

COJ Resiliency Issues

Data or information related to this issue which can be addressed by Erik J. Olsen, P.E. include, but are not limited to the following:

1. An overview of why FEMA mapping and associated 100 year surge predictions for the City core and the historic areas of San Marco/Riverside Avondale/Ortega are incorrect. A retrospective of lessons learned during H. Irma which relate to this finding.
2. The nexus between present day COJ building standards on the river and FEMA maps which are now grossly inadequate, in addition to their *non-consideration* of Sea Level Rise (SLR) which is additive to elevations predicted.
3. An example of recommended building standards which need to be adopted by the COJ (ASAP) to preclude future liabilities of damage associated with new development and redevelopment riverfront projects planned or underway (P. Rummel's Southbank development.; the Courthouse site redevelopment, Lot J., etc.). Recommendation for design review and acceptance by a Technical Review Committee (TRC) comprised of professional engineers and not just the Department of Public Works.
4. A discussion of both historic, ongoing and future SLR scenarios. A presentation of *very* recent analyses of long term Mayport Tide gage data which clearly depict an acceleration of SLR over the historic average value of .9 ft/century.
5. A presentation of analyses (with graphs) which predict high frequency seawall overtopping of existing COJ seawall caps. The graphs are user friendly for possible predictions by homeowners, developers, COJ Public Works, etc. An example of application at the St. Vincent's hospital can be provided.

6. A discussion of the propriety (or lack thereof) associated with the multi-billion dollar protective seawall approach(s) being considered by Charleston, S.C., Miami, and other waterfront locations. A discussion of the benefits, tradeoffs, legal hurdles, etc.
7. A discussion of the present day drainage issues in the historic neighborhoods due to inadequate/dated infrastructure and water levels in the SJ River. Predictions regarding drainage under future SLR scenarios.
8. An analysis of the Riverside Ave/Stockton Street reoccurring flooding events, why the installation of Tide-flex valves will be counterproductive, etc.
9. A recommended prioritization for Resiliency directed actions by the COJ:
 - a. Education obviously – public and elected officials
 - b. *High Priority* – implementation of SLR design standards into all new SJR fronting development. Required review and acceptance by a Technical Review Committee (TRC) prior to issuance of COJ Permits.
 - c. Budget and address drainage “fixes” in areas where SJR water levels are now problematic in historic neighborhoods.
 - d. Prohibition of underground drainage detention vaults for all new development in locations proximate to tidally influenced water bodies. (Allow for waivers if proven warranted). Increase storm water control standards beyond those required by the SJWM District which are woefully inadequate.
 - e. Request a large scale study of COJ flood vulnerabilities via DELFT3D numerical modeling (or equivalent). Study to be directed by a TRC.

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Note – virtually all of this info can be formulated into a Power Point presentation.