

**FLORIDA BUILDING COMMISSION
HURRICANE RESEARCH ADVISORY COMMITTEE
TELECONFERENCE MEETING FROM TALLAHASSEE
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May 18, 2021

9:00 A.M.

Minutes

HURRICANE RESEARCH ADVISORY COMMITTEE MEMBERS PRESENT:

James Schock, Chairman
Joe Belcher
David Compton
Anne Cope, Ph.D.
Mark Mikkelson
Craig Parrino

John "Bud" Plisich
Angela Schedel, Ph.D.
Brad Schiffer
Jeffery Schnellmann
Vince Seijas

HURRICANE RESEARCH ADVISORY COMMITTEE MEMBERS NOT PRESENT:

Sergio Ascunce

Brian Swope

STAFF PRESENT:

Mo Madani
Thomas Campbell
Jim Hammers

Justin Vogel
Chris Howell

MEETING FACILITATION:

The meeting was facilitated by Jeff Blair from Facilitated Solutions, LLC. Consultation, Process Design & Facilitation. Information at: facilitatedsolutions.org

Welcome:

Time: 9:00 a.m.

Mr. Blair welcomed everyone to the meeting of the Hurricane Research Advisory Committee.

Roll Call:

Mr. Blair performed roll call for the HRAC. A quorum was determined with 11 members present at roll call.

Agenda Approval:

Chairman Schock asked for a motion to approve the agenda for May 18, 2021 as posted if there were no changes.

Mr. Seijas entered a motion to approve the agenda as posted. Mr. Belcher seconded the motion. The motion passed unanimously with a vote of 11 to 0.

Approval of Minutes for March 22, 2021.

Chairman Schock asked for a motion to approve the minutes for March 22, 2021 as posted if there were no changes.

Mr. Belcher entered a motion to approve the minutes of the March 22, 2021 meeting as amended. Mr. Seijas seconded the motion. The motion passed unanimously with a vote of 11 to 0.

Presentation of industry report on product wind performance of polymeric cladding, soffits and fascia by Mathew Dobson of Vinyl Siding Institute, Inc.

Mr. Dobson presented a detailed Power Point presentation of the industry report.

Committee Comments/Questions: None

Evaluation and Prioritization of Research Projects Recommended for Commission FY 2021 – 2021 Funding:

Mr. Blair provided the Committee with the process for reviewing the research projects and the prioritization ranking scale. He advised there were no research projects needed for support of the 2020 Code or development of the 2023 Code for this funding cycle. Mr. Blair stated that once this process is completed and the exercise has been completed the results will be presented to the Commission at the June 8, 2021 Plenary Session.

Evaluation and Prioritization of Research Projects Recommended for Commission FY 2021 – 2021 Funding (cont.):

- a) **Development of Wind-Driven Rain Climatology and Coincidental Wind Speed Return Period Maps for Florida and Surrounding Coastal Areas – Forrest Masters/Art DeGaetano/Jay Crandell – (UF/\$110,000 - \$120,000)**

Dr. Masters and Mr. DeGaetano provided the background and purpose of this project.

There were no questions from the Committee.

- b) **“Self-Organizing” Maps for Estimating Wind Speed Triggers for Debris Generation – Cigdem Akan/William Dally/Patrick Kreidl – (UNF/\$150,000)**

Dr. Akan provided a detailed Power Point presentation of the background and purpose of this project.

Question:

Mr. Mikkelson questioned the two events spoken to in the report.

Dr. Akan addressed Mr. Mikkelson’s question regarding the events in the report.

- c) **Evaluation of Concrete Pile Foundation During Hurricane Michael – Raphael Crowley/Ryan Shamet - (UNF/\$76,361)**

Dr. Crowley and Dr. Shamet provided a detailed Power Point presentation of this project.

Questions:

Mr. Seijas inquired if there was a forensic study.

Dr. Crowley provided more detail on the actual study.

Mr. Mikkelson inquired about the flood level in the slides and if this would be the same if the levels exceeded what was shown.

Dr. Crowley stated they had not looked this during this phase.

- d) **Wind-induced loads on roof overhangs – Phase II – Ioannis Zisis (FIU/\$85,000)**

Dr. Zisis provided a detailed explanation of the project.

There were no questions from the Committee.

Evaluation and Prioritization of Research Projects Recommended for Commission FY 2021 – 2021 Funding (cont.):

Mr. Blair again explained the ranking process along with the available funding.

Committee Comment Regarding: Self-Organizing” Maps for Estimating Wind Speed Triggers for Debris Generation.

***Mr. Plisich stated he had a comment regarding FEMA MATs’ and wind-borne debris protection observations. He stated that in the H. Irma MAT for instance, there is information on the damages observed due to debris that have occurred and it has been seen in other MATs as well. Mr. Plisich stated that in and around the Apalachee Bay area of Florida as well as in the Jacksonville area up near the coast of Georgia, there are areas along the coastline of Florida as well as large interior areas of the state that are outside of the Windborne Debris Region. These areas do not currently require protection of glazed openings for residential construction, as one example. He further stated, numerous MAT observations suggest many other types of structures other than residential would also be vulnerable to damage from wind-borne debris due to missile impacts. In the Hurricane Michael MAT, damage to glazing was not limited to within 1 mile of the coastline and was observed to occur much further inland. Michael MAT Recommendation FL-8a The FBC should treat all areas within 1 mile inland of the entire Florida coastline as a WBDR (Windborne Debris Region). Rec FL-8b The ASCE 7 Wind Load Task Committee should revise ASCE 7 to lower the basic wind speed trigger in ASCE 7 for requiring glazing to be protected on Risk Category IV buildings in the hurricane-prone region. Recommendation #FL-8c. Building owners outside the WBDR but within the hurricane-prone region should consider protecting the glazed openings on their buildings. All of Florida is located within the Hurricane Prone Region. Mr. Plisich stated this research would be very beneficial in helping to evaluate and determine whether the current wind speed triggers for the wind-borne debris region as defined in ASCE 7 are appropriate or if changes should be considered. Tens of thousands of structures in Florida are currently located outside of the windborne debris region, which has provisions when triggered, to help protect glazed window and door systems with rated opening protection systems. This research would be money well spent in helping to improve the windborne debris impact resistance and resilience of various risk category (II, III, IV) structures in Florida.

***Note: Mr. Plisich provided additional language to his committee comment at the May 18’ 2021 meeting. He requested that this be made a part of the record with the intent to clarify and strengthen the comment and to help document the importance of this potential research for future consideration by the HRAC and FBC. The additional information was received for the record on May 26, 2021.

Public Comment: None

Evaluation and Prioritization of Research Projects Recommended for Commission FY 2021 – 2021 Funding (cont.):

Mr. Blair advised the members that he would be conducting the rating and calling on each person to voice the ranking for each project.

- a) **Development of Wind-Driven Rain Climatology and Coincidental Wind Speed Return Period Maps for Florida and Surrounding Coastal Areas – Forrest Masters/Art DeGaetano/Jay Crandell – (UF/\$110,000 - \$120,000)**

Ranking raw score 9.0

- b) **Self-Organizing” Maps for Estimating Wind Speed Triggers for Debris Generation – Cigdem Akan/William Dally/Patrick Kreidl – (UNF/\$150,000)**

Ranking raw score 6.7

- c) **Evaluation of Concrete Pile Foundation During Hurricane Michael – Raphael Crowley/Ryan Shamet - (UNF/\$76,361)**

Ranking raw score 7.8

- d) **Wind-induced loads on roof overhangs – Phase II – Ioannis Zisis (FIU/\$85,000)**

Ranking raw score 7.4

Evaluation and Prioritization of Research Projects Recommended for Commission FY 2021 – 2021 Funding (cont.):

Mr. Blair stated that the Commission would be presented the committee’s recommendations at their June 8, 2021 meeting for consideration and final decision for funded projects. He stated the total funding requested for all four projects was \$431,361 and currently the budget is at \$250,000 leaving a deficit of \$181, 361. Mr. Blair advised if additional funds become available during the fiscal year the next priority level project or projects will be funded with staff contracting, administering and overseeing the research, and negotiating scoping and funding levels as appropriate.

Comments:

Dr. Cope stated she would like to commend the researchers for bringing back what was needed for this group to make decisions for the projects. She stated they provided very useful information.

Evaluation and Prioritization of Research Projects Recommended for Commission FY 2021 – 2021 Funding (cont.):

Comments (cont.):

Mr. Plisich stated he fully agreed with Dr. Cope and the whole system and how this was put this together. He said all should be commended, the IBHS, FBC and Universities.

Mr. Seijas asked the FIU group about the Phase II title on the project.

Dr. Crowley stated that this is listed as Phase II as there were budget restraints and they had to cut part of the original project to meet the funding requirements that had been set, therefore they are proposing this phase to complete the entire original project.

Work Plan:

Mr. Madani provided the workplan and explained the next steps that will be taken.

Mr. Blair advised of the next stages for these projects.

Closing Comments:

Chairman Schock stated he wanted to applaud the Vinyl Institute for a great presentation and was glad to see that the industry is taking steps on their own to identify issues and ways to correct the problems.

Adjourn:

There being no further business before the Committee Chairman Schock adjourned the meeting at 10:34 a.m.