

Bid Specification - Bid Number 23-03

Bridge #15 Chess Road, Georges Twp. Fayette County PA.

Steel Beam Bridge Superstructure

This item shall consist of design, fabrication and delivery of all components and hardware required for the erection of a pre-engineered, all bolted, prefabricated steel beam bridge superstructure. Item shall include girders/stringers, diaphragms, bearing devices with anchor bolts, expansion devices, guiderail system on the bridge, and all bolts and hardware necessary for the installation of these specifications.

Steel bridge supplier/fabricator shall be certified for Advanced Steel Bridges by the American Institute of Steel Construction and shall have designed and constructed no less than 10 prefabricated steel beam, vehicular bridges in the last 2 years. Fabricator of bridge and flooring must also be PennDOT approved and listed in Bulletin 15.

Approximate size of structure to be 22'8" c/c bearing x 19'8" roadway width as per most recent current inspection drawings. Fabricator is responsible for visiting the site and taking accurate measurements to verify the required size and skew of the new superstructure. The new superstructure will be placed on existing abutments. The fabricator will be responsible for guaranteeing the new superstructure fits onto existing abutments. The depth of the superstructure and elevation of the existing roadway shall remain the same unless changes are agreed to by the municipality. Depth of structure and concrete deck shall not exceed 21".

The new superstructure shall be designed at inventory HS20, H20, PHL-93, TK527, ML80 and operating for P82 loading. Design shall be per PennDOT STLRFD standards. All design and fabrication to be done in accordance with PennDOT DM Part 4.

Supplier to furnish complete sets of stamped shop drawings and design calculations to the municipality for the structure 21 days after award. This will be provided to party responsible for installation of structure. Drawings shall be stamped by a professional engineer licensed in the state of Pennsylvania.

All steel to be domestic structural steel ASTM A-572. Structure and all components to be hot dip galvanized after fabrication as per ASTM A-123. Damage to hot dip galvanized coating resulting from welding, handling, or other factors shall be repaired in accordance with ASTM standard practice A-780. All bolts and fasteners shall be hot dip galvanized in accordance with ASTM specification A-123. Welding of any kind on any components will not be accepted. All connections, shop and field are to be bolted.

The supplier of the superstructure shall provide a written warranty against corrosion of the superstructure for a period of not less than 35 years.

Decking to be 3" x 9" 5 gauge, galvanized, structural corrugated deck designed for bolted connection to structure. Decking to be supplied in 18" x full roadway width panels. Deck to be designed for placement of concrete with rebar mat as recommended by bridge supplier.

Bridge supplier to provide deck design. Rebar to be supplied by bridge supplier.

3/8" backwall plate to be to be furnished.

Guiderail to be TL3 tubular rail. End treatments and transition sections furnished by township/county.

Delivery of structure shall be 8 – 10 weeks after approval of shop drawings. Bearing plates, anchor bolts will be furnished in advance, if needed, for incorporation into new beam seat and backwall. Delivery to be coordinated between supplier and townships installer.