

General Notes:

Design Specifications:
2002 AASHTO LFD (17th Ed.) Standard Specifications

Fabricated structural steel shall be ASTM A709 Grade 36 or 50.

Field connections shall be made with 3/4-inch diameter ASTM F3125 Grade A325 Type 1 bolts and 13/16-inch diameter holes.

Only one pile shall be repaired at a time.

Instructions for Pile Plating:

(1) Number of 1 1/2" staggered spaces and 3" spaces shall be determined in the field to extend past the extents of the deteriorated area.

(2) Plate length shall be determined in the field.

(3) Extents of deteriorated area will be determined by the engineer.

(4) Use plates as templates for field drilling holes in existing pile. Place bolts snug tight as drilled per each. High-strength tightening shall begin after all bolts are installed per flange or web.

General Notes:

Contact surfaces shall be in accordance with Sec 1081 for surface preparation.

All new or existing structural steel shall be coated with a minimum of two coats of inorganic zinc primer (5 mils minimum).

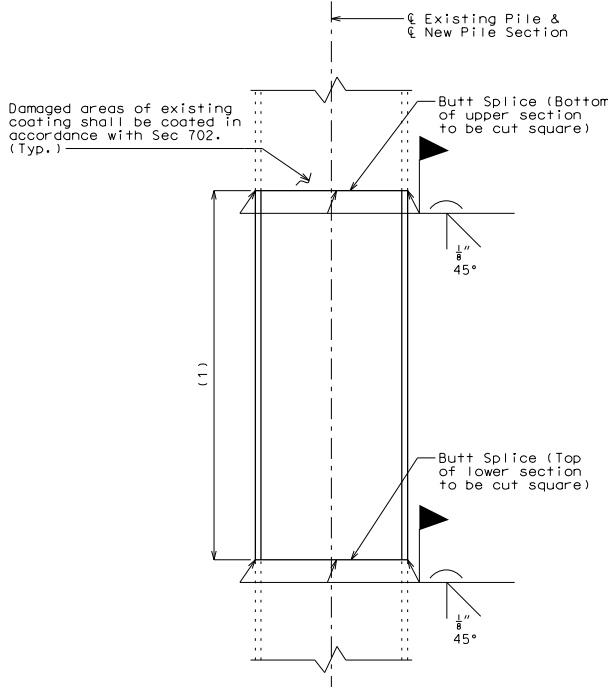
Cost of furnishing and installing structural steel, all steel coatings and any other incidental material or labor to complete pile repair, complete in place, will be considered completely covered by the contract unit price for Steel Pile Repair. Variations may be encountered in the estimated quantities but the variations can not be used for an adjustment in the contract unit price.

Cost of all excavation will be considered completely covered by the contract lump sum price for Class 2 Excavation.

Cost of dewatering will be considered completely covered by the contract lump sum price for Dewatering. See special provisions. For details of pile encasement, see Sheet No. ___.

PILE PLATING **PILE REPAIR**

All exposed surfaces of the existing structural steel piles and sway bracing shall be recoated with one 6-mil thickness of aluminum gray epoxy-mastic primer applied over an SSPC-SP3 surface preparation in accordance with Sec 1081. The bituminous coating shall be applied one foot above and below the existing ground line and in accordance with Sec 702. These protective coatings will not be required below the normal low water line. The cost of surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Applying Epoxy-Mastic Primer. The cost of the aluminum gray epoxy-mastic primer and bituminous coating will be considered completely covered by the contract lump sum price for Aluminum Gray Epoxy-Mastic Primer. (Add to either method)



General Notes:

New steel pile section shall be the same grade as, or greater than, the existing pile (ASTM A709 Grade 36 or 50).

New steel pile section shall be coated in accordance with Sec 702.

Only one pile shall be repaired at a time. Repair shall be a continuous operation from removal through splicing.

(1) Length and location of pile replacement will be determined by the engineer.

Cost of furnishing and installing structural steel pile, all steel coatings and any other incidental material or labor to complete pile repair, complete in place, will be considered completely covered by the contract unit price for Steel Pile Repair. Variations may be encountered in the estimated quantities but the variations can not be used for an adjustment in the contract unit price.

Cost of all excavation will be considered completely covered by the contract lump sum price for Class 2 Excavation.

Cost of dewatering will be considered completely covered by the contract lump sum price for Dewatering. See special provisions. See Supplemental Details of HP14x73 Pile Encasement With Pile Repair Sheet.

PARTIAL PILE REPLACEMENT

DATE PREPARED: 5/5/2022

ROUTE: BR STATE: MO DISTRICT: BR COUNTY: SHEET NO.:

JOB NO.:

CONTRACT ID.:

PROJECT NO.:

BRIDGE NO. RHB15

DESCRIPTION:

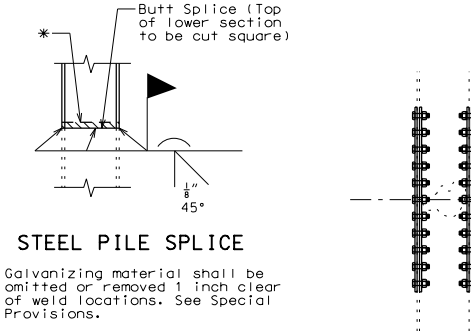
DATE:

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL JEFFERSON CITY, MO 65102 1-888-ASK-MDOT (1-888-275-6636)

Standard Drawing Guidance (do not show on plans):

- Show only pile repair method required. Delete all other details. If used in combination, specify associated pile(s) by method.
- Based on similar percentage of section loss, pile plating may be more attractive than partial pile replacement. Details can be modified if only the web or flanges need to be plated. If only the web is plated, plates on each side of the web are required. If only a flange is to be plated, both flanges and plates on each side of the flanges are required. Overall symmetry of the section shall be maintained.
 - Based on additional factors other than just percent of section loss, partial pile replacement may be considered. Minimizing or eliminating traffic loading, adding falsework, or just having support conditions such as integral bents can help to determine the repair method. Pile replacement shall not be used if multiple piles need repair and falsework is not provided.
 - Use this note for coating any remaining piles or pile sections, and sway bracing not being repaired. Use this note on Front Sheet or Notes Sheet when no repair or no encasement is required. Include standard pay items "Surface Preparation for Applying Epoxy-Mastic Primer" and either "Aluminum Epoxy-Mastic Primer" or "Gray Epoxy-Mastic Primer".
"Aluminum" is preferred because it acts as both a barrier and corrosion protection where "Gray" only acts as a barrier. If for any reason coated pile is embedded in fresh concrete or "Gray" is being used elsewhere, "Aluminum" shall not be used.
 - If galvanizing is preferred, add splice detail and replace note with:
"New steel pile section shall be galvanized. See special provisions."



See EPG 751.40.1.2.1 for guidance on when coating, encasement or jacketing, and plating or partial replacement should be considered.

Show Quantity Table on sheet. (Possible items given)

Quantity Table		
Item	Quantity	
Class 2 Excavation	lump sum	x
Dewatering	lump sum	x
Surface Preparation for Applying Epoxy-Mastic Primer	lump sum	x
Aluminum Epoxy-Mastic Primer	lump sum	x
Gray Epoxy-Mastic Primer	lump sum	x
Steel Pile Repair	linear foot	x
Pile Encasement	linear foot	x

These quantities are included in the Estimated Quantities table on Sheet No. .

