



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

**ENGINEER'S DAILY REPORT**

LAN Engineering Consultant

*bc 3/10/2009*

REPORT NO. <b>818</b> {7-day} { + 210 Project Work Day}	DATE <b>March 10, 2009</b>	M <span style="border: 1px solid red;">T</span> W T F S S (DAY)
NORMAL WORK HOUR: START: 6:00AM STOP: 3:30PM	WEATHER: SUNNY	
LOCATION :		
Construction Field Office :	333 Burma Road, Oakland 94607	
Working Drawing Campus Office :	375 Burma Road, Oakland 94607	

**04-SF-80-13.2/13.9**  
**Contract No. 04-0120F4**  
**{SAS Superstructure}**

**Caltrans Supervisor:**  
**Gary Lai**  
**Senior Bridge Engineer**

**Office Work:**

❖ **MEP Pre-Team MEP Meeting (Caltrans – Designers).**

- Covered the old MEP Actions agenda in the pre-meeting. See attachment #1.
- The following items were covered in the Pre-team MEP Meeting @ 9:00 AM:
  - RFI status Review and Evaluations – Talked about RFI # 1670 covering the floor beam conflict with the MEP penetrations @ PP 14.5 both eastbound and westbound.
  - Submittal 915 Barrier rail submittals and the progress for the complete package updated comments.
  - OPS Meeting for Wednesday with contractor.

❖ **MEP Meeting (Caltrans – Designers - Contractor).**

- The following items were covered in the MEP Meeting @ 10:00 AM:
  - RFI status review and evaluations – Talked about RFI # 1670 covering the floor beam conflict with the MEP penetrations @ PP 14.5 both eastbound and westbound.
  - Chris asked about the Submittal 915 Barrier rail submittals and the progress for the complete package updated comments.
  - Dehumidification unit submittal will be resubmitted soon.
  - Chris brought up some issues about the underground utilities at W2 that need to be coordinated to determine scheduling of this work.
  - Attached is a copy of the agenda with my comments. See attachment # 2.

❖ **Shop Drawing Priority Lists**

- Received the new OBG and Tower updated list from John Lyons. See attachment #3.
- John indicated that there might be an updated list later on in the week.

❖ **Shop Submittal 915 Revised Comments – OBG Barrier Railing Lifts 1-6:**

- Email from Martin to Abbas with Mechanical comments. See attachment # 4.
- Talked to Abbas Irananesh about consolidating all the comments for the entire package to make sure all issues are covered before the final relined set is stamped by TYLin and processed.

RECT-09 MAR-16 #06050



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REPORT NO.	DATE	
818 {7-day} { + 210 Project Work Day}	March 10, 2009	M <span style="border: 1px solid red; padding: 0 2px;">T</span> W T F S S (DAY)

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❖ **SAS Opportunity Partnering Schedule (OPS).**

- Email from Chris Bausone with agenda covering the meeting on March 11, 2009 from 1:00PM – 4:00PM. See attachment #5.

*Any questions or comments you can reach me at (916) 919-7158. My E-Mail address is [Mike.Travis@LANEngineering.com](mailto:Mike.Travis@LANEngineering.com) or [Michael\\_Travis@dot.ca.gov](mailto:Michael_Travis@dot.ca.gov)*

**END OF REPORT**

0545-1600 @ Office / Time sheet total 8 hours regular

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**Attachments:**

1. Pre-MEP Meeting Agenda / Comments.
2. MEP Meeting Agenda / Comments.
3. Priority lists for Shop Drawing Status with PB review status noted.
4. Submittal #915 Mechanical Comments.
5. Email from ABF - OPS Meeting Agenda 3.11.2009.

SIGNATURE

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Name

Michael F. Travis

TITLE

Electrical Engineer – LAN Engineering

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Attachment #1 (1/2)

SAN FRANCISCO OAKLAND BAY BRIDGE  
EAST SPAN SEISMIC RETROFIT SAFETY PROJECT  
SELF- ANCHORED SUSPENSION BRIDGE

WEEKLY MEP ACTIONS REVIEW

February 24, 2008,

PIER 7, WDC

MEP Pre Meeting Agenda Used 3.10.2009 9:00 AM

1. RFI

1.1

Pending MEP RFI's.

- RFI 1618 Cable Railing and Cable Tray Clarification The Department has responded.
- RFI 1632 Travelers SAS EB & WB, E2/E3 EB & WB (Structural Tubing) The Department is reviewing. Alex Schmitt is the Resp. Engineer and the target date is 3/6/09.

2. SUBMITTALS

2.1

Shop Drawings

- Submittal 695R1 Traveler Scaffolds - E2/E3 Bikepath The Department is reviewing. Alex Schmitt is the Resp. Engineer and the target date is 3/6/09.
- Submittal 751R1 WB Traveler Shop Drawing The Department is reviewing Alex Schmitt is the Resp. Engineer and the target date is 3/6/09.
- Submittal 998 OBG Miscellaneous Details [MEPD] Pipe Sleeve Caps The Department has responded.

RFI 1670 floor beam conflict with penetration holes at PP 14.5  
Received 3.5.2009 responded to 3.6.2009.

2.2

Working Drawings

- Submittal 781R1 Traveler Scaffolds [SAS-EB] Structural Plan & Details The Department is reviewing. Alex Schmitt is the Resp. Engineer and the target date is 3/6/09.
- Submittal 952 OBG MEP Electrical Penetration Layouts and Details The Department has responded.
- Submittal 854R1 Traveler Scaffolds [E2/E3-EB] Structural Plans & Details The Department is reviewing. Alex Schmitt is the Resp. Engineer and the target date is 3/14/09.
- Submittal 856R1 Traveler Scaffolds [E2/E3-WB] Structural Plans & Details The Department is reviewing. Alex Schmitt is the Resp. Engineer and the target date is 3/14/09.
- Submittal 938R1 MEP Tower Mechanical Piping Supports The Department is reviewing. Martin Chandrawinata is the Resp. Engineer and the target date is 3/13/09.

Submittal 915 Updating PB/TYLIN/Contractor comments - Abbas Irananesh Lead

3. CCO'S

3.1

High Priority CCO's: 55, 59, 68, 70

- CCO 55 - Service Platform Electrical PB is incorporating comments from the CRM meeting held on 2/10/09. Also sheet 271 will maybe removed from this CCO for a more extended review. PB and the Department are discussing the sheet.
- CCO 59 - Additional OBG Penetrations The Department is updating the penetration worksheet.
- CCO 68 - Additional Tower Penetrations The Department is updating the penetration worksheet.
- CCO 70 - Tower Utility Panels PB is incorporating the Departments comments.

Add RFI 1670 to CCO # 55 - 3 sheets effected.

3.2

CCO's Awaiting Pricing

- CCO 31 Mechanical Modifications.
- CCO 42 Electrical Modifications.
- CCO 43 - Lighting Revisions.

- CCO 42S1 Cable Tray Changes.
- CCO 44 Barrier Modifications.
- CCO 72 Cable Electrical. The Department will has add issues plan sheet changes in regards to RFI 1568 R0/R1.
- CCO 74 Strong Motion System.
- CCO 99 - Bike Path Details. The Department will has issues plan sheet changes regarding the emergence access gate, and the bike path handrail penetrations.

3.3

**All other CCO's and their current action**

- CCO 61 - Electrical Warning System PB is incorporating the Departments comments.
- CCO 73 - Bike Path Conduit Conduit routing plan sheets will be developed by PB.
- CCO 75 - Electrical Grounding PB is incorporating the Departments comments.
- CCO 79 - Tower Base MEP (Lighting inside the tower base) PB is incorporating the Departments comments.
- CCO 81 - TOS Modification PB is developing the scope.
- CCO 83 - Miscellaneous Mechanical This CCO is being developed with recent mechanical information not included in CCO 31.
- CCO 85 - Elevator Details The Department has scheduled a meeting on 3/3/09 with ABF, TYLin/JV and DOSH to discuss the scope of this CCO.
- CCO 94 - Bridge Painting & Misc. Items The Department is developing a draft copy with specification changes.

Next meeting 3.18.2009 @ 2:00 PM MEP/ Design/Contractor

3.4

**ATP's for CCO's**

- CCO 72 Cable Electrical State Letter 3518
- CCO 99 Bikepath Details State Letter 3527

3.5

**New CCR's (future CCO)**

- CCR 81 Concrete Luminare Conduit Routing.

4. LETTERS

4.1

**MEP Letters sent to the Contractor**

None

5. MISCELLANEOUS

5.1

**Other MEP Issues**

- PB is resolving the piping expansion loop conflict (under the bike path at the skyway transition) with the traveler.
- PB is investigating the depth of electrical manholes and duct banks at W2.
- Bill Shedd and Chris Bausone were chosen by project directors to research the MEP (Opportunity (Partnering Schedule).

MEP OPS Meeting with contractor tomorrow 1-4 PM.

Teleconference Meeting with Team China tomorrow 4:30 PM

Attachment #2 (1/2)

**TEAM MEP MEETING**  
**Agenda for March 10, 2009, 10:00am**  
**WDC Conference Room**

**1. OLD BUSINESS:**

1.1. Last meeting was on February 17<sup>th</sup>. At that time...

1.1.1. prelim design for electrical enclosure racks was ready for review by TYL/CT, and Pull Box A,B,C,D design was ongoing *Nick to talk to Chris after meeting*

1.1.1.1. update?

1.1.2. a meeting was to be coordinated for reviewing SUB-915, barrier shop drawings

1.1.2.1. meeting was held on March 4<sup>th</sup> and all Eastbound Roadway Barrier drawings for Lifts 1-6 were reviewed. Westbound Roadway Barrier was not reviewed due to time consideration but findings at Eastbound were thought to be representative enough for the Engineer to complete a second review

1.1.2.1.1. update? *Tylin*

*TYLIN / PB / Martin / Mike Travis / Abbas Irananesh combining reline comments for complete package.*

1.1.3. CT was to research final grade for earthwork at YBI in vicinity of manholes and verify dimensions for top of manhole shown on Plan Sheet 106R1.

1.1.3.1. update? *ELIATIONS - Good (PB)*

1.1.4. MEP Team was supposed to meet for discussions on Opportunity Schedule and develop reports for project directors.

1.1.4.1. discussions have been ongoing and will continue at a meeting to include mechanical/electrical subcontractors on March 11<sup>th</sup>.

*Meeting scheduled for March 11 (1-4PM).*

1.2. February 24<sup>th</sup> mep meeting was cancelled -

1.3. March 3<sup>rd</sup> mep meeting was replaced by Elevator Design meeting that was to include ABF

1.3.1. ABF was uninvited. CT met with design team for further discussion of design details and application for a variance that will be submitted in the future

*Buss bar - RFI 994 - COMMUNICATION (+)*

**2. RFI STATUS REVIEW AND EVALUATIONS**

2.1. Requests for which ABF is awaiting response

2.1.1. None to report

*RFI # 994 could be included ( 1 or 2 new stops)*

2.2. Requests returned since 2/17/09

2.2.1. RFI #1616 -proposal to waive hinged railing on x-beams - dated 1/26/09 - ret'd 2/17/09

2.2.2. RFI #1618 - cable tray support mat'l cat'g cut proposals - dated 2/9/09 - ret'd 3/6/09

2.2.3. RFI #1632 - traveler structural tubing material substitution - dated 2/9/09 - ret'd 3/6/09

2.2.4. RFI #1618r1 - cable tray support mat'l cat'g cut proposals - dated 3/2/09 - ret'd 3/5/09

2.2.5. RFI #1666 - cable tray support structural mat'l substitution - dated 3/4/09 - ret'd 3/6/09

2.2.6. RFI #1670 – conflict between conduit penetrations and floorbeam at PP14.5 - dated

3/5/09 – ret'd 3/6/09

CCO # 55 effected to include RFI #1670

Attachment #2 (2/2)

2.2.7. RFI #225r3 – Tower Access Safety Issues - dated 3/2/09 – ret'd 3/6/09

### 2.3. RFI/CCO EVALUATIONS LEGEND

(1 = NC = NO CHANGE)

(2 = CCO = CALTRANS TO INCLUDE IN CHANGE ORDER)

(3 = ? = STATUS UNRESOLVED; DEFER TO CORE GROUP FOR EVALUATION)

(4 = OH = ON HOLD PENDING FURTHER REVIEW OR ADD'L INFO)

2.3.1. Recent (or on hold) RFI responses to be evaluated for CCO needs

RFI / EVALUATIONS	ABFJV	CALTRANS	FINAL	CCO #
ABF-RFI-001616R00	1			
ABF-RFI-001618R00	1			
ABF-RFI-001632R00	1			
ABF-RFI-001618R01	1			
ABF-RFI-001666R00	1			
ABF-RFI-001670R00	2	2	2	55
ABF-RFI-000225R03	2			

STANDARD PLAN  
NOTE IN CONTRACT  
YELLOW SHEET RFI  
@ NOTE.

2.4. Upcoming Requests

2.4.1. none to discuss

### 3. MEP SUBMITTALS

3.1. MEP (or related) Submittals currently under review

3.1.1. #695R1 (dated 1/9/09) – Bike path traveler assembly/details - req due date is 1/30/09

3.1.2. #751R1 (dated 1/9/09) – SAS-WB traveler assembly/details - req due date is 1/30/09

3.1.3. #781R1 (dated 1/9/09) – SAS-EB traveler assembly/details - req due date is 1/30/09

3.1.4. #854R1 (dated 1/23/09) – E2/E3-EB traveler assembly/details - req due date is 3/14/09

3.1.5. #856R1 (dated 1/23/09) – E2/E3-WB traveler assembly/details - req due date is 3/14/09

3.2. MEP (or related) Submittals returned since 2/17/09

3.2.1. none to discuss

3.3. Upcoming MEP (or related) Submittals

3.3.1. no submittals planned for the next week

### 4. MISCELLANEOUS

4.1. Ladder & Railing Safety

RFI # 1670 should be included in CCO # 55 - 3 sheets are effected.

4.2. Change Order 55 developments

(RFI 1670 included) See Above. ....

4.3. Painting of ductile iron pipe - ongoing and expected to finish by end of month.

CRM with Contractor on March 17 Possible for CCO # 61?

17<sup>TH</sup> MARCH (61 CCO)

Attachment #3 (1/5)

John P  
Lyons/D04/Caltrans/CAGov  
03/09/2009 03:45 PM

To turner@wai.com, nhan.vo@tylin.com, jduxbury@tylin.com,  
sas@tylin.com, gary\_j\_lai@dot.ca.gov,  
cc chris\_havel@dot.ca.gov, philip\_he@dot.ca.gov,  
bcc  
Subject OBG and Tower Submittals Requested Due Date March 09,  
2009

Please find attached the latest spreadsheet of OBG and Tower Submittals by Contractors Requested Due Date as of March 09, 2009.  
If you have any questions please contact me at the Working Drawing Campus 510-808 4615.

Regards  
John Lyons



OBG Submittal Status by Req. Due Date.xls Tower Submittal Status by Req. Due Date.xls

PB TOWER STATUS CHART MARCH 10, 2009

Attachment # 3 (2/5)

		3/9/2009 Submittal Priority by ABF Requested Due Date						
Ty ok	Reference	Information Only	Responed / *redline	**Posted	Reviewing	PB color code ID		
CT/JV Status	Subject	Req. Due Date	Resp. Engineer	Discipline	Date Received	Contract Due Date		
Tylin final ???	ABF-SUB-000141R33	TOWER - T1 Tower Weld Details (WDT)	Resp. Engineer	P	18-Feb-2009	04-Mar-2009		
Extend Ty ret.3/17	ABF-SUB-000687R04	TOWER - TL Drawings - LIFT 3	Mohammad Awal	P	23-Feb-2009	09-Mar-2009		
Ty by fri 3/13	ABF-SUB-000988R00*	TOWER - Skirt Drawings - LIFT 1	Sanny Khow	P	25-Feb-2009	11-Mar-2009		
Ty by fri 3/13	ABF-SUB-000989R00*	TOWER - LIFT 3 - Exterior Ladder & Rail	Mohammad Awal	P	20-Jan-2009	11-Mar-2009		
	ABF-SUB-000741R03	TOWER - LIFT 4 - Exterior Ladder & Rail	Sanny Khow	P	20-Jan-2009	11-Mar-2009		
	ABF-SUB-000498R05	TOWER - T1 Splice - LIFT 5	Sanny Khow	P	27-Feb-2009	13-Mar-2009		
	ABF-SUB-001043R00	TOWER - Strut Facade - LIFT 3	Mohammad Awal	P	03-Mar-2009	17-Mar-2009		
		OBG - Edge Plate Sub Assembly (EP) - LIFT 14W - Plate Types 9, 17, 18	Sanny Khow	P	25-Feb-2009	16-Apr-2009		

PB OBG STATUS CHART MARCH 10, 2009

Ty ok	CT/JV Status	Reference	Submittal Priority by ABF Requested Due Date		Information Only		Responsible / *redline	**Posted	Reviewing	Contract Due Date
			Req. Due Date	Subject	Req. Due Date	Resp. Engineer				
Ty 4/3		ABF-SUB-000667R04	OBG - Standard Layout Details (L) - LIFT 13W		16-Dec-2008	Alex Schmitt	H	H	02-Dec-2008	16-Dec-2008
Ty ok		ABF-SUB-000885R00**	OBG - Standard Layout Details (L) - OBW13 Kink - LIFT 13W		23-Dec-2008	Abbas Iranmanesh	H	H	03-Nov-2008	23-Dec-2008
Tylin 4/3		ABF-SUB-000917R00**	OBG - Deck Plate Sub Assembly (DP) - Plate Type 1, 2, 10, 18 - LIFT 13W		15-Jan-2009	Ajay Sehgal	H	H	26-Nov-2008	15-Jan-2009
Tylin 4/3		ABF-SUB-000918R00	OBG - Standard Details (X) - LIFT 13W - Longitudinal Bulkhead, Stiffener Plates		15-Jan-2009	Philip He	H	H	26-Nov-2008	15-Jan-2009
Tylin 4/3		ABF-SUB-000919R00	OBG - Standard Details (RS) - LIFT 13W - Rib Plate Stiffeners		15-Jan-2009	Philip He	H	H	26-Nov-2008	15-Jan-2009
Tylin 3/20		ABF-SUB-000930R01	OBG - Layout Assembly (L) - LIFT 13W - Floorbeam Details @ PP118 thru PP121		20-Jan-2009	John Lyons	H	H	06-Jan-2009	30-Jan-2009
Ty ok		ABF-SUB-000923R00	OBG - Shop Assembly (SA) - Splice, Grillage, & Bearing - LIFT 13W		21-Jan-2009	Ajay Sehgal	H	H	02-Dec-2008	21-Jan-2009
Tylin 4/3		ABF-SUB-000924R00**	OBG - Standards (X) - LIFT 13W		21-Jan-2009	Philip He	H	H	02-Dec-2008	21-Jan-2009
Ty ok		ABF-SUB-000927R00	OBG - Floorbeam Sub Assembly (FB) - 117.5 thru 119.65 - LIFT 13W		23-Jan-2009	Victor Altamirano	H	H	04-Dec-2008	23-Jan-2009
Resub prelim 3/13		ABF-SUB-000905R01	OBG - Layout Details (L) - LIFT 13W		28-Jan-2009	Philip He	H	H	09-Dec-2008	28-Jan-2009
Ty update ok		ABF-SUB-000695R01	Traveler Scaffolds - E2/E3 Bikepath Traveler Structural Plans & Details		30-Jan-2009	Alex Schmitt	H	H	09-Jan-2009	23-Jan-2009
Ty update ok		ABF-SUB-000751R01	WB Traveler Shop Drawings		30-Jan-2009	Alex Schmitt	H	H	09-Jan-2009	23-Jan-2009
Ty update ok		ABF-SUB-000928R00	OBG - (RLG, RLTCW) Handrailing on OBG Deck at Crossbeams 4 - 16 and Handrailing		30-Jan-2009	Alex Schmitt	H	H	11-Dec-2008	30-Jan-2009
Tylin 3/20		ABF-SUB-000930R00	OBG - Layout Details (L) - LIFT 13W		30-Jan-2009	John Lyons	H	H	11-Dec-2008	30-Jan-2009
grillage issue 1wk		ABF-SUB-000932R00	OBG - K Plate Sub Assembly (KP) - LIFT 13W		30-Jan-2009	Bob Brignano	H	H	11-Dec-2008	30-Jan-2009
Ty ok - on hold		ABF-SUB-000669R01	OBG - Standard (TR) - Traveler Rail Brackets		10-Feb-2009	Alex Schmitt	H	H	03-Feb-2009	17-Feb-2009
need seg drawings		ABF-SUB-000939R00	OBG - Standards (X) - LIFT 13W - Longitudinal Shear Plates, Plate Stiffeners		10-Feb-2009	Ajay Sehgal	H	H	22-Dec-2008	10-Feb-2009
Tylin 4/3		ABF-SUB-000940R00	OBG - Standard Details (SD) - CB 18, Plates, and Floorbeam Details		10-Feb-2009	Abbas Iranmanesh	H	H	22-Dec-2008	10-Feb-2009
Tylin 4/3		ABF-SUB-000940R01	OBG - Standard Details (SD) - CB 18, Plates, and Floorbeam Details		10-Feb-2009	Abbas Iranmanesh	H	H	15-Jan-2009	10-Feb-2009
Tylin 4/3		ABF-SUB-000940R02	OBG - Standard Details (SD) - Deck Plate Standard Section		10-Feb-2009	Abbas Iranmanesh	H	H	21-Jan-2009	10-Feb-2009
Tylin 4/3		ABF-SUB-000942R00	OBG - Standard (RS) - LIFT 13W - Wt and Plate Stiffener Details		10-Feb-2009	Bob Brignano	H	H	22-Dec-2008	10-Feb-2009
Tylin final 3/13 ?		ABF-SUB-000943R00	OBG - Side Plate Sub Assembly (SP) - LIFT 13W - Plate Types 7 & 8		12-Feb-2009	Abbas Iranmanesh	H	H	24-Dec-2008	12-Feb-2009
Tylin 3/20		ABF-SUB-000944R00	OBG - Bottom Plate Sub Assembly (BP) - LIFT 13W - Plate Types 6, 13, & 14		12-Feb-2009	Tai-Lin Liu	H	H	24-Dec-2008	12-Feb-2009
Tylin prelim 3/13		ABF-SUB-000945R00	OBG - Vertical Plate Sub Assembly (VP) - LIFT 13W		12-Feb-2009	Tai-Lin Liu	H	H	24-Dec-2008	12-Feb-2009
Tylin prelim 3/13		ABF-SUB-000948R00	OBG - Plate Sub Assembly (PL) - LIFT 13W - Exterior Plate Details - Bottom Plate Types		12-Feb-2009	Victor Altamirano	H	H	24-Dec-2008	12-Feb-2009
need seg drawings		ABF-SUB-000950R00	OBG - Standards (RS) - LIFT 13W - Wt and Plate Stiffener Details		12-Feb-2009	Philip He	H	H	24-Dec-2008	12-Feb-2009
Tylin 4/3		ABF-SUB-000951R00	OBG - Floorbeam Sub Assembly (FB) - LIFT 13W		12-Feb-2009	Ajay Sehgal	H	H	24-Dec-2008	12-Feb-2009
Tylin 4/3		ABF-SUB-000949R00	OBG - Standards (X) - LIFT 13W - Floorbeam, Stiffener Diaphragm, & Bearing Plates		17-Feb-2009	Tai-Lin Liu	H	H	30-Dec-2008	18-Feb-2009
Tylin 4/3		ABF-SUB-000667R07	OBG - Layout Assembly (L) - LIFT 13W - Floorbeam Mark Layout Details		19-Feb-2009	Alex Schmitt	H	H	05-Feb-2009	19-Feb-2009
Tylin 4/3		ABF-SUB-000953R00	OBG - Floorbeam Sub Assembly (FB) - LIFT 13W		25-Feb-2009	Philip He	H	H	06-Jan-2009	25-Feb-2009
Final fri 3/13		ABF-SUB-000955R00	OBG - Floorbeam Sub Assembly (FB) - LIFT 13W		25-Feb-2009	Bob Brignano	H	H	06-Jan-2009	25-Feb-2009
Tylin 4/3		ABF-SUB-000957R00	OBG - Standards (X) - LIFT 13W - Floorbeam Details		25-Feb-2009	Bob Brignano	H	H	06-Jan-2009	25-Feb-2009
Tylin 3/20		ABF-SUB-000959R00	OBG - Floorbeam Sub Assembly (FB) - LIFT 13W		25-Feb-2009	Ajay Sehgal	H	H	06-Jan-2009	25-Feb-2009
Tylin prelim 3/13		ABF-SUB-000960R00	OBG - Layout Assembly (L) - LIFT 13W - Floorbeam Details		25-Feb-2009	John Lyons	H	H	06-Jan-2009	25-Feb-2009
Final fri 3/13		ABF-SUB-000963R00	OBG - Miscellaneous (TRFB) - Traveler Rail Field Bolts		26-Feb-2009	Alex Schmitt	H	H	07-Jan-2009	26-Feb-2009
Tylin 4/3		ABF-SUB-000940R03	OBG - Standard Details (SD) - LIFT 14E - Deck Plate Standard Section		04-Mar-2009	Abbas Iranmanesh	H	H	18-Feb-2009	04-Mar-2009
Tylin 3/20		ABF-SUB-000965R00	OBG - Standard Layout Assembly (L) - LIFT 13W		06-Mar-2009	John Lyons	H	H	15-Jan-2009	06-Mar-2009
superseded		ABF-SUB-000967R00	OBG - Standard-Details-(SD) - Deck-Plate - Standard-Section		06-Mar-2009	Abbas-Iranmanesh	H	H	15-Jan-2009	06-Mar-2009
superseded		ABF-SUB-000967R04	OBG - Standard-Details-(SD) - Deck-Plate - Standard-Section		06-Mar-2009	Abbas-Iranmanesh	H	H	21-Jan-2009	06-Mar-2009
Tylin prelim 3/13		ABF-SUB-000967R02	OBG - Standard Details (SD) - Deck Plate - Standard Section		06-Mar-2009	Abbas Iranmanesh	H	H	10-Feb-2009	06-Mar-2009

PB OBG STATUS CHART MARCH 10, 2009

Tylin prelim 3/13	ABF-SUB-000968R00	OBG - Standard (X) - LIFT 13W - Floorbeam Details	06-Mar-2009	Abbas Iranmanesh	H	15-Jan-2009	06-Mar-2009
Tylin prelim 3/13	ABF-SUB-000969R00	OBG - Standard (RS) - LIFT 13W - Plate Stiffener Details	06-Mar-2009	John Lyons	H	15-Jan-2009	06-Mar-2009
Tylin 3/20	ABF-SUB-000970R00	OBG - Edge Plate Sub Assembly (EP) - LIFT 13W - Plate Types 3, 17	06-Mar-2009	Philip He	H	15-Jan-2009	06-Mar-2009
Tylin prelim 3/13	ABF-SUB-000971R00	OBG - Vertical Plate Sub Assembly (VP) - LIFT 13W	06-Mar-2009	Bob Brignano	H	15-Jan-2009	06-Mar-2009
Tylin prelim 3/13	ABF-SUB-000972R00**	OBG - Longitudinal Diaphragm Assembly (LD) - LIFT 13W	06-Mar-2009	Bob Brignano	H	15-Jan-2009	06-Mar-2009
Tylin 3/20	ABF-SUB-000973R00	OBG - Shop Assembly (SA) - LIFT 13W - Splice Plate, Bottom Plate, Lift Lug, Pier E2 Seat	07-Mar-2009	Chris Havel	H	16-Jan-2009	07-Mar-2009
Tylin 3/20	ABF-SUB-000974R00	OBG - Plate Sub Assembly (PL) - LIFT 13W - Exterior Plate Details - Plate Types 1-17	07-Mar-2009	Chris Havel	H	16-Jan-2009	07-Mar-2009
Tylin 3/20	ABF-SUB-000978R00	OBG - Standards (X) - LIFT 13W - Architectural Splice, Floorbeam, Plate Diaphragm,	11-Mar-2009	Philip He	H	20-Jan-2009	11-Mar-2009
Tylin prelim 3/13	ABF-SUB-000980R00	OBG - Plate Sub Assembly (PL) - LIFT 13W - Exterior Plate Details - Plate Types 4, 5, 15	11-Mar-2009	Abbas Iranmanesh	H	20-Jan-2009	11-Mar-2009
Tylin 3/20	ABF-SUB-000981R00	OBG - Standards (RS) - LIFT 13W - Plate Stiffener Details	11-Mar-2009	John Lyons	H	20-Jan-2009	11-Mar-2009
Tylin 3/20	ABF-SUB-000982R00	OBG - Side Plate Sub Assembly (SP) - LIFT 13W - Plate Types 4 & 5	11-Mar-2009	Bob Brignano	H	20-Jan-2009	11-Mar-2009
Tylin 3/20	ABF-SUB-000983R00	OBG - Standards (X) - LIFT 13W - Floorbeam, Stiffener Splice Plate	11-Mar-2009	Chris Havel	H	20-Jan-2009	11-Mar-2009
Tylin prelim 3/13	ABF-SUB-000984R00	OBG - Standards (RS) - LIFT 13W - Plate Stiffener Details	11-Mar-2009	Abbas Iranmanesh	H	20-Jan-2009	11-Mar-2009
Tylin 3/20	ABF-SUB-000985R00	OBG - Edge Beam Sub Assembly (EB) - LIFT 13W	11-Mar-2009	Ajay Sehgal	H	20-Jan-2009	11-Mar-2009
Tylin prelim 3/13	ABF-SUB-000986R00	OBG - Side Plate Sub Assembly (SP) - LIFT 13W - Plate Types 5, 15, 16	11-Mar-2009	Philip He	H	20-Jan-2009	11-Mar-2009
Tylin prelim 3/13	ABF-SUB-000987R00*	OBG - Floorbeam Sub Assembly (FB) - LIFT 13W	11-Mar-2009	John Lyons	H	20-Jan-2009	11-Mar-2009
Tylin prelim 3/13	ABF-SUB-000987R35	OBG - Standard Weld Details (WD) - Typical Weld Details	12-Mar-2009	Philip He	H	26-Feb-2009	12-Mar-2009
	ABF-SUB-000707R01*	OBG - Mark Layout Details (L) - LIFT 14W	12-Mar-2009	Ajay Sehgal	H	26-Feb-2009	12-Mar-2009
Tylin prelim 3/13	ABF-SUB-000990R00	OBG - Standard Details (SD)	12-Mar-2009	John Lyons	H	21-Jan-2009	12-Mar-2009
Tylin prelim 3/13	ABF-SUB-000990R01	OBG - Standard Details (SD)	12-Mar-2009	John Lyons	H	10-Feb-2009	12-Mar-2009
Tylin prelim 3/13	ABF-SUB-000990R02	OBG - Standard Details (SD) - LIFT 14E	12-Mar-2009	John Lyons	H	18-Feb-2009	12-Mar-2009
Tylin 3/20	ABF-SUB-000992R00	OBG - Standards (X) - LIFT 13W - Saddle Support, Floorbeam Details	13-Mar-2009	John Lyons	H	22-Jan-2009	13-Mar-2009
Tylin 3/20	ABF-SUB-000993R00	OBG - Floorbeam Sub Assembly (FB) - LIFT 13W	13-Mar-2009	Bob Brignano	H	22-Jan-2009	13-Mar-2009
Tylin 3/20	ABF-SUB-000994R00	OBG - Shop Assembly (SA) - LIFT 13W - Architectural Splice, Stiffener Plate	13-Mar-2009	Bob Brignano	H	22-Jan-2009	13-Mar-2009
Ty 4/3	ABF-SUB-000667R08	OBG - Layout Assembly (L) - LIFT 13W - Floorbeam Mark Layout Details	17-Mar-2009	Alex Schmitt	H	03-Mar-2009	17-Mar-2009
Tylin 3/20	ABF-SUB-000930R02	OBG - Layout Assembly (L) - LIFT 13W - Floorbeam Details @ PP118 thru PP121	17-Mar-2009	John Lyons	H	03-Mar-2009	17-Mar-2009
	ABF-SUB-000960R01	OBG - Layout Assembly (L) - LIFT 13W - Floorbeam Details	17-Mar-2009	John Lyons	H	03-Mar-2009	17-Mar-2009
	ABF-SUB-000965R01	OBG - Standard Layout Assembly (L) - LIFT 13W	17-Mar-2009	John Lyons	H	03-Mar-2009	17-Mar-2009
	ABF-SUB-001035R00	OBG - Vertical Plate Sub Assembly (VP) - LIFT 14E	17-Mar-2009	Chris Havel	H	24-Feb-2009	16-Mar-2009
Ty by fri 3/13	ABF-SUB-000904R02	Erection Plan (Box Girder) - Box Girder Lifting Plan for LIFTS 1 through 12	18-Mar-2009	Chris Havel	H	26-Feb-2009	18-Mar-2009
Tylin prelim 3/13	ABF-SUB-001003R00	OBG - BikePath Sub Assembly (BK) - Panel Details	25-Mar-2009	Alex Schmitt	H	03-Feb-2009	25-Mar-2009
	ABF-SUB-001004R00	OBG - Standard (X) - Floorbeam Details	25-Mar-2009	Abbas Iranmanesh	H	03-Feb-2009	25-Mar-2009
	ABF-SUB-001005R00	OBG - Standard (X) - Floorbeam Details	25-Mar-2009	Abbas Iranmanesh	H	03-Feb-2009	25-Mar-2009
	ABF-SUB-001008R00	OBG - Layout Assembly (L) - LIFT 13W	27-Mar-2009	Abbas Iranmanesh	H	05-Feb-2009	27-Mar-2009
	ABF-SUB-001008R01	OBG - Layout Assembly (L) - LIFT 13W	27-Mar-2009	Abbas Iranmanesh	H	03-Mar-2009	27-Mar-2009
	ABF-SUB-001013R00	OBG - Corner Assembly (CA) - LIFT 13W	27-Mar-2009	Chris Havel	H	05-Feb-2009	27-Mar-2009
	ABF-SUB-001006R00	OBG - Standard (X) - LIFT 13W - Plate, Floorbeam Details	28-Mar-2009	Bob Brignano	H	06-Feb-2009	28-Mar-2009
	ABF-SUB-001007R00	OBG - Floorbeam Sub Assembly (FB) - LIFT 13W	28-Mar-2009	Bob Brignano	H	06-Feb-2009	28-Mar-2009
	ABF-SUB-001009R00	OBG - Plate Sub Assembly (PL) - LIFT 14E - Exterior Plate Details - Plate Types 5 thru 18	28-Mar-2009	Chris Havel	H	06-Feb-2009	28-Mar-2009
	ABF-SUB-001011R00	OBG - Side Plate Sub Assembly (SP) - LIFT 14E	28-Mar-2009	Abbas Iranmanesh	H	06-Feb-2009	28-Mar-2009
	ABF-SUB-001012R00	OBG - Standard (RS) - LIFT 14E - Plate Stiffener Details	28-Mar-2009	John Lyons	H	06-Feb-2009	28-Mar-2009
	ABF-SUB-001049R00	West Jacking Saddle Final Machining Drawings	29-Mar-2009	Chris Havel	H	27-Feb-2009	29-Mar-2009

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ABF-SUB-001014R00	OBG - Standard (X) - LIFT 14E - Stiffener Splice & Diaphragm Plates	01-Apr-2009	Bob Brignano	H	10-Feb-2009	01-Apr-2009
ABF-SUB-001015R00	OBG - Plate Sub Assembly (PL) - LIFT 14E - Exterior & Interior Plate Details - Plate Types	01-Apr-2009	Bob Brignano	H	10-Feb-2009	01-Apr-2009
ABF-SUB-001016R00	OBG - Standard (RS) - LIFT 14E - Plate & Rib Stiffener Details	01-Apr-2009	John Lyons	H	10-Feb-2009	01-Apr-2009
ABF-SUB-001017R00	OBG - Shop Assembly (SA) - LIFT 14E - Stiffener Splice Plate Details	01-Apr-2009	John Lyons	H	10-Feb-2009	01-Apr-2009
ABF-SUB-001018R00	OBG - Deck Plate Sub Assembly (DP) - LIFT 14E - Plate Type 1	01-Apr-2009	Philip He	H	10-Feb-2009	01-Apr-2009
ABF-SUB-001020R00	OBG - Standard (X) - LIFT 14E - Stiffener, Floorbeam, Edge Beam Plates Details	02-Apr-2009	Philip He	H	11-Feb-2009	02-Apr-2009
ABF-SUB-001021R00	OBG - Plate Sub Assembly (PL) - LIFT 14E - Exterior Plate Details - Plate Type 7	02-Apr-2009	Chris Havel	H	11-Feb-2009	02-Apr-2009
ABF-SUB-001022R00	OBG - Standard (RS) - LIFT 14E - Plate and Rib Stiffener Details	02-Apr-2009	Bob Brignano	H	11-Feb-2009	02-Apr-2009
ABF-SUB-001031R00	OBG - Edge Beam Sub Assembly (EB) - LIFT 14E	09-Apr-2009	Bob Brignano	H	18-Feb-2009	09-Apr-2009
ABF-SUB-001032R00	OBG - Standard (X) - LIFT 13W - Floorbeam Details	09-Apr-2009	Philip He	H	18-Feb-2009	09-Apr-2009
ABF-SUB-001025R01	Critical Weld Repair Report - Oregon Iron Works - Hinge K Pipe Beam Base Assembly	10-Apr-2009	Abbas Iranmanesh	H	19-Feb-2009	10-Apr-2009
ABF-SUB-001026R00	OBG - Standard (X) - LIFT 14E - Longitudinal Stiffener, Edge Beam, Floorbeam Diaphragm	10-Apr-2009	Chris Havel	H	19-Feb-2009	10-Apr-2009
ABF-SUB-001027R00	OBG - Standard (RS) - LIFT 14E - Plate Stiffener Details	10-Apr-2009	John Lyons	H	19-Feb-2009	10-Apr-2009
ABF-SUB-001028R00	OBG - Deck Plate Sub Assembly (DP) - LIFT 14E - Plate Types 1, 2, 10	10-Apr-2009	Chris Havel	H	19-Feb-2009	10-Apr-2009
ABF-SUB-001029R00	OBG - Side Plate Sub Assembly (SP) - LIFT 14E - Plate Type 7	10-Apr-2009	John Lyons	H	19-Feb-2009	10-Apr-2009
ABF-SUB-001030R00	OBG - Bottom Plate Sub Assembly (BP) - LIFT 14E - Plate Types 6, 13, 14	10-Apr-2009	Philip He	H	19-Feb-2009	10-Apr-2009
ABF-SUB-001033R00	OBG - Standard Details (SD) - LIFT 14E - Deck Plate Details	10-Apr-2009	Alex Schmitt	H	19-Feb-2009	10-Apr-2009
ABF-SUB-001034R00	OBG - Side Plate Sub Assembly (SP) - LIFT 14E - Plate Types 5, 7, 8, 15, 16	10-Apr-2009	John Lyons	H	19-Feb-2009	10-Apr-2009
ABF-SUB-001036R00	Erection Plan (Tower) and (Box Girder) - Shearleg Crane	17-Apr-2009	Ajay Sehgal	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001037R00	OBG - Standard (X) - LIFT 14E - Plate Details	17-Apr-2009	Alex Schmitt	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001038R00	OBG - Standard Details (SD) - LIFT 14E - Lift Lug & Anchorage Plate Connection L Details	17-Apr-2009	Philip He	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001039R00	OBG - Floorbeam Sub Assembly (FB) - LIFT 14E	17-Apr-2009	Philip He	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001040R00	OBG - Standard (X) - LIFT 14W - Stiffener Diaphragm & Edge Beam Plate Details	17-Apr-2009	Ajay Sehgal	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001041R00	OBG - Standard (RS) - LIFT 14W - Plate Stiffener Details	17-Apr-2009	Abbas Iranmanesh	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001042R00	OBG - Plate Sub Assembly (PL) - LIFT 14W - Exterior Plate Details Types 9, 17, 18	17-Apr-2009	Abbas Iranmanesh	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001044R00	TOWER - Diaphragm Grating Details - LIFT 1	17-Apr-2009	John Lyons	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001045R00	OBG - Standard (X) - LIFT 14W - Edge Beam Details	17-Apr-2009	John Lyons	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001046R00	OBG - Plate Sub Assembly (PL) - LIFT 14W - Vertical Plate Details	17-Apr-2009	Alex Schmitt	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001047R00	OBG - Edge Beam Sub Assembly (EB) - LIFT 14W	17-Apr-2009	John Lyons	H	26-Feb-2009	17-Apr-2009
ABF-SUB-001051R00	Erection Plan (Box Girder) - Shear Leg Crane Layouts - LIFTS 1-4	22-Apr-2009	Bob Brignano	H	03-Mar-2009	22-Apr-2009
ABF-SUB-001012R01	OBG - Standard (RS) - LIFT 14E - Plate Stiffener Details	23-Apr-2009	John Lyons	H	05-Mar-2009	24-Apr-2009
ABF-SUB-001053R00	Heat Straightening Report (HSR) - Oregon Iron Works	23-Apr-2009	Chris Havel	H	04-Mar-2009	23-Apr-2009
ABF-SUB-001054R00	OBG - Survey Plan - LIFTS 1 thru 11	28-Apr-2009	Philip He	H	09-Mar-2009	28-Apr-2009
ABF-SUB-001056R00	OBG - Standard (X) - LIFT 14E - Longitudinal Shear, Floorbeam Plate Details	28-Apr-2009	Ajay Sehgal	H	09-Mar-2009	28-Apr-2009
ABF-SUB-001057R00	OBG - Floorbeam Sub Assembly (FB) - LIFT 14E	28-Apr-2009	Ajay Sehgal	H	09-Mar-2009	28-Apr-2009



Martin  
Chandrawinata/D04/Caltrans/  
CAGov

03/10/2009 05:18 PM

To Abbas Iranmanesh/D01/Caltrans/CAGov@DOT  
cc Michael Travis/HQ/Caltrans/CAGov@DOT, Gary J  
Lai/D04/Caltrans/CAGov@DOT, Bill  
Shedd/D04/Caltrans/CAGov@DOT  
bcc

Subject SUB915 - Mechanical items Review

Abbas,

Please find attached the review of the barrier mounted Pipe Supports (PS-14), Flumes, and barrier mounted signs.

The following flumes on the Westbound South (W5 line, between PP34 - PP48) were not identified in SUB915:

- PP35 - DWG CA22, DP628, PL1123
- PP37 - DWG DP513, PL835
- PP46 - DWG DP515A, PL839
- PP48 - DWG CA32, DP646, PL1232

The following Flumes details should be deleted at the following barrier details :

- W5-SB7 (at PP36)
- W5-SB14 (at PP41 and PP43)



PS-14, flume, sign review.xls

I will be available to discuss this in detail tomorrow morning (before 12pm).

Regards,

Martin P. Chandrawinata  
SAS Bridge Construction  
Ph. 510-286-0535  
www.baybridgeinfo.org

Consider the environment. Please don't print this e-mail unless you really need to.

**Westbound North**

Barrier	Type	Detail	Qty	PS14 Comment	Sign Comment (No Flume)
W2-SB1	Double	W2-P11a	54	90mm should be 61mm** - also for section C-C	
W2-SB2	Double	W2-P11a	20	90mm should be 61mm** - also for section C-C	
W2-SB3	Double	W2-P11a	1	90mm should be 61mm** - also for section C-C	
W2-SB4	Double	W2-P11a	1	90mm should be 61mm** - also for section C-C	Mounted Sign at PP44
W2-SB5	Double	W2-P27a	1	90mm should be 61mm** - also for section C-C. Shows 2 PS-14s at 1700mm	
W2-SB6	Double	W2-P11a	1	90mm should be 61mm** - also for section C-C	
W2-SB7	Double	W2-P11a	1	90mm should be 61mm** - also for section C-C	
W2-SB8	Double	None	1	Quantity calculated is 1, but sheet W2-01 shows 2. W2-SB8 also realigned.	
W2-P11a	Double			91 mm should be 62mm**	
W2-P27a	Double			91 mm should be 62mm**	
** Per SUB-112R3 FWS Shop Dwg. sheet D-4b (AAN, but Approved for PS-14 detail) - typical for W2					

**Westbound South**

Barrier	Type	Detail	Qty	PS14 Comment	Flume & Sign Comment
W5-SB1	Single	W5-P10a	49	Good	
W5-SB2	Single	W5-P10a	6	Good	Flume at PP9, 12, 18, 23, 25, 30
W5-SB3	Single	W5-P10a	5	Good	
W5-SB4	Single	W5-P10a	1	Good	
W5-SB5	Single	W5-P10a	3	Good	
W5-SB6	Single	W5-P10a	2	Good	
W5-SB7	Single	W5-P10a	1	Good	W5-SB7 should have no flume
W5-SB8	Single	W5-P10a	2	Good	
W5-SB9	Single	W5-P10a	1	Good	Mounted Sign at PP44
W5-SB10	Double	W5-P26	1	90 mm should be 19mm*	
W5-SB11	Single	W5-P26a	1	P10a was realigned to P26a. No detail found for P26a. P26b was indicated to be similar to P10a	
W5-SB12	None	None	1	Just curious why this doesn't have PS-14. It's on PP20	
W5-SB13	Double	W5-P10b	4	90 mm should be 19mm*	
W5-SB14	Double	W5-P10b	2	90 mm should be 19mm*	W5-SB14 should have no flume Flume needed at PP35, 37, 46, 48
W5-P10a	Single			Good	
W5-P10b	Double			91 mm should be 20mm*	
W5-P26a	Single			Detail not found, but it seems to be similar to W5-P10a except it's 250mm instead of 200mm	
W5-P26b	Single			Not sure if it's 26a or 26b. See realine on W5-SB11	

\* Per SUB-112R3 FWS Shop Dwg. sheet D-5b (Approved) - typical for E5 and W5

**Eastbound North**

Barrier	Type	Detail	Qty	PS14 Comment	Sign Comment (No Flume)
E5-SB1	Single	E5-P11a	57	Good	
E5-SB2	Single	E5-P11a	5	Good	
E5-SB3	Single	E5-P11a	6	Good	
E5-SB4	Single	E5-P11a	1	Good	Mounted Sign Missing at PP38
E5-SB5	Single	E5-P11a	1	Good	
E5-SB6	Single	E5-P11a	1	Good	
E5-SB7	Double	E5-P27a	1	90mm should be 19mm*. Shows 2 PS-14s at 1700mm. See W2-SB5	
E5-SB8	Single	E5-P27b	1	TY redlined from 11a to 27b	
E5-SB9	Single	None	1	Just curious why this doesn't have PS-14. It's on PP20. See W5-SB12	
E5-SB10	Double	E5-P11b	4	90mm should be 19mm*	
E5-SB11	Double	E5-P11b	1	90mm should be 19mm*. E5-SB11 was marked E5-SB2	
E5-SB12	None	None	1	Similar to E2-SB8. Also Quantity calculated is one, but E5-02 shows 2. It was also redlined.	
E5-P11a	Single			Good	
E5-P11b	Double			91 mm should be 20mm*	
E5-P27a	Double			91 mm should be 20mm*	
E5-P27b	Single			E5-SB8, TY Redline, PL12x250	

\* Per SUB-112R3 FWS Shop Dwg. sheet D-5b (Approved) - typical for E5 and W5

\*\*\* PB Response on 11/26/08 changes a few names (by RayMorgan)... on the barrier details. Need to discuss the reasons.

**Eastbound South**

Barrier	Type	Detail	Qty	NO PS14	Flume & Sign Comment
E2-SB1	NA	None	45	Quantity was redlined to 44 SB1 and 1 SB1a. What is E2-SB1a and where is that?	
E2-SB2	NA	None	5		Flume at PP11, 19, 25, 39, 45
E2-SB3	NA	None	1		
E2-SB4	NA	None	3		
E2-SB5	NA	None	18		
E2-SB6	NA	None	1		
E2-SB7	NA	None	2		Flume at PP29 and 35
E2-SB8	NA	None	1		
E2-SB9	NA	None	1		Mounted Sign at PP38
E2-SB10	NA	None	1		
E2-SB11	NA	None	1		

 Attachments can contain viruses that may harm your computer. Attachments may not display correctly.

**Mike Travis**

**From:** Chris Bausone [cbausone@abfjv.com] **Sent:** Tue 3/10/2009 7:13 PM  
**To:** 'Bill Shedd'; 'Kevin Coyne'; 'Anna Lee'; 'Bob Kick (E-mail)'; kbaltzer@abfjv.com  
**Cc:** 'Michael Stone'; 'Brian Boal'; 'Martin Chandrawinata'; 'Mark Woods'; 'Sharad Patel'; 'Bernard R Feather'; Mike Travis  
**Subject:** meeting reminder - Opportunity Schedule for MEP  
**Attachments:**  SAS - MEP OppSched Mtg Agenda 03-11-09.doc(338KB)

All - We're still on for a meeting to discuss (Opportunity) Schedule relating to MEP tomorrow, Wednesday, March 11, 1pm to 4pm. I'm a little late with the meeting agenda but here it is. It's lengthy because I broke things down into distinct areas of work relating to either Bid Items or physical location and I tried to include information that may be common knowledge to some, but not all, participants. My idea is to review work scope, sequence and schedule notes for accuracy, answering questions and adding or deleting information/questions as we go. Then, at the end there is a section for writing any (wildass) suggestions we can brainstorm on to find time saving opportunities. For this exercise, extra cost to perform work is less important than significant time savings. I started it out with a common suggestion and a W.A.S. of my own. - Chris

--

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**SAS - MEP OPPORTUNITY SCHEDULE MEETING**  
**Agenda for March 11, 2009, 1:00pm – 4:00pm**  
**WDC Conference Room**

• **GOALS**

- Main: Mitigate delays to meet or exceed project milestones for Phase completion
  - Phase 1 - March 2012 – all work west of Pier W2 centerline
  - Phase 2 – September 2012 – all work to open Westbound lanes to traffic
  - Phase 3 – March 2013 – all remaining work to complete the project
- Alternative: Open the bridge to traveling public by Phase completion milestones even if substantial project completion has not been attained
  - Some work over traffic may be necessary to complete
  - Temporary lane closures may be necessary to complete

• **REVIEW WORK SCOPE, SEQUENCE, CONSIDERATIONS FOR DISTINCT AREAS REQUIRING MEP ACCESS**

- **W2 UNDERGROUND**
  - Electrical work: rigid conduit, duct banks, manholes, cables
  - Access after Cap Beam falsework and foundation removal
  - Tower Tie-back piles and anchoring block in vicinity
  - Completion planned with Phase 1
  -
- **W2 BELOW RETAINING WALL COVER SLAB**
  - Electrical work: cable trays, supports, cables, Seismic, Grounding
  - W2W retaining wall requires new penetrations for electrical
  - Electrical installations attach mainly to retaining wall
  - Cable tray supports at W2W require drilling and anchoring in concrete
  - Seismic and Grounding installations at top of pier footing
  - Access is required along full height of retaining wall
  -
- **W2 ABOVE RETAINING WALL COVER SLAB**
  - Electrical work: pull boxes, supports, flexible conduits
  - Mechanical work: piping, fittings, expansion loops, supports, terminations
  - MEP installations attach to cover slab: require drilling and anchoring in concrete
  -

- **W2 COLUMNS**
  - Electrical work: cable trays, pull boxes, supports, cables
  - Mechanical work: piping, fittings, supports
  - Electrical supports require drilling and anchoring in concrete
  - Access is required along full height of columns
  -
  
- **W2 CAP**
  - Electrical work: cable trays, supports, cables, rigid conduit (to dehumid unit)
  - Mechanical work: piping, fittings, supports
  - Electrical supports require drilling and anchoring in concrete
  - Access is required to bottom and east side surfaces of cap concrete
  -
  
- **W2-OBG TRANSITION**
  - Electrical work underneath: cable trays, supports, flex conduit, cables, grounding
  - Mechanical work around sides: piping, fittings, supports
  - Catwalk for main Cable installation may impede mechanical work
  - Cradles for OBG may impede electrical work
  - Access is required below girders for structural supports installation and electrical installations
  - Access is required inside girders for heavy concentration of electrical work including a large splice box for 15kV
  - Access is required at girder sides for mechanical work
  - Closure pour must be cured prior to installation of some pipe supports
  -
  
- **OBG-WB GIRDER**
  - Electrical work: cable trays, rigid conduits, pull boxes, cables, lighting, switches, receptacles, Seismic, Navigation, Fiber Optic, 15kV
  - Access/Egress in/out of girder is limited to small access holes near field splices
  - Cable trays are intended to be loaded from open end of lift segment
    - Will electricians have access to OBG segments prior to their erection, for staging materials and/or installing longitudinal cable trays on supports?
  -
  
- **OBG-WB ROADWAY**
  - Electrical work: rigid conduits, flex conduits, pull boxes, cables, lighting, 20m light poles, receptacles, Call Box, TOS cameras, MVDS
  - Mechanical work: piping, fittings, supports, utility stations, expansion loops
  - Access is mainly required in and around roadway barrier
  - Access holes in deck plate must be repaired prior to some pipe installation
  - Completion is planned with Phase 2
  -
  
- **OBG-EB GIRDER**
  - Electrical work: cable trays, rigid conduits, pull boxes, cables, lighting, switches, receptacles, Seismic, Navigation, Fiber Optic, 15kV
  - Access/Egress in/out of girder is limited to small access holes near field splices
  - Cable trays are intended to be loaded from open end of lift segment
    - Will electricians have access to OBG segments prior to their erection, for staging materials and/or installing longitudinal cable trays on supports?
  -

- **OBG-EB ROADWAY**
  - Electrical work: rigid conduits, flex conduits, pull boxes, cables, lighting, 20m light poles, receptacles, Call Box, TOS cameras, MVDS
  - Mechanical work: piping, fittings, supports, utility stations, expansion loops
  - Access is mainly required in and around roadway barrier
  - Access holes in deck plate must be repaired prior to some pipe installation
  -
- **OBG-CROSSBEAM AT SERVICE PLATFORMS**
  - Electrical work: cable trays, rigid conduits, lighting, switches, receptacles
  - Access to crossbeam interior is from outside at service platforms or from inside of girders
  - Cable trays are intended to be loaded prior to erection of crossbeams
- **OBG-SERVICE PLATFORMS**
  - Electrical work: equipment racks, wireways, lighting panels, utility panels, transformers, breakers, panel enclosures, SCADA, Seismic, TOS/COM, 15kV
  - Access to service platforms is from crossbeams
- **OBG-EB BIKE PATH**
  - Electrical work: rigid conduit, flex conduit, lighting, 3.5m poles, Call Box
  - Mechanical work: piping, fittings, supports, utility stations, expansion loops
  - Access is required along edges of bike path and underneath bike path
  -
- **OBG-TOWER TRANSITION**
  - Electrical work: rigid conduit, splice boxes, messenger cables, flex conduit, cables, lighting, grounding, Seismic
  - Mechanical work: piping, fittings, supports, expansion loops, Booster Pump
  - Access to electrical equipment platform at OBG-EB may be delayed due to presence of temporary crane tower
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- **TOWER SHAFTS AND PLATFORMS INSIDE**
  - Electrical work: cable trays, cables, lighting, receptacles, switches, utility panels, transformers, breakers, Seismic
  - Access will be through permanent means of access/egress
  - What is predecessor to MEP access?
- **TOWER SHAFTS AND PLATFORMS OUTSIDE**
  - Electrical work: conduits, cables, pull boxes, lighting, receptacles, switches, Nav/Av Warnings, Seismic
  - Mechanical work: Elevator
  - What is predecessor to MEP access?
- **TOWER HEAD**
  - Electrical work: conduits, cables, lighting, switches, receptacles, Aviation Warning, Dehumid unit hookup
  - Mechanical work: Dehumid unit, dehumid ductwork, supports
  - Access will be through permanent means of access/egress
  - Ductwork installation can't be completed until after saddle housing is installed
  - What is predecessor to MEP access?
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- **TOWER ANCHORAGE**
  - Electrical work: Conduits, pull boxes, cables, lighting, switches, receptacles, Seismic, Dehumid unit hookup, Elevator hookup, Sump Pump hookup
  - Mechanical work: Dehumid unit, dehumid ductwork, supports, Sump Pump, and piping, Elevator
  - Access will be through permanent means of access/egress
  - What is predecessor to MEP access?
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- **T1 PILE CAP**
  - Electrical work: conduits, cables, lighting, Navigation Warning
  - Do temp structures affect access?
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- **TOWER-CABLE TRANSITION**
  - Electrical work: conduits, supports, cables
  - Mechanical work: dehumid system ductwork
  - Access for MEP must follow cable shroud installation
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- **SAS-SKYWAY TRANSITION**
  - Electrical work: cable trays or conduits, supports, cables, splices
  - Mechanical work: piping, fittings, expansion loop, supports, tie-in
  - Access is required for mech work below bike path
  - Hinge A pipe beams carry conduits and electrical circuits, so they must be set prior to completion of electrical work
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- **CABLE MAIN SPANS AND BACK SPANS**
  - Electrical work: messenger cable, flexible conduits, pull boxes, cables, lighting, Seismic, Aviation Warning
  - What is predecessor to MEP access?
  - Will catwalk impede any electrical installations?
  - At what sequence will catwalk be removed?
  - How many cable wrapping machines will be used?
  - Can electrical components be installed shortly behind cable wrapping progress?
  - Is painting a predecessor for electrical work?
  - What is cable wrapping and paint sequence for main span and back spans, north side and south sides?
  -
- **CABLE ANCHORAGES AND SADDLES**
  - Electrical work: dehumid unit hookups near West jacking saddle, East anchorages, Tower saddle (same as Tower Head)
  - Mechanical work: dehumid unit near west jacking saddle, East anchorages, and Tower saddle; dehumid ductwork at west saddle housings and shrouds, Tower saddle housing and shrouds, OBG anchorage and saddles
  - East anchorage dehumidification system installation is affected by cable installation and anchoring operations
  - Ductwork installation must follow cable shroud and saddle housing installations at Tower Head and West Saddles
  - What is predecessor to duct installation at East Anchorages?
  - How/When can dehumid units be loaded into East anchorages?
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- **E2 COLUMNS CAP**
  - Electrical work: pull boxes, conduits, cables
  - Access is required at side of cap
  - Will temporary work for bearings or shear keys limit MEP access to east side?
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- **E2 COLUMNS**
  - Electrical work: conduits, cables, supports
  - Access is required along full height of columns
  - Do temp structures affect access?
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- **E2 PILE CAP**
  - Electrical work: conduits, pull boxes, cables, lighting, Navigation Warning, Seismic
  - Do temp structures affect access?
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- **LOAD TRANSFER CONSIDERATIONS**

- How much barrier movement or compression is expected relative to deck
  - Can conduit be secured to barrier and pull boxes prior to load transfer?
- Can conduit be secured to deck prior to load transfer?
- Will temp tower removal create more OBG movement or compression?
- Will OBG movement or compression affect MEP installations inside the OBG?
- Does proper load transfer require weight of MEP materials to be installed in/on OBG?
- Does proper load transfer require weight of Travelers to be hung from OBG?
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- **GENERAL MEP CONSIDERATIONS**

- Structure transitions are likely to have temporary structures impeding MEP installations prior to removal of temporary structures
  - What effect would this have on system installation?
  - What effect would this have on system testing?
- Must all work on cables be completed prior to opening roadways to traffic?
- Must all roadway lighting, MVDS units and call boxes be installed and operational prior to opening roadways to traffic?
- Must Tower outside work be completed prior to opening roadways to traffic?
- What areas will ABFJV make available for local storage or staging of materials?
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- **MEP CONSIDERATIONS IN AND AROUND BARRIER**

- Conduits are intended to be loaded from open end of barrier segments.
  - What is Bleyco plan for moving conduits into place and securing them?
- Schedule currently shows all barrier (through Lift 14) getting set prior to conduit installation
  - Can schedule be condensed to show conduit installation beginning sooner and progressing as barrier erection progresses?
  - Will barrier bolting be impeded by conduit and pull box installation?
  - What is predecessor for securing conduit to barrier and pull boxes?
  - Can pull box installation and conduit fastening progress shortly behind barrier bolting progress?
- Can piping installations progress shortly behind barrier bolting progress?
  - Must piping installation be preceded by conduit and pull box installation?
  - Must piping installation be preceded by cable pulling?
- Must electrical testing precede installation of barrier cover plates at pull box locations? At other locations?
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- **MECHANICAL SCHEDULE OR SEQUENCE CONSIDERATIONS**

- Schedule currently shows work for both roadways being performed simultaneously. Considering the Phase 2 completion milestone, should work along Westbound roadway progress ahead of work along Eastbound roadway?
- Must all pipe installation follow after load transfer?
- What lengths of steel pipe will be preassembled prior to installation?
- ABFJV consider painting steel pipes prior to their installation?
- Schedule currently shows testing activities for each each system by phase, followed by an overall performance test. Is schedule realistic or can some time get reeled in?
- What is FWS plan for resource loading?
- What is planned for local storage or staging of materials?
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- **ELECTRICAL SCHEDULE OR SEQUENCE CONSIDERATIONS**

- Schedule currently shows all barrier through Lift 14 getting set prior to conduit installation in barrier
  - Can schedule show
- Can Bleyco procure and deliver materials and equipment prior to the current schedule completion date of January 2010?
- What electrical activities have load transfer as a predecessor?
- What is BLI plan for resource loading?
- What is planned for local storage or staging of materials?
- What length of cable tray or conduit should be installed prior to cable pulling?
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- **OUTSIDE AGENCY INVOLVEMENT**

- Coordination is required for the following systems with the following groups. Can outside agencies be trusted to cooperate with SAS schedule opportunities?
  - Traffic Operation Systems - TOS Specialists (Caltrans non-SAS)
  - Strong Motion Detection & Recording Systems - CDMG
  - Navigation & Aviation Warning Systems - FAA & Coast Guard
  - BASE (Bay Area Security Enhancements) – Caltrans (non-SAS) & Federal Homeland Security
  - Elevator – D.O.S.H.
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