

Appendix D

Methodology for Prioritizing Projects for Funding

METHODOLOGY FOR PRIORITIZING PROJECTS FOR FUNDING

The Division has developed a point based priority ranking methodology to prioritize recommended projects. The methodology is consistent with Section 252.385, F.S., and the Division's hurricane evacuation shelter survey guidelines. Factors that were considered in the retrofit proposal review process were regional and local hurricane shelter space deficit; facility design, construction and location considerations (American Red Cross standard ARC 4496); proposed hurricane evacuation shelter type (general population, special/medical needs, or pet-friendly); maximize use of state funds/cost-effectiveness; ownership and shelter use availability of the facility; etc. See Appendix H for an example of the 2016 Project Priority Worksheet. The factors considered for priority ranking this year are generally consistent with those used in previous Shelter Retrofit Reports (SRR). The exceptions being that additional emphasis has been placed on special/medical needs shelters (SpNS) and on retrofitting facilities designed and constructed to the most recent building codes and standards. Projects carried over from the 2015 SRR were reevaluated on changes in the shelter deficits (region and/or county, if any), and on additional information provided in updates from the counties.

The hurricane evacuation shelter space deficit information used for this report was published in the *2016 Statewide Emergency Shelter Plan (SESP)*. The 2016 SESP determined that nearly all regions had no hurricane evacuation shelter space deficits; the exceptions being Central Florida (RPC 6) and Southwest Florida (RPC 8). However, even though there may be sufficient cumulative capacity within regions, many individual counties still have deficits. The 2016 SESP determined that all but one region of the state, South Florida (RPC 10), have SpNS space deficits. Therefore, scoring items were added for both regional and county SpNS deficits. The combined maximum score of all four shelter space deficit-based items is 175 of a total maximum of 700 points.

In prioritizing projects, the Division based its ranking scores on the criteria described below. If the desired information in a given line item was not provided, and could not be readily determined from other sources, no points were allocated, except as otherwise noted. In some cases, certain criteria were considered "show stoppers" and the facility excluded from recommendation. The show stopper designation was only given when a condition existed that could potentially exclude the building as a shelter, such as the presence of uncertified long span roof, unreinforced masonry walls or storm surge flooding. The following is a listing of the specific criteria used by Division staff to rank each project based upon information provided with each project proposal.

- 1. Proposed project is located within an RPC Region with a deficit of General Population Hurricane Evacuation Risk Shelter Space. (Maximum of 75 points)**

Section 252.385(3), F.S., directs that priority be given to regions of the state where shelter deficits are greatest. Regional hurricane evacuation shelter space deficit data was provided by the 2016 SESP. A maximum of 75 points was given for those facilities that are located in regions with the most severe shelter space deficits (< 10 sf of floor space per evacuee). Lesser points were given to retrofit projects in regions with less severe deficits.

2. Proposed project is located within a County with a deficit of General Population Hurricane Evacuation Risk Shelter Space. (Maximum of 50 points)

Though regions are the highest priority in ranking, evacuations are generally local with emergency managers recommending that evacuees travel tens of miles instead of hundreds. County hurricane evacuation shelter space deficit data was provided by the 2016 SESP. A maximum of 50 points was given for those facilities that are located in a county with a severe shelter space deficit (< 10 sf of floor space per evacuee). Lesser points were given to retrofit projects in counties with less severe deficits.

3. Proposed project is located within an RPC Region with a deficit of Special/ Medical Needs Hurricane Evacuation Risk Shelter Space. (Maximum of 30 points)

The 2016 SESP identified that even when there may be sufficient general population shelter space, there may still be a deficit in SpNS. Therefore, this new item has been added to place priority on this type of retrofit project. Regional hurricane evacuation shelter space deficit data was provided by the 2016 SESP. A maximum of 30 points was given for those facilities that are located in regions with the most severe shelter space deficits (< 30 sf of floor space per person with special needs (PSN) evacuee). Lesser points were given to retrofit projects in regions with less severe deficits.

4. Proposed project is located within a County with a deficit of Special/Medical Needs Hurricane Evacuation Risk Shelter Space. (Maximum of 20 points)

Though regions are the highest priority in ranking, evacuations are generally local with emergency managers recommending that evacuees travel tens of miles instead of hundreds. The 2016 SESP identified that even when there may be sufficient general population shelter space, there may still be a deficit in SpNS. Therefore, this new item has been added to place priority on this type of retrofit project. County hurricane evacuation SpNS space deficit data was provided by the 2016 SESP. A maximum of 20 points was given for those facilities that are located in a county with a severe SpNS space deficit (< 30 sf of floor space per PSN evacuee). Lesser points were given to retrofit projects in counties with less severe deficits.

5. Recognized Multi-County or Regional Hurricane Evacuation Risk Shelter Destination. (Maximum of 50 points)

Points was allocated for counties that are recognized to serve as a risk shelter destination for other counties with very limited or no Category 4/5 hurricane evacuation risk sheltering options. The maximum points were allocated to those with 300+ SpNS spaces, and lesser points were given to those with fewer SpNS or general population-only spaces. Recognition as a risk shelter destination county is based on acknowledgement by the applicable destination county's emergency management director, one or more evacuation county emergency management directors, the Division and other applicable state and local agencies.

6. Project Building is a Designated Special/Medical Needs Hurricane Evacuation Risk Shelter. (Maximum of 25 points) YES or No

If yes, then the project was allocated 25 pts. If no or not known, then zero points were allocated.

7. Project Building is a Designated Pet-Friendly Hurricane Evacuation Risk Shelter. (Maximum of 25 points) YES or No

If yes, then the project was allocated 25 pts. If no or not known, then zero points were allocated.

8. Facility Ownership and Availability for use as a Public Hurricane Evacuation Risk Shelter. (Maximum of 50 points)

A maximum of 50 points was allocated, depending on ownership and availability status. Lesser points were given to retrofit projects that may have limitations on their public shelter availability during a disaster.

Public facilities receive the highest priority based on their availability. Public facilities are generally those that are subject to inclusion in the Division's public hurricane evacuation shelter survey program. Private facilities, such as religious, civic or fraternal organizations' multi-purpose buildings, private schools, arenas, stadiums, convention or conference centers were recommended for retrofit based upon local need for public shelter space, previous history as a public shelter and/or existing written agreements and endorsement by the local emergency management director. Full availability means that, during a declared local state of emergency and upon request by local emergency management, the public shelter function will take priority over all other activities. Limited availability is all other conditions.

9. Flood Hazard and Building Design and Construction Criteria. (Maximum of 125 points)

The Division recommends that all hurricane shelters be reviewed for consistency with the American Red Cross's *Standards for Hurricane Evacuation Shelter Selection*, ARC 4496. Critical building envelope features (exterior wall and roof construction, percentage of glass in exterior walls, long span roof, etc.), year built to determine design wind code requirements, presence of interior core area or storm room, and other construction factors must be included in the decision to utilize the building as a hurricane evacuation shelter and establish its priority for retrofitting. There is only nominal value to installing window protection systems on a shelter building if there are other "weak links" that are limiting factors for the building's hurricane performance. Storm surge and rainfall are also important factors when reviewing and prioritizing a building as a potential hurricane evacuation shelter.

A maximum of 125 points was allocated based on how well the given facility is demonstrated to conform to ARC 4496 guidelines after completion of the proposed retrofit. These criteria are used to maximize the hurricane safety provided by a specific retrofit project.

- A. A maximum of 25 points was allocated based on what Sea, Lake and Overland Surges from Hurricanes (SLOSH) or Storm Surge evacuation zone the facility is in. Presence of the facility in a Category 1/Tropical Storm or Category 2 surge zone is a "Show Stopper" and excludes the project from recommendation. The point system used for this item is generally consistent with Section 1013.372(1), F.S., that exempts educational facilities from the public shelter design criteria if located within a Category 1, 2, or 3 Evacuation Zone.
- B. A maximum of 25 points was allocated based on the National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) flood zone (as established in the most recently published FIRM). If this information was not provided, no points were allocated. Generally, buildings in FIRM zones with an "A" designation received very limited or no points. Recommendations for projects in A zones may require detailed justification. Exception was given to those counties (such as Miami-Dade and Collier) whose populations live in areas that are extremely flat and provide very limited natural drainage.
- C. A maximum of 25 points was allocated based on the building construction parameters. Here the building's structural and envelope characteristics are very important. Structures are evaluated to shelter people during a severe wind storm or major hurricane. "Show Stoppers" typically included unreinforced masonry walls, flat lightweight roofs over uncertified long spans, pre-engineered metal buildings, lack of load-path connectors, etc. The majority of "Show Stoppers" originated in this item.
- D. A maximum of 50 points was allocated for based on the building's wind design code. Building's designed and constructed to the Florida Building Code (2003-present) are expected to perform better than those designed and constructed to older less-modern codes. Lesser points were given to retrofit projects designed and constructed to modern

wind codes and standards of the 1990's and early 2000's. If the building's wind code is unknown or from an edition prior to 1989 then zero points were allocated.

10. Numerical increase in Public Hurricane Evacuation Risk Shelter space due to this proposed retrofit project. (Maximum of 75 points)

A maximum of 75 points was allocated based on numerical increase in shelter hurricane evacuation risk shelter space capacity. No points were allocated for shelter spaces already in the inventory. This item serves to maximize use of state funds.

11. Structural Envelope & Essential Equipment Protection. (Maximum of 50 points)

A maximum of 50 points was allocated if the retrofit project included only minor building envelope protection-type projects (i.e., windows, doors, louver/vent openings, skylights or other fenestration or wall soft spot protection) to meet ARC 4496. Lesser points were allocated when additional engineering services or building equipment protection enclosures were required. This item serves to maximize use of state funds for hurricane safety improvements. No points were allocated if major structural work was required.

12. Cost-effectiveness considerations. (Maximum of 50 points)

A maximum of 50 points was allocated depending on the average cost per space of the proposed project; i.e., cost-effectiveness. This was based on the total proposed cost divided by the total quantity of hurricane evacuation risk shelter spaces gained. If the number of spaces, or costs, could not be determined, no points were allocated. This item serves to maximize use of state funds.

13. Project specified in Local Mitigation Strategy. (Maximum of 50 points)

A maximum of 50 points was allocated if the specific project building was referenced in a county's Local Mitigation Strategy (LMS). Lesser points were given to retrofit projects with less specificity in the LMS. If no or not known then zero points were allocated.

14. Project Engineering and/or Construction Timeline/Duration. (Maximum of 25 points)

If the project was proposed to be completed within a fiscal year then it was awarded the maximum of 25 pts. Lesser points were given to retrofit projects with a proposed construction timeline of between 1 and 2 years. If no timeline was provided then zero points were allocated.