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 13.4/13.80
File # 01 .25 B

QUALITY ASSURANCE - NONCONFORMANCE REPORT

Location: SFOBB Jobsite **JOBSITE NCR** ☒ **Date**: 08/13/2007

Prime Contractor: Kiewit/FCI/Manson (KFM) **NCR #191**

Submitting Contractor: KFM

Type of problem:

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

Description of Non-Conformance: The Contractor failed to maintain the pre-heat temperature during the welding of T1 pile head connection plate (PHCP) as required by Caltrans Special Provisions, Section 10-1.31, Field Welding of Pile/Sleeve Connection Plates, Line F. The loss in preheat occurred on PHCP pile sleeve 10, plate D, weld 1 & 2 just below and inside the bottom weld radius. There were several subsequent weld passes which were deposited prior to the loss of heat. The Contractor elected to leave the weld passes in place and perform magnetic particle testing, bring the weld up to the required minimum preheat, and commence welding.

The temperature was measured with a thermal heat sensing gun and it was observed that a significant loss of the pre-heat temperature inside the bevel and the adjacent base metal at approximately 165 degrees Fahrenheit. The location of the heat loss started at the beginning at the lower weld radius, extending 12 centimeters upwards.

Applicable reference: Caltrans Special Provisions, Section 10-1.31, Field Welding of Pile/Sleeve Connection Plates, Line F

Who discovered the problem: Inspection Services Inc. Quality Control Inspector Dan Smith

Name of individual from Contractor notified: KFM General Welding Foreman Jim Belcher

Time and method of notification: 1745hrs-08/13/2007 – Verbal notification

Name of Caltrans Engineer notified: Assistant Structure Representative, Doug Wright

Time and method of notification: 1750hrs-08/13/2007 – Verbal notification

QC Inspector's Name: Dan Smith

Was the QC Inspector aware of problem: Yes

Contractor's proposal to correct the problem: None at this time.

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: Edward Leach Quality Assurance Inspector

Reviewed By: Albert Carreon Lead QA Reviewer

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

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 13.4/13.80
File # 01 .25 B

QUALITY ASSURANCE - NONCONFORMANCE REPORT

Location: SFOBB Jobsite **JOBSITE NCR** ☒ **Date**: 08/13/2007

Prime Contractor: Kiewit/FCI/Manson (KFM) **NCR #191**

Submitting Contractor: KFM

Type of problem:

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

Description of Non-Conformance: The Contractor failed to maintain the pre-heat temperature during the welding of T1 pile head connection plate (PHCP) as required by Caltrans Special Provisions, Section 10-1.31, Field Welding of Pile/Sleeve Connection Plates, Line F. The loss in preheat occurred on PHCP pile sleeve 10, plate D, weld 1 & 2 just below and inside the bottom weld radius. There were several subsequent weld passes which were deposited prior to the loss of heat. The Contractor elected to leave the weld passes in place and perform magnetic particle testing, bring the weld up to the required minimum preheat, and commence welding.

The temperature was measured with a thermal heat sensing gun and it was observed that a significant loss of the pre-heat temperature inside the bevel and the adjacent base metal at approximately 165 degrees Fahrenheit. The location of the heat loss started at the beginning at the lower weld radius, extending 12 centimeters upwards.

Applicable reference: Caltrans Special Provisions, Section 10-1.31, Field Welding of Pile/Sleeve Connection Plates, Line F

Who discovered the problem: Inspection Services Inc. Quality Control Inspector Dan Smith

Name of individual from Contractor notified: KFM General Welding Foreman Jim Belcher

Time and method of notification: 1745hrs-08/13/2007 – Verbal notification

Name of Caltrans Engineer notified: Assistant Structure Representative, Doug Wright

Time and method of notification: 1750hrs-08/13/2007 – Verbal notification

QC Inspector's Name: Dan Smith

Was the QC Inspector aware of problem: Yes

RECEIVED
007200 AUG 14 07

Contractor's proposal to correct the problem: None at this time.

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: Edward Leach Quality Assurance Inspector

Reviewed By: Albert Carreon Lead QA Reviewer

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

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. Rich Bienek
Welding Quality Control Manager

September 14, 2007

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

Letter No. 05.003.01-003477

Subject: NCRs - Kiewit-FCI-Manson, 8/13/07 (Failure to Maintain Preheat)

Dear Rich,

The Department notified the Contractor of the Non-conformance Reports (NCRs) of the loss of preheat at the SAS T1/E2 Foundations project site on August 13, 2007, in the Department's Letter Nos. 3389 and 3390. The Department understands that the Contractor returned the welds to the minimum preheat temperature and that MT was performed on the in-place welds prior to resuming welding. The Department considers the above NCRs closed.

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