



Concrete Structures – General – Construction – Preparation

Revision and Approval

Revision	Date	Nature of Changes	Approved By
0	01-18-2019	Original issue.	Steve Altman

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Background

This process establishes Structure Construction (SC) Quality Assurance (QA) roles and responsibilities for preparation of footings for concrete placement, constructing and removing forms for concrete surfaces, and the design and installation of permanent steel deck forms.

The condition of the forms contributes to the aesthetics of the finished surface of the concrete, so it is important to discuss forms with the Contractor prior to installation.

Process Inputs

1. Completed footing excavation
2. Existing concrete surface to be roughened
3. Structure elements ready for form placement
4. Structure elements ready for form removal
5. Authorized locations ready for permanent steel deck form placement
6. Submittals: [BCM 51-1.01](#) *Concrete Structures – General*

Procedure

1. All work associated with this process is charged as [Project-Direct – Construction](#).
2. Inspection of field work for this process is:
 - a. [Continuous](#) inspection while footings are excavated, placement and removal of forms.
3. Before Construction Begins:

- a. Review and follow safety instructions in the project's Code of Safe Practices (COSP).
 - b. Forms:
 - i. Determine whether changes in the footing dimensions or elevations are needed. If changes are needed, contact Structures Design to issue a Change Order.
 - ii. See [Foundation Manual Chapter 4-8](#), *Foundation Problems and Solutions*, and the Final Foundation Report in the RE Pending File.
 - iii. Verify the orientation of the excavated area for footing construction.
 - iv. Verify methods of controlling water per 2018 Standard Specifications (SS), Section 13, [Water Pollution Control](#)
 - v. Verify that existing concrete surfaces are roughened.
 - vi. Request form design submittal from the Contractor if needed¹.
 - vii. Discuss with the Contractor contract requirements and aesthetic expectations for conditions. Inform the Contractor that any form deficiencies must be corrected prior to concrete placement.
 - viii. Discuss with the Contractor the anticipated rate of concrete placement.
 - c. Permanent Steel Deck forms:
 - i. Discuss design, installation, and repair requirements with the Contractor.
 - ii. Review and authorize shop drawings, see [BCM 51-1.01C\(2\)](#), *Concrete Structures – General – Submittals – Permanent Steel Deck Forms*.
4. During Construction:
- a. Verify safe access for inspection is provided by the Contractor.
 - b. Forms:
 - i. Verify that forms, materials, and construction meet all contract requirements.
 - ii. Verify form dimensions and orientations.
 - iii. Verify forms remain at the line and grade constructed during concrete placement. Check for form blow out.
 - iv. Verify that the Contractor complies with contract requirements where form removal is required.
 - c. Permanent Steel Deck forms (if specified):
 - i. Inspect and field release Permanent Steel Deck Forms once they arrived on the jobsite.

¹ [2018 SS](#), Section 51-1.01C(1), *Concrete Structures – General – Submittals – General*

- ii. Request assistance from Materials Engineering and Testing Services, if necessary, on field releasing this material. Document field release using [Form CEM 4102](#), *Material Inspected and Released on Job*.
 - iii. Verify that the galvanized form surfaces are not damaged before installation. If they are damaged, the Contractor must repair per contract requirements.
 - iv. Verify placement of steel deck forms².
 - d. Document all inspection, construction, and quality assurance activities in the Daily Reports per [BCM C-4.04](#), *Daily and Weekly Reports*.
5. Following Construction:
- a) Complete and submit all daily reports to the SR.
 - b) Calculate and make payment to the Contractor.
 - c) Complete and file all reports including daily, weekly, and monthly.
 - d) Complete As-Built changes as necessary.

Process Outputs

- 1. Daily reports:
 - a. Customers: Districts
 - b. Customer Expectations: Prompt and accurate
- 2. Forms are inspected and are ready for concrete placement:
 - a. Customers: All interested parties
 - b. Customer Expectations: Structure component built to line and grade, conformance with contract drawings, aesthetics

Attachments

[Attachment 1, Form Panels](#)

² [2018 SS](#), Section 51-1.03C(2)(c)(iii), *Concrete Structures – Construction – Preparation – Forms – Permanent Steel Deck Forms – Installation*