**Supplemental Structural Engineering SOW Items**

1. Typical LTF project “structural features” include, but are not limited to: vehicular bridges, pedestrian and shared use path bridges, retaining walls, reinforced earth, sheet-piling and shoring, and building renovations.
2. Clearly identify any structural features to be designed by the Contractor’s Structural engineer, or a supplier’s structural engineer, not the project design engineer. “Working Drawings” and calculations must be submitted in accordance with VTrans Construction Spec section 105.03.
3. At final design, a qualified VT Licensed Professional Engineer shall seal drawings for all sheets detailing structural features, and provide structural calculations when requested.
4. Specific codes and design criteria used in the structural design are to be clearly defined on the appropriate structural drawing sheet. These should include: specific AISC, ACI, AASHTO or other codes governing the design and dead/ live/ wind loads (specify factored or unfactored), design speeds, HS vehicle loads, etc as appropriate.
5. Projects involving long span or cantilevered sign structures must include current VTRANS structural notes for these structures.
6. Unless specified otherwise on the plans, the design engineer shall detail all major structural connections and expansion/control joints. Shop welding and field bolting is preferred for steel connections. The fabricator may propose alternate designs, usually during the shop drawing phase.
7. Independent Quality Acceptance inspection (usually by a State of VT inspector) is required for certain structural welds (see spec. 506.05) and precast concrete (spec. 540.06). These inspections must be scheduled through the VTrans Structures or Materials and Research Section prior to shipping from the fabricator’s shop or the design engineer will be responsible to conduct the inspection. Clearly specify which group will be responsible for these inspections on the drawings. Contact your LTF Project Supervisor for additional information.
8. Note on drawings that certified lead abatement contractors and containment structures may be required, if lead based paint will be disturbed on an existing structure, even if areas are small. When appropriate, the design plans should define the limits of removal and the mechanism for payment (special provision, or incidental to another item).
9. Clearly describe the correct material finishes, particularly for steel (paint system, shop applied, galvanized, weathering, etc.). When appropriate, comment on the chemical compatibility between attached materials, and the need for isolating materials. (Ex: Chemically treated timber may react with steel.)
10. All exposed concrete shall be sealed, if exposed directly or indirectly to deicing salt or other corrosives. Add a note similar to the following: New concrete sidewalks shall NOT be exposed to any deicing salts within 8-10 weeks of placement, depending on the curing conditions.
11. Include clear references to borings, soils reports or other geotechnical information used for the design. Include notes describing any additional testing or exploration required and who is responsible for conducting it. Payment provisions for this additional testing, etc. should be clearly noted as well.