INDIANA DEPARTMENT OF TRANSPORTATION



Room N758 CM Indianapolis, Indiana 46204

www.in.gov/indot

Eric Holcomb, Governor Mike Smith, Commissioner

AGENDA

June 20, 2024, Standards Committee Meeting

MEMORANDUM

June 3, 2024

TO: Standards Committee

FROM: Scott Trammell, Secretary

Agenda for the June 20, 2024, Standards Committee Meeting RE:

A Standards Committee meeting is scheduled for 09:00 a.m. on Thursday, June 20, and 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

Approval of the Minutes from the May 17 meeting

B. CONCEPTUAL PROPOSAL

(No items on this agenda)

C. STANDARD SPECIFICATIONS, DRAWINGS, AND SPECIAL PROVISIONS

OLD BUSINESS

(No items on this agenda)

NEW BUSINESS

Item No. 1	Mr. Boruff	pg. 3
Standard Drawings (proposed new):		
E 802-DBCS-01	Dynamic Message Sign Butter Structure Index	fly Cantilever
E 802-DBCS-02	Structure Plan, Elevation, Men	nber Sizes, and Camber
E 802-DBCS-03	Quadri-Chord and Flange Deta	ails
E 802-DBCS-04	Upper Chords Connection Deta	
E 802-DBCS-05	Lower Chords Connection Deta	ails
E 802-DBCS-06	Base Plate, Anchor Bolt, and N	Metal Skirt Details
E 802-DBCS-07	Handhole and I.D. Tag Details	
E 802-DBCS-08	Access Details	
E 802-DBCS-09	Walkway Details	
E 802-DBCS-10	Handrail Details	
E 802-DBCS-11	Ladder Details	
E 802-DBCS-12	Security Gate Details	
E 802-DBCS-13	Wiring Layout Details	
E 802-DBCS-14	Foundation at 33" Concrete Bo	arrier
E 802-DBCS-15	Foundation at 45" Concrete Bo	arrier
E 802-DBCS-16	Foundation 4'-0" Ø Drilled Sho	aft
		•
Item No. 2	Mr. White	pg. 22
2024 Standard Specifications:		
906.03	Preformed Expansion Joint Fil	ler
Item No. 3	Mr. Reilman	pg. 26
2024 Standard Specifications:		
702.05	Proportioning	
702.07	Mixing	
Item No. 4	Mr. Novak	pg. 30
2024 Standard Specifications:		
622.06	Planting Season	
622.19	Crown Vetch Plants and Seedl	ings Blank

cc: Committee Members

FHWA ICI **REVISION TO 2024 STANDARD DRAWINGS**

PROPOSAL TO STANDARDS COMMITTEE

<u>PROBLEM(S) ENCOUNTERED:</u> To enhance motorist safety and operation the agency plans to install permanent dynamic message signs at interstate interchanges to display real time and other pertinent travel information. There is currently not a standard for the structure to support this type of signing.

PROPOSED SOLUTION: Develop a new drawing series for Dynamic Message Butterfly Cantilever (802-DBCS) sign structures.

APPLICABLE STANDARD SPECIFICATIONS: Section 910.19 Overhead Sign Structures

APPLICABLE STANDARD DRAWING: New Series

APPLICABLE DESIGN MANUAL CHAPTER: 502

APPLICABLE SECTION OF GIFE: N/A

 $\underline{\text{APPLICABLE RECURRING SPECIAL PROVISION OR PLAN DETAILS: } N/A$

PAY ITEMS AFFECTED: N/A

APPLICABLE SUB-COMMITTEE ENDORSEMENT: N/A

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE: $\ensuremath{N/A}$

IMPACT ANALYSIS (attach report): yes

Submitted By: David Boruff

Title: Manager, Office of the Traffic Administration

Division: Traffic Engineering

E-mail: dboruff@indot.in.gov

Date: 5/15/24

Mr. Boruff Date: 06/20/24

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS

REVISION TO 2024 STANDARD DRAWINGS

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.

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

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

Will this proposal reduce operational costs or maintenance effort? No

Will this item improve safety:

<u>For motorists?</u> Yes For construction workers? Yes

Will this proposal improve quality for:

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

 $\underline{\text{Will this change provide the contracto}} r \ \text{more flexibility?} \ N/A$

Will this proposal provide clarification for the Contractor and field personnel? N/A

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

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

E 802-DBCS-01 Dynamic Message Sign Butterfly Cantilever Structure Index

INDEX		
SHEET NO.	SUBJECT	
1	Index	
2	Structure Plan, Elevation, Member Sizes, and Camber	
3	Quadri-Chord and Flange Details	
4	Upper Chords Connection Details	
5	Lower Chords Connection Details	
6	Base Plate, Anchor Bolt, and Metal Skirt Details	
7	Handhole and I.D. Tag Details	
8	Access Details	
9	Walkway Details	
10	Handrail Details	
11	Ladder Details	
12	Security Gate Details	
13	Wiring Layout Details	
14	Foundation at 33" Concrete Barrier	
15	Foundation at 45" Concrete Barrier	
16	Foundation 4'-0" Ø Drilled Shaft	

INDIANA DEPARTMENT OF TRANSPORTATION

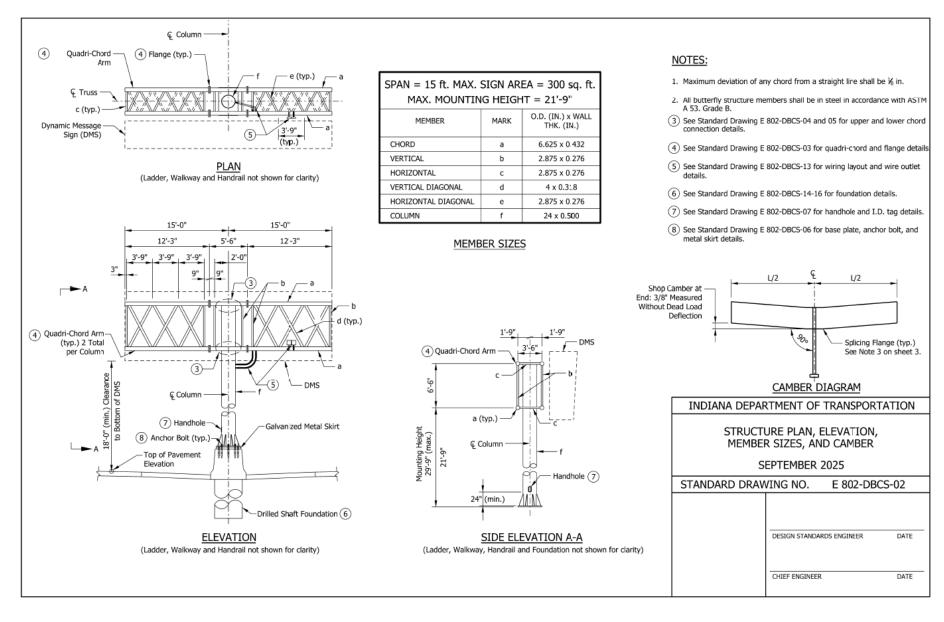
DYNAMIC MESSAGE SIGN BUTTERFLY CANTILEVER STRUCTURE INDEX SEPTEMBER 2025

STANDARD DRAWING NO. E 802-DBCS-01

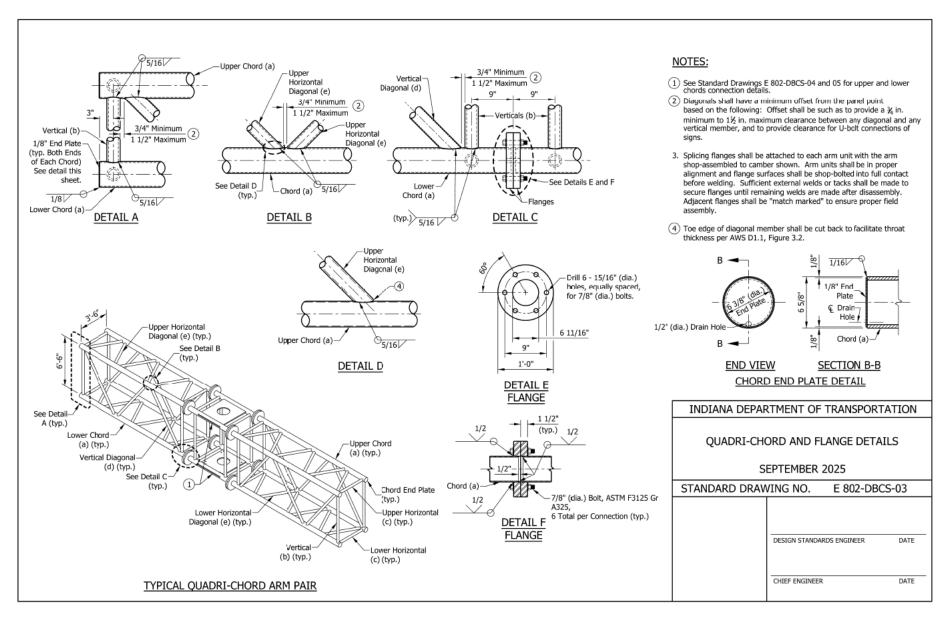
DESIGN STANDARDS ENGINEER DATE

CHIEF ENGINEER DATE

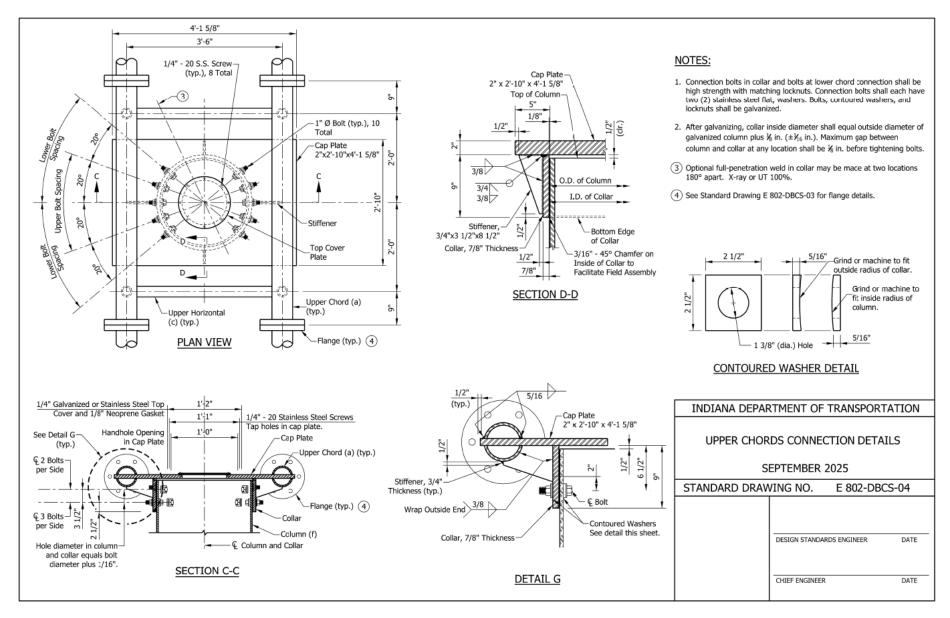
E 802-DBCS-02 Structure Plan, Elevation, Member Sizes, and Camber



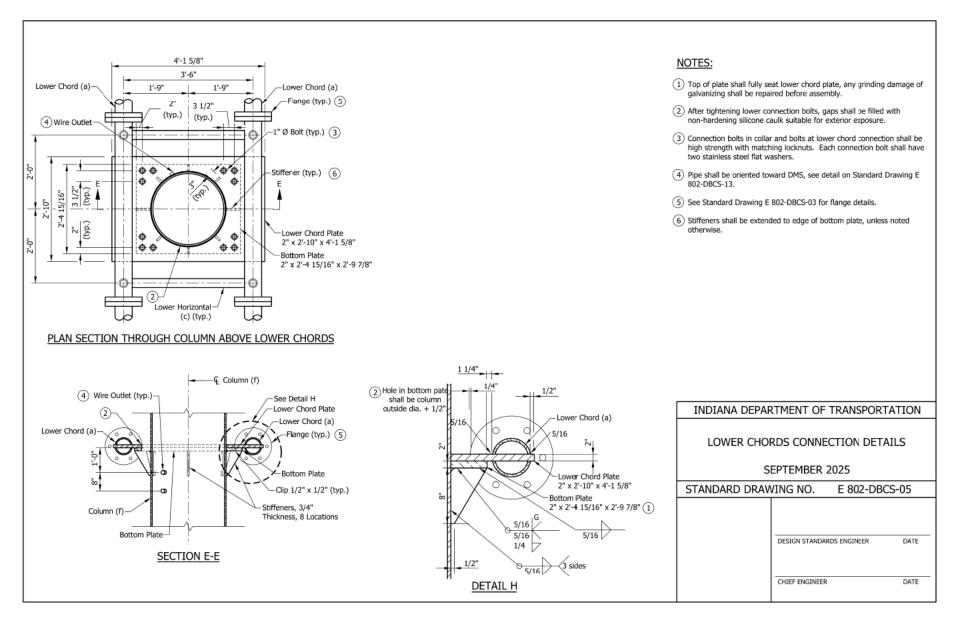
E 802-DBCS-03 Quadri-Chord and Flange Details



E 802-DBCS-04 Upper Chords Connection Details



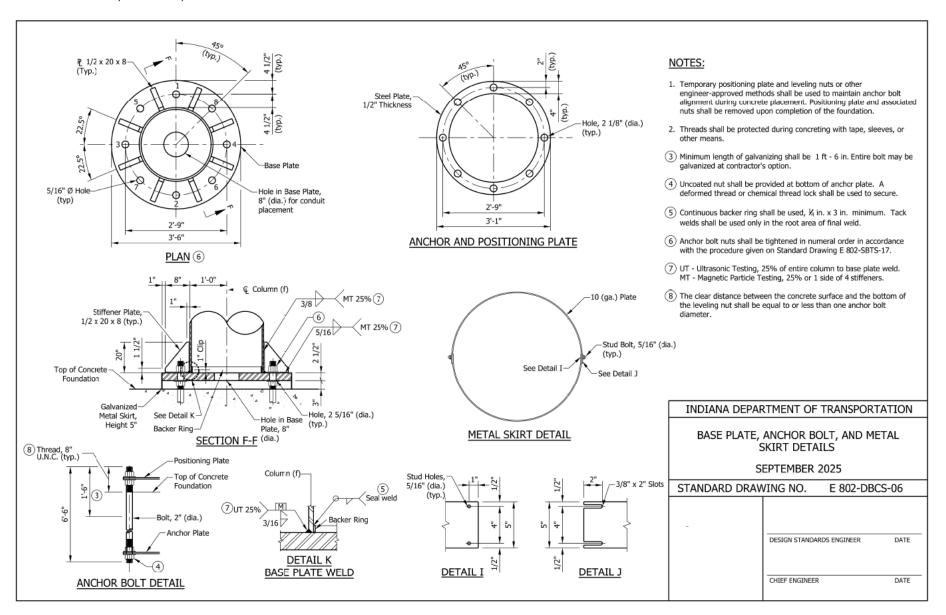
E 802-DBCS-05 Lower Chords Connection Details



Mr. Boruff Date: 06/20/24

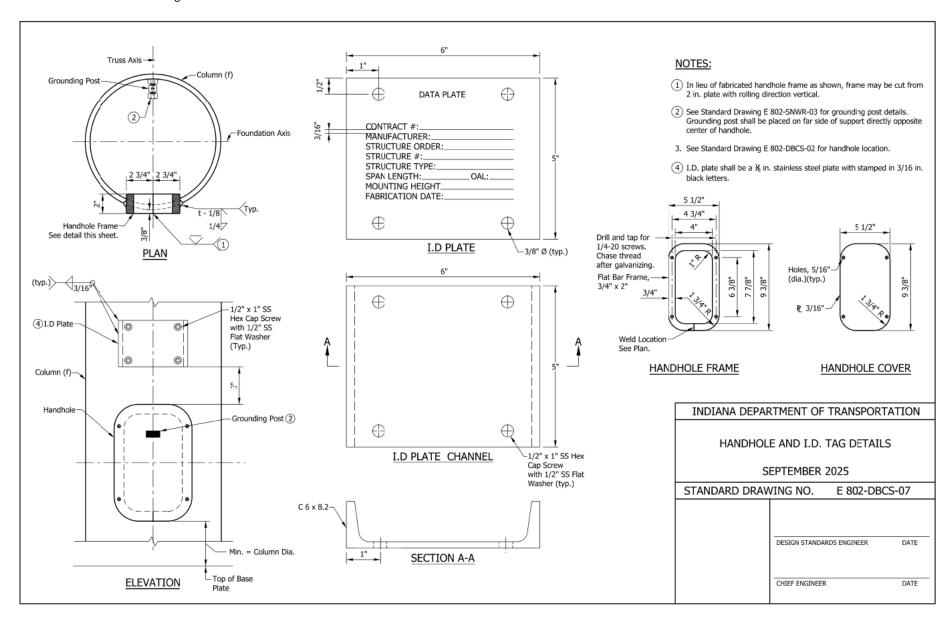
REVISION TO 2024 STANDARD DRAWINGS

E 802-DBCS-06 Base Plate, Anchor Bolt, and Metal Skirt Details



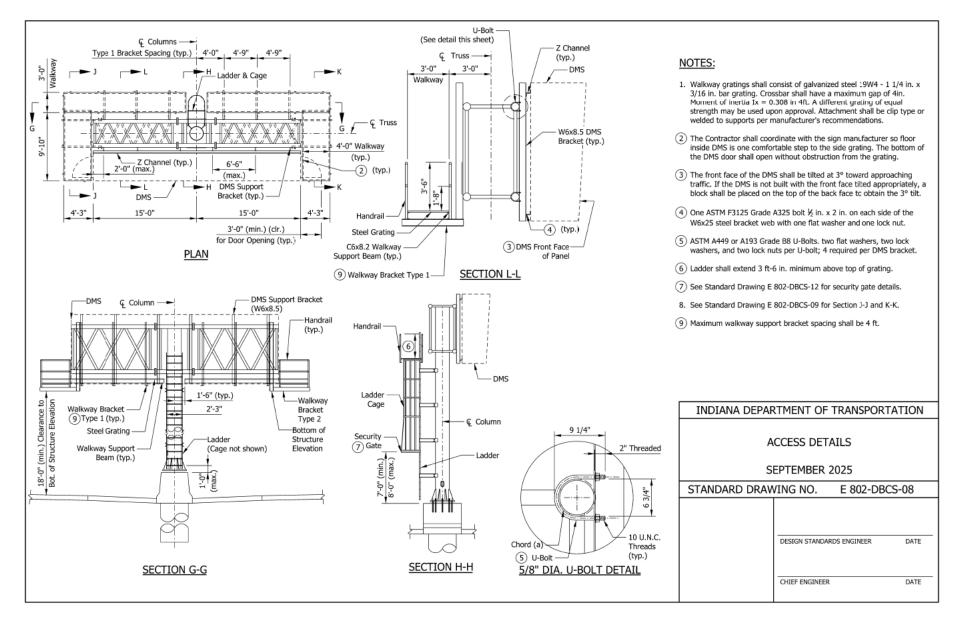
REVISION TO 2024 STANDARD DRAWINGS

E 802-DBCS-07 Handhole and I.D. Tag Details

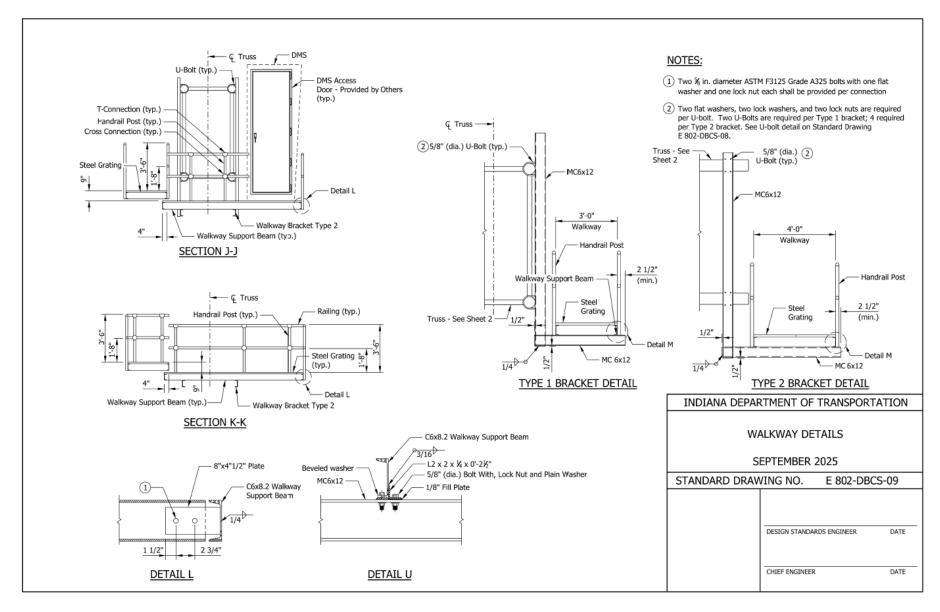


REVISION TO 2024 STANDARD DRAWINGS

E 802-DBCS-08 Access Details

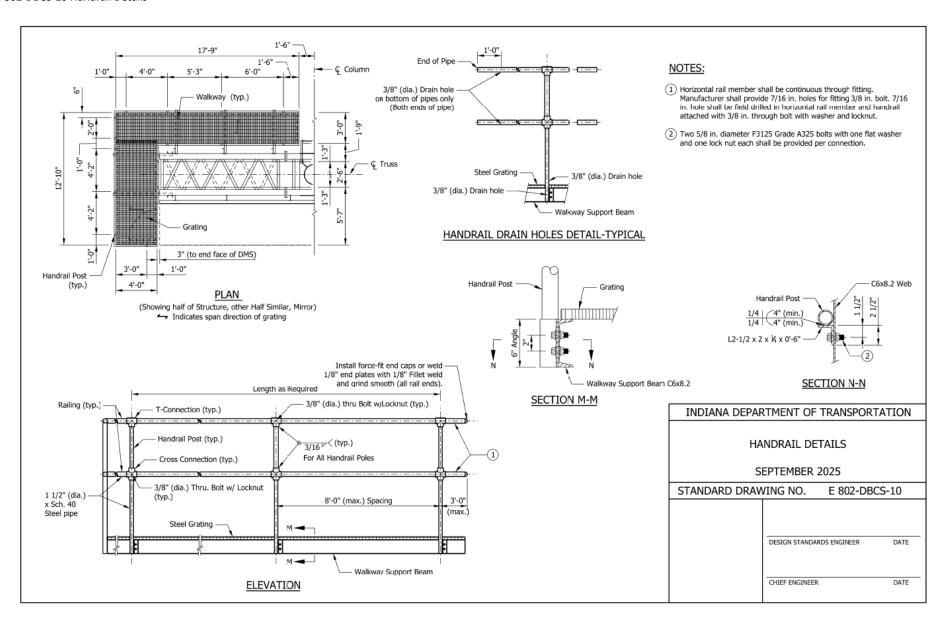


E 802-DBCS-09 Walkway Details



REVISION TO 2024 STANDARD DRAWINGS

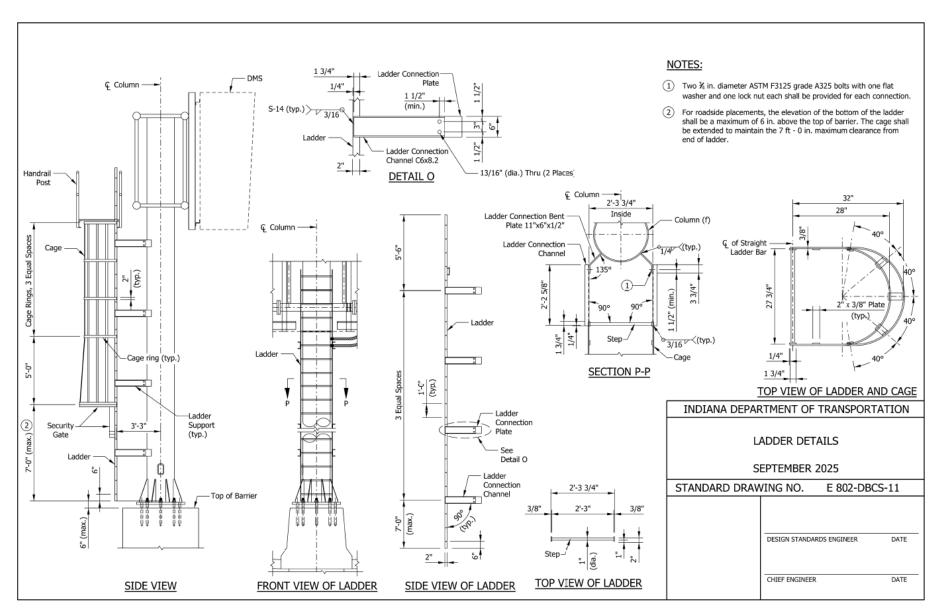
E 802-DBCS-10 Handrail Details



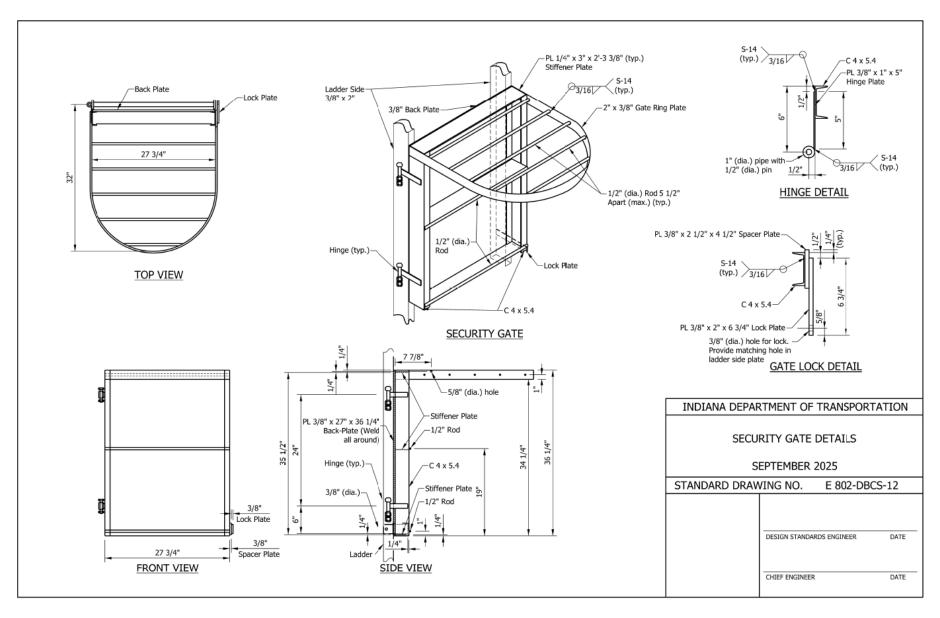
Mr. Boruff Date: 06/20/24

REVISION TO 2024 STANDARD DRAWINGS

E 802-DBCS-11 Ladder Details

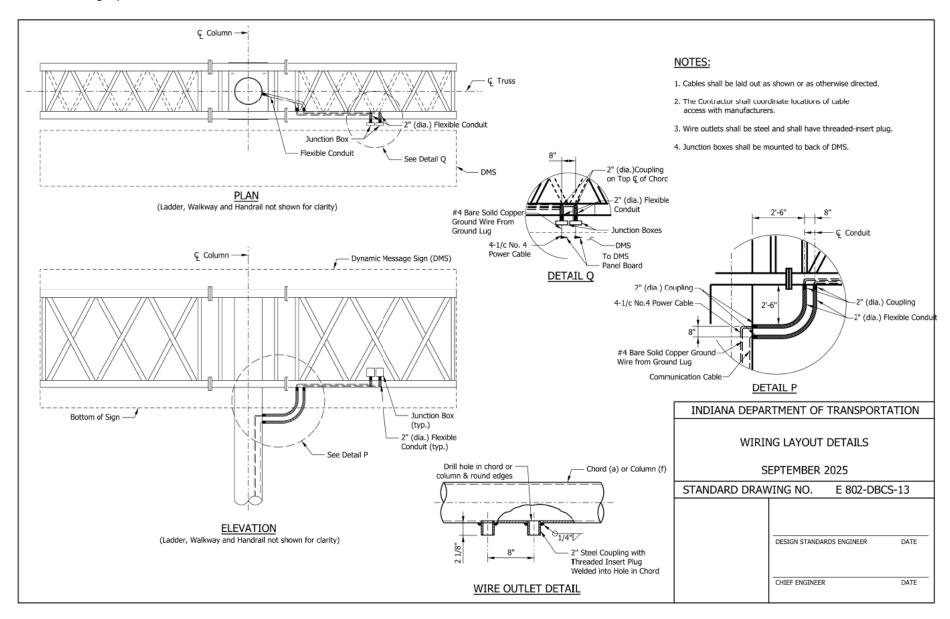


E 802-DBCS-12 Security Gate Details

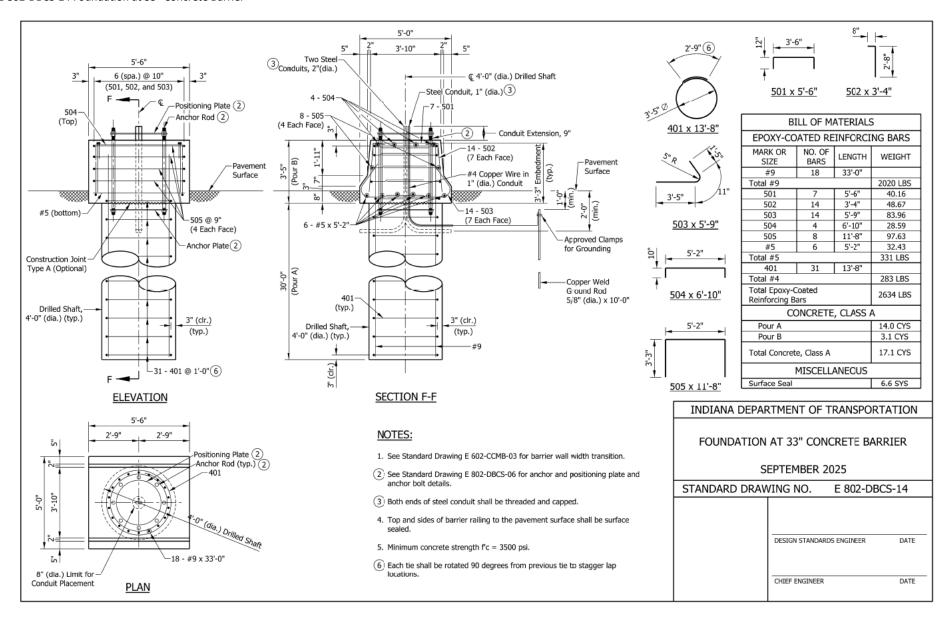


REVISION TO 2024 STANDARD DRAWINGS

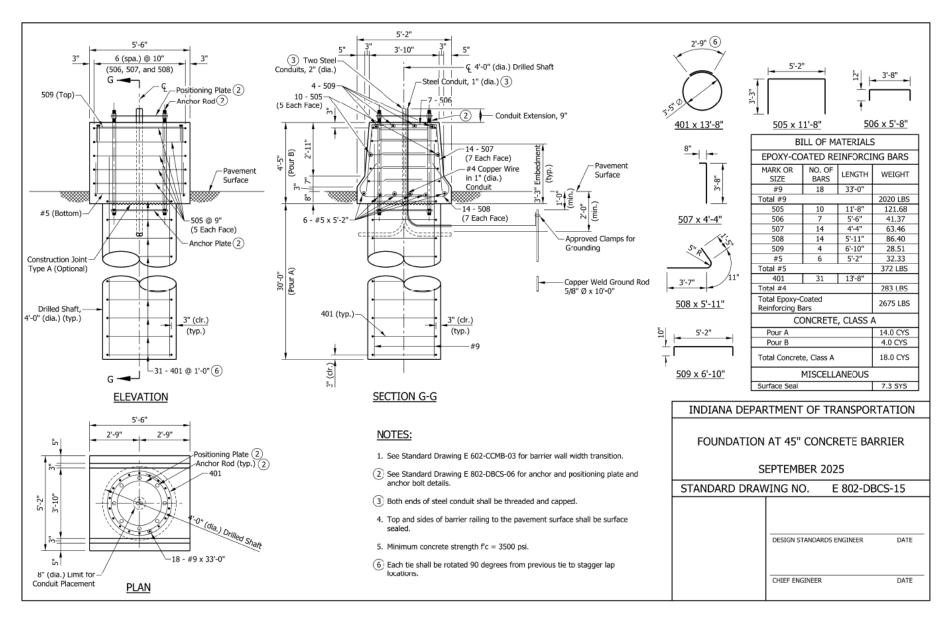
E 802-DBCS-13 Wiring Layout Details



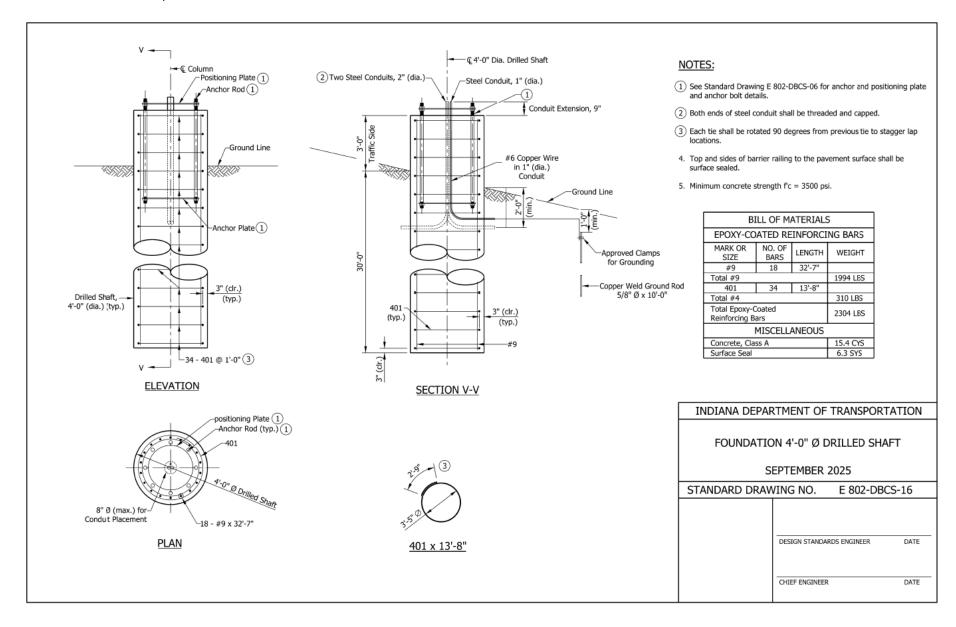
E 802-DBCS-14 Foundation at 33" Concrete Barrier



E 802-DBCS-15 Foundation at 45" Concrete Barrier



E 802-DBCS-16 Foundation 4'-0" Ø Drilled Shaft



<u>Item No. 1</u> (2024 SS) (contd.) Mr. Boruff

Mr. Boruff Date: 06/20/24

COMMENTS AND ACTION

E 802-DBCS-01 thru E 802-DBCS-16 (proposed new series)

DISCUSSION:

Motion: Second: Ayes: Nays: FHWA Approval:	Action: Passed as Submitted Passed as Revised Withdrawn
2024 Standard Specifications Sections: Recurring Special Provisions or Plan	2026 Standard Specifications Revise Pay Items List Notification to Designers if change is not
Details: NONE	addressed by RSP
Standard Drawing affected: NONE	Create RSP (No) Effective:
Design Manual Chapter: NONE	Revise RSP (No) Effective:
GIFE Section: NONE	Standard Drawing Effective:
	Create RPD (No) Effective:
	GIFE Update Frequency Manual Update SiteManager Update

Mr. White Date: 06/20/24

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS

REVISION TO 2024 STANDARD SPECIFICATIONS

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: The current specification for preformed expansion joint filler, PEJF, requires the water absorption be less than 1% as measured in accordance with ASTM C272. Contractors have indicated that materials meeting this requirement aren't readily available.

<u>PROPOSED SOLUTION:</u> Remove the water absorption requirement from 906.03 The current specification requires PEJF materials to be in accordance with ASTM C578, which already includes water absorption requirements that vary based on the grade of polystyrene used. This change will allow much greater material availability while still following the ASTM standard for polystyrene.

APPLICABLE STANDARD SPECIFICATIONS: 906.03

APPLICABLE STANDARD DRAWING: N/A

APPLICABLE DESIGN MANUAL CHAPTER: N/A

APPLICABLE SECTION OF GIFE: N/A

APPLICABLE RECURRING SPECIAL PROVISION OR PLAN DETAILS: N/A

PAY ITEMS AFFECTED: N/A

APPLICABLE SUB-COMMITTEE ENDORSEMENT: Ad hoc committee consisting of Jim Reilman, Aamir Turk, Sung Min (Sean) Yoon, and Pete White.

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE: Contracts containing 702 pay items.

IMPACT ANALYSIS (attach report):

Submitted By: Pete White

Title: Design Manager

Division: INDOT Bridge Engineering

E-mail: <u>pewhite@indot.in.gov</u>

Date: May 6, 2024

Mr. White Date: 06/20/24

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS

REVISION TO 2024 STANDARD SPECIFICATIONS

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.

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

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:

<u>For motorists?</u> No For construction workers? No

Will this proposal improve quality for:

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

Will this change provide the contractor more flexibility? Yes

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:

<u>Federal or State regulations?</u> No <u>AASHTO or other design code?</u> No

Is this item editorial? No

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

Mr. White Date: 06/20/24

REVISION TO 2024 STANDARD SPECIFICATIONS

SECTION 906 – JOINT MATERIALS 906.03 Preformed Expansion Joint Filler

(Note: Proposed changes shown highlighted gray)

The Standard Specifications are revised as follows:

SECTION 906, BEGIN LINE 111, DELETE AS FOLLOWS:

906.03 Preformed Expansion Joint Filler

Preformed expansion joint filler, PEJF, shall be preformed materials intended to be used at bridge component interfaces that are not required to be watertight. PEJF shall be either extruded polystyrene, XPS, or expanded polystyrene, EPS in accordance with ASTM C578. The compressive resistance shall be less than 40 psi, as measured in accordance with ASTM D1621. Water absorption shall be less than 1%, as measured in accordance with ASTM C272. PEJF will be by accepted by visual inspection.

<u>Item No. 2</u> (2024 SS) (contd.) Mr. White

Mr. White Date: 06/20/24

COMMENTS AND ACTION

906.03 Preformed Expansion Joint Filler

DISCUSSION:

Motion: Second: Ayes: Nays: FHWA Approval:	Action: Passed as Submitted Passed as Revised Withdrawn
2024 Standard Specifications Sections: 906.03 pg. 1022.	 2026 Standard Specifications Revise Pay Items List Notification to Designers if change is not
Recurring Special Provisions or Plan Details:	addressed by RSP
NONE	Create RSP (No) Effective:
Standard Drawing affected:	
NONE	Revise RSP (No) Effective:
Design Manual Chapter:	
NONE	Standard Drawing Effective:
GIFE Section:	
NONE	Create RPD (No) Effective:
	GIFE Update Frequency Manual Update SiteManager Update

Mr. Reilman Date: 06/20/24

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS

REVISION TO 2024 STANDARD SPECIFICATIONS

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: The requirement to have a water-reducing admixture in Class A concrete is no longer relevant as the chemistry in Type 1L cement along with emerging technology in current admixtures is changing.

<u>PROPOSED SOLUTION:</u> Remove requirement for a water-reducing admixture in Class A concrete, as stated in section 702.5.

APPLICABLE STANDARD SPECIFICATIONS: 702.05 and 702.07

APPLICABLE STANDARD DRAWINGS: none

APPLICABLE DESIGN MANUAL SECTION: none

APPLICABLE SECTION OF GIFE: none

APPLICABLE RECURRING SPECIAL PROVISIONS: none

PAY ITEMS AFFECTED: none

APPLICABLE SUB-COMMITTEE ENDORSEMENT: INDOT-IRMCA Working Committee

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE: Required for all contracts, except mowing, herbicide, sweeping, light bulb replacement, or tree removal/trimming.

IMPACT ANALYSIS (attach report):

Submitted By: Jim Reilman

Title: State Materials Engineer

Organization: INDOT

Phone Number: (317) 522-9692

Date: 5/13/2024

Mr. Reilman Date: 06/20/24

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS

REVISION TO 2024 STANDARD SPECIFICATIONS

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.

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

Construction costs? N/A

Construction time? N/A

Customer satisfaction? N/A

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? Yes

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:

Item No. 3 (2024 SS) (contd.)

Mr. Reilman Date: 06/20/24

REVISION TO 2024 STANDARD SPECIFICATIONS

SECTION 702 – STRUCTURAL CONCRETE 702.05 Proportioning 702.07 Mixing

(Note: Proposed changes shown highlighted gray)

The Standard Specifications are revised as follows:

SECTION 702, BEGIN LINE 141, DELETE AS FOLLOWS:

Class A concrete shall contain a water-reducing admixture. Class C concrete shall contain a retarding admixture when either the air temperature is above 70°F or the concrete temperature is above 80°F, or if retardation is required due to the structure design, or due to the proposed pour sequence such as for the requirements for floor slab pours set out in 704.04. Air-entraining cements will not be allowed in class C concrete.

SECTION 702, BEGIN LINE 247, DELETE AS FOLLOWS:

Concrete that is outside the specified slump limits at time of placement shall not be used. Except as required in 702.05 for elass A and class C concrete, chemical admixtures Type A, Type B, Type D, Type F, and Type G may be used in the concrete. Chemical admixtures Type C and Type E will be allowed only with prior written permission.

<u>Item No. 3</u> (2024 SS) (contd.) Mr. Reilman

Mr. Reilman Date: 06/20/24

COMMENTS AND ACTION

702.05 Proportioning 702.07 Mixing

DISCUSSION:

Motion: Second: Ayes: Nays: FHWA Approval:	Action: Passed as Submitted Passed as Revised Withdrawn
2024 Standard Specifications Sections: 702.05 pg. 621 and 702.07 pg. 624.	 2026 Standard Specifications Revise Pay Items List Notification to Designers if change is not
Recurring Special Provisions or Plan	addressed by RSP
Details:	C + PCP (N)
NONE	Create RSP (No) Effective:
Standard Drawing affected:	
NONE	Revise RSP (No) Effective:
Design Manual Chapter:	
NONE	Standard Drawing Effective:
GIFE Section:	
NONE	Create RPD (No) Effective:
	GIFE Update Frequency Manual Update
	SiteManager Update

REVISION TO 2024 STANDARD SPECIFICATIONS

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: It has come to our attention that crown vetch is included in the DNR Terrestrial Plant Rule, https://www.in.gov/dnr/files/ep-terrestrial_plant_rule.pdf as a species of invasive pests. This rule has made it illegal to sell, distribute, transport, or plant crown vetch since 2019. There are several references to planting crown vetch in 622.06 and 622.19 that should come out of the specs.

PROPOSED SOLUTION: Edit 622.06 to remove references to crown vetch and delete section 622.19 in its entirety.

APPLICABLE STANDARD SPECIFICATIONS: 622.06 and 622.19

APPLICABLE STANDARD DRAWING: None

APPLICABLE DESIGN MANUAL CHAPTER: None

APPLICABLE SECTION OF GIFE: None

APPLICABLE RECURRING SPECIAL PROVISION OR PLAN DETAILS: None

<u>PAY ITEMS AFFECTED:</u> Crown Vetch pay item has not been used since before the 2020 letting year.

APPLICABLE SUB-COMMITTEE ENDORSEMENT: ad hoc group of Tom Harris and Matt Kraushar.

IF APPROVED AS RECURRING SPECIAL PROVISION OR PLAN DETAILS, PROPOSED BASIS FOR USE: All contracts with a 622 pay item.

IMPACT ANALYSIS (attach report): Attached

Submitted By: Joe Novak

Title: State Construction Engineer

Division: Construction Management

E-mail: jnovak@indot.in.gov

Date: 6/3/2024

Mr. Novak Date: 06/20/24

STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND STANDARD DRAWINGS

REVISION TO 2024 STANDARD SPECIFICATIONS

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.

<u>Does this item appear in any other specification sections?</u> No <u>Will approval of this item affect the Qualified Products List (QPL)?</u> 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:

<u>Construction procedures/processes?</u> No <u>Asset preservation?</u> No <u>Design process?</u> 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? Yes

Is this proposal needed for compliance with:

<u>Federal or State regulations?</u> Yes 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: This change makes the SS consistent with the DNR Terrestrial Plant Rule.

Mr. Novak Date: 06/20/24

REVISION TO 2024 STANDARD SPECIFICATIONS

SECTION 622 – PLANTING TREES, SHRUBS, AND VINES 622.06 Planting Season 622.19 Crown Vetch Plants and Seedlings

(Note: Proposed changes shown highlighted gray)

The Standard Specifications are revised as follows:

SECTION 703, BEGIN LINE 99, DELETE AND INSERT AS FOLLOWS:

622.06 Planting Season

The planting season shall be from September 1 through the following May 25, with the exception that trees shall be planted from October 1 through the following April 15, provided that trees are dormant. Crown vetch plants and seedlings shall be planted only from April 15 through May 30, unless approved in writing. Bare rooted plants shall be planted only when the outside air temperature exceeds 35°F. Unless otherwise approved, deciduous plants, except those container grown, shall be dormant at the time they arrive at the work or storage site. Evergreens shall not have active terminal growth. At least 40% of the total number of balled and burlapped, and container grown plants, not including crown vetch plants, shall be planted from the beginning of the planting season through December 31. Bare root seedlings for wildlife habitat shall be planted at any time.

SECTION 622, BEGIN LINE 371, DELETE AND INSERT AS FOLLOWS:

622.19 Crown Vetch Plants and Seedlings Blank

The requirements of 622.09 and 622.18 will not apply to these items. Seedlings shall be fertilized as specified on the plans. Crown vetch plants and seedlings, including replacements, shall be watered as necessary to keep them in a living, healthy, and good growing condition.

On or about June 5, these items will be inspected. If it is estimated that 90% or more of the plan quantity of any individual item in a specific area is living, healthy, and in a good growing condition, replacements will not be required. If less than 90% are alive, healthy, and in a good growing condition, all items not meeting these requirements shall be replaced. Replacements shall be marked in the same manner as the original planting, except the markers shall be yellow.

Replacement planting shall be accomplished prior to June 15.

A final inspection will be made on or about the following September 15. If it is estimated that 90% of the contract quantity of any individual item is living, healthy, and in a good growing condition, payment will be made for the contract quantity. If less than 90% meet these requirements, the pay quantity for the item will be established.

<u>Item No. 4</u> (2024 SS) (contd.) Mr. Novak

Mr. Novak Date: 06/20/24

COMMENTS AND ACTION

622.06 Planting Season 622.19 Crown Vetch Plants and Seedlings

DISCUSSION:

Motion: Second: Ayes: Nays: FHWA Approval:	Action: Passed as Submitted Passed as Revised Withdrawn
2024 Standard Specifications Sections: 622 pg. 576, 582.	2026 Standard Specifications Revise Pay Items List Notification to Designers if change is <u>not</u>
Recurring Special Provisions or Plan Details:	addressed by RSP
NONE	Create RSP (No) Effective:
Standard Drawing affected: NONE	Revise RSP (No) Effective:
Design Manual Chapter: NONE	Standard Drawing Effective:
GIFE Section: NONE	Create RPD (No)
	Effective:
	GIFE Update Frequency Manual Update SiteManager Update