FLOODPROOFING OF NON-RESIDENTIAL STRUCTURES AND NON-RESIDENTIAL AREAS OF MIXED-USE STRUCTURES

DEFNITIONS

DRY FLOODPROOFING: A combination of measures that results in a non-residential structure, including the attendant utilities and equipment as described in the latest version of ASCE 24, being watertight with all elements substantially impermeable and with structural components having the capacity to resist flood loads.
WET FLOODPROOFING: Floodproofing method that relies on the use of flood damage resistant materials and construction techniques in areas of a structure that are below the Local Design Flood Elevation by intentionally allowing them to flood. The application of wet floodproofing as a flood protection technique under the National Flood Insurance Program (NFIP) is limited to enclosures below elevated residential and non-residential structures and to accessory and agricultural structures that have been issued variances by the community.
IBC: International Building Code
ASCE 24 (2014): American Society of Civil Engineers *Flood Resistant Design and Construction*

Under the Uniform Construction Code, for new construction and projects deemed a "substantial improvement", the following regulations are applicable:

- ⇒ NJAC 5:23-6.3A (Flood-resistant construction) requires compliance with IBC 1612
- ⇒ IBC 1612.2 requires the design and construction of buildings and structures located in flood hazard areas, including coastal high hazard areas and coastal A zones, comply with ASCE 24 (2014)

ASCE 24 (2014)

Dry Floodproofing:

- ⇒ ASCE 24 Sec. 6.2.1 allows Dry floodproofing in **nonresidential structures and nonresidential areas of mixed-use structures** in A Zones
- ⇒ ASCE 24 Sec. 6.2.1 does NOT allow dry floodproofing of **nonresidential structures and nonresidential areas of mixed-use structures** located in High Risk Flood Hazard Areas, Coastal High Hazard Areas, and Coastal A Zones

Wet Floodproofing:

- ⇒ ASCE Sec. 6.3.1 requires Wet Floodproofing up to the Design Flood Elevation
- ⇒ ASCE Sec. 6.3.1 requires that use of Wet Floodproofing of enclosed areas below the Design Flood Elevation shall be limited to:
  - ✓ Flood Design Class 1 structures* (ASCE Table 1.1)
    - Temporary structures that are in place for less than 180 days
    - Accessory storage buildings and minor storage facilities (does not include commercial storage facilities)
    - Small structures used for parking of vehicles
    - Certain agricultural structures farm, such as storage structures, grain bins, corn cribs, and general-purpose barns
  - ✓ Enclosures used solely for parking of vehicles, building access, or storage
  - ✓ Structures that are functionally dependent on close proximity to water
  - ✓ Agricultural structures not included in Flood Design Class 1 that cannot be located elsewhere and that are used solely for agricultural purposes

*Flood Design Class 1 Buildings and structures that normally are unoccupied and pose minimal risk to the public or minimal disruption to the community should they be damaged or fail due to flooding.