



Concrete Structures – General – Finishing Concrete

Revision and Approval

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

[Click here](#) for previous versions

Background

This process establishes Structure Construction (SC) responsibilities and procedures for finishing concrete, including ordinary surface finish, Class 1 surface finish, and Class 2 surface finish.

Concrete surface finish is what the travelling public and other interested parties see, and they judge the quality of the structure based on the quality of the concrete surface finish.

Process Inputs

1. Authorized Concrete Mix Design
2. Contractor's Forming System workplans
3. Contractor's Concrete Placement Plan

Procedure

1. All work associated with this process is charged as [Project-Direct – Construction](#).
2. Inspection of field work for this process is:
 - a. [Intermittent](#) inspection
3. Before construction begins:
 - a. Review and follow safety instructions in the project's Code of Safe Practices (COSP).
 - b. Discuss with the Contractor the factors which affect the final finishing of concrete surface (Form design, materials, method of construction, concrete mix design, mitigations for any potential severe weather, etc.).

- c. Discuss applicable surface finish criteria (Ordinary, Class 1 or Class 2) and locations where each applies with the Contractor.
 - d. Discuss with the Contractor the proposed means and methods for achieving each surface finish requirements.
 - e. Discuss the Contractor's concrete placement, curing concrete, and forms removal plans since these activities contribute to the final surface finish.
4. During construction:
- a. Verify safe access for inspection is provided by the Contractor.
 - b. Verify pour rate and ensure proper concrete consolidation.
 - c. Verify concrete for exposed surfaces have been consolidated, struck off, and properly cured.
 - d. Monitor concrete forms for potential failure. Verify failures are repaired before finishing concrete placement.
 - e. When forms are removed, verify concrete is cured properly, inspect concrete surfaces, and if there are rock pockets, mark the limits of rock pockets that require removal and replacement of concrete.
 - f. Verify that ordinary surface finish has been complete.
 - g. Verify that Class 1 or Class 2 surface finishes are applied per the location per contract requirements.
 - h. In the field, request a test area for Class 1 and Class 2 surface finishes to be used as the acceptance criteria.
 - i. Document and elevate any disagreement on surface finish to be resolved as soon as possible.
 - j. Structure Representative discuss and agree on surface finish with Bridge Construction Engineer to limit any potential claims.
 - k. Verify that the entire area achieves the required Class 1 or Class 2 surface finish.
 - l. Document with photos from various angles.
5. Following Construction:
- a. Discuss lesson learned with the Contractor and staff.
 - b. Document all inspection, construction, and quality assurance activities in the Daily Reports per [BCM C-4.04](#), *Daily and Weekly Reports*.
 - c. Calculate and make payment to the Contractor.

Process Outputs

1. Finished Concrete Surface:

- a. Customers: All interested parties
 - b. Customer Expectations: Aesthetically pleasing, meets contract requirements
2. Daily Reports:
- a. Customers: Districts
 - b. Customer Expectations: Prompt and accurate
3. Photos:
- a. Customers: All interested parties
 - b. Customer Expectations: Awards, marketing, news, lesson learned, etc.

Attachments

None