

**Issue: DS 2024-014:** The petitioner Timothy Drumm, of Drumm Engineering Corporation is seeking a declaratory statement to clarify whether designing a foundation system in accordance with section R401.2 of the 8<sup>th</sup> Edition (2023) Florida Building Code, Residential would also require compliance with Chapter 18 of the 8<sup>th</sup> Edition (2023) Florida Building Code, Building.

**Petitioner seeks clarification of the following questions:**

**Question:**

If I design the residential home foundation and fill soil to meet the requirements for Chapter 4 of the Florida Building Code, Residential, am I still required to design the foundation and fill soils to meet the requirements for Chapter 18 of the Florida Building Code, Building?

**Background:**

The Petitioner provides for the following:

- The petitioner is designing multiple residential structures with shallow foundation design using Chapter 4 of the Florida Building Code – Residential. Specifically, it is designed to meet section R401.2.
- The fill soils that support footings and foundations are designed, installed, and tested in accordance with accepted engineering practices.
- The petitioner provided a list of the design conditions for the foundation and fill systems for twelve cases as follows:

Case 1-Single Story residential home on virgin soil on a slab on grade foundation.

Case 2 - Single Story residential home on fill material (less than 12") on a slab on grade foundation.

Case 3 - Single Story residential home on fill material (more than 12") on a slab on grade foundation.

Case 4 - Single Story residential home on virgin soil with a stem wall foundation.

Case 5 - Single Story residential home on fill material (less than 12") with a stem wall foundation.

Case 6 - Single Story residential home on fill material (more than 12") with a stem wall foundation.

Case 7 - Two Story residential home on virgin soil on a slab on grade foundation.

Case 8- Two Story residential home on fill material (less than 12") on a slab on grade foundation.

Case 9 - Story residential home on fill material (more than 12") on a slab on grade foundation.

Case 10 - Two Story residential home on virgin soil with a stem wall foundation.

Case 11- Two Story residential home on fill material (less than 12") with a stem wall foundation.

Case 12 - Two Story residential home on fill material (more than 12") with a stem wall foundation.

## 8<sup>th</sup> (2023) Florida Building Code, Building

### CHAPTER 1 SCOPE AND ADMINISTRATION

**101.2 Scope.** The provisions of this code shall apply to the construction, *alteration*, relocation, enlargement, replacement, *repair*, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

**Exceptions:**

1. Detached one- and two-family *dwelling*s and multiple single-family *dwelling*s (*townhouses*) not more than three *stories above grade plane* in height with a separate *means of egress*, and their accessory structures not more than three *stories above grade plane* in height, shall comply with the *Florida Building Code, Residential*.
2. Code requirements that address snow loads and earthquake protection shall not be utilized or enforced.

## 8<sup>th</sup> (2023) Florida Building Code, Residential

### CHAPTER 1 SCOPE AND ADMINISTRATION

**R101.2 Scope.** The provisions of the *Florida Building Code, Residential* shall apply to the construction, *alteration*, movement, enlargement, replacement, repair, *equipment*, use and occupancy, location, removal and demolition of detached one- and two-family *dwelling*s and *townhouses* not more than three stories above *grade plane* in height with a separate means of egress and their *accessory structures* not more than three stories above *grade plane* in height.

### CHAPTER 4 FOUNDATIONS

**R401.2 Requirements.** Foundations shall be capable of resisting all loads from roof uplift and building overturn. Foundation uplift for light-frame wood or steel buildings shall be calculated or determined from Table R401.1. Masonry buildings within the dimensional scope of Table R401.1 shall be assumed to be of adequate weight so as not to require uplift resistance greater than that provided by the structure and any normal foundation. Foundation construction shall also be capable of accommodating all gravity loads in accordance with Section R301 and of transmitting the resulting loads to the supporting soil. Fill soils that support footings and foundations shall be designed, installed and tested in accordance with accepted engineering practice. Gravel fill used as footings for wood and precast concrete foundations shall comply with Section R403.

#### Staff Analysis

#### Question #1:

If I design the residential home foundation and fill soil to meet the requirements for Chapter 4 of the Florida Building Code, Residential, am I still required to design the foundation and fill soils to meet the requirements for Chapter 18 of the Florida Building Code, Building?

#### Answer:

The answer to the Petitioner's question is no. Pursuant to sections 101.2 of the 8<sup>th</sup> Edition (2023)

Florida Building Code (FBC), Building and section 101.2 of the 8<sup>th</sup> Edition (2023) FBC, Residential, design and construction of the foundations and fill soils in question are subject to the construction requirements of Chapter 4 of the 8<sup>th</sup> Edition (2023) FBC, Residential. The 8<sup>th</sup> Edition (2023) FBC, Residential is a stand-alone sub-code and there is no specific code requirement which mandates compliance with Chapter 18 of the FBC, Building in addition to that of Chapter 4 of the FBC, Residential.