

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-000503
Prime Contractor: American Bridge/Fluor Enterprises, a JV **Date:** 06-Nov-2009
Submitting Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0476

Type of problem:

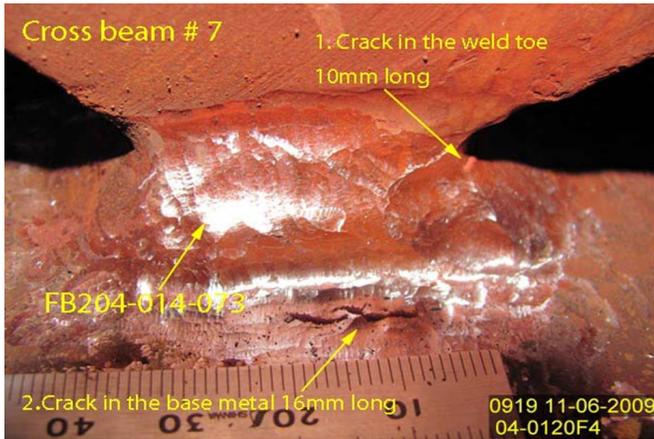
Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: OBG Cross Beam 7 Floorbeam
Procedural	Procedural	Description: Missed MT indication by QC	

Reference Description: Missed MT Indication by QC on CB7

Description of Non-Conformance:

During a random Magnetic Particle Test (MT) verification of Cross Beam # 7, Caltrans Quality Assurance (QA) Inspector observed two (2) linear indications on Floor Beam weld FB204-014-073. Indication one (1) measured 10mm in length on the weld toe and indication two (2) measured 16mm in length at the heat affected zone (HAZ) in the base metal area.

This weld was previously tested and accepted by ZPMC Magnetic Particle Testing (MT) technicians.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

-AWS D1.5 (02) - 6.26.1; "The weld shall have no cracks."

-AWS D1.5 (02) Section 6.26.2; "Welds that are subject to MT in addition to visual inspection shall have no cracks."

Who discovered the problem: Dhanasingh Sukanthan

Name of individual from Contractor notified: Shen Rushan

Time and method of notification: 1130 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao and Bill Howe

Time and method of notification: 1230 hours, Verbal

QC Inspector's Name: Tian Lei

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
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Reviewed By:	Wahbeh,Mazen	SMR
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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: 05.03.06-000466

Subject: NCR No. ZPMC-0476

Reference Description: Missed MT Indication by QC on CB7

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: Xbeam **Lift:** 07

Remarks:

During a random Magnetic Particle Test (MT) verification of Cross Beam # 7, Caltrans Quality Assurance (QA) Inspector observed two (2) linear indications on Floor Beam weld FB204-014-073. Indication one (1) measured 10mm in length on the weld toe and indication two (2) measured 16mm in length at the heat affected zone (HAZ) in the base metal area.

This weld was previously tested and accepted by ZPMC Magnetic Particle Testing (MT) technicians.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. Missed MT indications are a chronic problem for MT technicians. Provide adequate MT technicians to lessen these occurrences.

Transmitted by: Bill Howe

Attachments: ZPMC-0476

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: 05.03.06-000466

Subject: NCR No. ZPMC-0476

Dated: 18-Jan-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000496 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: As a means of preventing future occurrences, the ABF QCM has performed refresher MT training. See attached MT training agenda and attendance roster.

As it is necessary to respond to the NCR with a proposed plan of action, ABF is doing so without all of the repair documentation at this time. As a means of preventing future occurrences, the ABF QCM has performed refresher MT training. See attached MT training agenda and attendance roster. The ABF QCM has been discussing missed MT indications with the ZPMC QCM and related NDT supervisory personnel. The ZPMC level III is in the process of assessing personnel, techniques and equipment. Preliminary findings have resulted in ZPMC taking immediate action by performing 100% overchecks of the previously tested areas beginning the week of 18 January 09 as a means of preventing future NCR's for missed indications. ABF has purchased powder dispensers for all the ZPMC MT technicians as a means to help control the amount of powder applied during MT testing. ZPMC requests this NCR be placed in the Approved Action Pending status category until such time that all the repair documents have been assembled and submitted.

Submitted by: Lawton, Steve

Attachment(s): ABF-NPR-000496R00;

Caltrans' comments:

Status: AAP

Date: 25-Jan-2010

The preventative measures taken by the QCM and the proposed resolution for closing NCR submitted by the contractor are acceptable. The NCR will be closed upon completion of the repair and review of the repair documents by the Engineer when submitted by the contractor.

Submitted by: Chao, Ching

Attachment(s):

Date: 25-Jan-2010

Tool Box Training Agenda

Subject: MT Techniques

Reason for Training: Several CT NCR's of indications missed during ZPMC NDT inspection.

1. Safety

- a. Safety Glasses
- b. Gloves (if required)
- c. Knee Pads
- d. Electrical shock

2. Tools

- a. Lighting
- b. MT Powder. Red for ambient, Yellow for High Temperature.
- c. Powder Bulb
- d. Powder Blower
- e. MT Yoke Adequate working condition
- f. Pie Gage

3. Inspection Techniques

- a. Lighting
- b. Position of body (distance of eyes to the weld surface)
- c. Application of Powder removal of Powder
- d. Continuous method
- e. Two directions
- f. Both sides of weld
- g. Clean and dry surface



教育培训纪录

培训编号: MT-22-Dec-09

培训内容:	MT Techniques
培训对象:	项目质检
授课人员:	Steve Lawton
培训类型:	内部培训
培训时间:	22-Dec-09 5:00 PM
计划培训地点:	ZPMC QC office

人员签到:

姓名	部门	姓名	部门
孙力杰 Sunlei	钢桥	狄坤伦 Di Kunlun	钢桥
孙广强 Sun Guangqiang	钢桥	蔡新鑫 Cai Xinxin	钢桥
徐海 Xu Hai	钢桥	傅春强 Fu Chunqiang	钢桥
卞源源 Bian Yuanyuan	钢桥	顾云武 Gu Yunwu	钢桥
许兵 Xu Bing	钢桥	金建廷 Jin Jianting	钢桥 MT
李振华 Li Zhenhua	钢桥	常方杰 Chang Fangjie	钢桥
李坤阳 Li Xunyang	QA	袁俊 Yuan Jun	钢桥
王威 Wang Wei	钢桥	刘章敏 Liu Zhangmin	
孙林 Sun Lin	钢桥 MT	徐华祥 Xu Huaxiang	钢桥
丁阿成 Ding A Cheng	钢桥 MT	周东超 Zhou Dongchao	钢桥
贺佳佳 He Jiajia	钢桥	赵成功 Zhao Cheng Gong	钢桥
黄瑞 Huang Rui	钢桥	孙广强 Sun Guangqiang	钢桥
李黎明 Li Liming	钢桥	徐辉 Xu Hui	钢桥
李昌涛 Li Changtao		刘宏斌 Liu Hongbin	

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000466

Subject: NCR No. ZPMC-0476

Dated: 07-Apr-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000496 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: Please refer to ZPMC's closure letter.

Please refer to ZPMC's closure letter.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000496R01;

Caltrans' comments:

Status: REJ

Date: 20-Apr-2010

This proposed resolution is not acceptable. The documentation received only provides MT result at one indication while two indications are identified in NCR ZPMC 0476

Submitted by: Ku, Stanley

Date: 20-Apr-2010

Attachment(s):



No. B-722

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-4-6

REGARDING: NCR-000503(ZPMC-0476)

ZPMC acknowledged that an indication was missed and has written an internal NCR. B-CWR1118 has been written reflecting to this indication and has got approved by engineer. ZPMC is providing the NDT record which shows that the weld is now acceptable after repair. Based on this ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000503(ZPMC-0476)

B787-MT-18032R1

A handwritten signature in black ink, appearing to be "Jim W", is located in the lower-left quadrant of the page.

416110



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: 05.03.06-000466

Subject: NCR No. ZPMC-0476

Reference Description: Missed MT Indication by QC on CB7

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: Xbeam Lift: 07

Remarks:

During a random Magnetic Particle Test (MT) verification of Cross Beam # 7, Caltrans Quality Assurance (QA) Inspector observed two (2) linear indications on Floor Beam weld FB204-014-073. Indication one (1) measured 10mm in length on the weld toe and indication two (2) measured 16mm in length at the heat affected zone (HAZ) in the base metal area.

This weld was previously tested and accepted by ZPMC Magnetic Particle Testing (MT) technicians.

Action Required and/or Action Taken:

Submit a repair procedure to the engineer for approval. Missed MT indications are a chronic problem for MT technicians. Provide adequate MT technicians to lessen these occurrences.

Transmitted by: Bill Howe

Attachments: ZPMC-0476

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
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Vallejo, CA 94592-1133
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(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-000503

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 06-Nov-2009

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

NCR #: ZPMC-0476

Type of problem:

Welding Concrete Other

Welding Curing Procedural Bridge No: 34-0006

Joint fit-up Coating Other Component: OBG Cross Beam 7 Floorbeam

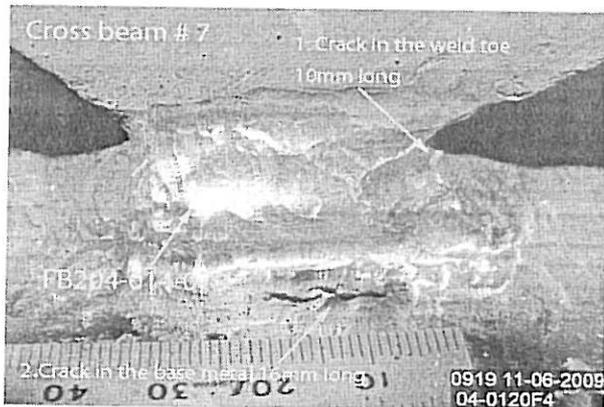
Procedural Procedural Description: Missed MT indication by QC

Reference Description: Missed MT Indication by QC on CB7

Description of Non-Conformance:

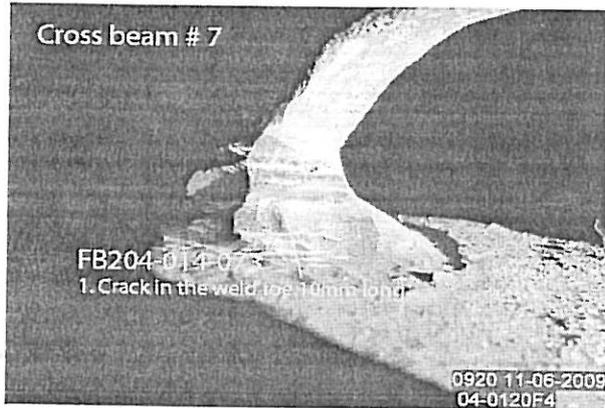
During a random Magnetic Particle Test (MT) verification of Cross Beam # 7, Caltrans Quality Assurance (QA) Inspector observed two (2) linear indications on Floor Beam weld FB204-014-073. Indication one (1) measured 10mm in length on the weld toe and indication two (2) measured 16mm in length at the heat affected zone (HAZ) in the base metal area.

This weld was previously tested and accepted by ZPMC Magnetic Particle Testing (MT) technicians.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

-AWS D1.5 (02) - 6.26.1; "The weld shall have no cracks."

-AWS D1.5 (02) Section 6.26.2; "Welds that are subject to MT in addition to visual inspection shall have no cracks."

Who discovered the problem: Dhanasingh Sukanthan

Name of individual from Contractor notified: Shen Rushan

Time and method of notification: 1130 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao and Bill Howe

Time and method of notification: 1230 hours, Verbal

QC Inspector's Name: Tian Lei

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: 05.03.06-000466

Subject: NCR No. ZPMC-0476

Dated: 26-Apr-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000496 **Rev:** 02

Contractor's Proposed Resolution:

Reference Resolution: The indications documented in this NCR were both in the same weld. Please refer to the previously submitted MT report which shows the weld is free from both previously identified indications

The indications documented in this NCR were both in the same weld. Please refer to the previously submitted MT report which shows the weld is free from both previously identified indications. Based on this ZPMC requests closure of this NCR.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000496R02;

Caltrans' comments:

Status: CLO

Date: 27-Apr-2010

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0476 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 27-Apr-2010



No. B-736

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2010-4-23

REGARDING: NCR-000503(ZPMC-0476)

ZPMC acknowledges these indications were missed. Please be noticed these 2 rejections were located at same weld, so they have been covered in pervious submitted MT report. Please review the pervious response and consider closure of this NCR.

ATTACHMENT:

NCR-000503(ZPMC-0476)

ABF-NPR-000496 R1

JM *W*
4/23/10

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-000503

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 06-Nov-2009

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

NCR #: ZPMC-0476

Type of problem:

Welding Concrete Other

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

Joint fit-up Coating Other **Component:** OBG Cross Beam 7 Floorbeam

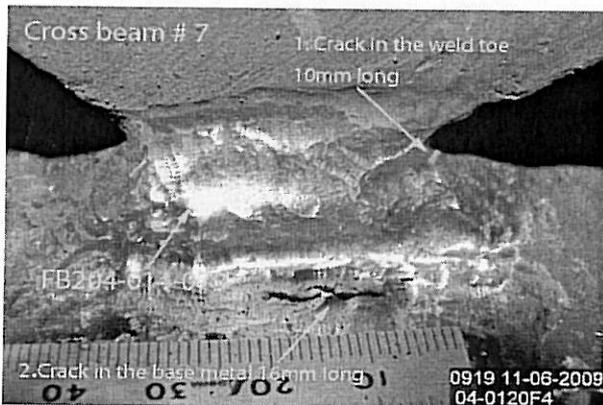
Procedural Procedural **Description:** Missed MT indication by QC

Reference Description: Missed MT Indication by QC on CB7

Description of Non-Conformance:

During a random Magnetic Particle Test (MT) verification of Cross Beam # 7, Caltrans Quality Assurance (QA) Inspector observed two (2) linear indications on Floor Beam weld FB204-014-073. Indication one (1) measured 10mm in length on the weld toe and indication two (2) measured 16mm in length at the heat affected zone (HAZ) in the base metal area.

This weld was previously tested and accepted by ZPMC Magnetic Particle Testing (MT) technicians.



QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)



Applicable reference:

-AWS D1.5 (02) - 6.26.1; "The weld shall have no cracks."

-AWS D1.5 (02) Section 6.26.2; "Welds that are subject to MT in addition to visual inspection shall have no cracks."

Who discovered the problem: Dhanasingh Sukanthan

Name of individual from Contractor notified: Shen Rushan

Time and method of notification: 1130 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao and Bill Howe

Time and method of notification: 1230 hours, Verbal

QC Inspector's Name: Tian Lei

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



AMERICAN BRIDGE/FLUOR ENTERPRISES, a JV

375 Burma Road
Oakland, CA 94607
Telephone (510) 808-4600 Fax (510) 808-4601

NCR PROPOSED RESOLUTION

To: California Department of Transportation
333 Burma Road
Oakland, CA 94607
Attention: Pursell, Gary
Resident Engineer
Ref: 05.03.06-000466
Subject: NCR No. ZPMC-0476

Dated: 07-Apr-2010
Contract No.: 04-0120F4
04-SF-80-13.2/13.9
Job Name: Self-Anchored Suspension Bridge
Document No: ABF-NPR-000496 **Rev:** 1

Contractor's Proposed Resolution:

Reference Resolution: Please refer to ZPMC's closure letter.

Please refer to ZPMC's closure letter.

Submitted By: Ishibashi, Joshua
Attachment(s): ; ABF-NPR-000496R01

Status: REJ
Date: 20-Apr-2010

Caltrans' comments:

This proposed resolution is not acceptable. The documentation received only provides MT result at one indication while two indications are identified in NCR ZPMC 0476

Submitted By: Ku, Stanley **Date:** 20-Apr-2010
Attachment(s): ABF-NPR-000496



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-000653**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 27-Apr-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0476**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: 06-Nov-2009**Description of Non-Conformance:**

During a random Magnetic Particle Test (MT) verification of Cross Beam # 7, Caltrans Quality Assurance (QA) Inspector observed two (2) linear indications on Floor Beam weld FB204-014-073. Indication one (1) measured 10mm in length on the weld toe and indication two (2) measured 16mm in length at the heat affected zone (HAZ) in the base metal area.

This weld was previously tested and accepted by ZPMC Magnetic Particle Testing (MT) technicians.

Contractor's proposal to correct the problem:

Provide refresher training to NDT technicians to improve inspection practices. Repair said indications and perform NDT required to verify weld quality.

Corrective action taken:

Contractor submitted NDT documentation verifying the weld in question meets Contract weld quality requirements and said indications have been repaired. An internal NCR was also issued in regards to this matter in addition to refresher training being provided to NDT technicians.

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