

DEPARTMENT OF TRANSPORTATION - District 4 Toll Bridge Program

333 Burma Rd.

Oakland, CA 94607

(510) 622-5660, (510) 286-0550 fax

*Flex your power
Be energy efficient!*

April 16, 2009

Contract No. 04-0120F4

04-SF-80-13.2 / 13.9

Self-Anchored Suspension Bridge

Letter No. 05.03.01-003863

Michael Flowers
Project Executive
American Bridge/Fluor, A JV
375 Burma Road
Oakland, CA 94607

Dear Michael Flowers,

Schedule Update Submission & Path to an Acceptable Schedule

The Department is in receipt of ABF-CAL-LTR-000862, "Schedule Update Submission - Letters 2961, 3444, and 3634," dated March 24, 2009, regarding the numerous schedule issues identified by the Department. The 52 issues addressed in the referenced letter date back to October 2008. ABF and the Department have since discussed most of the issues in workshops and informal meetings. Therefore, most of the issues are thought to be closed. A meeting was held on April 15, 2009, to discuss the Department's response to ABF-CAL-LTR-000862 to determine what additional issues still need to be addressed by ABF in order to get an acceptable schedule. This letter is divided into two parts: part one addresses the Department's response to ABF-CAL-LET-000862 and part two addresses the Path to an Acceptable Schedule.

Part 1 - Department's Response to ABF-CAL-LET-000862:

The Department's comments were discussed with ABF on April 15, 2009. The Department has no further comments for issues A2-A4, A7, A9-A11, B2, C1-C3, D1-D2, D6-D7, D9-D12, D15-D21, E1, E3, F1-F5, G1-G2, and H1.

A1. There is no RFCO, RFC, or CCO regarding the requested change. The schedule narrative or response to schedule update is not the forum for ABF to request changes to the specification. ABF agreed to follow the contract regarding the process for specification change requests.

A5. The documented changes in the discipline sections are not all inclusive and do not explain the reasons for the changes. The diagnostic report should be included in the schedule analyzer report. ABF noted that they will provide a diagnostic report with the narratives and will make a better effort at providing explanations for schedule changes.

A6. ABF has agreed that this issue doesn't impact acceptance of the current schedule, but does impact previously accepted schedules in recording the events of the project.

A8. This issue will be discussed further at the weekly schedule meeting and ABF will review the activities with larger free float values than total float values.

B1. Welding reports and pictures were shown in a weekly schedule meeting showing that the activities above started before the revised dates. ABF noted that they would look into this issue. The Department will provide actual start dates.

D3. The issue is being addressed at ZPMC’s fabrication facility.

D4. There are logic ties showing how segments will occupy jigs during assembly for lifts 1-11. Lifts 12, 13 and 14 do not have logic ties. ABF noted that logic ties for lift 12 will be added once the information is known. ABF also noted that lifts 13 and 14 will be assembled outside and therefore, do not require logic ties to the jig.

D5. The Department disagrees with this statement and this issue is being resolved at ZPMC’s fabrication facility.

D8. The Department does not agree with ABF’s interpretation; however, this item by itself was not a reason for rejection.

D13. The Department does not agree with the comment. It has been determined that lifts 1 and 2 are being assembled in a different workshop/bay. This item by itself was not a reason for rejection.

D14. The Department requests a list of the rejected deck plates. ABF noted that new activities will be added for rejected deck plates.

D22. Activity codes were not incorporated. ABF agreed to re-import the activity codes into the schedule.

D23, E5, F5 & G3. These tables depict NCR activity (NCRs issued, responded to, outstanding, resolved, etc.) during the schedule period as opposed to a data dump of all the NCRs issued to date. This item by itself was not a reason for rejection.

E2. ZPMC’s shop shall be assigned to the same calendar. ABF agreed to review this recommendation.

E4. Comment noted, though, percent complete based on the increases in remaining duration shows diminishing progress.

Part 2 - Path to an Acceptable Schedule:

Below is a chronology of ABF’s schedule submissions since January of 2008. The table shows that ABF has made 17-Schedule Submissions from January 2008 through January 2009, with only 5-acceptable submissions and 10-unacceptable submissions. The months of February and March 2008 were included in the April 2008 submission and the months of November and December 2008 were included in the January 2009 submission, without individual submissions for these four months as required by contract.

Monthly Schedule	Submittal No. / Date	Status
JAN 2008	Submittal 557 Update (Rev 0)- Received 1/25/08	Not Accepted via STL 1305
JAN 2008	Submittal 558 (Status Only)- Received 1/25/08	Accepted via STL 1305
JAN 2008	Submittal 680 Rev 0 (Baseline Rev 4)- Received 04/21/08	Not Accepted via STL 1886
JAN 2008	Submittal 680 Rev 1(Baseline Rev 4)- Received 05/14/08	Not Accepted via STL 2080

FEB 2008	No Schedule Submitted	
MAR 2008	No Schedule Submitted	
APR 2008	Submittal 688 Rev 0- Received 04/30/08	Not Accepted via STL 1886
APR 2008	Submittal 688 Rev 1- Received 05/14/08	Not Accepted via STL 2080
MAY 2008	Submittal 724 Rev 0- Received 06/03/08	Not Accepted via STL 2297
JUN 2008	Submittal 744 Rev 0- Received 06/26/08	Not Accepted via STL 2305
JUL 2008	Submittal 763 Rev 0- Received 07/25/08	Accepted with "Reservations" via STL 2542
AUG 2008	Submittal 801 Rev 0- Received 09/4/08	Accepted As Noted via STL 2751
SEP 2008	Submittal 834 Rev 0- Received 09/26/08	Accepted As Noted via STL 2820
OCT 2008	Submittal 880 Rev 0- Received 10/27/08	Accepted with "Contingents" via STL 2961
OCT 2008	Submittal 880 Rev 1- Received 12/23/08	Not Accepted via STL 3210
OCT 2008	Submittal 880 Rev 2- Received 01/12/09	Not Accepted via STL 3444
NOV 2008	No Schedule Submitted	
DEC 2008	No Schedule Submitted	
JAN 2009	Submittal 908 Rev 0- Received 03/03/09	Not Accepted via STL 3634
FEB 2009	Submittal 1070 Rev 0- Received 03/23/09	Currently In Review
MAR 2009	Submittal 1097 Rev 0- Received 04/10/09	Review to begin after ABF schedule presentation to the Department

One of the goals for the meeting held on April 13, 2009, was to outline a path for getting an acceptable schedule. The Department provided ABF a list of the most important issues that need to be addressed in order to obtain an acceptable schedule. The following is a list of the issues discussed (A PowerPoint file detailing these issues was also provided to ABF on April 2, 2009):

- **Inability to replicate contract schedule:** The Department has been unable to replicate the contract schedule after scheduling and leveling. Since January of 2008, ABF has submitted three separate schedules all scheduled and leveled independently as opposed to one all inclusive schedule. The Department has had numerous workshops with ABF to make sure the settings, preferences, and resources were correct before scheduling and leveling and were still unable to replicate ABF's results. The Department suggests that ABF combine all the schedules into one complete schedule, as previously suggested by Primavera representatives and the Department, to eliminate the discrepancies.
- **Incorrect Voyage Logic:** There are several revisions and changes to the fabrication shipment voyages which include inaccurate logic ties. The items contained in the proposed voyage are duplicated. Review the accepted schedules and clearly indicate the proposed voyage changes.
- **Incomplete Logic:** The January 2009 schedule submission contains approximately 5,021 new activities. Of the 5,021 added activities, 4,908 are submittal/review activities with over 90% containing no logic ties. This appears to be a raw data dump directly from PMIV without any regard for activities already included in the schedule and without any successor/processor relationships. This proposed revision cannot be accepted with missing logic. Review and correct missing logic ties.

- **Lift Assembly Logic:** Special Provision Section 10-1.59, "Steel Structures," states that, "*As a minimum, the preassembly procedure shall consist of assembling three contiguous segments accurately adjusted for proper fit. Successive assemblies shall consist of at least one segment of the previous assembly plus two or more segments added at the advancing end.*" Review and revise the lift assembly logic in the schedule.
- **Multiple calendars in fabrication schedules:** There are multiple calendars currently being used for fabrication activities at ZPMC. The application of assigning the 6D-CH DS calendar to the T1FM and T1SFM resources resulted in an adjustment to a portion of the future project controlling path that is contained within T1 Tower fabrication. Furthermore, the float counts through a path which is part resource driven, part logic driven, becomes inconsistent with variations of 100 to 150-days or more. It becomes difficult if not impossible to compare float counts between activities with different calendars. Furthermore, Special Provision Section 10-1.13, "Progress Schedule (Critical Path Method)" states, "*Activities for the preparation and the review of submittals; offsite fabrication, and material/equipment deliveries are to be assigned to the same calendar unless approved by the Engineer.*" ABF agreed to review calendar assignments.
- **Inclusion of TIA No. 5 in contract schedule:** TIA #5 (east end submittal activities) was included in the January and February 2009 update before it was submitted or reviewed. See State Letter 05.03.01-003860, dated April 16, 2009, for the Department's recommendations.
- **East End Details:** East end fabrication activities exist in both the main schedule and OBG fabrication schedule. For example, lift 14 fabrication is included in both the Main and OBGFAB schedules and both are tied to the loading and shipping of the Voyage. It is not clear if lift 14 is ready on May 22, 2010, as shown in the main schedule, or January 3, 2011, as shown in the OBGFAB schedule. ABF agreed to remove redundant activities.

It is the Department's understanding that some of these issues are currently being addressed in a March 2009 Revision 1 schedule in an attempt to obtain an approved schedule.

Sincerely,



GARY PURSELL
Resident Engineer

cc: Don Ross
Bill Shedd
file: 05.03.01, 26.05