# RESEARCH PROJECT/TOPICS QUALIFICATION EXERCISE

## HURRICANE RESEARCH ADVISORY COMMITTEE MARCH 22, 2021

### PROCESS FOR REVIEWING RESEARCH PROJECTS/TOPICS:

- AUTOMATIC FUNDING: Projects proposals required for support of the implementation and enforcement of the 2020 FBC and/or development of the 2023 FBC will be funded by the Commission, and will not be included in the qualification exercise conducted during the March meeting or the prioritization ranking exercise conducted during the May meeting.
- **PROCESS:** Remaining (14 total 2 are duplicates) project proposals/topics will be evaluated in turn to determine whether they meet the criteria for funding (definitions, scope of hurricane resistance, Urgent/Needed), those that achieve the 75% approval threshold will be deemed eligible for the next round of the evaluation process (submit a scope of work for the proposal).
- Each PI will be given a maximum of 5 minutes to address why their proposal meets the criteria for funding and should proceed to the next round.
- Public comment will be received following all of the presentations and subsequently the HRAC will vote to determine which projects meet the criteria for funding.

#### DEFINITIONS OF "RESEARCH" AND "TECHNICAL ENRICHMENT"

**RESEARCH:** An important and necessary endeavor aimed at studying specific code related issue(s)/topics for the purpose of providing solutions to a specific problem or future code change(s) directed at improving the implementation and enforcement of the FBC. The issue to be researched must be fully understood (i.e. with clear purpose for doing the research/goals); clearly defined with specific scope of work/approach; and within budget.

**TECHNICAL ENRICHMENT:** An important and necessary endeavor that is aimed at evaluating complex related code issue(s)/topics for the purpose of providing educational/clarification experience or alternative solutions directed at improving the implementation and enforcement of the FBC. Method of delivery for these matters is through workshop/TAC meetings with specific participation of expert(s) in subject area of concern.

#### **CRITERIA FOR FUNDING**

Does the Project Meet the 3 Criteria for Funding?

- Meets Definition of "Research" and/or "Technical Enrichment."
- Within the scope of hurricane resistance research (water and wind resistance).
- Urgency/Immediacy: Needed to support the 2020 Florida Building Code, or for the development of 2023 FBC.

PROJECT DESCRIPTION (PROJECT PROPONENT)	YES ≥ 75%	No < 75%
FEMA Proposals (7)		
A.) Evaluate the Performance of the Concrete Pile Foundations that Failed During Hurricane Michael to		
Determine Why They Failed (FEMA 1)		
B.) Assess the causes for the widespread asphalt shingle roof covering loss that was observed by the MAT (FEMA 2)		
Wind Performance of Asphalt Shingles (IBHS 1)		
C.) Perform Research on Commonly Used Ridge Vent Products to Better Determine the Causes of Ridge		
Vent Failure and Develop Solutions (FEMA 3)		
Wind Performance of Ridge Vents (IBHS 2)		
D.) Consider Re-evaluating EHPA Criteria and Re-assess Safety of Existing EHPAs, Particularly Those Designed Prior to the 6th Edition FBC (2017) (FEMA 4)		
E.) Provide More Specific Criteria with Restrictions on How, When, and Where Roof Aggregate Can be		
Used (FEMA 5)		
F.) Study Debris Generation and Strikes to Protective Systems During Hurricanes to Determine Whether		
the Wind Speed Triggers for the ASCE 7 Wind-borne Debris Region Are Appropriate (FEMA 6)		
G.) Evaluate Whether ASTM Testing Requirements for Debris Impacts and Wind Pressures Should be		
Adjusted (FEMA 7)		
FIU Proposals (2)		
H.) Wind-Induced Loads on Roof Overhangs - Phase II (FIU 1)		
I.) Codification of Wind-Induced Loads on Complex Building Shapes (FIU 2)		
IBHS PROPOSALS (4: 2 are duplicates of FEMA proposals and included with their respective FEMA proposals above)		
J.) Wind-Driven Rain Intrusion Topic #1 (IBHS 3) - Identify relative frequency of different causes of water		
intrusion through fenestrations		
K.) Wind-Driven Rain Intrusion Topic #2 (IBHS 4) - Investigate the climatology of wind-driven rain to		
illustrate how expected mean recurrence intervals for rain rates and wind speeds interact		
UF Proposal (1)		
L.) Wind-Driven Rain-Development of Wind-Driven Rain Climatology and Coincidental Wind Speed		
Return Period Maps For Florida and Adjacent Coast Areas (UF)		