

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-000941

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 14-Dec-2010

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

NCR #: ZPMC-0901

Type of problem:

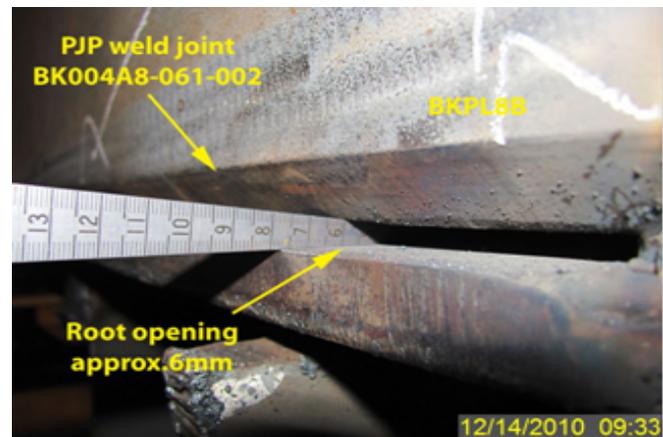
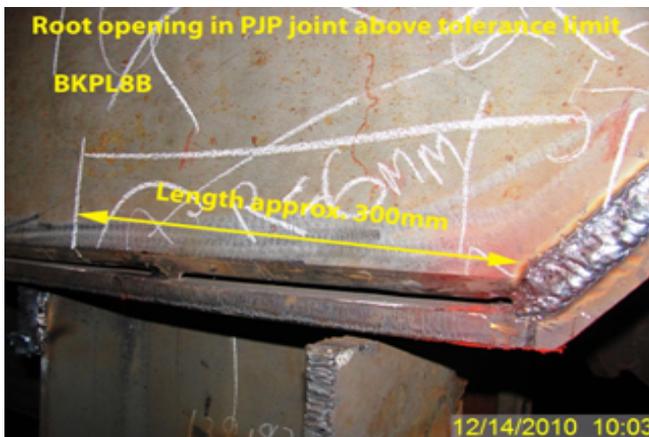
Welding	Concrete	Other	
Welding	Curing	Procedural	Bridge No: 34-0006
Joint fit-up	Coating	Other	Component: Bikepath BK004A-061
Procedural	Procedural	Description:	

Reference Description: The joint fit-up of a PJP weld joint exceeded the allowable tolerance (Bikepath BK004A-061)

Description of Non-Conformance:

During a random visual inspection of Bikepath BK004A-061, the Quality Assurance (QA) Inspector observed excessive root openings on the PJP weld joint.

- Excessive root opening up to 6mm was observed on the Partial Joint Penetration (PJP).
- According to the approved drawing weld details and the approved WPS, the tolerance for root opening is 0mm (+3mm,-2mm for tolerance)
- The weld is identified as: BK004A8-061-002 corner weld, joining the Top Plate (BKPL2A) to Closure Plate (BKPL8B).
- The Y location of more root gap at 0 mm to 300 mm (Measuring from Side Plate BKPL3B).
- The Weld is a Partial Joint Penetration (PJP).
- The OBG Bike path is located at Bay #8.



Applicable reference:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

AWS D1.5-2002 Section 3.3.2: The root opening between parts to be joined by PJP groove welds parallel to the member length (bearing joints excepted) shall be zero, or as small as practicable.

Approved Welding Procedure Specification: WPS B-T-2232-ESAB.

Who discovered the problem: Subhasis Bera

Name of individual from Contractor notified: Huang Wen Guang

Time and method of notification: 1000 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1830 hours, Email

QC Inspector's Name: Liu Chuan Gang

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

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.

Inspected By:	Tsang, Eric	SMR
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Reviewed By:	Wahbeh, Mazen	SMR
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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge
666 Feng Bin Road Room 708, Changxing Island
Shanghai 201913 PR China
Tel: 021-56856666 ext 207061 Fax:

NON-CONFORMANCE REPORT TRANSMITTAL

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

Date: 14-Dec-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: 05.03.06-000899

Subject: NCR No. ZPMC-0901

Reference Description: The joint fit-up of a PJP weld joint exceeded the allowable tolerance (Bikepath BK004A-061)

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: Bike Path **Lift:**

Remarks:

- During a random visual inspection of Bikepath BK004A-061, the Quality Assurance (QA) Inspector observed excessive root openings on the PJP weld joint.
- Excessive root opening up to 6mm was observed on the Partial Joint Penetration (PJP).
 - According to the approved drawing weld details and the approved WPS, the tolerance for root opening is 0mm (+3mm,-2mm for tolerance)
 - The weld is identified as: BK004A8-061-002 corner weld, joining the Top Plate (BKPL2A) to Closure Plate (BKPL8B).
 - The Y location of more root gap at 0 mm to 300 mm (Measuring from Side Plate BKPL3B).
 - The Weld is a Partial Joint Penetration (PJP).
 - The OBG Bike path is located at Bay #8.

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.

Transmitted by: Ching Chao

Attachments: ZPMC-0901

cc: Peter Siegenthaler, Stanley Ku, PMIV Admin, 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: 05.03.06-000899

Subject: NCR No. ZPMC-0901

Dated: 12-Jan-2011

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000906 Rev: 00

Contractor's Proposed Resolution:

Reference Resolution:

"Please see ZPMC's comments"

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000906R00;

Caltrans' comments:

Status: AAP

Date: 12-Jan-2011

This proposed resolution is accepted with action pending.

Passing NDT result does not show the "acceptability of this weld." Reference the recently submitted TC-RFI to accept this joint as fit-for-purpose.

Submitted by: Eagen, Sean

Attachment(s):

Date: 12-Jan-2011



No. B-961

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2011-01-12

REGARDING: NCR-000941(ZPMC-0901)

ZPMC acknowledged this problem and has issued an internal NCR. ZPMC is providing the NDT record to show the acceptability of this weld. ZPMC QA personnel have talked with the floor CWI to instruct the requirement to follow the Welding Procedure when performing welding. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000941(ZPMC-0901)

B787-MT-34752

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1/12/2011

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

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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-000941**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 14-Dec-2010**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**NCR #:** ZPMC-0901**Type of problem:**Welding Concrete Other Welding Curing Procedural Joint fit-up Coating Other Procedural Procedural Description:**Bridge No:** 34-0006**Component:** Bikepath BK004A-061**Reference Description:** The joint fit-up of a PJP weld joint exceeded the allowable tolerance (Bikepath BK004A-061)**Description of Non-Conformance:**

During a random visual inspection of Bikepath BK004A-061, the Quality Assurance (QA) Inspector observed excessive root openings on the PJP weld joint.

-Excessive root opening up to 6mm was observed on the Partial Joint Penetration (PJP).

-According to the approved drawing weld details and the approved WPS, the tolerance for root opening is 0mm (+3mm, -2mm for tolerance)

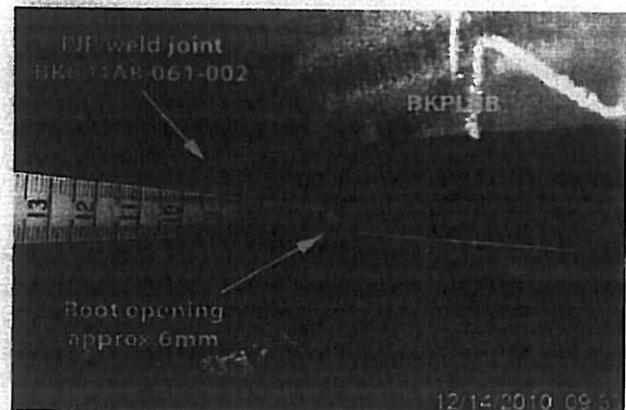
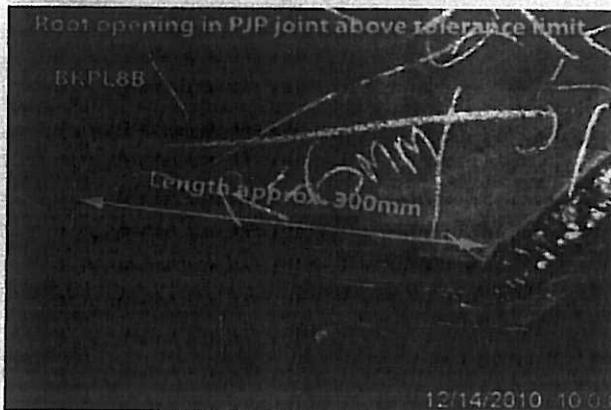
-The weld is identified as: BK004A8-061-002 corner weld, joining the Top Plate (BKPL2A) to Closure Plate (BKPL8B).

MT-34752

-The Y location of more root gap at 0 mm to 300 mm (Measuring from Side Plate BKPL3B).

-The Weld is a Partial Joint Penetration (PJP).

-The OBG Bike path is located at Bay #8.

**Applicable reference:**

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

AWS D1.5-2002 Section 3.3.2: The root opening between parts to be joined by PJP groove welds parallel to the member length (bearing joints excepted) shall be zero, or as small as practicable.

Approved Welding Procedure Specification: WPS B-T-2232-ESAB.

Who discovered the problem: Subhasis Bera

Name of individual from Contractor notified: Huang Wen Guang

Time and method of notification: 1000 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1830 hours, Email

QC Inspector's Name: Liu Chuan Gang

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Comments:

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Inspected By: Tsang, Eric

SMR

Reviewed By: Wahbeh, Mazen

SMR

NCR PROPOSED RESOLUTION

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

Attention: Siegenthaler, Peter
Resident Engineer

Ref: 05.03.06-000899

Subject: NCR No. ZPMC-0901

Dated: 14-Jan-2011

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

Job Name: SAS Superstructure

Document No.: ABF-NPR-000906 Rev: 01

Contractor's Proposed Resolution:

Reference Resolution: Attached is the RFI allowing the excessive root gap in the PJP in BKPL2A and BKPL8B at BK04A-061.

"Attached is the RFI allowing the excessive root gap in the PJP in BKPL2A and BKPL8B at BK04A-061, deeming it fit for purpose and acceptable to the Department, based on this and previously submitted acceptable NDT, ZPMC requests closure of this NCR "

Submitted by: Ishibashi, Joshua

Attachment(s): ABF-NPR-000906R01;

Caltrans' comments:

Status: CLO

Date: 16-Jan-2011

This proposed resolution is acceptable. The documentation received is sufficient and the Department concurs that Non-Conformance ZPMC-0901 is closed.

Submitted by: Eagen, Sean

Attachment(s):

Date: 16-Jan-2011

REQUEST FOR INFORMATION (RFI) – ABF&SUB.

RFI No.: RFI-ZPM-000932R00 Submitted by: Zhao, Xing Page(s): 1
 RFI Date: 7-Jan2010 Contact Name: Wu Yun Phone No. +86-21-51907446

Subject: Out of Tolerance Issue for the PJP weld Joint of OBG bikepath BK04A-061

References:

Response required by: 14-Jan-2011 (date) Response affects critical path activity? YES NO

Description:

Please be informed that for OBG bikepath BK04A-061, excessive root opening up to 6mm was observed on the 300mm length PJP weld for top plate BKPL2A & closure plate BKPL8B (see the attached measured photo).

Since the weld has already been completed and that a repair would be impractical, and on the other hand the weld has been do 100%MT and is accepted (see the attached NDT report). Therefore we think it is fit and propose to leave it as is.

Please confirm if it is acceptable.

This RFI is being submitted for:

- Material Procurement
- Contractor Convenience
- Clarification of the Contract Documents
- Engineering Review Request (ERR) for missing design information/coordination.

The Cost and Time Impact from this RFI is:

- No cost or time impacts in the performance of our Work.
- Cost and/or time impacts in the performance of our Work will result.
- We are unable to determine at this point whether there will be cost and/or time impacts.

Response:

Date:	Respondent:	Phone No.:
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The proposal to leave the 300mm of PJP weld as-built between BKPL2A and BKPL8B at BK04A-061 is acceptable on a fit-for-purpose basis.

RFI Status: (sign and date)

Closed:	Revision Pending:
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From: Roman Granados [roman_granados@dot.ca.gov]
Sent: Wednesday, January 12, 2011 9:54 AM
To: Ady Velasco
Cc: Chris Havel; Eric Tsang; Gary Thomas; Gang Jiao; Gene Rosamilia; Hayat Tazir; Jun Wu; Man Kam Hon; Steve Lawton; Stanley Ku; Sean Wichman; Tom Ho; zhu yin; Victor Altamirano; Marcos McManus; jsimonis@sasbridge.com; jdevey@sasbridge.com; cchao; Aaron Prchlik
Subject: Re: TC-RFI: RFI-ZPM-000932R00--Out of Tolerance Issue for the PJP weld Joint of OBG bikepath BK04A-061(CT response)
Follow Up Flag: Follow up
Flag Status: Flagged

Ady,

The Contractor's proposal to leave the 300mm of PJP weld as-built between BKPL2A and BKPL8B at BK04A-061 is acceptable on a fit-for-purpose basis.

Thanks,
Roman M. Granados
(510) 622-5193 - office
(510) 714-7049 - cell
158-2142-3943 - China cell



No. B-961

LETTER OF RESPONSE

TO: American Bridge/Flour

DATE: 2011-01-12

REGARDING: NCR-000941(ZPMC-0901)

ZPMC acknowledged this problem and has issued an internal NCR. ZPMC is providing the NDT record to show the acceptability of this weld. ZPMC QA personnel have talked with the floor CWI to instruct the requirement to follow the Welding Procedure when performing welding. Based on this, ZPMC is requesting closure of this NCR.

ATTACHMENT:

NCR-000941(ZPMC-0901)

B787-MT-34752

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1/12/2011

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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-000941

Prime Contractor: American Bridge/Fluor Enterprises, a JV

Date: 14-Dec-2010

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

NCR #: ZPMC-0901

Type of problem:

Welding **Concrete** **Other**

Welding **Curing** **Procedural**

Bridge No: 34-0006

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

Component: Bikepath BK004A-061

Procedural **Procedural** **Description:**

Reference Description: The joint fit-up of a PJP weld joint exceeded the allowable tolerance (Bikepath BK004A-061)

Description of Non-Conformance:

During a random visual inspection of Bikepath BK004A-061, the Quality Assurance (QA) Inspector observed excessive root openings on the PJP weld joint.

-Excessive root opening up to 6mm was observed on the Partial Joint Penetration (PJP).

-According to the approved drawing weld details and the approved WPS, the tolerance for root opening is 0mm (+3mm, -2mm for tolerance)

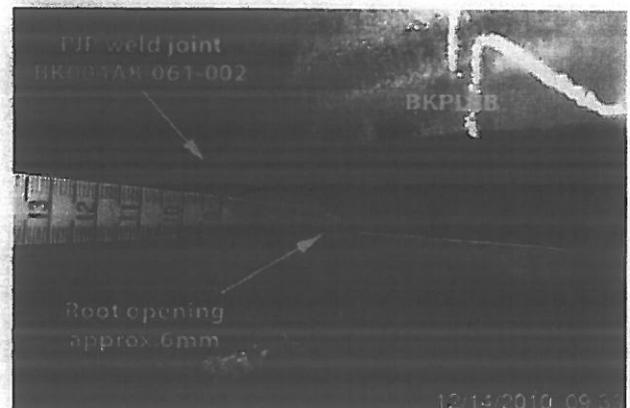
-The weld is identified as: BK004A8-061-002 corner weld, joining the Top Plate (BKPL2A) to Closure Plate (BKPL8B).

MT-34752

-The Y location of more root gap at 0 mm to 300 mm (Measuring from Side Plate BKPL3B).

-The Weld is a Partial Joint Penetration (PJP).

-The OBG Bike path is located at Bay #8.



Applicable reference:

QUALITY ASSURANCE -- NON-CONFORMANCE REPORT

(Continued Page 2 of 2)

AWS D1.5-2002 Section 3.3.2: The root opening between parts to be joined by PJP groove welds parallel to the member length (bearing joints excepted) shall be zero, or as small as practicable.

Approved Welding Procedure Specification: WPS B-T-2232-ESAB.

Who discovered the problem: Subhasis Bera

Name of individual from Contractor notified: Huang Wen Guang

Time and method of notification: 1000 hours, Verbal

Name of Caltrans Engineer notified: Ching Chao

Time and method of notification: 1830 hours, Email

QC Inspector's Name: Liu Chuan Gang

Was QC Inspector aware of the problem: Yes No

Contractor's proposal to correct the problem:

Comments:

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Inspected By:	Tsang, Eric	SMR
Reviewed By:	Wahbeh, Mazen	SMR



REPORT OF MAGNETIC PARTICLE EXAMINATION

磁粉检测报告

REPORT NO. 报告编号 B787-MT-34752		DATE日期 2010.12.22		PAGE OF页码 1/1	Revision No: 0	
PROJECT NO. ZP06-787 工程编号:			CONTRACTOR: CALTRANS 用户:			
DRAWING NO. BK004A8 图号: bike path			CALTRANS CONTRACT NO.: 04-0050F4 加州工程编号			
REFERENCING CODE 参考规范编码 AWS D1.5-2002	ACCEPTANCE STANDARD 接受标准 AWS D1.5-2002	PROCEDURE NO. 程序编号 ZPQC-MT-01	CALIBRATION DUE DATE 仪器校正有效期 Dec. 28 ST , 2010			
EQUIPMENT 设备 MT YOKE	MANUFACTURER 制造商 PARKER	MODEL NO. 样式编号 DA-400S	SERIAL NO. 连续编号 17371			
MAGNETIZING METHOD 磁化方法	Continuous magnetic yoke 磁轭式连续法	CURRENT 电流	AC			
PARTICLE TYPE 磁粉类型	Dry magnet powder 干磁粉	YOKE SPACING 磁轭间距	70~150mm			
MATERIAL TO BE EXAMINED 检测材料	<input checked="" type="checkbox"/> WELDING 焊接件 <input type="checkbox"/> CASTING 铸件 <input type="checkbox"/> FORGING 锻造	Material & thickness 母材,厚度	A709M-345T2 16mm			
WELDING PROCESS 焊接方法	FCAW	TYPE OF JOINT 焊缝类型	T-JOINT			
WELD I.D. 焊缝编号	DISCONTINUITY不连续性			ACCEPT 接受	REJECT 拒收	REMARKS 备注
	INDICATION 指示	TYPE 类型	LENGTH IN mm 长度			
BK004A8-061-001				ACC.		100%MT
BK004A8-061-002				ACC.		100%MT
BK004A8-061-007				ACC.		100%MT
BK004A8-061-130				ACC.		100%MT
BLANK						
EXAMINED BY主探 Jiang Linchong <i>Jiang Linchong 2010.12.22</i>			REVIEWED BY 审核 <i>Sun Gang</i> 2010.12.22			
LEVEL - II SIGN 签名 / DATE日期			LEVEL-II SIGN / DATE日期			
质量经理 / QCM <i>[Signature]</i>			用户CUSTOMER			
签字 SIGN / 日期 DATE			签字 SIGN / 日期 DATE			

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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-000931**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**Date:** 16-Jan-2011**Submitting Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **NCR #:** ZPMC-0901**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: 14-Dec-2010**Description of Non-Conformance:**

During a random visual inspection of Bikepath BK004A-061, the Quality Assurance (QA) Inspector observed excessive root openings on the PJP weld joint.

- Excessive root opening up to 6mm was observed on the Partial Joint Penetration (PJP).
- According to the approved drawing weld details and the approved WPS, the tolerance for root opening is 0mm (+3mm, -2mm for tolerance)
- The weld is identified as: BK004A8-061-002 corner weld, joining the Top Plate (BKPL2A) to Closure Plate (BKPL8B).
- The Y location of more root gap at 0 mm to 300 mm (Measuring from Side Plate BKPL3B).
- The Weld is a Partial Joint Penetration (PJP).
- The OBG Bike path is located at Bay #8.

Contractor's proposal to correct the problem:

Contractor proposes to leave 300mm PJP weld between BKPL2A and BKPL8B as per RFI-ZPM-932 dated Jan 7, 2011. Contractor will perform 100% MT to prove the weld is acceptable. Contractor will instruct the CWI to follow the requirement of the Welding Procedure when workers perform welding.

Corrective action taken:

Contractor left 300mm PJP weld between BKPL2A and BKPL5B as per RFI-ZPM-932 dated Jan 7, 2011. The weld has been accepted as fit-for-purpose. Contractor performed 100% MT and submitted test report confirming the weld is acceptable. The CWI involved was instructed to follow the requirements of the Welding Procedure.

Did corrective action require Engineer's approval? Yes No**If so, name of Engineer providing approval:****Date:****Is Engineer's approval attached?**

QUALITY ASSURANCE -- NON-CONFORMANCE RESOLUTION

(Continued Page 2 of 2)

Yes No

Comments:

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Inspected By:	Ng,Michael	Quality Assurance Inspector
Reviewed By:	Wahbeh,Mazen	QA Reviewer
