



**Bridge Factors Factual Report Attachment 27 – Email from Mr. Dwight Dempsey of FIGG to Mr. Rodrigo Isaza of MCM dated March 13, 2018 at 5:18:22 p.m.**

**Miami, FL**

**HWY18MH009**

(6 pages)

**From:** [Dempsey, Dwight](#)  
**To:** [Rodrigo Isaza](#)  
**Cc:** [Hango, Erika N.](#); [Ernie Hernandez](#); [Pedro Cortes](#); [Pate, Denney](#); [Figg, Linda](#); [Hines, Franklin](#); [Leon, Eddy D.](#); [Phipps, Alan](#); [DeHaven, Tom](#)  
**Subject:** Re: FIU-UCPP - Stage 3 - Erection of Main Span  
**Date:** Tuesday, March 13, 2018 5:18:22 PM

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Rodrigo,

As you and I just discussed, please find the additional recommendations and requests below that FIGG thinks will be beneficial for the structure. Again, we have evaluated this further and confirmed that this is not a safety issue.

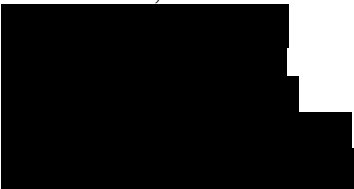
1. It is recommended to reinstall the (2) 1-3/8" temporary pt bars in truss member 11 as shown on plan sheet B-38. These are oriented with one bar at top and one bar at bottom of the member section. The temporary pt bars in truss member 2 do not need to be reinstalled or restressed.
2. Both pt bars should be stressed to the 280 kips stressing force as listed on plan sheet B-69 and these bars should be stressed in 50 kip increments each, starting with the top pt bar, then bottom pt bar, then back to the top pt bar, etc. The type 2 diaphragm should be closely monitored during this pt bar stressing process to ensure that the crack size does not increase. Based on our evaluation, we anticipate that the crack size will either remain the same or more probably decrease in size. If the crack size increases, the pt bar stressing shall stop and FIGG be notified immediately.
3. We understand that MCM was to contact VSL to see when they could be on site to perform pt bar stressing. FIGG recommends to stress these pt bars as soon as possible but again, this is not a safety concern.
3. We request to receive the concrete break reports from the lab for the bridge deck placement.
4. We understand that MCM is currently placing the shims under the Type 2 diaphragm at the centerline of bridge and will send pictures once complete. MCM will also send pictures of the existing shim stacks to show orientation of shim stack to Type 2 diaphragm.

Please let us know if you have any questions.

Dwight

Sent via mobile device

Dwight D. Dempsey, P.E., S.E.  
Regional Director  
Southeastern Regional Office  
FIGG Bridge Engineers, Inc.  
424 N. Calhoun St.  
Tallahassee, FL 32301



On Tue, Mar 13, 2018 at 12:03 PM -0400, "Rodrigo Isaza" [REDACTED] wrote:

Dwight,

As just discussed, we are glad to hear that upon further evaluation by your team, this matter does not pose a safety issue and/or concern. We are also proceeding to install the temporary shims (plastic/metal), as recommended, later today and will provide you with the additional photos requested. Moreover, we will be monitoring the cracks to ensure these do not develop further.

Thank you

RODRIGO ISAZA | Sr. Project Manager [REDACTED]  
MCM | 6201 SW 70th St., 2nd Floor, Miami, FL 33143 | [www.mcm-us.com](http://www.mcm-us.com).  
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-----Original Message-----

From: Dempsey, Dwight [REDACTED]  
Sent: Tuesday, March 13, 2018 9:45 AM  
To: Rodrigo Isaza; Feliciano, Manuel  
Cc: Hango, Erika N.; Ernie Hernandez; Pedro Cortes; Pate, Denney; Figg, Linda; Hines, Franklin; Leon, Eddy D.; Phipps, Alan; DeHaven, Tom  
Subject: Re: FIU-UCPP - Stage 3 - Erection of Main Span

Rodrigo,

As you and I just discussed, Figg is evaluating this situation as a top priority and will be making recommendations as a result of this evaluation. As of right now, we do not see this as a safety issue but we do recommend that MCM place plastic shims (same as currently being used) underneath the Type 2 diaphragm at the centerline of bridge (this is a 2'-10.5" x 21" area). The shim stack height should be sized to bear against both the top of lower pylon and the bottom of the type 2 diaphragm. Below is a list of facts and other coordination items from our discussion;

1. MCM observed cracks in the Type 2 diaphragm on Saturday afternoon after the SPMT were driven back to the staging area and before the temporary PT bars were destressed. It was noted that Figg Inspection of the main span in this area after the bridge move did not observe this behavior. It is not clear as to when this behavior occurred.
2. MCM has destressed the temporary PT bars in the main span.
3. Since Saturday afternoon, MCM has been monitoring the cracks and they have not grown in size.
4. This behavior is only being observed on the north face of the type 2 diaphragm. It is not seen on the south face. MCM to send Figg pictures of the south face of the Type 2 diaphragm and label pictures.
5. MCM will take pictures of the bottom face of the Type 2 diaphragm from both north face (east and west side), south face (east and west side) and east and west face. These pictures are to show the condition of the bottom face and also show the location of the shim stacks to the diaphragm.
6. MCM is to place plastic shims under the Type 2 diaphragm/vertical strut.

This is a 2'-10.5" x 21" area to be shimmed. Shims to be placed tight against the top of lower pylon and bottom of type 2 diaphragm. No jacking of bridge is required. These shims need to be placed right away.

Figg will be back in contact with MCM to give updates and recommendations from evaluations.

If you have any questions, please call my mobile.

Dwight

Sent via mobile device

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**From:** Rodrigo Isaza  
**Sent:** Monday, March 12, 2018 4:51 PM  
**To:** Dempsey, Dwight  
**Cc:** Hango, Erika N.; Ernie Hernandez; Pedro Cortes; Pate, Denney; 'Feliciano, Manuel'; Leon, Eddy D.; Hines, Franklin  
**Subject:** RE: FIU-UCPP - Stage 3 - Erection of Main Span

Dwight,  
Following our previous emails regarding the noted cracks, and as witnessed on site by FIGG as part of the movement/erection support, attached please find photos depicting the cracks developed prior and post the span 1 erection and/or distressing of truss members 2 & 11 (your team may have most of these pictures). It is our opinion that some of these cracks are rather large and/or of concern; therefore, please review and comment as promptly as possible and advise if there is a required course of action to remedy or address these right away.

Your immediate attention and response is required.

Thank you

RODRIGO ISAZA | Sr. Project Manager [REDACTED]  
MCM | 6201 SW 70th St., 2nd Floor, Miami, FL 33143 | [www.mcm-us.com](http://www.mcm-us.com).  
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**From:** Feliciano, Manuel [REDACTED]  
**Sent:** Wednesday, March 7, 2018 9:12 AM  
**To:** Rodrigo Isaza  
**Cc:** Dempsey, Dwight; Hango, Erika N.; Ernie Hernandez; Pedro Cortes; Pate, Denney  
**Subject:** RE: FIU-UCPP - Stage 3 - Erection of Main Span

Rodrigo,

The grout will not be "non-shrinkage." The grout will be composed of a similar concrete mix as of the superstructure to match the appearance of the concrete.

In addition, the vertical PT bars in the pylon base need to be stressed in accordance with the response to VSL RFI-005.

Let me know if you have further questions.

Regards,

Manuel Feliciano, P.E.  
FIGG  
Regional Bridge Engineer

[REDACTED]  
[REDACTED]

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**From:** Rodrigo Isaza [REDACTED]  
**Sent:** Wednesday, March 07, 2018 7:42 AM  
**To:** Feliciano, Manuel [REDACTED]  
**Cc:** Dempsey, Dwight [REDACTED]; Hango, Erika N. [REDACTED];  
Ernie Hernandez [REDACTED]; Pedro Cortes [REDACTED]; Pate, Denney  
[REDACTED]  
**Subject:** RE: FIU-UCPP - Stage 3 - Erection of Main Span

Manuel,  
We appreciate the quick response. See comments in **green** below.  
Thank you

RODRIGO ISAZA | Sr. Project Manager [REDACTED]  
MCM | 6201 SW 70th St., 2nd Floor, Miami, FL 33143 | [www.mcm-us.com](http://www.mcm-us.com).  
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**From:** Feliciano, Manuel [REDACTED]  
**Sent:** Tuesday, March 6, 2018 7:10 PM  
**To:** Rodrigo Isaza  
**Cc:** Dempsey, Dwight; Hango, Erika N.; Ernie Hernandez; Pedro Cortes; Pate, Denney  
**Subject:** RE: FIU-UCPP - Stage 3 - Erection of Main Span

Rodrigo,

Please find our responses **in red** to your questions below:

Let me know if you have further questions.

Thank you,

Manuel Feliciano, P.E.  
FIGG  
Regional Bridge Engineer

[REDACTED]  
[REDACTED]

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**From:** Rodrigo Isaza [REDACTED]  
**Sent:** Tuesday, March 06, 2018 6:24 PM

**To:** Feliciano, Manuel [REDACTED]  
**Cc:** Dempsey, Dwight [REDACTED]; Hango, Erika N. [REDACTED];  
Ernie Hernandez [REDACTED]; Pedro Cortes [REDACTED]  
**Subject:** FIU-UCPP - Stage 3 - Erection of Main Span

Manuel,

As we move into stage 3 with the erection on the main span, please confirm if the following items are to be performed immediately after the span has been erected. Otherwise, please advise if there is a specified time frame for these to occur.

- Truss member 2 & 11: Distressed (nuts to be left in place hand tied) and ducts to be grouted  
The PT bars in members 2 and 11 are only required for the temporary support condition during the movement of the span. Therefore, the PT bars can be distressed after span 1 is supported on the permanent supports (pylon and end bent 1). Ok. We presume it could occur at any time after the setting.
- Stress pylon vertical PT bars and grout  
Per Drawing B-109 (stage3), step 3 the vertical PT bars are stressed after the space between the precast section diaphragm and pylon base is grouted. Ok. We presume it could occur at any time after the setting.
- Grout space between precast section diaphragm and pylon base.  
See above response. Grout the space between the diaphragm and the pylon base prior to stressing the PT bars. Ok. we presume it could occur at any time after the setting. Otherwise, please indicate time frame. Also, advise as to which grout is to be used due to the TiO2 concrete.

In addition to the above, please advise if there are other tasks required within this stage.

Per drawing B-109 (stage 3), step 1 install bearing pads and shim plate at the pylon base.  
Understood.

Thank you

RODRIGO ISAZA | Sr. Project Manager [REDACTED]  
MCM | 6201 SW 70th St., 2nd Floor, Miami, FL 33143 | [www.mcm-us.com](http://www.mcm-us.com).  
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