

## Notes from the January 22, 2018 Sea Level Rise Committee Meeting

The committee met with local architects Mark Permar, Charles Hudson, and Tyler Smyth, all of whom are very familiar with Kiawah.

Precipitation runoff can be a problem and could increase as development increases. This can be addressed by community design and site redevelopment in older sections. Impermeable surfaces could be reduced through such things as permeable driveways or rain barrels to collect runoff from roofs. Rain gardens and swales could help retain water on site. New construction is not too much of a problem regarding runoff.

The older parts of Kiawah in West Beach will see lots of renovation in the coming years. Most of the structures in these areas are built to only a few feet above grade. By contrast all new construction must be elevated, generally high enough for parking vehicles underneath. There is an opportunity to influence this renovation so that the older neighborhoods can improve their rainfall retention on site and also improve their adaptation to more frequent flooding.

Freeboard, the height of the first floor in residences, must be one foot above the base flood elevation level on Kiawah. Charleston requires two feet of freeboard. On Kiawah the footprint of the home cannot cover more than 33% of the lot. But the driveway does not count as part of this coverage, so the area of impermeable surface can exceed that percentage.

Bruce Spicher expressed concern over the new FEMA flood maps in that they lower base flood elevation levels for many areas of the island. The new maps are based on a ten-year period that did not have anything more than category 1 and 2 storms.

Raising residences should be a major consideration for property owners. One of the architects estimated that it would be \$25,000 to \$50,000 to raise an older residence, not on driven piles, to the current code requirement. A problem that could be encountered with elevating buildings is that the ARB limits the height of a building's roofline. Major renovations within villa regimes can be a problem because sometimes an 80% vote of the owners is required to make major changes. In regard to single family residences, state law requires that if more than 50% of the value of the structure is renovated or repaired over a five-year period, the entire structure must be brought up to current code. This may mean complete demolishing of the home in older neighborhoods.

In terms of recommendations for elevated homes, the architects suggested that the walls of every under-the-house garage be built out of block or concrete rather than wood. There should be no drywall below base elevation level; painted block or plastic sheeting instead. New vents are available that automatically open with flood waters and close when the waters recede. Lower levels can be flood-proofed by installing bolt-on panels. These are expensive, often not aesthetically pleasing, and must be put up in anticipation of an expected flood. A suggestion was made that individual neighborhoods could be organized to address their local flooding

problems, e.g. perhaps a berm could be built across several properties to protect the neighborhood from flooding.

At the suggestion of the architects, it was decided that the committee should identify a few generic types of homes and neighborhoods. With the help of the architects the committee could then develop a series of recommendations for these specific scenarios. Jim Sullivan volunteered to help organize this effort.