

# EXPECTED IMPLEMENTATION JULY 2021

## 475 VALUE ADDED BRIDGE COMPONENTS. (REV 1-8-21) (FA 1-14-21) (7-21)

The following new Section is added after Section 471.

### SECTION 475 VALUE ADDED BRIDGE COMPONENTS

#### 475-1 Description.

Construct Value Added Bridge Components (VABC), when included in the Contract, consisting of those features provided for in the Design and Construction Criteria and/or the Technical Proposal and subject to a Materials and Workmanship Warranty.

The Contractor shall assume responsibility for all the associated warranty work specified in this section for a minimum period of five years, unless otherwise stated in the contract, after final acceptance of the Contract in accordance with 5-11, including continued responsibility as to any deficiencies to which notice was provided to the Contractor within such warranty period until all such pre-existing deficiencies are resolved.

#### 475-2 Responsible Party.

For the purpose of VABC, the Contractor shall be the Responsible Party unless otherwise agreed to in writing by the Department. Upon final acceptance of the Contract in accordance with 5-11, the Contractor's responsibility for maintenance of all the work or facilities within the project limits of the Contract will terminate in accordance with 5-11; with the sole exception that the obligations set forth in this section for bridge components shall continue thereafter to be the responsibility of the Responsible Party as otherwise provided in this section.

#### 475-3 Evaluation and Remedial Action.

**475-3.1 Definition of Value Added Bridge Components:** The following is a definition of the bridge components for which this provision applies and for which the Responsible Party shall warrant performance:

**Bridge Deck Expansion Joint Devices and Hardware:** Any device, with its accompanying hardware, that is installed inside the top of an expansion joint of a bridge deck in order to provide a smooth riding surface across the joint opening and to prevent water and debris from entering the joint. This includes expansion devices that are designed to handle large expansions and contractions such as modular bridge expansion devices.

**Coatings:** Paints, applied finishes or applied coatings that are used on the metal, concrete or wood surfaces of structures for the purpose of protection from the elements or for aesthetic enhancement.

**Bearing Devices:** A metal and/or elastomeric device that transfers loads and accommodates rotation and translation from a bridge superstructure element such as a beam, to a bridge substructure element such as a pier or bent without damage or overstress of either the substructure or the superstructure. All bearings transfer vertical

# EXPECTED IMPLEMENTATION JULY 2021

loads, but fixed bearings only allow rotation and do not allow the superstructure to translate horizontally (expand and contract) in relation to the substructure. Expansion bearings allow the superstructure to translate horizontally as well as to rotate in relation to the substructure.

**Bridge Lighting/Electrical Systems:** All electric power, electric control devices, and solar power units with accompanying hardware that are used to provide bridge navigation lighting, aesthetic lighting, and electric power for receptacles and lights used by maintenance and inspection personnel.

**Drainage Systems:** All components of the bridge deck drainage system including anchorages, hangers, pipes, couplings, bends, inlets, cleanouts and grates.

**475-3.2 Value Added Performance Period:** The Responsible Party shall warrant performance of bridge components for at least the following periods or for a longer period if offered by the Contractor in his proposal which starts on the date of final acceptance of the Contract:

- (a) Bridge Deck Expansion Joint Devices and Hardware: Armor and Hardware - 5 years, Seals - 5 years
- (b) Coatings: 5 years
- (c) Bearing Devices: 5 years
- (d) Bridge Lighting/Electrical Systems: 5 years
- (e) Drainage Systems: 5 years

**475-3.3 Deficiencies/Defects Requiring Remedial Action.** The following is a detailed description, for each type of structural component, of deficiencies/defects that will require remedial action by the Responsible Party:

**475-3.3.1 Bridge Deck Expansion Joint Devices and Hardware:** water leakage through joints; separation of the seal from the steel or concrete substrate; failure of the seal material such as cracking, chalking, scaling, peeling, or splitting; sagging of elastomeric seal; warping of the steel plate or extrusion that is detrimental to the functioning of the joint; separation of the steel plate or extrusion from the deck concrete; spalling or delamination of the deck concrete within 18 inches of either side of the joint; and any defect in modular bridge expansion joint elements including backing bars, steel extrusions, flexible membranes, proportioning bars, bushings, pins, bearings, side frames, and tracks.

**475-3.3.2 Coatings:** visible corrosion or corrosion break through; blistering, peeling or scaling of the coating; application of the coating over debris, blasting medium, mill scale or corrosion products; coating thickness less than specified by the manufacturer; damage to the paint system due to the Contractor's operations during construction; or excessive fading or chalking of the coating as determined by the paint manufacturer's performance standards for the coating in question.

**475-3.3.3 Bearing Devices:** evidence of failure of any of the elements of the bearing assembly; cracks, checks, peels or corrosion present in the protective coating of the bearing or in the neoprene of elastomeric bearings; the bearing freezes or fails to allow the bridge to move as designed; or the bearing moves out or "walks out" of its designated position and; therefore, does not perform as designed.

**475-3.3.4 Bridge Lighting/Electrical Systems:** loose, substandard or failed wiring, conduit, anchorages, expansion couplings, and junction boxes; inoperable

# EXPECTED IMPLEMENTATION JULY 2021

lighting fixtures, contactors, switches or receptacles; inadequate grounding or surge protection; and defective circuit breakers, step down transformers and photo cells.

**475-3.3.5 Drainage Systems:** grates that will not stay in position as designed or that fail to collect debris as intended; leaking pipes, couplings, bends, cleanouts or inlets; anchorages and hangers that are defective or that do not function properly; unacceptable drainage discharge rates due to blockages in the system that are a result of construction defects and not solely attributable to accumulation of debris.

**475-3.4 Required Remedial Action and Response Times:** The Responsible Party will be required to remediate the deficiencies/defects described in 475-3.3, by taking the actions set forth in this provision for each type of VABC. The Responsible Party shall perform the required remedial actions within the maximum response times set forth in this provision and which start when written notification is received by the Responsible Party from the Department or when there is an emergency situation, response time starts with the Department's verbal notification which will be followed up in writing. If replacement components require a lengthy acquisition period, the maximum repair duration as specified in this provision will be extended at the Engineer's discretion. If the maximum response time will result in the Responsible Party completing the work after the performance period, as specified in 475-3.2, has expired then the expiration date for the affected structural component will automatically be extended to whichever comes first: the end of the maximum response time period or completion of the remedial action.

The Responsible Party shall complete all remedial work to the satisfaction of the Engineer.

The Statewide Disputes Review Board will resolve any disputes regarding the adequacy of the remedial work. Approval of remedial work does not relieve the Responsible Party from continuing responsibility under the provisions of this Specification.

Not less than 7 days prior to beginning any non-emergency remedial work, notify the Engineer in writing of the date when remedial work will begin. Meet the requirements of the Department's latest version of the Standard Specifications for Road and Bridge Construction when performing any remedial work.

Submit a written Work Plan to the Engineer for approval and do not begin remedial work until approval is received. The Work Plan shall describe the phases of construction that are planned and generally explain for each phase, the construction methods to be employed. In addition, the Work Plan shall list the materials that will be incorporated into the permanent VABC. For emergency situations, the Responsible Party shall discuss the Work Plan with the Engineer verbally and the Engineer will issue a temporary approval in order to allow work to begin in a timely manner. A written Work Plan as specified above will be required if the duration of the emergency remedial work extends beyond 72 hours.

Perform all remedial work at no cost to the Department.

## **475-3.4.1 Bridge Deck Expansion Joint Devices and Hardware:**

Damaged seals shall be removed and replaced with new seals. Seals that are displaced shall be completely removed, the joint shall be cleaned, and the seal may be reinstalled if not damaged during removal. Steel elements that are damaged, misaligned, or non-functional shall be restored to complete and full functionality. Remedial action for joint defects that represent an immediate traffic safety hazard (an emergency condition) shall

# EXPECTED IMPLEMENTATION JULY 2021

**D** begin within 4 hours of notification and work shall progress without interruption, 24 hours a day, until the immediate traffic safety hazard has been eliminated. Any remaining remedial work shall be completed as a non-emergency condition. For defects that may become a safety hazard in the near future, such as loose joint armor, remediation shall begin after 4 hours or as determined by the Engineer and shall be completed within 90 days. For all other defects, remediation shall be completed within 180 days.

**475-3.4.2 Coatings:** Repair or restore coatings as recommended in writing by the coating manufacturer's technical advisors with concurrence of the Engineer. Remediation shall be completed within 180 days.

**475-3.4.3 Bearing Devices:** Bearings shall be removed and replaced with new bearings or with approval of the Engineer, be restored to new condition and be reinstalled. Remediation shall be completed within 30 days if the structure is displaying any sign of immediate structural damage to any element other than the bearing device/s due to a bearing device defect. All other bearing device defects shall be corrected within 90 days.

**475-3.4.4 Bridge Lighting/Electrical Systems:** Navigation lights shall be restored immediately (emergency situation) and the Responsible Party may use a temporary system if the permanent lighting cannot be restored immediately. If, after verbal notification of failure by the Department, the Responsible Party states that it cannot respond immediately to a navigation light failure then the Department will respond at the Responsible Party's expense. Aesthetic and inspection lighting shall be restored within 90 days. Defective electrical components that are isolated such as receptacles, photo cells or surge protectors, and that are not causing an entire electrical system to malfunction, shall be corrected within 120 days.

**475-3.4.5 Drainage Systems:** Replace or repair defective grates. Permanently repair any system leaks. Full drainage discharge rates shall be restored if reduced drainage discharge rates exist due to construction defects or other system deficiencies that occurred because of substandard construction practices. Repair or replace any nonfunctional or defective anchorages and hangers. Remedial action for drainage deficiencies that represent an immediate traffic safety hazard (an emergency condition) shall begin within 6 hours of notification by the Department and work shall progress without interruption, 24 hours a day, until the immediate traffic safety hazard has been eliminated. Any remaining remedial work shall be completed as a non-emergency condition. For all other deficiencies, remediation shall be completed within 180 days.

**475-4 Notification of Deficiencies/Defects and Inspections.**

**F**  
**T** The Department will identify deficiencies/defects in a written report that will be transmitted to the Responsible Party along with an official notification of required remedial action if warranted. The Department will also transmit copies of periodic bridge deficiency reports to the Responsible Party as they become available so that the Responsible Party can be aware of a deteriorating condition that may not require immediate remediation but that could give the Responsible Party an opportunity to perform an optional, more economical, preventive action. If an "Emergency Situation" exists, Responsible Party notification shall be provided verbally by the Department with written follow-up. In either case, the Responsible Party shall perform remedial actions in accordance with 475-3.4. If the Responsible Party fails to, or provides notification that it

# EXPECTED IMPLEMENTATION JULY 2021

**D** is unable to, begin work within the time designated in 475-3.4 or if the Responsible Party notifies the Department that it is unable to perform an acceptable remedial action, then the Department reserves the right to perform the remedial action at the Responsible Party's expense.

## **475-5 Disputes Resolution.**

**R** A Statewide Disputes Review Board dedicated to the resolution of value added disagreements will be utilized to resolve any and all disputes that may develop as a result of the administration and enforcement of this specification. The Responsible Party and the Department acknowledge that use of the Statewide Disputes Review Board is required and the determinations of the Board for disputes arising out of this VABC specification will be binding on both the Responsible Party and the Department, with no right of appeal by either party.

Any and all Board meetings after final acceptance of the Contract in accordance with 5-11, shall be requested and paid for by the Responsible Party. The Department will reimburse the Responsible Party for all fees associated with meetings.

## **475-6 Value Added Work.**

**A** During the value added performance period, the Responsible Party shall perform all necessary remedial work described in the Contract. Should an impasse develop in any regard as to the need for remedial work or the extent required, the Statewide Disputes Review Board will render a final decision.

The value added obligation for VABC will not apply to deficiencies if any of the following factors are found to be beyond the control of the Responsible Party: determination that the deficiency was due to the failure of other features not a part of the Contract; determination that the deficiency was the responsibility of a third party performing work not included in the contract or was the responsibility of an individual(s) that is not under the control of the Responsible Party or Contractor; or determination that the deficiency was caused by an act or event after final acceptance of the project, such as storm damage or vehicle impact, that is not under the control of the Responsible Party or Contractor.

## **475-7 Failure to Perform.**

**F** Should the Responsible Party fail to satisfactorily perform any remedial action, or fail to compensate the Department for any remedial action performed by the Department, as determined by the Statewide Disputes Review Board to be the Responsible Party's responsibility, the Department shall suspend, revoke or deny the Responsible Party's certificate of qualification under the terms of Section 337.16(d)(2), Florida Statutes, until the remedial work has been satisfactorily performed or full and complete payment for the remedial work is made to the Department. In no case shall the period of suspension, revocation, or denial of the Contractor's certificate of qualification be less than six (6) months. Should the Responsible Party choose to challenge the Department's notification of intent for suspension, revocation or denial of qualification and the Department's action is upheld, the Responsible Party shall have its qualification suspended for a minimum of six (6) months or until the remedial action is satisfactorily performed, whichever is longer.

**T**

# EXPECTED IMPLEMENTATION JULY 2021

The remedial work is not an obligation of the Contractor's bond required by Section 337.18, Florida Statutes.

## **475-8 Traffic Control.**

During remedial action operations, perform all signing and traffic control in accordance with the current edition of the Department's Design Standards, Traffic Control through Work Zones. Provide Maintenance of Traffic (MOT) during remedial work at no additional cost to the Department. For non-emergency remedial work, the Engineer must approve all lane closures and traffic control plans in advance and notification of lane closures shall be made to the Engineer 5 days in advance. For emergency remedial work and if the Responsible Party requests it, the Department will provide temporary MOT until the Engineer approves the Responsible Party's Traffic Control Plan. If MOT is requested, the Responsible Party shall reimburse the Department for all temporary MOT costs. In addition, if the urgency of the remedial work is such that the Department must provide MOT immediately and without delay prior to contacting the Responsible Party then the responsible Party shall reimburse the Department for all temporary MOT costs. Regardless of the Department's provision of MOT, the Responsible Party shall make every effort to submit a Traffic Control Plan in a timely manner to the Engineer and upon approval, shall deploy the permanent MOT expeditiously.

## **475-9 Basis of Payment.**

All costs associated with remediation of VABC including, but limited to, labor, equipment and materials required for satisfactory completion of the remediation work; traffic control through the work zone; and access to the remediation site shall be paid for solely by the Responsible Party unless the Statewide Disputes Review Board determines otherwise.