Temporary Structures – Jacking Superstructure – Construction

Revision and Approval

Revision	Date	Nature of Changes	Approved By
0	04-22-2019	Original issue.	Steve Altman

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Background

This process establishes Structure Construction (S.C.) responsibilities and procedures for installation and removal of jacking support systems.

This process is generally used for lowering a bridge superstructure constructed above grade into its final position.

Additional unique requirements for jacking superstructures are detailed in:

- Bridge Construction Memo (B.C.M.) 48-2.03, *Temporary Structures – Falsework – Construction.*
- B.C.M. 48-5.01C, *Temporary Structures – Jacking Superstructure – Submittals.*
- B.C.M. 48-5.01D, *Temporary Structures – Jacking Superstructure – Quality Assurance.*

Prior to reviewing this B.C.M., it is essential to review the *Contract Specification*, Section 48-5.03, *Temporary Structures - Jacking Superstructure- Construction*, applicable to your specific project, that this B.C.M. 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 B.C.M.

Process Inputs

1. Authorized Jacking Support System Submittals per B.C.M. 48-5.01C, *Temporary Structures – Jacking Superstructure - Submittals*
2. Jack/Pressure Gauge Calibration Charts
3. Load cell calibration documents
4. Completed initial survey for displacement monitoring

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 for all jacking operations.
3. Before construction begins:
   a. Review authorized jacking support system submittals:
      i. Discuss the redundant system of support for jacking activities with the Contractor.
   b. Coordinate traffic control and local agency requirements with the Resident Engineer and the Contractor.
   c. Discuss safety requirements and operational protocols per the project-specific Code of Safe Practices (C.O.S.P.) with S.C. staff assigned to the operation.
   d. Verify jack and pressure gauge or load cell have been calibrated within 6-months of use or repair by an authorized laboratory.
   e. Verify that the railroad or other right of way entities have been informed of the Contractors proposed schedule for the jacking operation.
4. During construction:
   a. Verify the Contractor's jacking system matches the certified calibration charts per B.C.M. 48-5.01D, *Temporary Structures – Jacking Superstructure – Quality Assurance*.
   b. During installation of temporary jacking supports, confirm that the Contractor is following the requirements of the authorized temporary jacking supports submittal.
   c. Coordinate final walk through with the Bridge Construction Engineer prior to jacking.

d. Verify that the jacking loads are applied in conformance with the authorized temporary jacking supports submittal and requirements of the contract documents.

e. Verify that the Contractor performs displacement monitoring activities per B.C.M. 48-5.01D, *Temporary Structures – Jacking Superstructure – Quality Assurance*, and the authorized temporary jacking supports submittal.

f. Monitor the jacking system for unplanned activities, including excessive displacement, equipment failures or unanticipated jack loads, per the authorized shop drawing. Ensure that the Contractor and operations comply with applicable safety requirements. Refer to *Construction Manual*, Section 2-103, *Managing Safety Hazards*.

g. During removal of the temporary jacking supports, confirm that the Contractor is following the requirements of the temporary jacking supports submittal.

h. Verify that all attachments are removed, and concrete surfaces are repaired.

i. Document all inspection, construction, and quality assurance activities in the Daily Reports per B.C.M. C-4.04, *Daily and Weekly Reports*.

j. Review and file all displacement monitoring records and Daily Reports in the appropriate category in the project records as specified in the *Construction Manual*, Section 5-102, *Organization of Project Documents*.

k. Monitor the structure for unanticipated displacements, cracking or damage, and authorize corrective measures.

Process Outputs

1. Daily Reports
2. Displacement monitoring records

Attachments

None