

Job Stamp 04-0120F4 SFOBB SAS

Const. Calendar:	723 and 724			
Project Work Day No.:	933 and 934			
Date	12/05/2008 and 12/06/2008			
Inspectors	Start	08:40	Stop	11:10
Hours		20:30		24:00
		00:00		04:15
		05:30		08:30
Shift Hours		07:00		15:30
		20:30		24:00
		00:00		08:30

ASSISTANT RESIDENT ENGINEER'S CONTRACTOR – ABFJV, Subs CMC-RS and Conco

Weather: Sunny with mild to cool temperature during the day on Friday, clear with cool temperature Friday night, and Foggy to clear Saturday morning with cold temperatures – Hi 65°F Low 41°F temperatures taken for both days (per weather.com forecast)

Description of Operations @ W2 Cap Beam:

- ABF
- Continued to place tie-rods in the north/south and east/west directions.
 - The majority of the crew normally at W2 went to E2 to prepare for the concrete pour.

- CMC-RS
- Continued placing/laying out the #25 (hooked on one end and a T-Head on the other end) vertical bars in the void area of pour 5.
 - Began to work on Pamela's punchlist items.

Description of Operations @ E2 Cap Beam:

- ABF
- Foreman Nigel Lohse directed Conco during the concrete placement regarding the sequence of placing concrete and curing operations.
 - A crew was working on the top cap forms as concrete placement commenced and a another crew was dedicated to watching the forms for any leaks/blow-outs during concrete placement.
 - ABF surveyors shot miscellaneous points on the falsework to monitor deflection and settlement.

- CONCO
- Placed approximately 1530m³ of self consolidating concrete (SCC) mix design number 161790 into the E2 cap beam forms under the direction of ABF.

Time (military)	Comments
21:00	Three trucks arrived onsite and tests on fresh concrete commence.
21:20	First successful flow test was completed at 28" while the second one was at 25". The VSI for the flow measured at 28" appeared to be between a 0 or 1.
21:40	ABF/Conco began to place concrete on the south end of the E2 cap beam.
22:20	Pumps were moved for the first time staying on the southern end of the E2 cap beam.
23:10	I told ABF foreman Nigel Lohse to stop placing concrete as I noticed a break in a PVC water cooling pipe near the north end of the southern column cages. ABF began to turn off all of the water pipes to identify the broken pipe(s).
23:40	The broken PVC pipe was indentified as 3D which was approximately 4'-6' from the soffit near the north end of the southern column cages and near a mark labeled "5E" on the top east horizontal strongback. ABF project manager Jim Davidson informed me that the water cooling pipe will be shut-off for the duration of the pour. From the southern end of the cap to the southern end of the north column cages water puddles were seen on the top of the concrete surface. The exact cause of the PVC pipe is not known however when the hose was removed from this access hole the broken pipe was discovered.

REC'D 09 JAN 02 #007996

Time (military)	Comments
00:00	ABF/Conco tried to push some of the water out of the forms by placing concrete near the broken PVC pipe. Some of the concrete appeared to get pushed out of the forms while some of the concrete covered the water, and some of the water dispersed from the cooling pipe was absorbed by the previously placed concrete from the soffit.
00:50	Moved the south pump to the center and the north pump to the southern end of the north column cages.
02:40	Moved pumps to the south end of the E2 cap beam. The previously placed concrete in the south was plastic prior to moving the pumps. A dobbie was dropped in a couple of access holes to test the concrete for cold joints.
03:05	ABF engineers decided to start pumping on the north end of the cap to evenly distribute the load on the falsework.
04:15	I took a break and went back to the office as Massoud Modanlou was onsite. I was the only engineer designated to be on the top of the forms to observe concrete placement from 9:00pm to 4:00am.
05:30	Returned to the top of the forms as both pumps were in the center of the cap beam.
06:40	Both pumps were moved to the north end of the E2 cap beam.
07:25	It appear that the concrete being placed on the north end was "too wet". ABF foreman Nigel Lohse wouldn't stop placing concrete. At this point I went to go witness the flow tests being done from the trucks. The spread was measured at a questionable 30" and the VSI in my opinion was a 2 or 3.
08:05	Pumps were moved back to the southern end of the E2 cap beam.
08:30	I left the jobsite as my shift ended.

Additional Notes/Comments:

1. My diary is for the concrete placement at the forms that I observed.
2. It was very difficult to see inside the access holes on the top cap forms. The northernmost section was not capped off and it was easier to see the SCC being placed.
3. Overall the placement of concrete went well as the flow looked consistent with no segregation. No vibration to "awake" the SCC was done to my knowledge while I was in the field. The SCC at the end of my shift appeared to look too "wet" at times.
4. ABF/Conco were told to be carefull while placing the hose down the access holes and to not let the concrete fall from a distance of 2.5m from the surface.

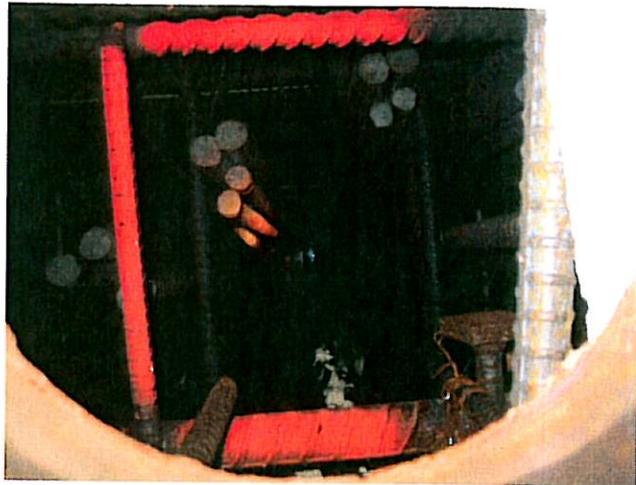
Office work:

- Submitted pour 5 punchlist to ABF engineer Branden Bedwell via email.
- Reviewed miscellaneous documents and gathered/tested equipment for the concrete placement at E2.
- Began to write this diary.

Inspector:

Matt Bruce *Matt Bruce* Transportation Engineer (D)

EA	04-0120F4
Co-Rte-KP (PM)	SF-080-13.2/13.9 (8.2/8.7)
Structure Rep.	Rick Morrow

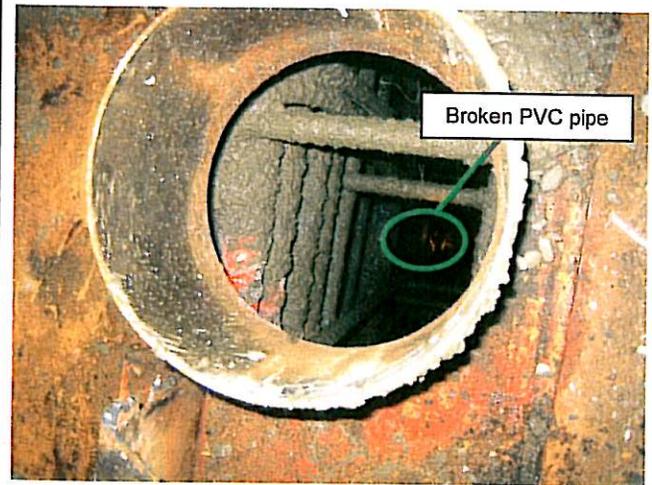


File Name:	Dec-05 and 06-2008 W2 Cap 005
Date:	12-05-08
By Int:	M Bruce

Description: One of the successful flow tests done from the first three trucks where the flow was 27 1/2". This was within the tolerance of ± 2" from the target value of 28".

File Name:	Dec-05 and 06-2008 W2 Cap 009
Date:	12-05-08
By Int:	M Bruce

Description: Photo taken from one of the southern access holes around 10:00pm. The photo taken from the camera didn't reflect the actual sight down the access holes, however it still was difficult to see down inside the forms.



File Name:	Dec-05 and 06-2008 W2 Cap 011
Date:	12-05-08
By Int:	M Bruce

Description: Access hole on the south end where rebar and PVC pipes prevented the hose from the pump to be placed down the hole.

File Name:	Dec-05 and 06-2008 W2 Cap 012
Date:	12-05-08
By Int:	M Bruce

Description: Photo taken from the access hole where the broken PVC pipe was discovered. The water being sprayed from the PVC pipe could be heard from the top in addition to the water being seen on the concrete surface. The photo was taken at 11:30pm even though the image doesn't clearly display the broken PVC pipe.

EA	04-0120F4
Co-Rte-KP (PM)	SF-080-13.2/13.9 (8.2/8.7)
Structure Rep.	Rick Morrow



File Name:	Dec-05 and 06-2008 W2 Cap 013		
Date:	12-05-08	By Int:	M Bruce

Description: Photo taken at 11:35pm as ABF tried to determine the row(s) in which the PVC pipe broke. It took a total of 30 minutes to identify the broken pipe and shut it off.

File Name:	Dec-05 and 06-2008 W2 Cap 021		
Date:	12-06-08	By Int:	M Bruce

Description: Concrete placement at the center and north end of the E2 cap beam at 7:15am.