

## HURRICANE

*Katrina*

## IN THE GULF COAST

## D. Glossary

**100-year flood** – The flood elevation that has a 1-percent chance of being equaled or exceeded each year.

**ASCE 7** – National design standard issued by the American Society of Civil Engineers, *Minimum Design Loads for Buildings and Other Structures*, which gives current requirements for dead, live, soil, flood, wind, snow, rain, ice, and earthquake loads, and their combinations, suitable for inclusion in building codes and other documents.

**ASCE 24-05** – National design standard issued by the American Society of Civil Engineers, *Flood Resistant Design and Construction*, which outlines the requirements for flood resistant design and construction of structures in flood hazard areas.

**Base Flood Elevation (BFE)** – Elevation of the 1-percent flood. This elevation is the basis of the insurance and floodplain management requirements of the National Flood Insurance Program.

**Building envelope** – The entire exterior surface of a building, including roofs, walls, windows, and doors, which encloses or envelops the space within.

**Capillary action** – Commonly referred to as “wicking,” capillary action is the process by which water in liquid form climbs upward through materials in opposition to the force of gravity.

**Critical and essential facilities** – Facilities that, if damaged, would present an immediate threat to life, public health, and safety. Critical and essential facilities include, but are not limited to, hospitals, emergency operations centers, water systems, and utilities.

**Design flood event** – The greater of the following two flood events: (1) the base flood, affecting those areas identified as special flood hazard areas on a community’s Flood Insurance Rate Map (FIRM); or (2) the flood corresponding to the area designated as a flood hazard area on a community’s flood hazard map or otherwise legally designated.

**Design wind event** – An event where the observed wind speed equaled or exceeded the wind speed.

**Design wind speed** – The wind speed designated in the building code or engineering design standard.

**Eave** – The horizontal lower edge of a sloped roof.

**Erosion** – Process by which floodwaters lower the ground surface in an area by removing upper layers of soil.

**Fetch** – The distance along open water or land over which the wind blows.

**Floodborne debris impact** – Floodwater moving at a moderate or high velocity can carry floodborne debris that can impact buildings and damage walls and foundations.

**Floodwall** – A long, narrow concrete or masonry wall built to protect land from flooding.

**Freeboard** – The height added to place a structure above the base flood to reduce the potential for flooding. The increased elevation of a building above the minimum design flood level to provide additional protection for flood levels higher than the 1-percent chance flood level and to compensate for inherent inaccuracies in flood hazard mapping.

**Gable end wall** – The triangular end of an exterior wall above the eaves formed under a gable roof.

**Girt** – A horizontal structural member that is attached to sidewall or endwall columns and supports wall paneling.

**Glazing** – Glass or transparent or translucent plastic sheet used in windows, doors, and skylights.

**Hem** – The portion of the cleat (coping or edge flashing) that bends out at about a 60 degree angle at the bottom portion of the cleat/coping or edge flashing.

**Hurricane** – An intense tropical weather system with a well-defined counter-clockwise circulation and sustained winds of 74 mph or higher.

**Insulated concrete form construction** – A construction technique where the walls of the building are composed of hollow styrofoam blocks or foam panels, which serve as concrete forms that remain in place after they are reinforced and filled with concrete.

**Levee** – A manmade structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

**Pier foundation** – Vertical support member of masonry or cast-in place concrete that is designed and constructed to function as an independent structural element in supporting and transmitting both building loads and environmental loads to the ground. Typical pier foundations are constructed on footings.

**Pile foundation system** – Vertical support member of wood, steel, or precast concrete that is driven or jettied into the ground and supported primarily by friction between the pilings and surrounding earth. Pilings often cannot act as independent support units and therefore are often braced with connections to other pilings.

**Pole construction** – A type of construction where the pilings extend from the ground to the roof system. It differs from platform construction where the pilings terminate at the lowest floor.

**Purlin** – A horizontal structural member that supports roof covering and carries loads to the primary framing members.

**Rake** – The inclined edge of a sloped roof over a wall (the edge above the gutter).

**Reinforced concrete** – Concrete with steel mesh or bars embedded in it to increase its tensile strength.

**Saffir-Simpson Scale** – Measures a hurricane's intensity on a 1-5 scale to give an estimate of the potential property damage and flooding expected. Wind speed is the determining factor in the scale. A Category 1 hurricane is the weakest, with winds from 74-95 mph (maximum, 1-minute sustained speeds), and a Category 5 hurricane is the strongest, with winds over 155 mph. Refer to Table 1-2.

**Slab-on-grade foundation** – Type of foundation in which the lowest floor of the house is formed by a concrete slab that sits directly on the ground.

**Soffit** – The underside of a horizontal element of a building, especially the underside of a stair or a roof overhang.

**Special Flood Hazard Area** – Portion of the floodplain subject to inundation by the base flood.

**Steel moment frame** – In steel moment frame buildings, the ends of the beams are rigidly joined to the columns so that the buildings can resist lateral wind forces without the assistance of additional braces or walls.

**Stem wall foundation** – A type of foundation that uses masonry block and reinforced with steel and concrete. The wall is constructed on a concrete footing, back-filled with dirt, compacted, and the slab is then poured on top.

**Storm surge** – The water that is pushed toward land from the high winds of a major storm (i.e., hurricane).

**Tropical storm** – A tropical cyclone with maximum sustained (1-minute average) winds of 39 to 73 mph.

