INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758 CM
Indianapolis, Indiana 46204

www.in.gov/indot

Eric Holcomb, Governor
Mike Smith, Commissioner

AGENDA

June 15, 2023 Standards Committee Meeting

MEMORANDUM

June 1, 2023

TO: Standards Committee

FROM: Scott Trammell, Secretary

RE: Agenda for the June 15, 2023 Standards Committee Meeting

A Standards Committee meeting is scheduled for 09:00 a.m. on June 15, 2023 will be held virtually via *Teams* (Microsoft application). Please contact Scott Trammell (strammell@indot.in.gov) for instructions on how to join this event.

The following items are listed for consideration:

A. GENERAL BUSINESS

OLD BUSINESS

(No items on this agenda)

NEW BUSINESS

1. *Approval of the Minutes from the May 18, 2023 meeting*

B. CONCEPTUAL PROPOSAL

1. Update on Proposed Revisions to 801.10, May 18, 2023 Agenda item No. 1 (Sponsor: J. Novak) ..... pg. 3

C. STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND STANDARD DRAWINGS PROPOSAL

OLD BUSINESS

(No items on this agenda)

NEW BUSINESS

Item No. 1	Mr. White	pg. 12

2024 Standard Specifications:

724.02	Materials
724.03	General Requirements
906.07	Bridge Expansion Joints

Item No. 2	Mr. Reilman	pg. 15

2024 Standard Specifications:

410.03	Materials
410.06	Recycled Materials

Item No. 3	Mr. Reilman	pg. 21

2024 Standard Specifications:

921.02(e)	Pavement Marking Beads

Item No. 4	Mr. Novak	pg. 25

Recurring Special Provisions:

1xx-C-xxx	*MOBILIZATION AND DEMOBILIZATION FOR IDIQ*

Item No. 5	Mr. Novak	pg. 29

Recuring Special Provisions:

XXX-X-xxx	*MAINTAINING TRAFFIC FOR IDIQ*

cc: Committee Members
FHWA
ICI

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: 801.10 has allowed modifications to terminating temporary traffic barrier when field conditions do not allow placement per the construction plans. These modifications to flare rates or termination points without CZ units are being made in the field, many times without approval by the designer. These types of safety modifications should be conservative or reviewed and approved by the designer.

PROPOSED SOLUTION: Eliminate the existing language that allows modification of the flare rate and offset of the termination point of temporary traffic barrier and replace it with more descriptive termination allowances. In addition, clarify what type 1, type 2, and type 3 temporary traffic barrier and CZ units can be used and how they should be placed. To keep language clarifications consistent throughout the section, proposed revisions for RSP 801-T-207 has also been included.

APPLICABLE STANDARD SPECIFICATIONS: 801.03 and 801.10

APPLICABLE STANDARD DRAWINGS: 801-TCCB Series

APPLICABLE DESIGN MANUAL SECTION: 503-3.05(04) and (05)

APPLICABLE SECTION OF GIFE: 2.8, 21.2

APPLICABLE RECURRING SPECIAL PROVISIONS: RSP 801-T-207

PAY ITEMS AFFECTED: N/A

APPLICABLE SUB-COMMITTEE ENDORSEMENT: Ad-Hoc Committee: Joe Novak, John Ritter, Elizabeth Mouser, Dan Osborn (ICI), and Katherine Smutzer

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE: Required for all contracts with pay item 801-08400 Temporary Traffic Barrier Type 1, 801-08401 Temporary Traffic Barrier Type 2, 801-08402 Temporary Traffic Barrier Type 3, 801-08403 Temporary Traffic Barrier Type 4, 801-08507 Temporary Traffic Barrier Anchored Type 1, 801-08508 Temporary Traffic Barrier Anchored Type 2, 801-08509 Temporary Traffic Barrier Anchored Type 3.

IMPACT ANALYSIS (attach report): yes

Submitted By: Katherine Smutzer
Title: Work Zone Safety Engineer
Division: Traffic Management
E-mail: ksmutzer@indot.in.gov
Date: 4/24/2023

IMPACT ANALYSIS REPORT CHECKLIST

Explain the business case as to why this item should be presented to the Standards Committee for approval. Answer the following questions with Yes, No or N/A.

Does this item appear in any other specification sections? No
Will approval of this item affect the Qualified Products List (QPL)? No
Will this proposal improve:

- Construction costs? No
- Construction time? No
- Customer satisfaction? Yes
- Congestion/travel time? No
- Ride quality? No

Will this proposal reduce operational costs or maintenance effort? No

Will this item improve safety:

- For motorists? Yes
- For construction workers? Yes

Will this proposal improve quality for:

- Construction procedures/processes? Yes
- Asset preservation? No
- Design process? No

Will this change provide the contractor more flexibility? No

Will this proposal provide clarification for the Contractor and field personnel? Yes

Can this item improve/reduce the number of potential change orders? No

Is this proposal needed for compliance with:

- Federal or State regulations? No
- AASHTO or other design code? No

Is this item editorial? No

Provide any further information as to why this proposal should be placed on the Standards Committee meeting Agenda:

REVISION TO STANDARD SPECIFICATIONS

SECTION 801 – TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE OPERATIONS
801.03 General Requirements
801.10 Temporary Traffic Barriers
801.10.1 Construction Zone Energy Absorbing Terminal, CZ

(Note: Changes shown to 2024 Standard Specifications and were shown on Agenda are highlighted gray.
All proposed revisions to the May Agenda before and during the meeting are shown here .
Changes post-meeting have been highlighted in yellow.
Previously approved changes shown shaded and are in currently used provision:
801-T-207 Temporary Traffic Barriers
Basis for Use: Required for all contracts with any temporary traffic barrier pay item.)

The Standard Specifications are revised as follows:

SECTION 801, BEGIN LINE 70, DELETE AS FOLLOWS:

801.03 General Requirements

The applicable requirements of the MUTCD shall apply to the installation and materials for traffic control devices subject to the requirements of 107.08 and 107.12. When the plans do not include a maintenance of traffic plan, the Engineer will provide such a plan to the Contractor. The Contractor shall be responsible for the field layout, placement, operation, maintenance, and removal of temporary traffic control devices.

A worksite traffic supervisor certified by the American Traffic Safety Service Association, ATSSA, or approved equal certifying organization, shall direct all field layout, placement, operation, inspection, maintenance, and removal of temporary traffic control devices. The certified worksite traffic supervisor, CWTS, shall ensure that all traffic control devices~~, except temporary concrete barrier,~~ meet acceptable standards as outlined in the plans, specifications, and ATSSA's "Quality Standards for Temporary Traffic Control Devices" prior to installation. The CWTS shall also, prior to installation, ensure that all traffic control devices can be installed in accordance with the plans, specifications, and the MUTCD. All problems shall be reported to the Engineer so a resolution can be worked out prior to installation. The field layout will be reviewed and is subject to approval by the Engineer prior to placement of any temporary traffic control devices. The CWTS shall be present for the initial setup and all phase changes during the life of the project. The CWTS may designate responsible Contractor personnel to perform day to day operation, inspection, and maintenance of the temporary traffic control devices. These responsible personnel shall work under the direction of the CWTS and their names shall be given to the Engineer on the project. A copy of the CWTS's certification shall be provided to the Engineer prior to the start of construction or placement of temporary traffic control devices or if the worksite traffic supervisor changes.

SECTION 801, BEGIN LINE 354, DELETE AND INSERT AS FOLLOWS:

801.10 Temporary Traffic Barriers

Temporary traffic barrier shall be one of the following four types as shown on the plans.

The application for each temporary traffic barrier type shall be as follows.

Temporary Traffic Barrier Type Designation	*Application*
Type 1	*Used to separate two-way traffic*
Type 2	*Used to separate traffic from the work zone*
Type 3	*Used as Type 1 and remains in place after contract completion.*
Type 4	*Used to accommodate the closing or shifting of traffic lanes on a daily basis to better facilitate the changing volumes of traffic during the peak hours of a day.*

Type 1

~~Type 1 temporary traffic barriers shall be used to separate two-way traffic and~~ *Barriers used as Type 1 temporary traffic barrier* shall be precast concrete in accordance with applicable requirements of 707 and 602 and as shown on the plans. ~~Type 1 barriers may also be used to separate traffic from the work area*as type 2 barriers as described below*.~~

[moved to a separate paragraph] The surfaces of individual precast *concrete* ~~units~~*barrier segments* shall vary no more than 1/4 in. in 10 ft from the specified cross-section, as measured from a longitudinal straightedge. The maximum variation in the vertical and horizontal alignment of ~~adjacent~~ ~~units~~*abutting segments* shall be 1/4 in. across the joint, as measured from a 10 ft longitudinal straightedge. ~~Sections that have obvious defects or visual cracks shall not be used. Sections that develop any of these conditions during the contract shall be repaired with concrete or replaced within a reasonable amount of time.~~ *~~Unit~~Segment condition and maintenance shall be in accordance with 801.03.*

~~Type 1~~*Precast concrete* ~~barrier units precast prior to~~*shall be manufactured on or after January 1,* ~~2003. shall not be used after January 1, 2012. Units precast after March 1, 2003~~*Precast concrete barrier segments manufactured prior to March 1, 2003 shall not be used. Each barrier segment* shall be clearly marked with the name or trademark of the manufacturer, the year of manufacture, and "INDOT". The markings shall be indented on an end or on the top of each barrier ~~section~~*segment*. ~~Units precast~~*Segments manufactured* after January 1, 2007 shall be from the QPL of Certified Precast Concrete Producers.

Type 2

~~Type 2 barriers may~~*shall* ~~be used to separate traffic from the work area.~~ Type 2 temporary traffic barrier~~s~~ shall meet the appropriate test level 2 or 3 ~~MASH or~~ NCHRP 350 *or MASH* crash test ~~standards~~*criteria* ~~and shall be approved for use by the FHWA. A copy of the MASH or NCHRP 350 crash test FHWA eligibility letter shall be provided to the Engineer prior to placing the unit~~*A copy of the crash test report confirming the product is NCHRP 350 or MASH compliant for the test level specified, or a copy of the FHWA eligibility letter, shall be furnished to the Engineer prior to the installation of the* ~~*system*~~*barrier.*

[moved to a separate paragraph] The ~~unit~~*barrier* selected shall be appropriate for the location

considering the maximum posted speed limit on the project *prior to construction* and the allowable area for deflection. The ~~unit~~*barrier* shall be installed according to the manufacturer's recommendations.

~~If *precast* concrete barriers are used as Type 2 barriers, they shall be in accordance with the requirements for Type 1 barriers.~~ *Barriers acceptable for use as Type 1 may also be used as Type 2.*

Type 3

~~Type 3 temporary traffic barriers shall be those Type 1 temporary traffic barriers that are to~~*Barriers used as Type 3 temporary traffic barrier shall be in accordance with the requirements for barrier used as Type 1. They shall* be left in place at the completion of the contract and shall become the property of the Department. They shall be in like-new condition at the completion of the contract. All necessary delineation and required anchor systems shall be left in place.

Type 4

~~Type 4 temporary traffic barriers shall be those types that are intended to be readily moveable to accommodate the shifting of traffic lanes on a daily basis to better facilitate the changing volumes of traffic during the peak hours of a day~~*Barrier used as* Type 4 temporary traffic barrier~~s~~ shall *be readily moveable and* meet the ~~appropriate~~ test level 3 MASH or NCHRP 350 crash test ~~standards~~*criteria* ~~and shall be approved for use by the FHWA. A copy of the MASH or NCHRP 350 crash test FHWA eligibility letter shall be provided to the Engineer prior to placing the unit~~*A copy of the crash test report confirming the product is NCHRP 350 or MASH compliant for the test level specified, or a copy of the FHWA eligibility letter, shall be furnished to the Engineer prior to the installation of the* ~~*system*~~*barrier*.

(a) Placement

Temporary traffic barriers shall be located as shown on the plans or as directed. ~~*Each run of temporary traffic barrier shall be installed and maintained such that adjoining units form a smooth continuous plane, except for the start and end of a flared section.* Temporary traffic barriers used to close a lane of traffic shall be flared at the rates as shown on the plans for the applicable regulatory speed within the construction zone. If field conditions are such that the required flare rate cannot be utilized, the tapered alignment may be altered, with approval, to a 10:1 flare rate with a 20 ft minimum offset from the edge of the through traffic lane to the approaching end of the flared temporary traffic barrier. If field conditions are such that that the 10:1 flare rate cannot be utilized, the tapered alignment may be further altered, with approval, to a 6:1 flare rate with the 20 ft minimum offset. Flare rates for ends of temporary traffic barriers at locations where a lane of traffic is not being closed to traffic or where the lane has already been closed shall be the same as above, however the minimum offset from the edge of the through traffic lane may be 10 ft. The use of flare rates sharper than those shown on the plans may require additional traffic control devices as directed.*temporary traffic barrier shall be extended parallel to traffic to satisfy the length of need and an appropriate end treatment placed in accordance with*~~

~~*801.10(e).*~~ *Each run of temporary traffic barrier shall be installed and maintained such that abutting segments form a smooth continuous plane, except for the start and end of a flared section.*

~~Type 2 barriers shall not be intermixed with Type 1 or Type 3 barriers in any run. Type 2 barriers from different manufacturers shall not be intermixed in any run.~~

The cross slope or side slope leading to and on which temporary traffic barrier is placed shall be 10:1 or flatter. For roadways other than freeways or interstates, if field conditions are such that the required slopes cannot be utilized, the temporary traffic barrier may be placed on a side slope of no steeper than 4:1, subject to approval prior to placement.

Temporary traffic barrier shall be flared at the rates as shown on plans for the applicable regulatory speed within the construction zone.

Where temporary traffic barrier is exposed to oncoming traffic and the approaching end is within the construction clear zone distance as shown on plans, an appropriate end treatment shall be placed in accordance with 801.10(e). Where required slopes and barrier flare rates are satisfied, the barrier may be extended beyond the construction clear zone distance without an end treatment.

Where temporary traffic barrier is placed adjacent to the front face of guardrail or concrete barrier, the approaching end of the temporary traffic barrier, including the end treatment, shall overlap a minimum distance beyond the end of the guardrail or concrete barrier as follows.

1. *15 ft if adjacent guardrail terminated with a crashworthy end treatment,*
2. *40 ft if adjacent guardrail terminated with a cable terminal anchor,*
3. *100 ft if adjacent concrete barrier or cut guardrail.*

Where temporary traffic barrier is placed behind guardrail, no portion of the barrier shall be within 10 ft, measured from the front face of the guardrail. The approaching end of the barrier shall overlap a minimum distance beyond the end of the guardrail as described above. If field conditions are such that the required slopes or flare rate cannot be utilized, the temporary traffic barrier shall be placed adjacent to the front face of guardrail as described in this section.

Precast concrete barriers shall not be intermixed with precast concrete barriers of a different size or shape or with any non-concrete barrier in any run. Non-concrete barriers shall not be intermixed with barriers from different manufacturers in any run.

(b) Connection

Precast concrete barriers used as Type 1, *Type 2,* ~~and~~*or* Type 3 *temporary traffic* barriers

~~sections~~ shall be connected *as shown on the plans and* as follows:

1. Smooth Bar Hooks

~~1~~*a*. The ~~adjacent~~*abutting* barrier ~~sections~~*segments* shall be placed end to end, with sufficient overlapping of the smooth bar hooks to allow placement of the connecting bolt or threaded rod and the top spacer.

~~2~~*b*. The ~~adjacent~~*abutting* ~~sections~~*segments* shall then be moved in opposite directions for a sufficient distance to develop the maximum contact between the smooth bar hooks and the connecting bolt or threaded rod.

~~3~~*c*. The bottom spacer and nut shall then be placed as shown on the plans. The nut shall be sufficiently tightened to eliminate all gaps between the adjacent bolt heads, spacers, nuts, and washers which form the connection.

2. J-J Hook

a. *The ~~adjacent~~abutting barrier ~~sections~~segments shall be placed in accordance with the manufacturer's recommendations such that the J-J hooks are engaged.*

b. *The ~~adjacent~~abutting barrier ~~sections~~segments shall then be moved in opposite directions for a sufficient distance to develop the maximum separation between the barrier sections.*

~~Type 1 and Type 3 precast units which have previously been cast meeting earlier Department standards may be used. The Contractor will be allowed to mix Type 1 and Type 3 units in a run as long as the units are in good condition and the connecting devices are compatible. If units meeting earlier Department standards are used, a 1 in. bolt will be allowed to link the units together. The spacer detail shall, however, be in accordance with the current standard. Units cast after March 1, 2003 shall be linked with the 1 1/4 in. bolt~~*Precast concrete barrier connecting devices shall not be intermixed.*

~~Type 2 temporary traffic barriers~~*Temporary traffic barriers other than precast concrete as described as Type 1* shall be connected as recommended by the barrier manufacturer.

(c) Anchorage

~~Type 1 and Type 3 temporary traffic barriers shall be anchored in accordance with the methods shown on the plans, at the locations described herein. Type 2 barriers shall be anchored~~

~~as recommended by the barrier manufacturer and at locations described herein.~~ Temporary ~~concrete~~ traffic barriers shall be anchored ~~when located on or within 60 ft of a bridge, and along tapered alignments~~*at the locations shown on the plans.* ~~Anchoring at locations in addition to those described herein will~~*shown shall* ~~be required when directed.~~ ~~*Anchoring shall be in accordance with the NCHRP 350 or MASH crash test. The FHWA eligibility letter shall be provided to the Engineer prior to placing the barrier.*~~ *Anchoring for precast concrete barriers described as Type 1 shall be as shown on the plans.*

Anchoring all other barriers ~~*other than concrete*~~ *shall be in accordance with the associated NCHRP 350 or MASH crash test.* ~~*A copy of the associated crash test report or a copy of the FHWA eligibility letter, shall be furnished to the Engineer prior to the installation of the system.*~~ *A copy of the anchorage installation details shall be furnished to the Engineer prior to installation of the* ~~*system*~~*barrier.*

Chemical anchor systems with removable bolts, or mechanical anchors may be used to anchor ~~Type 1~~ barriers to bridge decks, concrete pavement, and concrete shoulders. Mechanical anchors may be ferrous or non-ferrous material. ~~All anchors shall have a shear strength of 10,000 lb and an ultimate pullout strength of 6,500 lb.~~

Non-ferrous mechanical anchors shall be installed such that the top end of the sleeve is a minimum of 2 1/2 in. below the final finished concrete surface.

Ferrous mechanical anchors shall be completely removed when no longer required. All damage to the pavement shall be repaired as directed.

Non-ferrous anchor sleeves and the chemical adhesive component of chemical anchor systems may remain in place when no longer required. The holes remaining in the pavement shall be filled with appropriate material as directed.

(d) Delineation

~~Type 1~~*Temporary traffic* barriers used to separate two-way traffic shall be delineated with top mounted temporary barrier delineators and with side mounted delineators. The top mounted delineators shall be two-sided, shall be yellow, and shall be placed on every other section of barrier wall. The top mounted delineators shall be mounted perpendicular to the direction of traffic flow. The side mounted delineators shall be yellow and shall be mounted in accordance with 602.03(f).

Temporary traffic barriers in locations other than separating two-way traffic shall be delineated with either Type C construction warning lights or top mounted temporary barrier delineators and with side mounted barrier delineators. The Type C lights or the top mounted barrier delineators shall be spaced at the number of feet equal to the number of miles per hour in the ~~posted~~*regulatory* speed limit with a minimum spacing of 20 ft. Bi-directional lenses will be required on the warning lights when the barrier is adjacent to a lane that is carrying alternating

one-way traffic. The color of the barrier delineators shall be white when located on the right side of the traffic lane, and yellow when located on the left side of the traffic lane. The color of the barrier delineators shall be white when located adjacent to a lane that is carrying alternating one-way traffic.

Where the temporary traffic barrier is located along a tapered alignment and is located behind drums or other reflective delineation devices, the Type C construction warning lights and barrier delineators shall not be used.

(e) End Treatment

Where possible, the ends of temporary traffic barriers shall be ~~flared~~ in accordance with 801.10(a). Where conditions do not allow the temporary traffic barrier to be ~~flared~~ in accordance with 801.10(a), appropriate end treatments shall be ~~incorporated to protect vehicles from the ends of the barriers~~*installed. All end treatments shall be installed parallel to traffic and the first ~~unit~~segment of temporary traffic barrier immediately downstream shall be parallel to the end treatment.* The end treatments ~~shall have re-direct capability and~~ shall ~~meet the appropriate test level 2 or 3 NCHRP 350 crash test standards and be approved for use by the FHWA~~*be in accordance with 801.10.1.*

(f) Storage

No barrier ~~segments~~*~~units~~segments* shall be stored on the right-of-way unless written permission is given by the Department. Requests for permission to store traffic barrier ~~segments~~*~~units~~segments* on the right-of-way will not be accepted until after the contract has been awarded.

801.10.1 Construction Zone Energy Absorbing Terminal, CZ

The construction zone energy absorbing terminal, CZ, shall ~~have passed NCHRP 350 level 3 crash test~~*meet the test level 3 NCHRP 350 or MASH crash test criteria* for all Interstate and other construction sites having a ~~construction zone~~*regulatory* speed limit *prior to construction* in excess of 45 mph. ~~and level 2~~ *The CZ shall meet test level 2* for non-Interstate construction sites having a *regulatory speed limit prior to* construction ~~zone speed limit~~ of 45 mph or less. ~~All energy absorbing terminal, CZ, shall have redirect capabilities and shall be approved by the FHWA.~~

All energy absorbing terminal, CZ, shall have redirect capabilities. A copy of the crash test report confirming the product is NCHRP 350 or MASH compliant for the test level specified, or a copy of the FHWA eligibility letter, shall be furnished to the Engineer prior to the installation of the unit.

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: Bridge Expansion Joints, Types SS and M utilize steel components to hold the strip seals in place and to secure the joints to the concrete bridge deck. The strip seals will eventually break down and leak over time, but can be replaced if the steel components are in satisfactory condition. The current specifications only require the steel components to be shop primed, which doesn't provide a long-term protection against corrosion. This can lead to a reduced service life and can make replacement of the strip seal unfeasible.

PROPOSED SOLUTION: The proposed changes require the steel components to be galvanized, which will increase the service life of the joint and will facilitate future strip seal replacement.

APPLICABLE STANDARD SPECIFICATIONS: 724.02, 724.03, 906.07

APPLICABLE STANDARD DRAWINGS: E 724-BSSJ (no changes required)

APPLICABLE DESIGN MANUAL SECTION: 404-2.06(03) (no changes required)

APPLICABLE SECTION OF GIFE: 5.20 (no changes required)

APPLICABLE RECURRING SPECIAL PROVISIONS: N/A (no changes required to 724-B-086)

PAY ITEMS AFFECTED: N/A

APPLICABLE SUB-COMMITTEE ENDORSEMENT: Ad hoc committee including the INDOT Bridge Asset Engineers, David Christmas, and Jim Reilman.

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE: Pay Items 724-12771 BRIDGE EXPANSION JOINT, SS, 724-12772 BRIDGE EXPANSION JOINT, M, 724-12774 BRIDGE EXPANSION JOINT, SS, REPLACE, 724-12775 BRIDGE EXPANSION JOINT, M, REPLACE

IMPACT ANALYSIS (attach report):

Submitted By: Pete White, PE
Title: Design Manager
Division: INDOT Bridge Engineering
E-mail: pewhite@indot.in.gov

Date: May 15, 2023

IMPACT ANALYSIS REPORT CHECKLIST

Explain the business case as to why this item should be presented to the Standards Committee for approval. Answer the following questions with Yes, No or N/A.

Does this item appear in any other specification sections? No
Will approval of this item affect the Qualified Products List (QPL)? No
Will this proposal improve:

- Construction costs? No
- Construction time? No
- Customer satisfaction? No
- Congestion/travel time? No
- Ride quality? No

Will this proposal reduce operational costs or maintenance effort? Yes

Will this item improve safety:

- For motorists? No
- For construction workers? No

Will this proposal improve quality for:

- Construction procedures/processes? No
- Asset preservation? Yes
- Design process? No

Will this change provide the contractor more flexibility? No

Will this proposal provide clarification for the Contractor and field personnel? Yes

Can this item improve/reduce the number of potential change orders? No

Is this proposal needed for compliance with:

- Federal or State regulations? No
- AASHTO or other design code? No

Is this item editorial? No

Provide any further information as to why this proposal should be placed on the Standards Committee meeting Agenda: The proposed changes will increase the service life of Type SS and Type M Bridge Expansion Joints, which can also extend the service life of bridges.

SECTION 724 – BRIDGE EXPANSION JOINTS
724.02 Materials
724.03 General Requirements
SECTION 906 – JOINT MATERIALS
906.07 Bridge Expansion Joints

(Note: Proposed changes shown to 2024 Standard Specifications and are highlighted gray.)

The Standard Specifications are revised as follows:

SECTION 724, BEGIN LINE 19, DELETE AS FOLLOWS:

724.02 Materials

Materials shall be in accordance with the following:

Bridge Deck Patching Concrete 722
Bridge Expansion Joint Type M .....906.07(b)
Bridge Expansion Joint Type PCF .....906.07(c)
Bridge Expansion Joint Type SS.....906.07(a)
Concrete, Class C 702
~~Inorganic Zinc Primer .....909.02(a)1~~
Rapid Set Patching Materials 901.07
Structural Steel 910.02

SECTION 724, BEGIN LINE 62, INSERT AS FOLLOWS:

724.03 General Requirements

All welding shall be in accordance with 711.32. All splice welds shall develop full strength. All welds which come in contact with the strip seals shall be ground smooth. *Fins or other isolated areas of galvanized coating that interfere or would be expected to interfere with the strip seal making a watertight seal with the steel extrusion shall be removed or ground smooth prior to installation of the strip seal. Any portions of the galvanized coating that are damaged due to welding or other activities shall be repaired in accordance with ASTM A780.* All metal surfaces in direct contact with the strip seal shall be cleaned and properly treated in accordance with the manufacturer's recommendations to provide a high strength bond between the strip seal and mating metal surfaces. Lubricants and adhesives shall be used in accordance with the joint manufacturer's recommendations. All excess lubricant and adhesive shall be removed before it has set. The strip seals shall be clean and free of foreign materials.

SECTION 906, BEGIN LINE 127, DELETE AND INSERT AS FOLLOWS:

906.07 Bridge Expansion Joints

Type SS and Type M joints, including anchor assemblies, shall be shop fabricated, delivered, and installed as a continuous unit for lengths up to 46 ft. Joints longer than 46 ft shall be furnished in continuous units or in appropriate shorter sections as shown on the working drawings and approved by the Engineer. Joints used in stage construction shall be furnished in sections appropriate to accommodate the work. All steel joints furnished in sections shall be spliced with welds, with ends prepared for welding in the shop. All welds shall be in accordance with 711.32.

The profile of the joint in the roadway area shall conform to the roadway cross-section. Where changes in direction are required, such as at curbs or concrete rails, the sections shall be cut to the bevel required to produce the same cross-section on each piece being joined. Slider plates

SECTION 724 – BRIDGE EXPANSION JOINTS
724.02 Materials
724.03 General Requirements
SECTION 906 – JOINT MATERIALS
906.07 Bridge Expansion Joints

shall be provided at curbs, walkways, and concrete rails as part of the completed joint assembly. The slider plate shall be the same material as the extrusion and shall be galvanized in accordance with ASTM A123.

All exposed structural steel surfaces, except stainless steel or polytetrafluoroethylene coated, shall be ~~shop painted in accordance with 619~~*galvanized in accordance with ASTM A123*.

Type PCF joints shall be fabricated, delivered, and installed in lengths no less than 6 ft. Sections of joint shall be field spliced using silicone sealant in accordance with the manufacturer's recommendations. Joints shall be furnished with the fewest number of splices possible, and sections less than 6 ft in length shall not be used unless required to complete the remaining length at the ends of a joint or construction phase.

COMMENTS AND ACTION

724.02 Materials
724.03 General Requirements
906.07 Bridge Expansion Joints

DISCUSSION:

Motion: Second: Ayes: Nays: FHWA Approval:	**Action:** ___ Passed as Submitted ___ Passed as Revised ___ Withdrawn
2024 Standard Specifications Sections referenced and/or affected: 724.02, 724.03, 906.07	___ 2026 Standard Specifications ___ Revise Pay Items List ___ Notification to Designers if change is not addressed by RSP
Recurring Special Provisions or Plan Details: N/A (no changes required to 724-B-086)	___ Create RSP (No.___) Effective: ___ Revise RSP (No.___) Effective:
Standard Drawing affected: E 724-BSSJ (no changes required)	___ Standard Drawing Effective:
Design Manual Sections affected: 404-2.06(03) (no changes required)	___ Create RPD (No. ___) Effective:
GIFE Sections cross-references: 5.20 (no changes required)	___ GIFE Update ___ Frequency Manual Update ___ SiteManager Update

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: Occasional performance issues with SMA mixtures have presented themselves, namely draindown and bleeding/flushing.

PROPOSED SOLUTION: Improve our SMA stabilizing additive requirements.

APPLICABLE STANDARD SPECIFICATIONS: 410

APPLICABLE STANDARD DRAWINGS: NA

APPLICABLE DESIGN MANUAL SECTION: NA

APPLICABLE SECTION OF GIFE: NA

APPLICABLE RECURRING SPECIAL PROVISIONS: NA

PAY ITEMS AFFECTED: NA

APPLICABLE SUB-COMMITTEE ENDORSEMENT: Materials and Construction Committee

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE: Required for all contracts with a 410 pay item.

IMPACT ANALYSIS (attach report):

Submitted By: Jim Reilman

Title: State Materials Engineer

Organization: INDOT Materials and Tests

Phone Number: 317-522-9692

Date: 5/22/23

IMPACT ANALYSIS REPORT CHECKLIST

Explain the business case as to why this item should be presented to the Standards Committee for approval. Answer the following questions with Yes, No or N/A.

Does this item appear in any other specification sections? N
Will approval of this item affect the Approved Materials List? N
Will this proposal improve:

- Construction costs? N
- Construction time? N
- Customer satisfaction? Y
- Congestion/travel time? N
- Ride quality? Y

Will this proposal reduce operational costs or maintenance effort? Y

Will this item improve safety:

- For motorists? Y
- For construction workers? N

Will this proposal improve quality for:

- Construction procedures/processes? Y
- Asset preservation? Y
- Design process? N

Will this change provide the contractor more flexibility? N

Will this proposal provide clarification for the Contractor and field personnel? Y

Can this item improve/reduce the number of potential change orders? Y

Is this proposal needed for compliance with:

- Federal or State regulations? N
- AASHTO or other design code? N

Is this item editorial? N

Provide any further information as to why this proposal should be placed on the Standards Committee meeting Agenda: Requiring virgin fibers/cellulose will improve SMA mixture performance. Per Industry guidance, requirements for virgin fibers may make the SMA too stiff in conjunction with RAS. Fibers will increase VMA. If used in conjunction with RAS, it may require changes to the mix (finer) that we are not in favor of.

(Note: Proposed changes shown to **2024** Standard Specifications and are highlighted gray)

The Standard Specifications are revised as follows:

SECTION 410, BEGIN LINE 21, INSERT AS FOLLOWS:

410.03 Materials

Materials shall be in accordance with the following:

Asphalt Materials
PG Binder, PG 76-22, PG 70-22 ..... 902.01(a)
Coarse Aggregates, Class AS 904.03
Fine Aggregates (sand, mineral filler) 904.02
Stabilizing Additives* ..... AASHTO M 325
**The stabilizer shall be virgin cellulose or virgin mineral fiber.*

SECTION 410, BEGIN LINE 110, INSERT AS FOLLOWS:

410.06 Recycled Materials

Recycled materials shall be in accordance with 401.06 for dense graded mixtures except *RAS shall not be used and* non-SMA RAP material for use in the SMA mixture shall be 100% passing the 3/8 in. (9.5 mm) sieve and 95 to 100% passing the No. 4 (4.75 mm) sieve.

COMMENTS AND ACTION

410.03 Materials
410.06 Recycled Materials

DISCUSSION:

Motion: Second: Ayes: Nays: FHWA Approval:	**Action:** ___ Passed as Submitted ___ Passed as Revised ___ Withdrawn
2024 Standard Specifications Sections referenced and/or affected: 410.03 and 410.06 pg. 351 and 354. Recurring Special Provisions or Plan Details: 410-R-418 SMA SPRAY PAVER AND EMULSION (refer. 410.02) Standard Drawing affected: NONE Design Manual Sections affected: NONE GIFE Sections cross-references: NONE	___ 2026 Standard Specifications ___ Revise Pay Items List ___ Notification to Designers if change is not addressed by RSP ___ Create RSP (No.___) Effective: ___ Revise RSP (No.___) Effective: ___ Standard Drawing Effective: ___ Create RPD (No. ___) Effective: ___ GIFE Update ___ Frequency Manual Update ___ SiteManager Update

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: materials for pavement marking beads were required to be from the QPL as well as have a type C certification. This duplication should be corrected.

PROPOSED SOLUTION: delete the requirement for certification since the material is required to come from a QPL

APPLICABLE STANDARD SPECIFICATIONS: 921.02

APPLICABLE STANDARD DRAWINGS: None

APPLICABLE DESIGN MANUAL SECTION: None

APPLICABLE SECTION OF GIFE:

APPLICABLE RECURRING SPECIAL PROVISIONS: create new 808 RSP

PAY ITEMS AFFECTED:

APPLICABLE SUB-COMMITTEE ENDORSEMENT: Ad hoc: Dave Boruff, Joe Bruno, Dave Jacobs, Jim Reilman

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE: same BFU as 808-T-233

IMPACT ANALYSIS (attach report):

Submitted By: Jim Reilman for David Jacobs

Title: State Materials Engineer

Organization: INDOT

Phone Number: (317) 522-9692

Date: 5/22/23

IMPACT ANALYSIS REPORT CHECKLIST

Explain the business case as to why this item should be presented to the Standards Committee for approval. Answer the following questions with Yes, No or N/A.

Does this item appear in any other specification sections? No
Will approval of this item affect the Approved Materials List? No
Will this proposal improve:

- Construction costs? N/A
- Construction time? N/A
- Customer satisfaction? Yes
- Congestion/travel time? N/A
- Ride quality? N/A

Will this proposal reduce operational costs or maintenance effort? N/A

Will this item improve safety:

- For motorists? N/A
- For construction workers? N/A

Will this proposal improve quality for:

- Construction procedures/processes? Yes
- Asset preservation? N/A
- Design process? N/A

Will this change provide the contractor more flexibility? N/A

Will this proposal provide clarification for the Contractor and field personnel? Yes

Can this item improve/reduce the number of potential change orders? N/A

Is this proposal needed for compliance with:

- Federal or State regulations? No
- AASHTO or other design code? No

Is this item editorial? No

Provide any further information as to why this proposal should be placed on the Standards Committee meeting Agenda:

(Note: Proposed changes shown to **2024** Standard Specifications and are highlighted gray)

The Standard Specifications are revised as follows:

SECTION 921, BEGIN LINE 104, INSERT AND DELETE AS FOLLOWS:

(e) Pavement Marking Beads

~~A Type C certification in accordance with 916 shall be provided for the pavement marking beads~~*Pavement marking beads and supplemental elements shall be selected from the QPL of Pavement Marking Beads.*

1. Standard Beads

Beads shall be glass in accordance with AASHTO M 247, Type 1. The beads shall have a moisture resistant coating.

2. Modified Standard Beads

The modified standard beads shall be glass in accordance with AASHTO M 247, Type 2. These beads shall have a moisture resistant coating and may have an adhesion promoting coating.

3. Supplemental Beads

The supplemental beads shall be glass in accordance with AASHTO M 247, Type 4 except the beads shall have a minimum roundness of 80% by weight.

These beads shall ~~a~~ have a moisture resistant coating and may have an adhesion promoting coating.

4. Supplemental Elements

These shall be for wet weather retro-reflectivity and shall be used for thermoplastic and multi-component longitudinal line markings but shall not exhibit a characteristic of toxicity referenced in AASHTO M 247. ~~The supplemental elements shall be selected from the QPL of Pavement Marking Beads.~~

~~A Type C certification in accordance with 916 shall be furnished for the supplemental elements.~~

COMMENTS AND ACTION

921.02(e) Pavement Marking Beads

DISCUSSION:

Motion: Second: Ayes: Nays: FHWA Approval:	**Action:** ___ Passed as Submitted ___ Passed as Revised ___ Withdrawn
2024 Standard Specifications Sections referenced and/or affected: 921.02 pg. 1161 - 1164 Recurring Special Provisions or Plan Details: NONE Standard Drawing affected: NONE Design Manual Sections affected: NONE GIFE Sections cross-references: TBD	___ 2026 Standard Specifications ___ Revise Pay Items List ___ Notification to Designers if change is not addressed by RSP ___ Create RSP (No.___) Effective: ___ Revise RSP (No.___) Effective: ___ Standard Drawing Effective: ___ Create RPD (No. ___) Effective: ___ GIFE Update ___ Frequency Manual Update ___ SiteManager Update

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: IDIQ contracts have IDIQ specific special provisions, and they are currently being administered at USPs. This results in significant time resources to submit them through the USP approval process.

PROPOSED SOLUTION: Turn the IDIQ specific Mobilization and Demobilization USP into an RSP to increase statewide consistency and reduce approval time.

APPLICABLE STANDARD SPECIFICATIONS: 110

APPLICABLE STANDARD DRAWINGS: N/A

APPLICABLE DESIGN MANUAL SECTION: N/A

APPLICABLE SECTION OF GIFE: N/A

APPLICABLE RECURRING SPECIAL PROVISIONS: N/A

PAY ITEMS AFFECTED: N/A

APPLICABLE SUB-COMMITTEE ENDORSEMENT: N/A

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE: All IDIQ contracts.

IMPACT ANALYSIS (attach report):

Submitted By: Patrick Patterson via Joe Novak

Title: Field Engineer

Division: Construction Management

E-mail: ppatterson1@indot.in.gov

Date: 5/30/23

IMPACT ANALYSIS REPORT CHECKLIST

Explain the business case as to why this item should be presented to the Standards Committee for approval. Answer the following questions with Yes, No or N/A.

Does this item appear in any other specification sections? N/A
Will approval of this item affect the Qualified Products List (QPL)? No
Will this proposal improve:

Construction costs? No
Construction time? No
Customer satisfaction? No
Congestion/travel time? No
Ride quality? No

Will this proposal reduce operational costs or maintenance effort? No

Will this item improve safety:

For motorists? No
For construction workers? No

Will this proposal improve quality for:

Construction procedures/processes? No
Asset preservation? No
Design process? Yes

Will this change provide the contractor more flexibility? No

Will this proposal provide clarification for the Contractor and field personnel? Yes

Can this item improve/reduce the number of potential change orders? No

Is this proposal needed for compliance with:

Federal or State regulations? No
AASHTO or other design code? No

Is this item editorial? No

Provide any further information as to why this proposal should be placed on the Standards Committee meeting Agenda:

REVISION TO SPECIAL PROVISIONS

1xx-C-xxx MOBILIZATION AND DEMOBILIZATION FOR IDIQ (PROPOSED NEW)

1xx-C-xxx MOBILIZATION AND DEMOBILIZATION FOR IDIQ

(Adopted xx-xx-23)

Description

This work shall consist of mobilization and demobilization for completing the scope of work set forth in the Work Order in accordance with 105.03.

Construction Requirements

Mobilization and demobilization shall be in accordance with 110.01.

Method of Measurement

Mobilization and demobilization will not be measured.

Basis of Payment

Payment for mobilization and demobilization will be calculated based on the needs to complete the scope of work determined for the work order at the time of the joint scoping meeting. Mobilization and Demobilization shall be included in the Work Order Price Proposal as part of the Work Order Request Form completed by the Contractor.

Payment will be made under:

Pay Item	Pay Unit Symbol
Mobilization and Demobilization, IDIQ.	DOL

The costs of all materials, equipment, tools, labor, transportation, operations, and incidentals required for mobilization and demobilization shall be included in the cost of this work.

COMMENTS AND ACTION

1xx-C-xxx MOBILIZATION AND DEMOBILIZATION FOR IDIQ

DISCUSSION:

Motion: Second: Ayes: Nays: FHWA Approval:	**Action:** ___ Passed as Submitted ___ Passed as Revised ___ Withdrawn
2024 Standard Specifications Sections referenced and/or affected: 110 pg. 125-126 Recurring Special Provisions or Plan Details: NONE Standard Drawing affected: NONE Design Manual Sections affected: NONE GIFE Sections cross-references: NONE	___ 2026 Standard Specifications ___ Revise Pay Items List ___ Notification to Designers if change is not addressed by RSP ___ Create RSP (No.___) Effective: ___ Revise RSP (No.___) Effective: ___ Standard Drawing Effective: ___ Create RPD (No. ___) Effective: ___ GIFE Update ___ Frequency Manual Update ___ SiteManager Update

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: IDIQ contracts have IDIQ specific special provisions, and they are currently being administered at USPs. This results in significant time resources to submit them through the USP approval process.

PROPOSED SOLUTION: Turn the IDIQ specific Maintaining Traffic USP into an RSP to increase statewide consistency and reduce approval time.

APPLICABLE STANDARD SPECIFICATIONS: 801

APPLICABLE STANDARD DRAWINGS: N/A

APPLICABLE DESIGN MANUAL SECTION: N/A

APPLICABLE SECTION OF GIFE: N/A

APPLICABLE RECURRING SPECIAL PROVISIONS: N/A

PAY ITEMS AFFECTED: N/A

APPLICABLE SUB-COMMITTEE ENDORSEMENT: N/A

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE: All IDIQ contracts.

IMPACT ANALYSIS (attach report):

Submitted By: Patrick Patterson via Joe Novak

Title: Field Engineer

Division: Construction Management

E-mail: ppatterson1@indot.in.gov

Date: 5/30/23

IMPACT ANALYSIS REPORT CHECKLIST

Explain the business case as to why this item should be presented to the Standards Committee for approval. Answer the following questions with Yes, No or N/A.

Does this item appear in any other specification sections? N/A
Will approval of this item affect the Qualified Products List (QPL)? No
Will this proposal improve:

Construction costs? No
Construction time? No
Customer satisfaction? No
Congestion/travel time? No
Ride quality? No

Will this proposal reduce operational costs or maintenance effort? No

Will this item improve safety:

For motorists? No
For construction workers? No

Will this proposal improve quality for:

Construction procedures/processes? No
Asset preservation? No
Design process? Yes

Will this change provide the contractor more flexibility? No

Will this proposal provide clarification for the Contractor and field personnel? Yes

Can this item improve/reduce the number of potential change orders? No

Is this proposal needed for compliance with:

Federal or State regulations? No
AASHTO or other design code? No

Is this item editorial? No

Provide any further information as to why this proposal should be placed on the Standards Committee meeting Agenda:

xxx-x-xxx MAINTAINING TRAFFIC FOR IDIQ

(Adopted xx-xx-23)

Description

This work shall consist of maintaining traffic for completing the scope of work set forth in the Work Order in accordance with 105.03 and 801.

Materials

Materials shall be in accordance with 801.02.

Construction Requirements

At the time of the Joint Scoping Meeting and discussion of the work order, the Engineer and the Contractor will determine the needs for maintaining traffic to complete the work order scope of work. This shall include, but not be limited to, drums, set up, adjustment and tear down of drums or other traffic devices, and shift differentials to accommodate limitations on when the work shall occur as needed.

Maintenance of traffic shall be in accordance with the applicable portions of 801.

Method of Measurement

Maintenance of traffic will be measured in accordance with 801.17.

Basis of Payment

Payment for maintaining traffic will be calculated based on the needs to complete the scope of work for the work order at the time of the joint scoping meeting and when the Work Order Request Form has been completed by the Contractor.

Payment will be made under:

Pay Item	**Pay Unit Symbol**
Maintaining Traffic, IDIQ	DOL

The costs of material, transportation, placement, and all incidentals shall be included in the cost of the pay item.

COMMENTS AND ACTION

XXX-X-xxx MAINTAINING TRAFFIC FOR IDIQ

DISCUSSION:

Motion: Second: Ayes: Nays: FHWA Approval:	**Action:** ___ Passed as Submitted ___ Passed as Revised ___ Withdrawn
2024 Standard Specifications Sections referenced and/or affected: 801 begin pg. 867 Recurring Special Provisions or Plan Details: NONE Standard Drawing affected: NONE Design Manual Sections affected: NONE GIFE Sections cross-references: NONE	___ 2026 Standard Specifications ___ Revise Pay Items List ___ Notification to Designers if change is <u>not</u> addressed by RSP ___ Create RSP (No.___) Effective: ___ Revise RSP (No.___) Effective: ___ Standard Drawing Effective: ___ Create RPD (No. ___) Effective: ___ GIFE Update ___ Frequency Manual Update ___ SiteManager Update