,Mazen

SMR



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

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 17-Nov-2009

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-0453

Job Name: SAS Superstructure
Document No: 05.03.06-000443

Reference Description: Distortion of an upper flange of Floor Beam member at PP43 after weld repair

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: 06

Remarks:

During random visual inspection of OBG Segment 6BW at panel point 43, Caltrans Quality Assurance (QA) Inspector observed that the FL2-1 Floor Beam designated as FB003-045 was distorted on the upper flange plate X6F after the weld repair at the adjacent weld joint. The adjacent deck panel diaphragm weld that connects to this upper flange plate was changed from a fillet weld to a complete joint penetration (CJP) weld due to fit up issues. The maximum distortion at this upper flange X6F measured 12mm.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval.

Transmitted by: Bill Howe

Attachments: ZPMC-0453

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

File: 05.03.06



火工校正记录

Heat Straightening Record(HSR1)

报告号 Record#

HSR1(B)-7745

版本号 Revision #

0

日期 Date

2009.10.07

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:

6BW

质检经理/Quality Assurance Manager Approval

塔段 Tower:

N/A

焊缝号 Weld No:

SSD9B/SSD9-003,004 FB003A-045-004,005/FB009A-003-003,004/FB015A-006-001,002

焊缝地图号 Weld Map No:

N/A

情况描述 Description of Condition

Cause 原因

Welding distortion 焊接变形

Type of Defect 缺陷类型

Welding distortion 焊接变形

Inspection Method 检查方法

Visual 目检

处置方法 Disposition

缺陷去除方法(Defect Removal Method):

natural gas 天然气

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。

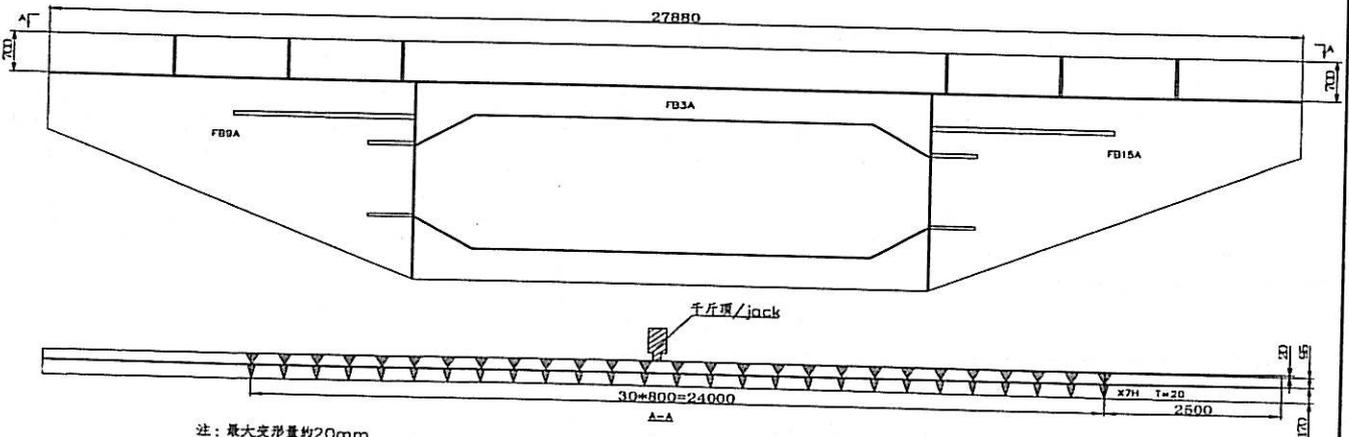
纠正措施(Corrective Action(s)):

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。

实施次数(Number of application): 1~3

最高温度(Maximum temperature): <650°C

简图 Sketch



注: 最大变形量约20mm
NOTE: the max deformation is about 20mm

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-1101

Approved by *Lujiambona* (Co.)

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, P.R. China**Report No:** NCS-000573**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 29-Mar-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0453**Type of problem:**

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

Date the Non-Conformance Report was written: 15-Oct-2009**Description of Non-Conformance:**

During random visual inspection of OBG Segment 6BW at panel point 43, Caltrans Quality Assurance (QA) Inspector observed that the FL2-1 Floor Beam designated as FB003-045 was distorted on the upper flange plate X6F after the weld repair at the adjacent weld joint. The adjacent deck panel diaphragm weld that connects to this upper flange plate was changed from a fillet weld to a complete joint penetration (CJP) weld due to fit up issues. The maximum distortion at this upper flange X6F measured 12mm.

Contractor's proposal to correct the problem:

Correct dimensional issues by means of heat straightening.

Corrective action taken:

Contractor performed heat straightening at said location and the flange is now in conformance with Contract specifications.

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 152. 1675.3703, who represents the Office of Structural Materials for your project.

Inspected By: Simonis, Jim

Quality Assurance Inspector

Reviewed By: Wahbeh, Mazen

QA Reviewer