

MICHIGAN
DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION
FOR
BRIDGE DECK REMOVAL ON STEEL BEAMS

BRG:KCK

1 of 2

APPR:REL:BMW:12-08-23
FHWA:APPR:12-21-23

a. Description. This work consists of removing and disposing of portions of the structure, including existing shear developers, as shown on the plans, and as directed by the Engineer.

b. Materials. None.

c. Equipment. Use equipment meeting the requirements of 712.03.A, except as modified herein.

Machine-mounted hydraulic or pneumatic equipment may be used in areas on the bridge decks between steel beams. For removal of superstructure concrete over steel beams, limit the impact energy of machine-mounted hydraulic or pneumatic hammers to a maximum rating of 2,000 foot-pounds. Do not allow the machine-mounted hydraulic or pneumatic hammers to contact the structural steel or shear developers.

Do not use machine-mounted hydraulic or pneumatic hammers to remove concrete over steel beams.

Use manual pneumatic hammers with a 60-pound maximum to remove concrete over steel beams.

d. Construction. Remove concrete in accordance with section 712 of the Standard Specifications for Construction, except as modified herein.

Do not damage the concrete and steel portions of the superstructure to be retained. Determine the full extent of any damage using Non-Destructive Testing and repair damage to retained portions to the Engineer's satisfaction at no additional cost to the contract. If damage occurs, submit a corrective action plan to the Engineer for review and approval prior to beginning repairs. Ensure repairs for damage affecting structural elements are designed by a Professional Engineer licensed in the State of Michigan. Submit working drawings and design calculations for the repairs in accordance with subsection 104.02 of the Standard Specifications for Construction.

Do not cut the deck longitudinally over the beams.

Remove shear developers. Remove existing shear developer welds and grind to 125 micro-inches per inch root mean square and taper to the original surface using a 1:10 slope in any of the following conditions:

- Locations where welds from existing shear developers that have been removed will interfere with placement of new shear developers.

- The existing shear developer weld is damaged.
- The shear developer weld is in a location along the beam where new shear developers are not called for on the plans.

Report cracks or tears in beams, or in other structural steel members not shown on the plans, to the Engineer.

Install new shear developers in accordance with subsection 707.03.E.7.h of the Standard Specifications for Construction.

e. Measurement and Payment. The completed work, as described, will be measured as a lump sum and paid for at the contract price using the following pay item:

Pay Item	Pay Unit
Structures, Rehabilitation, Rem Portions with Shear Developer Rem, (Structure Identification)	Lump Sum

Structures, Rehabilitation, Rem Portions with Shear Developer Rem, (Structure Identification) includes the cost of removing materials as shown on the plans, saw cuts required for removal, and disposal of materials in accordance with subsection 204.03.B of the Standard Specifications for Construction.

Costs associated with corrections and Non-Destructive Testing to damaged concrete and steel portions of the superstructure to be retained will be borne by the Contractor.

Cleaning and coating of structural steel will be paid for with other items of work.

New shear developers will be paid for with other items of work.