



# Wood and Plastic Lumber Structures – Plastic Lumber Structures

## Revision and Approval

Revision	Date	Nature of Changes	Approved By
0	05-31-2022	Original Issue	Richard Foley

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Contact [SC Technical Team H](#) for questions

## Background

This process establishes Structure Construction (SC) responsibilities and procedures for review and authorization of submittals, quality assurance, materials, and construction of plastic lumber structures.

Plastic lumber is typically used as secondary members in structures and is generally installed in accordance with manufacturer's instructions.

Prior to reviewing this Bridge Construction Memo (BCM), it is essential to review the [Contract Specifications](#), Section 57-3, *Wood and Plastic Lumber Structures – Plastic Lumber Structures*, which this BCM is based on as identified in the title block above. The information in the contract specifications typically will not be repeated in the text of this BCM.

## Process Inputs

1. [Form CEM-3101](#), *Notice of Materials to be Used*
2. [Form TL-0029](#), *Report of Inspection of Materials*
3. Per contract specifications, submittals include:
  - a. Product Data
  - b. Certificates of Compliance accompanied by a laboratory test report
  - c. Test samples for void testing

- d. Results of stiffness tests
- e. Plastic lumber shop drawings

## **Procedure**

1. All work associated with this process is charged as [Project Direct – Construction](#)
2. Inspection of field work for this process is:
  - a. [Benchmark](#) for inspection of plastic lumber delivered to the job site.
  - b. [Intermittent](#) for inspection of construction of plastic lumber structures.
3. Before construction begins:
  - a. Review the following:
    - i. [Contract documents](#)
    - ii. *Construction Manual*, Chapter 4, *Construction Details*, [Section 57](#), *Wood and Plastic Lumber Structures*.
  - b. Discuss the following with Materials Engineering and Testing Services (METS) Representative Form CEM-3101, *Notice of Materials to be Used*, and Form TL-0029, *Report of Inspection of Material*, regarding any plastic lumber materials to be inspected and released.
    - i. Review requirements of stiffness test (prior to shipment) to job site and void testing (after delivery) and agree on release process of material. Note that:
      1. METS will witness the stiffness testing at an authorized laboratory prior to job site delivery.
      2. If void testing is satisfactory, SC field staff will field release material using [Form CEM-4102](#), *Materials Inspected and Released on Job*.
  - c. Discuss testing requirements with the contractor and METS Representative.
  - d. Review and authorize (or reject for resubmittal) the following submittals:
    - i. Product data
    - ii. Certificates of Compliance accompanied by a laboratory test report
    - iii. Test samples for void testing
    - iv. Results of stiffness tests
    - v. Plastic lumber shop drawings
4. During construction:

- a. Inspect and field-release plastic lumber materials conforming to the contract documents utilizing Form CEM-4102, *Materials Inspected and Released on Job*, as follows:
    - i. Verify that stiffness testing of material delivered has been completed and obtain documentation of the same.
    - ii. Select samples and perform void testing per contract specifications.
  - b. Collect Form TL-0624, *Inspection Release Tag*, commonly referred to as orange tags, and attach to the associated with Form TL-0029 for any plastic lumber materials released by METS.
  - c. Follow safety requirements in the Safety Data Sheets and Code of Safe Practices when working with plastic lumber materials.
  - d. Verify installation procedures for plastic lumber elements are in accordance with the requirements of the contract documents, authorized shop drawings, and manufacturer's instructions.
  - e. Maintain summaries of construction materials incorporated into the project.
  - f. Document all inspection, construction, and quality assurance activities in the Daily Reports per [BCM C-7](#), *Daily and Weekly Reports*.
5. Following construction:
- a. File all project documentation (correspondence, materials acceptance documentation, Daily Reports, etc.) in the appropriate category in the project records as specified in the *Construction Manual*, [Section 5-102](#), *Organization of Project Documents*.
  - b. Submit final Shop Drawing as-builts to SC-HQ office, per [BCM C-6](#), *Required Documents to be Submitted During Construction*.

## **Process Outputs**

1. Authorized plastic lumber submittals
2. Form TL-0029, *Report of Inspection of Material*, and associated orange tags
3. Form CEM-4102, *Material Inspected and Released on Job*
4. Daily Reports

## **Attachments**

None