STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY Arnold Schwarzenegger, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
MATERIALS ENGINEERING AND TESTING 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
FAX: (707) 649-5493

Contract #: **04-0120E4**
Cty **SF** Rte **80** PM **13.4/13.8.**
File # **45.25 B**

QUALITY ASSURANCE - NONCONFORMANCE REPORT

Location: **Ingleside, Texas** Date: 10-25-06

Prime Contractor**: Kiewit/FCI/Manson (KFM) – Joint Venture** **NCR #123**

Submitting Contractor**: Kiewit Offshore Services (KOS)**

Type of problem:

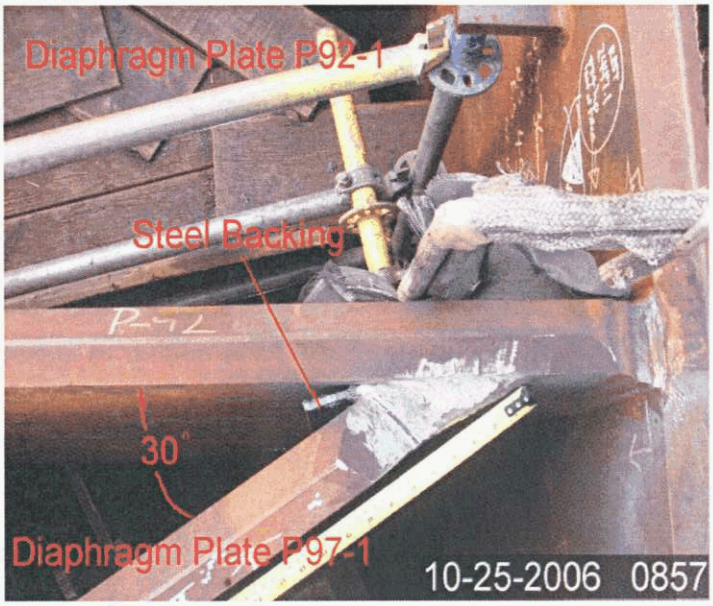
Welding	☒	**Concrete**	☐	**Other**	☐	
Welding:	☒	**Curing:**	☐	**Procedural:**	☐	**Bridge No.**: #34-0006L/R
Joint fit-up:	☒	**Coating:**	☐	**Other:**	☐	**Component:** #T1 Foundation Footing
Procedural:	☒	**Procedural:**	☐			

Description of Non-Conformance: 1) KOS production has performed flux cored arc welding without Quality Control performing the required inspection of the fit-up of three diaphragm plate to diaphragm plate complete joint penetration welds prior to welding. The complete joint penetration welds affected include diaphragm plate weld joints for diaphragm plates identified as P97-1 to P92-1, P97-2 to P92-2, and P77-2 to P72-2.

2) Four diaphragm plate complete joint penetration welds for diaphragm plates identified as P97-1 to P92-1, P97-2 to P92-2, P77-1 to P72-1, and P77-2 to P72-2 have a T-joint orientation of approximately 29 degrees to 33 degrees. The orientation of the diaphragm plates forming the Tee joint are not within the allowable range of a standard joint designation for a TC-U4c-GF.

3) Diaphragm plate complete joint penetration welds identified as P97-1 to P92-1, and P97-2 to P92-2 contain steel backing bars with gaps exceeding the tolerances of AWS D1.5 section 3.13.5

4) The melt-through on the steel backing bar side of the diaphragm plates complete joint penetration weld joint for diaphragm plates identified as P97-1 to P92-1 and P97-2 and P92-2 do not comply with the weld acceptance criteria of 6.26.



RECEIVED
005464 OCT 30 06

Hardcopy Routing Instructions:
1. Resident Engineer *2. Inspecting Branch Contract File* *3. Responsible Branch Contract File (with supporting documentation)*

QUALITY ASSURANCE - NONCONFORMANCE REPORT

(Continued, Page 2 of 2)

Applicable reference: 1) The Special Provisions, Section 8-3.01 state "The Quality Control (QC) Inspector shall inspect and approve each joint preparation, assembly practice, welding technique, joint fit-up, and the performance of each welder, and tack welders to make certain that the applicable requirements of this code and the approved Welding Procedure Specification (WPS) are met.

2) AWS D1.5-2002, Figure 2.5, Note 12 states "The orientation of the two members in the joints may vary from 45 degrees to 135 degrees for corner joints and from 45 degrees to 90 degrees for T-joints, provided that the basic configuration (groove angle, root face, root opening) remains the same and that design weld size remains the same.

3) AWS D1.5-2002, Section 3.13.5, states "Steel backing shall be placed and held in intimate contact with the base metal. The maximum gap between steel backing and the base metal at the weld root shall be 2 millimeters."

4) Weld Acceptance Criteria of AWS D1.5-2002, Section 6.26

Who discovered the problem: Caltrans Quality Assurance Inspectors Raymond Lara, Andrew Hosman, Paul Dawson, Mike Hasler, Robert Cuellar, and Gregory Bertlesman.

Name of individual from Contractor notified: KOS Quality Control Representative (QC) Mr. George Barnhill

Time and method of notification: Verbal with Mr. Barnhill at approximately 1000 hours on 10-25-2006

Name of Caltrans Engineer notified: Mark Vilcheck, Structure Representative

Time and method of notification: 1400 hours, October 27, 2006, via telephone conversation

QC Inspector's Name: George Barnhill

Was the QC Inspector aware of problem: Yes

Contractor's proposal to correct the problem: Unknown

Comments: This report is for the purpose of determining general 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, Ryan Smith (858) 232-6799 who represents the Office of Structural Materials for your project.

Inspected By: Gregory Bertlesman — Quality Assurance Inspector

Reviewed By: Robert Cuellar — Lead QA Inspector

RECEIVED
OCT 30 06
005464

Hardcopy Routing Instructions:

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DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program
333 Burma Rd.
Oakland, CA 94607
(510) 286-0538, (510) 286-0550 fax

Kiewit-FCI-Manson, JV
220 Burma Rd.
Oakland, CA 94607

Attn: Mr. Lee Zink
Project Director

February 5, 2007

Contract No. 04-0120E4
04-SF-80-13.4, 13.8
SAS T1 & E2 Foundations
SFOBB-ESSSP

Letter No. 05.003.01-002779

Subject: Response to Submittal No. 1207, Revision No. 00 (KOS Response to METS NCR 123 (KFM NCR 25))

Dear Lee,

The Department has reviewed Kiewit-FCI-Manson (KFM) Submittal No. 1207, Revision No. 00, dated January 8, 2007, which responded to the Department's Non-conformance Report (NCR) No. 123. The Department's Letter No. 2174, dated October 31, 2006, notified KFM of the NCR for Kiewit Offshore Services (KOS) dated October 25, 2006. The Department hereby approves Submittal No. 1207, Revision No. 00, pursuant to Section 8-3.01, "Welding," of the Special Provisions. The NCR for KOS dated October 25, 2006, is considered to be resolved.

If you have any questions or need additional information, please contact Mark Vilcheck at (510) 286-0526.

Sincerely,

Rafael Bolon
District Representative

For: Pedro J. Sanchez
Resident Engineer

cc: P. Sanchez
M. Woods.
M. Vilcheck
R. Smith

file: 05.003.01, 09.006.03, 55.1207

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: MARK VILCHECK
Structure Representative
333 Burma Road
Oakland, CA 94607

COMPLETED

Date: January 25, 2007

File: 04-0120E4
E2/T1 Foundations

From: RYAN T. SMITH
Structural Materials Representative
Quality Assurance and Source Inspection Branch
Office of Structural Materials

KFM SUBMITTAL 1207-00 –KIEWIT OFFSHORE SERVICES (KOS) RESPONSE TO NONCONFORMANCE REPORTS 123

The Office of Structural Materials (OSM) has reviewed the KFM Submittal 1207-00, dated January 8, 2007. In this submittal the Contractor is requesting to close the METS Nonconformance Report (NCR) 123, which documented issues regarding inadequate Quality Control (QC) performed by the Contractor on three skewed T-joint complete joint penetration (CJP) welds in the T1 footing.

In October 2006, METS documented four issues where the Contractor's QC Inspectors did not provide adequate inspection:

1. The first issue dealt with the QC inspector's failure to perform the required fit-up inspection of three of the skewed T-joints (P97-1 to P92-1, P97-2 to P92-2, and P77-2 to P72-2). As indicated in the Contractor's response to NCR 123, dated December 29, 2006, and also during several meetings between the Contractor and the Department, the Contractor has agreed that the welds were completed prior to the required fit-up inspections; however, the Contractor counseled their Quality Control inspectors and the welding crews about the requirements of fit-up inspections to ensure that similar issues do not occur in the future.

2. The second issue in NCR 123 documented the T-joints not being within the allowable range of a standard joint detail designation TC-U4c-GF per Note 12 of Figure 2.5 in the AWS D1.5-2002 Code. As stated by METS in the Department's response to RFI 090, METS understands the joint to be a single bevel and will have a groove angle, root face, and root opening that meets the requirements for

Figure 2.5 Joint TC-U4c-GF. The other side of the skewed joint will use backing as the Contractor has indicated that "no welding" will be performed on the acute angle side. Although the acute angle side is less than 45 degrees, making it out of compliance with AWS D1.5-2002 for a standard joint, therefore if backing is allowed and used on the acute side of the skewed angle, and the geometry for TC-U4c-GF is maintained on the welded side (obtuse side), METS will consider the joint to be a standard joint detail, and need not be qualified by test plate C.

3. The remaining issues listed in NCR 123 pertain to the gaps in two steel backing bars (joints P97-1 to P92-1 and P97-2 to P92-2) which exceed the tolerances specified in AWS D1.5-2002, Section 3.13.5. After reviewing the weld joint in the field, it is METS' understanding that the Contractor was unable to comply with this specification because the backing bars used were under sized, which resulted in excessive distortion of the backing bars during the welding operations.

As indicated in the Contractor's response and also during on-site meeting on November 16, 2006, the Contractor may leave the backing bar in its existing condition (at the P97-2 to P92-2 connection) provided that the voids adjacent to the backing bar are filled with an epoxy material, as the backing bar will not allow the future concrete to fill the voids. More information regarding METS decision to accept the P97-2 to P92-2 backing bar can be found in METS response to KFM RFI 327-00.

However, the backing bar at the P97-1 to P92-1 is not acceptable and it is METS understanding the Contractor has removed the backing bar and rewelded the joint in conformance with the contract specifications.

Based on the comments above, METS considers NCR 123 to be closed at this time.

If you have any questions, or would like to discuss the issues, please call me at (858) 232-6799.

cc: Rafael Bolon
Tom Shimada
Patryk Pich
Robert Cuellar

KFM
E2 / T1 PROJECT
KIEWIT / FCI / MANSON, A JV

P.O. BOX 23223 Oakland, CA 94623
Phone (510) 419-0120 / Fax (510) 832-1456

LETTER OF SUBMITTAL
SAS Foundations E2/T1 Project

Run Date 05-Jan-07
Time 4:24 PM

Dated: 08-Jan-2007

SUBMITTAL No: KFM-SUB-001207 **Rev:** 00

To: **Pedro Sanchez**
Caltrans - SAS E2/T1 Foundation Project
333 Burma Road
Oakland CA 94607
Phone: 510-286-0538 Fax:

Co/Job # 364-4347
Contract # 04-0120E4
Sub/Supplier: KOS
Sub/Supplier No: 731

Subject: KOS Response to METS NCR 123 (KFM NCR 25)

Special Provis. (SP) REF: 08-3.01
Standard Spec. (SS) REF:
RESUBMITTAL/SUPPLEMENTAL REF:

We are sending the following attached items: ☑ Attached ☐ Via Fax

- ☐ Contract Plans/Specs
- ☐ Drawings/Calculations
- ☐ Change Order
- ☑ Copy of Letter
- ☐ Certs of Compl./Samples
- ☐ Schedule
- ☐ Progress Estimate Request
- ☐ Payroll Information
- ☐ Working Drawings
- ☐ WQCP and/or Addenda
- ☐ Weekly Weld Reports
- ☐ CWR Procedure

Item	Date	Copies	Description	Drawing No	Rev	Status	Pages
01	04-Jan-07	1	NCR Response		0	Pending	29

These are transmitted as checked below:

- ☑ For Approval
- ☐ For Review/Comment
- ☐ Return For Correction
- ☐ For Your Use
- ☐ As Requested
- ☐ For Information

Remarks:

CC:

Please review / approve by : 12-Jan-2007

Submitted By: Chris Webb
(KFM Staff Member – Originator of Transmittal)

Checked & Sent By: [signature]
Contract Admin/DCS Staff

Copy To: Job Office Files

An Equal Opportunity Employer

Kiewit
2440 Kiewit Road
Ingleside, Texas 78362
Phone: 361-775-4300
Kiewit Offshore Services, Ltd.

TRANSMITTAL
No. 00731
KOS Job: 21103

PROJECT: T1 Tower Footing
Kiewit /FCI/Madson

REF: Clearing of NCR #123

ATTN: **Chris Webb**

DATE: 1/4/2007

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☑ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	SENT VIA:	☐ Returned
☐ Specifications	☑ Attached	☐ Returned for Corrections
☑ Other: NCR	☐ Separate Cover Via:	☐ Due Date:

DRAWING NO.	REV.	COPIES	DATE	DESCRIPTION
NCR# 109		4	1/4/2007	Clearing of NCR #123

Remarks:

Signed: George Barnhill

Kiewit

Chris Webb
QCM KFM JV.
Oakland, CA

Date: 12/29/2006

Subject: Clearing of NCR #123.

Chris:

KOS was NCR (#123) .

The Department issued a Non-conformance Report (NCR) at Kiewit Offshore Services, Ltd. (KOS) in Ingleside, Texas, on November 8, 2006. The NCR was generated when QA observed the following.

1. KOS performed flux cored arc welding without Quality Control (QC) performing the required inspection for the fit-up of three diaphragm plate complete joint penetration (CJP) welds prior to welding. The CJP welds affected include diaphragm plate weld joints for diaphragm plates identified as P97-1 to P92-1, P97-2 to P92-2 and P77-2 to 72-2.
   KOS did weld the CJP welds on these diaphragm plates before QC signed off on the fit up. But that was after the T-joint orientations had been opened by back gouging to meet the code requirement. UT NDE cleared these welds. In the future KOS will not weld on any joint until it has been inspected and signed off by QC. The UT reports in the joints are attached to this letter.

2. Four diaphragm plate CJP welds for diaphragm plates identified as P97-1 to P92-1, P97-2 to P92-2, P77-1 to P72-1 and P77-2 to P72-2 have a T-joint orientation of approximately 29 degrees to 33 degrees. The orientation of the diaphragm plates forming the Tee joint are not within the allowable range of a standard joint designation for a TC-U4C-GF per Note 12 of Figure 2.5 of the AWS D1.5: 2002.
   These T-joints were back gouged to open the bevel angle to meet code requirements. The welds passed UT and the reports are included in this letter. In the future KOS will verify all bevels meet the code requirements,

3. Diaphragm plate CJP welds identified as P97-1 to P92-1 and P97-2 to P92-2 contain steel backing bars with gaps exceeding the tolerances per Section No. 3.13.5 of the AWS D1.5: 2002.
   The backing bar drawed away from the weld and was more than 2mm from the diaphragm, which does not meet code requirement. Attached is Letter No.

KIEWIT OFFSHORE SERVICES, LTD.
2440 Kiewit Road, Ingleside, TX 78362
(361) 775-4300 (361) 775-4433 fax

Kiewit

05.003.01-002323, allowing KOS to epoxy the gap in the backing bar to correct the excessive gap. KOS will check the backing bars to make sure that they stay within the tolerance of AWS D1.5: 2002 in the future.

4. The melt –through on the steel backing bar side of the diaphragm plates CJP weld joint for diaphragm plates identified as P97-1 and P92-2 do not comply with the weld acceptance criteria per Section No. 6.26 of the AWS D1.5: 2002. ***The melt-through on the steel backing bar did occur. Removing the backing bar will cause more harm to the weld than leaving it in place. Both of the welds were UT inspected and were accepted. The UT reports are attached to this letter. KOS will inspect backing bars to assure that this situation does not happen again.***

KOS is asking the Department to close out this NCR. If you have any questions, or need any additional information to close out this NCR, I can be reached at 361-775-4420 or my cell is 361-385-0189.

George Barnhill
QCM KOS
Ingleside, TX

Cc: Scott Cheney, Mike Brown

KIEWIT OFFSHORE SERVICES, LTD.
2440 Kiewit Road, Ingleside, TX 78362
(361) 775-4300 (361) 775-4433 fax

STATE OF CALIFORNIA-BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program
333 Burma Rd.
Oakland, CA 94607
(510) 286-0538, (510) 286-0550 fax

KIEWIT OFFSHORE RECEIVED NOV 03 2006 PKS SERVICES, LTD.

Kiewit-FCI-Manson, JV
220 Burma Rd.
Oakland, CA 94607

Attn: Mr. Chris Webb
Welding Quality Control Manager

October 31, 2006

Contract No. 04-0120E4
04-SF-80-13.4, 13.8
SAS T1 & E2 Foundations
SFOBB-ESSSP

Letter No. 05.003.01-002174

Distribution:
Phil Sechler
Mike Brown
Mayra Zuniga
George Barnhill
John Berggren-KFM
Brenda Porter
Michael Schafermann

Subject: NCR - Kiewit Offshore Services, 10/25/06 (Various CJP Welds Non-conformance)

#123

Dear Chris,

The Department issued a Non-conformance Report (NCR) at Kiewit Offshore Services (KOS) in Ingleside, Texas, on October 25, 2006. The NCR was generated when QA observed the following:

1. KOS performed flux cored arc welding without Quality Control (QC) performing the required inspection for the fit-up of three diaphragm plate to diaphragm plate complete joint penetration (CJP) welds prior to welding. The CJP welds affected include diaphragm plate weld joints for diaphragm plates identified as P97-1 to P92-1, P97-2 to P92-2, and P77-2 to P72-2.

2. Four diaphragm plate CJP welds for diaphragm plates identified as P97-1 to P92-1, P97-2 to P92-2, P77-1 to P72-1, and P77-2 to P72-2 have a T-joint orientation of approximately 29 degrees to 33 degrees. The orientation of the diaphragm plates forming the Tee joint are not within the allowable range of a standard joint designation for a TC-U4c-GF per Note 12 of Figure 2.5 of the AWS D1.5-2002.

3. Diaphragm plate CJP welds identified as P97-1 to P92-1, and P97-2 to P92-2 contain steel backing bars with gaps exceeding the tolerances per Section No. 3.13.5 of the AWS D1.5:2002.

4. The melt-through on the steel backing bar side of the diaphragm plates CJP weld joint for diaphragm plates identified as P97-1 to P92-1 and P97-2 and P92-2 do not comply with the weld acceptance criteria per Section No. 6.26 of the AWS D1.5:2002.

QA verbally notified Mr. George Barnhill, KOS QC Manager, of this non-conformance on October 25, 2006.

Please describe what measures the Contractor will take to resolve this NCR. Also, describe how the Contractor will avoid this situation from happening in the future.

SAS FOUNDATIONS E2/T1 PROJECT KIEWIT / FCI / MANSON, A JV	
DATE 11/1/06	CO/JOB: 364-4347
ROUTED BY SBU	NO: 04-0120E4
TO:	SPECIAL NOTES:
INTERNAL KFM COPIES TO:	
EXTERNAL COPIES TO:	
SCANNED: Y N	FILED TO: CA Letter 2174

21103CN-0650

If you have any questions or need additional information, please contact Mark Vilcheck at (510) 286-0526.

Sincerely,

Mark Vilcheck
Structure Representative

For: Pedro J. Sanchez
Resident Engineer

cc: P. Sanchez
M. Woods
R. Smith

file: 05.003.01, 09.006.03

21103CN-0650

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY Arnold Schwarzenegger, Governor

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
MATERIALS ENGINEERING AND TESTING SERVICES
Office of Structural Materials
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Bay Area Branch
690 Walnut Ave., St. 150
Vallejo, CA 94592-1133
(707) 649-5453
FAX: (707) 649-5493

Contract #: **04-0120E4**
Cty **SF** Rte **80** PM **13.4/13.8.**
File # **45.25 B**

QUALITY ASSURANCE - NONCONFORMANCE REPORT

Location: **Ingleside, Texas** Date: 10-25-06

Prime Contractor: **Kiewit/FCI/Manson (KFM) – Joint Venture** **NCR #123**

Submitting Contractor: **Kiewit Offshore Services (KOS)**

Type of problem:

Welding	☒	**Concrete**	☐	**Other**	☐	
Welding:	☒	**Curing:**	☐	**Procedural:**	☐	**Bridge No.:** #34-0006L/R
Joint fit-up:	☒	**Coating:**	☐	**Other:**	☐	**Component:** #T1 Foundation Footing
Procedural:	☒	**Procedural:**	☐			

Description of Non-Conformance: 1) KOS production has performed flux cored arc welding without Quality Control performing the required inspection of the fit-up of three diaphragm plate to diaphragm plate complete joint penetration welds prior to welding. The complete joint penetration welds affected include diaphragm plate weld joints for diaphragm plates identified as P97-1 to P92-1, P97-2 to P92-2, and P77-2 to P72-2.

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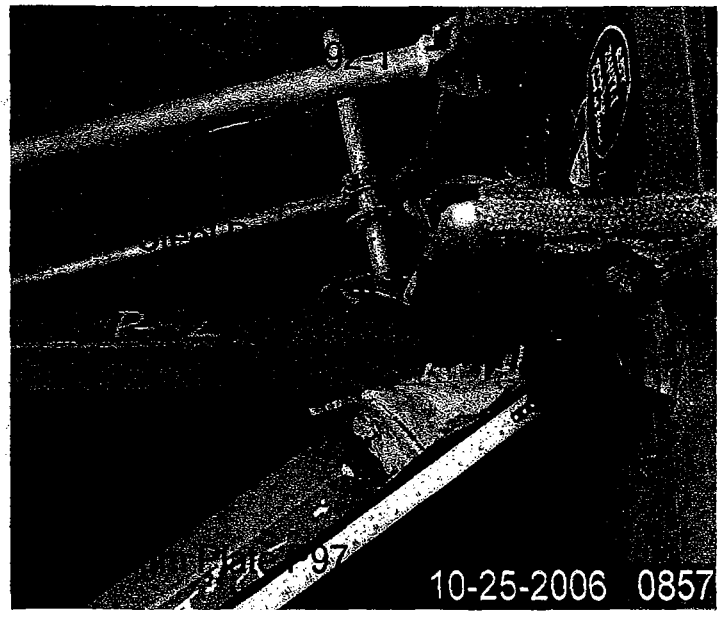
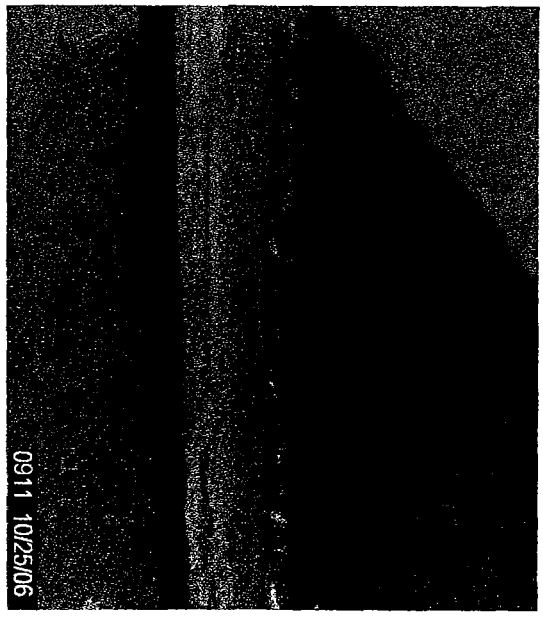
4) The melt-through on the steel backing bar side of the diaphragm plates complete joint penetration weld joint for diaphragm plates identified as P97-1 to P92-1 and P97-2 and P92-2 do not comply with the weld acceptance criteria of 6.26.





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QUALITY ASSURANCE - NONCONFORMANCE REPORT

(Continued, Page 2 of 2)

Applicable reference: 1) The Special Provisions, Section 8-3.01 state "The Quality Control (QC) Inspector shall inspect and approve each joint preparation, assembly practice, welding technique, joint fit-up, and the performance of each welder, and tack welders to make certain that the applicable requirements of this code and the approved Welding Procedure Specification (WPS) are met.

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3) AWS D1.5-2002, Section 3.13.5, states "Steel backing shall be placed and held in intimate contact with the base metal. The maximum gap between steel backing and the base metal at the weld root shall be 2 millimeters."

4) Weld Acceptance Criteria of AWS D1.5-2002, Section 6.26

Who discovered the problem: Caltrans Quality Assurance Inspectors Raymond Lara, Andrew Hosman, Paul Dawson, Mike Hasler, Robert Cuellar, and Gregory Bertlesman.

Name of individual from Contractor notified: KOS Quality Control Representative (QC) Mr. George Barnhill

Time and method of notification: Verbal with Mr. Barnhill at approximately 1000 hours on 10-25-2006

Name of Caltrans Engineer notified: Mark Vilcheck, Structure Representative

Time and method of notification: 1400 hours, October 27, 2006, via telephone conversation

QC Inspector's Name: George Barnhill

Was the QC Inspector aware of problem: Yes

Contractor's proposal to correct the problem: Unknown

Comments: This report is for the purpose of determining general 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, Ryan Smith (858) 232-6799 who represents the Office of Structural Materials for your project.

Inspected By: Gregory Bertlesman — Quality Assurance Inspector

Reviewed By: Robert Cuellar — Lead QA Inspector

Hardcopy Routing Instructions:

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Reports for Item #1

WALZEL Services

PO Box 1817
Aransas Pass, Texas 78335-1817
Phone 1-888-776-0078 • Fax 1-888-220-3077

Date 11-9-06
Report No. UT 208
Page 1 of 2

Customer Kiewit Offshore Services, Ltd. **DWG. No.**
Fabricator Kiewit Offshore Services, Ltd. **Project Name** T1 TOWER
Job No. 21103 **Job Instructions Per**

ULTRASONIC		MAGNETIC PARTICLE	PENETRANT		
Instrument Sonatest #2514X		☐ Wet ☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ DC ☐ Residual ☐ Continuous	Type	Batch No.	Florescent Minutes
Size 1.0 Round	Size .625		Penetrant		
Type Tech.	Type Tech.	Equipment	Remover		
Couplant Cellulose	Angle 0 60 70 45	Procedure	Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code	Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
	End R	W1 P151-2/ P92 75mmT	✓		356mm
	End R	W2 P151-2/ P86 75mmT	✓		152mm
A905	Pile Sleeve	Top R C-2 90mmT	✓		8713mm
~~A905~~ DF	VERT. WEB	W1 P63-2/Top R 75mmT.		X	2831mm 635mm REJ.
	VERT. WEB	W5 P97-1/ P92-1 65mmT.	✓		5320mm

Total mm inspected - 17371
Total mm accepted - 16736
Total mm rejected - 635

Total Hours:

Examination Performed By Doug Fontenot Level II U.T.

Accepted By George Barnhill

WALZEL Services

PO Box 1817
Aransas Pass, Texas 78335-1817
Phone 1-888-776-0078 • Fax 1-888-220-3077

Date 10-21-06
Report No. UT 187
Page 1 of 2

Customer Kiewit Offshore Services, Ltd. DWG. No.
Fabricator Kiewit Offshore Services, Ltd. Project Name T1 TOWER
Job No. 21103 Job Instructions Per

ULTRASONIC		MAGNETIC PARTICLE		PENETRANT		
Instrument Sonatest #2514X		☐ Wet ☐ Dry		Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ DC		Type		Florescent
		☐ Residual ☐ Continuous			Batch No.	Minutes
Size 1.0 Round	Size .625			Penetrant		
Type Tech.	Type Tech.	Equipment		Remover		
Couplant Cellulose	Angle 0 60 70 45	Procedure		Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code		Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
	VERT. WEB	W5 P97-2/ P92-2		X	5320mm 75mm REJ.
	Pile Sleeve	F3 90mm T. #16		X	305mm 75mm REJ.

Total mm inspected - 5625
Total mm accepted - 5619
Total mm rejected - 150

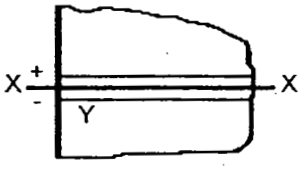
Total Hours:

Examination Performed By [signature] Boug Fontenot Level II U.T.

Accepted By [signature] George Barnhill

REPORT OF ULTRASONIC TESTING OF WELDS

Project T1 Tower



Report no. W-UT 187
Weld identification W5, F3
Material thickness 65mm 90mm
Weld joint AWS T
Welding process FCAW
Quality requirements - section no. AWS D1.5 Section - 6.3
Remarks Page 2 of 2

Line number	Indication number	Transducer angle	From Face	Leg*	Decibels: Indication level a	Decibels: Reference level b	Decibels: Attenuation facto c	Decibels: Indication rating d	Discontinuity: Length	Discontinuity: Angular distance (sound path)	Discontinuity: Depth from "A" surface	Distance: From X	Distance: From Y	Discontinuity evaluation	Remarks
1	1	70	A	1	74	66	4	+3	75mm	81	32	-18	610	B	W5 P-97-2
2															
3	16	70	B	1	72	66	5	+1	75mm	102	32	-18	4850	A	F3 P,10 SLEEVE
4															
5															
6															
7															
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24															
25															
26															

We, the undersigned, certify that the statements in this record are correct and that the welds were prepared and tested in accordance with the requirements of Section 6.3 of AWS D1.5M (2002) Bridge Welding Code - Steel.

Test Date 10-21-06

Inspected by [signature]
Doug Fontenot Level II

Year
Manufacturer or Contractor Kiewit Offshore LTD.

Authorized by [signature]
George Barnhill

Date 10/21/06

WALZEL Services

PO Box 1817
Aransas Pass, Texas 78335-1817
Phone 1-888-776-0078 • Fax 1-888-220-3077

Date 10-23-06
Report No. UT 190
Page 1 of 1

Customer Kiewit Offshore Services, Ltd. **DWG. No.**

Fabricator Kiewit Offshore Services, Ltd. **Project Name** T1 TOWER

Job No. 21103 **Job Instructions Per**

ULTRASONIC		MAGNETIC PARTICLE	PENETRANT		
Instrument Sonatest #2514X		☐ Wet ☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ DC ☐ Residual ☐ Continuous	Type	Batch No.	Florescent Minutes
Size 1.0 Round	Size ..625		Penetrant		
Type Tech.	Type Tech.	Equipment	Remover		
Couplant Cellulose	Angle 0 60 70 45	Procedure	Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code	Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
PA901	VENT WEB	W3 P63-4 / B3 Pile SLEEVE	✓		5320mm
PA907	REPAIRS	F-3R1 Pile SLEEVE 90mm	✓		4747mm RE INSPECTED 100%
	REPAIR	W5R1 P97-2 / P92-2	✓		175mm
	REPAIR	Pile SLEEVE 90mmT #16 R1	✓		175mm

Total mm inspected - 10417
Total mm accepted - 10417
Total mm rejected - 0

Total Hours:

Examination Performed By Doug Fontenot Level II U.T.

Accepted By George Barnhill

WALZEL Services

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Date 10-26-06
Report No. UT 194
Page 1 of 1

Customer Kiewit Offshore Services, Ltd. **DWG. No.**
Fabricator Kiewit Offshore Services, Ltd. **Project Name** T1 TOWER
Job No. 21103 **Job Instructions Per**

ULTRASONIC		MAGNETIC PARTICLE		PENETRANT		
Instrument Sonatest #2514X		☐ Wet	☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC	☐ DC	Type		Florescent
		☐ Residual	☐ Continuous		Batch No.	Minutes
Size 1.0 Round	Size .625			Penetrant		
Type Tech.	Type Tech.	Equipment		Remover		
Couplant Cellulose	Angle 0 60 70 45	Procedure		Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code		Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
9A907	VERT. WEB	W2 P89-1/F3 Pile SLEEVE	✓		5320mm
8904	VERT. WEB	W3 P92-1/F4 Pile SLEEVE	✓		5320mm
7A901	VERT. WEB	W2 P64-2/B-3 Pile SLEEVE	✓		5320mm
	VERT. WEB	W5 P77-2/P72-2	✓		5320mm
7A901	VERT. WEB	W2 P80-1/B-3 Pile SLEEVE	✓		5320mm
98907	Pile SLEEVE	B5	✓		8712mm
7A904	VERT. WEB #20	REPAIR P84-2 W3R1/B4 THIS VERTICLE WEB WAS HEAT STRAIGHTENED AFTER REPAIRS WERE MADE (RE-UT 100%)	✓		533mm
			✓		5320mm #20

Total mm inspected - 41165
Total mm accepted - 41165
Total mm rejected - 0

Total Hours:

Examination Performed By Doug Fontenot Level II U.T.

Accepted By George Barnhill

Reports for Item #2

Services

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Date 11-9-06
Report No. UT 208
Page 1 of 2

Customer Kiewit Offshore Services, Ltd. **DWG. No.**
Fabricator Kiewit Offshore Services, Ltd. **Project Name** T1 TOWER
Job No. 21103 **Job Instructions Per**

ULTRASONIC		MAGNETIC PARTICLE		PENETRANT		
Instrument Sonatest #2514X		☐ Wet	☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC	☐ DC	Type		Florescent
		☐ Residual	☐ Continuous		Batch No.	Minutes
Size 1.0 Round	Size .625			Penetrant		
Type Tech.	Type Tech.	Equipment		Remover		
Couplant Cellulose	Angle 0 60 70 45	Procedure		Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code		Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
	End R	W1 P151-2/ P92 75mmT	✓		356mm
	End R	W2 P151-2/ P86 75mmT	✓		152mm
4905	Pile SLEEVE	Top R C-2 90mmT	✓		8712mm
~~1905~~ DF	VERT. WEB	W1 P63-2/Top R 75mmT.		X	2831mm 635mm REJ.
	VERT. WEB	W5 P97-1/ P92-1 65mmT.	✓		5320mm

otal mm inspected - 17371
otal mm accepted - 16736
otal mm rejected - 635

Total Hours:

amination Performed By [signature] Accepted By [signature]
Doug Fontenot Level II U.T. George Barnhill

WALZEL
Services

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Date 10-21-06
Report No. UT 187
Page 1 of 2

Customer Kiewit Offshore Services, Ltd. **DWG. No.**
Fabricator Kiewit Offshore Services, Ltd. **Project Name** T1 TOWER
Job No. 21103 **Job Instructions Per**

ULTRASONIC		MAGNETIC PARTICLE	PENETRANT		
Instrument Sonatest #2514X		☐ Wet ☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ DC	Type		Florescent
		☐ Residual ☐ Continuous		Batch No.	Minutes
Size 1.0 Round	Size .625		Penetrant		
Type Tech.	Type Tech.	Equipment	Remover		
Couplant Cellulose	Angle 0 60 70 45	Procedure	Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code	Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
	VERT. WEB	W5 P97-2/P92-2		X	5320mm 75mm REJ.
	Pile Sleeve	F3 90mm T. #16		X	305mm 75mm REJ.

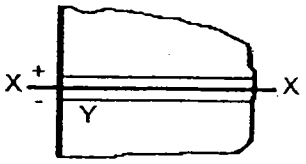
Total mm inspected - 5625
Total mm accepted - 5619
Total mm rejected - 150

Total Hours:

Examination Performed By Doug Fontenot Level II U.T.

Accepted By George Barnhill

Project 11 Tower



Report no. W-UT 187
Weld identification W5, F3
Material thickness 65mm 90mm
Weld joint AWS T
Welding process FCAW
Quality requirements - section no. AWS D1.5 Section - 6.3
Remarks Page 2 of 2

Line number	Indication number	Transducer angle	From Face	Leg*	Decibels: Indication level a	Decibels: Reference level b	Decibels: Attenuation facto c	Decibels: Indication rating d	Discontinuity: Length	Discontinuity: Angular distance (sound path)	Discontinuity: Depth from "A" surface	Distance: From X	Distance: From Y	Discontinuity evaluation	Remarks
1	1	70	A	1	74	66	4	+3	75mm	81	32	-18	610	B	W5 P-97-2
2															
3	16	70	B	1	72	66	5	+1	75mm	102	32	-18	4850	A	F3 P/10 SLEEVE
4															
5															
6															
7															
8															
9															
10															
11															
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22															
23															
24															
25															
26															

We, the undersigned, certify that the statements in this record are correct and that the welds were prepared and tested in accordance with the requirements of Section 6.3 of AWS D1.5M (2002) Bridge Welding Code - Steel.

Test Date 10-21-06

Inspected by D. Fontenot
Doug Fontenot Level II

Year
Manufacturer or Contractor Kiewit Offshore LTD.

Authorized by George Barnhill

Date 10/21/06

Form D-11

WALZEL Services

PO Box 1817
Aransas Pass, Texas 78335-1817
Phone 1-888-776-0078 • Fax 1-888-220-3077

Date 10-23-06
Report No. UT 190
Page 1 of 1

Customer Kiewit Offshore Services, Ltd. DWG. No.
Fabricator Kiewit Offshore Services, Ltd. Project Name T1 TOWER
Job No. 21103 Job Instructions Per

ULTRASONIC		MAGNETIC PARTICLE	PENETRANT		
Instrument Sonatest #2514X		☐ Wet ☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ DC	Type		Florescent
		☐ Residual ☐ Continuous		Batch No.	Minutes
Size 1.0 Round	Size ..625		Penetrant		
Type Tech.	Type Tech.	Equipment	Remover		
Couplant Cellulose	Angle 0 60 70 45	Procedure	Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code	Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
A901	VENT WEB	W3 P63-4 / B3 Pile SLEEVE	✓		5320mm
A907	REPAIRS	F-3R1 Pile SLEEVE 90mm	✓		4747mm RE INSPECTED 100%
	REPAIR	W5R1 P97-2 / P92-2	✓		175mm
	REPAIR	Pile SLEEVE 90mm T #16 R1	✓		175mm

Total mm inspected - 10417
Total mm accepted - 10417
Total mm rejected - 0

Total Hours:

Examination Performed By [signature] Accepted By [signature]

Doug Fontenot Level II U.T. George Barnhill

WALZEL
Services

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Aransas Pass, Texas 78335-1817
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Date 10-26-06
Report No. UT 194
Page 1 of 1

Customer Kiewit Offshore Services, Ltd. DWG. No.
Fabricator Kiewit Offshore Services, Ltd. Project Name T1 TOWER
Job No. 21103 Job Instructions Per

ULTRASONIC		MAGNETIC PARTICLE	PENETRANT		
Instrument Sonatest #2514X		☐ Wet ☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ DC	Type		Florescent
		☐ Residual ☐ Continuous		Batch No.	Minutes
Size 1.0 Round	Size .625		Penetrant		
Type Tech.	Type Tech.	Equipment	Remover		
Couplant Cellulose	Angle 0/60/70/45	Procedure	Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code	Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
A907	VERT. WEB	W2 P89-1/F3 Pile SLEEVE	✓		5320mm
3904	VERT. WEB	W3 P92-1/F4 Pile SLEEVE	✓		5320mm
1901	VERT. WEB	W2 P64-2/B-3 Pile SLEEVE	✓		5320mm
	VERT. WEB	W5 P77-2/P72-2	✓		5320mm
4901	VERT. WEB	W2 P80-1/B-3 Pile SLEEVE	✓		5320mm
B907	Pile SLEEVE	B5	✓		8712mm
1904	VERT. WEB #20	REPAIR P84-2 W3R1/B4 THIS VERTICLE WEB WAS HEAT STRAIGHTENED AFTER REPAIRS WERE MADE (RE-UT 100%)	✓		533mm
			✓		5320mm #20

Total mm inspected - 41165
Total mm accepted - 41165
Total mm rejected - 0

Total Hours:

Examination Performed By Doug Fontenot Level II U.T.

Accepted By George Barnhill

WALZEL Services

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ansas Pass, Texas 78335-1817
hone 1-888-776-0078 • Fax 1-888-220-3077

Date 11-4-06
Report No. UT 204
Page 1 of 1

ustomer Kiewit Offshore Services, Ltd. DWG. No.
abricator Kiewit Offshore Services, Ltd. Project Name T1 TOWER
ob No. 21103 Job Instructions Per

ULTRASONIC		MAGNETIC PARTICLE		PENETRANT		
strument onatest #2514X		☐ Wet	☐ Dry	Brand		Visible
ongitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ Residual	☐ DC ☐ Continuous	Type	Batch No.	Florescent Minutes
ize 0 Round	Size ..625			Penetrant		
ype ech.	Type Tech.	Equipment		Remover		
ouplant ellulose	Angle 0 60 70 45	Procedure		Developer		
rocedure .T. – D1.5-2002	Code AWS D1.5	Code		Procedure		Code

EM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
	Top R	W17 P17/P16	✓		294mm
	End R	W1 P158-2/P-77	✓		756mm
	End R	W3 P158-2/P67	✓		172mm
	REPAIR:	VERT. WEB W5R1 P77-1/P-72-1	✓		735mm

otal mm inspected - 1957
otal mm accepted - 1957
otal mm rejected - 0

Total Hours:

xamination Performed By Doug Fontenot Level II U.T.

Accepted By George Barnhill

WALZEL Services

PO Box 1817
Aransas Pass, Texas 78335-1817
Phone 1-888-776-0078 • Fax 1-888-220-3077

Date 11-2-05
Report No. UT 202
Page 1 of 2

Customer Kiewit Offshore Services, Ltd. DWG. No.
Fabricator Kiewit Offshore Services, Ltd. Project Name T1 TOWER
Job No. 21103 Job Instructions Per

ULTRASONIC		MAGNETIC PARTICLE	PENETRANT		
Instrument Sonatest #2514X		☐ Wet ☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ DC ☐ Residual ☐ Continuous	Type	Batch No.	Florescent Minutes
Size 1.0 Round	Size .625		Penetrant		
Type Tech.	Type Tech.	Equipment	Remover		
Couplant Cellulose	Angle 0 60 70 45	Procedure	Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code	Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
	VERT. WEB	W5 P77-1/P72-1 65mmT		X	5320mm 635mm REJ.
	End R	W2 P159-2/P153-2 75mmT	✓		399mm
	Top R	W8 P16-/P17 90mmT	✓		294mm
	Top R	W5 P12/P4 90mmT	✓		146mm
	Top R	W11 P12/P4 90mmT	✓		1105mm

Total mm inspected - 7264
Total mm accepted - 6629
Total mm rejected - 635

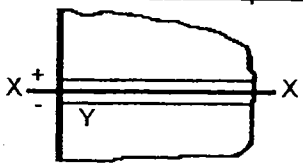
Total Hours:

Examination Performed By Doug Fontenot Level II U.T.

Accepted By George Barnhill

REPORT OF ULTRASONIC TESTING OF WELDS

Project T-1 Tower



Report no. W-UT 202
Weld identification W5 P77-1 | P72-1
Material thickness 65mm
Weld joint AWS T
Welding process FCAW
Quality requirements - section no. AWS D1.5 Section - 6.3
Remarks page 2 of 2

Line number	Indication number	Transducer angle	From Face	Leg*	Decibels: Indication level a	Decibels: Reference level b	Decibels: Attenuation facto c	Decibels: Indication rating d	Discontinuity: Length	Discontinuity: Angular distance (sound path)	Discontinuity: Depth from "A" surface	Distance: From X	Distance: From Y	Discontinuity evaluation	Remarks
1	1	70	A	1	63	63	2	-2	635	51	19	-12	1016	A	W5 P-77-1 | P72-1
2															
3															
4															
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26															

We, the undersigned, certify that the statements in this record are correct and that the welds were prepared and tested in accordance with the requirements of Section 6.3 of AWS D1.5M (2002) Bridge Welding Code - Steel.

Test Date 11-2-06

Inspected by [signature]
Doug Fontenot Level II

Year
Manufacturer or Contractor Kiewit Offshore LTD.

Authorized by [signature]
George Barnhill

Date 11/2/06

State Letter for Item #3

STATE OF CALIFORNIA-BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program
333 Burma Rd.
Oakland, CA 94607
(510) 286-0538, (510) 286-0550 fax

Kiewit-FCI-Manson, JV
220 Burma Rd.
Oakland, CA 94607

Attn: Mr. Lee Zink
Project Director

KIEWIT OFFSHORE RECEIVED NOV 30 2006 PKS SERVICES, LTD.

November 28, 2006

Contract No. 04-0120E4
04-SF-80-13.4, 13.8
SAS T1 & E2 Foundations
SFOBB-ESSSP

Letter No. 05.003.01-002323

Distribution:
Phil Sechler
Mike Brown
Mayra Zuniga
George Barnhill
John Berggren-KFM
Brenda Porter
Michael Schafersman

Subject: Response to RFI No. 327, Revision No. 00 (KOS RFI 80 - P97/P92 (Area F) Backing Bar)

Dear Lee,

RFI No. 327, Revision No. 00, pertains to the Contractor's request to leave the backing bar located at the connection of plates P97 and P92 (area F as shown in the RFI) in place. Regarding this RFI, it is acceptable to leave the backing bar in its existing condition. However, the Contractor shall fill the areas adjacent to the backing bar with an epoxy material, as the backing bar will not allow the future concrete to fill the voids adjacent to the out of position backing bar. Please also note that other backing bars which do not comply with Section 3.13.5 of the AWS D1.5:2002 will not be accepted by the Department.

If you have any questions or need additional information, please contact Mark Vilcheck at (510) 286-0526.

Sincerely,

Mark Vilcheck
Structure Representative

For: Pedro J. Sanchez
Resident Engineer

SAS FOUNDATIONS E2/T1 PROJECT KIEWIT / FCI / MANSON, A.JV	
DATE: 11/28/06	CO/JOB: 364-4347
ROUTED BY SRY	NO: 04-0120E4
TO:	SPECIAL NOTES:
INTERNAL KFM COPIES TO:	
EXTERNAL COPIES TO:	
SCANNED: (Y) N	FILED TO: RFI 327

cc: P. Sanchez
M. Woods
R. Smith
J. Duxbury

file: 05.003.01, 09.003.01, 56.327

21103CN-0745

Reports for Item #4

WALCEL
Services

PO Box 1817
Aransas Pass, Texas 78335-1817
Phone 1-888-776-0078 • Fax 1-888-220-3077

Date 11-9-06
Report No. UT 208
Page 1 of 2

Customer Kiewit Offshore Services, Ltd. **DWG. No.**
Fabricator Kiewit Offshore Services, Ltd. **Project Name** T1 TOWER
Job No. 21103 **Job Instructions Per**

ULTRASONIC		MAGNETIC PARTICLE	PENETRANT		
Instrument Sonatest #2514X		☐ Wet ☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ DC ☐ Residual ☐ Continuous	Type	Batch No.	Florescent Minutes
Size 1.0 Round	Size .625		Penetrant		
Type Tech.	Type Tech.	Equipment	Remover		
Couplant Cellulose	Angle 0 60 70 45	Procedure	Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code	Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
	End R	W1 P151-2/ P92 75mmT	✓		356mm
	End R	W2 P151-2/ P86 75mmT	✓		152mm
1905	Pile Sleeve	Top R C-2 90mmT	✓		8712mm
~~1905~~ DF	VERT. WEB	W1 P63-2/Top R 75mmT.		X	2831mm 635mm REJ.
	VERT. WEB	W5 P97-1/ P92-1 65mmT.	✓		5326mm

Total mm inspected - 17371
Total mm accepted - 16736
Total mm rejected - 635

Total Hours:

Examination Performed By Doug Fontenot Level II U.T.

Accepted By George Barnhill

WALZEL
Services

PO Box 1817
Aransas Pass, Texas 78335-1817
Phone 1-888-776-0078 • Fax 1-888-220-3077

Date 10-21-06
Report No. UT 187
Page 1 of 2

Customer Kiewit Offshore Services, Ltd. **DWG. No.**
Fabricator Kiewit Offshore Services, Ltd. **Project Name** T1 TOWER
Job No. 21103 **Job Instructions Per**

ULTRASONIC		MAGNETIC PARTICLE	PENETRANT		
Instrument Sonatest #2514X		☐ Wet ☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ DC	Type		Florescent
		☐ Residual ☐ Continuous		Batch No.	Minutes
Size 1.0 Round	Size ..625		Penetrant		
Type Tech.	Type Tech.	Equipment	Remover		
Couplant Cellulose	Angle (0) 60 70 45	Procedure	Developer		
Procedure J.T. – D1.5-2002	Code AWS D1.5	Code	Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
	VERT-WEB	W5 P97-2/P92-2		X	5320mm 75mm REJ.
	Pile Sleeve	F3 90mm T. #16		X	305mm 75mm REJ.

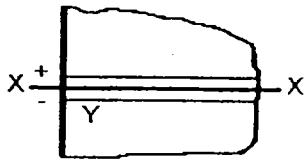
Total mm inspected - 5625
Total mm accepted - 5619
Total mm rejected - 150

Total Hours:

Examination Performed By Doug Fontenot Level II U.T.

Accepted By George Barnhill

Project 11 Tower



Report no. W-UT 187
Weld identification W5, F3
Material thickness 65mm 90mm
Weld joint AWS T
Welding process FCAW
Quality requirements - section no. AWS D1.5 Section - 6.3
Remarks Page 2 of 2

Line number	Indication number	Transducer angle	From Face	Leg*	Decibels: Indication level a	Decibels: Reference level b	Decibels: Attenuation factor c	Decibels: Indication rating d	Discontinuity: Length	Discontinuity: Angular distance (sound path)	Discontinuity: Depth from "A" surface	Distance: From X	Distance: From Y	Discontinuity evaluation	Remarks
1	1	70	A	1	74	66	4	+3	75mm	81	32	-18	610	B	W5 P-97-2
2															
3	16	70	B	1	72	66	5	+1	75mm	102	32	-18	4850	A	F3 Pilo Sleeve
4															
5															
6															
7															
8															
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22															
23															
24															
25															
26															

We, the undersigned, certify that the statements in this record are correct and that the welds were prepared and tested in accordance with the requirements of Section 6.3 of AWS D1.5M (2002) Bridge Welding Code - Steel.

Test Date 10-21-06

Inspected by D. F
Doug Fontenot Level II

Year
Manufacturer or Contractor Kiewit Offshore LTD.

Authorized by
George Barnhill

Date 10/21/06

WALZEL Services

PO Box 1817
Aransas Pass, Texas 78335-1817
Phone 1-888-776-0078 • Fax 1-888-220-3077

Date 10-23-06
Report No. UT 190
Page 1 of 1

Customer Kiewit Offshore Services, Ltd. **DWG. No.**
Fabricator Kiewit Offshore Services, Ltd. **Project Name** T1 TOWER
Job No. 21103 **Job Instructions Per**

ULTRASONIC		MAGNETIC PARTICLE	PENETRANT		
Instrument Sonatest #2514X		☐ Wet ☐ Dry	Brand		Visible
Longitudinal 2.25 mHz	Shear 2.25 mHz	☐ AC ☐ DC ☐ Residual ☐ Continuous	Type	Batch No.	Florescent Minutes
Size 1.0 Round	Size ..625		Penetrant		
Type Tech.	Type Tech.	Equipment	Remover		
Couplant Cellulose	Angle 0 60 70 45	Procedure	Developer		
Procedure U.T. – D1.5-2002	Code AWS D1.5	Code	Procedure		Code

ITEM	QUANTITY	LOCATIONS & IDENTIFICATION	ACCEPTABLE Yes	ACCEPTABLE No	TYPE OF DEFECTS REMARKS
A901	VENT WEB	W3 P63-4 / B3 Pile SLEEVE	✓		5320mm
A907	REPAIRS	F-3R1 Pile SLEEVE 90mm	✓		4747mm RE INSPECTED 100%
	REPAIR	W5R1 P97-2 / P92-2	✓		175mm
	REPAIR	Pile SLEEVE 90mmT #16 R1	✓		175mm

Total mm inspected - 10417
Total mm accepted - 10417
Total mm rejected - 0

Total Hours:

Examination Performed By Doug Fontenot Level II U.T.

Accepted By George Barnhill