June 24, 2020

Bay County Builders Services Department
840 W 11th Street
Panama City, FL 32401

Attn: Rick Holmes, Building Official

Project: Two-family dwelling

Mr. Holmes,

Preliminary plan review for the proposed Mark House two-family dwelling to be built in Bay County Florida has been completed and we offer the following comments:

1. The plans are incomplete and require additional information to demonstrate compliance with the Florida Building Code
2. There are four issues of primary importance that are the focus of this review:
   A. The applicable code
   B. Threshold Building designation
   C. Fire protection (sprinklers)
   D. Horizontal and vertical separation between the individual dwellings

APPLICABLE CODE

The FBC-Building defines “story”:

**STORY.** That portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above (see “Basement,” “Building height,” “Grade plane” and “Mezzanine”). A story is measured as the vertical distance from top to top of two successive tiers of beams or finished floor surfaces and, for the topmost story, from the top of the floor finish to the top of the ceiling joists or, where there is not a ceiling, to the top of the roof rafters.

The FBC-Residential defines both “story” and “attic” as follows:

**STORY.** That portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above.

Based on the section view shown on Sheet A 11.1 the building has four (4) stories.

**[RB]ATTIC.** The unfinished space between the ceiling assembly and the roof assembly.

**[RB]ATTIC, HABITABLE.** A finished or unfinished area, not considered a story, complying with all of the following requirements:
   1. The occupiable floor area is not less than 70 square feet (6.5 m²), in accordance with Section R304.
2. The occupiable floor area has a ceiling height in accordance with Section R305.
3. The occupiable space is enclosed by the roof assembly above, knee walls (if applicable) on the sides and the floor-ceiling assembly below.

The fourth level cannot be called an unfinished attic because it has a floor/ceiling assembly.

The proper designation for this space as drawn would be a finished or unfinished story.

As a four-story building it cannot be designed in accordance with the FBC-Residential volume. This project must instead be designed in accordance with the FBC-Building, per FBC-R 101.2.

**THRESHOLD BUILDING DESIGNATION**

Florida statute establishes the criteria for threshold building designation and is included in the FBC-Building definitions chapter as follows:

**THRESHOLD BUILDING.** In accordance with Florida Statute, any building which is greater than 3 stories or 50 feet (15 240 mm) in height, or which has an assembly occupancy classification that exceeds 5,000 square feet (464.52 m²) in area and an occupant content of greater than 500 persons.

Since this building is four stories it must be designated as a threshold building.

As a threshold building, compliance with FBC-Building 110.8 is required.

A threshold plan must be prepared and submitted by the engineer of record.

A permit for a threshold building shall only be issued to a Certified General contractor or a Certified Building contractor.

**FIRE PROTECTION**

The building would be classified as an R-3 building which requires a fire protection system per FBC-B 903.2.8.2. Florida statute 553,895(2) however, provides an exception for one-and two-family residences. Since state statute has higher standing than the Florida Building Code, which is adopted as an administrative rule, a fire protection system is not required.

**VERTICAL AND HORIZONTAL SEARATION**

The plans do not provide any indication for the location of rated assemblies or details for demonstrating fire time rated assemblies.

All provisions of FBC-Building Section 420 relating to the R-3 occupancy shall be applied as applicable. (Provide details for vertical separation walls between dwellings, and horizontal separation between the 3-story dwelling and the occupied roof accessed from the fourth story of the adjacent dwelling)

All provisions of FBC-Building Chapter 7 shall be applied as applicable. (Provide wall types and floor assembly details including rated support structure for the rated occupied roof assembly)
Provide structural stability for the party wall that is designed to allow collapse of the structure on either side without the collapse of the wall under fire conditions.

The design of this building creates a stepped configuration. A one-hour rating for the occupied roof assembly and supporting structure will satisfy the separation requirement.

**CONCLUSIONS:**

1. The building has four stories
2. The building is a R-3 occupancy subject to the Florida Building Code – B, P, E, M, FG, EC
3. The building shall be designated as a Threshold Building
4. The building does not require a fire protection (sprinkler) system
5. The building requires vertical separation between the dwelling units
6. The building requires horizontal separation between the 3-story dwelling and the occupied roof used by the occupants of the 4-story dwelling

**OTHER OBSERVATIONS**

1. Provide additional stair details (Open risers are limited to less than 4 inches, detail guards and handrails)
2. Provide additional elevator details demonstrating compliance with FBC-Building 3013
3. Provide product approval documentation for components and cladding

We would be glad to speak with you and/or the applicant regarding this project. We are available to do a complete plan review for this project and work with the applicant to achieve code compliance at your direction.

Thanks,

John

John O’Connor, CBO

President


407-353-0516

Plan Examiner – PX1016