

ORIGINATION FORM

Date: **11/19/12**

Originator: **Dan Hurtado**

Contact Information: **(850) 414-4155, dan.hurtado@dot.state.fl.us**

Specification Title: **Control of the Work**

Specification Section, Article, or Subarticle Number: **5-1.4.5.6, 5-1.4.5.7, 5-1.5**

Why does the existing language need to be changed? **To revise the inspection and design requirements of temporary works affecting public safety**

Summary of the changes: **Allow designees of Specialty Engineers to inspect certain temporary works, add design requirements to temporary works affecting public safety, reduce inspection frequency for temporary girder bracing systems, eliminate requirement for an erection plan for simple span Category 1 concrete bridges**

Are these changes applicable to all Department jobs? **Yes**

If not, what are the restrictions?

Will these changes result in an increase or decrease in project costs? **Negligible**

If yes, what is the estimated change in costs?

With who have you discussed these changes? **Rudy Powell, Steven Plotkin, Charles Boyd, Tom Andres**

What other offices will be impacted by these changes? **Structures Design, Construction**

Are changes needed to the PPM, Design Standards, SDG, CPAM or other manual? **Changes to the SDG have already been made.**

Is a Design Bulletin, Construction Memo, or Estimates Bulletin needed? **No**

Contact the State Specifications Office for assistance in completing this form.

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ANANTH PRASAD, P.E.
SECRETARY

MEMORANDUM

DATE: December 14, 2012
TO: Specification Review Distribution List
FROM: Trey Tillander, State Specifications Engineer
SUBJECT: Proposed Specification: **0050104(2) Control of the Work.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Dan Hurtado of the State Construction Office to revise the inspection and design requirements for temporary works affecting public safety.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or to my attention via e-mail at SP965TT or trey.tillander@dot.state.fl.us. Comments received after **January 11, 2013**, may not be considered. Your input is encouraged.

TT/dt
Attachment

CONTROL OF THE WORK.**(REV 11-19-12)**

SUBARTICLE 5-1.4.5.6 (of the Supplemental Specifications) is deleted and the following substituted:

5-1.4.5.6 Formwork and Scaffolding: The Contractor is solely responsible for the safe installation and use of all formwork and scaffolding. The Department does not require any formwork or scaffolding submittals unless such work would be classified as Construction Affecting Public Safety. *For formwork, scaffolding, or other temporary works affecting public safety, develop the required designs in accordance with the AASHTO Guide Design Specifications for Bridge Temporary Works, ~~and~~ the AASHTO Construction Handbook for Bridge Temporary Works, and Chapter 11 of the Structures Design Guidelines (SDG) using wind loads specified in the ~~(SDG)~~.*

SUBARTICLE 5-1.4.5.7 (of the Supplemental Specifications) is deleted and the following substituted:

5-1.4.5.7 Beam and Girder Temporary Bracing: The Contractor is solely responsible for ensuring stability of beams and girders during all handling, storage, shipping and erection. Adequately brace beams and girders to resist wind, weight of forms and other temporary loads, especially those eccentric to the vertical axis of the products, considering actual beam geometry and support conditions during all stages of erection and deck construction. At a minimum, provide temporary bracing at each end of each beam or girder. Develop the required bracing designs in accordance with the AASHTO LRFD Bridge Design Specifications (LRFD) *and Chapter 11 of the Structures Design Guidelines ~~(SDG)~~* using wind loads specified in the ~~Structures Design Guidelines (SDG)~~. For information not included in the SDG or LRFD, refer to the AASHTO Guide Design Specifications for Bridge Temporary Works and *the AASHTO Construction Handbook for Bridge Temporary Works.*

SUBARTICLE 5-1.5 (of the Supplemental Specifications) is deleted and the following substituted:

5-1.5 Certifications:

5-1.5.1 Special Erection Equipment: Prior to its use, ensure that the Specialty Engineer personally inspects the special erection equipment and certifies to the Engineer in writing that the equipment has been fabricated in accordance with the submitted drawings and calculations. In addition, after assembly, ensure that the Specialty Engineer observes the equipment in use and certifies to the Engineer in writing that it is being used as intended and in accordance with the submitted drawings and calculations. In each case, ensure that the Specialty Engineer also signs and seals the letter of certification.

5-1.5.2 Falsework and Shoring Requiring Shop Drawings: After its erection or installation but prior to the application of any superimposed load, ensure that ~~at~~ the Specialty Engineer *or a designee personally* inspects the falsework and certifies to the Engineer in writing

that the falsework has been constructed in accordance with the materials and details shown on the submitted drawings and calculations. Ensure that the Specialty Engineer also signs and seals the letter of certification. *Where so directed in the Shop Drawings, ensure all welds are performed by welders qualified under AWS- D1.5 for the type of weld being performed.*

5-1.5.3 Temporary Formwork: For Construction Affecting Public Safety and for Major and Unusual Structures, prior to the placement of any concrete, ensure that ~~at the~~ Specialty Engineer *or a designee* inspects the formwork and certifies to the Engineer in writing that the formwork has been constructed to safely withstand the superimposed loads to which it will be subjected. Ensure that the Specialty Engineer signs and seals the letter of certification.

5-1.5.4 Erection: For Construction Affecting Public Safety, submit an erection plan signed and sealed by the Specialty Engineer to the Engineer at least four weeks prior to erection commencing. Include, as part of this submittal, signed and sealed calculations and details for any falsework, bracing or other connections supporting the structural elements shown in the erection plan. *Unless otherwise specified in the Plans, erection plans are not required for simple span precast prestressed concrete girder bridges with spans of 170- feet or less.*

At least two weeks prior to beginning erection, conduct a Pre-erection meeting to review details of the plan with the Specialty Engineer that signed and sealed the plan, *and* any Specialty Engineers that may inspect the work and the Engineer.

After erection of the elements, but prior to opening of the facility below the structure, ensure that a Specialty Engineer *or a designee* ~~that is qualified to inspect temporary works~~ has ~~personally~~ inspected the erected members. *Ensure that the Specialty Engineer has and* certified to the Engineer that the structure has been erected in accordance with the signed and sealed erection plan.

~~Perform daily inspections of the erected structural systems.~~ For structures without temporary supports but with temporary girder bracing systems, perform, *as a minimum, weekly* inspections *of the bracing* until all the diaphragms and cross frames are in place. For structures with temporary supports, perform *daily* inspections until the temporary supports are no longer needed as indicated in the erection plans. Provide written documentation of the inspections to the Engineer within 24 hours of the inspection.