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**VALUE ADDED BRIDGE COMPONENTS.**  
**REV (5-13-03)**

PAGE 560 The following new Section is added after Section 470.

**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 (5) 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 in the joints of a bridge deck riding surface 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,

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**Bearing Devices:** 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 to either the fixed substructure or the movable superstructure. All bearings transfer vertical loads, but fixed bearings only allow rotation and do not allow the superstructure to. Expansion bearings allow the superstructure to translate horizontally (expand and contract) as well as rotate,

**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 electrical power receptacles and lighting for maintenance and inspection.

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

**475-3.2 Value Added Performance Period:** The Responsible Party must warrant performance of bridge components for at least the period listed below, or for a longer period if offered by the Contractor in his proposal, which starts on the date of final acceptance of the Contract. Bridge Deck Expansion Joint Devices and Hardware: Armor and hardware - 5 years, Seals - 5 years, Coatings: 5 years, Bearing Devices: 5 years, Bridge Lighting/Electrical Systems: 5 years, 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 materials 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 debris, mill scale or corrosion products; inadequate 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 any of the neoprene or elastomeric bearings; the bearing freezes or fails to allow

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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 or failed wiring, conduit, anchorages, expansion couplings, and junction boxes; inoperable 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; 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 structural component. 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 remedial work. For emergency situations, the Responsible Party will 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

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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 situation) shall begin within 4 hours of notification and work shall progress without interruption, 24 hours a day, until the defect is corrected. For defects that may become a safety hazard in the near future, such as loose joint armor, remediation must begin after 4 hours or as determined by the Engineer and must 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, due to a bearing device defect, the structure is displaying any sign of immediate structural damage to any element other than the bearing device/s. All other bearing device defects shall be corrected within 90 days.

**475-3.4.4 Bridge Lighting/Electrical Systems:** Navigation lights must 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 must 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, must 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. Remedial action for drainage deficiencies that represent an immediate traffic safety hazard (an emergency situation) shall begin within 6 hours of notification by the Department and work shall progress without interruption, 24 hours a day, until the defect is corrected. For all other deficiencies, remediation shall be completed within 180 days.

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

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

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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 performed an optional, more economical, preventive action. If an “Emergency Situation” exists, Responsible Party notification will 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 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.**

A statewide Disputes Review Board dedicated to the resolution of value added disagreements will be utilized to resolve any and all disputes that may arise involving administration and enforcement of this specification. The Responsible Party and the Department acknowledge that use of the Board is required and the determinations of the Board for disputes arising out of this VA CGBC specification will be binding on both the Responsible Party and the Department, with no right of appeal by either party, for the purposes of this specification.

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 only if the Board rules substantially, as determined by the Board in favor of the Responsible Party, otherwise the Responsible Party shall be solely responsible for all such costs. The term “substantially” is defined as fifty (50) percent of the issues when entitlement is disputed or fifty (50) percent of the total dollar amount when costs associated with such entitlements is disputed.

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

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, 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.

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**475-7 Failure to Perform.**

Should the Responsible Party fail to timely submit any dispute to the Statewide Dispute Review Board, 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 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 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.

**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. Provide Maintenance of Traffic 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 must be made to the Engineer 48 hours in advance. For emergency remedial work and if the Responsible Party requests it, the Department will provide temporary maintenance of traffic (MOT) until the Engineer approves the Responsible Party's Traffic Control Plan. If MOT is requested, the Responsible Party will 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 will reimburse the Department for all temporary MOT costs. Regardless of the Department's provision of MOT, the Responsible Party must make every effort to submit a Traffic Control Plan in a timely manner to the Engineer and upon approval, must deploy the permanent MOT expeditiously.

**475-9 Basis of Payment.**

All expenses associated with value added bridge components including but not limited to the cost of remedial actions, traffic control, access to the site, labor, equipment and materials will be included in the cost of each bridge component.