

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-000504**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 12-Nov-2009**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0477**Type of problem:**

| | | | |
|---------------------|-------------------|--|---|
| Welding | Concrete | Other | |
| Welding | Curing | Procedural | Bridge No: 34-0006 |
| Joint fit-up | Coating | Other | Component: OBG Corner Assembly X37 (Lift 9W) |
| Procedural | Procedural | Description: Improper Material Storage and Handling | |

Reference Description: Corner Assembly components X37 for Lift 9W were damaged due to improper handling and storage.

Description of Non-Conformance:

During in-process visual inspection of the fabrication of X37 for Lift 9 West, Caltrans Quality Assurance Inspector observed that Corner Assembly components CA067, CA068, and CA070 identified as X37 were damaged. The storage and handling of these X37 components are not according to the requirement as indicated in the Standard Specifications.

**Applicable reference:**

Caltrans Standard Specifications, July 1999, Section 55-1.04: In handling 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.

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

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Caltrans Standard Specifications, July 1999, Section 55-301: Workmanship and finish shall be equal to the best general practice in modern bridge shops.

Who discovered the problem: Chandra Sudalaimuthu

Name of individual from Contractor notified: Ji Cai Fang

Time and method of notification: 1100 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao and Bill Howe

Time and method of notification: 1200 hours, Verbal

QC Inspector's Name: Xu Tao

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: 11-Dec-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: 05.03.06-000467

Subject: NCR No. ZPMC-0477

Reference Description: Corner Assembly components X37 for Lift 9W were damaged due to improper handling and storage.

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:** 09

Remarks:

During in-process visual inspection of the fabrication of X37 for Lift 9 West, Caltrans Quality Assurance Inspector observed that Corner Assembly components CA067, CA068, and CA070 identified as X37 were damaged. The storage and handling of these X37 components are not according to the requirement as indicated in the Standard Specifications.

Action Required and/or Action Taken:

Submit storage correction plan and a repair procedure to the engineer for approval.

Transmitted by: Bill Howe

Attachments: ZPMC-0477

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: 05.03.06-000467

Subject: NCR No. ZPMC-0477

Dated: 28-Jan-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000546 **Rev:** 00

Contractor's Proposed Resolution:

Reference Resolution: When corrected, ZPMC will provide documentation of the repairs and NDT to show the pieces are acceptable. ZPMC requests that this action be approved with actions pending.

ZPMC acknowledges that these pieces were damaged due to improper storage. ZPMC QC will pay greater attention to storage of components prior to assembly. When corrected, ZPMC will provide documentation of the repairs and NDT to show the pieces are acceptable. ZPMC requests that this action be approved with actions pending.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000546R00

Caltrans' comments:

Status: AAP

Date: 03-Feb-2010

AAP issued until the X-37 storage damage can be quantified.

Submitted by: Howe, Bill

Date: 03-Feb-2010

Attachment(s):

NCR PROPOSED RESOLUTION

To: CALTRANS - SAS Superstructure
333 Burma Road
Oakland CA 94607
Attention: Pursell, Gary
Resident Engineer
Ref: 05.03.06-000467
Subject: NCR No. ZPMC-0477

Dated: 12-Apr-2010
Contract No.: 04-0120F4
04-SF-80-13.2 / 11
Job Name: SAS Superstructure
Document No.: ABF-NPR-000546R01

Contractor's Proposed Resolution:

Reference Resolution: Please refer to ZPMC's letter of response.
Please refer to ZPMC's letter of response.

Submitted by: Ishibashi, Joshua
Attachment(s): ABF-NPR-000546R01;

Caltrans' comments:

Status: REJ

Date: 20-Apr-2010

This proposed resolution is not acceptable. Information in "The report of steel plate heat straightening process checking" is not legible. Three damaged X37 elements are identified in NCR ZPMC 0477 but not all three are covered in "The report of steel plate heat straightening process checking."

Submitted by: Ku, Stanley
Attachment(s):

Date: 20-Apr-2010



No. B-598

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-2-4

REGARDING: NCR-00504 (ZPMC-0477)

With this letter of response, ZPMC requests closure of CT NCR-00504 (ZPMC-0477), what mentioned that CT Inspector observed improper material storage and handling..

- ZPMC acknowledged this problem and has issued internal NCR. Punishment for ZPMC's relating employee has been taken to provide this issue to happen again.
- The damaged components was identified and repaired according to HSR1(B)-8070.
- ZPMC provide the dimension checking report for Engineer to review.

Based on the taken action, ZPMC requests closure of this NCR.

ATTACHMENT:

NCR-00504 (ZPMC-0477)

HSR1(B)-8070

DIMENSION CHECKING REPORT AFTER HEAT STRIGHTENING

A handwritten signature in black ink, appearing to be 'J. W.' followed by a flourish.

2/4/10

| | | |
|---|--|--|
| Technical Justification for Use-As-Is/Repair: 回用或返修的技术依据: | <input type="checkbox"/> Attachment 附件 | <input type="checkbox"/> Non-attachment 无附件 |
| 对变型超标的零件, 出具校核报告进行校核. | | |
| Reviewed / 批准: <u>Mandi / 12/20/09</u> | | |
| Verification: 确认: | <input type="checkbox"/> Acceptable 可接受 | <input type="checkbox"/> Unacceptable 不可接受 |
| 已经校核正. | | |
| Verified by QCI/质检确认: <u>zhu zhong kai</u> <u>07072101</u> | 2010.12.20 | Reviewed by QCA/质检主任审核: _____ |

#R787-QCP-1300

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 94607

Date: 11-Dec-2009

Contract No: 04-0120F4

04-SF-80-13.2 / 13.9

Dear: Mr. Charles Kanapicki
Attention: Mr. Thomas Nilsson Project/Fabrication Manager

Job Name: SAS Superstructure

Subject: NCR No. ZPMC-0477

Document No: 05.03.06-000467

Reference Description: Corner Assembly components X37 for Lift 9W were damaged due to improper handling and storage.

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: 09

Remarks:

During in-process visual inspection of the fabrication of X37 for Lift 9 West, Caltrans Quality Assurance Inspector observed that Corner Assembly components CA067, CA068, and CA070 identified as X37 were damaged. The storage and handling of these X37 components are not according to the requirement as indicated in the Standard Specifications.

Action Required and/or Action Taken:

Submit storage correction plan and a repair procedure to the engineer for approval.

Transmitted by: Bill Howe

Attachments: ZPMC-0477

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
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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-000504

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 12-Nov-2009

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

NCR #: ZPMC-0477

Type of problem:

Welding Concrete Other

Welding Curing Procedural Bridge No: 34-0006

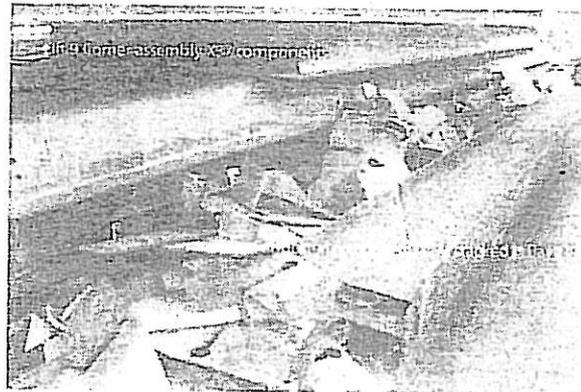
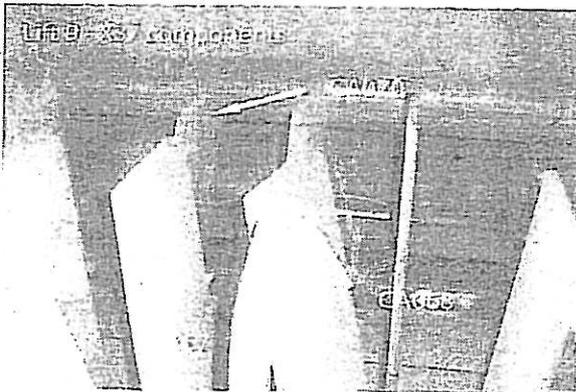
Joint fit-up Coating Other Component: OBG Corner Assembly X37 (Lift 9W)

Procedural Procedural Description: Improper Material Storage and Handling

Reference Description: Corner Assembly components X37 for Lift 9W were damaged due to improper handling and storage.

Description of Non-Conformance:

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

QUALITY ASSURANCE – NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

Caltrans Standard Specifications, July 1999, Section 55-301: Workmanship and finish shall be equal to the best general practice in modern bridge shops.

Who discovered the problem: Chandra Sudalaimuthu

Name of individual from Contractor notified: Ji Cai Fang

Time and method of notification: 1100 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao and Bill Howe

Time and method of notification: 1200 hours, Verbal

QC Inspector's Name: Xu Tao

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



火工校正记录

Heat Straightening Record(HSR1)

报告号 Record#

HSR1(B)-8070

版本号 Revision #

0

日期 Date

2010.01.09

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: | Zhao Jie neng |
| 梁段 Gird: 9EW X37 | 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 | 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): Flame Straightening by oxygen acetylene 运用氧乙炔进行校火

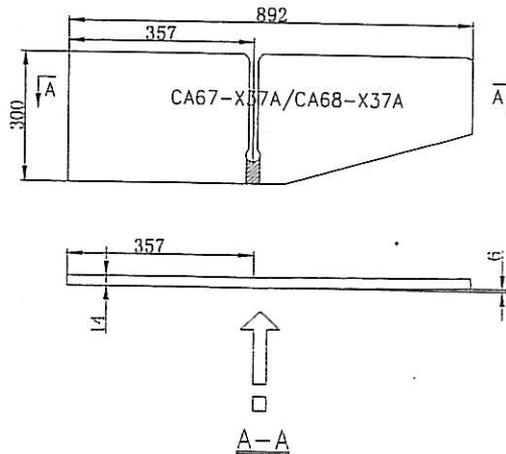
后续NDE(Post-Removal NDE): After finishing heat straightening, the weld of the heat area shall perform NDT according to the approved shop drawing 校火后, 根据图纸要求对热影响区域进行NDT检测。

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6mm, 校火宽度20~50mm.

NOTE: the max deformation is about 6mm, heat straightening the width is 20~50mm.

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

| | | | |
|---------------------------|--------------|-----------------|-------------------|
| 检验员 Inspector: | Zhu Zhong ha | 签字 Signature: | 朱钟豪 |
| CWI # | 07072101 | Closing Date: | 2010.1.20 |
| II 级探伤 NDE Certification: | Level II | 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 [Signature]

美国钢桥钢板平整度火工校正检查记录卡

The report of steel plate heat straightening process checking

| | | | |
|---------------------------------|----------|--|--------|
| 图号 The drawing no.: | 2106-787 | 桥牌名称 The part name: | 922037 |
| 炉批号 The batch of plate: | | 火工校正次数 The times of heat straightening: | 2次 |
| 钢板编号 Plate ID: | | 桥段名称 Section name: | 92203 |
| 材料名称 Material name: | | | |
| 材料规格 Material specification: | | | |
| 材料厚度 Material thickness: | | | |
| 材料重量 Material weight: | | | |
| 材料产地 Material origin: | | | |



火工校正温度控制 The temperature record of heat straightening

| 检查时间 Checking time: | 温度 Temperature: | 位置 Position: |
|------------------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | | | | | | | | | | |

火工前平整度测量 Flatness checking before heat straightening (mm)

| 测量点 Measure position: | 测量值 Measure result: |
|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|
| 1 | | | | | | | | | | | |

火工后平整度测量 Flatness checking after heat straightening (mm)

| 测量点 Measure position: | 测量值 Measure result: |
|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|--------------------------|------------------------|
| 2 | | | | | | | | | | | |

整体平整度 / 桥板垂直度是否合格
Heat straightening result: 合格

检验员
QC inspector: Li Ming Yang

日期
Date: 11.20.19

若校正影响焊接, 请填写以下项目
Fill the following items if the straightening affects the weld

| 对应NDT报告编号 NDT report no. | UT | MT | RT | NDT检验员签字 NDT inspector: | 日期 Date: |
|-----------------------------|----|----|----|----------------------------|-------------|
| | | | | | |

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000467

Subject: NCR No. ZPMC-0477

Dated: 05-May-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000546 Rev: 02

Contractor's Proposed Resolution:

Reference Resolution: Attached is the ABF Final Visual Inspection checklist which verifies that the X37s pieces are acceptable. Based on this documentation ZPMC requests closure of this NCR.

ZPMC/ABFJV and CT have inspected the identified pieces during final visual inspection of the segment and they were found to be acceptable and subsequently green tagged. Attached is the ABF Final Visual Inspection checklist which verifies that the X37s pieces are acceptable. Based on this documentation ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000546R02;

Caltrans' comments:

Status: CLO

Date: 10-May-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0477 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 10-May-2010



No. B-745

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-5-4

REGARDING: NCR-000504(ZPMC-0477)

No damage was confirmed on CA070 identified as X37 and these pieces have been installed into 9EE. Green tag was achieved after inspection. ZPMC is providing the FVT and outstanding list show this segment including CA070 has been checked and accepted by parties. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000504(ZPMC-0477)

FINAL VISUAL INSPECTION REPORT FOR 9EE

OUTSTANDING WORKLIST FOR 9EE

FINAL VT REQUEST SHEET FOR 9EE

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

5/4/10



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: 11-Dec-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: 05.03.06-000467

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Reference Description: Corner Assembly components X37 for Lift 9W were damaged due to improper handling and storage.

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Material Location: OBG

Lift: 09

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Attachments: ZPMC-0477

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
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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-000504

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 12-Nov-2009

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

NCR #: ZPMC-0477

Type of problem:

Welding **Concrete** **Other**

Welding **Curing** **Procedural**

Joint fit-up **Coating** **Other**

Procedural **Procedural**

Bridge No: 34-0006

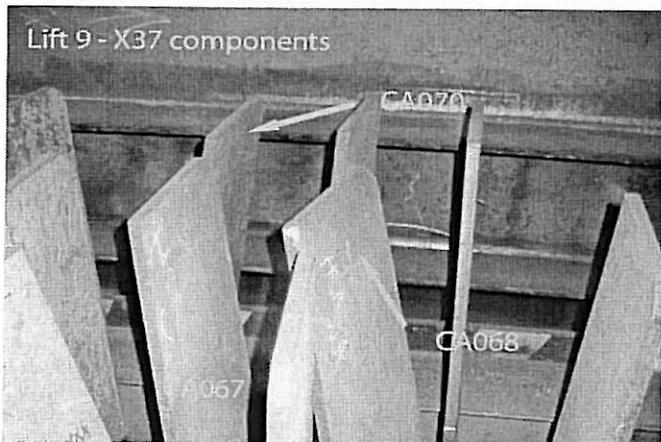
Component: OBG Corner Assembly X37 (Lift 9W)

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QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

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Who discovered the problem: Chandra Sudalaimuthu

Name of individual from Contractor notified: Ji Cai Fang

Time and method of notification: 1100 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao and Bill Howe

Time and method of notification: 1200 hours, Verbal

QC Inspector's Name: Xu Tao

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

N/A

Comments:

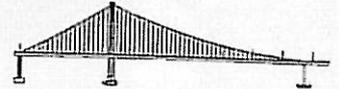
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Inspected By: Carreon, Albert

Lead Reviewer/Task Leader

Reviewed By: Wahbeh, Mazen

SMR



Final Visual Inspection Report

Project Name.: SFOBB SAS Bridge.

Date.: 28th Apr. 2010

Segment No.: 58 **Lift No.:** 9EE **Report Number.:** FVIR-9EE-01

| Item # | Internal | | | | | | | | | | | | | | | | | |
|--------|------------|------|------|------|-------------|------|------|------|-------------|------|------|------|------------|------|------|------|------|------|
| | End - PP83 | | PP83 | | PP83 - PP84 | | PP84 | | PP84 - PP85 | | PP85 | | PP85 - End | | N/A | | N/A | |
| | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. |
| 1 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 2 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 3 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 4 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 5 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 6 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 7 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 8 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 9 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 10 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 11 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 12 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 13 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 14 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 15 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 16 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 17 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 18 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 19 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 20 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |
| 21 | √ | | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A |

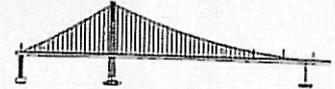
Note: Items 1 to 21 are inline with the "Final Visual Inspection Acceptance Criteria".

Observation:-

Some items have to be installed / followed up after blasting and painting, refer to the attached outstanding work list dated 28th Apr. 2010.

FVT completed on 28th Apr. 2010, after weld repair and MT/UT accepted by CT.

| Prepared By:- | ABF/JV | ZPMC | Reviewed By:- | ABF Lead Inspector |
|---------------|----------------------------|------------------|---------------|----------------------------|
| Name | Li Man Kit | Zhang Wei | Name | Li Man Kit |
| Sign | <i>LMK</i> | <i>Zhang Wei</i> | Sign | <i>LMK</i> |
| Date | 28 th Apr. 2010 | 4/28/2010 | Date | 28 th Apr. 2010 |



Final Visual Inspection Report

Project Name.: SFOBB SAS Bridge.

Date.: 28th Apr. 2010

Segment No.: 58

Lift No.: 9EE

Report Number.:

FVIR-9EE-01

External

| Item # | DP A1, A2, A10 | | SP C4+C5 | | SP E7+E8 | | EP B3 | | EP F9 | | BP D6 | | N/A | | N/A | | N/A | |
|--------|----------------|------|----------|------|----------|------|-------|------|-------|------|-------|------|------|------|------|------|------|------|
| | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. | Acc. | Rej. |
| 1 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 2 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 3 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 4 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 5 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 6 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 7 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 8 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 9 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 10 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 11 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 12 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 13 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 14 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 15 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 16 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 17 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 18 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 19 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 20 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |
| 21 | √ | | √ | | √ | | √ | | √ | | √ | | N/A | N/A | N/A | N/A | N/A | N/A |

Note: Items 1 to 21 are inline with the "Final Visual Inspection Acceptance Criteria".

Observation:-

Some items have to be installed / followed up after blasting and painting, refer to the attached outstanding work list dated 28th Apr.2010.

FVT completed on 28th Apr. 2010, after weld repair and MT/UT accepted by CT.

| | | | | |
|----------------------|----------------------------|------------------|----------------------|----------------------------|
| Prepared By:- | ABF/JV | ZPMC | Reviewed By:- | ABF Lead Inspector |
| Name | Li Man Kit | <i>Zhang Wei</i> | Name | Li Man Kit |
| Sign | <i>LMK</i> | <i>Zhang Wei</i> | Sign | <i>LMK</i> |
| Date | 28 th Apr. 2010 | 4/28/2010 | Date | 28 th Apr. 2010 |

Outstanding Worklist.
Final

Date:- 28th Apr. 2010

Location:- Open area, in front of blasting shop

| Segment 9EE | Location | Item | Description | Completed | |
|----------------|---|------|--|-----------|---------|
| | | | | Date | Initial |
| | | | INTERNAL OF SEGMENT | | |
| Completed | North @ CA69A West end to PP85 | 1 | X37A (associated with X37B & X37C), total 6nos. have not been installed. Welded and gap to DP checked within 2mm. | | Kit |
| Completed | South @ CA70A West end to PP85 | 2 | X37A (associated with X37B & X37C), total 6nos. have not been installed. Welded and gap to DP checked within 2mm. | | Kit |
| Outstanding | North PP82.5, PP83.5 & PP84.5 | 3 | X74A angle braces to X37L connection plate: To be welded after the faying surface on X37L are blasted/painted and connected with X74H. (see drawing SEDSD29). | | |
| Outstanding | South PP82.5, PP83.5 & PP84.5 | 4 | X74C angle braces to X37L connection plate: To be welded after the faying surface on X37L are blasted/painted and connected with X74F. (see drawing SEDSD29). | | |
| Outstanding | West end @ Grid E3 & E4 | 5 | Temporary attachments to LDs as anti-distortion fixture, to be removed and residue to grind flush & MT. | | |
| Outstanding | End to PP83 | 6 | @ Grid E3 – LD12B, bolt holes to be match drilled at T.A. yard. Hold back weld to be finished at T.A. yard. @ Grid E4 – LD11B, bolt holes to be match drilled at T.A. yard. Hold back weld to be finished at T.A. yard. | | |
| Outstanding | PP85 to End | 7 | @ Grid E3 – LD16C to be welded at T.A. yard. @ Grid E4 – LD15C to be welded at T.A. yard. | | |
| Outstanding | General | 8 | Longitudinal truss angles to be fitted and bolted. | | |
| Outstanding | | 9 | On CA69 & 70: Install angles X37D's, X37E's, and X37F's, after the faying surfaces are being blasted & painted. | | |
| Outstanding | | 10 | Install Angles as shown on shop drawings between Grids E2 to E3 & between Grids E3 to E4, to FB's at locations PP83, PP848 and PP85 (see drawings SEGSD19 & 19A). | | |

COZS
 28th Apr. 2010

Outstanding Worklist.

Final

Date:- 28th Apr. 2010

| Segment 9EE | Location | Item | Description | Completed | |
|---------------------|---------------|------|--|-----------|---------|
| | | | | Date | Initial |
| EXTERNAL OF SEGMENT | | | | | |
| Completed | General | 11 | All temporary attachment removed, residue to grind flush & MT | | Kit |
| Outstanding | Attachments | 12 | Suspender Brackets, Barrier Posts and Traveler Rails, Bike path, Wind vortex plates, to be fixed/installed/welded. | | |
| Completed | | 13 | Diverter plates & drip plates welded, to MT. | | Kit |
| Completed | | 14 | MEP penetrations & sleeves: On Deck Plate, 1 no. along gird E2 & 1 no. along grid E5 : Done. | | Kit |
| PARTICULAR ISSUE | | | | | |
| Completed | | 15 | All the Deck Plate diaphragms to floor beams: To conduct 100% MT. | | Kit |
| Outstanding | West end @ E3 | 16 | BP to SP, hold back weld exceeded 300mm, which is approx. 1150mm – to be welded at T.A. yard. | | |
| Outstanding | West end @ E4 | 17 | BP to SP, hold back weld exceeded 300mm, which is approx. 1150mm – to be welded at T.A. yard. | | |
| Outstanding | East end @ E3 | 18 | BP to SP, hold back weld exceeded 300mm, which is approx. 700mm – to be welded at T.A. yard. | | |
| Outstanding | East end @ E3 | 19 | BP to SP, hold back weld exceeded 300mm, which is approx. 700mm – to be welded at T.A. yard. | | |

| Inspected By:- | ZPMC | ABFJV | Reviewed By:- | ABF Lead Inspector |
|----------------|------------------|-----------------------------|---------------|-----------------------------|
| Name | <i>Zhang Wei</i> | Li Man Kit | Name | Li Man Kit |
| Sign | <i>Zhang Wei</i> | <i>Li Man Kit</i> | Sign | <i>Li Man Kit</i> |
| Date | 4/28/2010 | 28 th April 2010 | Date | 28 th April 2010 |

NOTES: 1. FOR INFORMATION ONLY

梁段最终目检通知单

Final VT Request Sheet

CT: (m.k.li)

报验单编号

ABF签收人&时间

(Sheet No): B-FVT-054

ABF receiver & time: 19th Apr. 2010, 13:00

我们要求对如下构件进行报验。请在检验完成后尽快给予批准。

We make request for inspection of the below items. Your earliest acceptance after inspection will be appreciated.

| | |
|------------------------------------|----------------------|
| 检验地点 (Inspection place) | <i>Outside Yard</i> |
| 构件名称 (Name of Component) | <i>9EE</i> |
| 构件图号 (Drawing No. of Component) | <i>SEG 058</i> |
| 检验时间 (Time) | <i>2010. 4. 20</i> |
| 施工队 (Sub contractor name) | <i>Shi Jian Gong</i> |

| | | | | | |
|--|--|------------------|--|---------------|--|
| | Yes No | | Yes No | | Yes No |
| 焊缝区域校火是否结束? | <input checked="" type="checkbox"/> <input type="checkbox"/> | 返修是否结束? | <input checked="" type="checkbox"/> <input type="checkbox"/> | 探伤是否结束? | <input checked="" type="checkbox"/> <input type="checkbox"/> |
| Weld Area Heat Straightening Complete? | | Repair complete? | | NDT complete? | |

检验结论:

RESULT OF INSPECTION:

接受/ACCEPT 拒收及理由/Reject and Reasons

Li Yan Hua *07120701*

ZPMC CWI signature & date:

接受/ACCEPT *After all defects have been repaired & NDT Accepted by CT.* 拒收及理由/Reject and Reasons

CT: (m.k.li)

** Some items have to be followed-up in later stage, Refer to outstanding work list of dated 28th Apr. 2010*

ABF Representative Signature & date:

接受/ACCEPT 拒收及理由/Reject and Reasons

Caltrans Representative Signature & 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, P.R. China**Report No:** NCS-000652**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 10-May-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0477**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: 12-Nov-2009**Description of Non-Conformance:**

During in-process visual inspection of the fabrication of X37 for Lift 9 West, Caltrans Quality Assurance Inspector observed that Corner Assembly components CA067, CA068, and CA070 identified as X37 were damaged. The storage and handling of these X37 components are not according to the requirement as indicated in the Standard Specifications.

Contractor's proposal to correct the problem:

Repair damage incurred during storage and inform QC of internal quality management issue.

Corrective action taken:

Contractor issued an internal NCR regarding said issue and provided internal final visual inspection report verifying damaged X-37 brackets have been repaired and are in conformance with Contract dimensional requirements.

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