

# Origination Form

## Specifications

<b>Name:</b>	Ben Goldsberry	<b>Specification Number:</b>	415-5 Placing and Fastening
<b>Email:</b>	ben.goldsberry@dot.state.fl.us	<b>Associated Specs:</b>	None.
<b>Date:</b>	2024-06-24T21:37:18Z	<b>Verified:</b>	VERIFIED

### Summary:

Concrete blocks are already allowed to support reinforcing steel and to maintain cover on side forms. The change to cube dimensions equal to the Plan concrete cover will provide more stability and prevent toppling of the blocks. Other updates are made for consistency throughout 415-5 subsections.

### Justification:

The change to cube dimensions equal to the Plan concrete cover will provide more stability and prevent toppling of the blocks. This change was coordinated through the FTBA/FDOT Structures Committee.

### Do the changes affect other types of specifications?

Neither

### List Specifications Affected:

Other Affected Documents/Offices	Contacted	Yes/No
Other Standard Plans		No
Florida Design Manual		No
Structures Manual		No
Basis of Estimates Manual		No
Approved Product List		No
Construction Office		No
Maintenance Office		No
Materials Manual		No
Traffic Engineering Manual		No

**Are changes in line with promoting and making progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?**

This change improves construction quality.

**What financial impact does the change have; project costs, pay item structure, or consultant fees?**

No financial impact.

**What impact does the change have on production or construction schedules?**

No impact to production or construction schedules.

**How does this change improve efficiency or quality?**

This change improves construction quality by preventing the toppling of concrete blocks used to support reinforcing steel and maintain cover on side forms.

**Which FDOT offices does the change impact?**

Construction.

**What is the impact to districts with this change?**

No impact to districts.

**Does the change shift risk and to who?**

This change does not shift risk.

**Provide summary and resolution of any outstanding comments from the districts or industry.**

Comments and Responses are available on the Track the Status of Revisions hyperlink located on the Specifications landing page: <https://www.fdot.gov/programmanagement/Specs.shtm>

**What is the communication plan?**

Through the established specification revision process (e.g., Internal and Industry Review)

**What is the schedule for implementation?**

The Standard Specifications eBook and Workbook are effective July 1st every year.

## REINFORCING FOR CONCRETE (REV 6-24-24)

SUBARTICLE 415-5.5 is deleted and the following substituted:

### 415-5.5 Footings:

**415-5.5.1 Supports:** Support footing mat reinforcing with approved bolsters or concrete blocks having cube dimensions equal to the Plan concrete cover not greater than 4 by 4 inches by plan clearance. Fasten concrete blocks to the reinforcing steel using the cast-in wires.

**415-5.5.2 Tolerances:** Place footing mat reinforcing within 1/2 inch vertically from the plan bottom clearance and within 1 inch from the plan side clearance.

**415-5.5.3 Tying:** Tie footing mat reinforcing with a double-strand single tie at all intersections on the periphery and at alternate intersections within the mat.

SUBARTICLE 415-5.7.1 is deleted and the following substituted:

**415-5.7.1 Spacing-off from Side Forms:** Space column reinforcing bars from the side forms with by concrete blocks having cube of dimensions equal to the Plan concrete cover not exceeding 2 inches by 2 inches by clearance dimension. Securely ~~f~~Fasten concrete each blocks to the reinforcing using the cast-in wires.

SUBARTICLE 415-5.8.1 is deleted and the following substituted:

**415-5.8.1 Supports:** Space wall reinforcing bars from the side forms with by concrete blocks having cube of dimensions equal to the Plan concrete cover not greater than 2 inches by 2 inches by clearance dimensions. Fasten concrete blocks to the reinforcing using the cast-in wires. Fix the spacing between wall mats by means satisfactory to the Engineer.

ARTICLE 415-5.9 is deleted and the following substituted:

### 415-5.9 Beams~~Pier~~ and Bent Caps:

**415-5.9.1 Supports:** ~~Support~~Maintain bottom reinforcing with clearances by approved heavy beam bolsters or concrete blocks. ~~Support additional layers of main longitudinal reinforcing bars from the lower layers by heavy upper beam bolsters, placed directly over low supports.~~

~~Begin the spacing of beam bolsters or concrete blocks at not more than 2 feet from the end of the beams or caps and space the additionally required bolsters at not more than 4 feet.~~

~~Space side reinforcing from the side forms by concrete blocks. Use concrete blocks with cube, having dimensions equal to the Plan concrete cover not greater than 2 inches by 2 inches by specified clearance, fastened to the reinforcing bars by the cast-in wires, for spacing the upper main longitudinal bars below the top bars. Maintain the side~~

~~clearance by concrete blocks, having dimensions not greater than 2 inches by 2 inches by required clearance, fastened to the reinforcing bars by the cast-in wires.~~

**415-5.9.2 Tolerances:** Place the main longitudinal reinforcing bars so as to provide a bottom and top clearance within 1/4 inch of the plan vertical dimensions for all layers. Space the bars from side forms within 1/2 inch of the specified spacing.

Place stirrups within 1 inch of the plan position for each individual stirrup and do not allow the tolerance to accumulate.

**415-5.9.3 Tying:** Tie all intersecting bars with a double-strand single tie.