

**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, China**Report No:** NCR-000908**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Nov-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0870**Type of problem:****Welding****Concrete****Other****Welding****Curing****Procedural****Bridge No:** 34-0006**Joint fit-up****Coating****Other****Component:** Lift 13AE, SEG3007Q-104**Procedural****Procedural****Description:****Reference Description:** New Welding Procedure Not Followed (Rager/McQuaid)**Description of Non-Conformance:**

During the Quality Assurance (QA) random in-process observations of the fabrication of OBG Lift 13 East in Bay # 14, this Caltrans QA Inspector observed the following:

ZPMC welding personnel did not appear to be following the New weld procedure

The following requirements were not followed:

2. Assembly (2F)
5. Post weld Thermal Treatment (5A)
6. Non Destructive testing (6A)

- ZPMC personnel performed weld repair for the weld between longitudinal diaphragm (LD3026) and floor beam web (FB3106) without adequate preheating of the adjacent base material.

- ZPMC did not perform NDT (Magnetic Particle testing) on the weld excavated area.

- ZPMC did not perform PWHT after complete weld repair before the temperature falls below the preheat temperature

-During the welding This QA Inspector observed a 160 degree Celsius Tempstick did not melt when applied to the adjacent base material.

-Weld number identified as SEG3007Q-104

-The welding performed with Flux Cored Arc Welding (FCAW) process.

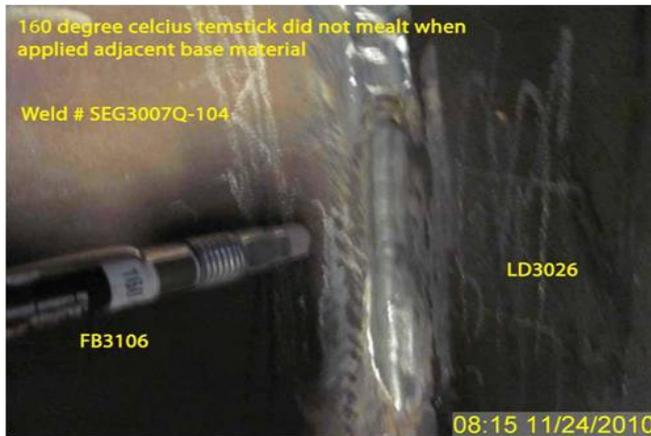
-Did not appear any electric strip heaters or torch

-OBG lift 13 East in bay # 14

See attached photographs for additional detail.

# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 2 of 3 )



## Applicable reference:

NEW WELD PROCEDURE (Rager/McQuaid)

2) Assembly:F. Preheat shall be applied in such manner to provide a minimum temperature in the area of the weld 165 degree Celsius

5) Post weld thermal treatment: A. After welding is completed but before the temperature falls below that of the preheat temperature, post heat shall be applied to maintain the temperature in the area of the weld at 165 C - 225°C

6) Non destructive testing :A All back gouged groove welds are to have their gouged areas ground to bright metal and inspected 100% by VT and MT examination before welding may begin from the second side

**Who discovered the problem:** Shrikant Utekar

**Name of individual from Contractor notified:** Peter Shaw

**Time and method of notification:** General Notification 11/23/10

**Name of Caltrans Engineer notified:** Laraine Woo

**Time and method of notification:** 13:00hrs, Email, 11/25/10

**QC Inspector's Name:** Wang Lu (Testino)

**Was QC Inspector aware of the problem:**

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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 3 of 3 )

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Yes No

**Contractor's proposal to correct the problem:**

NA

**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,(818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Devey,Jim	SMR
<b>Reviewed By:</b>	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:** 25-Nov-2010  
**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:** 05.03.06-000865  
**Subject:** NCR No. ZPMC-0870  
**Reference Description:** New Welding Procedure Not Followed (Rager/McQuaid)

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:** 13

**Remarks:**

During the Quality Assurance (QA) random in-process observations of the fabrication of OBG Lift 13 East in Bay # 14, this Caltrans QA Inspector observed the following:  
ZPMC welding personnel did not appear to be following the New Weld Procedure (Rager/McQuaid)  
The following requirements were not followed:

- 2. Assembly (2F)
- 5. Post weld Thermal Treatment (5A)
- 6. Non Destructive testing (6A)

- ZPMC personnel performed weld repair for the weld between longitudinal diaphragm (LD3026) and floor beam web (FB3106) without adequate preheating of the adjacent base material.
- ZPMC did not perform NDT (Magnetic Particle testing) on the weld excavated area.
- ZPMC did not perform PWHT after complete weld repair before the temperature falls below the preheat temperature
- During the welding This QA Inspector observed a 160 degree Celsius Tempstick did not melt when applied to the adjacent base material.
- Weld number identified as SEG3007Q-104
- The welding performed with Flux Cored Arc Welding (FCAW) process.
- Did not appear any electric strip heaters or torch
- OBG lift 13 East in bay # 14

**Action Required and/or Action Taken:**

Propose a resolution for the identified non-conformance with revised procedures to prevent future occurrences. A response for the resolution of this issue is expected within 7 days.

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# NCT

( Continued Page 2 of 2 )

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**Transmitted by:** Laraine Woo      Transportation Engineer

**Attachments:**    ZPMC-0870

**cc:**    Rick Morrow, Gary Pursell, Peter Siegenthaler, Stanley Ku, Brian Boal, Contract Files, Ching Chao, Bill Casey

**File:** 05.03.06

## NCR PROPOSED RESOLUTION

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

**Attention:** Siegenthaler, Peter  
Resident Engineer

**Ref:** 05.03.06-000865

**Subject:** NCR No. ZPMC-0870

**Dated:** 01-Dec-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000863 **Rev:** 00

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### Contractor's Proposed Resolution:

**Reference Resolution:** As this NCR was written without a contractual basis it should be withdrawn.

The "NEW WELD PROCEDURE (Rager/McQuaid)" quoted as the basis for this NCR is not a contract document only a recommendation from the QA/QC Committee. If the Department wants to incorporate the QA/QC committee's recommendations as a contract requirement a contract change order should be issued. As this NCR was written without a contractual basis it should be withdrawn.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000863R00

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### Caltrans' comments:

**Status:** REJ

**Date:** 03-Dec-2010

CT acknowledges contractor's response. However, successful NDT will close this NCR.

**Submitted by:** Chao, Ching

**Attachment(s):**

**Date:** 03-Dec-2010

## NCR PROPOSED RESOLUTION

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

**Attention:** Siegenthaler, Peter  
Resident Engineer

**Ref:** 05.03.06-000865

**Subject:** NCR No. ZPMC-0870

**Dated:** 08-Dec-2010

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000863 **Rev:** 01

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### Contractor's Proposed Resolution:

**Reference Resolution:** We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

We understand your response and we will not submit the normal NCR closure package with NDT reports for this and expect that CT will close these as the green tags for these components are issued.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000863R01

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### Caltrans' comments:

**Status:** REJ

**Date:** 09-Dec-2010

Normal NCR closure package with NDT reports shall be submitted with the NPR to close out the NCR.

**Submitted by:** Woo, Laraine

**Date:** 09-Dec-2010

**Attachment(s):**

## NCR PROPOSED RESOLUTION

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

**Attention:** Siegenthaler, Peter  
Resident Engineer

**Ref:** 05.03.06-000865

**Subject:** NCR No. ZPMC-0870

**Dated:** 22-Feb-2011

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

**Job Name:** SAS Superstructure

**Document No.:** ABF-NPR-000863 Rev: 02

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**Contractor's Proposed Resolution:**

**Reference Resolution:**

See attached NDT results to show the weld is acceptable. Based on this ZPMC requests closure of this NCR.

**Submitted by:** Ishibashi, Joshua

**Attachment(s):** ABF-NPR-000863R02;

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**Caltrans' comments:**

**Status:** CLO

**Date:** 23-Feb-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0870 is closed.

**Submitted by:** Eagen, Sean

**Attachment(s):**

**Date:** 23-Feb-2011

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
 690 Walnut Ave. St. 150  
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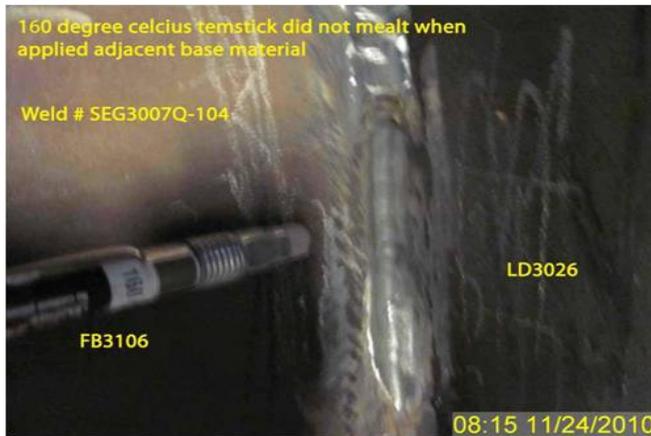
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( Continued Page 2 of 3 )



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# QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

( Continued Page 3 of 3 )

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<b>Inspected By:</b>	Devey,Jim	SMR
<b>Reviewed By:</b>	Wahbeh,Mazen	SMR

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# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-18958R1-2    DATE 2010.12.27    PAGE 1 OF 5    Revision No: 0

PROJECT NO.: 工程编号 ZP06-787    CONTRACTOR: CALTRANS

ITEMS NAME: 13AE    DRAWING NO.: SEG3007    CALTRANS CONTRACT NO.: 04-0120F4  
 部件名称    图号    加州工程编号

REFERENCING CODE 参考规范    ACCEPTANCE STANDARD 接受标准    PROCEDURE NO. 程序编号  
 AWS D1.5-2002    AWS D1.5-2002(Table 6.3)    ZPQC-UT-01

WELDING PROCESS 焊接方法    JOINT TYPE 焊缝类型    CALIBRATION DUE DATE 仪器校正有效期  
 SMAW    T-JOINT    Dec. 28<sup>ST</sup>, 2010

EQUIPMENT 设备    MANUFACTURER 制造商    MODEL NO. 样式编号    SERIAL NO. 序列编号  
 UT SCOPE    GE    USM35    10526a

CALIBRATION BLOCK 试块    COUPLANT 耦合剂    MATERIAL/THICKNESS 材料厚度  
 AWS IIV BLOCK TYPE II    C.M.C    A709M-345T2/F2    18/20/25/45mm

### TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
AMERICA	70°	2.25MHz	0.75in×0.625in				
Reference Level 参考灵敏度						20dB	

Base metal inspected per AWS D1.5-2002 Section 6.19.5    0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)							
									a	b	c	d	Length 长度			Sound Path 声程
SEG3007P-042	1R1	70.6				40									ACC.	100%
	2R1	70.6				40									ACC.	100%
	3R1	70.6				40									ACC.	100%
	4R1	70.6				40									ACC.	100%
	5R1	70.6				40									ACC.	100%
	6R1	70.6				40									ACC.	100%
	7R1	70.6				40									ACC.	100%
	8R1	70.6				40									ACC.	100%

EXAMINED BY 主探 Qinluoan fu    REVIEWED BY 审核 Xu Yong gang

LEVEL - II SIGN / DATE 2010.12.27    LEVEL - II SIGN / DATE 2010.12.27

质量经理 / QCM Lijianhua    用户CUSTOMER \_\_\_\_\_  
 签字 SIGN / 日期 DATE 2010.12.27    签字 SIGN / 日期 DATE \_\_\_\_\_



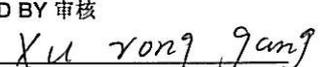
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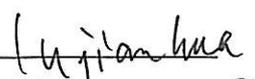
## UT探伤报告

REPORT NO. 报告编号 B787-UT-18958R1-2      DATE 2010.12.27      PAGE 2 OF 5      Revision No: 0

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)						
					a	b	c	d	Length 长度	Sound Path 声程	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y		
	9R1	70.6				40								ACC.	100%
	10R1	70.6				40								ACC.	100%
	11R1	70.6				40								ACC.	100%
	12R1	70.6				40								ACC.	100%
	13R1	70.6				40								ACC.	100%
	14R1	70.6				40								ACC.	100%
	15R1	70.6				40								ACC.	100%
	16R1	70.6				40								ACC.	100%
	17R1	70.6				40								ACC.	100%
	18R1	70.6				40								ACC.	100%
	19R1	70.6				40								ACC.	100%
	20R1	70.6				40								ACC.	100%
SEG3007Q-104	1R1	70.6				40								ACC.	100%
	2R1	70.6				40								ACC.	100%
	3R1	70.6				40								ACC.	100%
	4R1	70.6				40								ACC.	100%
	5R1	70.6				40								ACC.	100%
	6R1	70.6				40								ACC.	100%
	7R1	70.6				40								ACC.	100%
	8R1	70.6				40								ACC.	100%
SEG3007L-013	1R1	70.6				40								ACC.	100%
	2R1	70.6				40								ACC.	100%
	3R1	70.6				40								ACC.	100%

EXAMINED BY 主探  
  
 LEVEL - II SIGN / DATE 2010.12.27

REVIEWED BY 审核  
  
 LEVEL - II SIGN / DATE 2010.12.27

质量经理 / QCM  
  
 签字 SIGN / 日期 DATE 2010.12.27

用户 CUSTOMER  
 签字 SIGN / 日期 DATE



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REPORT NO. 报告编号 B787-UT-18958R1-2      DATE 2010.12.27      PAGE 3 OF 5      Revision No: 0

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
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									a	b	c	d	Length 长度			Sound Path 声程
	4R1	70.6				40									ACC.	100%
	5R1	70.6				40									ACC.	100%
	6R1	70.6				40									ACC.	100%
	7R1	70.6				40									ACC.	100%
SEG3007L-015	1R1	70.6				40									ACC.	100%
	2R1	70.6				42									ACC.	100%
	3R1	70.6				40									ACC.	100%
	4R1	70.6				40									ACC.	100%
	5R1	70.6				40									ACC.	100%
	6R1	70.6				40									ACC.	100%
	7R1	70.6				40									ACC.	100%
	8R1	70.6				40									ACC.	100%
SEG3007F-033	1R1	70.6				40									ACC.	100%
	2R1	70.6				40									ACC.	100%
	3R1	70.6				40									ACC.	100%
	4R1	70.6				40									ACC.	100%
	5R1	70.6				40									ACC.	100%
	6R1	70.6				40									ACC.	100%
	7R1	70.6				40									ACC.	100%
	8R1	70.6				40									ACC.	100%
SEG3007F-035	1R1	70.6				40									ACC.	100%
	2R1	70.6				40									ACC.	100%
	3R1	70.6				40									ACC.	100%

EXAMINED BY 主探 <i>Qin Guanfu</i> LEVEL - II SIGN / DATE      2010.12.27	REVIEWED BY 审核 <i>Xu Yang gang</i> LEVEL - II SIGN / DATE      2010.12.27
质量经理 / QCM <i>Lu Jianhua</i> 签字 SIGN / 日期 DATE      2010.12.27	用户 CUSTOMER  签字 SIGN / 日期 DATE



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	6R1	70.6				40								ACC.	100%
	7R1	70.6				40								ACC.	100%
SEG3007G-017	1R1	70.6				40								ACC.	100%
	2R1	70.6				40								ACC.	100%
	3R1	70.6				40								ACC.	100%
	4R1	70.6				40								ACC.	100%
	5R1	70.6				40								ACC.	100%
	6R1	70.6				40								ACC.	100%
	7R1	70.6				40								ACC.	100%
SEG3007G-019	1R1	70.6				40								ACC.	100%
SEG3007B-125	1R1	70.6				40								ACC.	100%
	2R1	70.6				40								ACC.	100%
	3R1	70.6				40								ACC.	100%
	4R1	70.6				40								ACC.	100%
	5R1	70.6				40								ACC.	100%
	6R1	70.6				40								ACC.	100%
	7R1	70.6				40								ACC.	100%
	8R1	70.6				40								ACC.	100%
	9R1	70.6				40								ACC.	100%
	10R1	70.6				40								ACC.	100%
	11R1	70.6				40								ACC.	100%

EXAMINED BY 主探

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LEVEL - II SIGN / DATE 2010.12.27

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REFERENCING CODE 参考规范    ACCEPTANCE STANDARD 接受标准    PROCEDURE NO. 程序编号  
 AWS D1.5-2002    AWS D1.5-2002(Table 6.3)    ZPQC-UT-01

WELDING PROCESS 焊接方法    JOINT TYPE 焊缝类型    CALIBRATION DUE DATE 仪器校正有效期  
 SMAW    T-JOINT    Dec. 28<sup>ST</sup>, 2010

EQUIPMENT 设备    MANUFACTURER 制造商    MODEL NO. 样式编号    SERIAL NO. 序列编号  
 UT SCOPE    GE    USM35    10526a

CALIBRATION BLOCK 试块    COUPLANT 耦合剂    MATERIAL/THICKNESS 材料厚度  
 AWS IIV BLOCK TYPE II    C.M.C    A709M-345T2/F2    18/20/25/45mm

### TRANSDUCER 探头

MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸	MANUFACTURER 制造商	ANGLE 角度	FREQUENCY 频率	SIZE 尺寸
AMERICA	70°	2.25MHz	0.75in×0.625in				
Reference Level 参考灵敏度						20dB	

Base metal inspected per AWS D1.5-2002 Section 6.19.5    0° UT OK.

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)							
									a	b	c	d	Length 长度			Sound Path 声程
SEG3007P-042	1R1	70.6				40									ACC.	100%
	2R1	70.6				40									ACC.	100%
	3R1	70.6				40									ACC.	100%
	4R1	70.6				40									ACC.	100%
	5R1	70.6				40									ACC.	100%
	6R1	70.6				40									ACC.	100%
	7R1	70.6				40									ACC.	100%
	8R1	70.6				40									ACC.	100%

EXAMINED BY 主探  
*Qinluoan fu*  
 LEVEL - II SIGN / DATE 2010.12.27

REVIEWED BY 审核  
*Xu Yong gang*  
 LEVEL - II SIGN / DATE 2010.12.27

质量经理 / QCM  
*Lijianhua*  
 签字 SIGN / 日期 DATE 2010.12.27

用户 CUSTOMER  
 签字 SIGN / 日期 DATE



# REPORT OF ULTRASONIC EXAMINATION

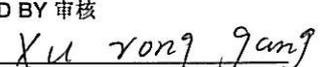
## UT探伤报告

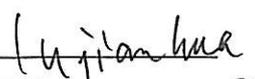
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Revision No: 0

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)						
					a	b	c	d	Length 长度	Sound Path 声程	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y		
	9R1	70.6				40								ACC.	100%
	10R1	70.6				40								ACC.	100%
	11R1	70.6				40								ACC.	100%
	12R1	70.6				40								ACC.	100%
	13R1	70.6				40								ACC.	100%
	14R1	70.6				40								ACC.	100%
	15R1	70.6				40								ACC.	100%
	16R1	70.6				40								ACC.	100%
	17R1	70.6				40								ACC.	100%
	18R1	70.6				40								ACC.	100%
	19R1	70.6				40								ACC.	100%
	20R1	70.6				40								ACC.	100%
SEG3007Q-104	1R1	70.6				40								ACC.	100%
	2R1	70.6				40								ACC.	100%
	3R1	70.6				40								ACC.	100%
	4R1	70.6				40								ACC.	100%
	5R1	70.6				40								ACC.	100%
	6R1	70.6				40								ACC.	100%
	7R1	70.6				40								ACC.	100%
	8R1	70.6				40								ACC.	100%
SEG3007L-013	1R1	70.6				40								ACC.	100%
	2R1	70.6				40								ACC.	100%
	3R1	70.6				40								ACC.	100%

EXAMINED BY 主探  
  
 LEVEL - II SIGN / DATE 2010.12.27

REVIEWED BY 审核  
  
 LEVEL - II SIGN / DATE 2010.12.27

质量经理 / QCM  
  
 签字 SIGN / 日期 DATE 2010.12.27

用户 CUSTOMER  
 签字 SIGN / 日期 DATE



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

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WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注	
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)							
									a	b	c	d	Length 长度			Sound Path 声程
	4R1	70.6				40									ACC.	100%
	5R1	70.6				40									ACC.	100%
	6R1	70.6				40									ACC.	100%
	7R1	70.6				40									ACC.	100%
SEG3007L-015	1R1	70.6				40									ACC.	100%
	2R1	70.6				42									ACC.	100%
	3R1	70.6				40									ACC.	100%
	4R1	70.6				40									ACC.	100%
	5R1	70.6				40									ACC.	100%
	6R1	70.6				40									ACC.	100%
	7R1	70.6				40									ACC.	100%
	8R1	70.6				40									ACC.	100%
SEG3007F-033	1R1	70.6				40									ACC.	100%
	2R1	70.6				40									ACC.	100%
	3R1	70.6				40									ACC.	100%
	4R1	70.6				40									ACC.	100%
	5R1	70.6				40									ACC.	100%
	6R1	70.6				40									ACC.	100%
	7R1	70.6				40									ACC.	100%
	8R1	70.6				40									ACC.	100%
SEG3007F-035	1R1	70.6				40									ACC.	100%
	2R1	70.6				40									ACC.	100%
	3R1	70.6				40									ACC.	100%

EXAMINED BY 主探 Qin Guanfu

REVIEWED BY 审核 Xu Yang gang

LEVEL - II SIGN / DATE 2010.12.27

LEVEL - II SIGN / DATE 2010.12.27

质量经理 / QCM Lu Jianhua

用户 CUSTOMER \_\_\_\_\_

签字 SIGN / 日期 DATE 2010.12.27

签字 SIGN / 日期 DATE \_\_\_\_\_



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-18958R1-2      DATE 2010.12.27      PAGE 4 OF 5      Revision No: 0

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)						
									a	b	c	d	Length 长度		
	4R1	70.6				40								ACC.	100%
	5R1	70.6				40								ACC.	100%
	6R1	70.6				40								ACC.	100%
	7R1	70.6				40								ACC.	100%
SEG3007G-017	1R1	70.6				40								ACC.	100%
	2R1	70.6				40								ACC.	100%
	3R1	70.6				40								ACC.	100%
	4R1	70.6				40								ACC.	100%
	5R1	70.6				40								ACC.	100%
	6R1	70.6				40								ACC.	100%
	7R1	70.6				40								ACC.	100%
SEG3007G-019	1R1	70.6				40								ACC.	100%
SEG3007B-125	1R1	70.6				40								ACC.	100%
	2R1	70.6				40								ACC.	100%
	3R1	70.6				40								ACC.	100%
	4R1	70.6				40								ACC.	100%
	5R1	70.6				40								ACC.	100%
	6R1	70.6				40								ACC.	100%
	7R1	70.6				40								ACC.	100%
	8R1	70.6				40								ACC.	100%
	9R1	70.6				40								ACC.	100%
	10R1	70.6				40								ACC.	100%
	11R1	70.6				40								ACC.	100%

EXAMINED BY 主探

Qiu Oceanfa  
LEVEL - II SIGN / DATE 2010.12.27

质量经理 / QCM  
Lu Jianhua

签字 SIGN / 日期 DATE 2010.12.27

REVIEWED BY 审核

Xu Yang  
LEVEL - II SIGN / DATE 2010.12.27

用户 CUSTOMER

签字 SIGN / 日期 DATE



# REPORT OF ULTRASONIC EXAMINATION

## UT探伤报告

REPORT NO. 报告编号 B787-UT-18958R1-2      DATE 2010.12.27      PAGE 5 OF 5      Revision No: 0

WELD IDENTIFICATION 焊缝部件编号	INDICATION NO. 指示号	PROBE ANGLE 探测角度	FROM FACE 检测面	LEG (次数)	DECIBELS分贝				DISCONTINUITY 不连续性					Discontinuity Evaluation 缺陷估计	Remark 备注
					Indication Level	Reference Level	Attenuation Factor	Indication Rating	LOCATION OF DISCONTINUITY 不连续位置(mm)						
					a	b	c	d	Length 长度	Sound Path 声程	Depth from Surface 距表面深度	From'X 距X	From'Y 距Y		
	12R1	70.6				40								ACC.	100%
	13R1	70.6				40								ACC.	100%
SEG3007C-170	1R1	70.6				40								ACC.	100%
	2R1	70.6				40								ACC.	100%
	3R1	70.6				40								ACC.	100%
	4R1	70.6				40								ACC.	100%
	5R1	70.6				40								ACC.	100%
	6R1	70.6				40								ACC.	100%
	7R1	70.6				40								ACC.	100%
	8R1	70.6				40								ACC.	100%
	9R1	70.6				40								ACC.	100%

AFTER B-WR17544/17545/17548/17549/17557/17559/17555/17554/17558/17556

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EXAMINED BY 主探 <i>Qiu Qian fu</i> LEVEL - II SIGN / DATE    2010.12.27	REVIEWED BY 审核 <i>Xu rong jiang</i> LEVEL - II SIGN / DATE    2010.12.27
质量经理 / QCM <i>Lu Jianhua</i> 签字 SIGN / 日期 DATE    2010.12.27	用户 CUSTOMER  签字 SIGN / 日期 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, China**Report No:** NCS-000921**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 23-Feb-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0870**Type of problem:**

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

**Date the Non-Conformance Report was written:** 23-Nov-2010**Description of Non-Conformance:**

During the Quality Assurance (QA) random in-process observations of the fabrication of OBG Lift 13 East in Bay # 14, this Caltrans QA Inspector observed the following:

ZPMC welding personnel did not appear to be following the New weld procedure

The following requirements were not followed:

2. Assembly (2F)
5. Post weld Thermal Treatment (5A)
6. Non Destructive testing (6A)

- ZPMC personnel performed weld repair for the weld between longitudinal diaphragm (LD3026) and floor beam web (FB3106) without adequate preheating of the adjacent base material.

- ZPMC did not perform NDT (Magnetic Particle testing) on the weld excavated area.

- ZPMC did not perform PWHT after complete weld repair before the temperature falls below the preheat temperature

-During the welding This QA Inspector observed a 160 degree Celsius Tempstick did not melt when applied to the adjacent base material.

-Weld number identified as SEG3007Q-104

-The welding performed with Flux Cored Arc Welding (FCAW) process.

-Did not appear any electric strip heaters or torch

-OBG lift 13 East in bay # 14

See attached photographs for additional detail.

**Contractor's proposal to correct the problem:**

Contractor will provide the NDT report to prove the weld is acceptable.

