## FLORIDA BUILDING COMMISSION HURRICANE RESEARCH ADVISORY COMMITTEE TELECONFERENCE MEETING FROM TALLAHASSEE

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UNITED STATES (TOLL FREE): 1 866 899 4679 ACCESS CODE: 533-378-925 August 3, 2020 9:00 A.M.

## <u> Minutes</u>

#### HURRICANE RESEARCH ADVISORY COMMITTEE MEMBERS PRESENT:

James Schock, ChairmanCraig ParrinoSergio AscunceJohn "Bud" PlisichJoe BelcherBrad SchifferDavid ComptonJeffery SchnellmannAnne Cope, Ph.D. (Eric Stafford)Vince SeijasMark MikkelsonBrian Swope

### HURRICANE RESEARCH ADVISORY COMMITTEE MEMBERS NOT PRESENT:

Angela Schedel, Ph.D.

#### **STAFF PRESENT:**

Mo Madani Justin Vogel
Thomas Campbell Chris Howell
Jim Hammers

#### **MEETING FACILITATION:**

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

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#### 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 12 members present at roll call.

Mr. Blair provided a brief overview of the agenda for today's meeting.

## **Agenda Approval:**

Mr. Blair asked for a motion to approve the agenda for August 3, 2020 as posted if there were no changes.

Mr. Mikkelson entered a motion to approve the agenda for today's meeting as posted. Commissioner Schiffer seconded the motion. The motion passed unanimously with a vote of 12 to 0.

## Approval of Minutes for July 28, 2020.

Mr. Blair asked for a motion to approve the minutes for July 28, 2020 as posted if there were no changes.

Mr. Mikkelson entered a motion to approve the minutes of the July 28, 2020 meeting as posted. Mr. Stafford seconded the motion. The motion passed unanimously with a vote of 12 to 0.

## Evaluate, Prioritize, and Recommend Research Projects for the Commission to fund for FY 2020-2021:

Mr. Blair provided details to the Committee on the process for reviewing the research projects including the evaluation process with criteria for funding and the ranking process. He advised that all ranking would take place by straw vote.

### **Committee Questions:**

Mr. Seijas noted that two projects are from the same facility, and since there is limited funding questioned whether they could possibly combine some of parts of the studies.

Mr. Madani advised that each project should be considered one by one and evaluated on their own merits.

### **Committee Questions (cont.):**

Mr. Stafford asked for clarification on the ranking exercise. Noting the limited available funding, he inquired whether they should consider the costs that are listed.

Mr. Blair advised that the staff takes care of the costs and possible combination of projects.

Mr. Madani stated at this point the cost should be set aside and they should concentrate on the project meeting criteria and what they feel is a priority.

Mr. Mikkelson asked if there was anything that has come from previous MATT or other reports that will help the Committee in terms of priorities from those analyses.

Mr. Madani advised any questions relating to prior work on these projects he would be glad to address and provided an example. On the Wind Speed Line Maps, he said that they had just completed a project which provided technical assistance to local jurisdictions with their local wind speed maps. He provided some background on prior projects that laid foundations for some of the new projects.

Mr. Blair provided further detail of how the projects are presented to the Committee.

#### **Research Plan:**

Mr. Madani briefly covered the research workplan, and noted that the next action for these projects will be being presented to the Commission for action at the meeting tomorrow on August 4, 2020.

#### **Determination of Criteria for funding.**

1.) Assessing the Wind Loading on Elevated Residential Structures with Partially Blocked Ground Floor Areas – Amal Elawady/David Prevatt – (FIU/UF/\$150,000)

All twelve members voted yes as meeting the criteria.

2.) Wind-induced loads on roof overhangs – Ioannis Zisis – (FIU/\$150,000)

All twelve members voted yes as meeting the criteria.

3.) Updating the Statewide Extreme Rainfall Projections – Jayantha Obeysekera – (FIU/\$137,124)

All twelve members voted yes as meeting the criteria.

## **Determination of Criteria for funding (cont.):**

## 4.) Appendix with Optional Enhanced Construction Techniques for the Wind, Flood, and Storm Surge Provisions – Steve Martin (FDEM/\$23,925)

Six members voted yes as meeting the criteria, five members voted no that the project did not meet the criteria, and Mr. Stafford abstained, as he was part of the project. This project did not meet the criteria.

## 5.) Development of Wind Speed Line Maps Web Viewer for the Florida Building Code, 7th Edition (2020) – Katherine Norris – (UF/\$20,000):

Eleven members voted yes as meeting the criteria and 1 member voted no that the project did not meet the criteria.

On project number 4, Mr. Martin provided an explanation and purpose of the project.

### Committee comments or vote changes: None

#### **Project Overview:**

## 1.) Assessing the Wind Loading on Elevated Residential Structures with Partially Blocked Ground Floor Areas – Amal Elawady/David Prevatt – (FIU/UF/\$150,000)

Dr. Elawady provided a five-minute overview with a short Power Point presentation of the project for the Committee:

#### **Committee Comment/Clarifying Questions:**

Mr. Belcher asked if there was any data in the MATT reports and other investigations that show failures at the floor level of the elevated structure and if so, could they provide the numbers.

Dr. Elawady stated that with the surveys of 400 there were 380 that were affected by wind and water, but mostly wind.

Mr. Seijas stated he is opposed to the group using the same models.

Mr. Stafford asked if they are primarily looking at loads underneath the floor and the impact of losing that part of the building.

Dr. Prevatt explained the reasoning on the overall structure.

Mr. Plisich stated that most of the blockages are break a way walls and are intended to breakaway. He asked if the damages seen in the hundreds spoken to are relative to the underside or the whole structure.

### **Project Overview (cont.):**

1.) Assessing the Wind Loading on Elevated Residential Structures with Partially Blocked Ground Floor Areas – Amal Elawady/David Prevatt – (FIU/UF/\$150,000) (cont.):

## **Committee Comment/Clarifying Questions (cont.):**

Dr. Prevatt stated he would not have time to cover the requested information in this meeting, but could point him to these sections of the Hurricane Irma report where this issue is identified.

Mr. Ascunce inquired about the effects of pressure under the buildings with 300 square feet under the structures, as this is the most common size used.

Dr. Prevatt stated that he will take this into consideration.

Mr. Schnellmann stated the location of the 300 square feet should be included. He stated most of those he has seen are in the middle, but would like to see the location noted.

Dr. Prevatt stated yes that would be included.

## 2.) Wind-induced loads on roof overhangs – Ioannis Zisis – (FIU/\$150,000):

Ioannis Zisis, FIU provided a brief summary and overview of the project.

### **Committee Comment/Clarifying Questions: None**

## 3.) Updating the Statewide Extreme Rainfall Projections – Jayantha Obeysekera – (FIU/\$137,124)

Jayantha Obeysekera stated this is a follow up to prior projects and provided a brief overview.

### **Committee Comment/Clarifying Questions:**

Mr. Seijas stated that the prior study triggered some municipalities to look at their ordinances and make significant changes. He further stated that combining this project with the GIS project at UF would produce a great technical improvement and help make it easier to understand.

Mr. Plisich asked that they list the key organizations that will be involved in this project to ensure that the data is reasonable. He asked if they were federal, state, nonprofits, etc.

Mr. Obeysekera stated FIU is the principle investigating team on this project, but they will also have supporting information from US Geological group and Florida Salt Water Management Systems and they will have a national level review panel.

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### **Project Overview (cont.):**

5. Development of Wind Speed Line Maps Web Viewer for the Florida Building Code, 7th Edition (2020) – Katherine Norris – (UF/\$20,000):

Ms. Norris provided additional information for the Committee and addressed some of the concerns set forth during the last meeting. She continued with a brief summary of the project.

## **Committee Comment/Clarifying Questions:**

Commissioner Schock stated he appreciated them bringing in the local information but he still has a concern on projects with perpetual costs, and noted that this would need to be updated.

Mr. Seijas stated he appreciated them trying to synergize with other studies and the graphic presentation. He stated he looked forward to the results of the study.

Mr. Mikkelson stated when it comes to understanding where the wind-borne debris regions are, which define where opening protection is required, if this project moves forward and is completed, would it tie into local areas? He asked would that account for some areas where they adjust the wind-borne regions to line up with a highway or some other marker that would make it a lot easier to understand from the local area. Mr. Mikkelson asked how that would be known as part of this project.

Mr. Norris stated they currently do not have a state wide line layer for the wind-borne debris region. She said that would be determined locally on land marks. Ms. Norris stated they could do it based off the edge of the parcel, but there are parcels that go out into the water and there would be determinations needed on that line. She felt this should be deferred to local jurisdictions. Mr. Norris stated they could develop a pilot for a specific area but this would take a lot more research to make a determination.

Mr. Stafford said the wind-borne debris line is tied to wind speed line and where it is established. He said it could conflict with some local requirements.

Mr. Blair stated they would move to the next phase but will allow public comment.

**Public Comments: None** 

### **Ranking of Projects:**

Mr. Blair advised all projects will be ranked with a straw poll. He stated that this will be ranked with a score of 10 representing the highest-level priority, and 1 representing the lowest level priority, and then an average will be given to rank the projects from 1 to 4 based on the votes.

## **Ranking of Projects (cont.):**

# 1.) Assessing the Wind Loading on Elevated Residential Structures with Partially Blocked Ground Floor Areas – Amal Elawady/David Prevatt – (FIU/UF/\$150,000)

James Schock, Chairman	5	Craig Parrino	7
Sergio Ascunce	8	John "Bud" Plisich	5
Joe Belcher	2	Brad Schiffer	7
David Compton	8	Jeffery Schnellmann	6
Eric Stafford for Anne Cope, Ph.D.	6	Vince Seijas	5
Mark Mikkelson	6	Brian Swope	6

## **Total Percentage is 5.91%**

## 2.) Wind-induced loads on roof overhangs – Ioannis Zisis – (FIU/\$150,000):

James Schock, Chairman	7	Craig Parrino	9
Sergio Ascunce	6	John "Bud" Plisich	6
Joe Belcher	9	Brad Schiffer	9
David Compton	10	Jeffery Schnellmann	9
Eric Stafford for Anne Cope, Ph.D.	7	Vince Seijas	7
Mark Mikkelson	7	Brian Swope	8

## **Total Percentage is 7.83%**

# 3.) Updating the Statewide Extreme Rainfall Projections – Jayantha Obeysekera – (FIU/\$137,124):

James Schock, Chairman	10	Craig Parrino	5
Sergio Ascunce	10	John "Bud" Plisich	7
Joe Belcher	9	Brad Schiffer	8
David Compton	8	Jeffery Schnellmann	10
Eric Stafford for Anne Cope, Ph.D.	5	Vince Seijas	10
Mark Mikkelson	10	Brian Swope	6

## **Total Percentage is 8.16%**

## **Ranking of Projects (cont.):**

5. Development of Wind Speed Line Maps Web Viewer for the Florida Building Code, 7th Edition (2020) – Katherine Norris – (UF/\$20,000):

James Schock, Chairman	3	Craig Parrino	9
Sergio Ascunce	5	John "Bud" Plisich	7
Joe Belcher	9	Brad Schiffer	7
David Compton	9	Jeffery Schnellmann	7
Eric Stafford for Anne Cope, Ph.D.	5	Vince Seijas	5
Mark Mikkelson	9	Brian Swope	9

## **Total Percentage is 7%**

## **Ranking Final Order:**

- 1.) Updating the Statewide Extreme Rainfall Projections Jayantha Obeysekera (FIU/\$137,124):
- 2.) Wind-induced loads on roof overhangs Ioannis Zisis (FIU/\$150,000):
- 3.) Development of Wind Speed Line Maps Web Viewer for the Florida Building Code, 7th Edition (2020) Katherine Norris (UF/\$20,000):
- 4.) Assessing the Wind Loading on Elevated Residential Structures with Partially Blocked Ground Floor Areas Amal Elawady/David Prevatt (FIU/UF/\$150,000)

#### **Next Steps:**

Mr. Blair provided some ideas for the Committee going forward with research projects.

Mr. Madani stated that it is a good idea to try and come up with research areas with specific areas of interest, so that the Committee can decide on the topics they would like to see in project form.

Commissioner Schock stated this was a great idea.

Mr. Belcher stated he felt this was a good idea and that the Committee should be looking at projects that are more important to consumers.

Mr. Mikkelson stated he agrees and this is a great way to go with this. He asked as the projects get funded and there are challenges that come up or a need to change the scope or expand the scope, would the PI need to bring back to the Committee or report it to the FBC staff?

## **Next Steps (cont.):**

Mr. Madani stated based on the projects selected we will work with the PI and make sure that the scope of work shows any change that needs further review and approval by the Committee, otherwise it will remain as the Committee has reviewed.

Mr. Plisich stated he agrees with the comments made. He said that the FBC should dictate the projects and have a system in place. Mr. Plisich stated that the PIs are in the driver seat and it should be the Commission.

Mr. Seijas stated all studies should include cost benefit analyses when submitted, and that will clear up confusion about whether the project has value to the Commission.

Mr. Madani stated the projects are background information for whoever wants to submit code changes, and that is when the cost analysis is reviewed.

Mr. Schnellmann stated the wind speed project should maybe be expanded, having the PIs reach out to BOAF or the League of Counties that have a vested interest in the project outcome, and those groups should share in the cost of the research.

Mr. Plisich sated he would like for the rainfall project to include all the relevant players and ensure that there is a level field for those people to offer their expertise.

Mr. Obeysekera thanked Mr. Plisich and asked that he offer any group he would like to see on the project, he would welcome all input.

**Public Comment: None** 

#### Final Roll Call:

Mr. Blair performed the final roll call with 12 members remaining on the line.

Mr. Madani encouraged all HRAC members including PIs for the proposed research projects to take part in the Commission call to be held via webinar on Tuesday, August 4, 2020 at 8:30 a.m. as these projects will be taken up at that meeting.

#### Adjourn:

Commissioner Schock thanked everyone for their participation and adjourned the meeting for the HRAC members at 10:36 a.m.