

SECTION 29 – SHOP PLANS & FALSEWORK DRAWINGS

29.1 GENERAL *(Rev. 01-21-14)*

The Department will allow the Contractor to submit electronic copies of design calculations and shop drawings for approval in lieu of printed copies. Every submittal must include the contract number, contractor's name, and contact person with contact information. All drawings and calculations should be submitted in the contract units, English or metric. Dual units are acceptable.

For LPA projects, review of all shop drawings and other items listed herein are the responsibility of the LPA or their designated representative with the exception that MSE design calculations and deck pour sequences should be forwarded to INDOT for review as indicated herein. Contractors on LPA projects are to submit shop drawings and falsework plans as directed by the LPA. Once shop drawings for structural members have been approved by the LPA or LPA's representative, a copy should be forwarded to INDOT as indicated herein. Questions about LPA procedures should be directed to the District Local Projects Administrator.

For design-build contracts, responsibilities and procedures for shop drawing review and approval is typically described in the design-build contract documents.

For State projects, the following procedures have been implemented for submittal and review of shop plans, falsework drawings and related items as described below. Regardless of the submittal process described below, it is the intent that contractors communicate directly with the PE/S to keep them informed of the status of submittals. If the District has any concerns about the structural integrity of any shop plans submitted with a P.E. stamp, they should contact their Division of Construction Management and District Support Field Engineer for further assistance.

29.2 STRUCTURAL MEMBERS & ITEMS *(Rev. 01-21-14)*

For LPA contracts, shop plans for structural members and items are to be submitted to the LPA or their designated representative for review and approval. Since INDOT is responsible for fabrication inspection of structural members, upon completion of the shop drawing review, the LPA or their representative should forward an electronic copy of the approved shop drawings to INDOT Division of Bridges.

For State contracts, shop plans for the following items are to be submitted by the fabricator or supplier directly to Burgess & Niple, Inc. for review and approval. Shop plans must be in accordance with the applicable specifications. These items do not require a P.E. stamp for submittal.

- Structural steel & structural concrete members
- Modular expansion joints
- S-S joints
- Elastomeric bearings

For submittal process information for Burgess & Niple, contact Joe Foster at joe.foster@burgessniple.com or 317-237-2760. Burgess & Niple will send approved shop plans to the INDOT Division of Bridges for distribution to the District Construction office.

29.3 MSE WALLS *(Rev. 01-21-14)*

Shop plans and calculations for Mechanically Stabilized Earth retaining walls are to be submitted by the contractor or fabricator directly to the designer of record for review and approval. MSE shop plans and calculations must be stamped by a P.E. Upon receipt, the designer should forward an electronic copy of the shop drawings and design calculations to the INDOT Office of Geotechnical Services. Include the contract number as part of the subject line. The INDOT Office of Geotechnical Services will review the design calculations and will provide comments back to the designer for inclusion in the response back to the contractor or fabricator. The designer will continue to provide the final approval of the MSE shop drawings and design calculations. The designer will attach a cover letter and send a copy of approved shop plans to the submitter and to the District Construction office for further distribution.

29.4 SOUND BARRIER SYSTEMS *(Rev. 01-21-14)*

Shop plans and calculations for sound barrier systems are to be submitted by the contractor or fabricator directly to the designer of record for review and approval. The plans and calculations must be stamped by a P.E. The designer will attach a cover letter and send a copy of approved plans and calculations to the submitter and to the District Construction office for further distribution.

29.5 PRECAST CONCRETE CULVERTS *(Rev. 01-21-14)*

Shop plans and design calculations for all precast concrete 3-sided culverts and precast concrete box culverts that have a dimension or design earth cover not listed in Table 1 of ASTM C 1577 are to be submitted to the INDOT Division of Highway Design and Technical Support for review and approval. Shop plans must be stamped by a P.E. The INDOT Division of Highway Design and Technical Support will distribute approved shop plans to the fabricator and District Construction office.

29.6 WELDED WIRE REINFORCEMENT *(Add. 01-21-14)*

Shop plans and design calculations for locations where the contractor proposes to substitute welded wire reinforcement in lieu of the reinforcing bars shown on the plans are to be submitted to the INDOT Division of Bridges for review and approval. Shop plans must be stamped by a P.E. The INDOT Division of Bridges will distribute approved shop plans to the contractor and District Construction office.

29.7 TRAFFIC ITEMS *(Rev. 01-21-14)*

All required shop plans for traffic items are to be submitted to the Department's Division of Highway Design and Technical Support for review and approval. The Division of Highway Design and Technical Support will distribute approved shop plans to the fabricator and District Construction office.

29.8 FALSEWORK AND TEMPORARY BRIDGE DRAWINGS *(Rev. 01-21-14)*

Falsework drawings for the following items are to be submitted to the PE/S. Each drawing must include the contract number, contractor's name and must be stamped by a P.E.

- Cofferdams
- Deck Falsework - temporary
- Coping falsework
- Falsework for reinforced concrete slab superstructures
- Falsework for hammerhead pier caps
- Designs for temporary bridges for runarounds

Temporary bridge design submittals must also include design calculations.

The PE/S will review drawings for compliance with the specifications and the specific job conditions only. The Division of Construction Management and District Support's Field Engineers are available for assistance on any of the above items. Questions should be directed thru the Area Engineer and District Construction office.

29.9 PERMANENT METAL DECK FORMS *(Rev. 01-21-14)*

Shop plans for permanent metal deck forms are to be submitted by the contractor to the District Construction office for review for compliance with the specifications and the specific job conditions only. Shop plans submitted by the contractor must be stamped by a P.E. The Division of Construction Management and District Support maintains a deck form calculation spreadsheet called "METAL DECK FORM CALC w attach" that can assist in review of metal deck forms on the Department's Y drive under:

Y:\Div.contracts&construction\metal deck form calc

29.10 FOUNDATION SEALS AND DECK POUR SEQUENCES *(Rev. 01-21-14)*

Requests for use of foundation seals not shown in the plans are to be submitted to the Division of Construction Management and District Support for review and approval. The submittal must include the contract number, contractor's name and indicate the location and dimensions of the seal. The Division will distribute approved requests.

Requests to revise planned deck pour sequences are to be submitted to the Division of Construction Management and District Support for review and approval. The submittal must include the contract number, contractor's name, indicate the original and proposed alternate sequence and pour rate. The Division will distribute approved requests.

29.11 STREAM CROSSINGS AND WORK BRIDGES *(Rev. 01-21-14)*

Proposals for stream crossings and work bridges for construction traffic are to be submitted to the District Construction office for review and approval. If the proposal varies from any of the contract's environmental permit conditions, the contractor must either amend the permits or obtain new permits from the appropriate agency.

29.12 MISCELLANEOUS *(Rev. 01-21-14)*

Shop plan submittals for miscellaneous items not covered by the above, i.e. – post tensioning plans, non-standard manholes, etc., should be submitted thru the PE/S. The PE/S should work thru the District Construction office and the Division of Construction Management and District Support to determine the approval process for these items.