

SC – BRIDGE CONSTRUCTION MEMO C-15 VOLUME I, SECTION C, SC PROJECT DIRECT CONSTRUCTION PROCESSES PAGE 1 OF 5

Shop Drawing and Submittal Review

Revision and Approval

Revision	Date	Nature of Changes	Approved By
0	10-17-2025	Original issue	John Lammers

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Contact SC Technical Team P for questions

Background

This process establishes Structure Construction (SC) roles, responsibilities, and procedures for the review and authorization or rejection of submittals, shop drawings, and where required calculations; this includes the required coordination with other Division of Engineering Services (DES) subdivisions and Structures Maintenance and Investigations (SM&I). Note that this Bridge Construction Memo (BCM) C-15, *Shop Drawing and Submittal Review*, does not apply to temporary structure shop drawings, which are covered in BCM C-11, *Shop Drawing Review of Temporary Structures*.

SC staff perform an independent review of contractor-submitted shop drawings and submittals required by the *Contract Specifications*.

Additional unique requirements for the review and authorization of shop drawings are detailed in:

• <u>Contract Specifications</u> Section 5-1.23, Control of Work – Submittals

Prior to reviewing this BCM, it is essential to review any policy documents referenced above. The information in the policy document(s) typically will not be repeated in the text of this BCM.

Process Inputs

- 1. Contractor's submittals, including, but not limited to:
 - a. Submittals, including shop drawings, that require review by the Bridge Design Project Engineer, the SM&I Project Engineer, or the Project Architect in accordance with the contract documents (e.g., prestressing, precast elements).
 - b. Submittals, including shop drawings, that require review by the Structure Representative in accordance with the contract documents.

Procedure

All work associated with this process is charged as <u>Project Direct – Construction</u>¹.

2. SC staff:

- a. When the Contractor's submittals are received, the Structure Representative (SR) performs an initial review for completeness. If the submittal is a shop drawing that is submitted to the SC Office Associates mailbox, the Office Associate (OA) will verify that the drawings only apply to one structure per Standard Specification 5-1.23, Control of Work – Submittals. If the submittal does not have all the required information, then the SR will return it to the Contractor for correction and resubmittal.
- b. The SR, and where applicable the OA, will review the contract documents and the published list of submittals, to see if the Project Engineer from Bridge Design/SM&I, the Project Architect, or the SR is responsible for the authorization or rejection of the submittal. Step 2.d describes the process when the SR is the responsible reviewer.
- c. If the Bridge Design Project Engineer (PE), the SM&I PE or the Architect is responsible for the authorization or rejection of the submittal, follow the process outlined in step 2.c.i 2.c.vi.
 - After the Office Associate receives the digital shop drawing and/or submittal e-mail in the OA mailbox, the review process includes the following:
 - 1. The OA will confirm if the Bridge Design PE, the SM&I PE or the Project Architect is responsible for authorizing/rejecting the shop drawing submittal. See step 2.a above for additional submittal details.

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- 2. The OA will then log the submittal and distribute a digital copy of the submittal to the appropriate DES and related functional units, which may include:
 - a. Bridge Design PE (or Office of Special Funded Projects (OSFP) PE for oversight design projects)
 - b. SM&I PE (under the Division of Maintenance)
 - c. Structures & Engineering Services Office of Transportation Architecture (SES OTA) Project Architect
 - d. SC Structure Representative
 - e. METS Representative (if applicable)
 - f. Geotechnical Services (GS) Geoprofessional (if applicable)
 - g. SES Office of Design & Technical Services Technical Specialist (if applicable).
- 3. The lead for the review, and the other recipients of the submittal distribution, will review the submittal in accordance with the contract documents. Comments from all reviewers are then sent directly back to the lead reviewer. If the lead reviewer agrees with the comments, they will be incorporated into the submittal comments. The lead reviewer will provide the SR with the stamped authorized or rejected submittal with comments.
 - a. Review BD's <u>Bridge Design Processes and Procedures Manual</u>¹ (BDPPM) Section 4.5, *Shop Drawings*, for additional details.
- ii. The submittal review process will follow the electronic shop drawing submittal distribution flowchart for State designed and locally funded projects. Note that this resource can be found on the SC homepage, under the "Field Resources" tab, via the hyperlink titled "Shop Drawings SS and Flowchart".
- iii. The SR must review the relevant specifications to confirm the shop drawing review duration, and consider the following:
 - 1. All submittal reviews must be completed within the contract required review duration. If the submittal is deemed incomplete, promptly return the submittal to the Contractor and stop the review clock.
 - 2. Late return of the submittal to the Contractor can potentially lead to a delay in the critical path of the project; the SR must verify that the contract review durations are not exceeded.

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- 3. When multiple submittals are received at the same time, or close together, the SR should contact the Contractor to confirm the review priority in accordance with Section 5-1.23, *Control of Work Submittals*, of the *Contract Specifications*.
- iv. If the Contractor requests an expedited review of the submittal, the SR should track any time savings to the project's critical path. If time on the critical path is saved by an expedited review process, the State may be entitled to Department-owned float as outlined in the specifications.
- v. The SR will send, via email, a copy of the completed review of the submittal to the OA mailbox for filing in VISION. Once received, the OA will update the review disposition in the submittal log. The typical status of the reviewed submittal will be "authorized", "authorized as noted", or "rejected".
 - 1. For authorized and/or as-built shop drawings, follow the transmittal procedures outlined in the attachments of <u>BCM C-6</u>, *Required Documents to be Submitted During Construction*.
- vi. The SR will send a transmittal letter with the shop drawing submittal to the Contractor once the review is complete.
- d. For shop drawing submittals where the SR is the lead reviewer, the SR will perform a review of the submittal in accordance with the contract documents. The SR can request review assistance from the appropriate functional unit(s) from 2.c.i.2, above. If the submittal has railroad involvement, see step 2.d.i. below; otherwise skip to step 2.d.ii.
 - i. For submittals with railroad involvement, the SR will coordinate with the SC Falsework Engineer¹ who also acts as the railroad liaison for SC. The SR must verify that the submittal(s) meet the contract and railroad requirements prior to sending them to the railroad liaison for review. The railroad liaison will then forward the submittal to the railroad for review and railroad approval. After the railroad reviews it, the railroad will send it back to the railroad liaison with their approval or comments as needed. Upon railroad approval, the SR sends the stamped authorized shop drawings to the Contractor and the SC Office Associates.
 - ii. The SR must review the relevant specifications to confirm the shop drawing review duration, and consider the following:
 - 1. All submittal reviews must be completed within the contract required review duration. If the submittal is deemed incomplete, promptly return the submittal to the Contractor and stop the review clock.

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- 2. Late return of the submittal to the Contractor can potentially lead to a delay in the critical path of the project; the SR must verify that the contract review durations are not exceeded.
- 3. When multiple submittals are received at the same time, or close together, the SR should contact the Contractor to confirm the review priority in accordance with Section 5-1.23, *Control of Work Submittals*, of the *Contract Specifications*.
- iii. If the Contractor requests an expedited review of the submittal, the SR should track any time savings to the project's critical path. If time on the critical path is saved by an expedited review process, the State may be entitled to Department-owned float as outlined in the specifications.
- iv. The SR will send a transmittal letter with the "authorized", "authorized with comments", or "rejected" shop drawing submittal to the Contractor, once the review is complete.

3. SC Supervisor:

- a. Confirm that the Structure Representatives are following the established submittal and review procedure.
- b. Discuss with the Structure Representatives if there are any submittal reviews or expedited submittal reviews that require overtime or additional reviewers. Preauthorize overtime or additional review help as needed to return the submittals in a timely manner.

4. SC Managers:

 Confirm SC Supervisors and SC staff are following the established review procedure.

Process Outputs

- 1. Authorized shop drawings and/or submittals
- 2. Transmittal letter

Attachments

None