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July 14, 2020

Steve Martin, State Floodplain Manager  
Florida Division of Emergency Management  
Tallahassee, FL

RE: Cost Estimate: Prepare Draft Florida Building Code Appendix with Optional  
Enhanced Construction Techniques for the Wind, Flood, and Storm Surge Provisions

Enclosed is a cost estimate to prepare the optional enhanced construction techniques presented in the University of Florida, Engineering School of Sustainability Infrastructure and Environment report titled "Investigation of Optional Enhanced Construction Techniques for the Wind, Flood, and Storm Surge Provisions for the Florida Building Code" (Report No. 04-19), as described in the draft scope of work proposal submitted for consideration by the Florida Building Commission and its workgroups (attached).

Sincerely,



Rebecca C. Quinn  
RCQuinn Consulting, Inc.

Enclosures:  
Cost Estimate  
Draft Scope of Work Proposal

RE: Cost Estimate: Prepare Draft Florida Building Code Appendix with Optional Enhanced Construction Techniques for the Wind, Flood, and Storm Surge Provisions

The work for the flood provisions will be performed by Rebecca Quinn, RCQuinn Consulting; and the work for the wind provisions will be performed by Eric Stafford, T.E. Stafford & Associates. Ms. Quinn and Mr. Stafford prepared the pertinent sections in the University of Florida's report.

Professional services include technical writing, editing and formatting, and preparation of up to ten (10) additional illustrations where deemed to help users understand a construction technique. In addition to the deliverables described in the Proposal, a draft will be provided to DEM for review prior to preparing the draft to be submitted to the Florida Building Commission.

We anticipate this will be a "time and materials" contract and invoices will be based on labor expended, not to exceed the estimated cost.

**Cost Estimate:** \$21,750.00

## **Scope of Work**

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

Florida Department of Business and Professional Regulation, Florida Building Commission

with

Florida Division of Emergency Management

FDEM Project Leader: Steve Martin, State Floodplain Manager; and Miles Anderson, State Hazard Mitigation Officer

#### **1. Introduction**

In December 2019, the University of Florida, Engineering School of Sustainable Infrastructure and Environment (ESSIE) delivered to the Florida Department of Business and Professional Regulation, Building Codes and Standards a report titled “Investigation of Optional Enhanced Construction Techniques for the Wind, Flood, and Storm Surge Provisions for the Florida Building Code” (Report No. 04-19).

The Florida Division of Emergency Management (FDEM) is the State’s lead agency planning for and responding to natural and man-made disasters, including floods, hurricanes, and other high wind events. FDEM has a long-standing interest in, and has supported numerous initiatives, to enhance and improve the resistance of buildings and structures to minimize wind and flood damage. FDEM is designated by the governor as the NFIP State Coordinating Agency, fulfilled by the State Floodplain Management Office.

Many of the flood and storm surge enhanced options included in the UF/ESSIE report not only increase resistance to flood hazards, but are eligible for credits under the National Flood Insurance Program’s Community Rating System. Communities in the CRS qualify for reductions in premiums for NFIP flood insurance policies. As of mid-2020, more than half of Florida’s 467 NFIP communities participate in the CRS, gaining premium reductions from 5 to 35 percent.

With respect to local technical amendments of the flood provisions of the FBC, Section 553.73(5), F.S., specifically authorizes communities to adopt more restrictive local technical amendments under three circumstances, in which cases the amendments are not voided when the FBC is updated. FDEM’s State Floodplain Management Office has worked with nearly all of Florida’s CRS communities to format a variety of higher standards that enhance the design of buildings in flood hazard areas. The UF/ESSIE report includes some higher standards not already included in FDEM’s guidance materials.

#### **2. Relevant Sections of the Florida Building Code**

The relevant sections of the FBC Building and FBC Residential are identified in the UF/ESSIE report.

### **3. Scope of Work**

The proposed project will be based on the UF/ESSIE report on enhanced construction techniques to formulate report recommendations for compatibility with the 2020 Florida Building Code (building and residential volumes) as optional language to enhance structure resiliency against flood and wind. The material will be prepared as a two part appendix based on the 7<sup>th</sup> Edition, FBC (2020):

- Part 1 will include enhanced flood hazard provisions for consideration by communities that participate in the National Flood Insurance Program Community Rating System. Each optional provision will include descriptions of benefits and added costs. In this format, interested communities will readily see enhanced options. Also, there will be improved consistency when multiple communities elect to adopt the same technical amendments. The narratives may also encourage property owners, designers, and builders to consider incorporating higher standards into building designs, even when not adopted as local technical amendments.
- Part 2 will include the enhanced construction techniques for wind design for consideration by property owners and designers. The UF/ESSIE report displayed key enhancements in eight groups, ranging from improving overall wind resistance to details for improved impact resistance, roof covering, and water intrusion around various building components. Where appropriate, narrative to describe the enhanced technical in terms of benefits and added costs may be added.

DEM will assign the task to an existing consultant who works with the State Floodplain Management Office and Florida communities to adopt and amend floodplain management regulations. Rebecca Quinn (RCQuinn Consulting) prepared the enhanced construction techniques for flood/storm surge section of the UF/ESSIE report. She will work with Eric Stafford (T.E. Stafford & Associates) who prepared the enhanced construction techniques for wind design.

### **4. Deliverables**

- a. Prepare and deliver the draft appendix to the Florida Building Commission.
- b. Present the appendix to the committee(s) designated by the Florida Building Commission.
- c. Address review comments and deliver the final appendix in adoptable format, with draft text to complete the online Proposed Code Modifications template (rationale, fiscal impact statement, and statutory requirements).

### **5. Method of Payment**

A purchase order will be issued to the Florida Division of Emergency Management. This project shall start on the date of execution of the purchase order and end at 11:59 pm on \_\_\_\_\_, 2020. The purchase order shall not exceed \$\_\_\_\_\_ and shall cover all costs for labor, materials, and overhead. Payment will be made in [lump sum acceptable] it has been presented to the appropriate committee(s) and after the Contract/Program Manager approves the final deliverable.

## **6. DBPR Contract Manager and Program Manager**

The DBPR Contract Manager is \_\_\_\_\_ and the Program Manager is Mo Madani.