

## Section E. FILL IN THE FLOODPLAIN WITHOUT DESIGNATED FLOODWAYS

1. On-site mitigation for fill in Areas of Special Flood Hazard (Zones A or AE) without Designated Floodways, shall be demonstrated by cut/fill volume calculations certified by a Georgia Registered Engineer or Land Surveyor and verified by As-built Drawings.
  - a. Volume of fill added to the site will need to be mitigated by an equivalent volume of cut excavated from the SFHA.
  - b. Volume occupied/impounded by structures such as walls or bulkheads will be considered fill in the floodplain and will need to be mitigated by an equivalent cut (excluding elevated foundation systems supported by piles, posts or piers).
  - c. Excavation for mitigation will not be allowed in any buffers.
  - d. Any excavation to or below the seasonal groundwater table will not count towards mitigation.
  - e. Excavated areas for mitigation will need to safely drain to a discharge point or infiltrate within 48 hours.
2. When on-site mitigation is not feasible:
  - a. Structural fill on parcels less than one acre that are not part of a new common development, may be modeled hydraulically in Coastal AE zones by the one-dimensional coastal wave height model, WHAFIS 3.0 version or later, to demonstrate that the water surface elevation of the base flood will not increase more than one foot.
  - b. Structural fill on parcels equal to or greater than one acre, may be modeled hydraulically in Coastal AE zones by a two-dimensional coastal wave height model. MIKE21, SWAN or any two-dimensional FEMA nationally accepted coastal models, shall be utilized to demonstrate that the cumulative effect of the proposed fill, when combined with all other existing and anticipated development within the boundaries defined by the Department of Engineering (DOE) and the Professional Engineer running the coastal wave height model that meet FEMA flood study guidance, will not increase the water surface elevation of the base flood more than one foot.
3. Minimal fill may be allowed on a parcel less than one acre to provide positive drainage away from a structure's pile, pier or post supported foundation without providing equivalent mitigation. Volumes less than 40 cubic yards will be considered minimal fill.

## Section F. FILL IN THE FLOODPLAIN WITH DESIGNATED FLOODWAYS

1. On-site mitigation for fill in Areas of Special Flood Hazard (Zones A or AE) with Designated Floodways shall be demonstrated by cut/fill volume calculations certified a Georgia Registered Engineer or Land Surveyor and verified by As-built Drawings in accordance to Section E.1.
2. When on site mitigation is not feasible, structural fill may be modeled hydraulically in Riverine AE zones by the two-dimensional hydraulic model, HEC-RAS 2D Version 5.0 or later, to demonstrate that the cumulative effect of the proposed fill, when combined with all other existing and anticipated development in the watershed as determined by the DOE, will not increase the water surface elevation of the base flood any.

## Section G. FILL IN THE COASTAL HIGH HAZARD AREAS

1. Structural fill is not allowed in Areas designated as Coastal High Hazard Areas (V-Zones) and Coastal A zones or Limits of Moderate Wave Action (LiMWA). Structural fill is defined as a screened earthen material used to create a strong, stable base. It is typically compacted to support structures such as buildings, bridges, roads and concrete pads to include driveways, sidewalk, etc.
2. Landscape fill may be allowed in Areas designated as Coastal High Hazard Areas (V-Zones) and Coastal A zones or Limits of Moderate Wave Action (LiMWA) with limitations. Landscape fill shall not exceed 24 inches vertically from any location on the site measured from existing ground surface and it shall not be used primarily to elevate a site. Landscape fill is defined as a non-compacted, loosely placed material often containing substantial organic content such as to promote the growth and survival of plantings, sod or other greenscape installations. Compaction in this scenario will be defined as a mechanical process by which the porosity of a given material is decreased or the density of the given material is increased. Compaction of landscape fill within V-Zones and LiMWA is not allowed.