Chapter 03 - Superstructure

SECTION 01

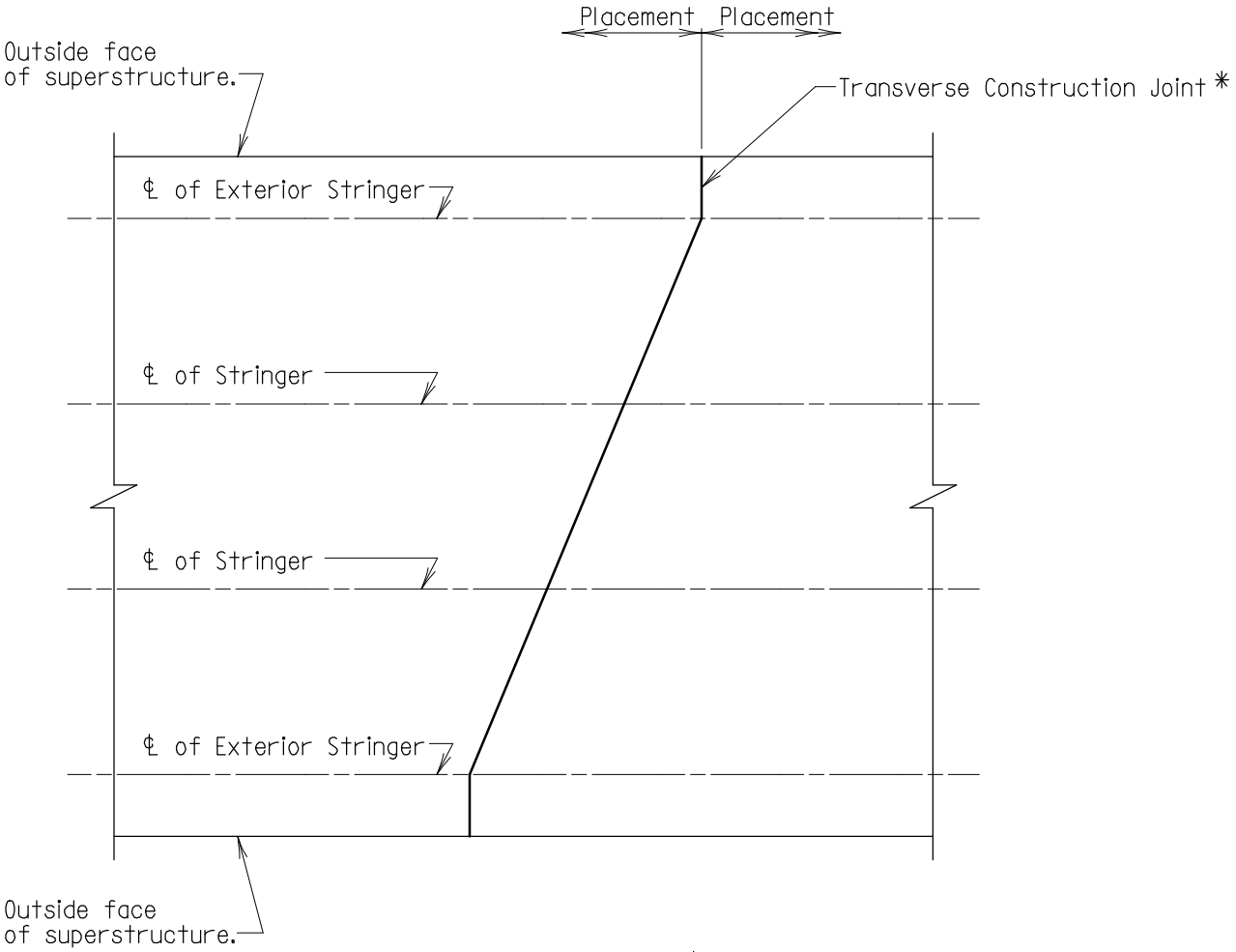
BRIDGE DECK (SUP-BD)

Chapter 03 - Superstructure

Section 01 – Bridge Deck

SUB-SECTION **01**

BRIDGE DECK DETAILS (SUP-BD(DT))



PLAN

Scale: None

*Transverse construction joints to be placed parallel to center line bearing for piers and abutments. If substructure units are not parallel then transverse construction joints shall be parallel to the closest substructure unit center line of bearing.

Transverse construction joints to be perpendicular to the outside face of superstructure for the portion of the deck outside of the exterior stringer.

Note:
For detail of construction joint see Detail No. SUP-BD(DT)-102.

APPROVAL
C.S. Freedman DIRECTOR OFFICE OF STRUCTURES
DATE: 09/13/1994
VERSION
1.0

STATE OF MARYLAND
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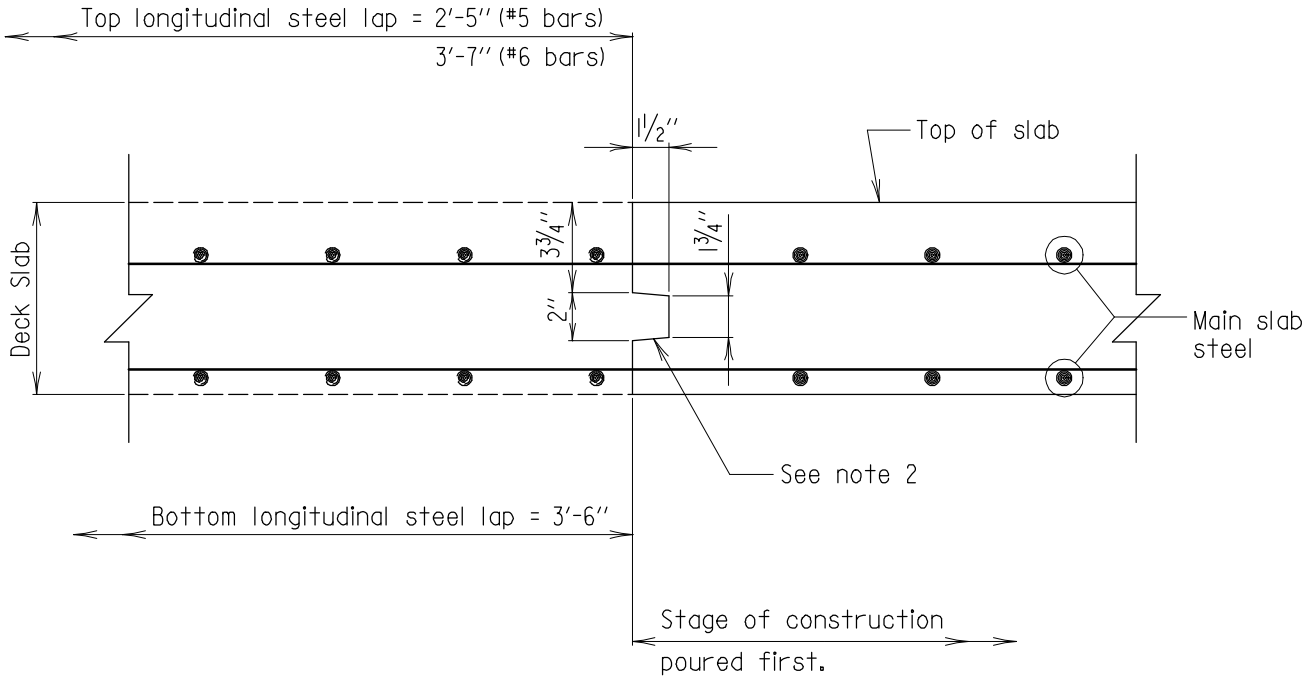
LAYOUT OF TRANSVERSE JOINT FOR SKEWED BRIDGE DECK

DETAIL NO. SUP-BD(DT)-101 SHEET 1 OF 1

SUPER-BRIDGE DECK



SECTION

Scale: 1½" = 1'-0"

Notes:

1. Reinforcing steel to be continuous thru joint.
2. Entire face of construction joint shall be coated with an approved epoxy bonding compound.
3. See Detail No. SUP-BD(DT)-201 for bridge deck slab reinforcing splices.

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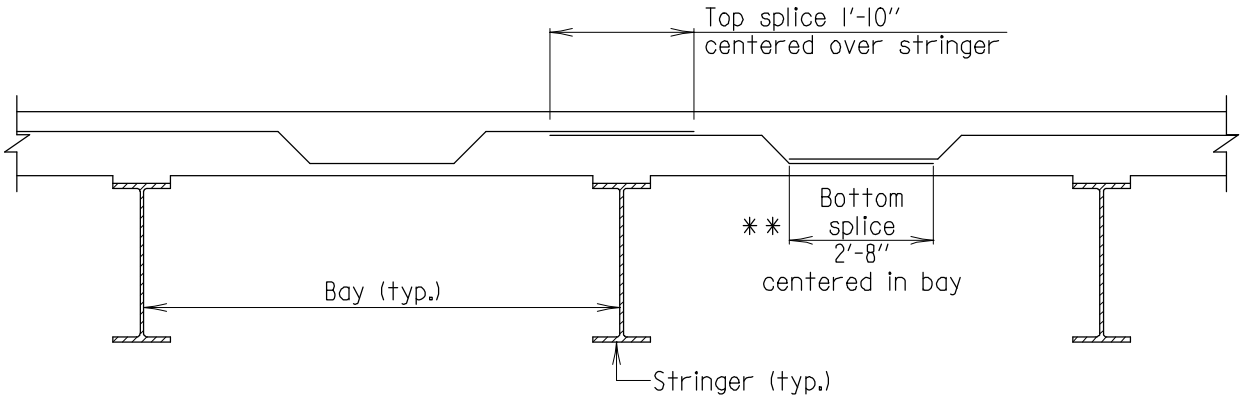
BRIDGE DECK SLAB DETAIL AT TRANSVERSE CONSTRUCTION JOINT

DETAIL NO. SUP-BD(DT)-102 SHEET 1 OF 1

SUPER - BRIDGE DECK



** This splice location can only be used if truss bottom leg dimension is greater than or equal to lap length.

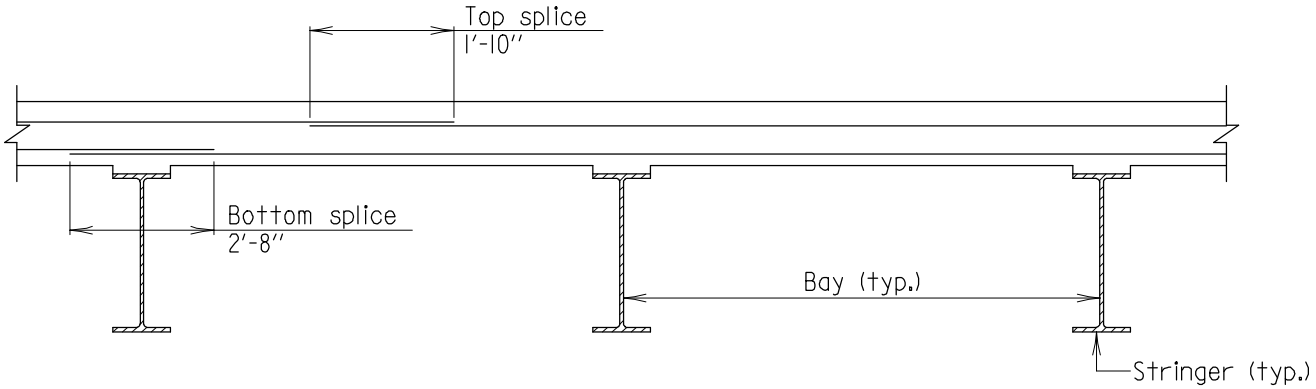
No more than one splice may occur over every 3rd stringer (top splice) or within 3rd bay (bottom splice).

All bars must splice in the same plane (all in top of slab or all in bottom of slab).

SECTION

OPTIONAL TRANSVERSE TRUSS BAR SPLICE

Scale: None



Optional splices shown may not be used for decks 45'-0" or less in width.

SECTION

OPTIONAL TRANSVERSE STRAIGHT BAR SPLICE

Scale: None

Note:
See sheet 2 of 2 for longitudinal steel splice details.

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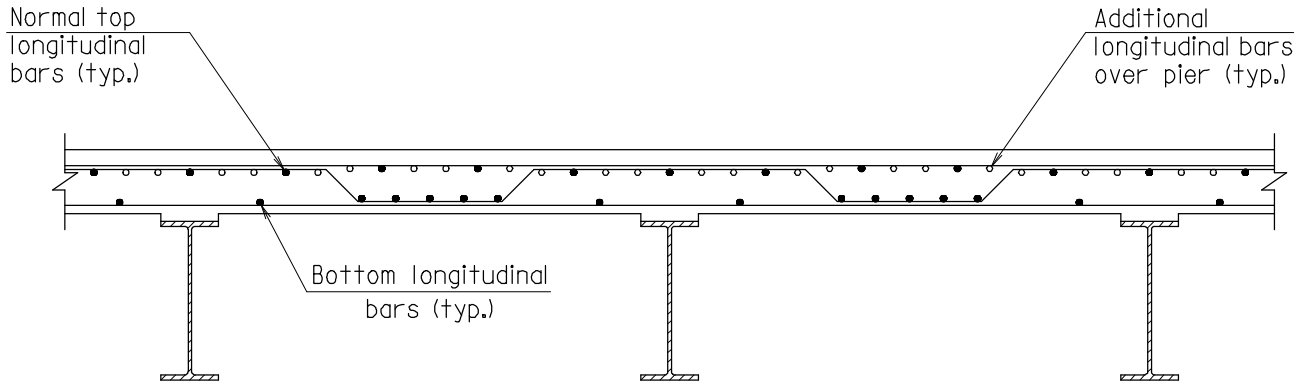
BRIDGE DECK SLAB REINFORCING
SPLICE LOCATIONS

DETAIL NO. SUP-BD(DT)-201 SHEET 1 OF 2

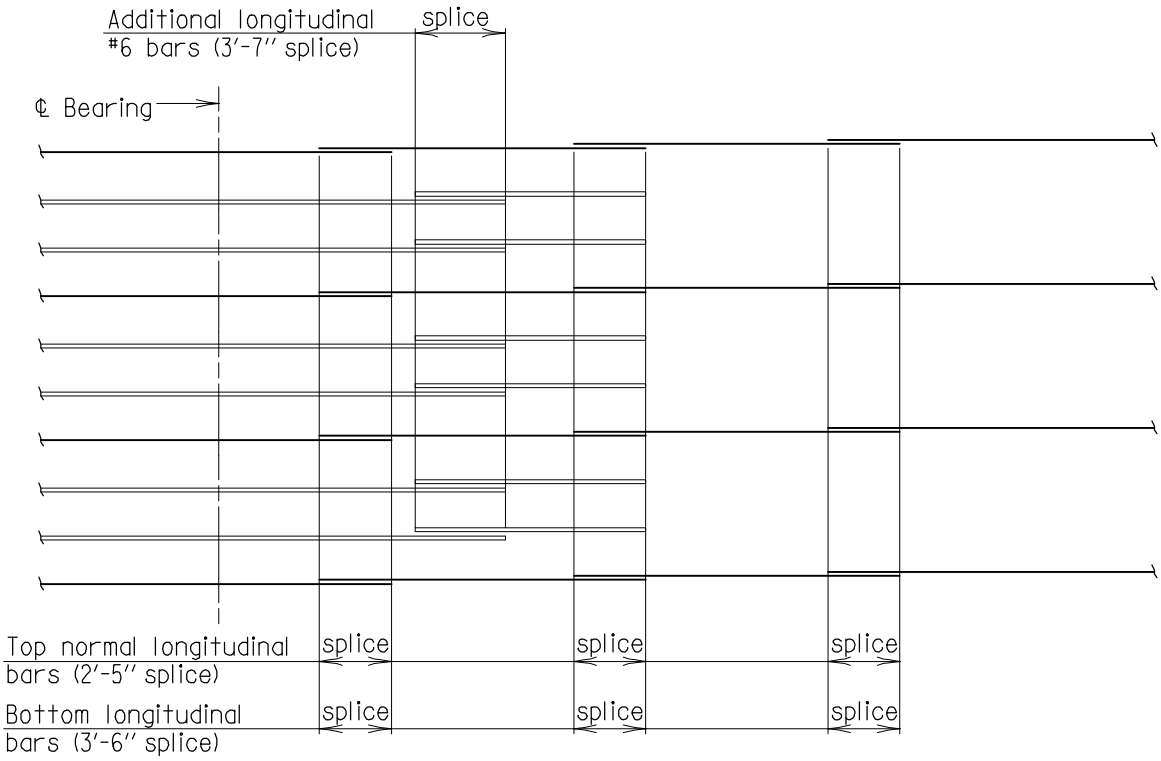
SUPER - BRIDGE DECK



BRIDGE DECK SECTION

Scale: None

Note:
This section shows the typical location of the longitudinal reinforcing bars for reference.



PLAN

LONGITUDINAL SPLICES

Scale: None

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Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES DATE: 04/30/2018	BRIDGE DECK SLAB REINFORCING SPLICE LOCATIONS
VERSION 2.0	DETAIL NO. SUP-BD(DT)-201 SHEET 2 OF 2

SUPER - BRIDGE DECK

Chapter 03 - Superstructure

Section 01 – Bridge Deck

SUB-SECTION **02**

BRIDGE DECK STEEL GIRDERS (SUP-BD(SG))

NOTES

Design:

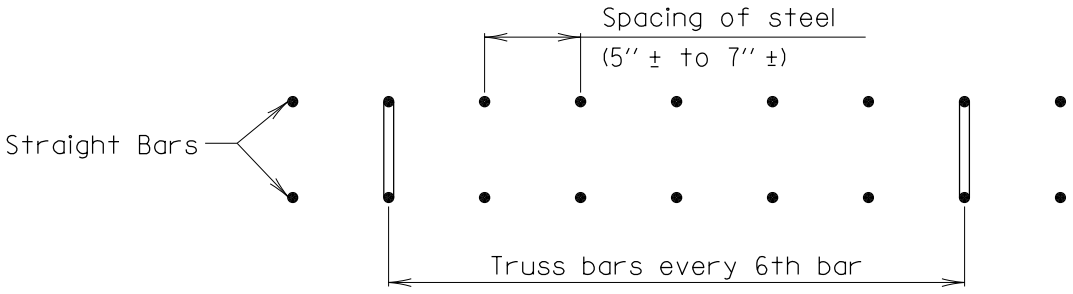
1. AASHTO LRFD Bridge Design Specifications, dated 2010.
2. f'_c = 4000 p.s.i.
3. Design includes provision for 2" future wearing surface.

General:

1. Transverse bars shall be placed normal to ℄ stringers, except in case of curved stringers. When stringers are curved transverse bars shall be placed radially.
2. When skew angles are greater than 60° then Contractor may use either Reinforcing Steel Pattern No. 1 or No. 2 throughout bridge.
3. When the stringer spacing is less than 6'-0", all bars shall be straight top and bottom. No truss bars are to be used.
4. Typical sections shall include a minimum of three stringers and have a width of not less than 14.0' between centerlines of exterior stringers.
5. Overhangs shall be at least 21" but shall not exceed the smaller of 0.625 times the stringer spacing and 6.0'.
6. Reinforcing in the slab overhangs shall be designed in accordance with AASHTO.
7. All reinforcing steel in the deck slabs shall be epoxy coated.
8. Bridge deck slab Details should not be used for stringer spacings less than 5'-0".
9. Bridge deck slab Details should not be used for top flange widths less than 12".

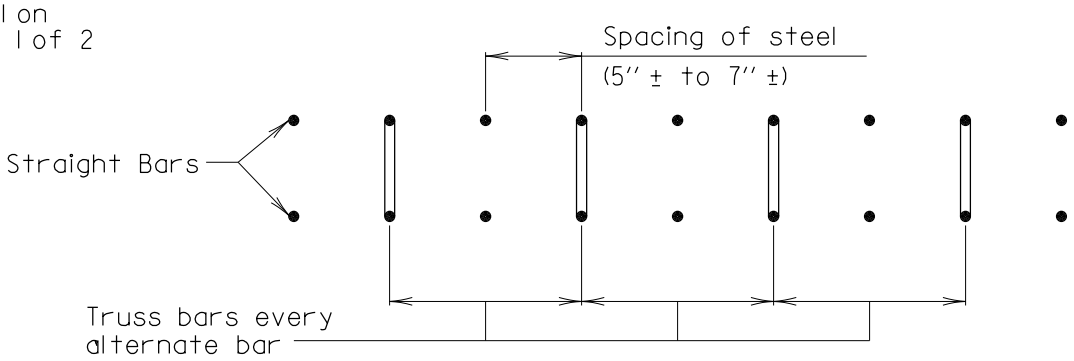
APPROVAL	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
E.S. Freedman DIRECTOR OFFICE OF STRUCTURES DATE: 04/12/2012	BRIDGE DECK SLAB FOR STEEL GIRDERS GENERAL NOTES AND BAR SPACING
VERSION 1.0	DETAIL NO. SUP-BD(SG)-101 SHEET 1 OF 2

SUPER - BRIDGE DECK



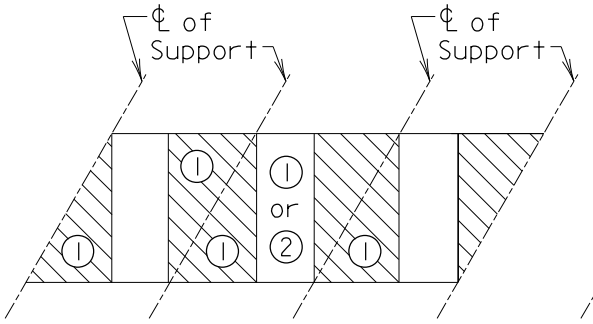
REINFORCING STEEL PATTERN NO. 1 PLACED NORMAL TO STRINGER*

*See General Note 1 on sheet 1 of 2

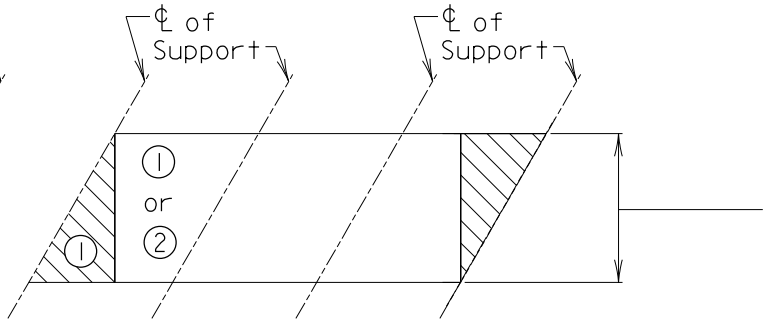


REINFORCING STEEL PATTERN NO.2 PLACED NORMAL TO STRINGER*

1. The Contractor has the option of using Reinforcing steel Pattern No.1 or No.2 in the unhatched portions of the decks shown below.
2. The Contractor shall use only Reinforcing Steel Pattern No.1 in the hatched portions of the decks shown below.



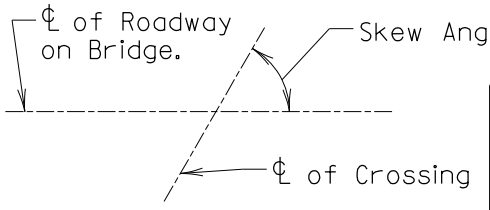
SIMPLE SPAN BRIDGE - PLAN



CONTINUOUS BRIDGE UNIT - PLAN

TRANSVERSE BAR SPACING FOR SPANS WITH SKEW ANGLES LESS THAN 60°

Scale: 1''=1'-0''



SKEW ANGLE

Scale: None

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DATE: 04/12/2012
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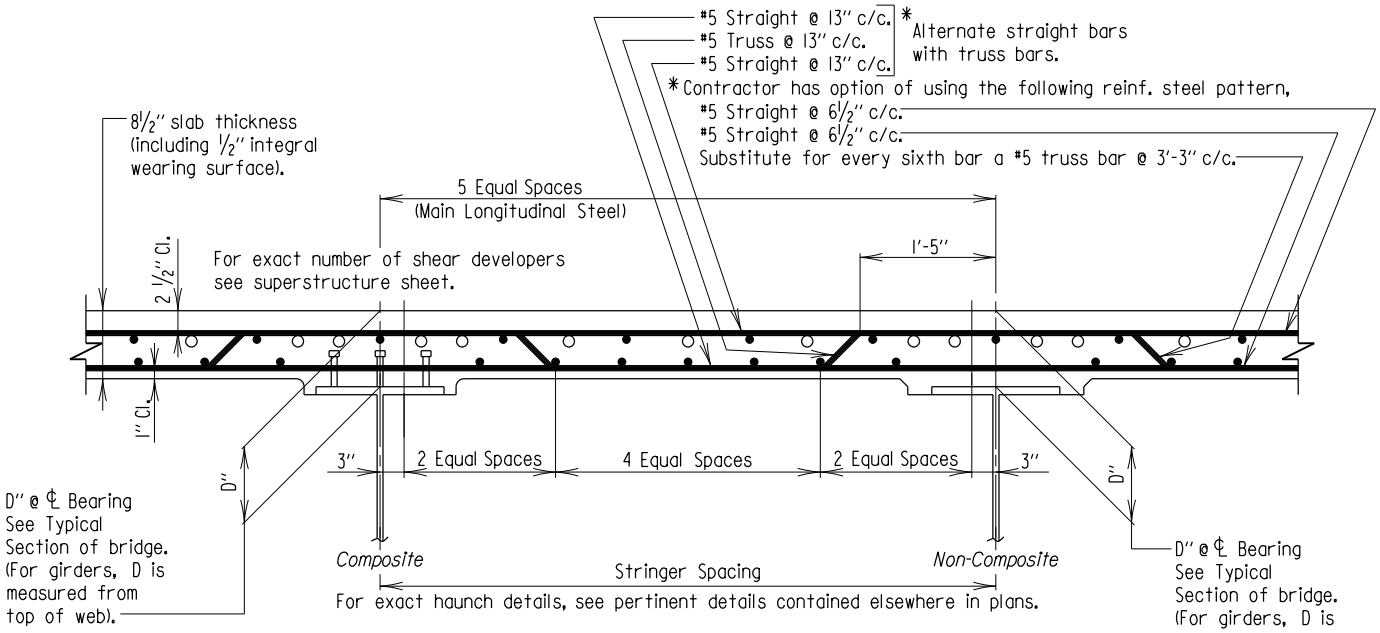
BRIDGE DECK SLAB FOR STEEL GIRDERS GENERAL NOTES AND BAR SPACING

DETAIL NO. SUP-BD(SG)-101 SHEET 2 OF 2

SUPER - BRIDGE DECK



HL-93 TYPE XXXI SLAB
6'-0" TO 6'-6" STRINGER SPACING

Scale: ½"=1'-0"

Note:
For stringer spacing less than 6'-0" see Note 3 on Detail No. SUP-BD(SG)-101.

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

LAP LENGTHS FOR DECK REINFORCING

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of stringers. (For curved girder see SUP-BD(SG)-101.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○, shall be #6 bars. See Detail No. SUP-BD(SG)-201 for the lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.
6. *Refer to SUP-BD(SG)-101 for overhang design requirements.*

Note:
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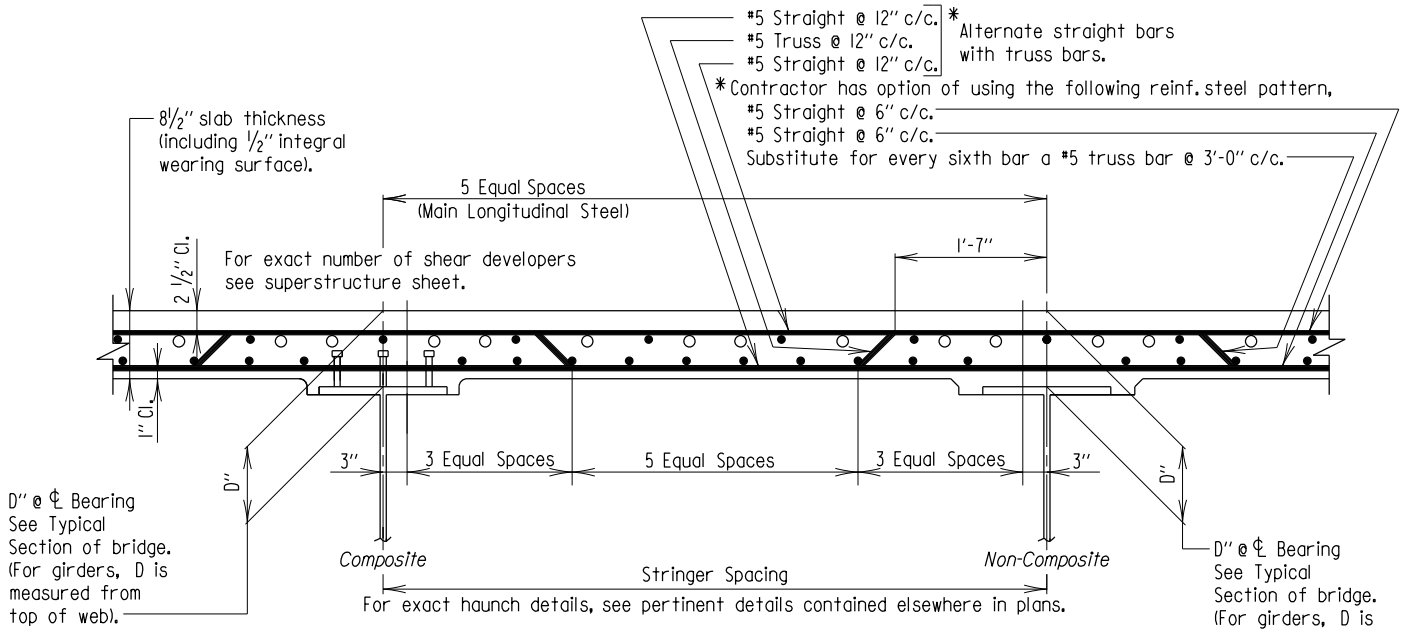
TYPE XXXI
BRIDGE DECK SLAB FOR STEEL GIRDER
HL-93 LOADING

DETAIL NO. SUP-BD(SG)-102 SHEET 1 OF 1

SUPER - BRIDHE DECK



HL-93 TYPE XXXII SLAB
GREATER THAN 6'-6" TO 7'-0" STRINGER SPACING

Scale: ½"=1'-0"

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

LAP LENGTHS FOR DECK REINFORCING

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of stringers. (For curved girder see SUP-BD(SG)-101.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○, shall be #6 bars. See Detail No. SUP-BD(SG)-201 for the lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.
6. *Refer to SUP-BD(SG)-101 for overhang design requirements.*

Note:
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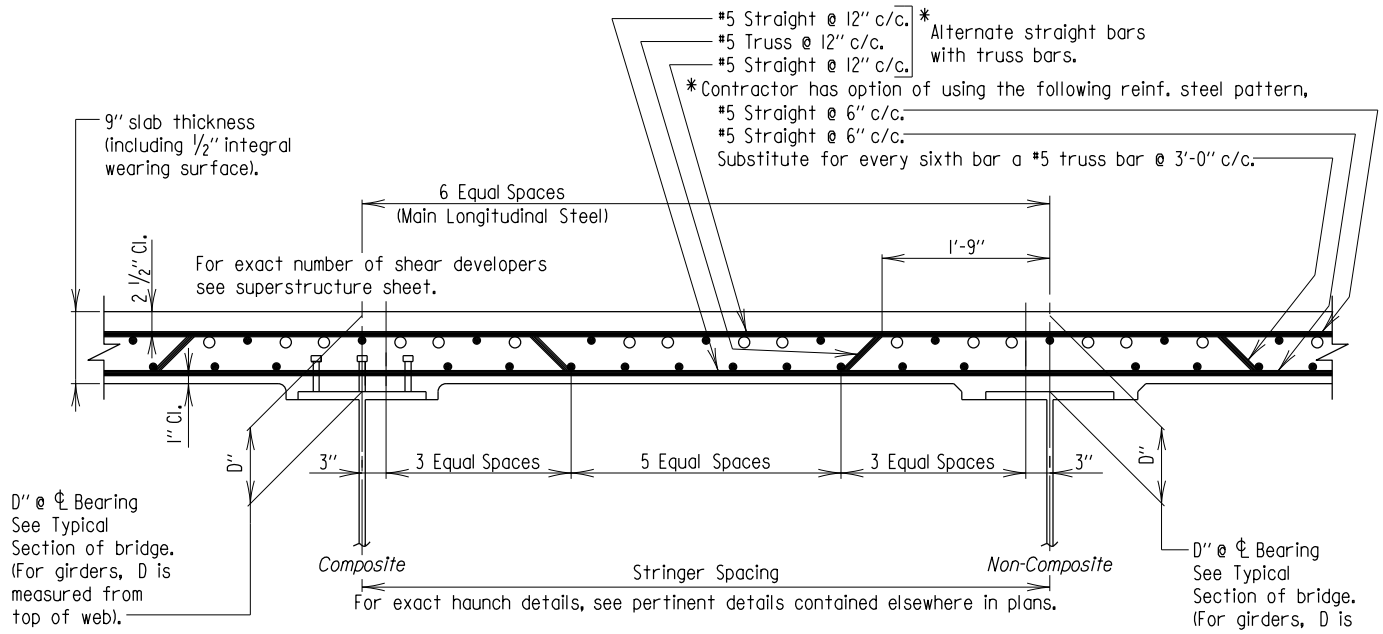
TYPE XXXII
BRIDGE DECK SLAB FOR GIRDERS
HL-93 LOADING

DETAIL NO. SUP-BD(SG)-103 SHEET 1 OF 1

SUPER - BRIDGE DECK



HL-93 TYPE XXXIII SLAB
GREATER THAN 7'-0" TO 7'-6" STRINGER SPACING

Scale: 1/2"=1'-0"

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

LAP LENGTHS FOR DECK REINFORCING

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of stringers. (For curved girder see SUP-BD(SG)-101).
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○, shall be #6 bars. See Detail No. SUP-BD(SG)-201 for the lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.
6. *Refer to SUP-BD(SG)-101 for overhang design requirements.*

Note:
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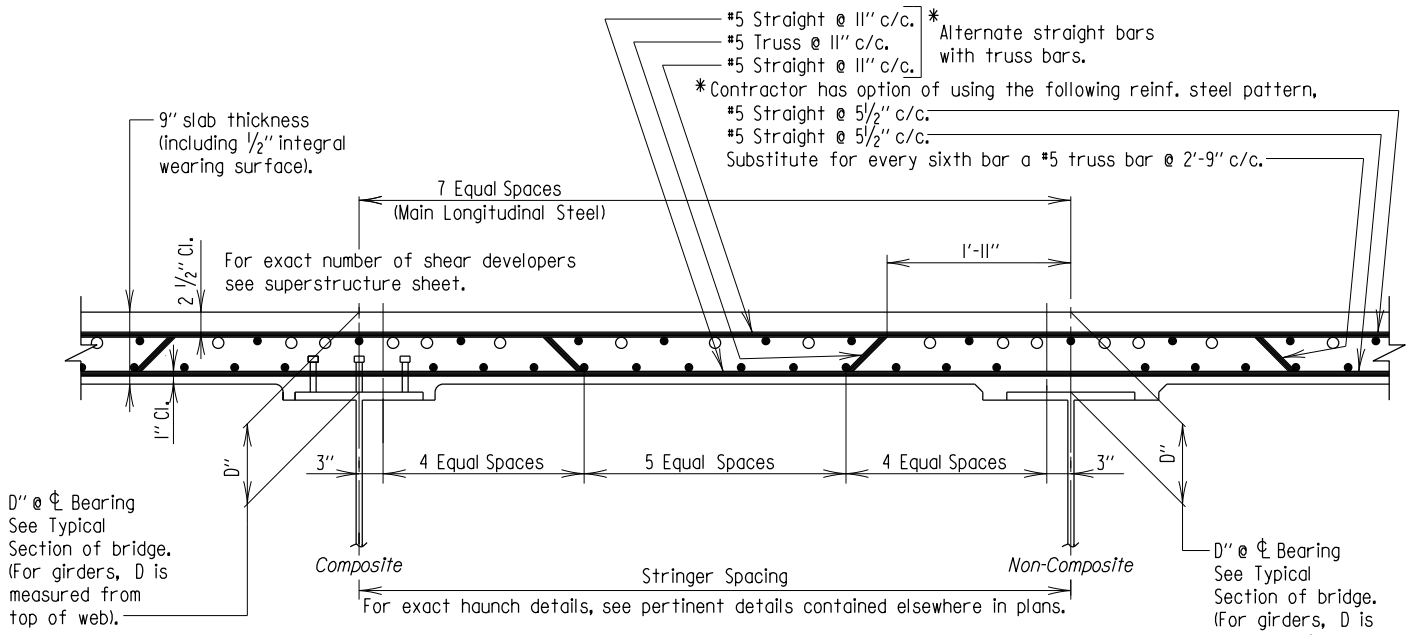
TYPE XXXIII
BRIDGE DECK SLAB FOR STEEL GIRDERS
HL-93 LOADING

DETAIL NO. SUP-BD(SG)-104 SHEET 1 OF 1

SUPER - BRIDGE DECK



HL-93 TYPE XXXIV SLAB
GREATER THAN 7'-6" TO 8'-0" STRINGER SPACING

Scale: ½"=1'-0"

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

LAP LENGTHS FOR DECK REINFORCING

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of stringers. (For curved girder see SUP-BD(SG)-101).
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○, shall be #6 bars. See Detail No. SUP-BD(SG)-201 for the lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.
6. *Refer to SUP-BD(SG)-101 for overhang design requirements.*

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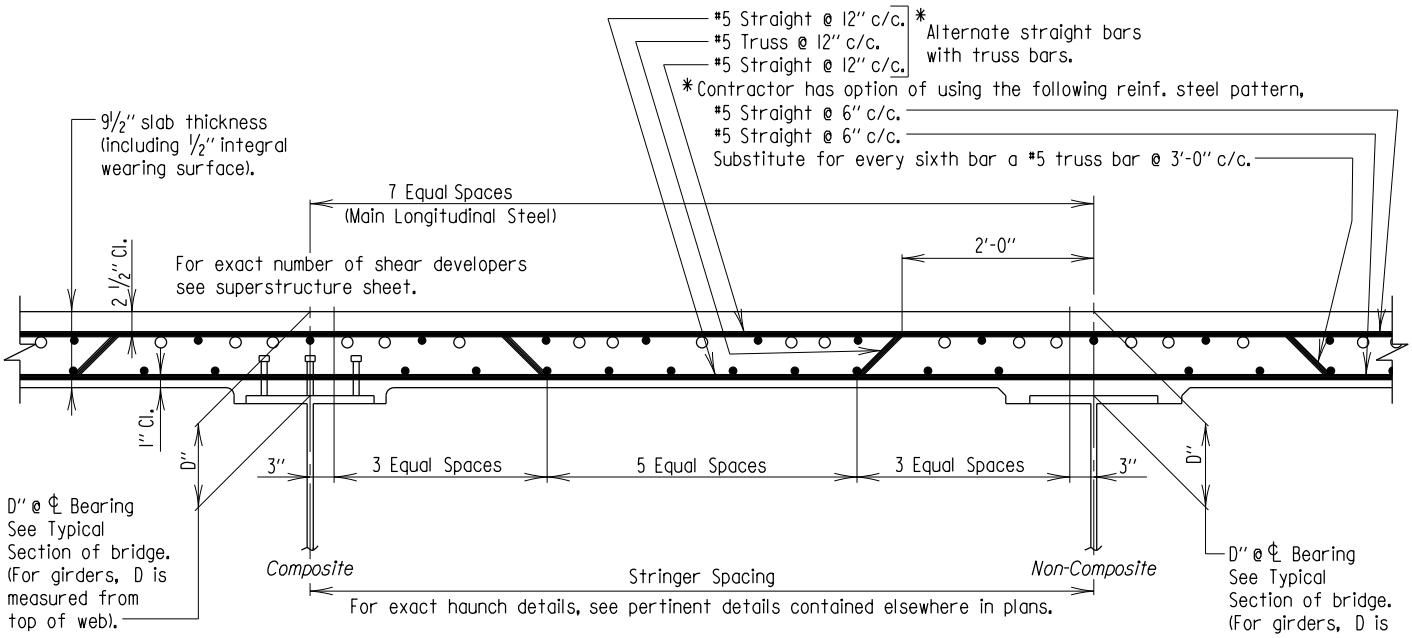
TYPE XXXIV
BRIDGE DECK SLAB FOR STEEL GIRDERS
HL-93 LOADING

DETAIL NO. SUP-BD(SG)-105 SHEET 1 OF 1

SUPER - BRIDGE DECK



HL-93 TYPE XXXV SLAB
GREATER THAN 8'-0" TO 8'-6" STRINGER SPACING

Scale: ½"=1'-0"

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

LAP LENGTHS FOR DECK REINFORCING

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of stringers. (For curved girder see SUP-BD(SG)-101).
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○, shall be #6 bars. See Detail No. SUP-BD(SG)-201 for the lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.
6. *Refer to SUP-BD(SG)-101 for overhang design requirements.*

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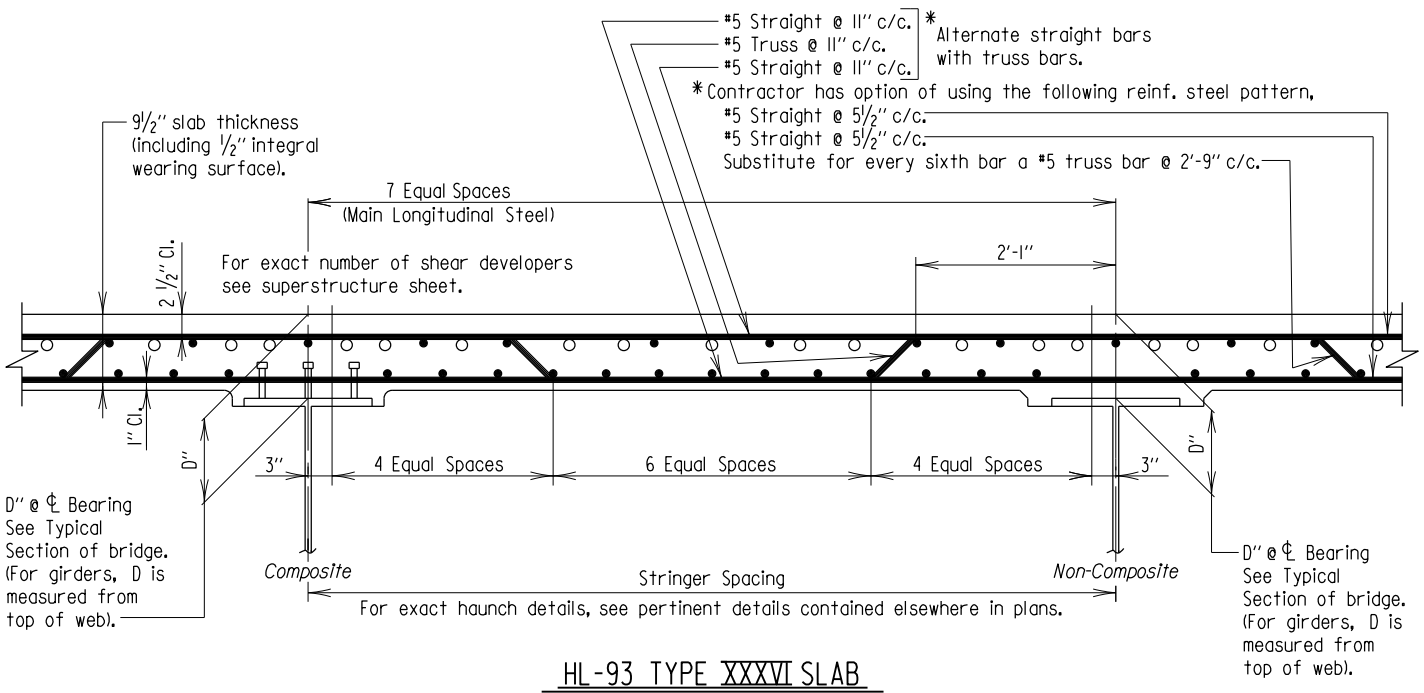
TYPE XXXV
BRDIGE DECK SLAB FOR STEEL GIRDERS
HL-93 LOADING

DETAIL NO. SUP-BD(SG)-106 SHEET 1 OF 1

SUPER - BRIDGE DECK



HL-93 TYPE XXXVI SLAB
GREATER THAN 8'-6" TO 9'-0" STRINGER SPACING

Scale: ½"=1'-0"

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

LAP LENGTHS FOR DECK REINFORCING

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of stringers. (For curved girder see SUP-BD(SG)-101).
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○, shall be #6 bars. See Detail No. SUP-BD(SG)-201 for the lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.
6. *Refer to SUP-BD(SG)-101 for overhang design requirements.*

Note:
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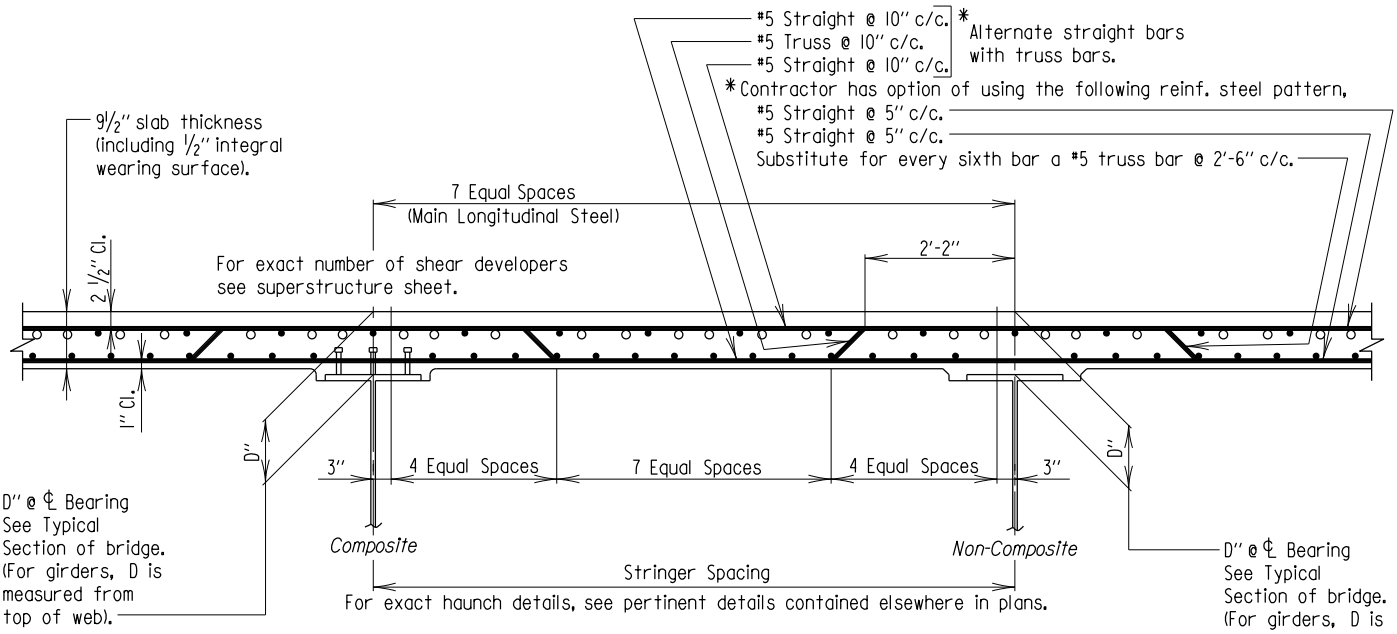
TYPE XXXVI
BRIDGE DECK SLABS FOR STEEL GIRDERS HL-93 LOADING

DETAIL NO. SUP-BD(SG)-107 SHEET 1 OF 1

SUPER - BRIDGE DECK



HL-93 TYPE XXXVII SLAB
GREATER THAN 9'-0" TO 9'-6" STRINGER SPACING

Scale: 3/8"=1'-0"

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6'
#6 Top Reinforcement**	3'-7"

** See Note 4

LAP LENGTHS FOR DECK REINFORCING

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of stringers. (For curved girder see SUP-BD(SG)-101).
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○, shall be #6 bars. See Detail No. SUP-BD(SG)-201 for the lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.
6. *Refer to SUP-BD(SG)-101 for overhang design requirements.*

Note:
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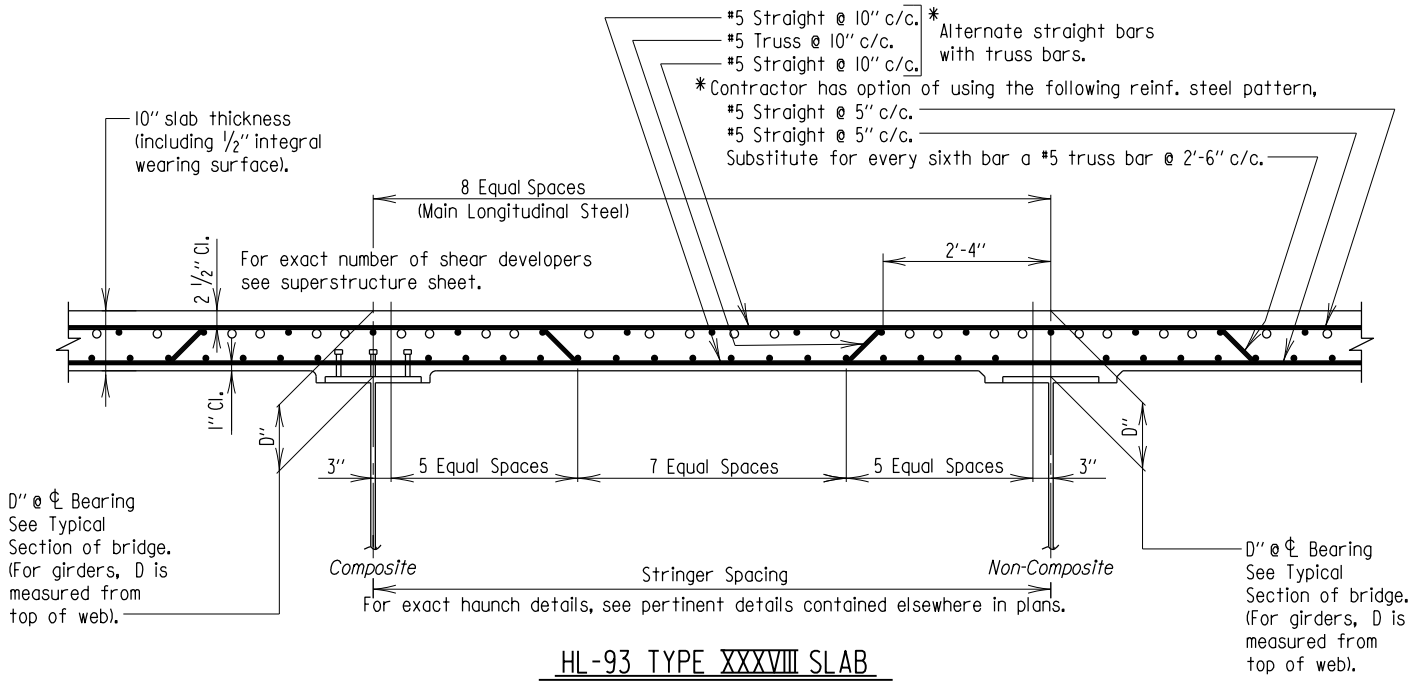
TYPE XXXVII
BRIDGE DECK SLAB FOR STEEL GIRDERS
HL-93 LOADING

DETAIL NO. SUP-BD(SG)-108 SHEET 1 OF 1

SUPER - BRIDGE DECK



HL-93 TYPE XXXVIII SLAB
GREATER THAN 9'-6" TO 10'-0" STRINGER SPACING

Scale: 3/8"=1'-0"

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

LAP LENGTHS FOR DECK REINFORCING

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of stringers. (For curved girder see SUP-BD(SG)-101).
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○, shall be #6 bars. See Detail No. SUP-BD(SG)-201 for the lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.
6. *Refer to SUP-BD(SG)-101 for overhang design requirements.*

Note:
Slanted lettering indicates notes "For Office Use Only".

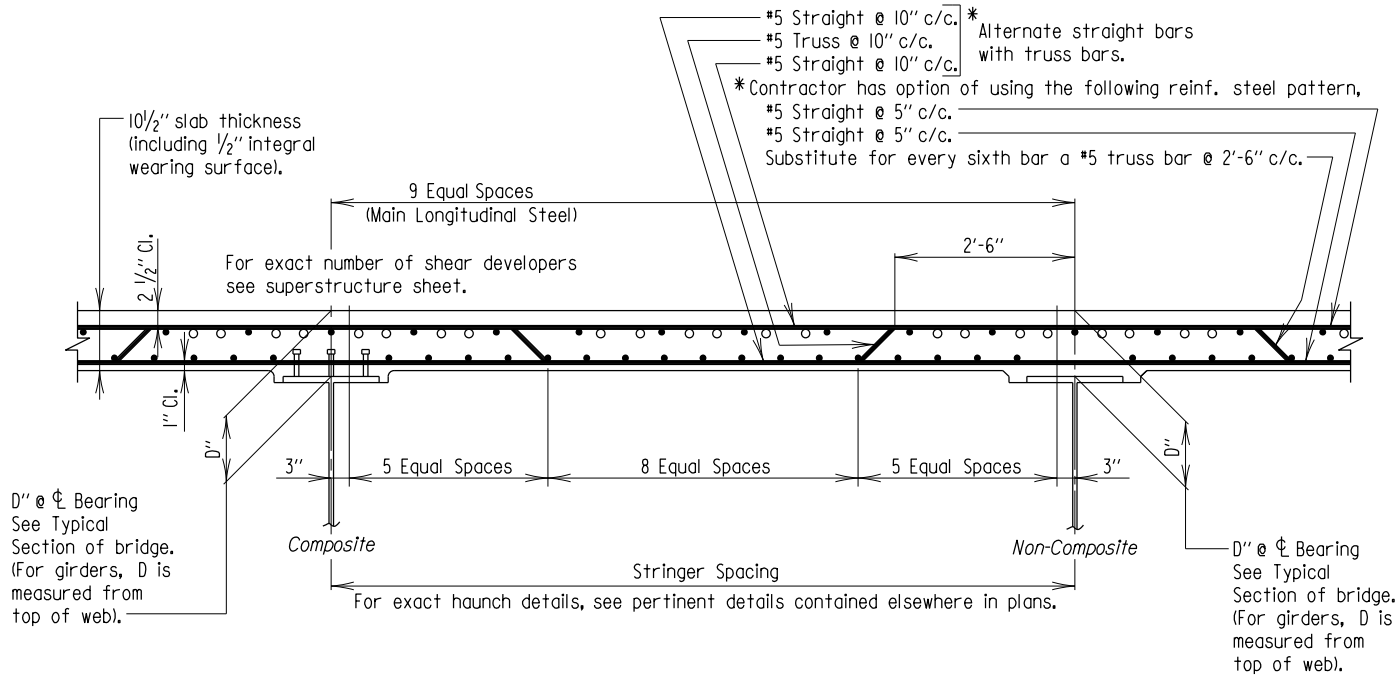
APPROVAL
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES
DATE: 07/03/2017
VERSION
2.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

TYPE XXXVIII
BRIDGE DECK SLAB FOR STEEL GIRDERS
HL-93 LOADING

DETAIL NO. SUP-BD(SG)-109 SHEET 1 OF 1

SUPER - BRIDGE DECK



HL-93 TYPE XXXIX SLAB
GREATER THAN 10'-0" TO 10'-6" STRINGER SPACING

Scale: 3/8"=1'-0"

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

LAP LENGTHS FOR DECK REINFORCING

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of stringers. (For curved girder see SUP-BD(SG)-101).
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○, shall be #6 bars. See Detail No. SUP-BD(SG)-201 for the lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.
6. *Refer to SUP-BD(SG)-101 for overhang design requirements.*

Note:
Slanted lettering indicates notes "For Office Use Only".

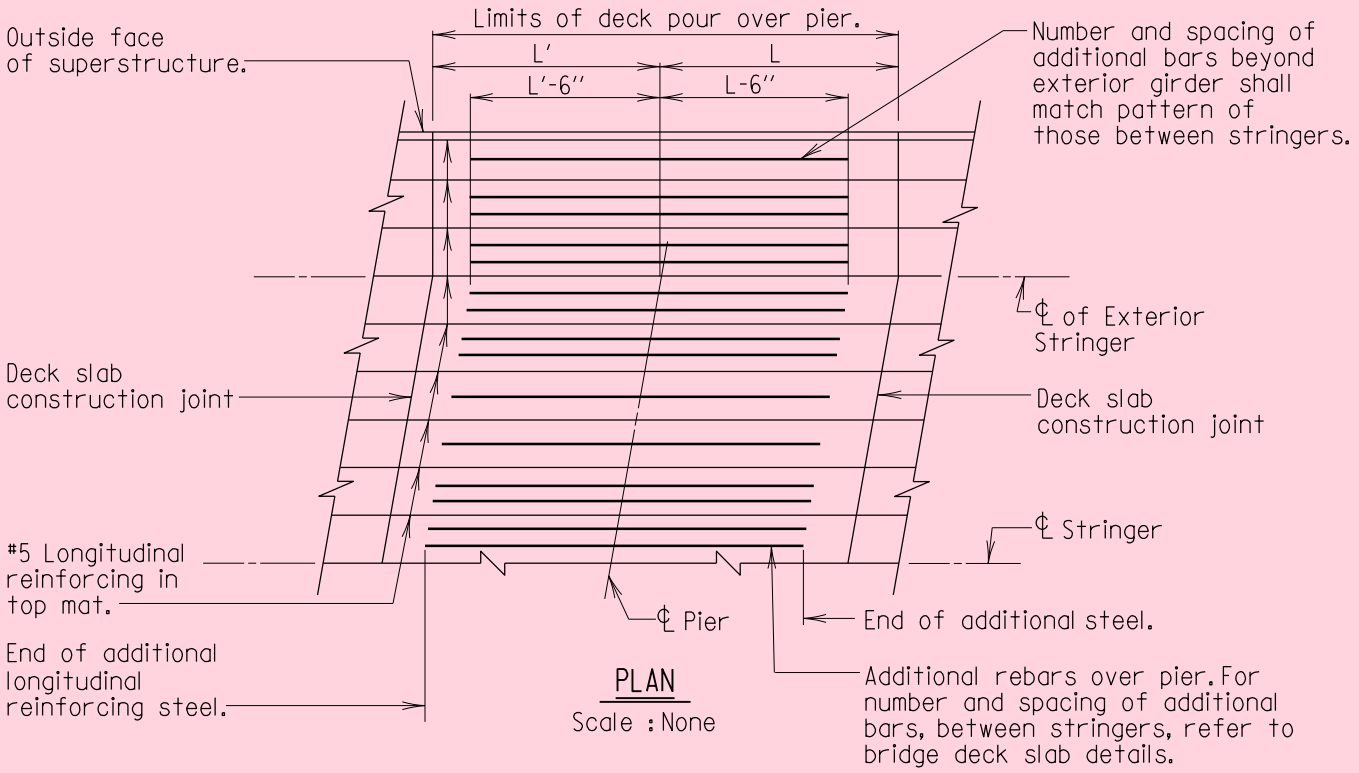
APPROVAL
Glenn C. Dunphan DIRECTOR OFFICE OF STRUCTURES
DATE: 07/03/2017
VERSION
2.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

TYPE XXXIX
BRIDGE DECK SLAB FOR STEEL GIRDERS
HL-93 LOADING

DETAIL NO. SUP-BD(SG)-110 SHEET 1 OF 1

SUPER - BRIDGE DECK

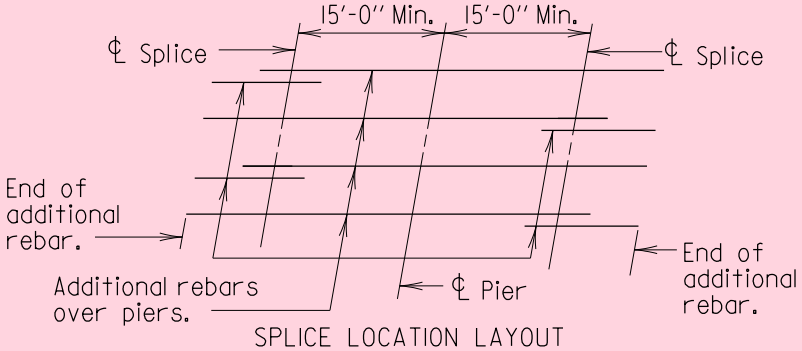


PLAN

Scale : None

Bridge # _____ Description: _____

Location	L' (Back Stationing Span)	L (Ahead Stationing Span)
Pier _____		
Pier _____		
Pier _____		
Pier _____		
Pier _____		
Pier _____		



SPLICE LOCATION LAYOUT

Note:
1. If additional longitudinal reinforcing in pour requires splicing, then the reinforcing shall be spliced as per Splice Location Layout.
2. Additional longitudinal reinforcing bars shall be #6.

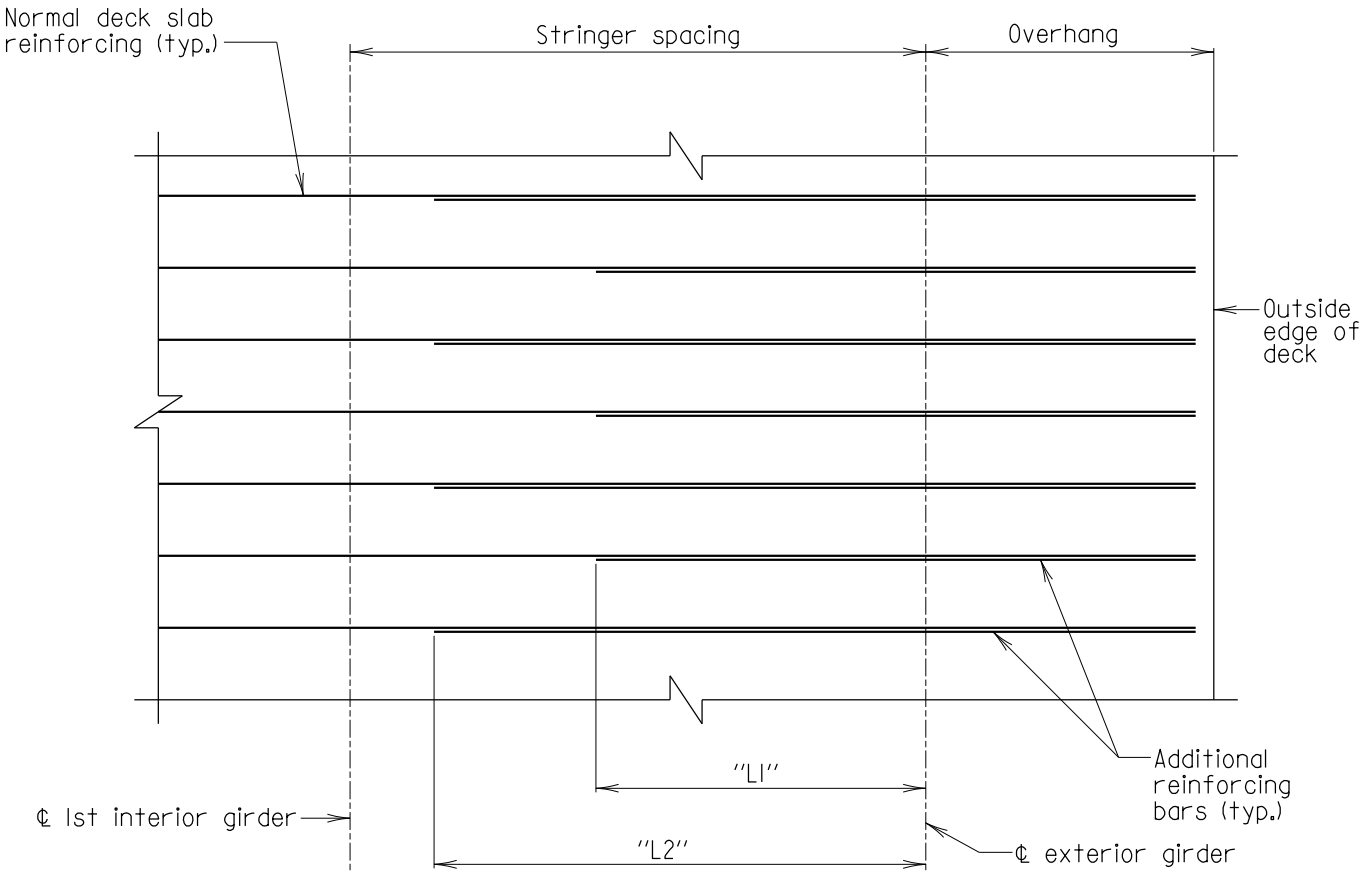
APPROVAL
L.S. Freedman DIRECTOR OFFICE OF STRUCTURES
DATE: 09/05/2012
VERSION
1.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

ADDITIONAL LONGITUDINAL REINFORCING IN TOP OF CONTINUOUS DECK SLABS OVER PIERS FOR STEEL GIRDERS

DETAIL NO. SUP-BD(SG)-201 SHEET 1 OF 1

SUPER - BRIDGE DECK



PLAN

Scale: 3/8" = 1'-0"

Deck Type	Additional Bar Size	"L1"	"L2"	Maximum Overhang
XXXI	#6	4'-7"	6'-10"	4'-0"
XXXII	#6	4'-8 1/2"	7'-0"	4'-4 1/2"
XXXIII	#6	4'-9"	7'-0"	4'-8 1/4"
XXXIV	#5	4'-7"	4'-7"	5'-0"
XXXV	#6	5'-1 1/4"	7'-4 1/4"	5'-3 3/4"
XXXVI	#5	4'-10 3/8"	4'-10 3/8"	5'-7 1/2"
XXXVII	#5	4'-8 1/4"	4'-8 1/4"	5'-11 1/4"
XXXVIII	#5	4'-6"	4'-6"	6'-0"
XXXIX	#5	4'-3 1/8"	4'-3 1/8"	6'-0"

Notes:
1. Additional reinforcing to be placed in top mat of deck.
2. Bundle additional bar with normal deck reinforcing.
3. Deck overhangs greater than shown will need to be designed.

APPROVAL

Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES

DATE: 08/16/2019

VERSION

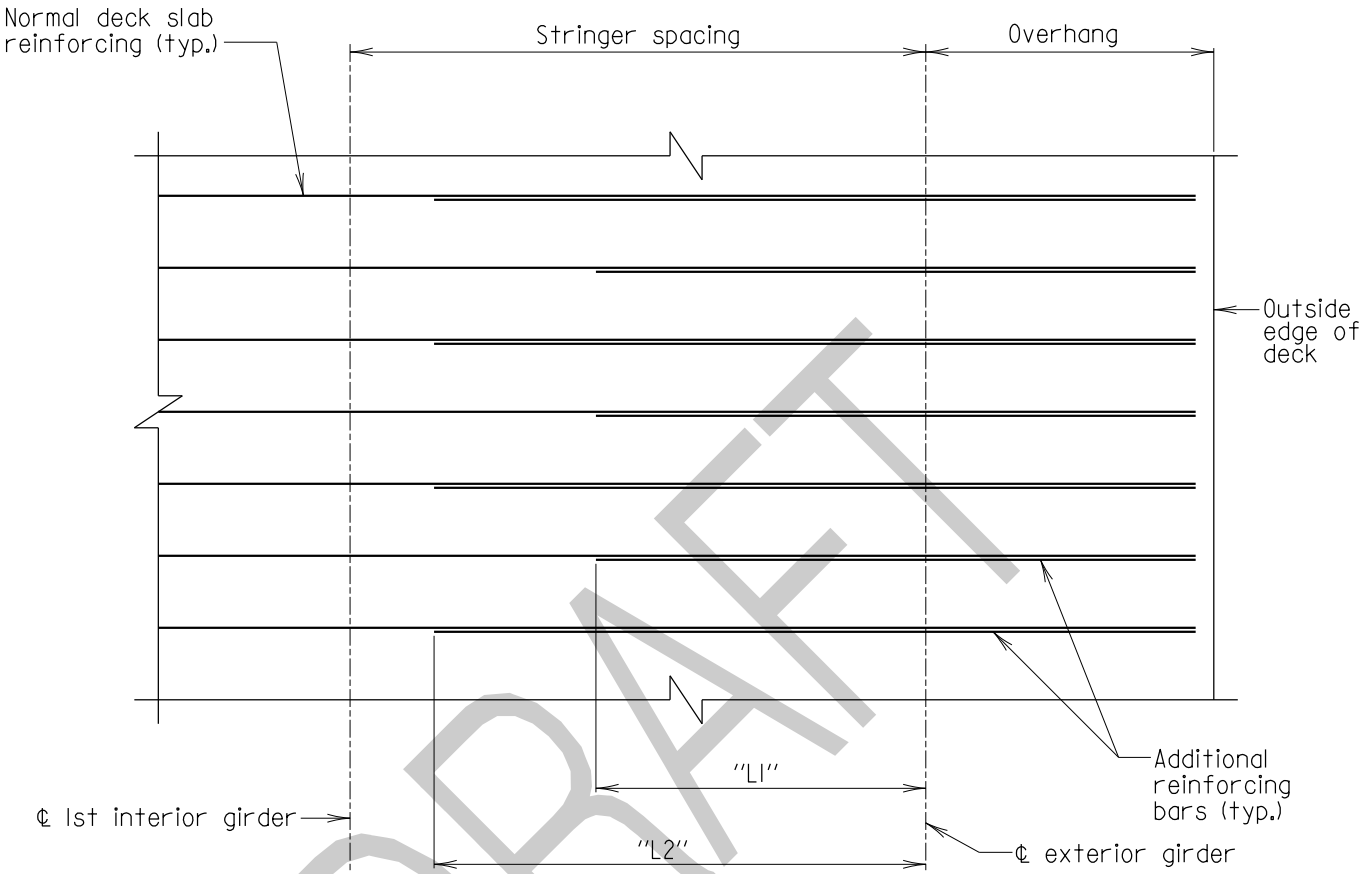
1.00

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

ADDITIONAL REINFORCING FOR CONCRETE BRIDGE DECK OVERHANG FOR 42" F-SHAPE

DETAIL NO. SUP-BD(SG)-202 SHEET 1 OF 1

SUPER - BRIDGE DECK



PLAN

Scale: 3/8" = 1'-0"

Deck Type	Additional Bar Size	"L1"	"L2"	Maximum Overhang
XXXI	#6	4'-6 3/4"	6'-9 3/4"	4'-0"
XXXII	#6	4'-8 1/4"	6'-11 1/4"	4'-4 1/2"
XXXIII	#6	4'-8 3/4"	6'-11 3/4"	4'-8 1/4"
XXXIV	#5	4'-6 3/8"	4'-6 3/8"	5'-0"
XXXV	#6	5'-0 5/8"	7'-3 5/8"	5'-3 3/4"
XXXVI	#5	4'-9 1/2"	4'-9 1/2"	5'-7 1/2"
XXXVII	#5	4'-7 1/8"	4'-7 1/8"	5'-11 1/4"
XXXVIII	#5	4'-5 1/4"	4'-5 1/4"	6'-0"
XXXIX	#5	4'-1 5/8"	4'-1 5/8"	6'-0"

Notes:
1. Additional reinforcing to be placed in top mat of deck.
2. Bundle additional bar with normal deck reinforcing.
3. Deck overhangs greater than shown will need to be designed.

APPROVAL

_____ DIRECTOR
OFFICE OF STRUCTURES

DATE:

VERSION

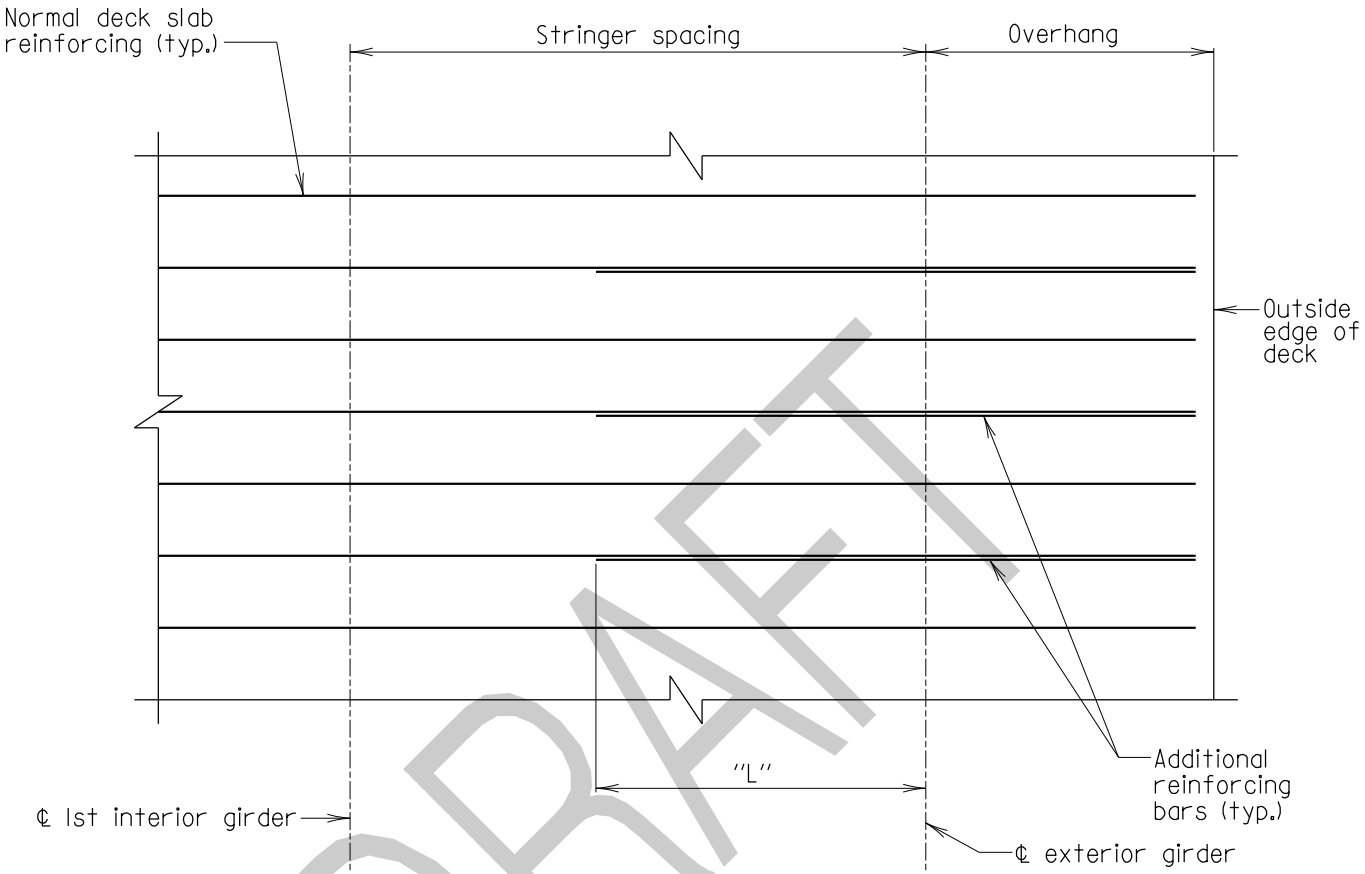
DRAFT

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

ADDITIONAL REINFORCING FOR CONCRETE BRIDGE DECK OVERHANG FOR THREE STRAND STRUCTURAL TUBE RAIL

DETAIL NO. SUP-BD(SG)-203 SHEET 1 OF 1

SUPER - BRIDGE DECK



PLAN

Scale: 3/8" = 1'-0"

Deck Type	Additional Bar Size	"L"	Bundle with Main Deck Reinforcing	Maximum Overhang
XXXI	#5	3'-0"	each bar	4'-0"
XXXII	#5	3'-0"	every other	4'-4 1/2"
XXXIII	#5	2'-10 3/4"	every other	4'-8 1/4"
XXXIV	#5	2'-8 1/4"	every other	5'-0"
XXXV	#5	3'-1 1/8"	every other	5'-3 3/4"
XXXVI	#5	2'-10"	every third	5'-7 1/2"
XXXVII	#5	2'-5 5/8"	every fourth	5'-11 1/4"
XXXVIII	#5	2'-0 3/8"	every fifth	6'-0"
XXXIX	#5	1'-10 1/2"	every sixth	6'-0"

Notes:
1. Additional reinforcing to be placed in top mat of deck.
2. Bundle additional bar with normal deck reinforcing.
3. Deck overhangs greater than shown will need to be designed.

APPROVAL

_____ DIRECTOR
OFFICE OF STRUCTURES

DATE:

VERSION

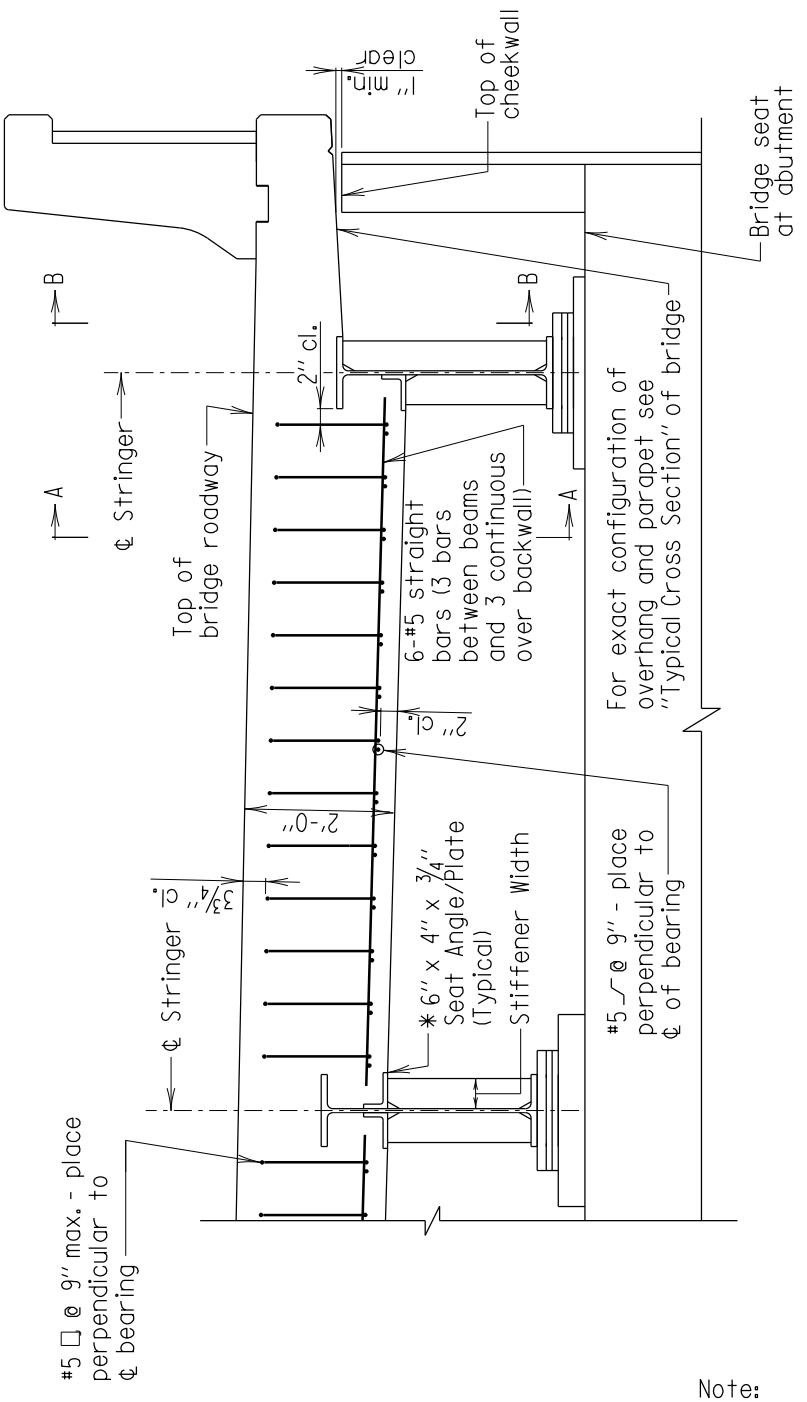
DRAFT

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

ADDITIONAL REINFORCING FOR CONCRETE BRIDGE DECK OVERHANG FOR PARAPER WITH SIDEWALK

DETAIL NO. SUP-BD(SG)-204 SHEET 1 OF 1

SUPER - BRIDGE DECK



ELEVATION AT BRIDGE SEAT AREA OVER BEAMS

Scale: ⅜" = 1'-0"

Notes:
1. For Section A-A, see sheet 3 of 4.
2. For Section B-B, see sheet 4 of 4.
3. * Longest leg of angle shall be increased as necessary so that angle exceeds stiffener width by at least ½". In lieu of the seat angle a ¾" plate may be used. The plate shall be a minimum of 6" wide and shall exceed stiffener width by at least ½".
4. F-Shape barrier is for illustrative purposes only. See plans for barrier type.

Note:
Normal deck reinforcing not shown for clarity.

APPROVAL	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
Glenn C. Dunphy DIRECTOR OFFICE OF STRUCTURES DATE: 07/25/2019	CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING STEEL GIRDERS WITH STEEL FIXED BEARINGS OR STEEL EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION ≤ 70 FEET
VERSION 1.02	DETAIL NO. SUP-BD(SG)-301 SHEET 1 OF 4

SUPER - BRIDGE DECK

ELEVATION AT BRIDGE SEAT AREA OVER BACKWALL

Scale: 3/8" = 1'-0"

Note:
Normal deck reinforcing not shown for clarity.

Notes:
1. For Section A-A, see sheet 3 of 4.
2. For Section B-B, see sheet 4 of 4.
3. F-Shape barrier is for illustrative purposes only. See plans for barrier type.

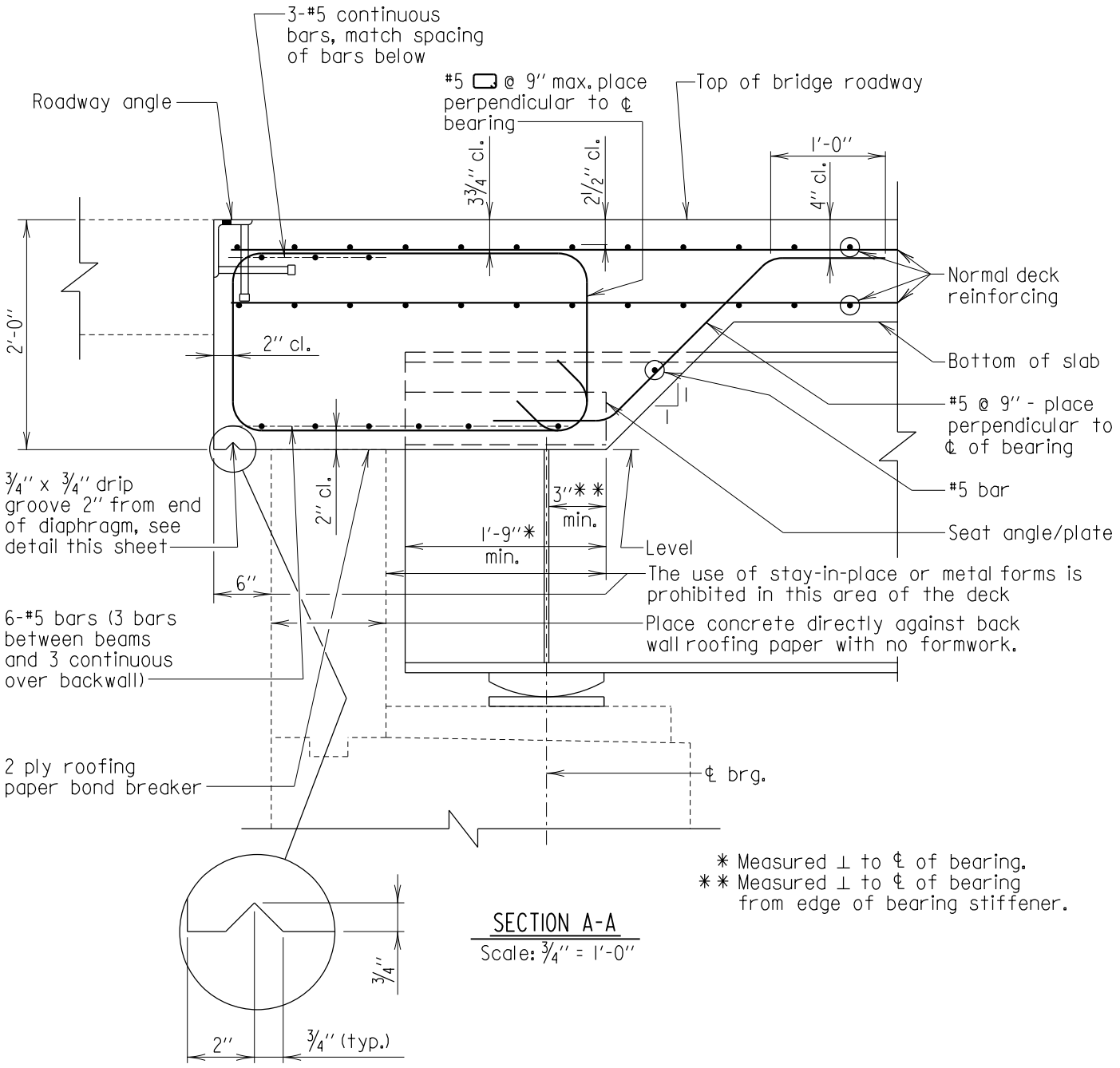
APPROVAL
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES
DATE: 07/25/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING STEEL GIRDERS WITH STEEL FIXED BEARINGS OR STEEL EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION ≤ 70 FEET

DETAIL NO. SUP-BD(SG)-301 SHEET 2 OF 4

SUPER - BRIDGE DECK



SECTION A-A

Scale: ¾" = 1'-0"

DRIP GROOVE DETAIL

Scale: 3" = 1'-0"

Note:
All reinforcing steel shown shall be epoxy coated.

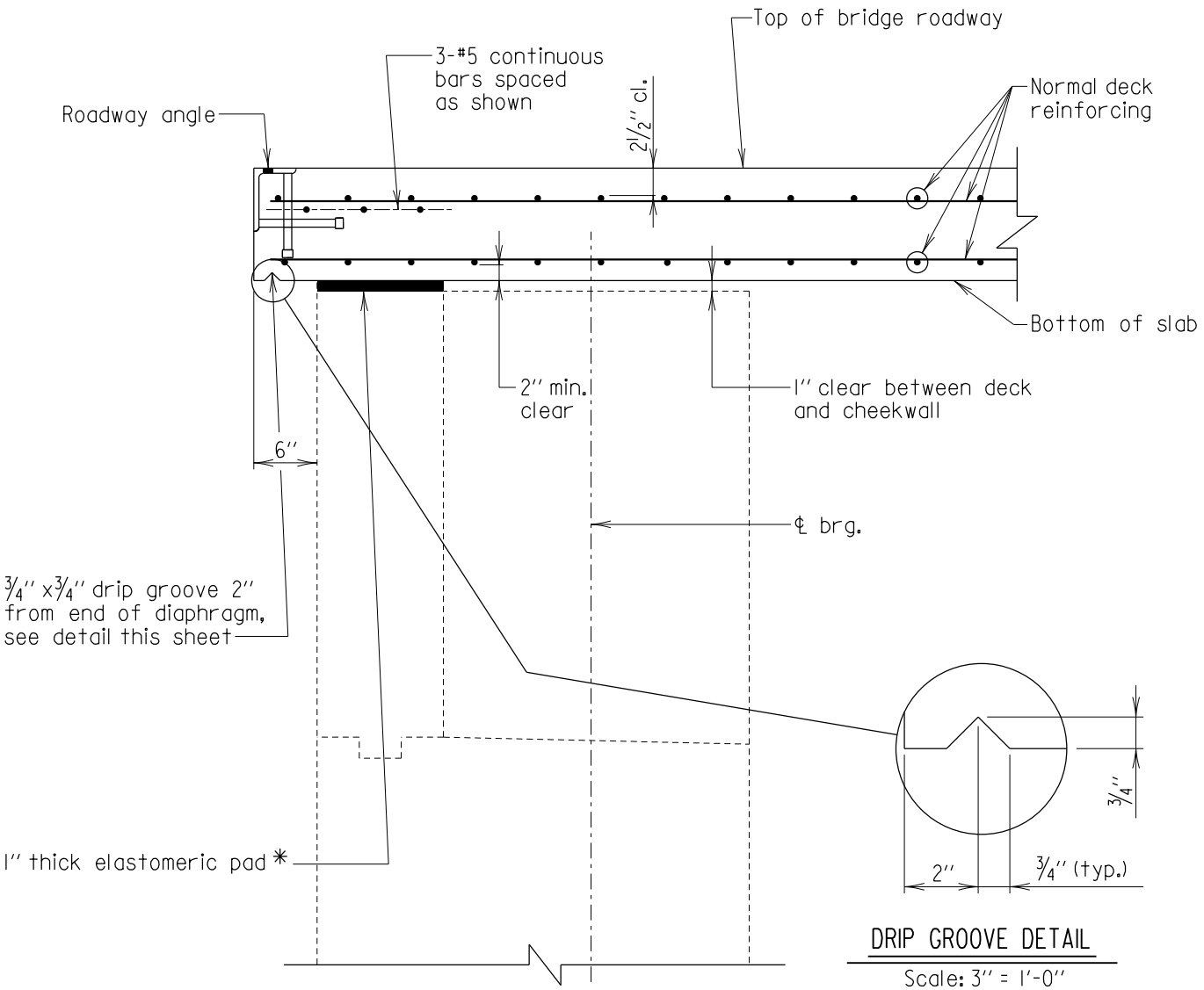
APPROVAL
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES
DATE: 07/25/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING STEEL GIRDERS WITH STEEL FIXED BEARINGS OR STEEL EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION < 70 FEET

DETAIL NO. SUP-BD(SG)-301 SHEET 3 OF 4

SUPER - BRIDGE DECK



DRIP GROOVE DETAIL

Scale: 3" = 1'-0"

SECTION B-B

Scale: ¾" = 1'-0"

* Note:
Elastomeric pad shall be attached to abutment backwall in accordance with the Section 432.03.04.

Note:
All reinforcing steel shown shall be epoxy coated.

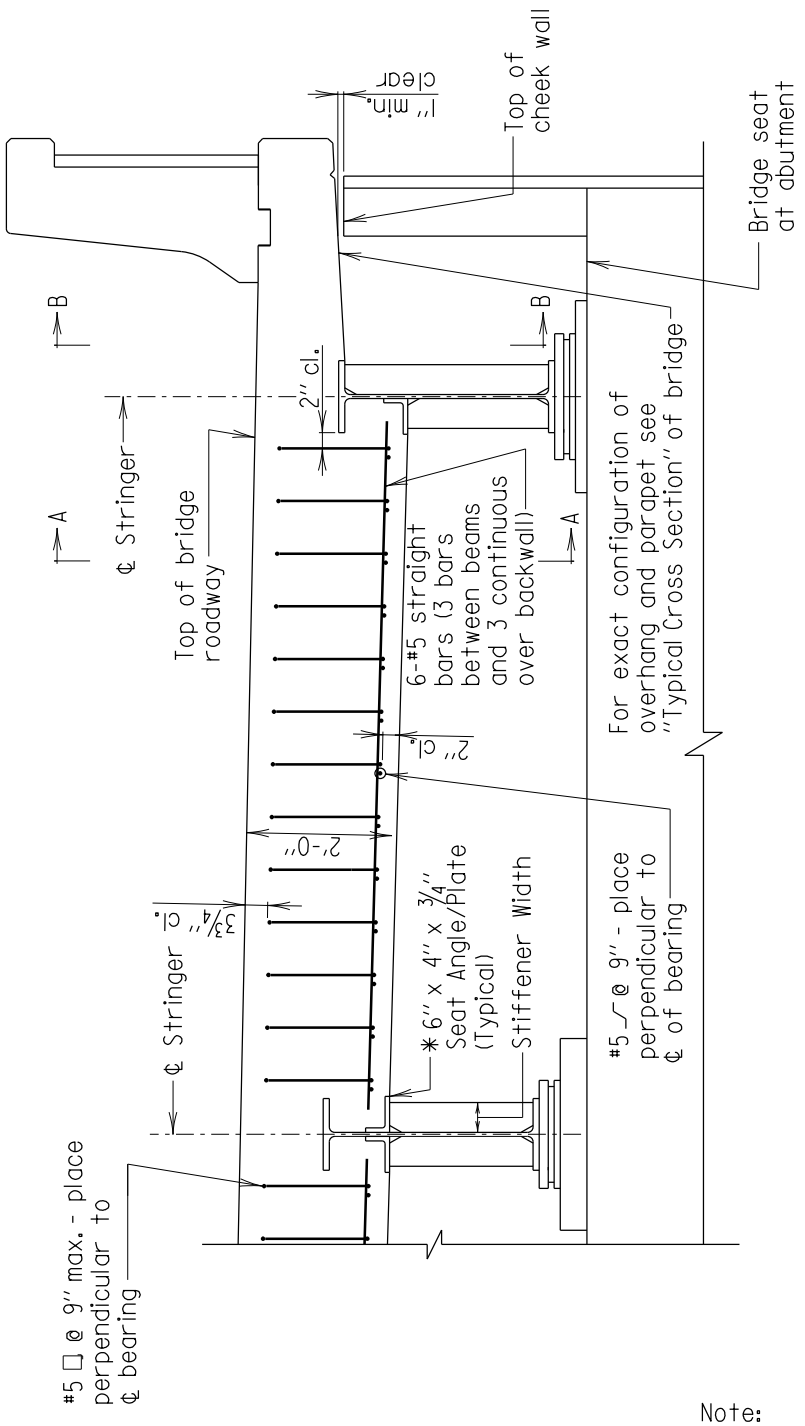
APPROVAL
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES
DATE: 07/25/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING STEEL GIRDERS WITH STEEL FIXED BEARINGS OR STEEL EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION ≤ 70 FEET

DETAIL NO. SUP-BD(SG)-301 SHEET 4 OF 4

SUPER - BRIDGE DECK



ELEVATION AT BRIDGE SEAT AREA OVER BEAMS

Scale: 3/8" = 1'-0"

Note:
Normal deck reinforcing not shown for clarity.

Notes:
1. For Section A-A see Sheet 3 of 4.
2. For Section B-B see Sheet 4 of 4.
3. * Longest leg of angle shall be increased as necessary so that angle exceeds stiffener width by at least ½". In lieu of the seat angle a ¾" plate may be used. The plate shall be a minimum of 6" wide and shall exceed stiffener width by at least ½".
4. F-Shape barrier is for illustrative purposes only. See plans for barrier type.

APPROVAL
DIRECTOR OFFICE OF STRUCTURES
DATE: 07/25/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING STEEL GIRDERS WITH STEEL EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION > 70 FEET

DETAIL NO. SUP-BD(SG)-401 SHEET 1 OF 4

SUPER - BRIDGE DECK

ELEVATION AT BRIDGE SEAT AREA OVER BACKWALL

Scale: 3/8" = 1'-0"

* Note:
Elastomeric pad shall be attached to abutment backwall in accordance with the Section 432.03.04.

Note:
Normal deck reinforcing not shown for clarity.

Notes:
1. For Section A-A see Sheet 3 of 4.
2. For Section B-B see Sheet 4 of 4.
3. F-Shapes barrier is for illustrative purposes only. See plans for barrier type.

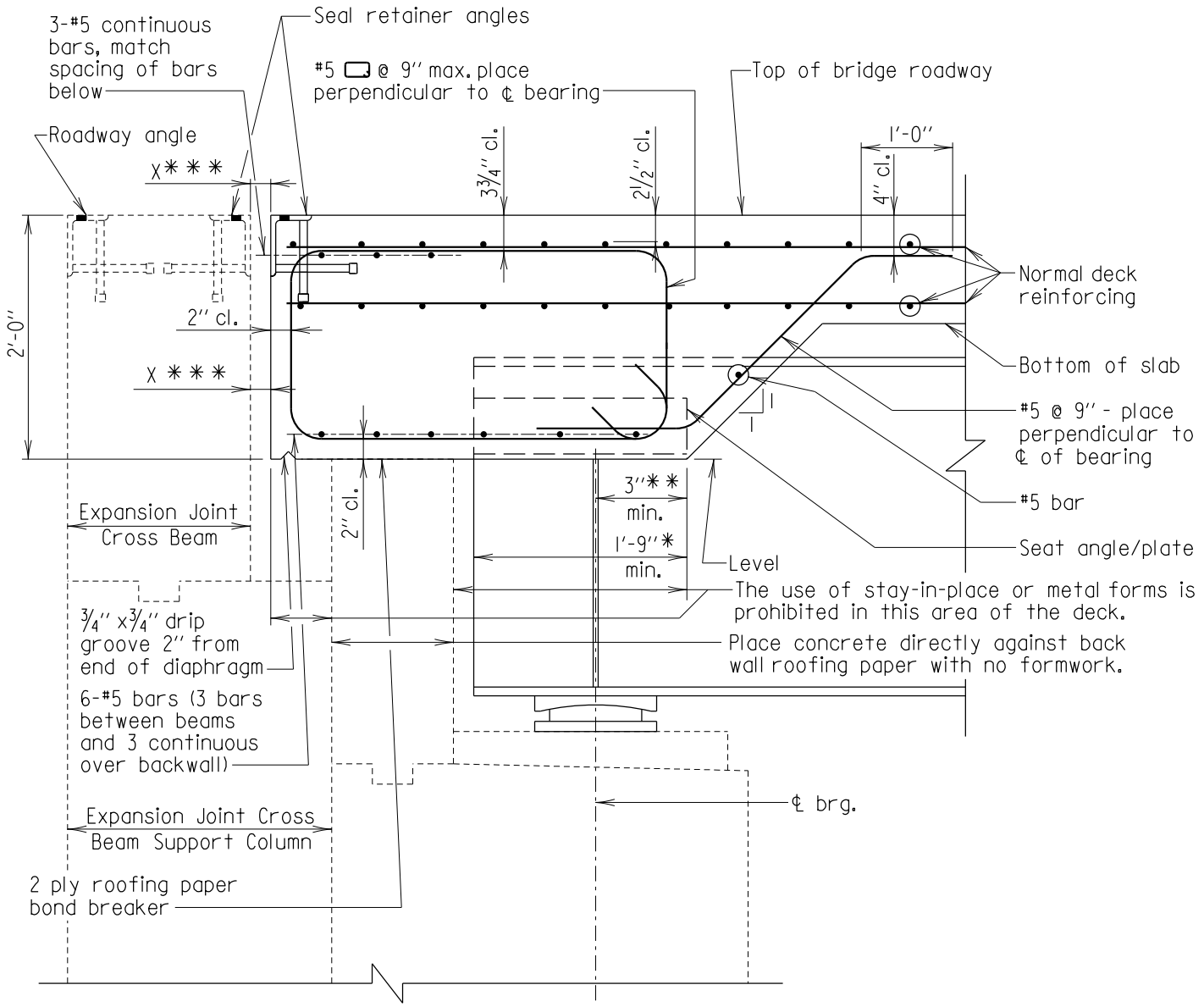
APPROVAL
DIRECTOR OFFICE OF STRUCTURES
DATE: 07/25/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING STEEL GIRDERS WITH STEEL EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION > 70 FEET

DETAIL NO. SUP-BD(SG)-401 SHEET 2 OF 4

SUPER - BRDGE DECK



X*** = Joint opening dimension, see appropriate joint detail.

* Measured ⊥ to ℄ of Bearing.
** Measured ⊥ to ℄ of Bearing from Edge of Bearing Stiffener.

SECTION A-A
Scale: ¾" = 1'-0"

Note:
All reinforcing steel shown shall be epoxy coated.

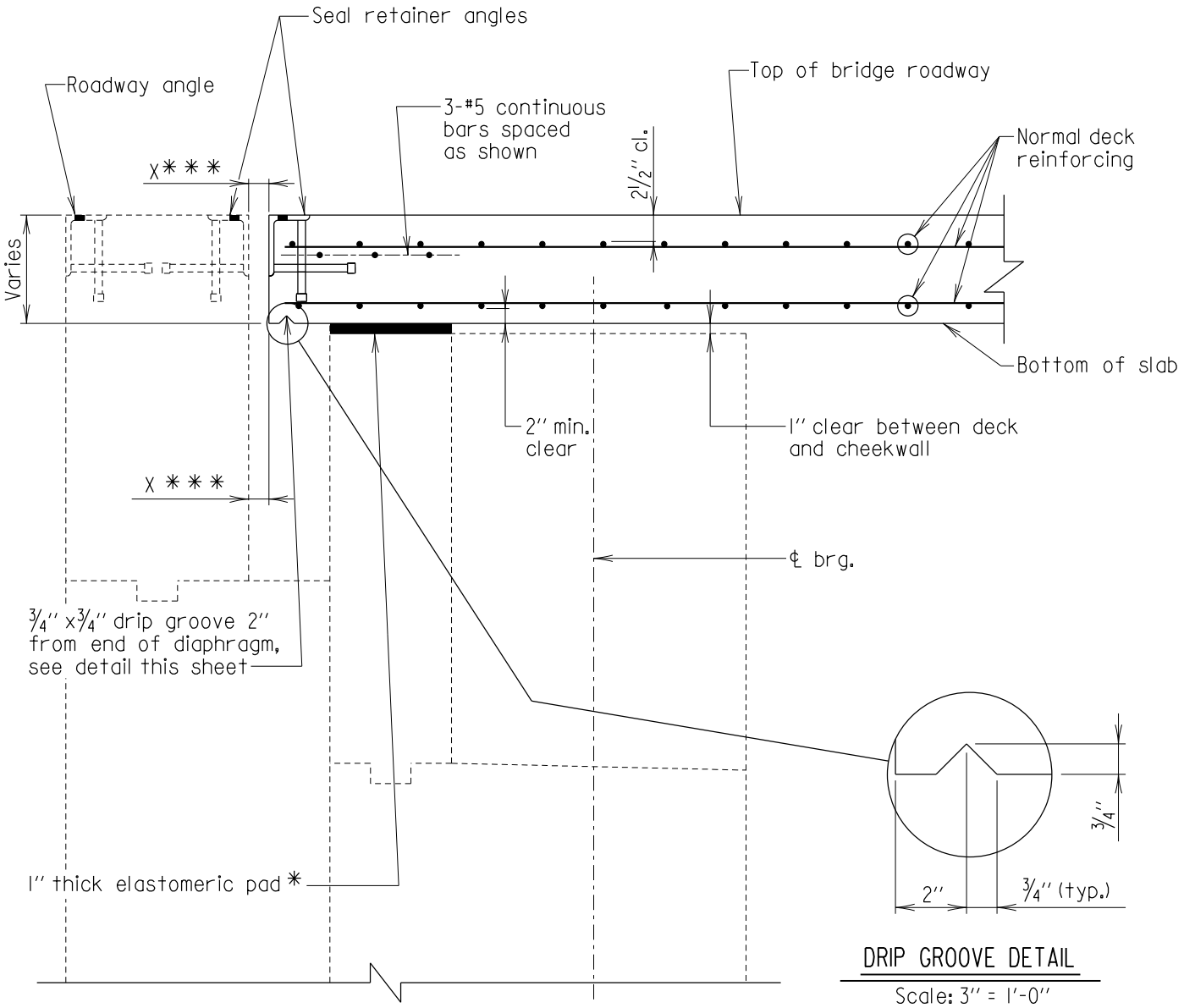
APPROVAL
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES
DATE: 07/25/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING STEEL GIRDERS WITH STEEL EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION > 70 FEET

DETAIL NO. SUP-BD(SG)-401 SHEET 3 OF 4

SUPER - BRIDGE DECK



DRIP GROOVE DETAIL

Scale: 3" = 1'-0"

SECTION B-B

Scale: 3/4" = 1'-0"

* Note:
Elastomeric pad shall be attached to abutment backwall in accordance with the Section 432.03.04.

X*** = Joint opening dimension, see appropriate joint detail.

Note:
All reinforcing steel shown shall be epoxy coated.

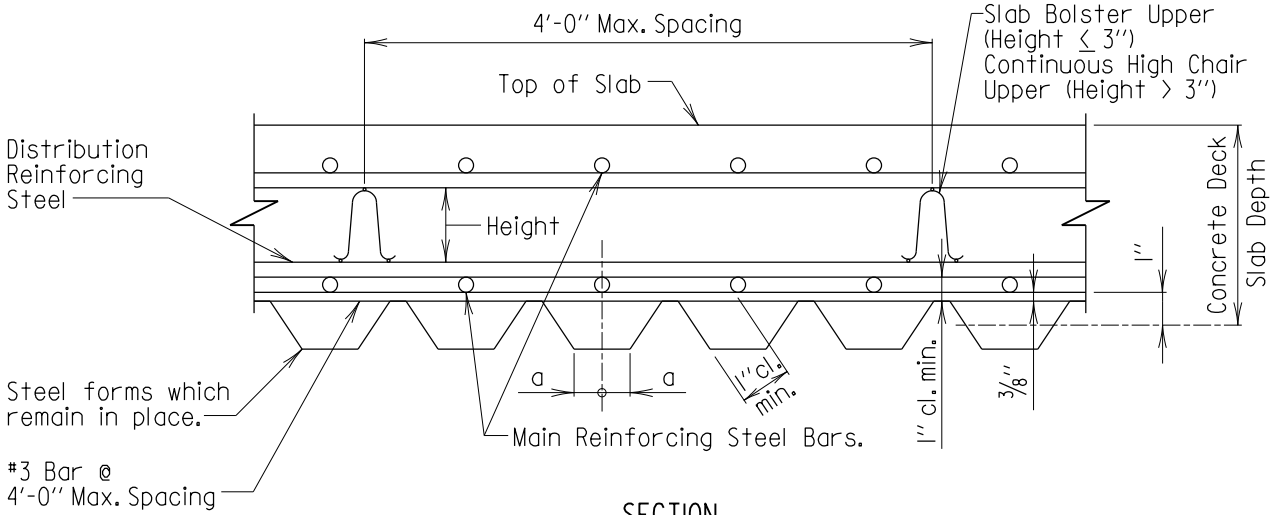
APPROVAL
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES
DATE: 07/25/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING STEEL GIRDERS WITH STEEL EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION > 70 FEET

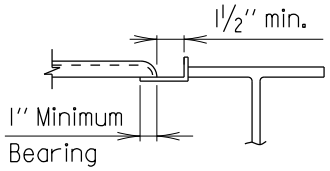
DETAIL NO. SUP-BD(SG)-401 SHEET 4 OF 4

SUPER - BRIDGE DECK

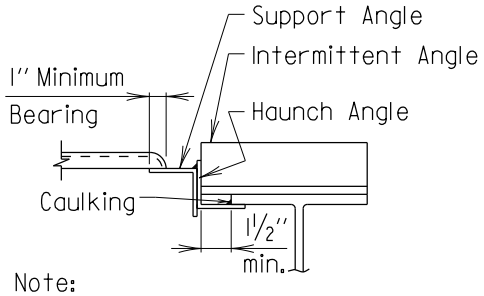


SECTION

Scale: None



WHERE FORM IS BELOW
BOTTOM OF FLANGE
AND THERE ARE NO
SHEAR CONNECTORS



Note:
Alternate attachments will be considered, that provide the 1½" concrete encasement of top flange.

WHERE FORM IS ABOVE
BOTTOM OF FLANGE
AND THERE ARE NO
SHEAR CONNECTORS

Notes:

1. Permanent steel deck forms and supports shall conform to 909.11. Design Span shall be the clear distance between beam and/or girder flanges less two (2) inches.
2. No welding of these forms to parts carrying tension will be permitted. These forms shall be vertically adjusted to attain line and grade as required.
3. Any permanently exposed form metal where the galvanized coating has been damaged shall be thoroughly cleaned, wire brushed and painted with two coats of zinc-oxide dust primer, Federal Specification TT-P-641d, Type II, no color added, to the satisfaction of the engineer. Minor heat discoloration in areas of welds need not be touched up.
4. Contractor has option of using this detail or that shown on 2 of 2, except for bridge decks with curved stringers or bridge with a flared rebar pattern. For bridge with curved stringers or bridge with a flared rebar pattern only the detail shown on sheet 2 of 2 can be used.
5. Where shear connectors are utilized, normal manufacturers detailing may be utilized at stringer flange.
6. Supports for rebar shall be provided by Contractor.

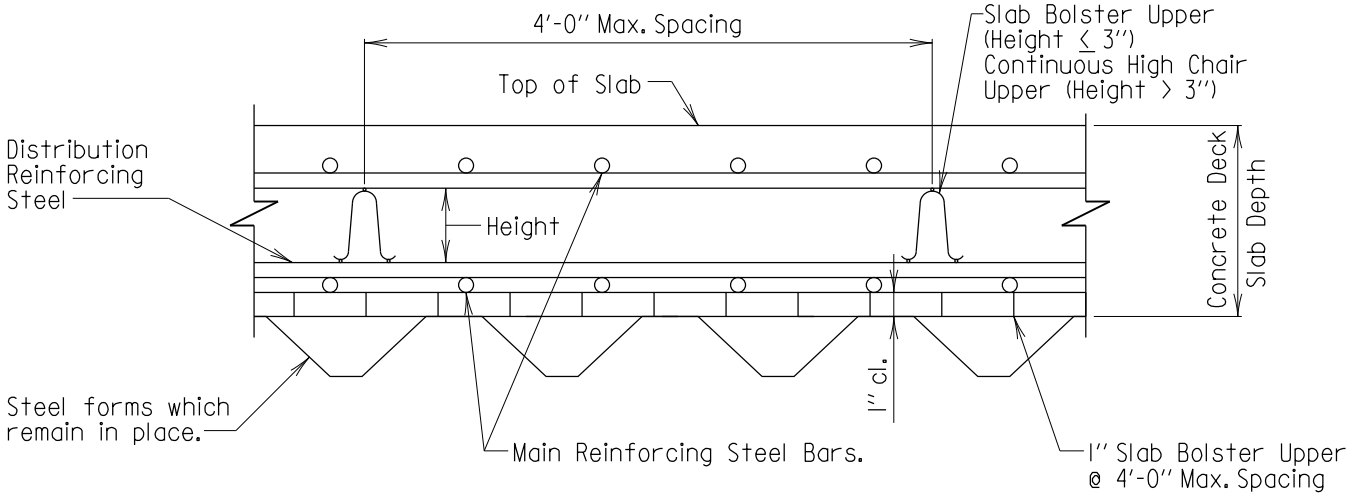
APPROVAL
E.S. Freedman DIRECTOR OFFICE OF STRUCTURES
DATE: 10/18/2011
VERSION
1.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

STEEL FORMS WHICH REMAIN IN PLACE FOR CONCRETE SLABS ON STEEL STRINGERS RE-BARS ALIGNED WITH TROUGH

DETAIL NO. SUP-BD(SG)-501 SHEET 1 OF 2

SUPER - BRIDGE DECK



SECTION

Scale: None

Notes:
1. For notes see sheet 1 of 2.
2. This detail is acceptable only on structures where the General Notes under "Loading" states "and 15 pounds per square foot for use of steel bridge deck forms which remain in place."
3. Supports for rebar shall be provided by Contractor.

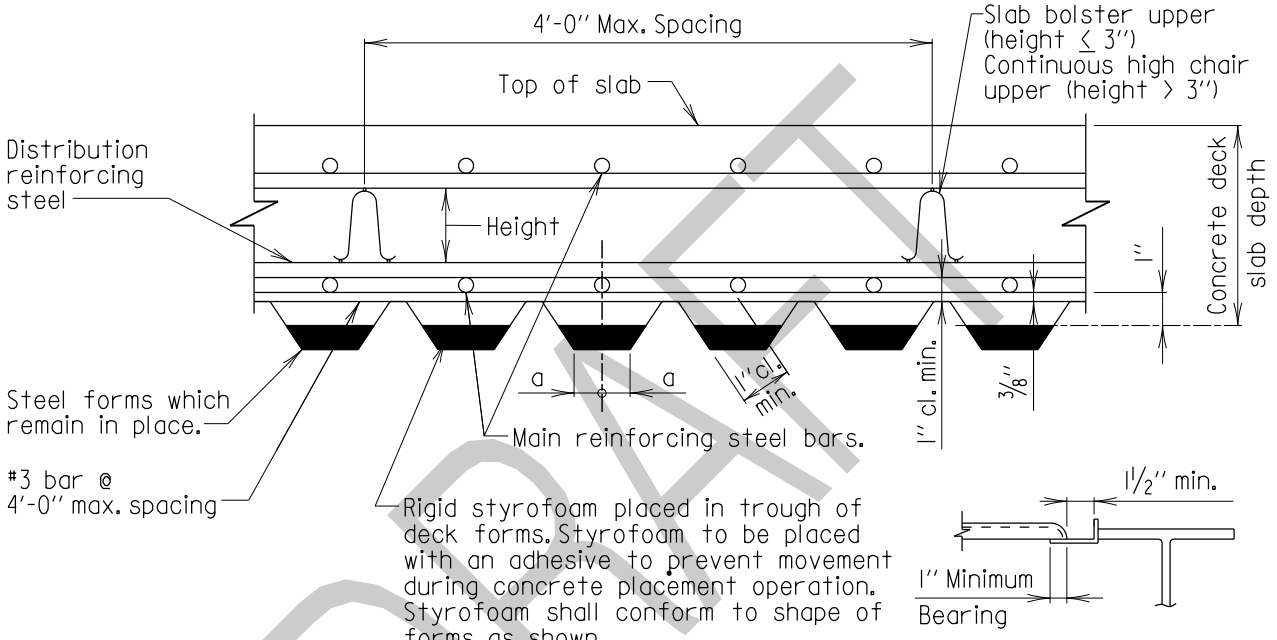
APPROVAL
E.S. Freedman DIRECTOR OFFICE OF STRUCTURES
DATE: 11/18/2004
VERSION
1.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

STEEL FORMS WHICH REMAIN IN PLACE FOR CONCRETE SLABS ON STEEL STRINGERS RE-BARS INDEPENDENT WITH TROUGH

DETAIL NO. SUP-BD(SG)-501 SHEET 2 OF 2

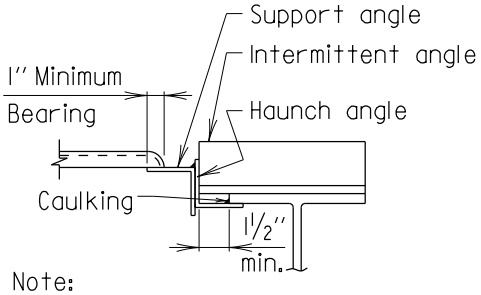
SUPER - BRIDGE DECK



SECTION

Scale: None

WHERE FORM IS BELOW BOTTOM OF FLANGE AND THERE ARE NO SHEAR CONNECTORS



Note:
Alternate attachments will be considered, that provide the 1½" concrete encasement of top flange.

WHERE FORM IS ABOVE BOTTOM OF FLANGE AND THERE ARE NO SHEAR CONNECTORS

Notes:

1. Permanent steel deck forms and supports shall conform to 909.10. Design Span shall be the clear distance between beam and/or girder flanges less two (2) inches.
2. No welding of these forms to parts carrying tension will be permitted. These forms shall be vertically adjusted to attain line and grade as required.
3. Any permanently exposed form metal where the galvanized coating has been damaged shall be thoroughly cleaned, wire brushed and painted with two coats of zinc-oxide dust primer, Federal Specification TT-P-641d, Type II, no color added, to the satisfaction of the engineer. Minor heat discoloration in areas of welds need not be touched up.
4. Contractor has option of using this detail or that shown on 2 of 2, except for bridge decks with curved stringers or bridge with a flared rebar pattern. For bridge with curved stringers or bridge with a flared rebar pattern only the detail shown on sheet 2 of 2 can be used.
5. Where shear connectors are utilized, normal manufacturers detailing may be utilized at stringer flange.
6. Supports for rebar shall be provided by Contractor.
7. When the General Notes under "Loading" indicates a design load with provisions for $3\#/ft^2$ for use of steel deck forms which remain in place, then this is the only detail that is acceptable if stay in place forms are to be used.

APPROVAL
_____ DIRECTOR OFFICE OF STRUCTURES
DATE:
VERSION
DRAFT

STATE OF MARYLAND
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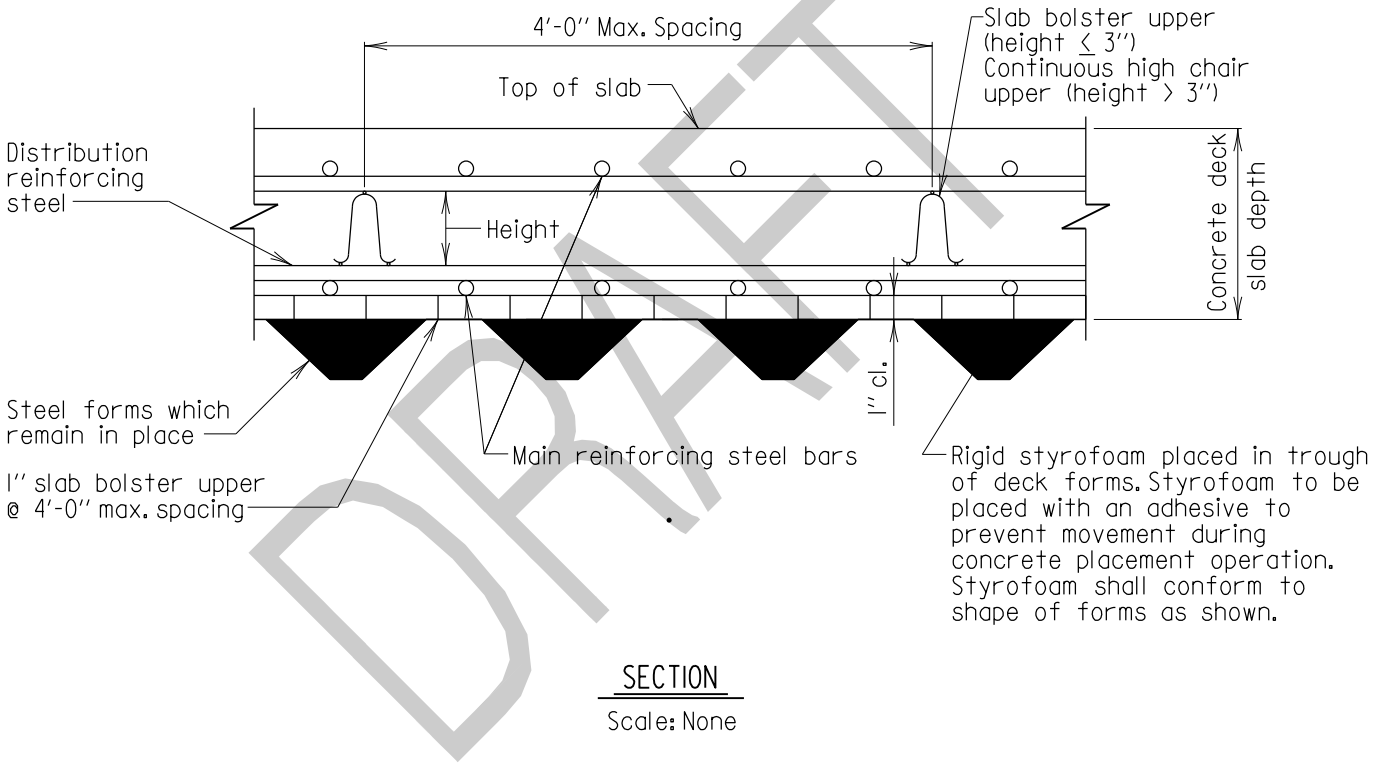
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

LIGHTWEIGHT STEEL FORMS WHICH REMAIN IN PLACE FOR CONCRETE SLABS ON STEEL STRINGERS RE-BARS ALIGNED WITH TROUGH

DETAIL NO. SUP-BD(SG)-502 SHEET 1 OF 2

SUPER - BRIDGE DECK



SECTION

Scale: None

Notes:

1. For notes see sheet 1 of 2.
2. When the General Notes under "Loading" indicates a design load with provisions for 3#/ft^2 for use of steel deck forms which remain in place, then this is the only detail that is acceptable if stay in place forms are to be used.
3. Supports for rebar shall be provided by Contractor.

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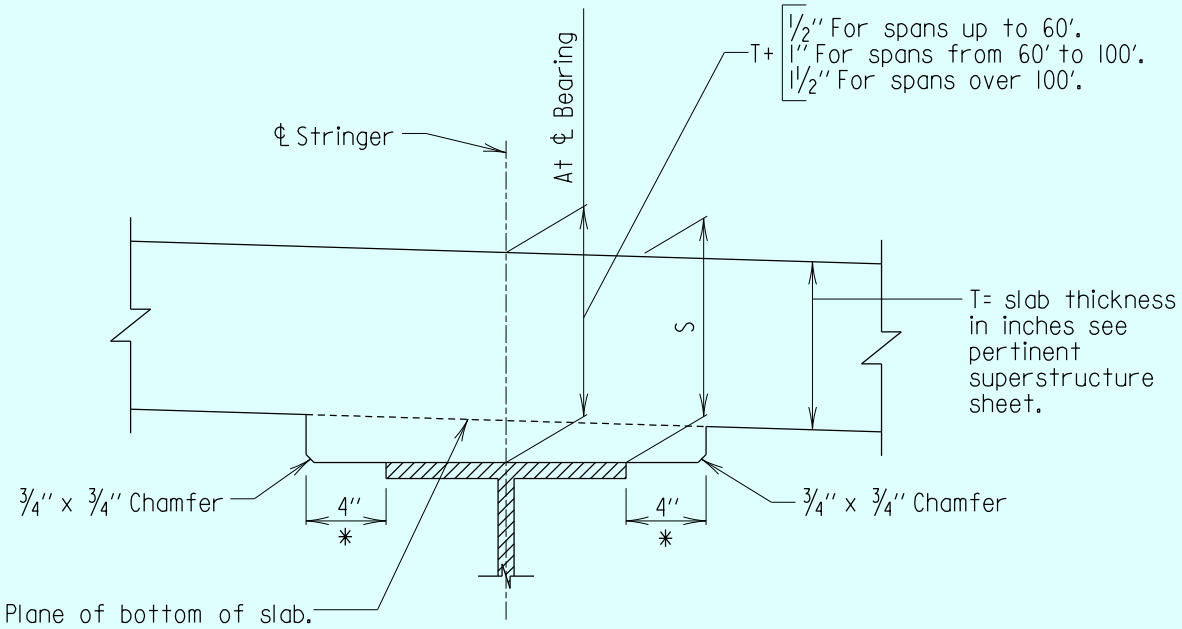
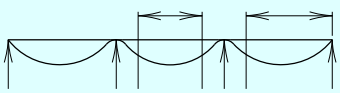
_____ DIRECTOR OFFICE OF STRUCTURES	LIGHTWEIGHT STEEL FORMS WHICH REMAIN IN PLACE FOR CONCRETE SLABS ON STEEL STRINGERS RE-BARS INDEPENDENT WITH TROUGH
DATE:	
VERSION	
DRAFT	DETAIL NO. SUP-BD(SG)-502 SHEET 2 OF 2

SUPER - BRIDGE DECK



SECTION
Scale: None

Notes:
1. * Omit concrete haunch by dropping bottom of concrete slab to bottom of top flange on spans of 30'-0" or less c/c of bearings.
2. Dimension 'S' at either edge of stringer, for its full length, as shown above, must not be less than dimension 'T', therefore, check this dimension along both edges of stringers at each elevation point shown on "Bridge Deck Elevation" sheet prior to placing any form work. In determining the depth of haunch for continuous bridges the span length shall be considered to be the distance from the abutment support to the dead load contraflexure for end spans and between the contraflexure points for intermediate spans. Where cover plates and/or varying thicknesses of top flanges are utilized, this increase in depth shall be taken into account in determining the slab plus haunch thickness at ℄ of bearing.



* FOR OFFICE USE ONLY *

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E.S. Freedman DIRECTOR OFFICE OF STRUCTURES DATE: 05/14/1976	CONCRETE HAUNCH DETAIL DECKS FORMED WITH TIMBER
VERSION 1.0	DETAIL NO. SUP-BD(SG)-601 SHEET 1 OF 1

SUPER - BRIDGE DECK

Chapter 03 - Superstructure

Section 01 – Bridge Deck

SUB-SECTION **03**

BRIDGE DECK CONCRETE GIRDERS (SUP-BD(CG))

NOTES

Design:

1. Latest AASHTO LRFD Bridge Design Specifications.
2. f'c = 4000 p.s.i.
3. Design includes provision for 2'' future wearing surface.

General:

1. Transverse bars shall be placed normal to centerline girders.
2. When skew angles are greater than 60° then Contractor may use either reinforcing steel pattern no.1 or no.2 throughout bridge.
3. When the girder spacing is less than 7'-0'', all bars shall be straight top and bottom. No truss bars are to be used.
4. Typical sections shall include a minimum of three stringers and have a width of not less than 14.0' between centerlines of exterior stringers.
5. Overhangs shall be at least 21'' but shall not exceed the smaller of 0.625 times the stringer spacing and 6.0'.
6. Reinforcing in the slab overhangs shall be designed in accordance with AASHTO.
7. Bridge deck slab Details should not be used for girder spacings less than 6'-0''. For girder spacings between 6'-0'' to 7'-0'', clear spacing between additional longitudinal steel over piers should be checked. A minimum of 3'' clearance between longitudinal bars shall be maintained.
8. All reinforcing steel in the deck slabs shall be epoxy coated.
9. The bridge deck slab details are for PCEF Bulb Tees with a top flange width of 4'-0'' only.

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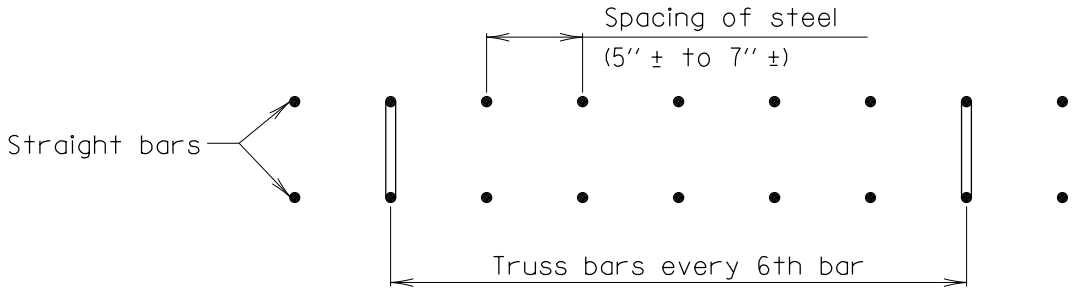
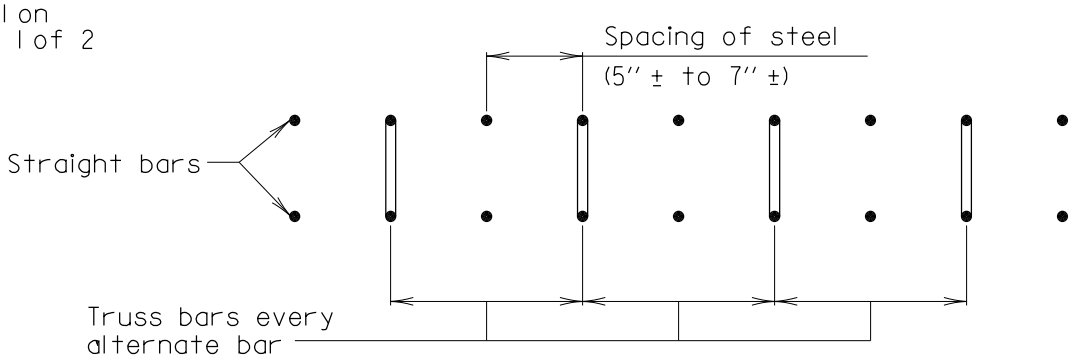
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES DATE: 12/18/2019	BRIDGE DECK SLAB FOR PCEF BULB TEE PRESTRESSED CONCRETE GIRDERS GENERAL NOTES AND BAR SPACING
VERSION 1.0	DETAIL NO. SUP-BD(CG)-101 SHEET 1 OF 2

SUPER - BRDGE DECK



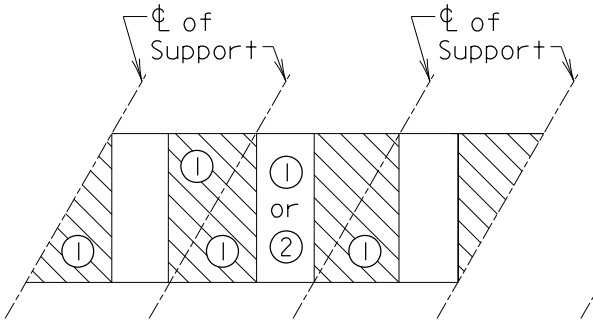
REINFORCING STEEL PATTERN NO.1

*See General Note 1 on sheet 1 of 2

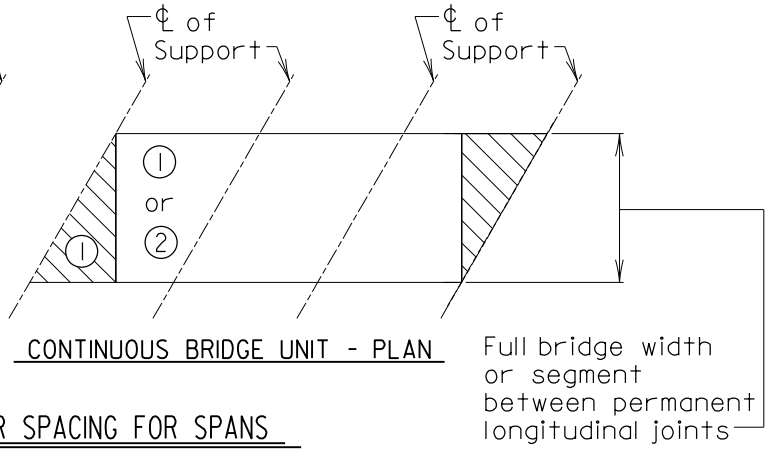


REINFORCING STEEL PATTERN NO.2

1. The Contractor has the option of using reinforcing steel pattern no.1 or no.2 in the unhatched portions of the decks shown below.
2. The Contractor shall use only reinforcing steel pattern no.1 in the hatched portions of the decks shown below.



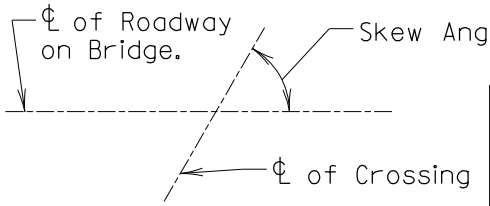
SIMPLE SPAN BRIDGE - PLAN



CONTINUOUS BRIDGE UNIT - PLAN

TRANSVERSE BAR SPACING FOR SPANS WITH SKEW ANGLES LESS THAN 60°

Scale: 1''=1'-0''



SKEW ANGLE

Scale: None

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BRIDGE DECK SLAB FOR CONCRETE GIRDERS GENERAL NOTES AND BAR SPACING

DETAIL NO. SUP-BD(CG)-101 SHEET 2 OF 2

SUPER - BRIDGE DECK

LAP LENGTHS FOR DECK REINFORCING

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

HL-93 TYPE XLI SLAB
GREATER THAN 7'-0" TO 8'-0" GIRDER SPACING

Scale: ½"=1'-0"

Note:
For girder spacing less than 7'-0" see Note 3 on Detail No. SUP-BD(CG)-101.

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of girderss.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○. See Detail No. SUP-BD(CG)-201 for the size and lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.

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TYPE XLI BRIDGE DECK SLABS FOR PCEF BULB TEE PRESTRESSED CONCRETE GIRDERS HL-93 LOADING

DETAIL NO. SUP-BD(CG)-102 SHEET 1 OF 1

SUPER - BRIDGE DECK

LAP LENGTHS FOR DECK REINFORCING

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of girderss.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○. See Detail No. SUP-BD(CG)-201 for the size and lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.

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TYPE XLII BRIDGE DECK SLABS FOR PCEF BULF TEE PRESTRESSED CONCRETE GIRDERS HL-93 LOADING

DETAIL NO. SUP-BD(CG)-103 SHEET 1 OF 1

SUPER - BRIDGE DECK

LAP LENGTHS FOR DECK REINFORCING

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

HL-93 TYPE XLIII SLAB
GREATER THAN 8'-6" TO 9'-0" GIRDER SPACING

Scale: ½"=1'-0"

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of girderss.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○. See Detail No. SUP-BD(CG)-201 for the size and lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.

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TYPE XLIII BRIDGE DECK SLABS FOR PCEF BULB TEE PRESTRESSED CONCRETE GIRDERS HL-93 LOADING

DETAIL NO. SUP-BD(CG)-104 SHEET 1 OF 1

SUPER - BRIDGE DECK

Note:

1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of girderss.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○. See Detail No. SUP-BD(CG)-201 for the size and lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.

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TYPE XLIV BRIDGE DECK SLABS FOR PCEF BULB TEE PRESTRESSED CONCRETE GIRDERS HL-93 LOADING

DETAIL NO. SUP-BD(CG)-105 SHEET 1 OF 1

SUPER - BRIDGE DECK

HL-93 TYPE XLV SLAB
GREATER THAN 9'-6" TO 10'-0" GIRDER SPACING

Scale: ½" = 1'-0"

LAP LENGTHS FOR DECK REINFORCING

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

TRANSVERSE REINFORCEMENT
(See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of girderss.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○. See Detail No. SUP-BD(CG)-201 for the size and lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.

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TYPE XLV BRIDGE DECK SLABS FOR PCEF BULB TEE PRESTRESSED CONCRETE GIRDERS HL-93 LOADING

DETAIL NO. SUP-BD(CG)-106 SHEET 1 OF 1

SUPER - BRIDGE DECK

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of girderss.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○. See Detail No. SUP-BD(CG)-201 for the size and lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.

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TYPE XLVI BRIDGE DECK SLABS FOR PCEF BULB TEE PRESTRESSED CONCRETE GIRDERS HL-93 LOADING

DETAIL NO. SUP-BD(CG)-107 SHEET 1 OF 1

SUPER - BRIDGE DECK

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of girders.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○. See Detail No. SUP-BD(CG)-201 for the size and lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.

TRANSVERSE REINFORCEMENT
(See Note 5)

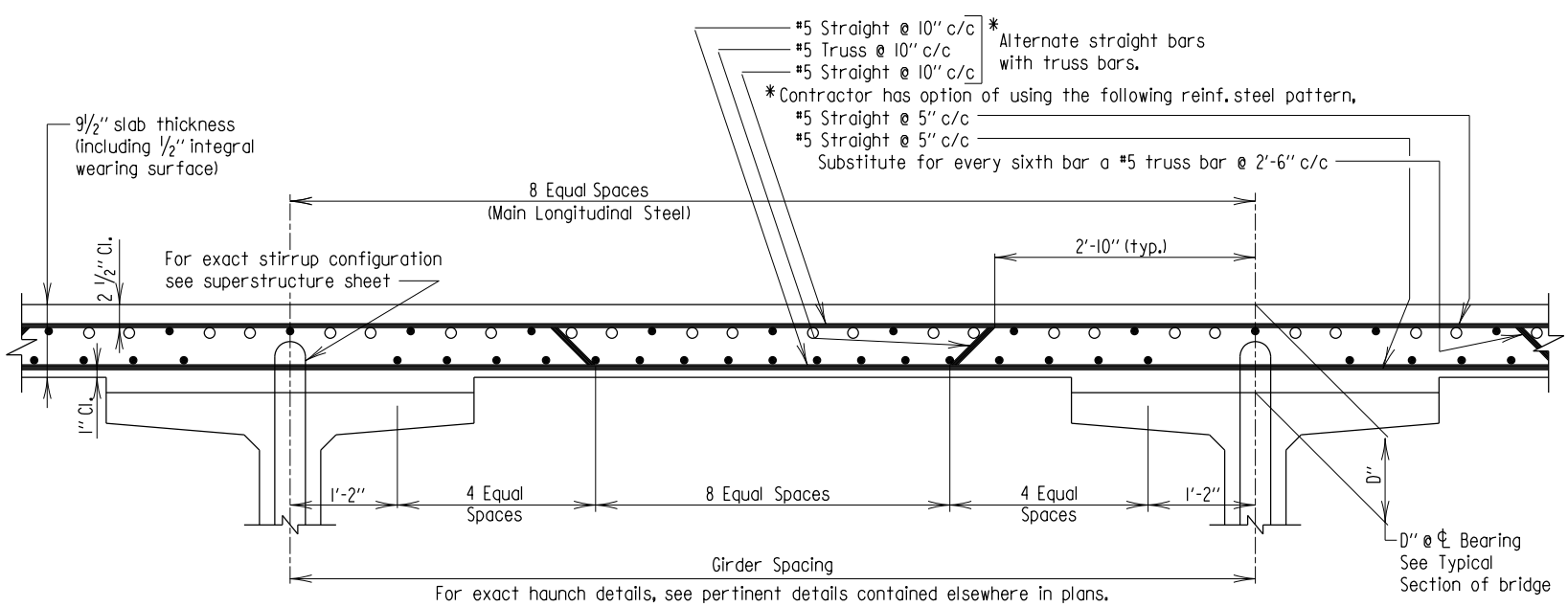
	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

LAP LENGTHS FOR DECK REINFORCING



HL-93 TYPE XLVII SLAB
GREATER THAN 10'-6" TO 11'-0" GIRDER SPACING

Scale: ½"=1'-0"

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TYPE XLVII BRIDGE DECK SLABS FOR
PCEF BULB TREE PRESTRESSED CONCRETE GIRDERS
HL-93 LOADING

DETAIL NO. SUP-BD(CG)-108 SHEET __ OF __

SUPER - BRIDGE DECK

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of girderss.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○. See Detail No. SUP-BD(CG)-201 for the size and lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.

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TYPE XLVIII BRIDGE DECK SLABS FOR PCEF BULB TEE PRESTRESSED CONCRETE GIRDERS HL-93 LOADING

DETAIL NO. SUP-BD(CG)-109 SHEET 1 OF 1

SUPER - BRIDGE DECK

HL-93 TYPE XLIX SLAB
GREATER THAN 11'-6" TO 12'-0" GIRDER SPACING

Scale: 1/2"=1'-0"

LAP LENGTHS FOR DECK REINFORCING

LONGITUDINAL REINFORCEMENT

	Lap Length
#5 Top Reinforcement	2'-5"
#5 Bottom Reinforcement	3'-6"
#6 Top Reinforcement**	3'-7"

** See Note 4

TRANSVERSE REINFORCEMENT (See Note 5)

	Lap Length
#5 Top Reinforcement	1'-10"
#5 Bottom Reinforcement	2'-8"

Note:
1. All steel sizes and spacing based on ASTM A-615, Grade 60.
2. Transverse bars to be placed normal to center line of girderss.
3. All longitudinal bars are to be #5's placed as shown except as indicated by Note 4.
4. On continuous bridges, over piers, additional longitudinal steel to be added to the top of the slab between normal bars and indicated thus ○. See Detail No. SUP-BD(CG)-201 for the size and lengths of these additional bars.
5. An Excess Reinforcement Factor of 0.75 was applied to the transverse reinforcement lap lengths. An Excess Reinforcement Factor of 1.00 was applied to the longitudinal reinforcement lap lengths.

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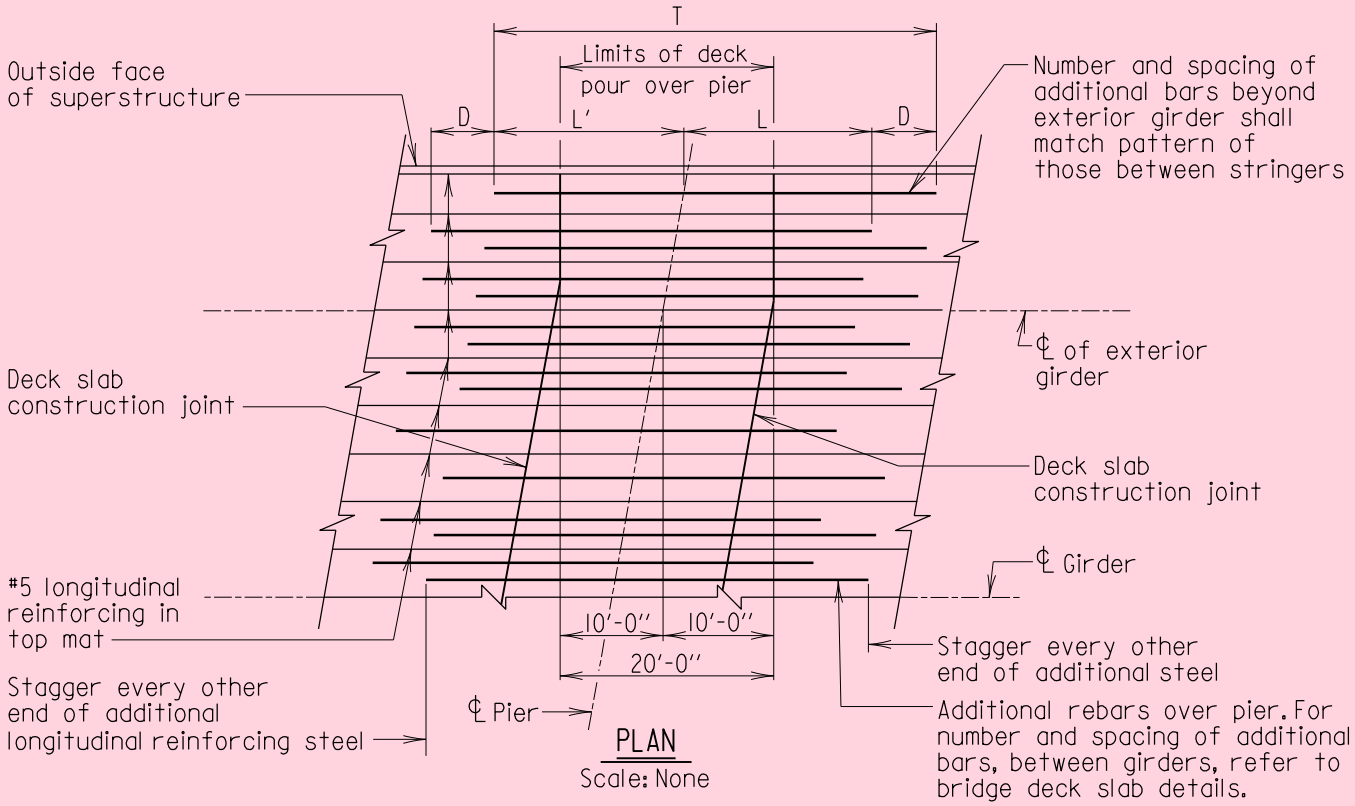
TYPE XLIX BRIDGE DECK SLABS FOR PCEF BULB TEE PRESTRESSED CONCRETE GIRDERS HL-93 LOADING

DETAIL NO. SUP-BD(CG)-110 SHEET 1 OF 1

SUPER - BRIDGE DECK



PLAN

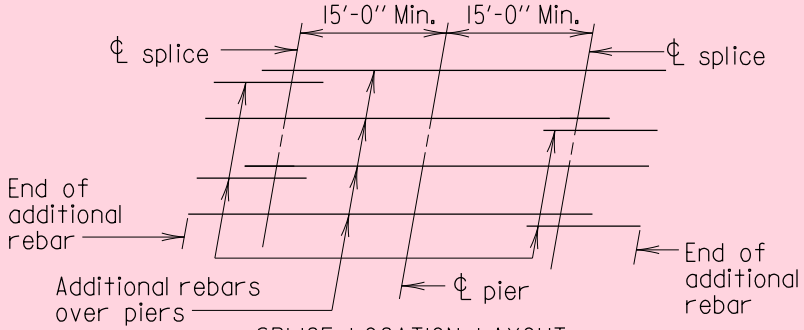
Scale: None

Bridge #_____ Description: _____

Location	L' (Back Stationing Span)	L (Ahead Stationing Span)	D (Development Length of Bar)	T=Total Length of Bar (T=L'+L+D)	Bar Size *
Pier _____					
Pier _____					
Pier _____					
Pier _____					
Pier _____					
Pier _____					

* All bars to be #5 unless otherwise noted in this column.

Note:
If additional longitudinal reinforcing in pour requires splicing, then the reinforcing shall be spliced as per Splice Location Layout.



SPLICE LOCATION LAYOUT

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ADDITIONAL LONGITUDINAL REINFORCING IN CONTINUOUS DECK SLABS OVER PIERS FOR CONCRETE GIRDERS

DETAIL NO. SUP-BD(CG)-201 SHEET 1 OF 1

SUPER - BRIDGE DECK

ELEVATION AT BRIDGE SEAT AREA OVER BEAMS

Scale: ⅜" = 1'-0"

Note:
Normal deck reinforcing not shown for clarity.

Notes:
1. For Section A-A see Sheet 3 of 4.
2. For Section B-B see Sheet 4 of 4.
3. F-Shape barrier is for illustrative purposes only. See plans for barrier type.

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STATE OF MARYLAND
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CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING PRESTRESSED CONCRETE GIRDERS WITH ELASTOMERIC BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION > 70 FEET

DETAIL NO. SUP-BD(CG)-301 SHEET 1 OF 4

SUPER BRIDGE DECK

Notes:
1. For Section A-A see Sheet 3 of 4.
2. For Section B-B see Sheet 4 of 4.
3. F-Shape barrier is for illustrative purposes only. See plans for barrier type.

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DATE: 07/25/2019
VERSION
1.01

STATE OF MARYLAND
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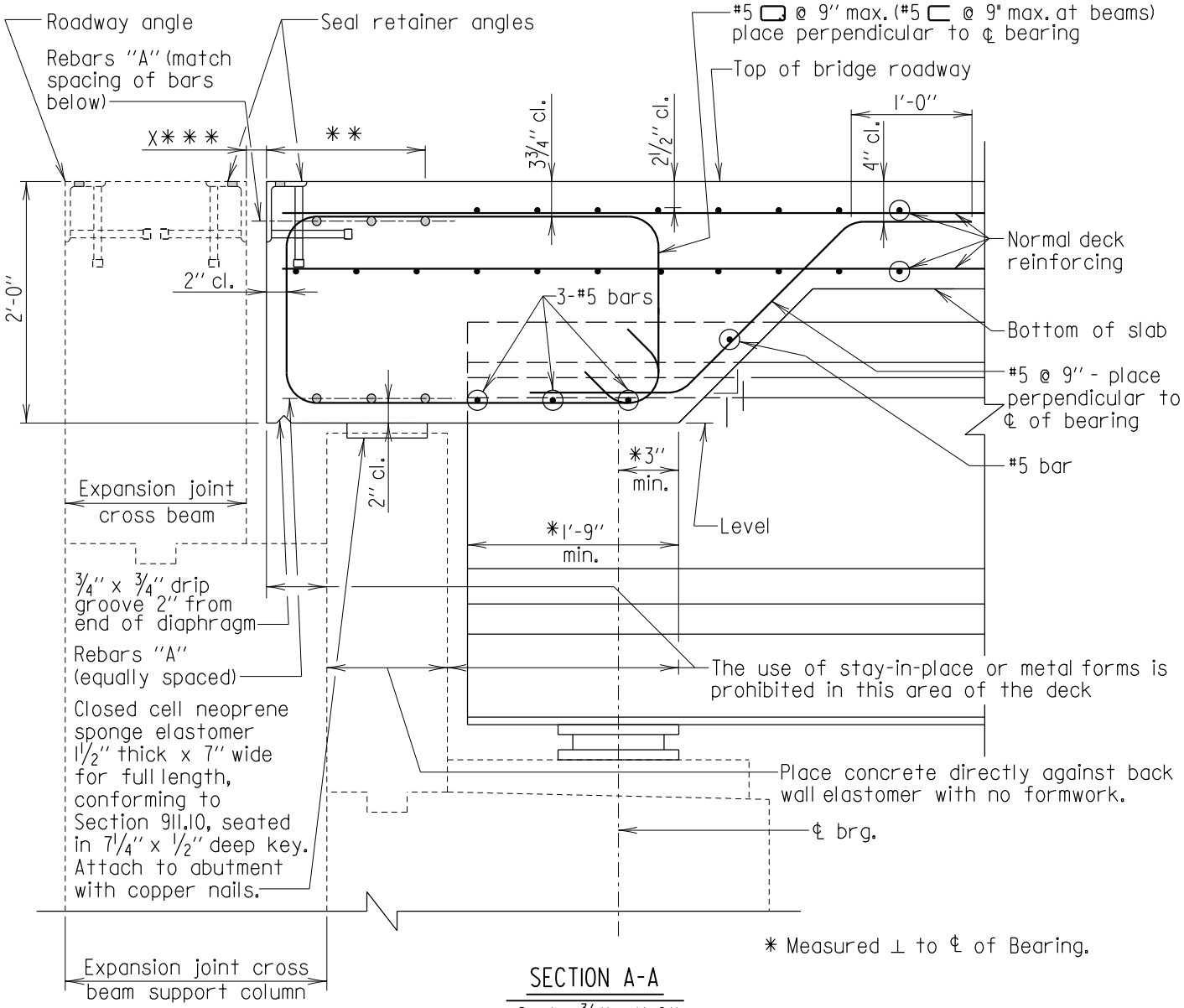
CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING PRESTRESSED CONCRETE GIRDERS WITH ELASTOMERIC EXPANSION BEARINGS LENGTHS CONTRIBUTING TO EXPANSION > 70 FEET

DETAIL NO. SUP-BD(CG)-301 SHEET 2 OF 4

SUPER BRIDGE DECK



* Measured ⊥ to ℄ of Bearing.

SECTION A-A

Scale: ¾'' = 1'-0''

X*** = Joint opening dimension, see appropriate joint detail.

** Do not place top mat transverse deck reinforcing in this area

Span = S	Rebars ''A''
Up to 8'	3-#7's
over 8' to 14'	3-#8's
over 14' to 16'	3-#9's

Note:
All reinforcing steel shown shall be epoxy coated.

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DATE: 07/25/2019
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STATE OF MARYLAND
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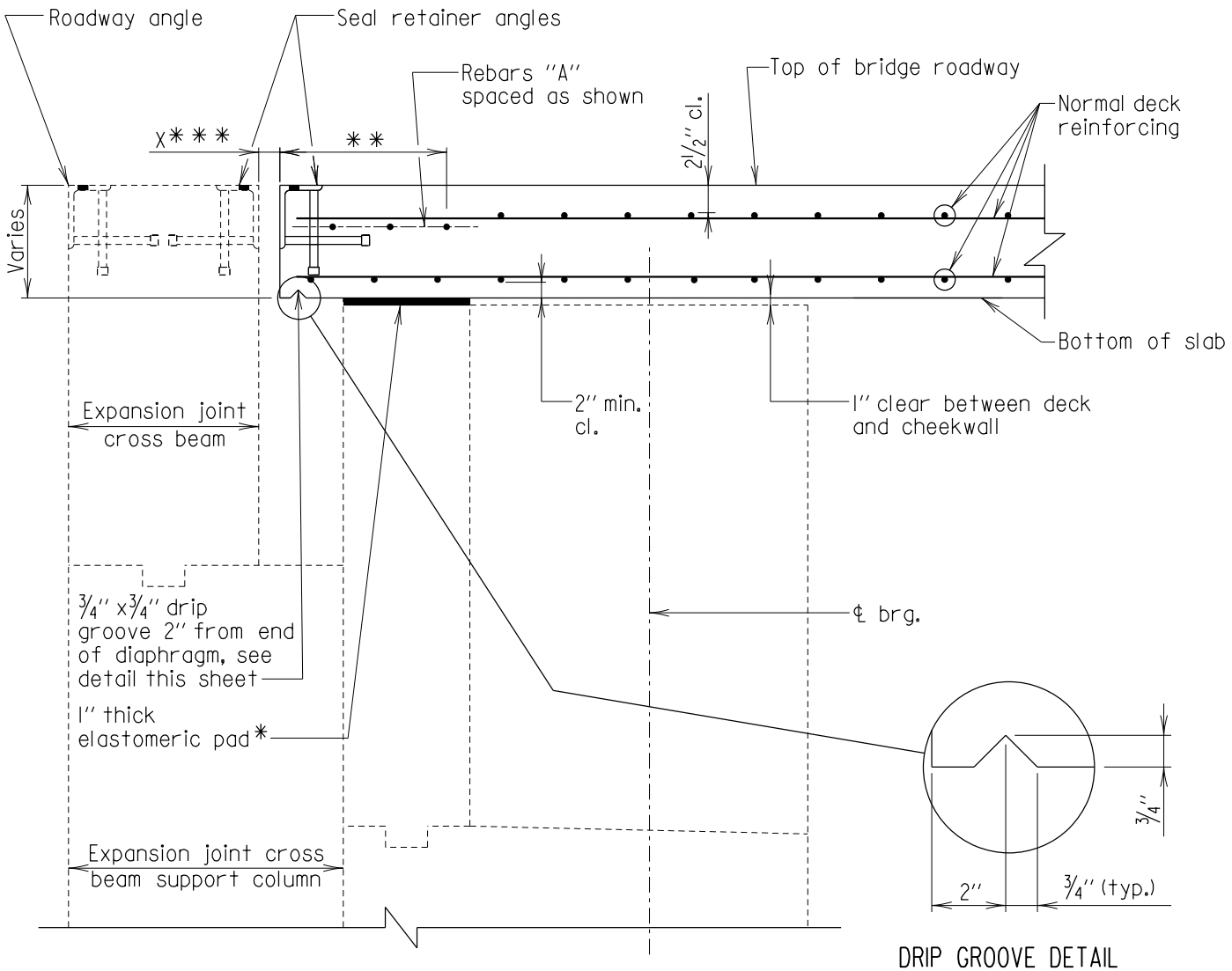
CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING PRESTRESSED CONCRETE GIRDERS WITH ELASTOMERIC EXPANSION BEARING WITH LENGTHS CONTRIBUTING TO EXPANSION > 70 FEET

DETAIL NO. SUP-BD(CG)-301 SHEET 3 OF 4

SUPER BRIDGE DECK



DRIP GROOVE DETAIL

Scale: 3" = 1'-0"

SECTION B-B

Scale: ¾" = 1'-0"

Span = S	Rebars "A"
Up to 8'	3-#7's
over 8' to 14'	3-#8's
over 14' to 16'	3-#9's

* Note:
Elastomeric pad shall be attached to abutment backwall in accordance with the Section 432.03.04.

X*** = Joint opening dimension, see appropriate joint detail.

** Do not place top mat transverse deck reinforcing in this area

Note:
All reinforcing steel shown shall be epoxy coated.

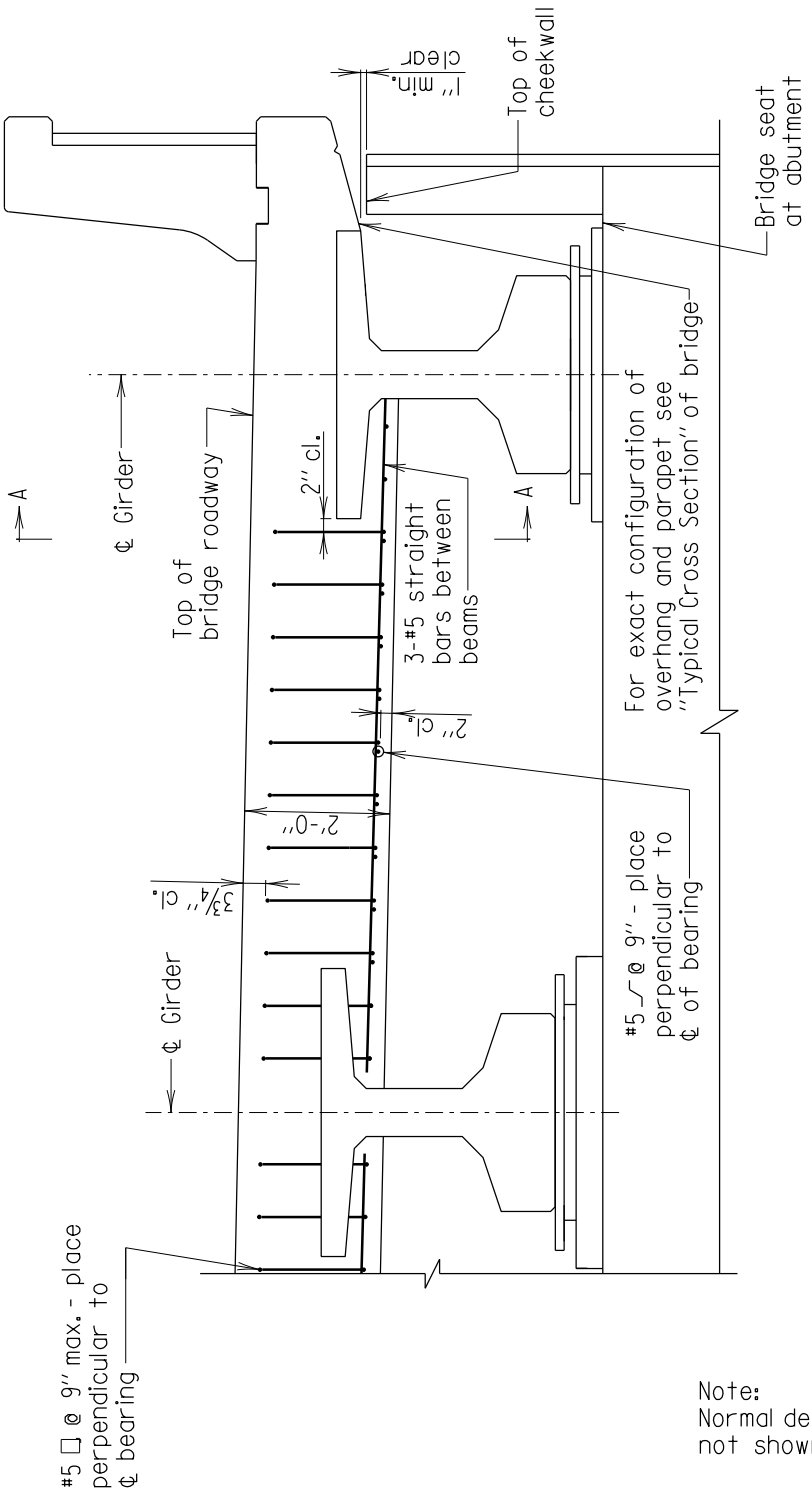
APPROVAL
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES
DATE: 07/25/2019
VERSION
1.01

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING PRESTRESSED CONCRETE GIRDERS WITH ELASTOMERIC EXPANSION BEARING WITH LENGTHS CONTRIBUTING TO EXPANSION > 70 FEET

DETAIL NO. SUP-BD(CG)-301 SHEET 4 OF 4

SUPER BRIDGE DECK



ELEVATION AT BRIDGE SEAT AREA OVER BEAMS

Scale: ⅜" = 1'-0"

Note:
Normal deck reinforcing not shown for clarity.

Notes:
1. For Section A-A see sheet 3 of 4.
2. For Section B-B see sheet 4 of 4.
3. F-Shape barrier is for illustrative purposes only. See plans for barrier type.

APPROVAL
DIRECTOR OFFICE OF STRUCTURES
DATE: 12/18/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING PRESTRESSED CONCRETE GIRDERS WITH ELASTOMERIC FIXED BEARINGS OR ELASTOMERIC EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION ≤ 70 FEET

DETAIL NO. SUP-BD(CG)-401 SHEET 1 OF 4

SUPER BRIDGE DECK

ELEVATION AT BRIDGE SEAT AREAS OVER BACKWALL

Scale: ⅜" = 1'-0"

*Note:
Elastomeric pad shall be attached to abutment diaphragm seat in accordance with the Section 432.03.04.

Notes:
1. For Section A-A see sheet 3 of 4.
2. For Section B-B see sheet 4 of 4.
3. F-Shape barrier is for illustrative purposes only. See plans for barrier type.

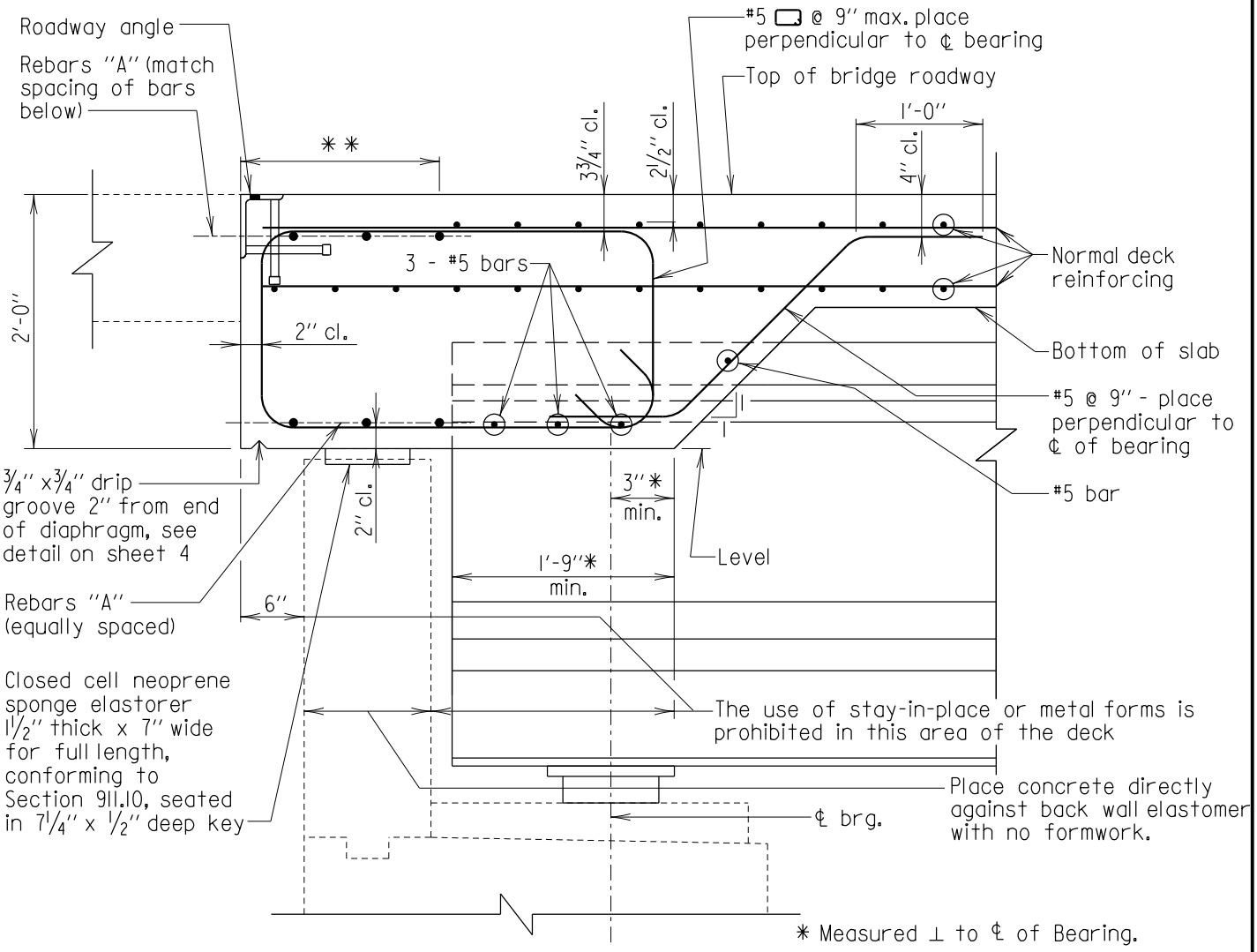
APPROVAL
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES
DATE: 12/18/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING PRESTRESSED CONCRETE GIRDERS WITH ELASTOMERIC FIXED BEARINGS OR ELASTOMERIC EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION ≤ 70 FEET

DETAIL NO. SUP-BD(CG)-401 SHEET 2 OF 4

SUPER BRIDGE DECK



SECTION A-A

Scale: ¾" = 1'-0"

** Do not place top mat transverse deck reinforcing in this area.

Span = S	Rebars "A"
Up to 8'	3-#7's
over 8' to 14'	3-#8's
over 14' to 16'	3-#9's

Note:
All reinforcing steel shown shall be epoxy coated.

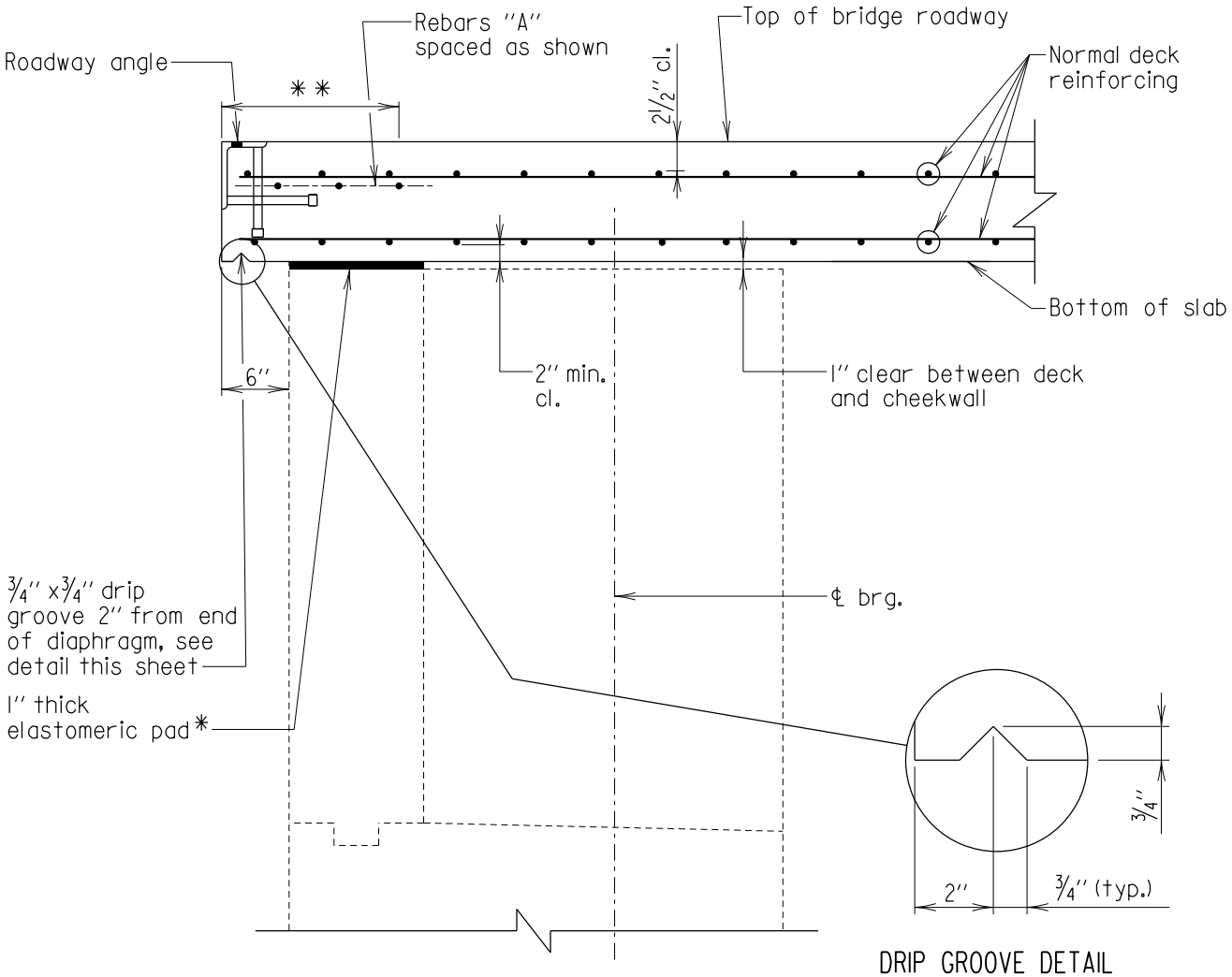
APPROVAL
Glenn C. Crawford DIRECTOR OFFICE OF STRUCTURES
DATE: 12/18/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING PRESTRESSED CONCRETE GIRDERS WITH ELASTOMERIC FIXED BEARINGS OR ELASTOMERIC EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION < 70 FEET

DETAIL NO. SUP-BD(CG)-401 SHEET 3 OF 4

SUPER BRIDGE DECK



DRIP GROOVE DETAIL

Scale: 3" = 1'-0"

SECTION B-B

Scale: ¾" = 1'-0"

Span = S	Rebars "A"
Up to 8'	3-#7's
over 8' to 14'	3-#8's
over 14' to 16'	3-#9's

* Note:
Elastomeric pad shall be attached to abutment backwall in accordance with the Section 432.03.04.

* * Do not place top mat transverse deck reinforcing in this area.

Note:
All reinforcing steel shown shall be epoxy coated.

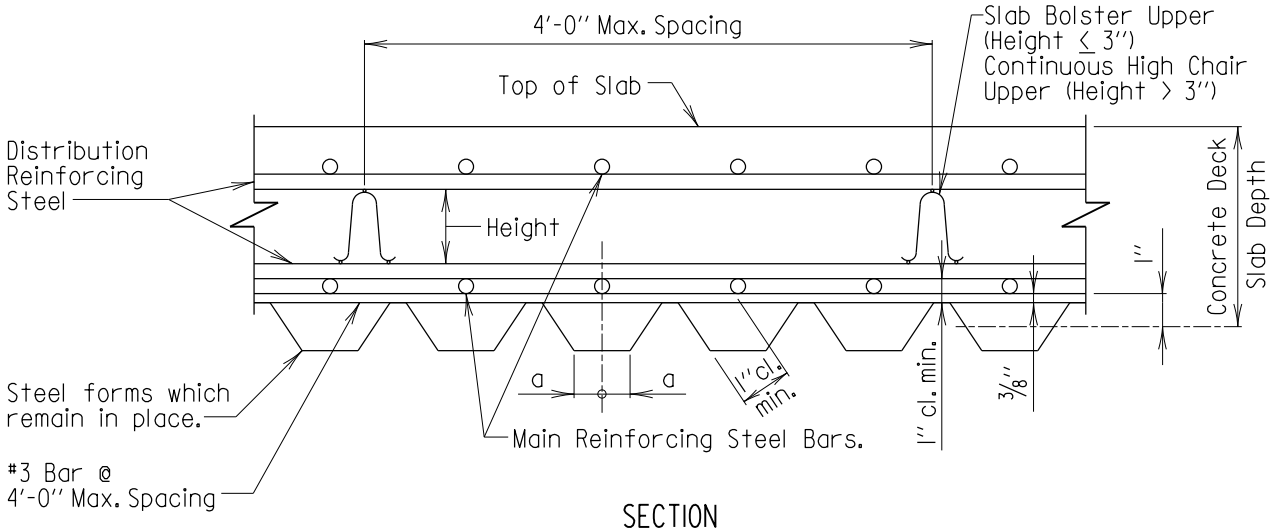
APPROVAL
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES
DATE: 12/18/2019
VERSION
1.02

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

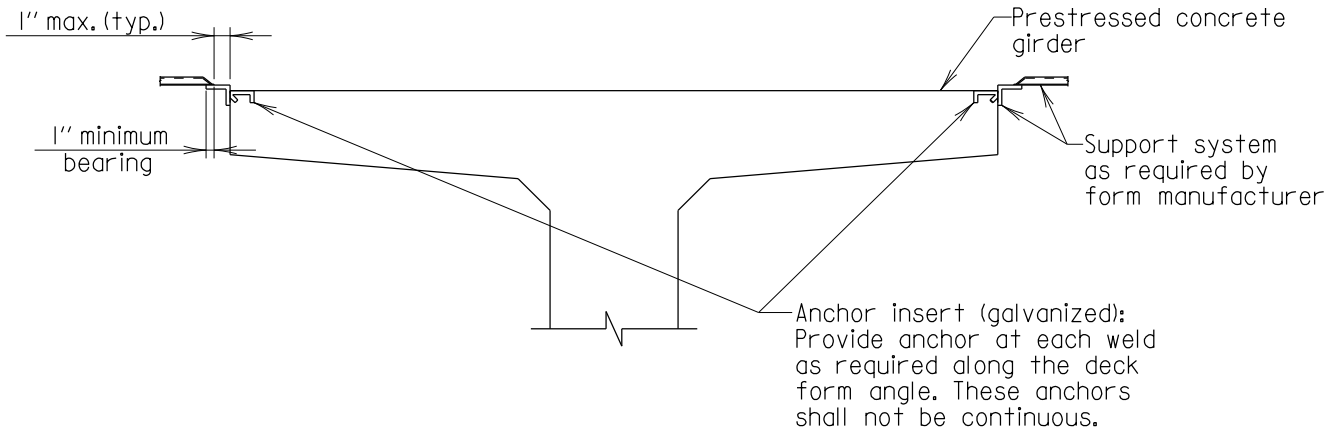
CONCRETE DIAPHRAGMS AT ABUTMENTS CARRYING PERSTRESSED CONCRETE GIRDERS WITH ELASTOMERIC FIXED BEARINGS OR ELASTOMERIC EXPANSION BEARINGS WITH LENGTHS CONTRIBUTING TO EXPANSION < 70 FEET

DETAIL NO. SUP-BD(CG)-401 SHEET 4 OF 4

SUPER BRIDGE DECK



SECTION
Scale: None



FORM ANCHOR DETAIL
Scale: 1" = 1'-0"

Notes:

1. Permanent steel deck forms and supports shall conform to 909.11. Design Span shall be the clear distance between girder flanges less two (2) inches.
2. These forms shall be vertically adjusted to attain line and grade as required.
3. Any permanently exposed form metal where the galvanized coating has been damaged shall be thoroughly cleaned, wire brushed and painted with two coats of zinc-oxide dust primer, Federal Specification TT-P-641d, Type II, no color added, to the satisfaction of the Engineer. Minor heat discoloration in areas of welds need not be touched up.
4. Contractor has option of using this detail or that shown on 2 of 2, except for bridge decks with a flared rebar pattern. For bridges with a flared rebar pattern only the detail shown on sheet 2 of 2 can be used.
5. Supports for rebar shall be provided by Contractor.

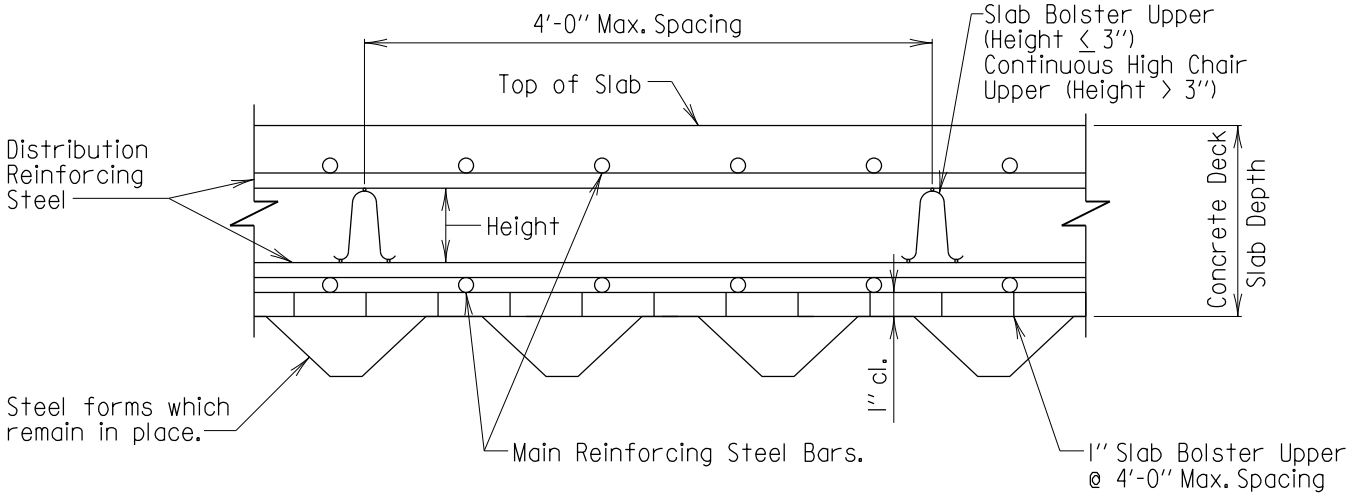
APPROVAL
DIRECTOR OFFICE OF STRUCTURES
DATE: 12/18/2019
VERSION
1.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

STEEL FORMS WHICH REMAIN IN PLACE FOR CONCRETE SLABS ON CONCRETE GIRDERS RE-BARS ALIGNED WITH TROUGH

DETAIL NO. SUP-BD(CG)-501 SHEET 1 OF 2

SUPER - BRIDGE DECK



SECTION

Scale: None

Notes:

1. For notes see sheet 1 of 2.
2. This detail is acceptable only on structures where the General Notes under "Loading" states " and 15 pounds per square foot for use of steel bridge deck forms which remain in place".
3. Supports for rebar shall be provided by Contractor.

APPROVAL
DIRECTOR OFFICE OF STRUCTURES
DATE: 12/18/2019
VERSION
1.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

STEEL FORMS WHICH REMAIN IN PLACE FOR CONCRETE SLABS ON CONCRETE GIRDERS RE-BARS INDEPENDENT WITH TROUGH

DETAIL NO. SUP-BD(CG)-501 SHEET 2 OF 2

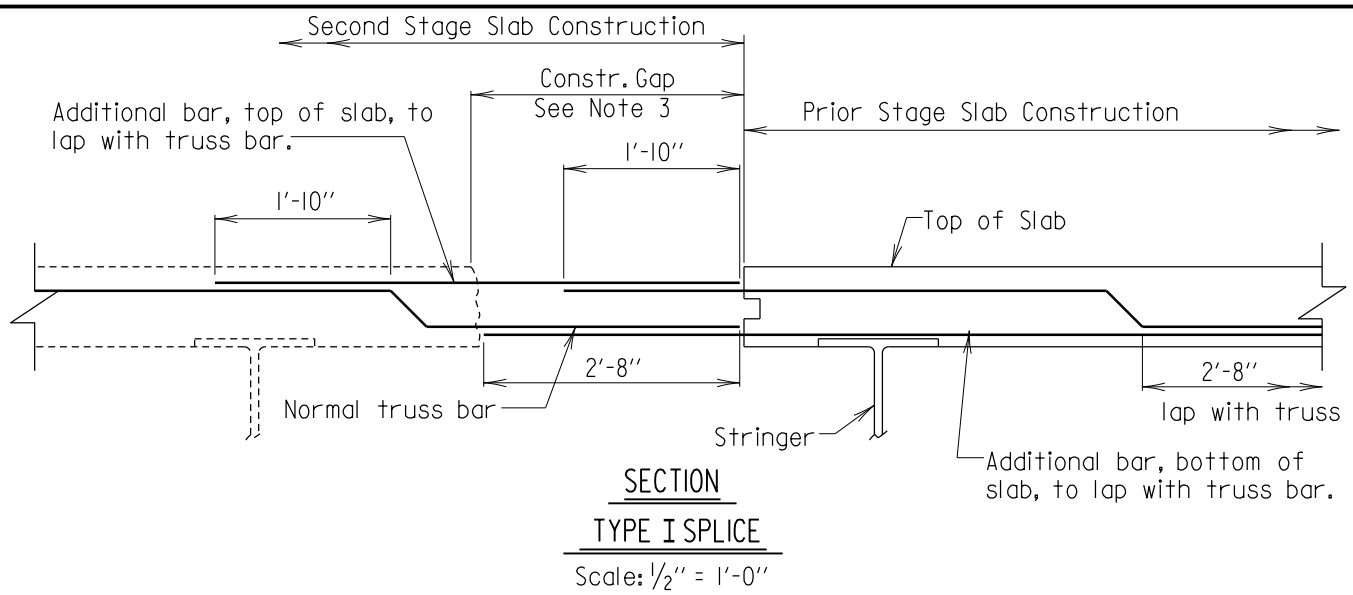
SUPER - BRIDGE DECK

Chapter 03 - Superstructure

Section 01 – Bridge Deck

SUB-SECTION **04**

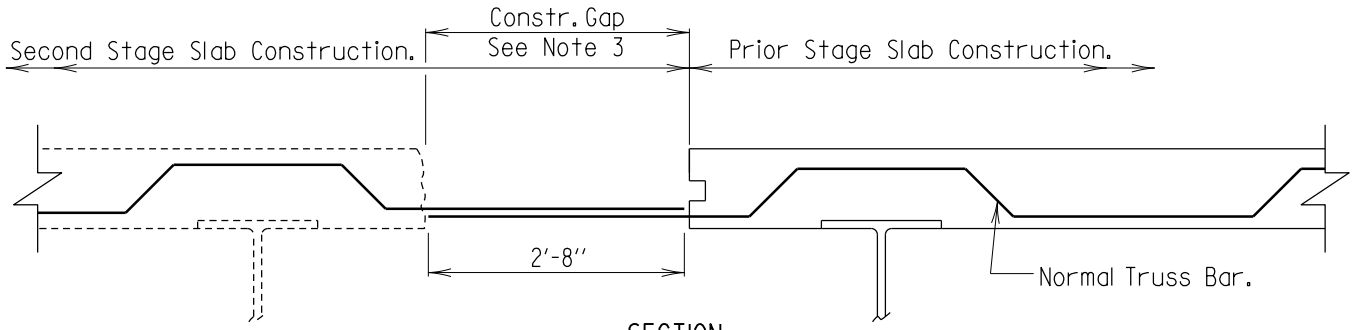
STAGED CONSTRUCTION (SUP-BD(SC))



SECTION

TYPE I SPLICE

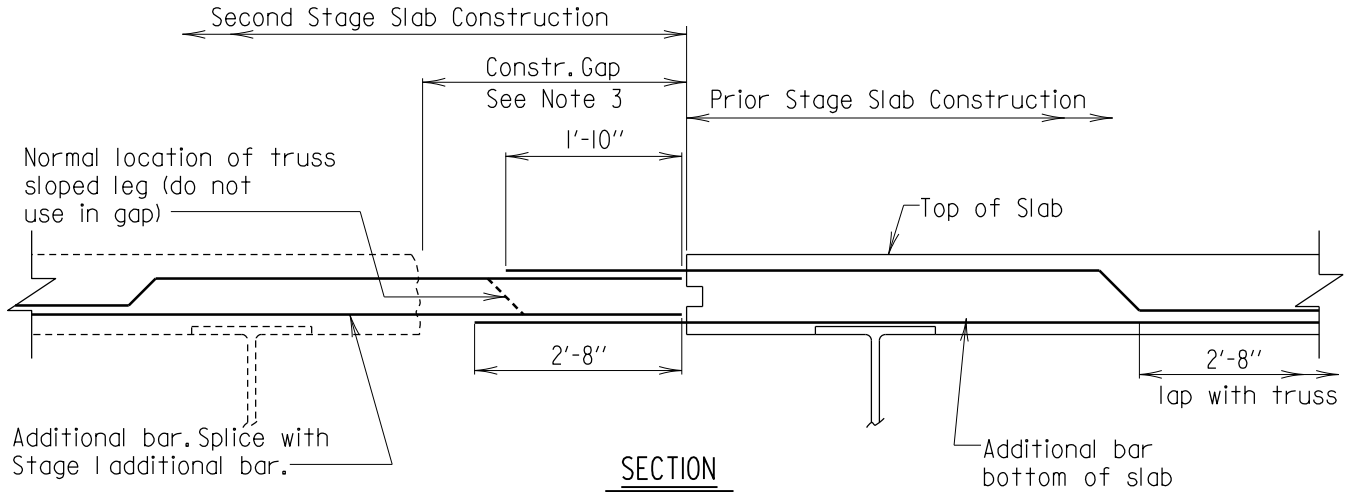
Scale: 1/2" = 1'-0"



SECTION

TYPE II SPLICE

Scale: 1/2" = 1'-0"



SECTION

TYPE III SPLICE

Scale: 1/2" = 1'-0"

Notes:

1. See Contract Drawing for construction gap location.
2. See Det. No. SUP-BD(DT)-201 for Longitudinal and Additional Top Bar over Pier lap length details.
3. Constr. Gap dim. = 2'-9" min.
4. Construction joints shall not be placed over stringers.

APPROVAL
Glenn C. Crampton DIRECTOR OFFICE OF STRUCTURES
DATE: 04/30/2018
VERSION
2.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

SPLICING OF BRIDGE DECK SLAB TRUSS BARS DURING STAGE CONSTRUCTION LAP SPLICE ALTERNATIVES

DETAIL NO. SUP-BD(SC)-101 SHEET 1 OF 1

SUPER - BRIDGE DECK

GENERAL NOTES

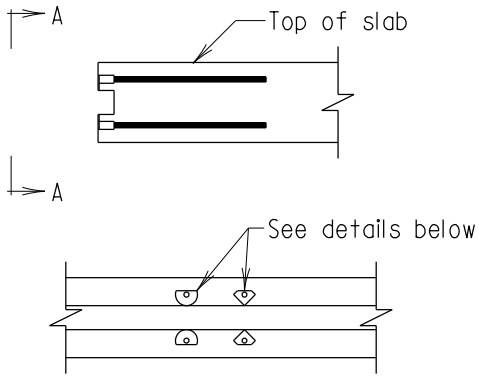
1. Longitudinal deck reinforcing steel not shown.
2. Existing slab shown dashed.
3. Splicer bars and normal transverse reinforcing steel to be placed in same horizontal plane.
4. These splice bars will not be measured for payment, but all costs thereof shall be included in the Contract lump sum price for the pertinent Epoxy Coated Reinforcing Steel items.

5a. Root diameter of threaded portion of splicer bar must be equal to nominal diameter of designed bar. Increasing bar diameter to next size is permissable to maintain this requirement.

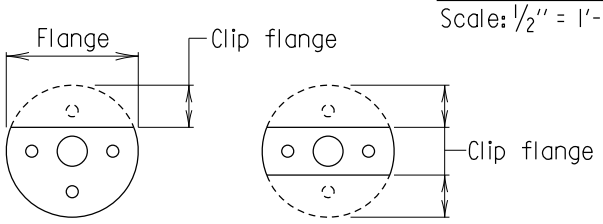
5b. In no case shall the splicer rebar coupler flange encroach into the slab top or bottom concrete cover. Either no flange or clipping the top and bottom edges of the flange prior to application of the epoxy coating in the shop is permissable. (See details below)

6. *FOR OFFICE USE ONLY*
This detail is intended for use on stage construction where the gap between stages of construction does not accomodate the minimum bar lap lengths.

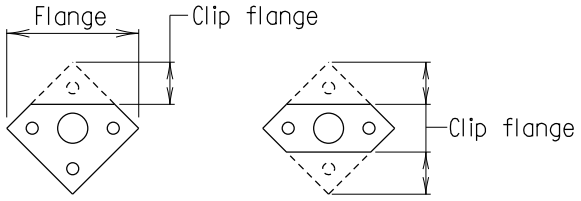
Certification: The steel manufacturer shall furnish certification with actual test results for each heat of steel, showing that the material conforms to these Specifications.



SECTION A-A
Scale: 1/2" = 1'-0"



FRONT VIEW ROUND FLANGE
Scale: None



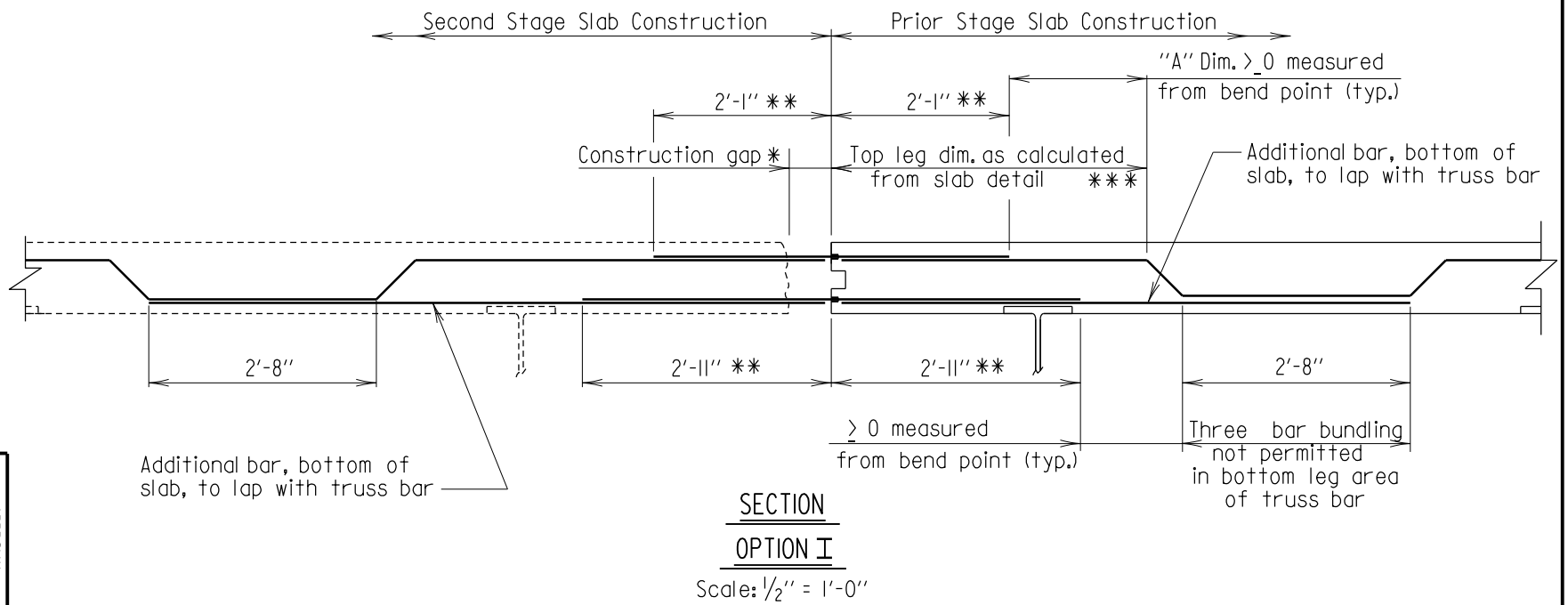
FRONT VIEW SQUARE FLANGE
Scale: None

APPROVAL	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
Glenn C. Vaughan DIRECTOR OFFICE OF STRUCTURES DATE: 04/30/2018	SPLICING OF BRIDGE DECK SLAB REINFORCING STEEL DURING STAGE CONSTRUCTION (NO AREA AVAILABLE FOR LAPPING)
VERSION 2.0	DETAIL NO. SUP-BD(SC)-102 SHEET 1 OF 4

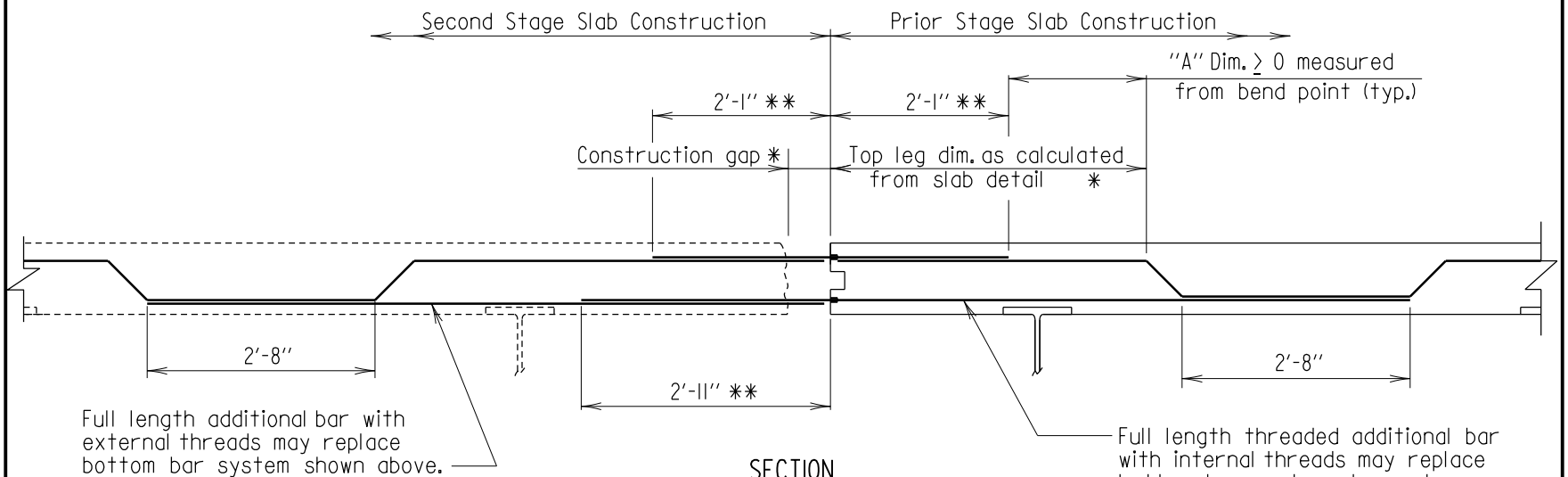
SUPER - BRIDGE DECK

Other Related Details
SUP-BD(DT)-201

Notes:
1. For General Notes see Sht. No. 1 of 4.
2. Work with sheets 3 and 4 of 4.



SECTION
OPTION I
Scale: 1/2" = 1'-0"



SECTION
OPTION II
Scale: 1/2" = 1'-0"

* Construction Gap dim. < 2'-9"
** Dimension = lap length + 3"
*** Cannot move bend point to accomodate lap splice.

APPROVAL
Glen Clayton DIRECTOR
OFFICE OF STRUCTURES
DATE: 04/30/2018
VERSION
2.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

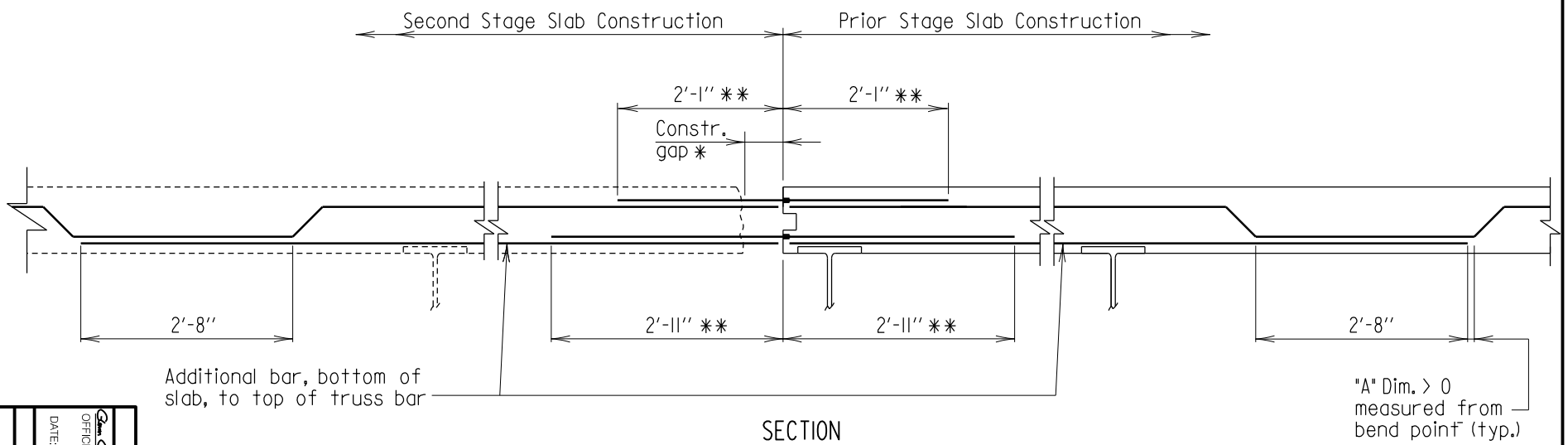
SPLICING OF BRIDGE DECK SLAB TRUSS BARS DURING STAGE CONSTRUCTION COUPLER BAR SPLICE ALTERNATIVES

DETAIL NO. SUP-BD(SC)-102

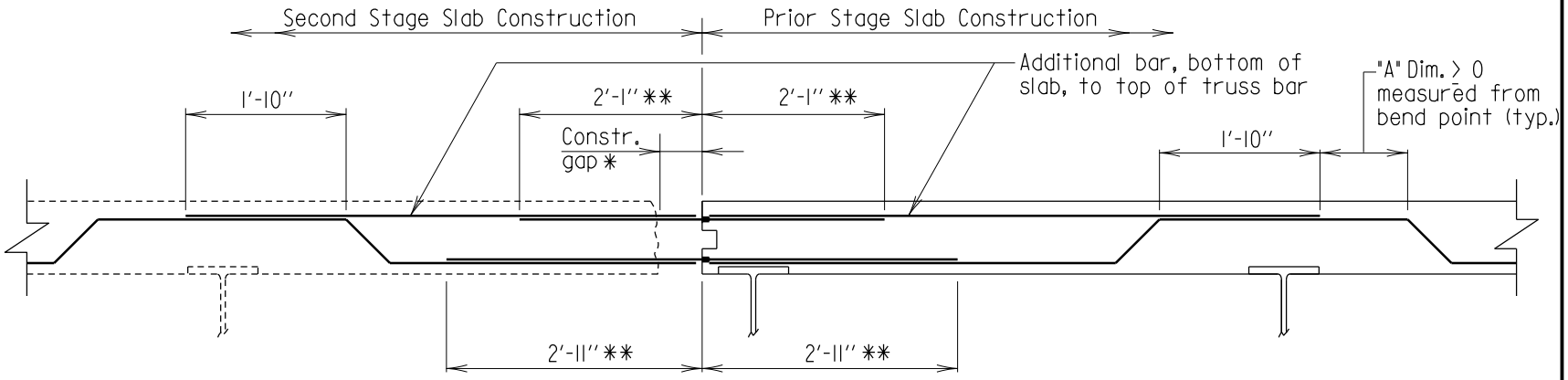
SHEET 2 OF 4

SUPER - BRIDGE DECK

Notes:
1. Work with sheets 2 and 4 of 4.
2. For General Notes see Sht. No. 1 of 4.



SECTION
OPTION III
Scale: 1/2'' = 1'-0''



SECTION
OPTION IV
Scale: 1/2'' = 1'-0''

* Construction Gap dim. < 2'-9''
** Dimension = lap length + 3''

APPROVAL
Glenn Clayton DIRECTOR
OFFICE OF STRUCTURES
DATE: 04/30/2018
VERSION 2.0

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

SPLICING OF BRIDGE DECK SLAB TRUSS BARS DURING STAGE CONSTRUCTION COUPLER BAR SPLICE ALTERNATIVES

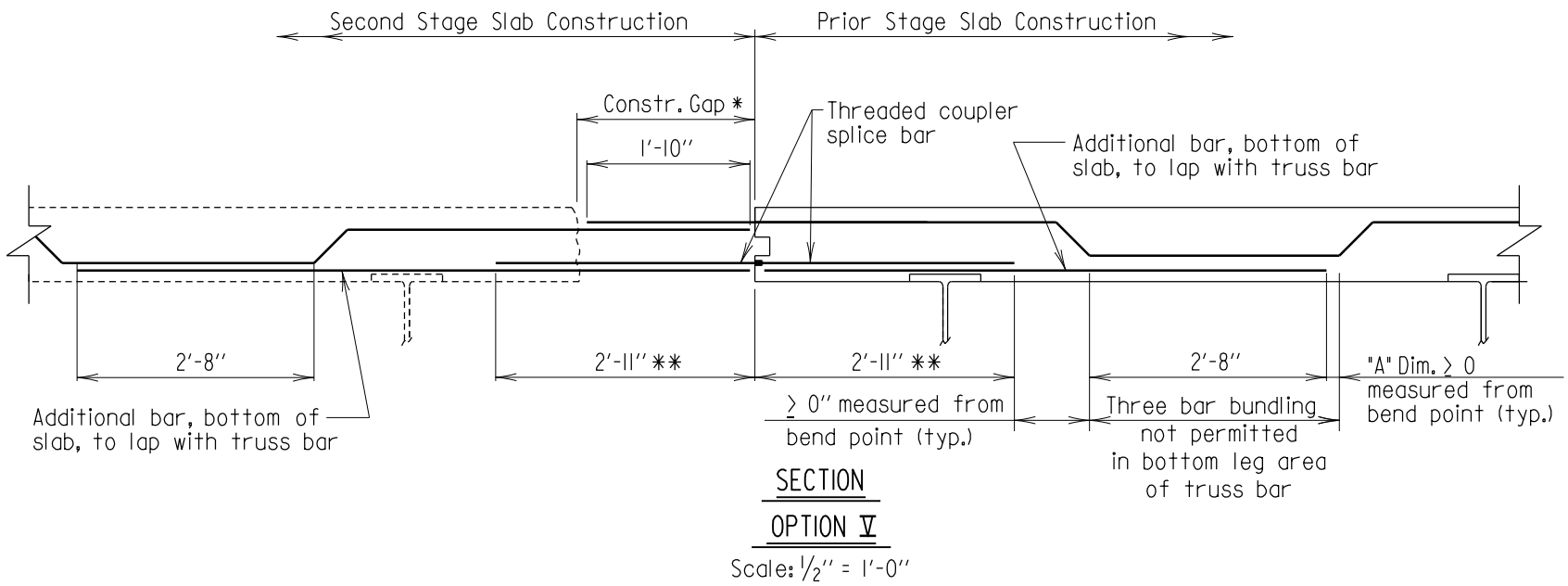
DETAIL NO. SUP-BD(SC)-102

SHEET 3 OF 4

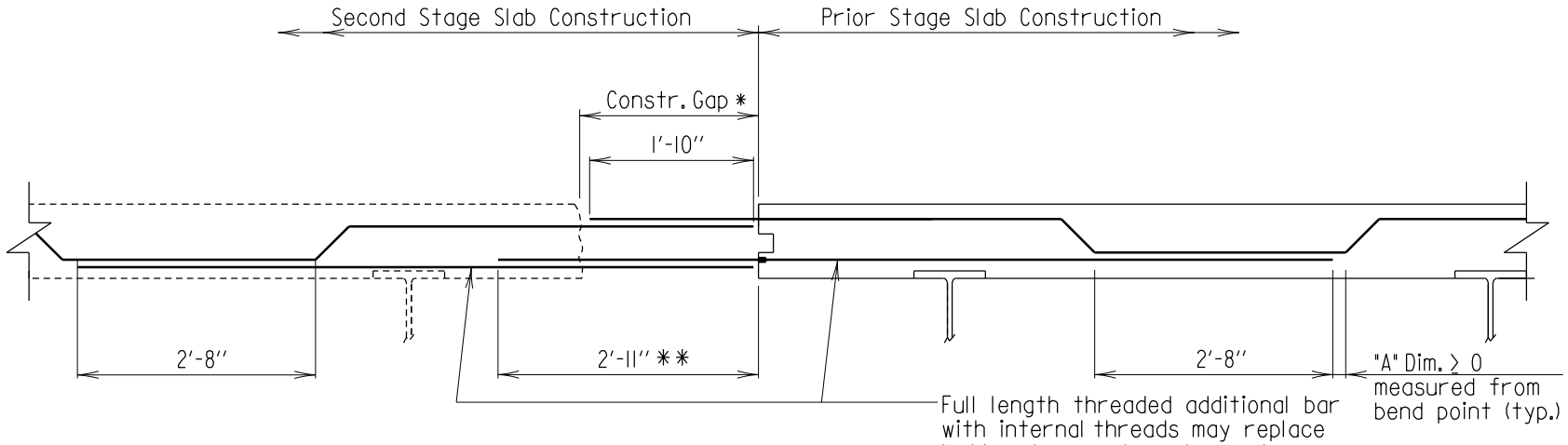
SUPER - BRIDGE DECK

Other Related Details
SUP-BD(DT)-201

Notes:
1. Work with sheets 2 and 3 of 4.
2. For General Notes see Sht. No. 1 of 4.



SECTION
OPTION V
Scale: 1/2" = 1'-0"



*Constr. Gap dim. ≥ 1'-11"
Constr. Gap dim. < 2'-9"

**Dimension = lap length + 3"

SECTION
OPTION VI
Scale: 1/2" = 1'-0"

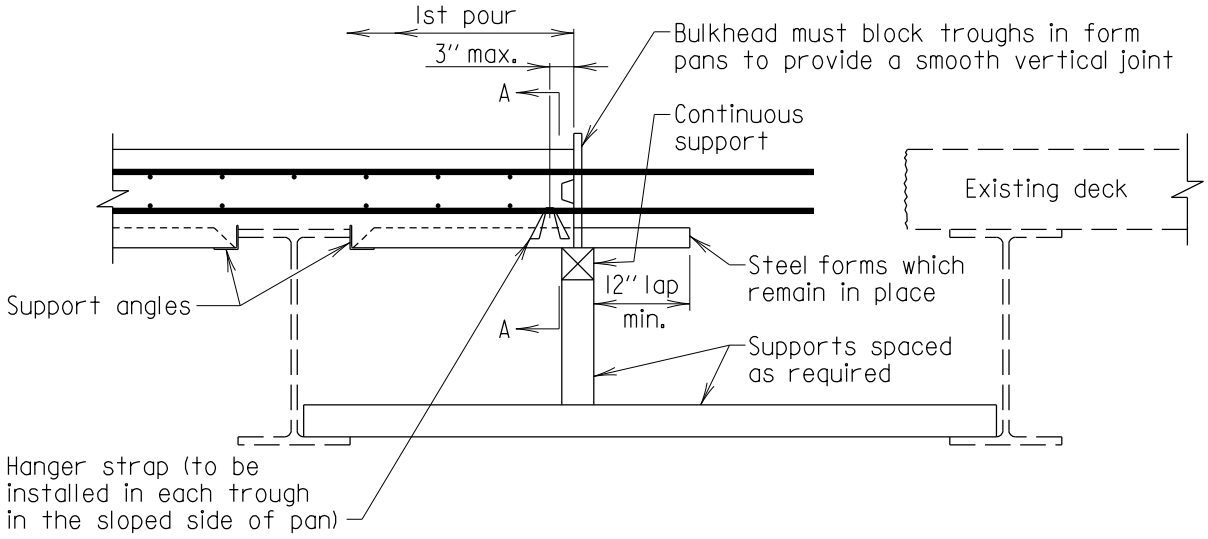
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF STRUCTURES

SPLICING OF BRIDGE DECK SLAB TRUSS BARS DURING STAGE CONSTRUCTION COUPLER BAR SPLICE ALTERNATIVES

APPROVAL
DIRECTOR
OFFICE OF STRUCTURES
DATE: 04/30/2018
VERSION 2.0

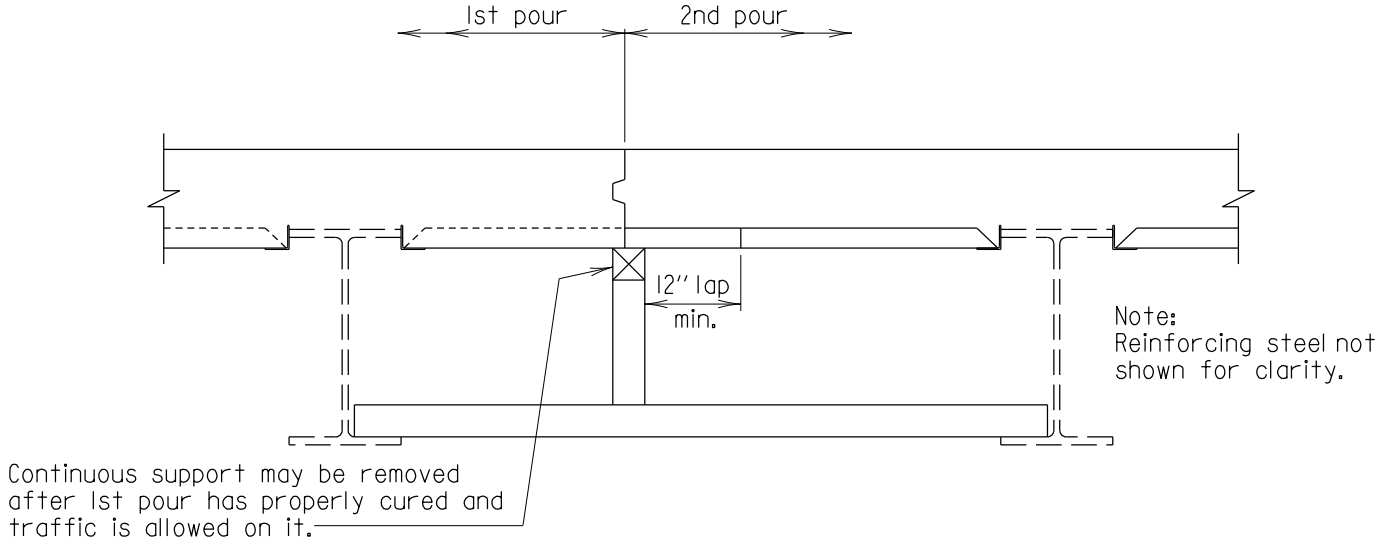
DETAIL NO. SUP-BD(SC)-102
SHEET 4 OF 4

SUPER - BRIDGE DECK



SECTION VIEW FOR 1st POUR

Scale: 1/2" = 1'-0"



SECTION VIEW FOR 2nd POUR

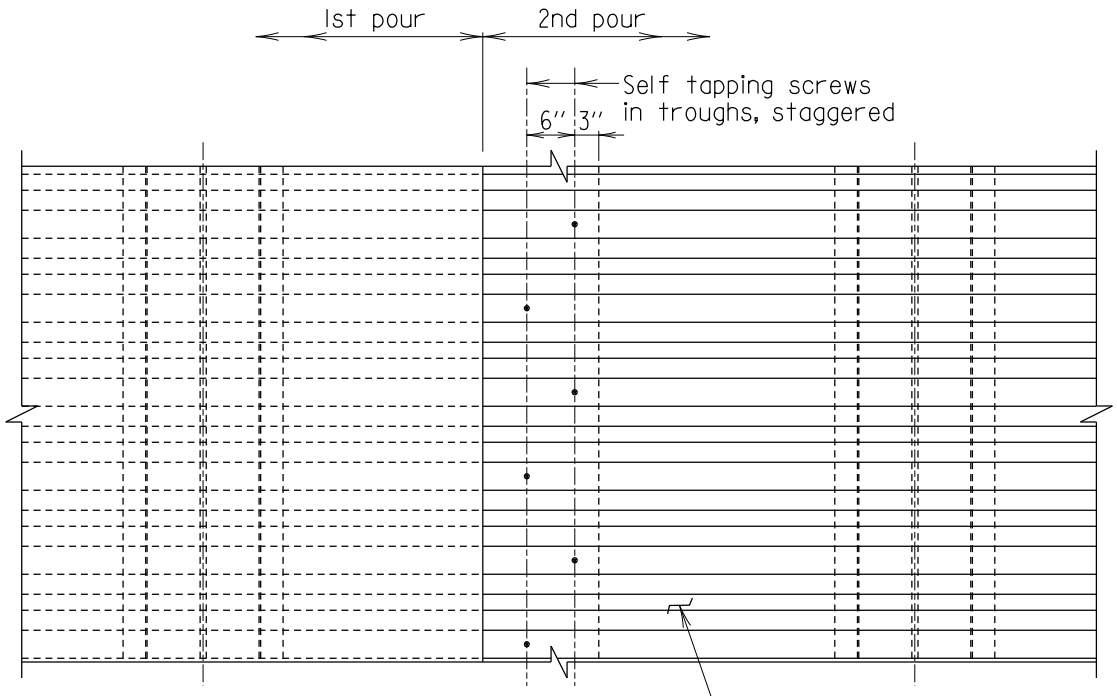
Scale: 1/2" = 1'-0"

Notes:

1. This detail can be used in lieu of wood forms in spans where a longitudinal deck construction joint is located.
2. Hanger straps shall not deflect reinforcing from its proper position.

APPROVAL	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
E.S. Freedman DIRECTOR OFFICE OF STRUCTURES DATE: 07/20/2006	SPLIT PAN CONSTRUCTION FOR STEEL FORMS WHICH REMAIN IN PLACE
VERSION 1.0	DETAIL NO. SUP-BD(SC)-103 SHEET X OF X

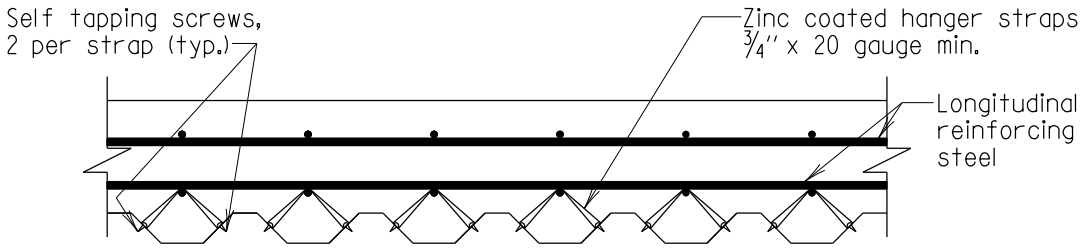
SUPER - BRIDGE DECK



Note:
Reinforcing steel not
shown for clarity.

PLAN VIEW FOR SPLIT PLAN LAP

Scale: 1/2'' = 1'-0''



SECTION A-A AT HANGER STRAPS

Scale: 3/4'' = 1'-0''

APPROVAL	STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF STRUCTURES
E.S. Freedman DIRECTOR OFFICE OF STRUCTURES DATE: 07/20/2006	SPLIT PAN CONSTRUCTION FOR STEEL FORMS WHICH REMAIN IN PLACE
VERSION 1.0	DETAIL NO. SUP-BD(SC)-103 SHEET 2 OF 2

SUPER - BRIDGE DECK