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February 20, 2020

Citizens of the Coastal Bend:

We have received several questions about our recent actions on the New Harbor Bridge Replacement Project and think many of you may have the very same questions. So we would like to share with you the reasons for our position.

Your safety is always the top priority of the Texas Department of Transportation (TxDOT), and we are committed to taking the steps needed to carefully ensure and verify that the highest safety standards are met on all projects. This commitment is reflected in TxDOT's request for a new engineering design firm to review and recertify the design of the main spans of the New Harbor Bridge Replacement Project. The main spans can generally be described as the cable-supported portion that would cross the Corpus Christi ship channel.

TxDOT previously instructed its developer, Flatiron/Dragados LLC (FDLLC), to remove its engineering design firm, FIGG Bridge Engineers, from future engineering work on the main spans of the bridge following TxDOT's review of the October 2019 findings by the National Transportation Safety Board (NTSB) regarding its investigation into the March 2018 bridge collapse in Florida that killed six people and injured ten. FIGG was the engineering design firm responsible for that project, with the same individual serving as the Engineer of Record (EOR) as for the New Harbor Bridge Replacement Project. This removal applied only to the main spans of the bridge, and TxDOT noted that FIGG could continue their work with the more conventional aspects of the project. TxDOT has a contract directly with FDLLC who in turn has a contract with FIGG.

As communicated to FDLLC, the questions raised about FIGG resulting from the NTSB findings and TxDOT's previous and unresolved questions regarding design elements on the main spans were significant enough to remove FIGG from this portion of the project. As part of its project oversight, TxDOT had questions on the FIGG design of the main spans that had not been adequately addressed and that parallel some of the issues identified in the NTSB report.

Prior to release of the NTSB report, FIGG continued to minimize its role in the tragedy and in an October 8th press release the company stressed conclusions from the engineering firm it hired that the collapse resulted from "a failure by contractors to conform to the final bridge design plans and comply with state of Florida construction requirements."

However, the NTSB determined that the actions of FIGG and others contributed to the accident and its severity. In particular, regarding FIGG, the NTSB found that:

- "...the probable cause of the Florida International University (FIU) pedestrian bridge collapse was the load and capacity calculation errors made by FIGG Bridge Engineers, Inc., (FIGG) in its design of the main span truss member..."
- "Factors in the collapse included bridge design errors, ...and lack of redundancy in the bridge design."

- “The design of the pedestrian bridge did not include redundancy in the bridge load path. As a result, when the 11/12 nodal region failed, the bridge collapsed. The design firm incorrectly believed that the bridge had a redundant design.”

The NTSB’s findings were the result of a thorough investigation and analysis. The report can be viewed at <https://www.nts.gov/investigations/AccidentReports/Reports/HAR1902.pdf>.

Similarly, a July 2019 investigation of the Miami bridge collapse by the Occupational Safety and Health Administration (OSHA) found:

- “The bridge had structural design deficiencies that contributed to the collapse during construction stage III. The cracks on the bridge occurred due to deficient structural design.”
- “EOR should have known that the truss was a non-redundant structure and if one diagonal member failed, the entire bridge could collapse.”

The OSHA report is available at [https://www.osha.gov/doc/engineering/pdf/2019\\_r\\_03.pdf](https://www.osha.gov/doc/engineering/pdf/2019_r_03.pdf)

FIGG seemed to believe there was relevant information not considered by the NTSB. In a responsive letter to FIGG in December 2019, the Federal Highway Administration (FHWA) rejected the assertions submitted by FIGG to rebut the NTSB findings and reconfirmed that there were significant errors in the final design calculations, among other issues. In this letter, Dr. Joseph Hartmann, FHWA’s Director of the Office of Bridges and Structures, told FIGG:

Per your request, I have reviewed in detail the information that you submitted on behalf of FIGG Bridge Engineers, Inc. (FIGG) and Wiss, Janney, Elstner Associates, Inc. (WJE), regarding the National Transportation Safety Board’s (NTSB) investigation of the Pedestrian Bridge Collapse over SW 8<sup>th</sup> Street (FIU pedestrian bridge) on March 15, 2018, in Miami, Florida. In short, despite this detailed review, I have found no new data or information from FIGG/WJE that was not previously considered by the Federal Highway Administration (FHWA) in advising and supporting NTSB as they conducted their analysis of the facts resulting in a determination of probable cause.

The FHWA stands by the analysis that we provided to the NTSB in support of its investigation. As you know, the NTSB determined that the probable cause of the collapse was “the load and capacity calculation errors made by FIGG Bridge Engineers, Inc. (FIGG) in its design of the main span truss members 11/12 nodal region and connection to the bridge deck.”

As it has since the beginning of the New Harbor Bridge Replacement Project, TxDOT will continue to be involved with project oversight. All engineering design and construction work undergoes an extensive quality review and acceptance process, and all construction completed to date is safe and has been built in compliance with specifications.

FDLLC, the developer on this project, has already begun the process of seeking a replacement engineering design firm for the main spans. While this vital step for additional review and verification could result in potential delays to the project with potential cost impacts, the value of safety and taking the time needed for this project is unquestionably the right course of action. As more detail becomes available, TxDOT will share any effects this may have on the project timeline.

Work on all other aspects of the project continues to move forward, including drainage, roadway and overpass construction, and reconstruction of a major new interchange at I-37/US 181/SH 286. Motorists also have full access to the current Harbor Bridge.

TxDOT appreciates the support of the public and elected members as we continue to vigilantly ensure that the engineering design and construction meet the highest safety standards. And we will take every action necessary to do this.

Sincerely,

A handwritten signature in black ink that reads "James M. Bass". The signature is written in a cursive, slightly slanted style.

James M. Bass  
Executive Director