

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-000621**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 10-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0594**Type of problem:**

Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Lift 12E Longitudinal Shear Plate
Procedural	Procedural	Description:	

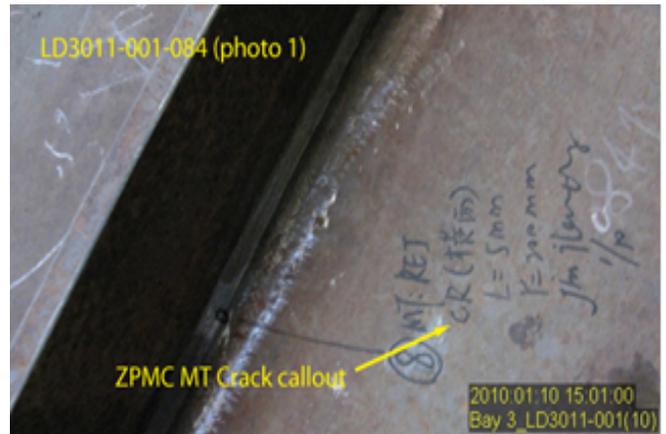
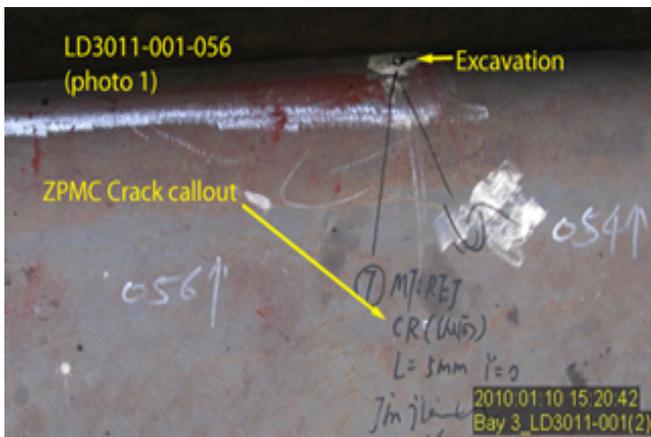
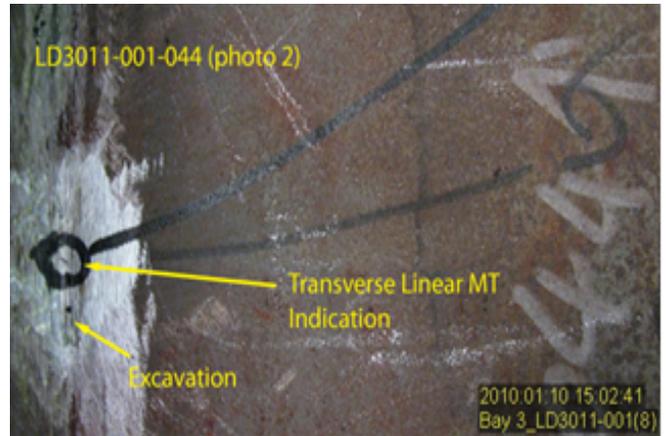
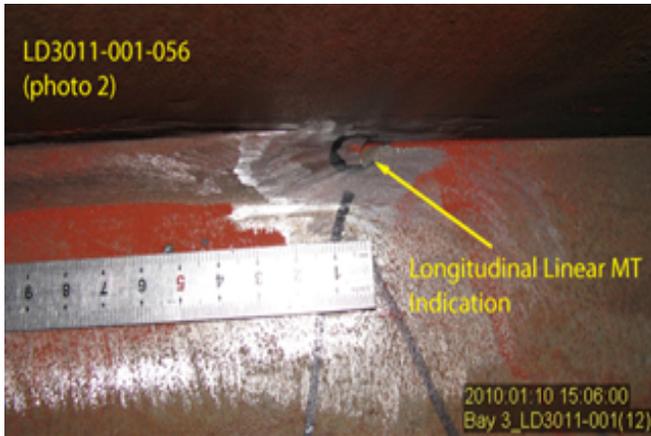
Reference Description: Repair of cracks without CWR on Lift 12E Longitudinal Shear Plate**Description of Non-Conformance:**

During random in process observations of the fabrication of longitudinal diaphragms in Orthotropic Box Girder (OBG) bay 3, this Quality Assurance (QA) Inspector observed the following issues:

- ZPMC Production Personnel excavating Linear MT Indications identified by ZPMC's MT Technician as cracks, without an approved Critical Weld Repair (CWR) for Lift 12E near working point E4.
- One (1) Longitudinal linear indication measuring approximately 5mm in length; Y location is identified as 0mm.
- The weld is identified as: LD3011-001-056.
- One (1) Transverse linear indication measuring approximately 5mm in length; Y location is identified as 200mm.
- The weld is identified as: LD3011-001-084.
- One (1) Transverse linear indication measuring approximately 9mm in length; Y location is identified as 650mm.
- The weld is identified as: LD3011-001-044.
- One (1) Transverse linear indication measuring approximately 9mm in length; Y location is identified as 1100mm.
- The weld is identified as: LD3011-001-078.
- These welds are all Fillet Welds joining Longitudinal Diaphragm Stiffeners to Longitudinal Diaphragm (LD3011A) web plate.
- The Longitudinal Diaphragm (Longitudinal Shear Plate) is located in the Sub-Assembly Bay 3.

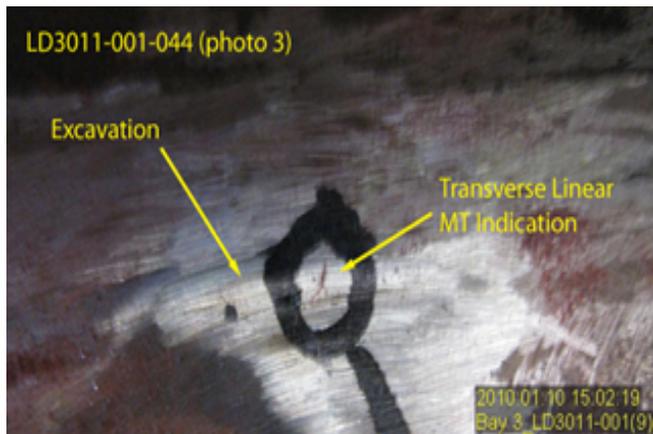
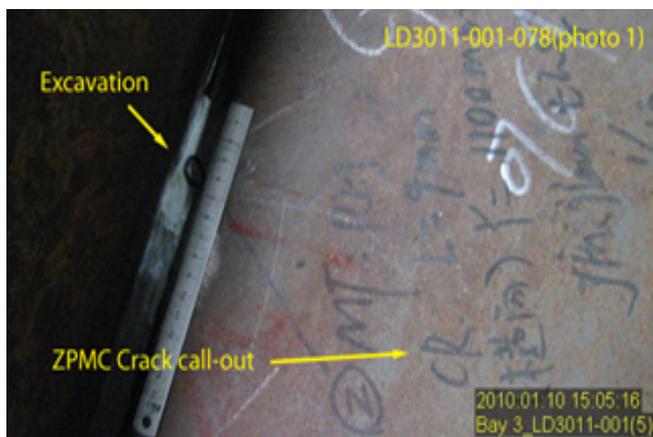
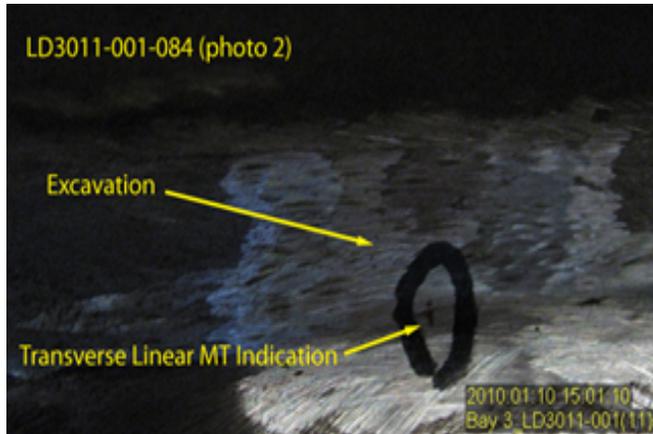
QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

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Applicable reference:

Special Provisions Section 8.3 – “Quality Control (QC) shall be the responsibility of the Contractor. As a minimum, the Contractor shall perform inspection and testing of each weld joint prior to welding, during welding, and after welding as specified in this section and to ensure that materials and workmanship conform to the requirements of the contract documents.”

Special Provisions Section 8-3; The Engineer shall be notified in writing when welding problems, deficiencies, base metal repairs, or any other type of repairs not submitted in the WQCP are discovered and also of the

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proposed repair procedures to correct them.

AWS D1.5-2002 Section 3.7.4; Prior approval of the Engineer shall be obtained for repairs to base metal, repairs of major or delayed cracks.

ZPMC WQCP section 9 - 9.2.1.2 "Prior approval of the Engineer shall be obtained for repairs to base metal other than what was identified in section 9.2.1.1 of this manual and the repair of all other cracks."

Who discovered the problem: Stefan Holmes

Name of individual from Contractor notified: Feng Yun Long

Time and method of notification: 1545 hours, 01/10/10, Verbal

Name of Caltrans Engineer notified: Bill Howe

Time and method of notification: 1100 hours, 01/11/10, Verbal

QC Inspector's Name: Jin Jian Ting

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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NCT

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File: 05.03.06

NCR PROPOSED RESOLUTION

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

Attention: Pursell, Gary
Resident Engineer

Ref: 05.03.06-000584

Subject: NCR No. ZPMC-0594

Dated: 22-Jan-2010

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000536 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution: The grinding was to determine if the indications found by MT were cracks or just slag inclusions or porosities. CWR is not required as it is still the exploratory phase of the process

The grinding observed was to determine if the indications found by MT were cracks or just slag inclusions or porosities. If the indication is then determined to be a crack, a CWR will be issued. If the indication is removed and does not require subsequent welding, a CWR is not required as no weld repair was performed. If the indication is not interpreted to be a crack, such as slag, undercut, overlap or lack of fusion, basically an indication that holds powder, a WRR will be generated for welding repair. In this case a CWR is not required as it is still the exploratory phase of the process and not a repair or excavation. Since the basis of the NCR was "ZPMC Production Personnel excavating Linear MT Indications identified by ZPMC's MT Technician as cracks, without an approved Critical Weld Repair (CWR) for Lift 12E near working point E4." ABFJV/ZPMC requests that this NCR be closed because this was not an excavation.

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000536R00

Caltrans' comments:

Status: CLO

Date: 26-Jan-2010

The Engineer has reviewed the information provided in the NPR. The indication found turned out to be a crack and it has been repaired with an approved CRW. NDT has also been done to show that the repair was successful. Please be aware that a CWI must be present with an approved CWR and preheat must be applied prior to excavating cracks.

Submitted by: Chao, Ching

Attachment(s):

Date: 26-Jan-2010

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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-000486**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 27-Jan-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0594**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: 10-Jan-2010**Description of Non-Conformance:**

During random in process observations of the fabrication of longitudinal diaphragms in Orthotropic Box Girder (OBG) bay 3, this Quality Assurance (QA) Inspector observed the following issues:

- ZPMC Production Personnel excavating Linear MT Indications identified by ZPMC's MT Technician as cracks, without an approved Critical Weld Repair (CWR) for Lift 12E near working point E4.
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- The Longitudinal Diaphragm (Longitudinal Shear Plate) is located in the Sub-Assembly Bay 3.

Contractor's proposal to correct the problem:

Wait for Engineer's approval prior to completing repair.

Corrective action taken:

The Contractor is of the opinion that this NCR was written while ZPMC personnel was in process of determining the severity of the indication. ZPMC production personnel stopped work after being notified of the Non Conformance. A CWR was approved for the repair and the weld has since been Green Tagged

