

**FLORIDA BUILDING COMMISSION
HURRICANE RESEARCH ADVISORY COMMITTEE CONCURRENT WITH
THE STRUCTURAL TECHNICAL ADVISORY COMMITTEE
TELECONFERENCE MEETING FROM TALLAHASSEE**

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June 26, 2020

1:00 P.M.

Minutes

HURRICANE RESEARCH ADVISORY COMMITTEE MEMBERS PRESENT:

James Schock, Chairman

Sergio Ascunce

Joe Belcher

David Compton

Anne Cope, Ph.D. (Eric Stafford)

Mark Mikkelson

Craig Parrino

John "Bud" Plisich

Angela Schedel, Ph.D.

Brad Schiffer

Jeffery Schnellmann

Vince Seijas

Brian Swope

HURRICANE RESEARCH ADVISORY COMMITTEE MEMBERS NOT PRESENT:

STAFF PRESENT:

Mo Madani

Thomas Campbell

Jim Hammers

Justin Vogel

Chris Howell

Joe Bigelow

MEETING FACILITATION:

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

Welcome:

Time: 1:00 p.m.

Mr. Blair welcomed everyone to the meeting of the Hurricane Research Advisory Committee concurrent with the Structural Technical Advisory Committee.

Roll Call:

Mr. Blair performed roll call for the HRAC. A quorum was determined with 13 members present at roll call.

Agenda Approval:

Mr. Blair asked for a motion to approve the agenda for June 26, 2020 as posted if there were no changes.

Mr. Belcher entered a motion to approve the agenda for today's meeting as posted. Mr. Seijas seconded the motion. The motion passed unanimously with a vote of 13 to 0.

Approval of Minutes for April 30, 2020.

Mr. Blair asked for a motion to approve the minutes for April 30, 2020 as posted if there were no changes.

Mr. Plisich requested a correction on page 5 under the last section to read in part "Mr. Plisich stated there were 69 total recommendations from the Hurricane Michael MAT Team/Report that might be of interest to the HRAC members for review. He said the following five recommendations might be of particular benefit for consideration of further research:"

Mr. Belcher entered a motion to approve the minutes of the April 30, 2020 meeting as amended. Mr. Seijas seconded the motion. The motion passed unanimously with a vote of 13 to 0.

Review and Accept Final Draft Report: Wind-Driven Rain Tests of Building Envelope Systems up to Hurricane Strength Wind-Driven Rain Intensity.

Mr. Madani provided background on the project and reporting phase for the Committee.

Dr. Prevatt, UF and Michael J. Louis, P.E., Senior Principal Simpson Gumpertz and Heger provided a detailed Power Point presentation of the final report for this project.

Mr. Madani stated that we need to be careful about placing all issues on the fenestration manufacturers. He said flashing and sealing fenestration at the wall interface are the responsibility of the building designer.

HRAC Comments/Questions:

Mr. Belcher stated that bullet proof windows are a good idea, but there were no costs considerations included. He asked if the cost will be included with these recommendations.

Dr. Prevatt provided a detail response on how the cost would interplay with the project.

Mr. Lavrich expressed concerns over the language pertaining to acceptable leakage. He expanded his thoughts with language from the code and how buildings are and should be built to be without leakage in the building envelope. He also spoke to the flashing and sealing fenestration importance. Mr. Lavrich stated there are some problems with the way the code is currently written.

Dr. Prevatt addressed Mr. Lavrich's comments.

Mr. Strawn stated water resistance is how we build today. He spoke further on the products and installation methods and how they should be upgraded.

Mr. Farvardin questioned statements on page 32 of the report pertaining to window inspections, training requirements. In addition, he requested that AAMA documents (100, 200, 300 and 400) be made available to the TAC and HRAC members.

Dr. Prevatt and Mr. Louis responded to Mr. Farvardin's questions.

Mr. Mikkelsen asked for clarification on this report as it is not a final report with some research incomplete. He also spoke about whether windows and doors should not leak.

Dr. Prevatt explained why the entire project was delayed and how the COVID19 pandemic had caused shut downs on the campus and testing sites.

Mr. Madani explained what the Committees would be voting on today and the project as it stands with the information and testing completed.

Review and Accept Final Draft Report: Wind-Driven Rain Tests of Building Envelope Systems up to Hurricane Strength Wind-Driven Rain Intensity (cont.):

HRAC Comments/Questions (cont.):

Commissioner Schiffer posed the question that since this project was 75% completed what will the designer portion include?

Dr. Prevatt explained what will be included if time allows and any comments for the research group can be sent to him.

Mr. Strawn stated he felt this should be targeted to installation.

Dr. Prevatt explained why the project is being conducted in this manner.

Mr. Gascon stated he felt installation should be really considered.

Mr. Lavrich stated he agrees that installation is important but also feels that there are other issues.

Mr. Schnellmann stated that he observed that the focus group does not show that a contractor is listed which could be important if installation is an issue. He stated he felt there should be a contractor on the group.

Mr. Madani explained what the Committees would be voting on today and the project as it stands with the information and testing completed.

Motion:

Commissioner Schock entered a motion to accept the final draft report for “Wind-Driven Rain Tests of Building Envelope Systems up to Hurricane Strength Wind-Driven Rain Intensity”. Mr. Seijas seconded the motion. The motion passed unanimously with a vote of 13 to 0.

Dr. Cope had to leave the call, however Eric Stafford remained on the line to be her alternate for the meeting.

Review and Accept Final Draft Report: Wind Speed Line Maps for the Florida Building Code, 7th Edition (2020).

Mr. Madani provided background on the project and reporting phase for the Committee.

Kate Norris, UF provided a detailed Power Point presentation of the final report for this project.

HRAC Comments/Questions: None

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Review and Accept Final Draft Report: Wind Speed Line Maps for the Florida Building Code, 7th Edition (2020) (cont.):

Motion:

Commissioner Schock entered a motion to accept the final draft report for “Wind-Speed Line Maps for the Florida Building Code, 7th Edition (2020)”. Mr. Belcher seconded the motion. The motion passed unanimously with a vote of 13 to 0.

Review and Accept Final Draft Report: Hurricane Michael Data Enhancement (Phase II), Performance of Modular Houses and Review of FEMA Recovery Advisory.

Mr. Madani provided background on the project and reporting phase for the Committee. He also advised that BASF was funding this project.

Dr. Prevatt, UF and Dr. Roueche, University of Auburn, provided a detailed Power Point presentation of the final report for this project.

HRAC Comments/Questions: None

Motion:

Mr. Seijas entered a motion to accept the final draft report for “Hurricane Michael Data Enhancement (Phase II), Performance of Modular Houses and Review of FEMA Recovery Advisory 7th Edition (2020)”. Commissioner Schock seconded the motion. The motion passed unanimously with a vote of 13 to 0.

To Review and Accept Final Draft Report: Phase II: Experimental Evaluation of Pressure Equalization Factors and Wind Resistance of Vinyl Siding Systems Using a Multi-Chamber Pressure Test Bed.

Mr. Madani provided background on the project and reporting phase for the Committee.

Dr. Prevatt, UF and Dr. Roueche, University of Auburn, provided a detailed Power Point presentation of the final report for this project.

HRAC Comments/Questions:

Mr. Gascon asked if all testing was vertical or horizontal.

Dr. Prevatt responded horizontal with a full explanation.

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To Review and Accept Final Draft Report: Phase II: Experimental Evaluation of Pressure Equalization Factors and Wind Resistance of Vinyl Siding Systems Using a Multi-Chamber Pressure Test Bed (cont.):

Motion:

Commissioner Compton entered a motion to accept the final draft report: Phase II: Experimental Evaluation of Pressure Equalization Factors and Wind Resistance of Vinyl Siding Systems Using a Multi-Chamber Pressure Test Bed. Commissioner Schock seconded the motion. The motion passed unanimously with a vote of 13 to 0.

Research Work plan

Mr. Madani provided a detailed report of the work plan with a complete time line of activities for the Committee.

Recommend and Discuss Potential Research Topics for Consideration by the Florida Building Commission:

Assessing the Wind Loading on Elevated Residential Structures with Partially Blocked Ground Floor Areas:

Dr. Prevatt provided detail of the project and the background of why he felt this would be a beneficial project for the Florida Building Commission and the State of Florida.

Dr. Amal Elawady, PhD, Assistant Professor and Dr. Haitham A. Ibrahim, PhD student, Extreme Events Institute, at Florida International University provided a detailed power point on the projected project.

HRAC Comments/Clarifications:

Commissioner Schock stated he liked this project but stated most of these structures are located in coastal high hazard zones. He stated wind is only a part of the issue as there is breaking wave action on these structures in combination with the wind. Commissioner Schock referenced the FEMA report which noted piling failures. He asked if there was an intent to include design criteria with wave action as well as wind simultaneously.

Dr. Prevatt stated that would be a different research project and would be outside of the budget for this project.

Commissioner Schiffer asked whether these wall systems are being designed to break away.

Dr. Prevatt stated no, they are by specific room. He provided detail of the room structures. Dr. Elawady provided additional detail on the rooms at ground level in the project.

Recommend and Discuss Potential Research Topics for Consideration by the Florida Building Commission (cont.):

Assessing the Wind Loading on Elevated Residential Structures with Partially Blocked Ground Floor Areas (cont.):

HRAC Comments/Clarifications (cont.):

Mr. Seijas stated the guidance in the technical bulletins from FEMA and ASCE state the breakaway wall should occur at 20 PSI. He stated in a hurricane these structures would disappear and the breakaway walls would go. Mr. Seijas spoke about the funding that is already projected for the projects, and stated he felt it would be better use of funding for wave height and elevations to be included in the project.

Mr. Plisich spoke about the base load, and the fact that the walls would have to meet the breakaway speeds. He also spoke about those structures with less than 300 square feet and that insurance costs would be less. Mr. Plisich stated it might be beneficial to add more scenarios with enclosures at different locations of less than 300 square feet.

Dr. Prevatt stated this was some good information and would be worthy of looking at more closely.

Mr. Schnellmann stated that elevator shafts are sometimes located under the building and are not breakaway. He stated they are mostly in the middle of the structure.

Mr. Stafford asked if there were structures reviewed that were just specific to wind damage and not water.

Dr. Prevatt stated yes there were some cases they reviewed that were damaged from wind only without water intrusion indicated.

Florida Building Code Appendix with Optional Enhanced Construction Techniques for the Wind, Flood, and Storm Surge Provisions

Mr. Madani provided detail on the potential FDEM project.

Steve Martin, State Floodplain Manager; Rebecca Cole, and Miles Anderson, State Hazard Mitigation Officer provided detail on the project for consideration.

HRAC Comments/Clarifications:

Commissioner Schock stated this would fall under the technical enhancement category and this would be an opportunity to put this in some type of actionable form. He stated this is strictly a voluntary selection that would be subjected to the 2023 FBC code development process, and he would be in favor of allowing this option for the homeowner.

Recommend and Discuss Potential Research Topics for Consideration by the Florida Building Commission (cont.):

Florida Building Code Appendix with Optional Enhanced Construction Techniques for the Wind, Flood, and Storm Surge Provisions (cont.):

Mr. Blair asked if the costs were funded through FDEM.

Mr. Martin advised that they were requesting funding through DBPR.

Mr. Belcher stated this was the exact reason there were objections in the Commission for voluntary enhancements in the code. He stated he will be opposing this project.

Mr. Seijas asked if this will be a separate appendix.

Mr. Martin replied yes, and stated the intent is to bring this to the attention of design professionals and not necessarily to place it in the code.

Commissioner Schock stated he views part of this as CRS standards.

Mr. Plisich stated this is an excellent idea and would be valuable to offer in the code under an appendix.

Mr. Schnellmann stated if this is voluntary for everyone that would be fine. However, if it is something where a community can adopt this as code, then what is the point of having the Florida Building Code? Mr. Schnellmann stated homeowners and builders would be in a position to build to the community specifications only, and not being allowed to use the standard code.

Commissioner Schock stated that it should be primarily voluntary and he further explained that the CRS standards are under local ordinance.

Next Steps: Agenda Items, Needed Information, Identification of further research and development essential to hurricane protection:

Mr. Blair provided a follow-up of the next actions or discussions for the Committee.

Mr. Madani stated that he will notify the Committee of the next meeting and provide information to them at that time.

HRAC Comments: None

Final Roll Call:

Mr. Blair performed the final roll call with 13 members remaining on the line.

Adjourn:

Commissioner Schock thanked everyone for their participation and adjourned the meeting for the HRAC members at 4:24 p.m.