

## **Revision Of Section 518 Bridge Expansion Device (Gland)**

**Revise Section 518 of the Standard Specifications for this project to include the following:**

**Subsection 518.01 shall include the following:**

This work shall consist of repairing an existing elastomeric expansion device by removing and replacing the existing elastomeric expansion joint seal (also called neoprene gland) with a new elastomeric expansion joint seal (neoprene gland) of the size and type required in accordance with these specifications and in conformity with the details shown on the plans or as directed by the Engineer.

**Subsection 518.04 shall include the following:**

The existing expansion device consists of an elastomeric expansion joint seal (neoprene gland), steel embedded anchors, steel extrusions, and cover plates.

The repaired expansion device consists of a new continuous pre-molded elastomeric expansion joint seal (neoprene gland), installed into the existing steel extrusions as required by the manufacturer of the existing joint. If not specified in the plans, the Contractor shall be responsible for determining the style of the existing device and appropriate replacement gland. The joint seal shall have a rated movement of 0 to 4 inches including rotations, unless an oversized joint seal is specified in the plans.

The repaired expansion device shall seal the deck surface as indicated on the plans and prevent water from seeping through the expansion device.

**Subsection 518.09 shall include the following:**

The installation of the new bridge expansion device shall conform to the staged construction required by the plans and Lane Closure Policy unless otherwise directed or approved by the Engineer.

The methods and equipment used for the replacement of the joint seal shall be approved by the Engineer. The Contractor shall take all steps necessary to avoid damage to all existing steel designated to remain in place. Any steel damaged by the Contractor's operations shall be repaired or replaced at the Contractor's expense using means and methods approved by the Engineer with no allowance for contract time extension.

Prior to submitting working drawings or ordering any material, the Contractor shall field verify the manufacturer and model of the existing expansion joint. The new joint seal shall match that of the existing device.

At least 10 working days before start of work, the Contractor shall submit working drawings and two copies of the manufacturer's written instructions for the installation of the joint seal.

The Contractor shall provide a technical representative of the manufacturer to be on site to

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provide guidance for the proper installation of the joint seal.

*(a) Surface Preparation:*

Prior to the installation of the joint seal, the surfaces of the existing steel extrusions in contact with the new joint seal shall be sandblasted until all unsound materials and contaminants are removed.

*(b) Watertight Integrity Test:*

After the joint seal has been permanently installed the Contractor shall test the full length of the device for watertight integrity per section 518.09

**Subsection 518.12 shall include the following:**

Bridge Expansion Device (Gland) will be measured by the actual quantity of joint seal that is installed from curb face to curb face and accepted based on the watertight integrity test.

**Subsection 518.13 shall include the following:**

The accepted quantities of Bridge Expansion Device (Gland) (0-4 inches) will be paid for at the contract unit price.

Payment will be made under:

Pay Item	Pay Unit
Bridge Expansion Device (Gland) (0-4 inches)	Linear Foot

Payment for Bridge Expansion Device (Gland) (0-4 inches) will be full compensation for all labor, materials, tools, equipment, and incidentals required to complete the item.

Removal and disposal of existing joint seal, surface preparation, sandblasting, joint sealant, and installing the new joint seal will not be measured and paid for separately but shall be included in the work.

Removal and resetting of steel cover plates will not be measured and paid for separately but shall be included in the work.

The cost for the technical representative of the manufacturer will not be measured and paid for separately but shall be included in the work.

The cost for the watertight integrity test will not be measured and paid for separately but shall be included in the work.

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**Instructions to Designers (delete instructions and symbols from final draft):**

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Use this project special provision to replace leaking elastomeric expansion joint seal (neoprene gland) in existing bridge expansion devices where the steel portions are relatively new and undamaged.

Use “A” tables on the plans to give the movement range.

This specification can also be used for installation of oversized glands (i.e., 0-5 inch), without changing the pay item. Use notes on the plans to show where oversized glands are to be used.

#### Permanent Changes to Project Dated Special Provisions Revision of Section 518 Bridge Expansion Device (Gland)

<u>Date</u>	<u>Author</u>	<u>Description of Change</u>
1/14/19	BPM Cons.	Initial Website Issue
04.11.2023	M. Kayen	Revisions to make spec online accessibility-compliant. 5.22.23 Additional accessibility work.