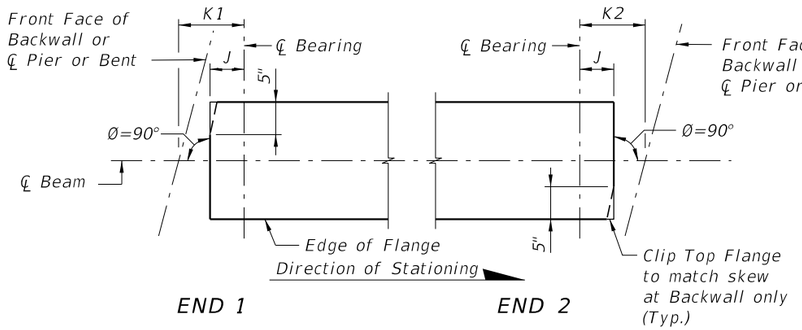
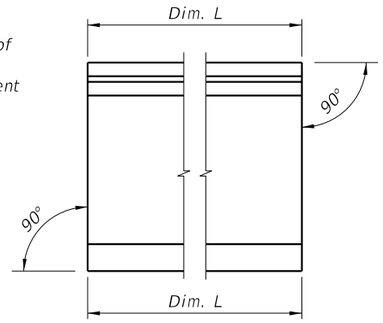
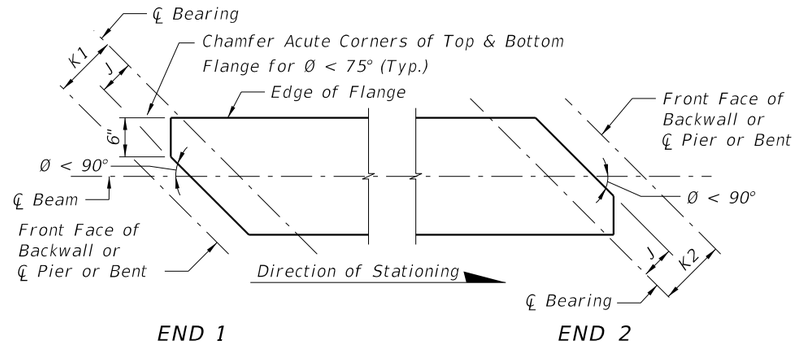


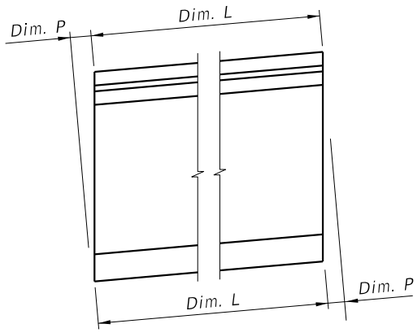
CASE 1
(Standard Orientation for New Construction)



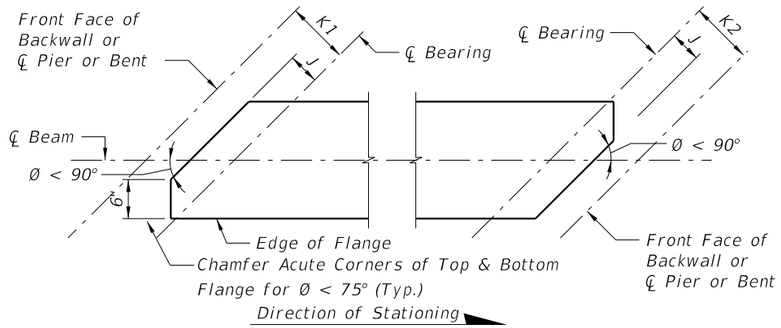
CONDITION 1
(Dim P = 0.0)



CASE 2
(Special Orientation for Widenings)

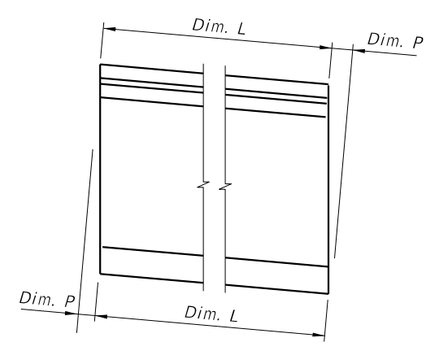


CONDITION 2



CASE 3
(Special Orientation for Widenings)

SCHEMATIC PLAN VIEWS AT BEAM ENDS



CONDITION 3

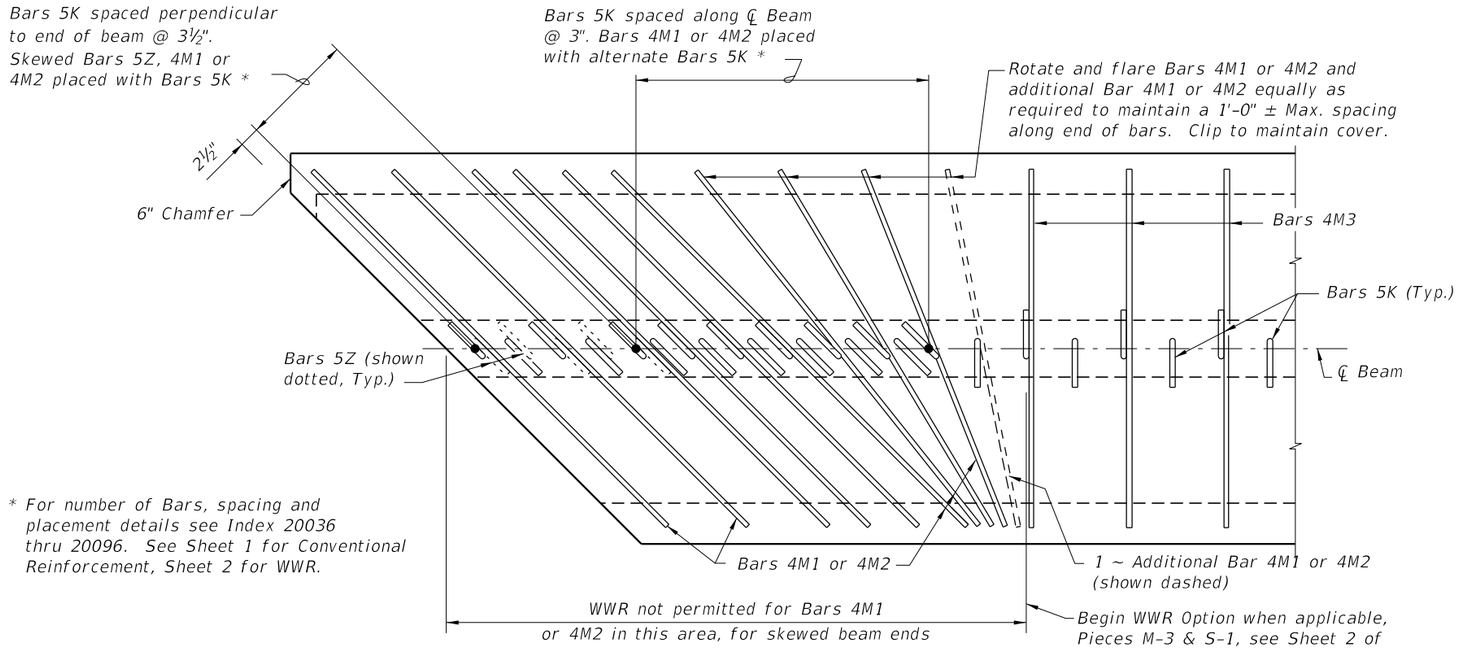
SCHEMATIC END ELEVATIONS OF BEAMS
(Showing Vertical Bevel of Beam End)

BEAM NOTES

1. Work this Index with the Florida-I Beam Standard Details (Index 20036, 20045, 20054, 20063, 20072, 20078, 20084 and 20096) and the Table of Beam Variables in Structures Plans.
2. All bar bend dimensions are out-to-out.
3. Concrete cover: 2 inches minimum.
4. Strands N: ⅜" Ø minimum, stressed to 10,000 lbs. each.
5. Place one (1) Bar 5K or 5Z at each location. Alternate the direction of the ends for each bar (see "ELEVATION AT END OF BEAM" in Standard Details.
6. Tie Bars 5K and 5Z to the fully bonded strands in the bottom or center row (see "STRAND PATTERN" on the Table of Beam Variables sheet in Structures Plans).
   A. At the Contractor's option, the length of the bottom legs of Bars 5K and 5Z may be extended to facilitate tying to the exterior strands.
   B. For deformed WWR, supplemental transverse #4 bars are permitted to support Pieces K & S under the cross wires on the bottom row of strands.
7. Place Bars 3C1, 3D1 and 4M1 in beam END 1, and Bars 3C2, 3D2 and 4M2 in beam END 2. END 1 and END 2 are shown on the Standard Details "ELEVATION".
8. For Beams with vertically beveled end conditions: Place first row of Bars 3C1, 3C2, 3D1, 3D2, 5K, 5Y and 5Z parallel to the end of the beam. Progressively rotate remaining bars within the limits of Bars 5Z until vertical by adjusting the spacing at the top of beam up to a maximum of 1". For deformed WWR, cut top cross wire and rotate bars as required or reduce end cover at top of the beam to 1" minimum.
9. For beams with skewed end conditions:
   A. Place end reinforcement parallel to the skewed end of the beam. End reinforcement is defined as Bars 3C1, 3C2, 3D1, 3D2, 5K, 4M1, 4M2, 5Y and 5Z placed within the limits of the spacing for Bars 3C in "ELEVATION AT END OF BEAM".
   B. Beyond the limits of the spacing for Bars 3C, place Bars 3D3, 5K and 4M3 perpendicular to the longitudinal axis of the beam. Fan Bars as needed to avoid overlapping bars at the transition to Bars 3D3 and 4M3, and field cut to maintain minimum cover. Provide additional Bars 4M1, 4M2, 3D1 and 3D2 as required; additional bars are not included in the "BILL OF REINFORCING STEEL". For placement locations see Skewed Beam End Details for Widening Existing Bridges.
   C. Adjust the dimensions of Bars 3C1, 3C2, 3D1, 3D2, 4M1 and 4M2 as shown on the Bending Diagram.
   D. WWR is not permitted for end reinforcement Bars 3D1, 3D2, 4M1 and 4M2; use bar reinforcement.
10. Contractor Options:
    A. Deformed WWR may be used in lieu of Bars 3D, 5K, 4M, and 5Z as shown on the Standard Details; except at skewed ends (see Note 9).
    B. Bars 3D1, 3D2 and 3D3 may be fabricated as a single bar with a 1'-0" minimum lap splice of the top legs, or the length of the bottom legs may be extended to facilitate tying to the exterior strands.
11. Embedment of Saftey Line Anchorage Devices are permitted in the top flange to accomodate fall protection systems. See shop drawings for details and spacing of any required anchorage devices.
12. For beams with ends that will not be permanently encased in concrete diaphragms, cut wedges and recess Prestressing strands at the end of the beam without damaging the surrounding concrete. See "STRAND CUTTING AND PROTECTING DETAIL" on Sheet 2. Protect end of wedged recessed strands in accordance with Specification Section 450.

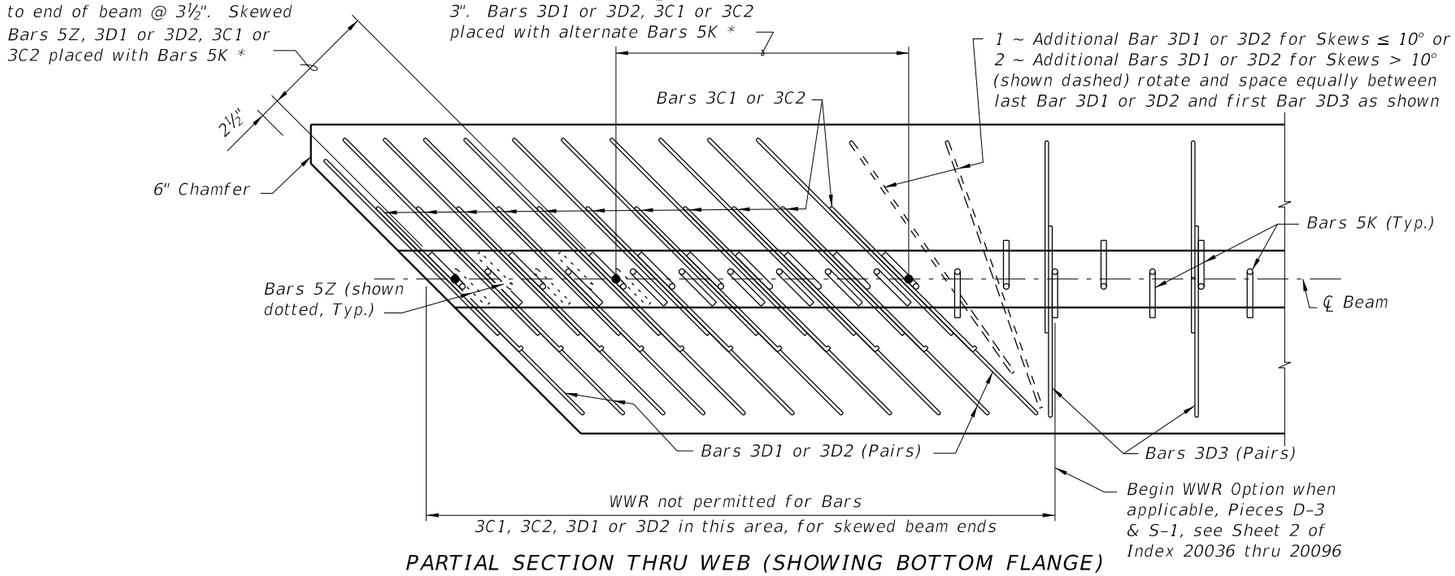
10/26/2016 8:45:19 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	TYPICAL FLORIDA-I BEAM DETAILS AND NOTES	INDEX NO.	SHEET NO.
11/01/16					20010	1 of 2



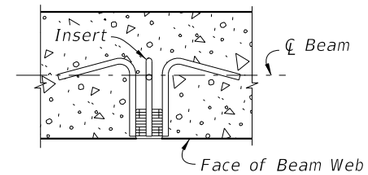
* For number of Bars, spacing and placement details see Index 20036 thru 20096. See Sheet 1 for Conventional Reinforcement, Sheet 2 for WWR.

PARTIAL PLAN VIEW (SHOWING TOP FLANGE)
(End 1 Shown, End 2 Similar)
(Bars 5A, 5Y & Strands N not shown for clarity)



PARTIAL SECTION THRU WEB (SHOWING BOTTOM FLANGE)
(END 1 Shown, END 2 Similar)
(Bars 5Y, Strands, and Embedded Bearing Plate "A" not shown for clarity)

SKEWED BEAM END DETAILS FOR WIDENING EXISTING BRIDGES
(Florida-I 36 Beam shown, others similar)

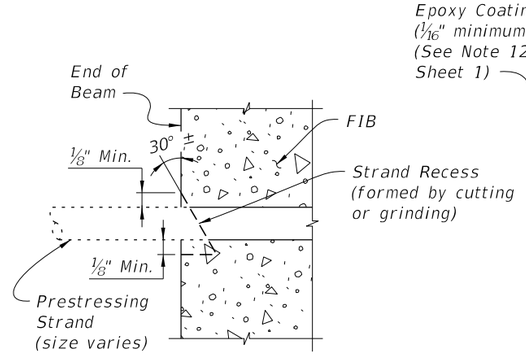


PLAN SECTION THRU BEAM WEB AT INSERT FOR DIAPHRAGM REINFORCING
(When Intermediate Diaphragms are Required by Design)

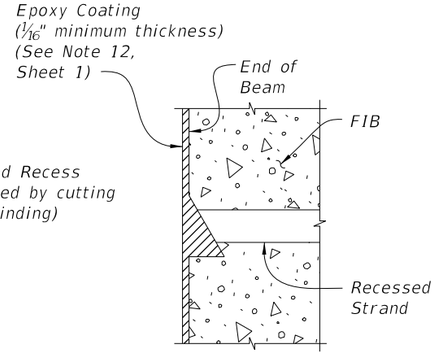
INSERT NOTES

1. Provide 1" Ø, zinc-electroplated, ferrule wing nut or coil inserts, UNC threads, 1/0 minimum gage wire, not more than 4" in depth with a minimum ultimate tensile strength of 11,400 lbs. in 4,000 psi concrete.
2. If inserts are needed on both sides (faces) of beam webs, an assembly as long as the thickness of the beam web, consisting of two (2) ferrule or coil inserts attached by two (2) or more struts may be utilized. The connecting struts shall have a minimum ultimate tensile strength of 11,400 lbs.
3. Inserts for diaphragm reinforcing are required at each end of each intermediate diaphragm shown on the Beam Framing Plan and may be required at the end of the beams when end diaphragms are shown. See Superstructure and Beam Framing Plans for longitudinal location of inserts for each face of beam.

INSERT DETAIL



TYPICAL SECTION
SHOWING CUT STRAND RECESS LIMITS

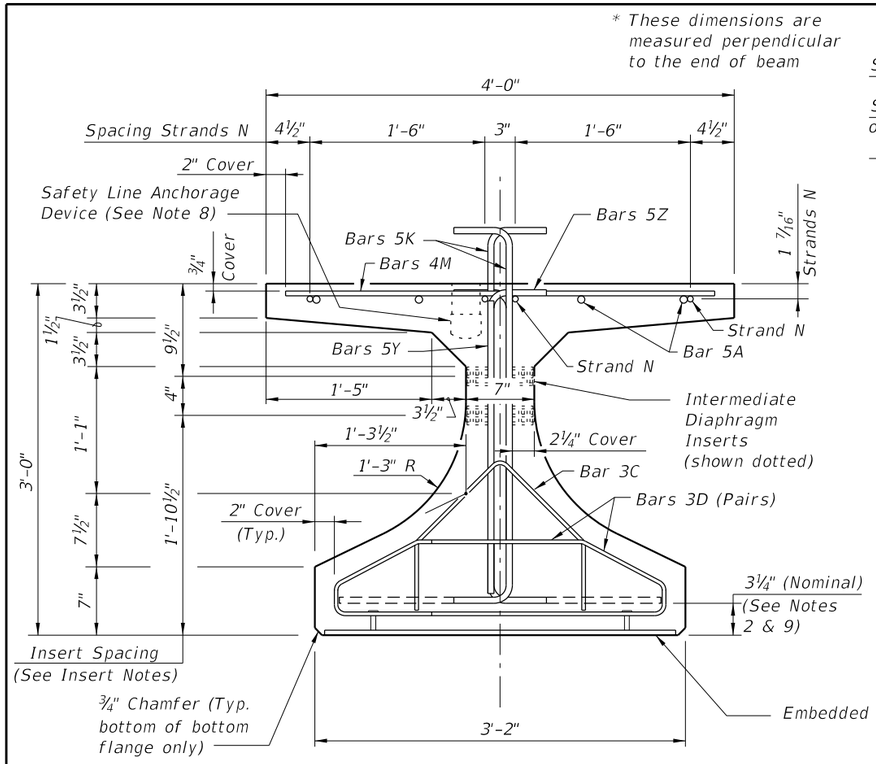


TYPICAL SECTION
AFTER PROTECTING

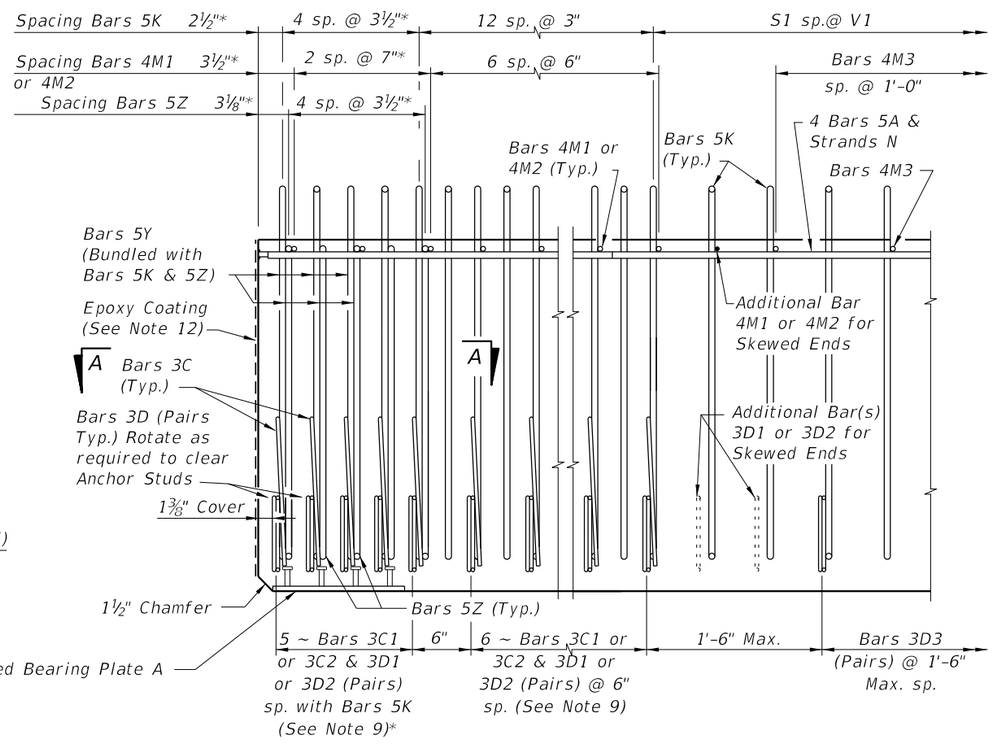
STRAND CUTTING AND PROTECTING DETAIL

10/26/2016 8:45:22 AM

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FY 2017-18 DESIGN STANDARDS	TYPICAL FLORIDA-I BEAM DETAILS AND NOTES	20010	2 of 2



END VIEW



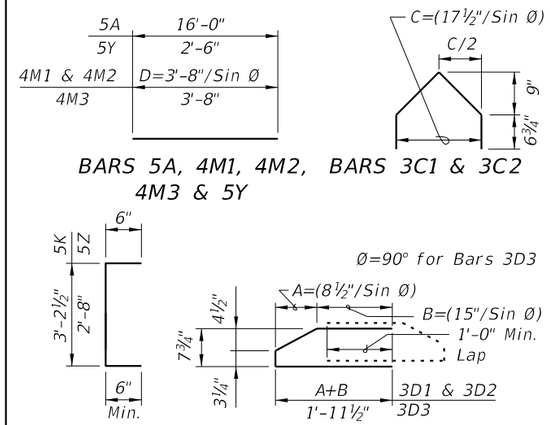
ELEVATION AT END OF BEAM
(Flanges Not Shown For Clarity)
(End 1 Shown, End 2 Similar)

CONVENTIONAL REINFORCING BAR BENDING DETAILS

BILL OF REINFORCING STEEL

MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 2)
A	—	5	8	16'-0"
C1	9, 10 & 11	3	11 (End 1)	Varies
C2	9, 10 & 11	3	11 (End 2)	Varies
D1	9, 10, 11 & 14	3	22 (End 1)	Varies
D2	9, 10, 11 & 14	3	22 (End 2)	Varies
D3	9 & 14	3	See Table	4'-3"
K	2, 9, 11 & 13	5	See Table	4'-2"
M1	9 & 10	4	9 (End 1)	Varies
M2	9 & 10	4	9 (End 2)	Varies
M3	9	4	See Table	3'-8"
N	3 & 4	⅜" Ø Strand	4	Dim. L
Y	9 & 11	5	12	2'-6"
Z	2, 9, 11 & 13	5	10	3'-8"

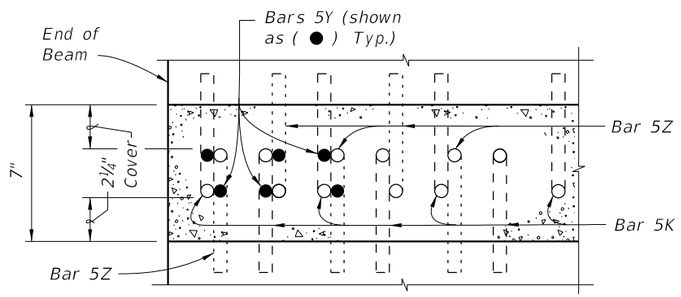
BENDING DIAGRAMS (See Note 2)



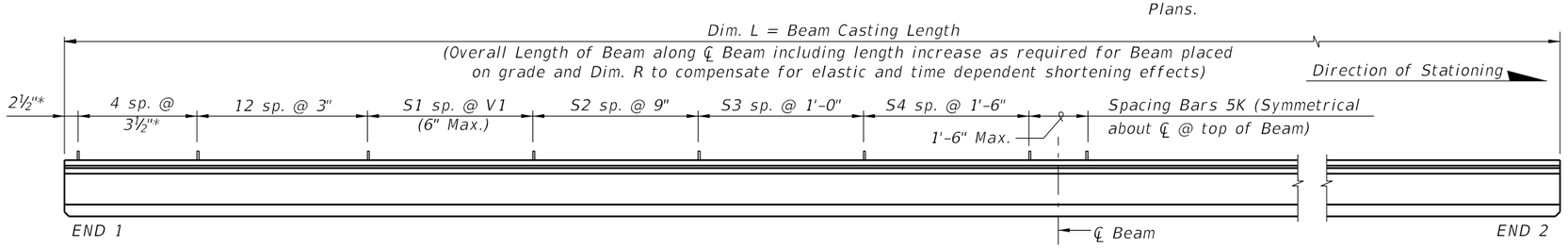
BARS 5A, 4M1, 4M2, 4M3 & 5Y BARS 3C1 & 3C2

BARS 5K & 5Z BARS 3D1, 3D2 & 3D3

NOTES:
A. Work this Index with Index 20010 – Typical Florida-I Beam Details and Notes and the Florida-I Beam – Table of Beam Variables in Structures Plans.
B. For referenced notes, see Index 20010.
C. For Dimensions A, B, C, D, L, R & V1 and number of spaces S1 thru S4, see Florida-I Beam – Table of Beam Variables in Structures Plans.



SECTION A-A FOR CONVENTIONAL REINFORCING
(Showing Bars 5K, 5Y & 5Z Only)

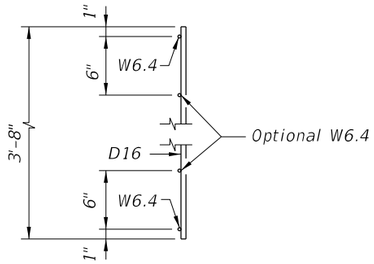


ELEVATION

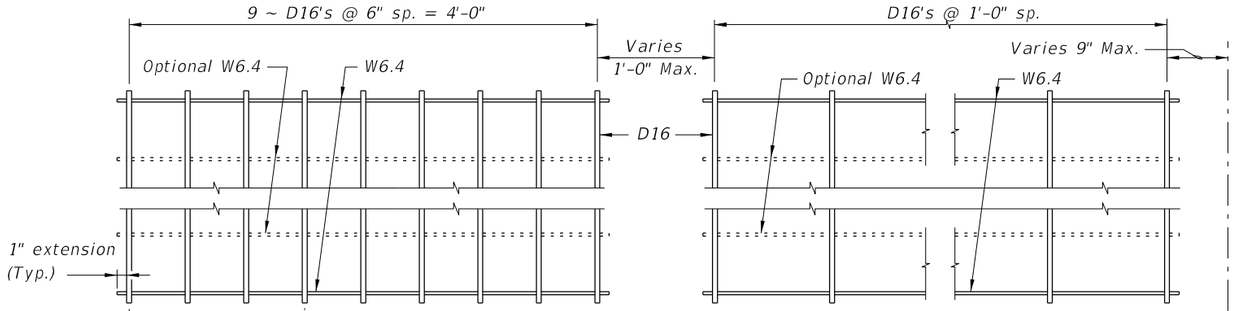
10/26/2016 8:45:39 AM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	FLORIDA-I 36 BEAM - STANDARD DETAILS	INDEX NO. 20036	SHEET NO. 1 of 2

ALTERNATE REINFORCING STEEL (WWR) DETAILS

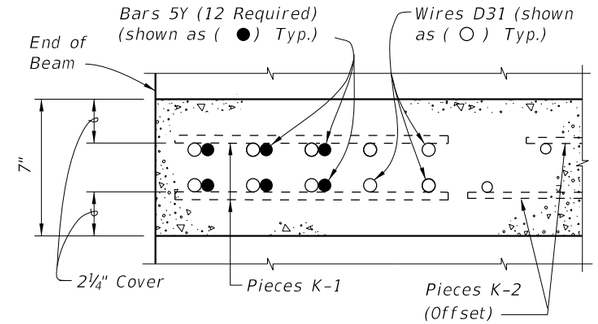


PIECES M
END VIEW

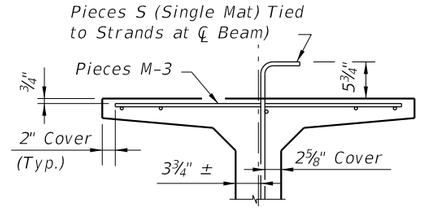


PLAN VIEW
PIECE M-1
(2 Required)

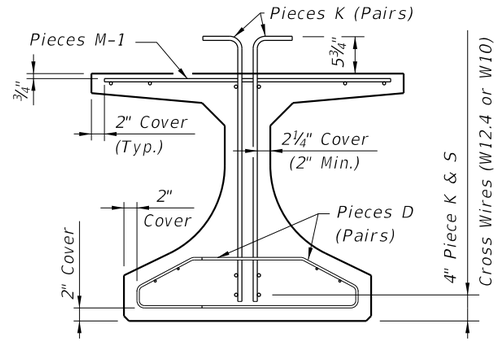
PLAN VIEW
PIECE M-3
(2 Required)



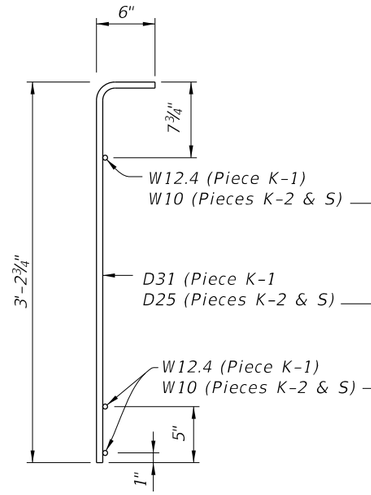
SECTION A-A
FOR WELDED WIRE REINFORCEMENT



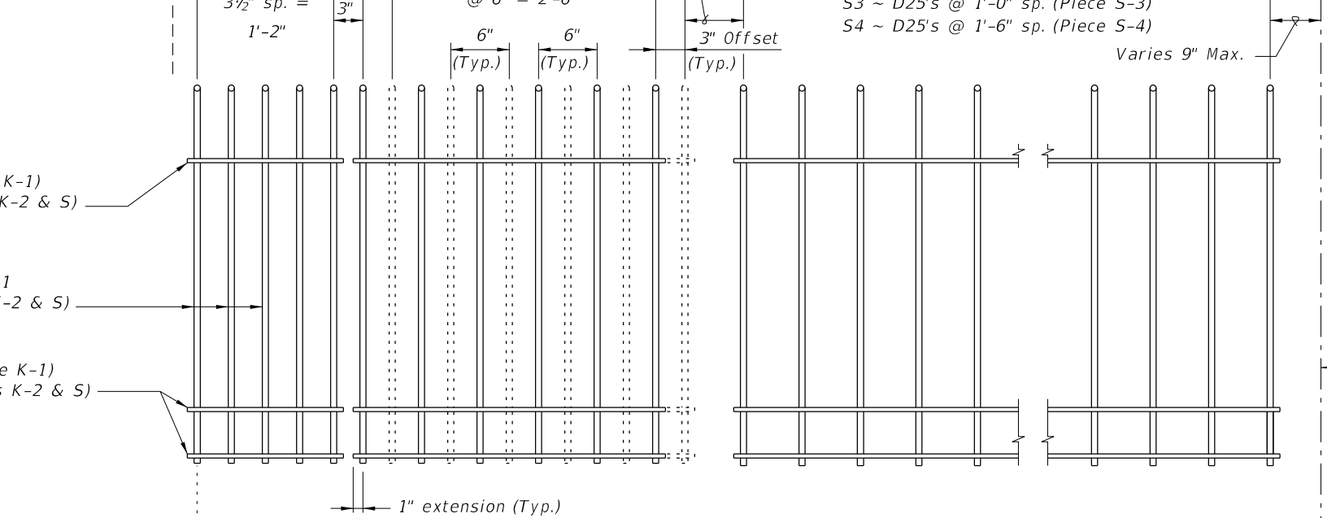
PARTIAL SECTION AT CENTER BEAM



PARTIAL BEAM END VIEW
(Conventional Reinforcing Bars A, C, Y
and Strands not Shown for Clarity)



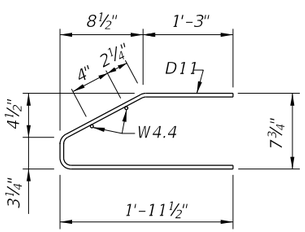
PIECES K & S
END VIEW



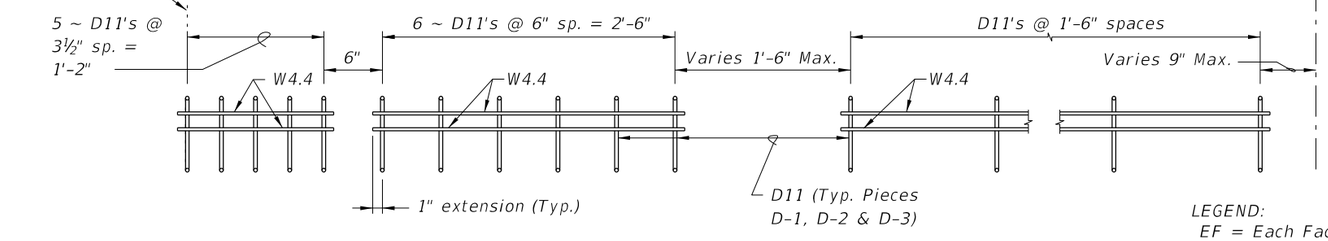
PIECE K-1
(Aligned EF)
(4 Required ~
2 Pairs)

PIECE K-2
(FF Shown Solid,
BF Shown Dashed)
(4 Required)

PIECE S-1, S-2, S-3 or S-4
(2 Required Each Piece)



PIECES D
END VIEW



PIECE D-1
(4 Required ~ 2 Pairs)

PIECE D-2
(4 Required ~ 2 Pairs)

PIECE D-3
(4 Required ~ 2 Pairs)

LEGEND:
EF = Each Face
FF = Front Face
BF = Back Face

NOTES:

a. See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
b. Place Conventional Reinforcement Bars 5A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
c. Pieces may be fabricated in multiple length sections.
d. For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index 20010 Skewed Beam End Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

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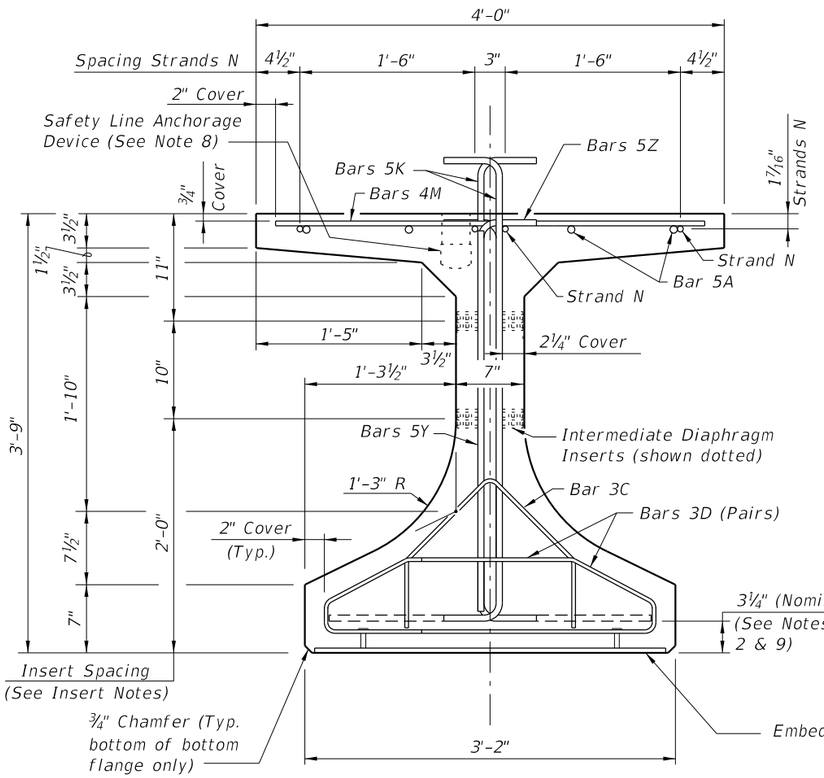
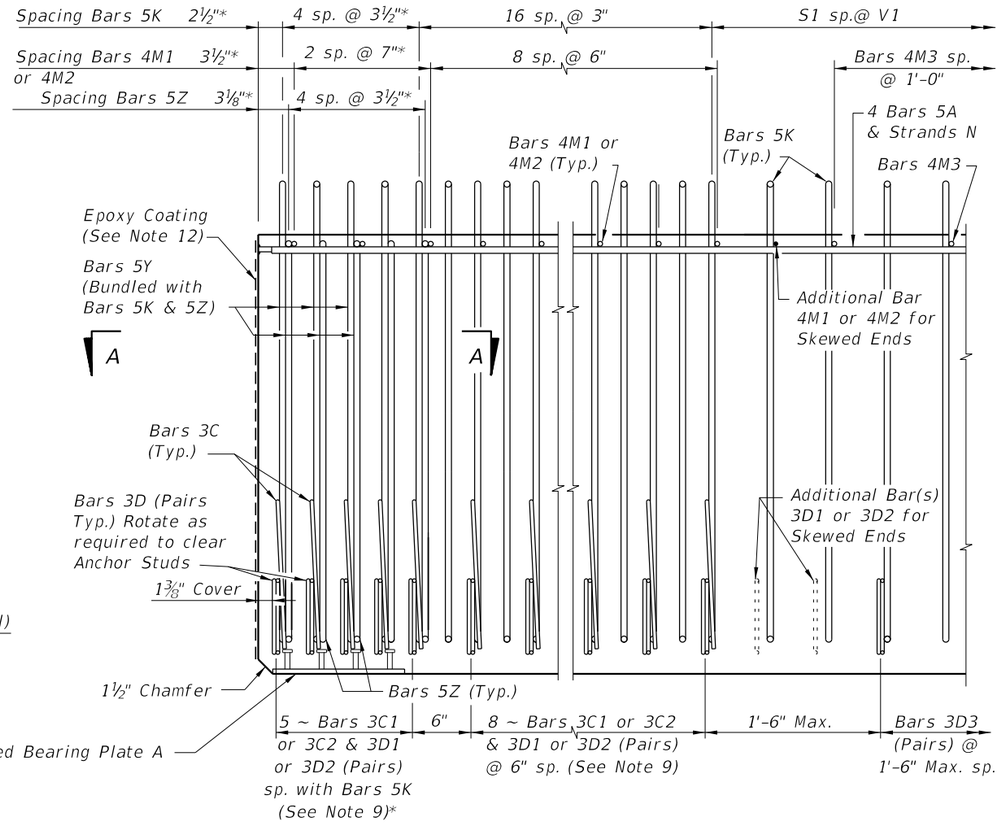
LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 36 BEAM - STANDARD DETAILS	INDEX NO. 20036 / SHEET NO. 2 of 2



END VIEW



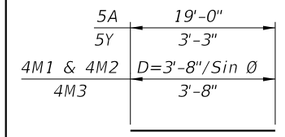
ELEVATION AT END OF BEAM
(Flanges Not Shown For Clarity)
(End 1 Shown, End 2 Similar)

CONVENTIONAL REINFORCING BAR BENDING DETAILS

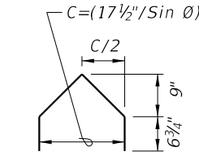
BILL OF REINFORCING STEEL

MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 2)
A	—	5	8	19'-0"
C1	9, 10 & 11	3	13 (End 1)	Varies
C2	9, 10 & 11	3	13 (End 2)	Varies
D1	9, 10, 11 & 14	3	26 (End 1)	Varies
D2	9, 10, 11 & 14	3	26 (End 2)	Varies
D3	9 & 14	3	See Table	4'-3"
K	2, 9, 11 & 13	5	See Table	4'-11"
M1	9 & 10	4	11 (End 1)	Varies
M2	9 & 10	4	11 (End 2)	Varies
M3	9	4	See Table	3'-8"
N	3 & 4	⅜" Ø Strand	4	Dim. L
Y	9 & 11	5	12	3'-3"
Z	2, 9, 11 & 13	5	10	4'-5"

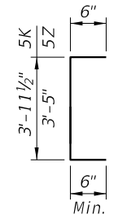
BENDING DIAGRAMS (See Note 2)



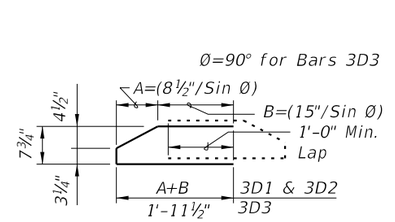
BARS 5A, 4M1, 4M2, 4M3 & 5Y



BARS 3C1 & 3C2

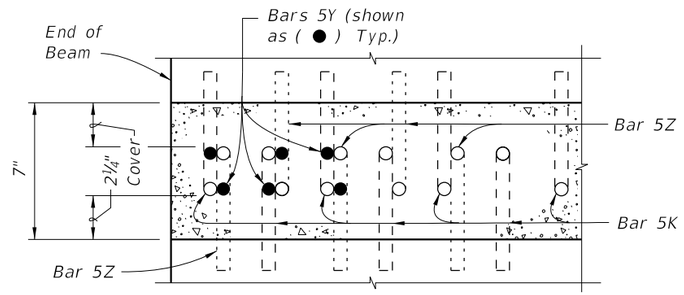


BARS 5K & 5Z

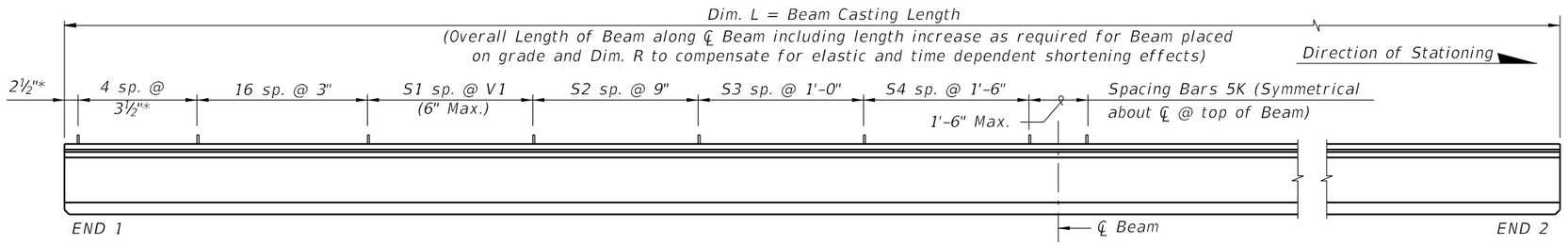


BARS 3D1, 3D2 & 3D3

NOTES:
A. Work this Index with Index 20010 – Typical Florida–I Beam Details and Notes and the Florida–I Beam – Table of Beam Variables in Structures Plans.
B. For referenced notes, see Index 20010.
C. For Dimensions A, B, C, D, L, R & V1 and number of spaces S1 thru S4, see Florida–I Beam – Table of Beam Variables in Structures Plans.



SECTION A-A FOR CONVENTIONAL REINFORCING
(Showing Bars 5K, 5Y & 5Z Only)

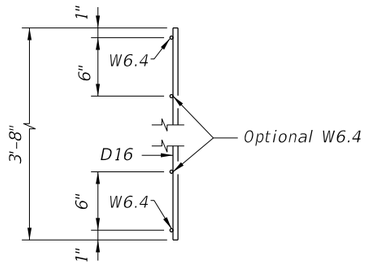


ELEVATION

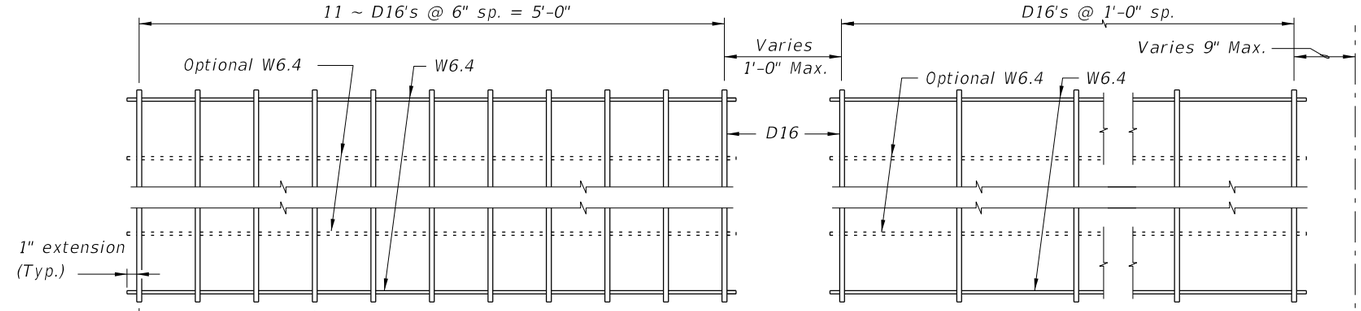
10/26/2016 8:45:57 AM

LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 45 BEAM - STANDARD DETAILS	INDEX NO. 20045 / SHEET NO. 1 of 2

ALTERNATE REINFORCING STEEL (WWR) DETAILS

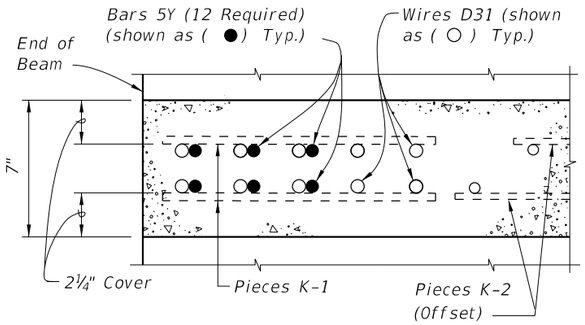


PIECES M
END VIEW

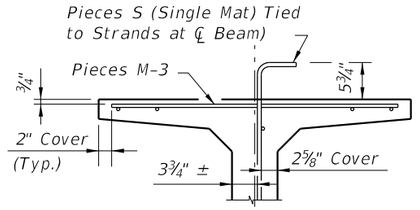


PLAN VIEW
PIECE M-1
(2 Required)

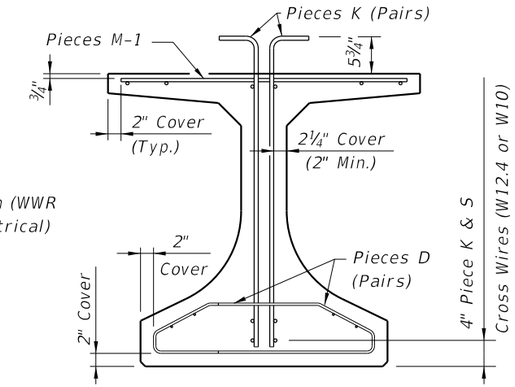
PLAN VIEW
PIECE M-3
(2 Required)



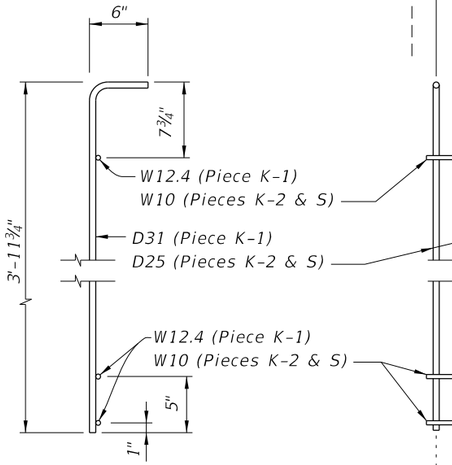
SECTION A-A
FOR WELDED WIRE REINFORCEMENT



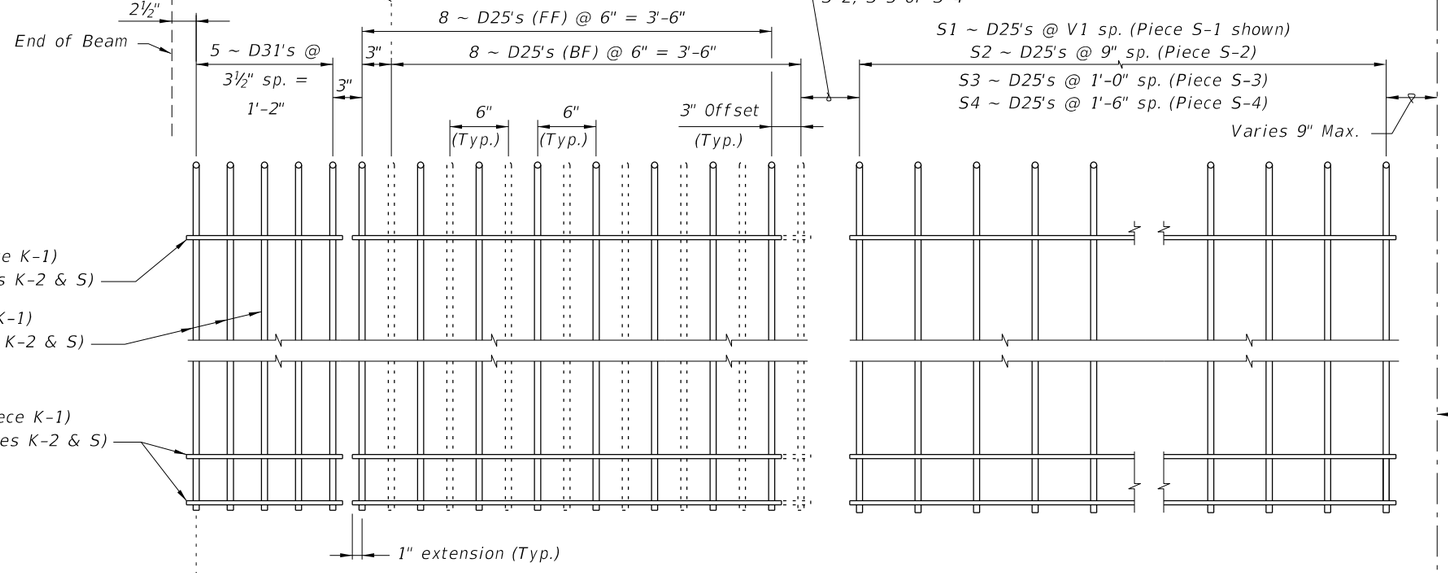
PARTIAL SECTION AT CENTER BEAM



PARTIAL BEAM END VIEW
(Conventional Reinforcing Bars A, C, Y
and Strands not Shown for Clarity)



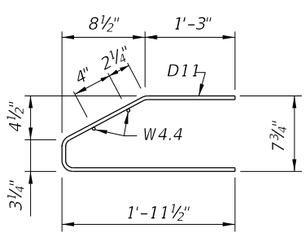
PIECES K & S
END VIEW



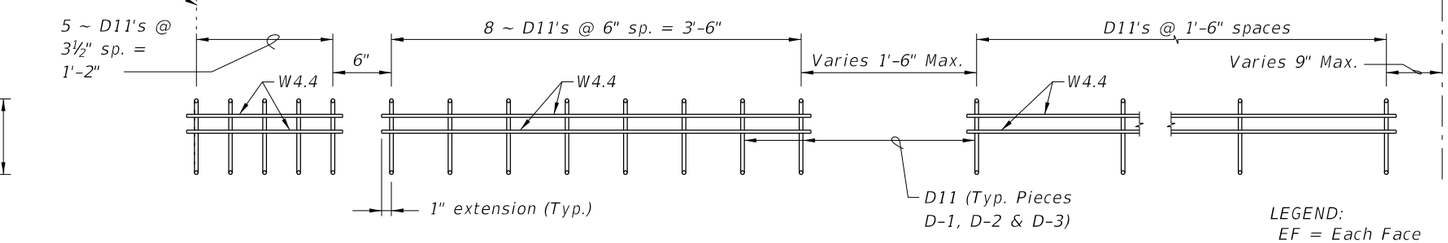
PIECE K-1
(Aligned EF)
(4 Required
~ 2 Pairs)

PIECE K-2
(FF Shown Solid, BF Shown Dashed)
(4 Required)

PIECE S-1, S-2, S-3 or S-4
(2 Required Each Piece)



PIECES D
END VIEW



PIECE D-1
(4 Required ~ 2 Pairs)

PIECE D-2
(4 Required ~ 2 Pairs)

PIECE D-3
(4 Required ~ 2 Pairs)

LEGEND:
EF = Each Face
FF = Front Face
BF = Back Face

NOTES:

a. See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
b. Place Conventional Reinforcement Bars 5A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
c. Pieces may be fabricated in multiple length sections.
d. For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index 20010 Skewed Beam End Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

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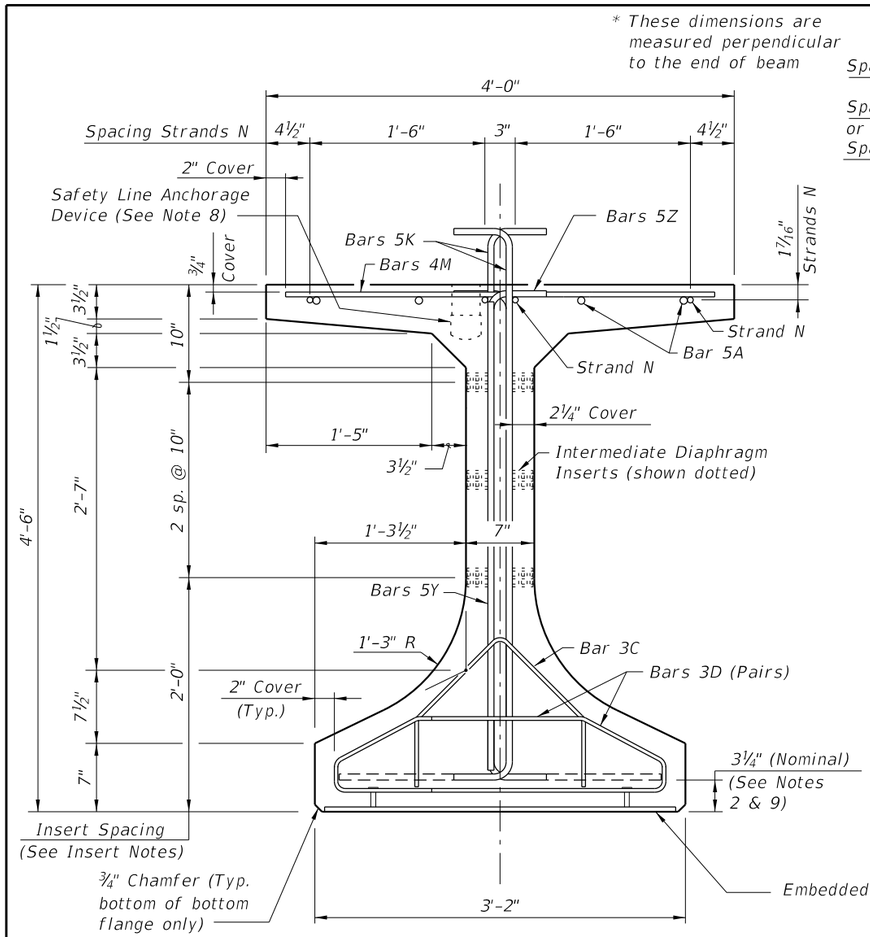
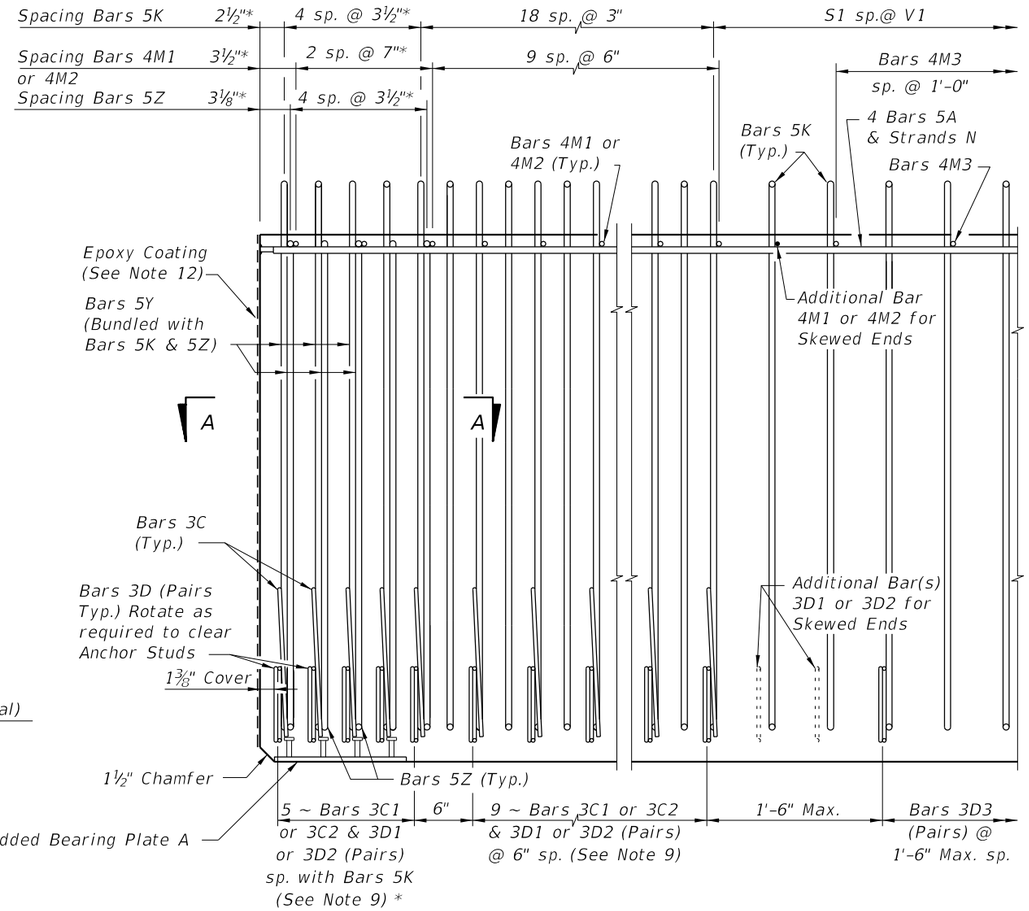
LAST REVISION	REVISION	DESCRIPTION:	FY 2017-18 DESIGN STANDARDS	FLORIDA-I 45 BEAM - STANDARD DETAILS	INDEX NO.	SHEET NO.
11/01/16					20045	2 of 2



END VIEW



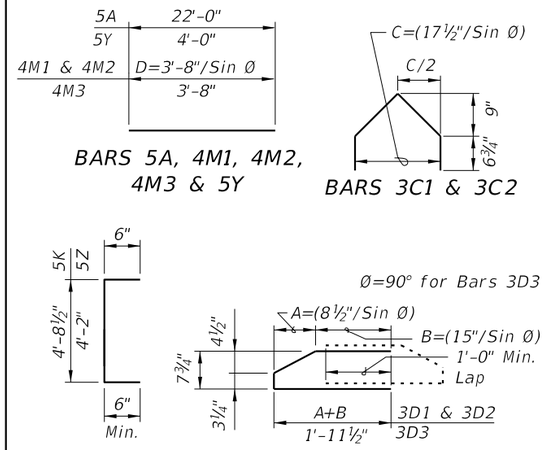
ELEVATION AT END OF BEAM
(Flanges Not Shown For Clarity)
(End 1 Shown, End 2 Similar)

CONVENTIONAL REINFORCING BAR BENDING DETAILS

BILL OF REINFORCING STEEL

MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 2)
A	—	5	8	22'-0"
C1	9, 10 & 11	3	14 (End 1)	Varies
C2	9, 10 & 11	3	14 (End 2)	Varies
D1	9, 10, 11 & 14	3	28 (End 1)	Varies
D2	9, 10, 11 & 14	3	28 (End 2)	Varies
D3	9 & 14	3	See Table	4'-3"
K	2, 9, 11 & 13	5	See Table	5'-8"
M1	9 & 10	4	12 (End 1)	Varies
M2	9 & 10	4	12 (End 2)	Varies
M3	9	4	See Table	3'-8"
N	3 & 4	⅜" Ø Strand	4	Dim. L
Y	9 & 11	5	12	4'-0"
Z	2, 9, 11 & 13	5	10	5'-2"

BENDING DIAGRAMS (See Note 2)



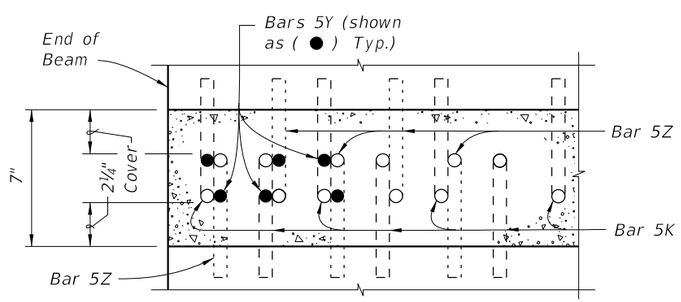
BARS 5A, 4M1, 4M2, 4M3 & 5Y

BARS 3C1 & 3C2

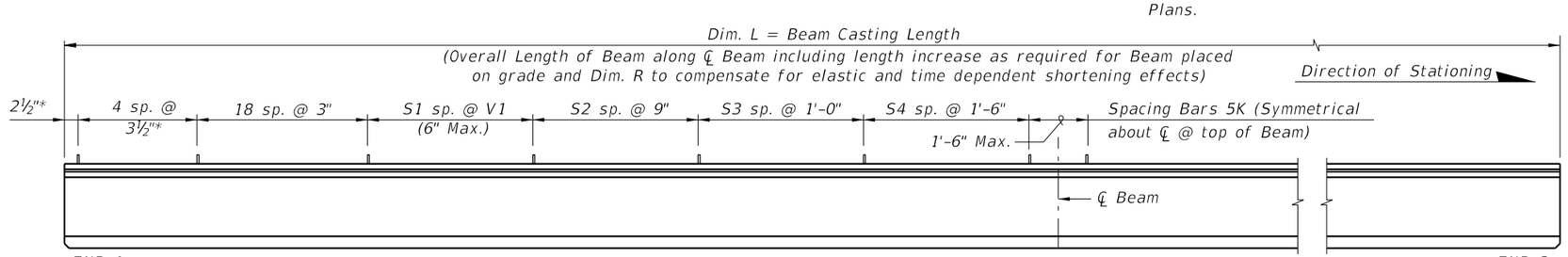
BARS 5K & 5Z

BARS 3D1, 3D2 & 3D3

NOTES:
A. Work this Index with Index 20010 – Typical Florida-I Beam Details and Notes and the Florida-I Beam – Table of Beam Variables in Structures Plans.
B. For referenced notes, see Index 20010.
C. For Dimensions A, B, C, D, L, R & V1 and number of spaces S1 thru S4, see Florida-I Beam – Table of Beam Variables in Structures Plans.



SECTION A-A FOR CONVENTIONAL REINFORCING
(Showing Bars 5K, 5Y & 5Z Only)



ELEVATION

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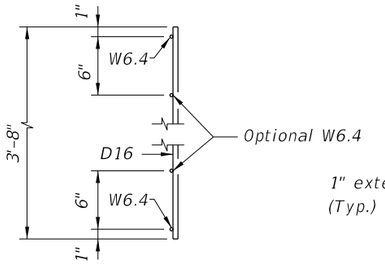
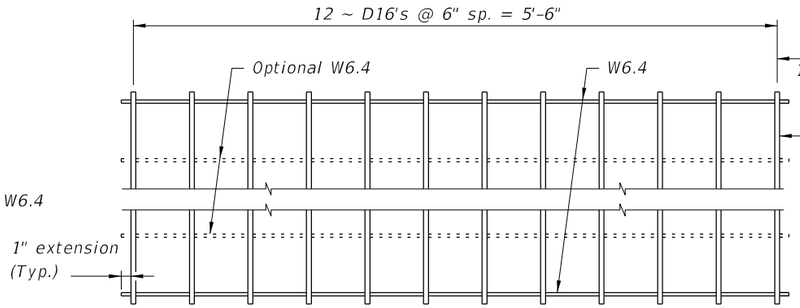
LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 54 BEAM - STANDARD DETAILS	INDEX NO. 20054 / SHEET NO. 1 of 2

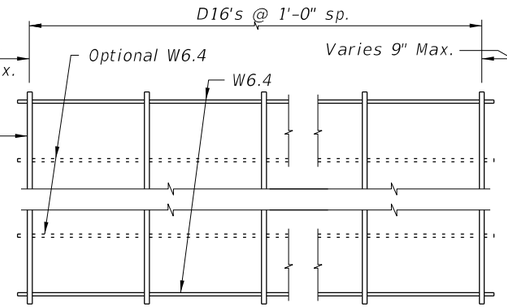
ALTERNATE REINFORCING STEEL (WWR) DETAILS



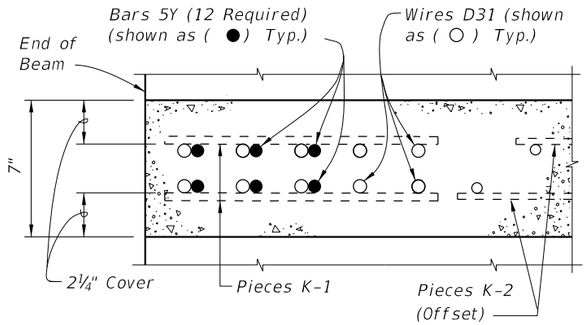
PIECES M
END VIEW



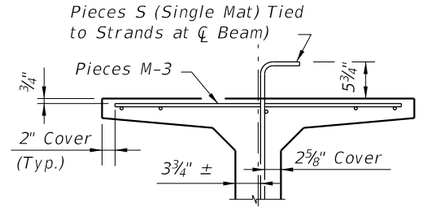
PLAN VIEW
PIECE M-1
(2 Required)



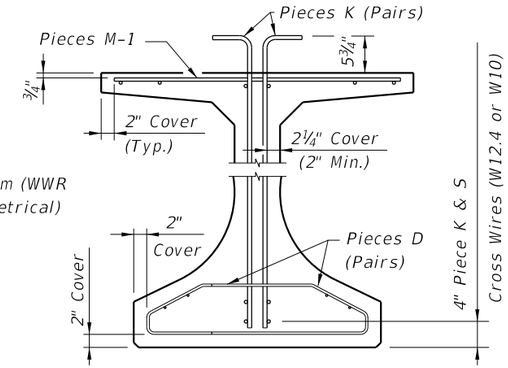
PLAN VIEW
PIECE M-3
(2 Required)



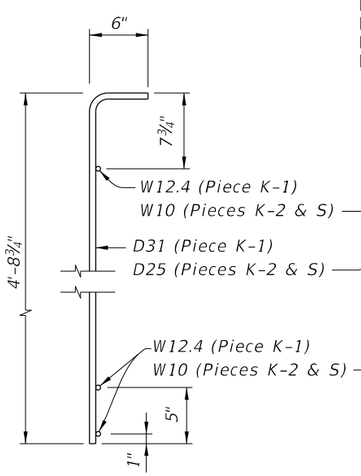
SECTION A-A
FOR WELDED WIRE REINFORCEMENT



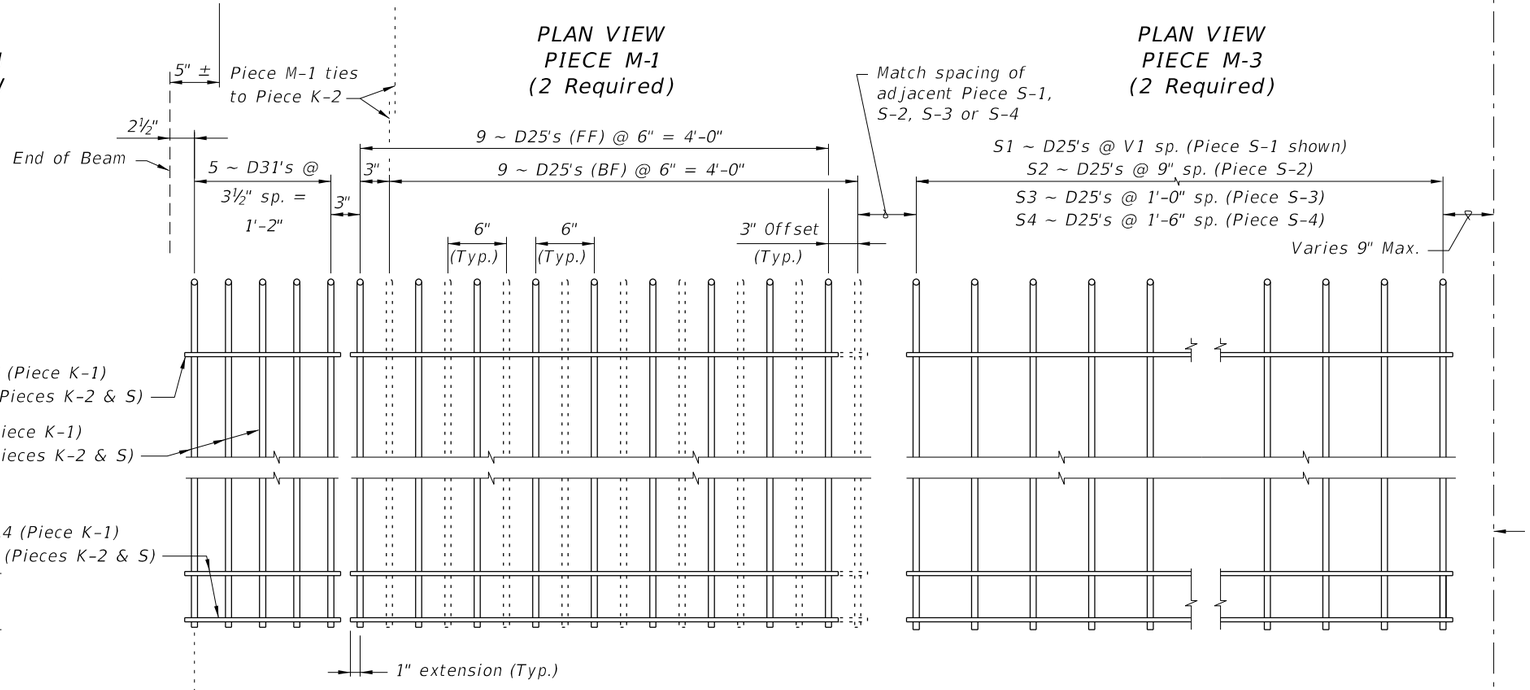
PARTIAL SECTION AT CENTER BEAM



PARTIAL BEAM END VIEW
(Conventional Reinforcing Bars A, C, Y
and Strands not Shown for Clarity)



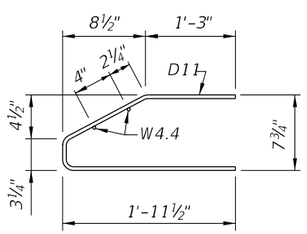
PIECES K & S
END VIEW



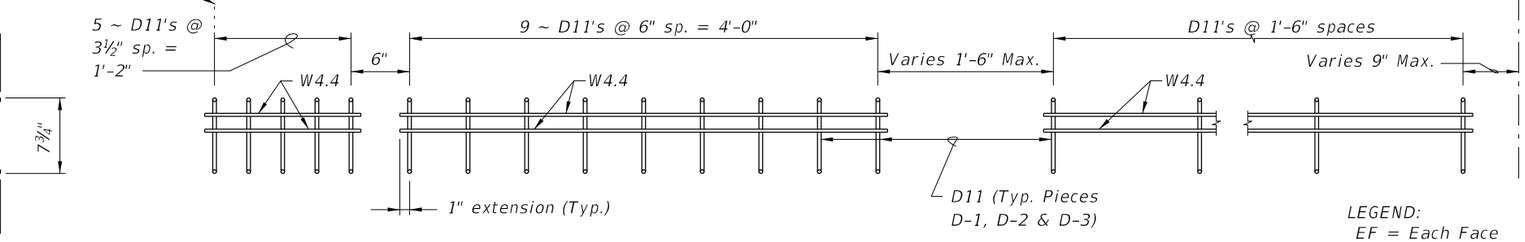
PIECE K-1
(Aligned EF)
(4 Required
~ 2 Pairs)

PIECE K-2
(FF Shown Solid, BF Shown Dashed)
(4 Required)

PIECE S-1, S-2, S-3 or S-4
(2 Required Each Piece)



PIECES D
END VIEW



PIECE D-1
(4 Required ~ 2 Pairs)

PIECE D-2
(4 Required ~ 2 Pairs)

PIECE D-3
(4 Required ~ 2 Pairs)

LEGEND:
EF = Each Face
FF = Front Face
BF = Back Face

NOTES:

a. See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
b. Place Conventional Reinforcement Bars 5A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
c. Pieces may be fabricated in multiple length sections.
d. For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index 20010 Skewed Beam End Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

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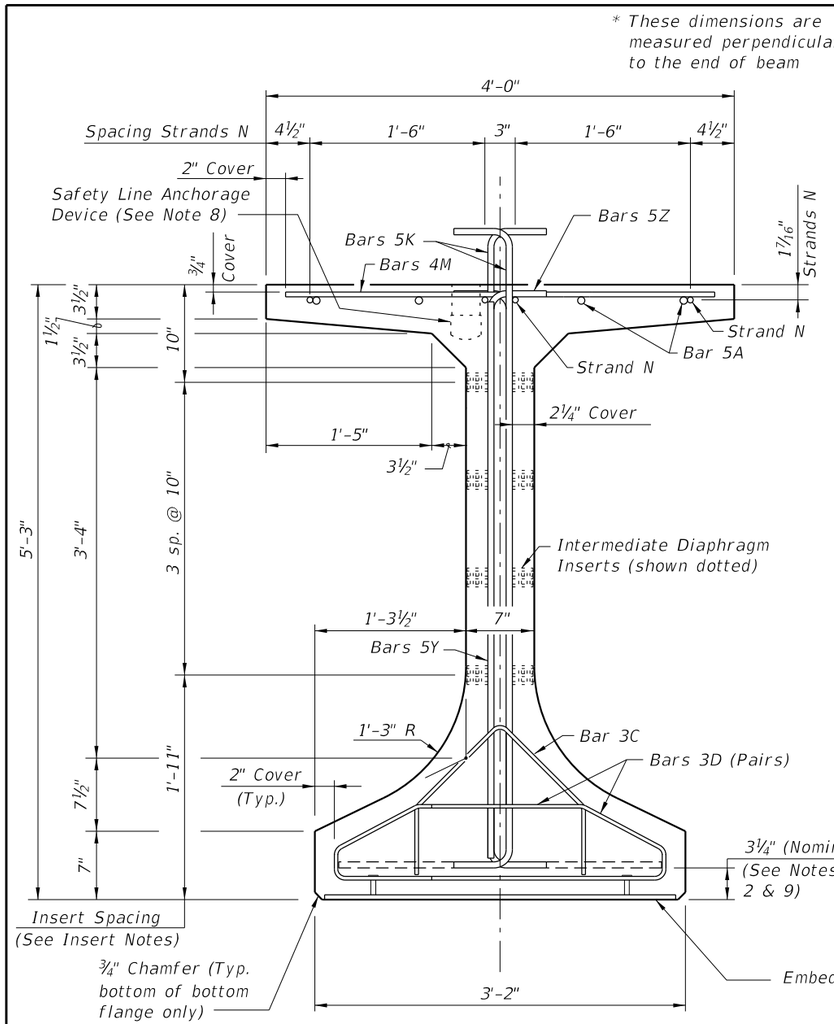
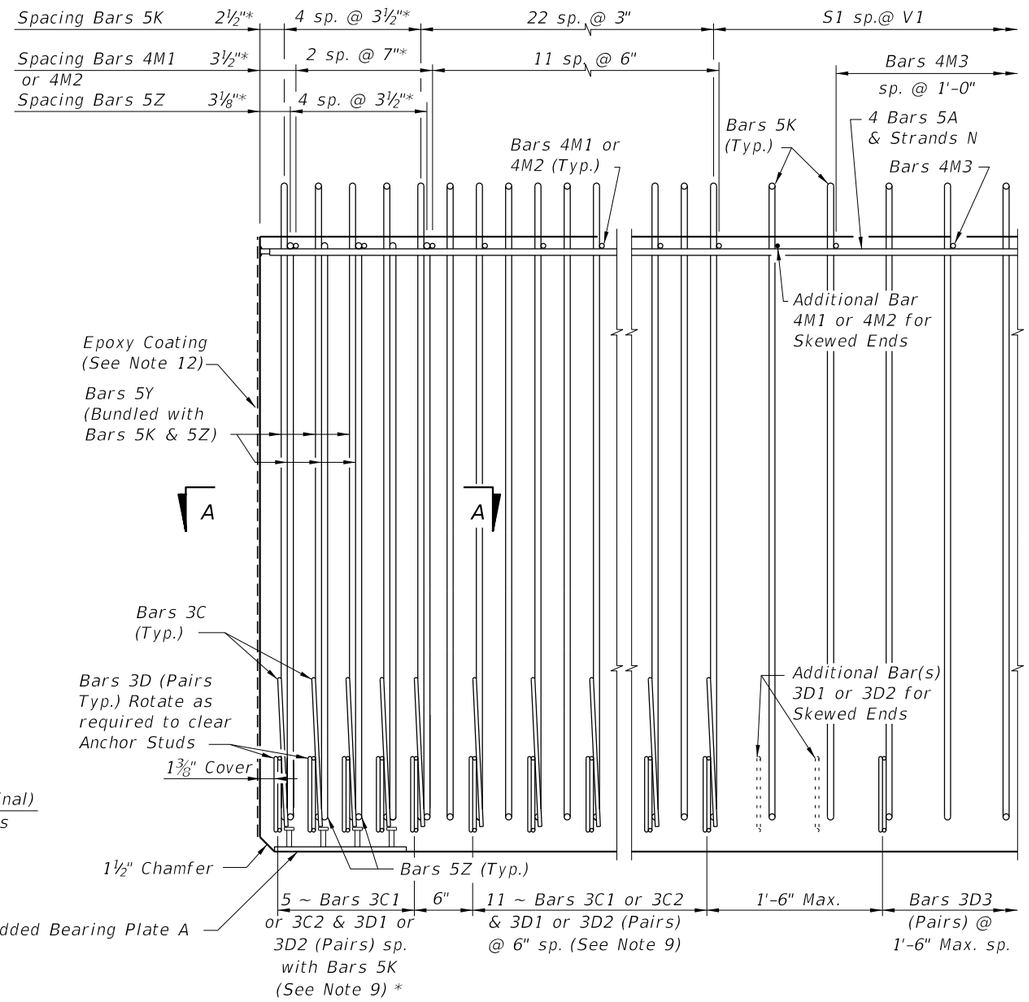
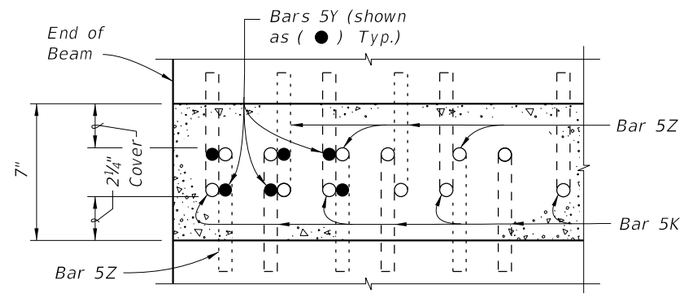
LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 54 BEAM - STANDARD DETAILS	INDEX NO. 20054 / SHEET NO. 2 of 2



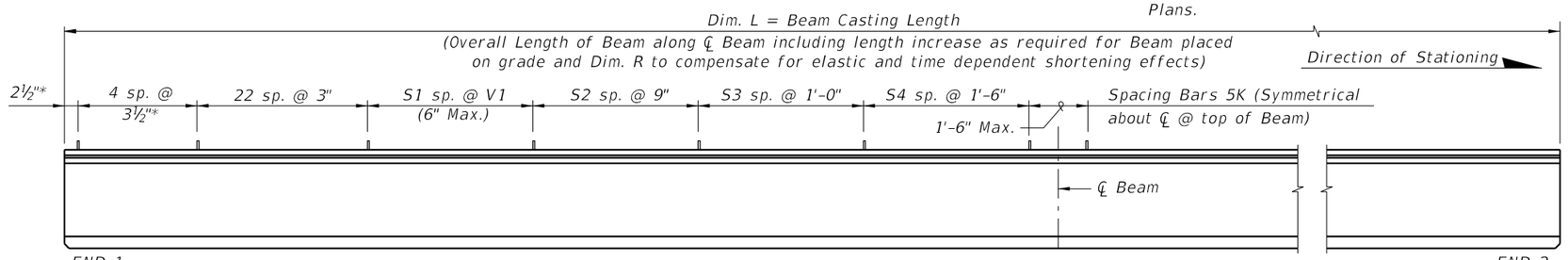
END VIEW



ELEVATION AT END OF BEAM
(Flanges Not Shown For Clarity)
(End 1 Shown, End 2 Similar)



SECTION A-A FOR CONVENTIONAL REINFORCING
(Showing Bars 5K, 5Y & 5Z Only)



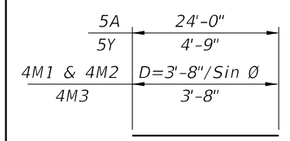
ELEVATION

CONVENTIONAL REINFORCING BAR BENDING DETAILS

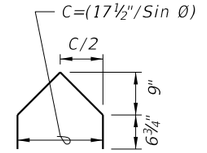
BILL OF REINFORCING STEEL

MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 2)
A	—	5	8	24'-0"
C1	9, 10 & 11	3	16 (End 1)	Varies
C2	9, 10 & 11	3	16 (End 2)	Varies
D1	9, 10, 11 & 14	3	32 (End 1)	Varies
D2	9, 10, 11 & 14	3	32 (End 2)	Varies
D3	9 & 14	3	See Table	4'-3"
K	2, 9, 11 & 13	5	See Table	6'-5"
M1	9 & 10	4	14 (End 1)	Varies
M2	9 & 10	4	14 (End 2)	Varies
M3	9	4	See Table	3'-8"
N	3 & 4	⅜" Ø Strand	4	Dim. L
Y	9 & 11	5	12	4'-9"
Z	2, 9, 11 & 13	5	10	5'-11"

BENDING DIAGRAMS (See Note 2)

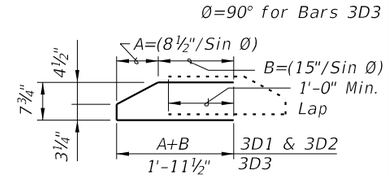


BARS 5A, 4M1, 4M2, 4M3 & 5Y



BARS 3C1 & 3C2

BARS 5K & 5Z



BARS 3D1, 3D2 & 3D3

NOTES:
A. Work this Index with Index 20010 – Typical Florida–I Beam Details and Notes and the Florida–I Beam – Table of Beam Variables in Structures Plans.
B. For referenced notes, see Index 20010.
C. For Dimensions A, B, C, D, L, R & V1 and number of spaces S1 thru S4, see Florida–I Beam – Table of Beam Variables in Structures Plans.

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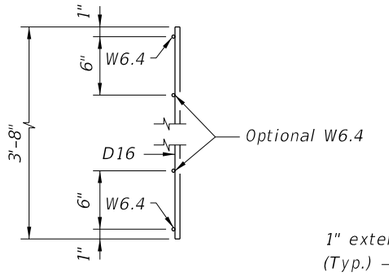
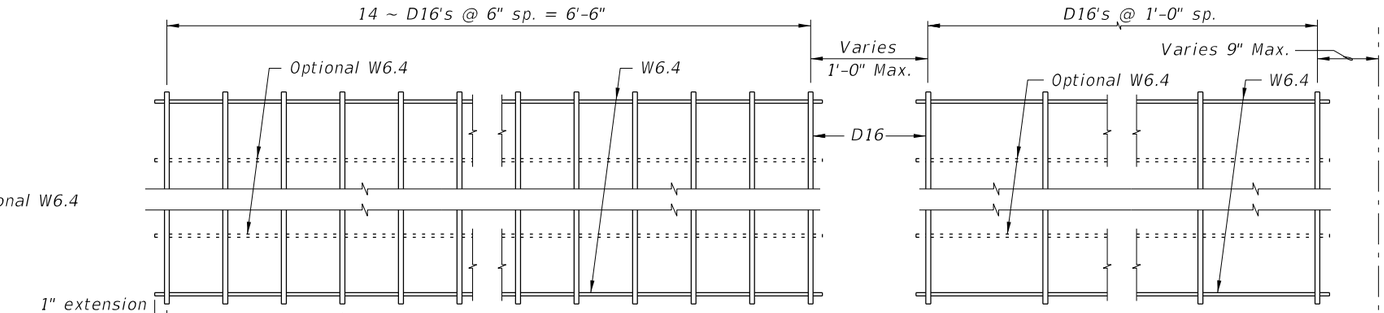
LAST REVISION	REVISION	DESCRIPTION:				
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	FLORIDA-I 63 BEAM - STANDARD DETAILS	INDEX NO. 20063	SHEET NO. 1 of 2

ALTERNATE REINFORCING STEEL (WWR) DETAILS

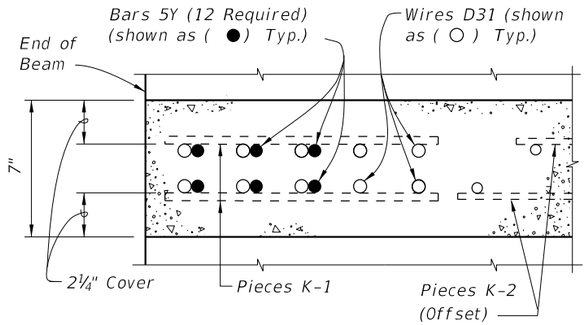


PIECES M
END VIEW

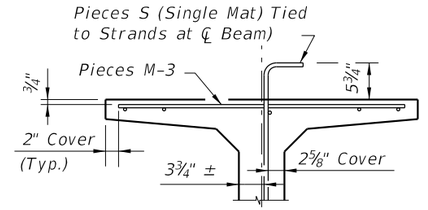


PLAN VIEW
PIECE M-1
(2 Required)

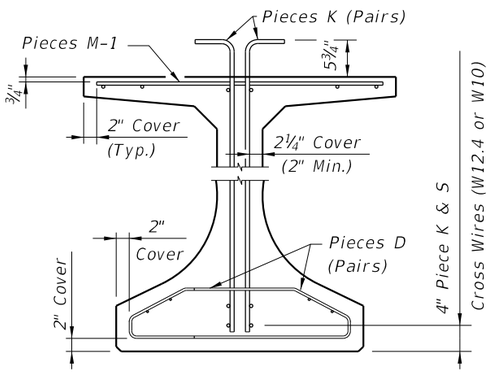
PLAN VIEW
PIECE M-3
(2 Required)



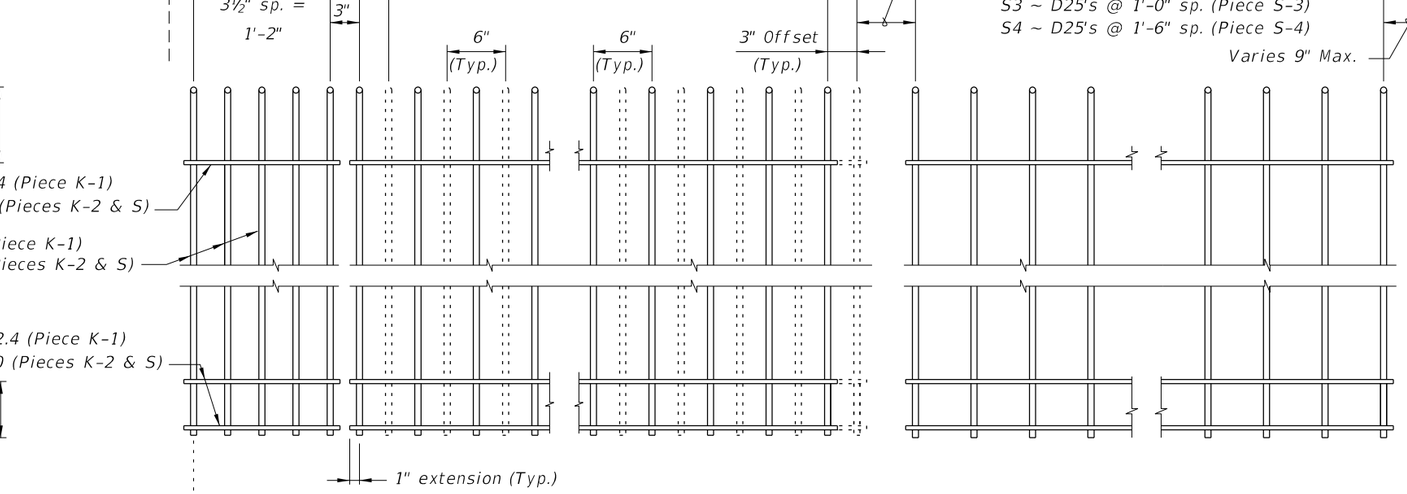
SECTION A-A
FOR WELDED WIRE REINFORCEMENT



PARTIAL SECTION AT CENTER BEAM



PARTIAL BEAM END VIEW
(Conventional Reinforcing Bars A, C, Y
and Strands not Shown for Clarity)

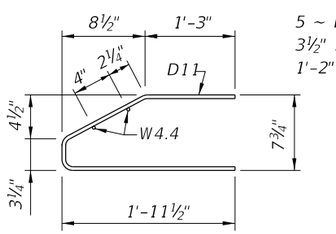


PIECES K & S
END VIEW

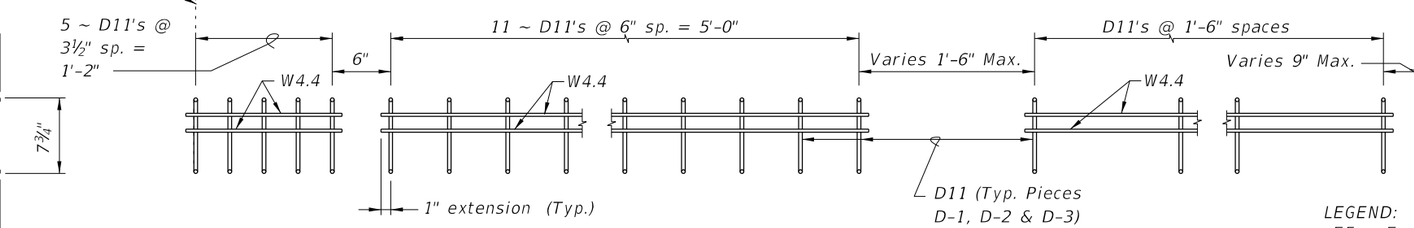
PIECE K-1
(Aligned EF)
(4 Required
~ 2 Pairs)

PIECE K-2
(FF Shown Solid, BF Shown Dashed)
(4 Required)

PIECE S-1, S-2, S-3 or S-4
(2 Required Each Piece)



PIECES D
END VIEW



PIECE D-1
(4 Required ~ 2 Pairs)

PIECE D-2
(4 Required ~ 2 Pairs)

PIECE D-3
(4 Required ~ 2 Pairs)

LEGEND:
EF = Each Face
FF = Front Face
BF = Back Face

NOTES:

a. See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
b. Place Conventional Reinforcement Bars 5A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
c. Pieces may be fabricated in multiple length sections.
d. For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index 20010 Skewed Beam End Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

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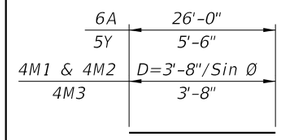
LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 63 BEAM - STANDARD DETAILS	INDEX NO. 20063 / SHEET NO. 2 of 2

CONVENTIONAL REINFORCING BAR BENDING DETAILS

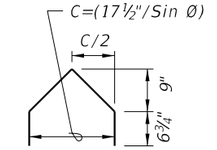
BILL OF REINFORCING STEEL

MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 2)
A	—	6	8	26'-0"
C1	9, 10 & 11	3	19 (End 1)	Varies
C2	9, 10 & 11	3	19 (End 2)	Varies
D1	9, 10, 11 & 14	3	38 (End 1)	Varies
D2	9, 10, 11 & 14	3	38 (End 2)	Varies
D3	9 & 14	3	See Table	4'-3"
K	2, 9, 11 & 13	5	See Table	7'-2"
M1	9 & 10	4	17 (End 1)	Varies
M2	9 & 10	4	17 (End 2)	Varies
M3	9	4	See Table	3'-8"
N	3 & 4	⅜" Ø Strand	4	Dim. L
Y	9 & 11	5	16	5'-6"
Z	2, 9, 11 & 13	5	12	6'-8"

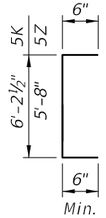
BENDING DIAGRAMS (See Note 2)



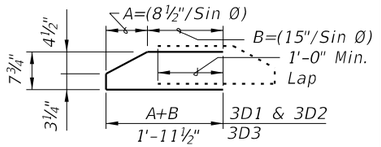
BARS 6A, 4M1, 4M2, 4M3 & 5Y



BARS 3C1 & 3C2

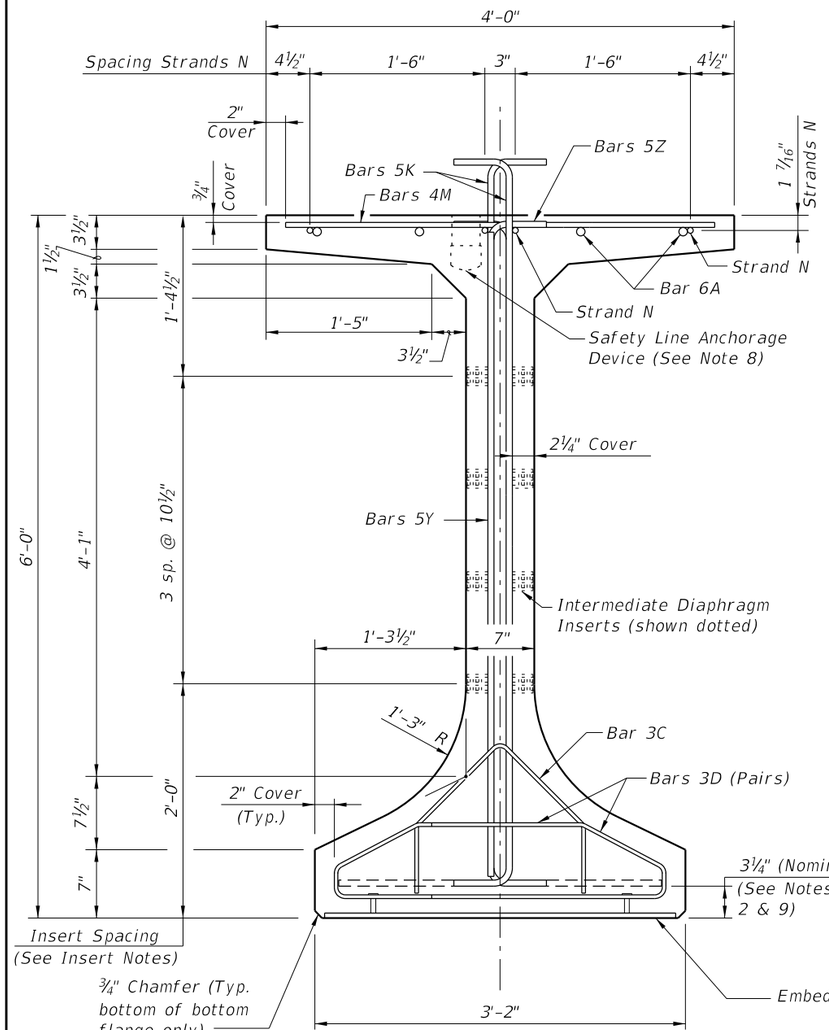


BARS 5K & 5Z

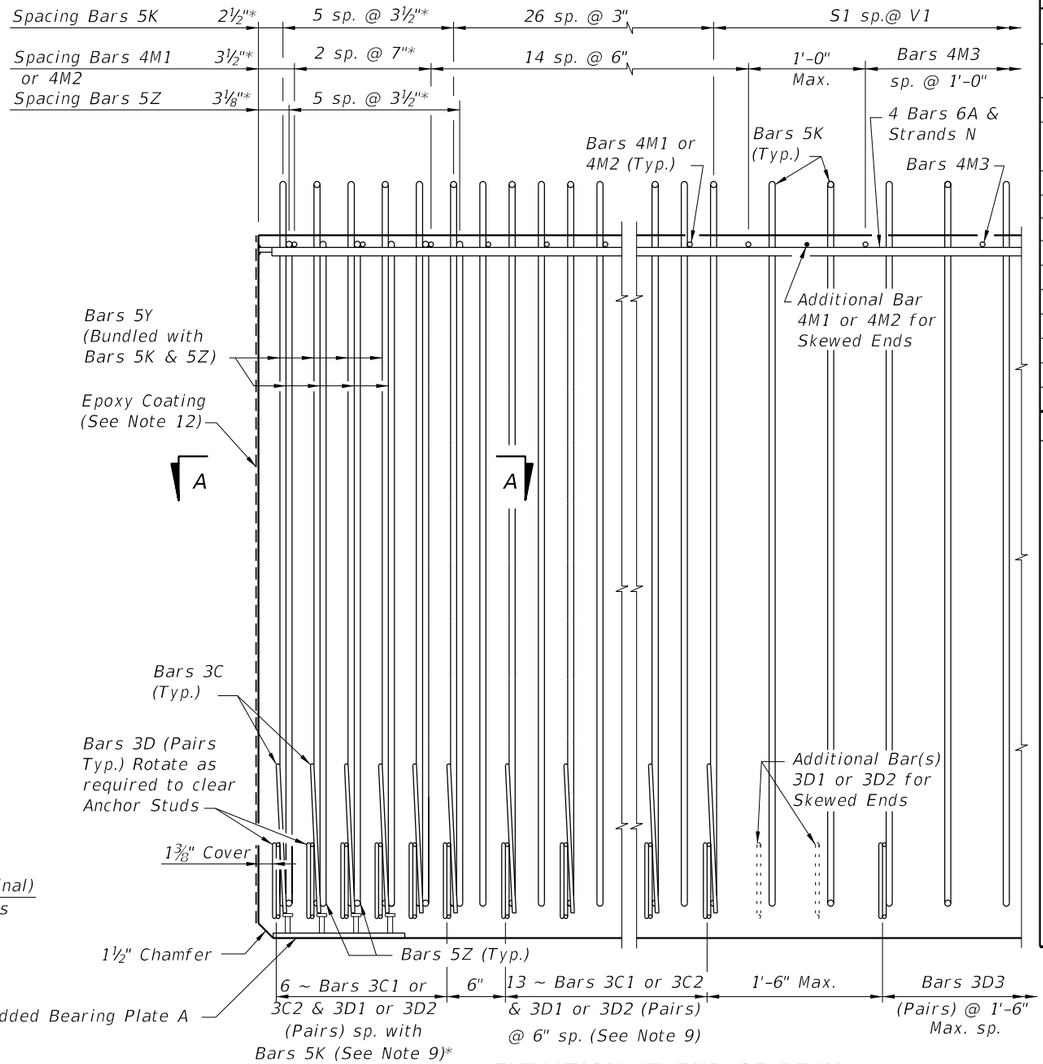


BARS 3D1, 3D2 & 3D3

* These dimensions are measured perpendicular to the end of beam



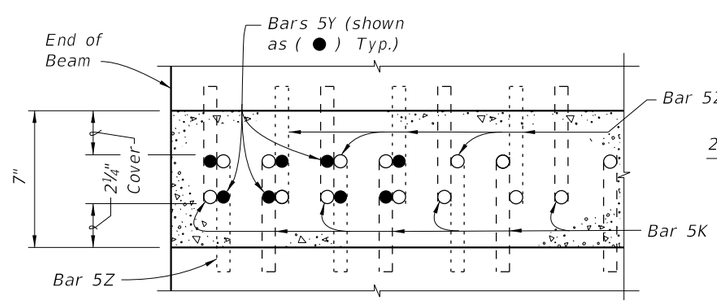
END VIEW



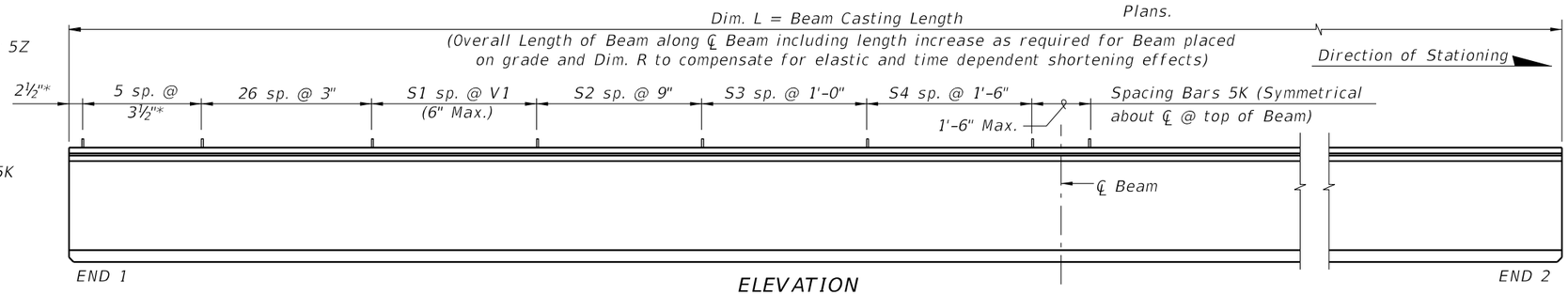
ELEVATION AT END OF BEAM
(Flanges Not Shown For Clarity)
(End 1 Shown, End 2 Similar)

NOTES:

A. Work this Index with Index 20010 – Typical Florida-I Beam Details and Notes and the Florida-I Beam – Table of Beam Variables in Structures Plans.
B. For referenced notes, see Index 20010.
C. For Dimensions A, B, C, D, L, R & V1 and number of spaces S1 thru S4, see Florida-I Beam – Table of Beam Variables in Structures Plans.



SECTION A-A FOR CONVENTIONAL REINFORCING
(Showing Bars 5K, 5Y & 5Z Only)

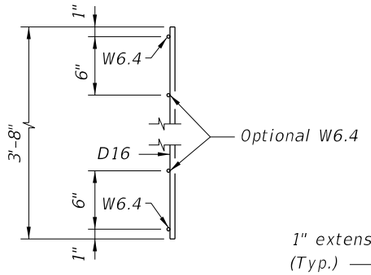


ELEVATION

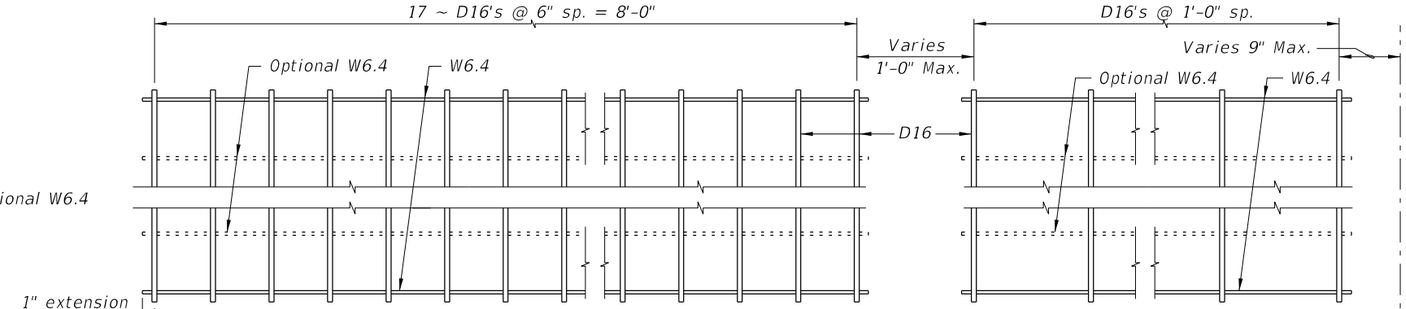
10/26/2016 8:47:02 AM

LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 72 BEAM - STANDARD DETAILS	INDEX NO. 20072 / SHEET NO. 1 of 2

ALTERNATE REINFORCING STEEL (WWR) DETAILS

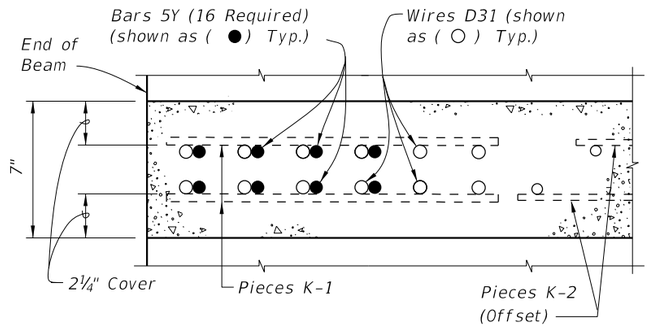


PIECES M
END VIEW

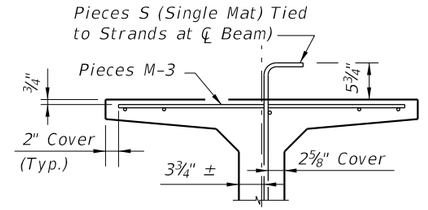


PLAN VIEW
PIECE M-1
(2 Required)

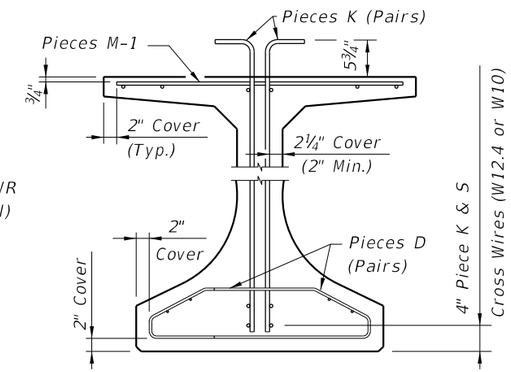
PLAN VIEW
PIECE M-3
(2 Required)



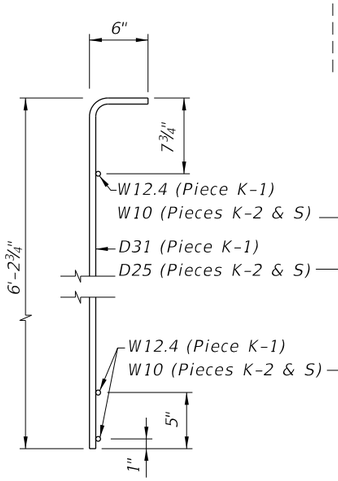
SECTION A-A
FOR WELDED WIRE REINFORCEMENT



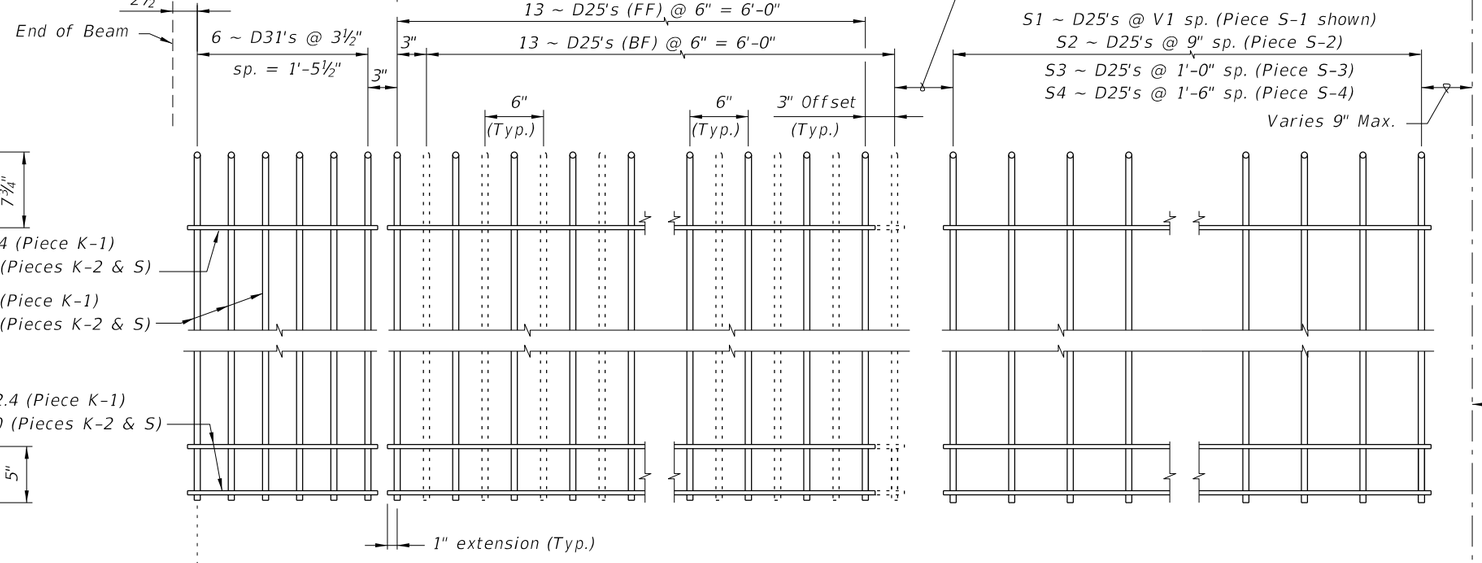
PARTIAL SECTION AT CENTER BEAM



PARTIAL BEAM END VIEW
(Conventional Reinforcing Bars A, C, Y
and Strands not Shown for Clarity)



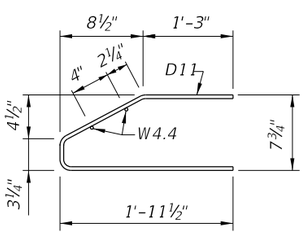
PIECES K & S
END VIEW



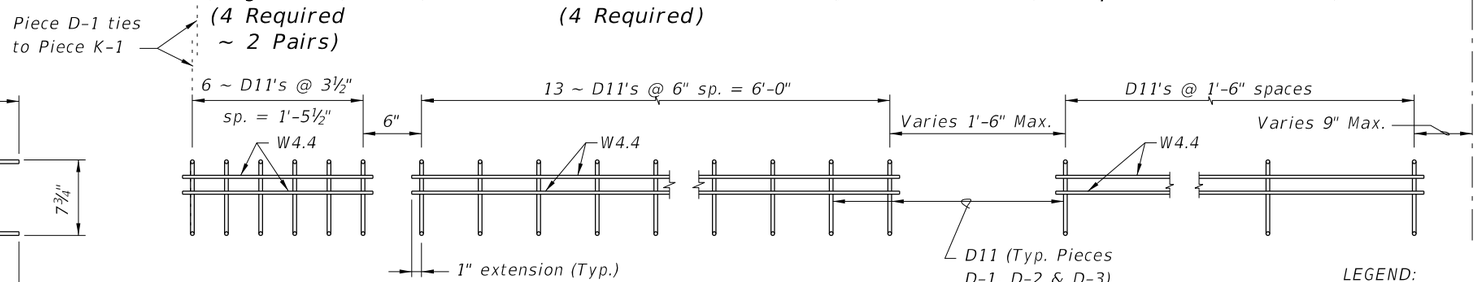
PIECE K-1
(Aligned EF)
(4 Required
~ 2 Pairs)

PIECE K-2
(FF Shown Solid, BF Shown Dashed)
(4 Required)

PIECE S-1, S-2, S-3 or S-4
(2 Required ~ Each Piece)



PIECES D
END VIEW



PIECE D-1
(4 Required ~ 2 Pairs)

PIECE D-2
(4 Required ~ 2 Pairs)

PIECE D-3
(4 Required ~ 2 Pairs)

LEGEND:
EF = Each Face
FF = Front Face
BF = Back Face

NOTES:

a. See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
b. Place Conventional Reinforcement Bars 6A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
c. Pieces may be fabricated in multiple length sections.
d. For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index 20010 Skewed Beam End Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

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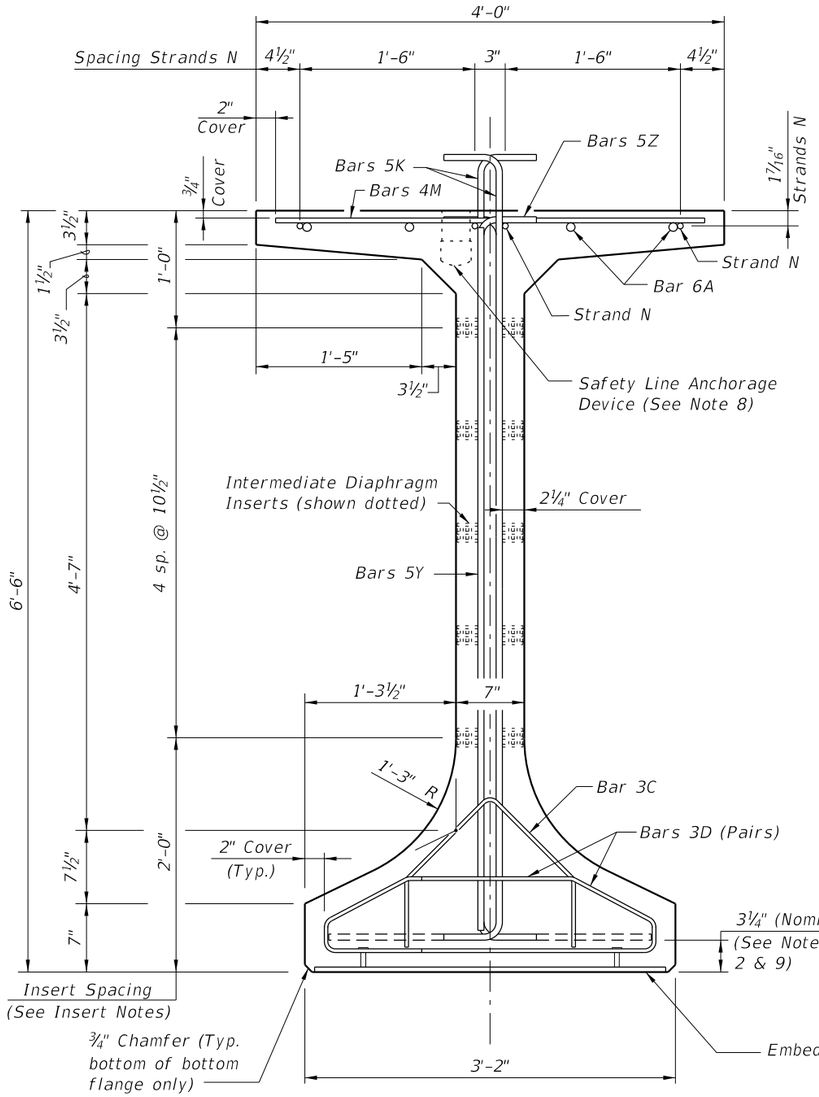
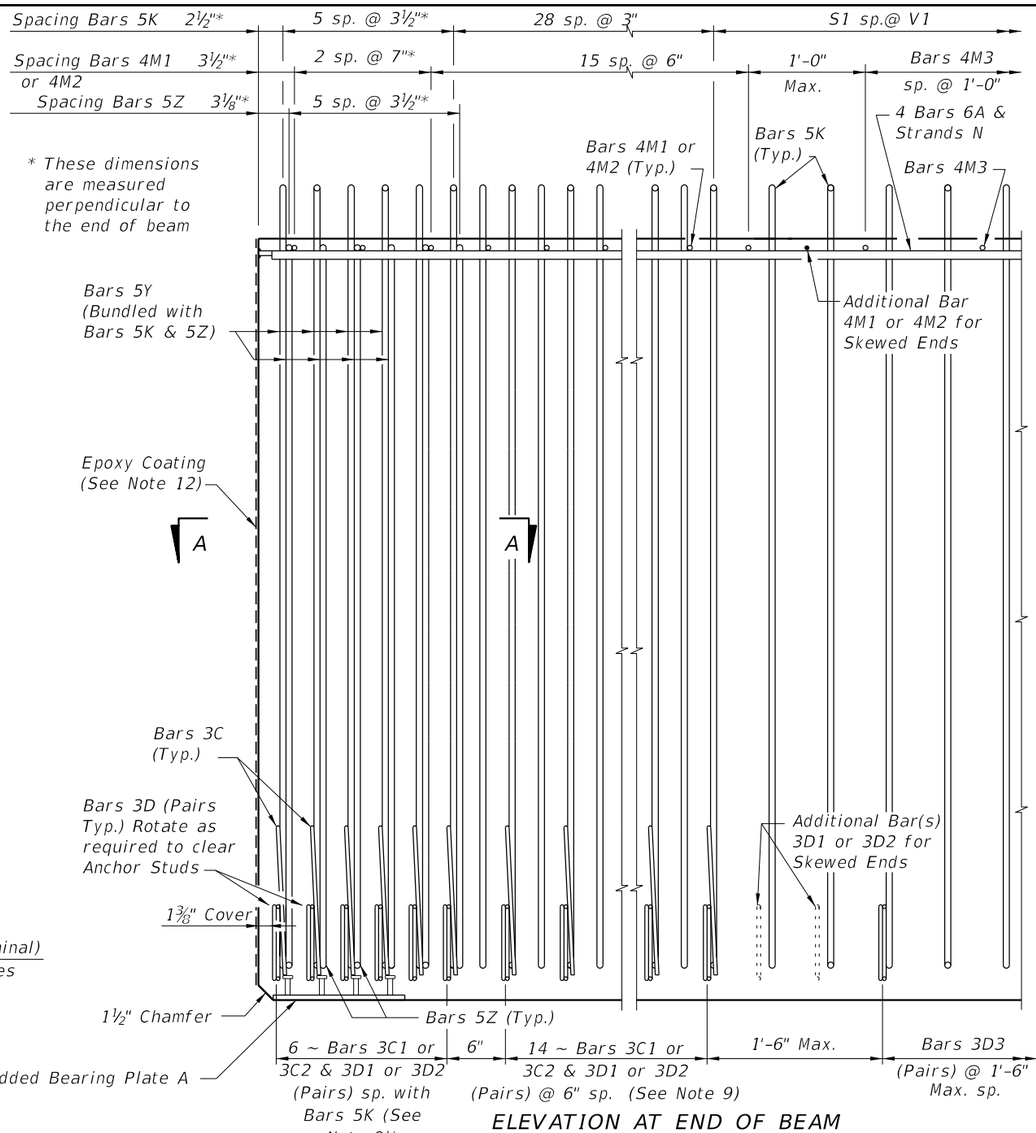
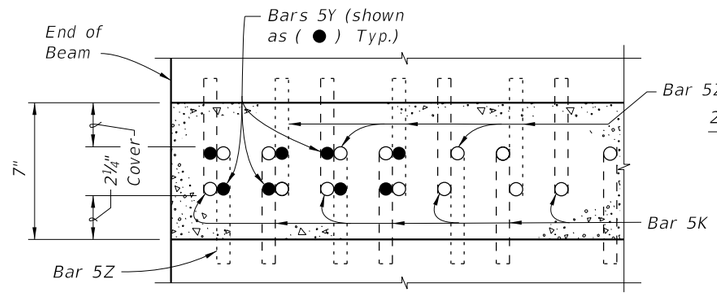
LAST REVISION	REVISION	DESCRIPTION:				
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 72 BEAM - STANDARD DETAILS	INDEX NO. 20072	SHEET NO. 2 of 2



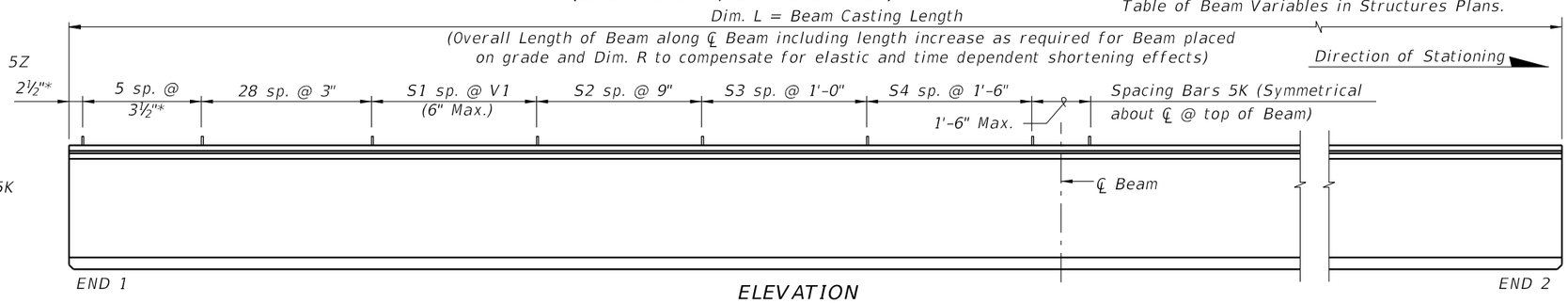
END VIEW



ELEVATION AT END OF BEAM
(Flanges Not Shown For Clarity)
(End 1 Shown, End 2 Similar)



SECTION A-A FOR CONVENTIONAL REINFORCING
(Showing Bars 5K, 5Y & 5Z Only)



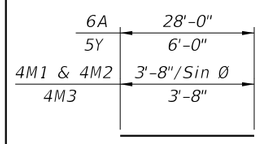
ELEVATION

CONVENTIONAL REINFORCING BAR BENDING DETAILS

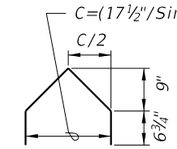
BILL OF REINFORCING STEEL

MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 2)
A	—	6	8	28'-0"
C1	9, 10 & 11	3	20 (End 1)	Varies
C2	9, 10 & 11	3	20 (End 2)	Varies
D1	9, 10, 11 & 14	3	40 (End 1)	Varies
D2	9, 10, 11 & 14	3	40 (End 2)	Varies
D3	9 & 14	3	See Table	4'-3"
K	2, 9, 11 & 13	5	See Table	7'-8"
M1	9 & 10	4	18 (End 1)	Varies
M2	9 & 10	4	18 (End 2)	Varies
M3	9	4	See Table	3'-8"
N	3 & 4	⅜" Ø Strand	4	Dim. L
Y	9 & 11	5	16	6'-0"
Z	2, 9, 11 & 13	5	12	7'-2"

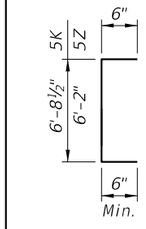
BENDING DIAGRAMS (See Note 2)



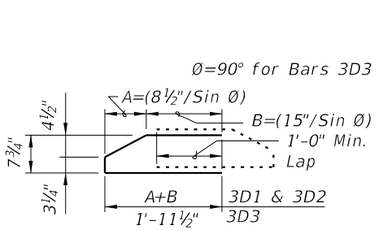
BARS 6A, 4M1, 4M2, 4M3 & 5Y



BARS 3C1 & 3C2



BARS 5K & 5Z



BARS 3D1, 3D2 & 3D3

NOTES:

A. Work this Index with Index 20010 – Typical Florida-I Beam Details and Notes and the Florida-I Beam – Table of Beam Variables in Structures Plans.
B. For referenced notes, see Index 20010.
C. For Dimensions A, B, C, D, L, R & V1 and number of spaces S1 thru S4, see Florida-I Beam – Table of Beam Variables in Structures Plans.

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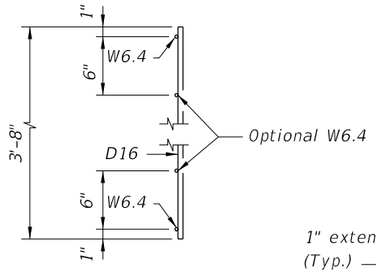
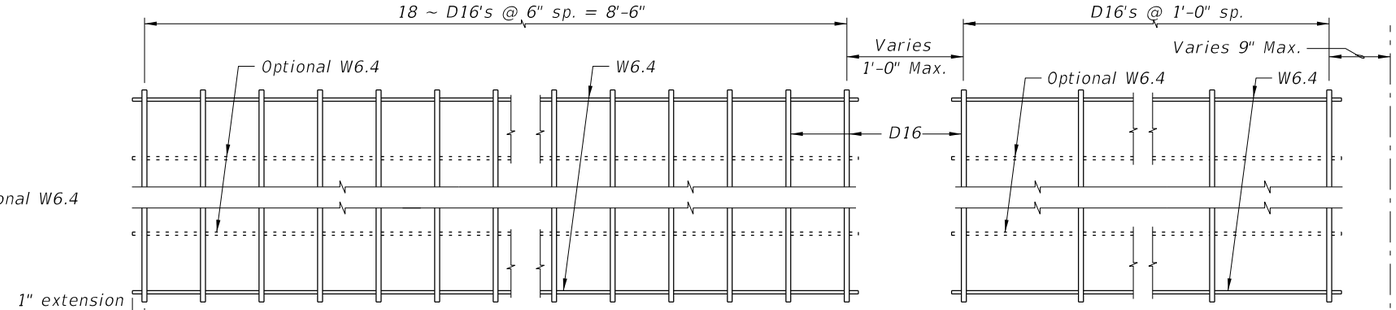
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	FLORIDA-I 78 BEAM - STANDARD DETAILS	20078	1 of 2

ALTERNATE REINFORCING STEEL (WWR) DETAILS

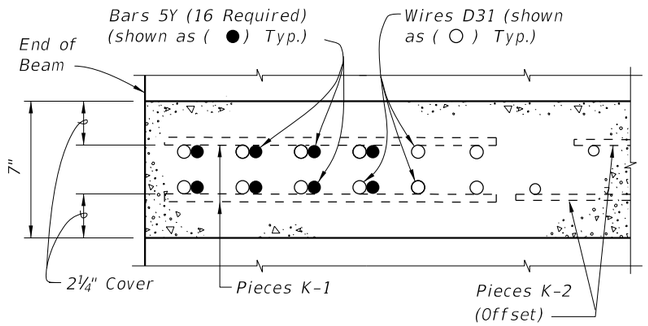


PIECES M
END VIEW

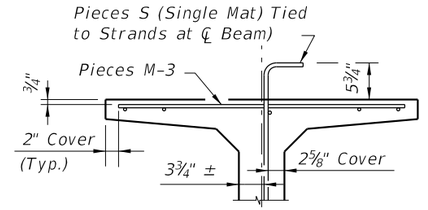


PLAN VIEW
PIECE M-1
(2 Required)

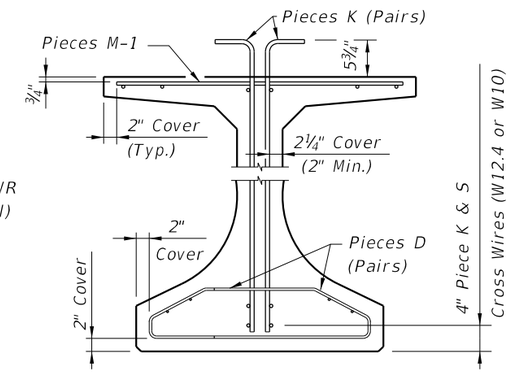
PLAN VIEW
PIECE M-3
(2 Required)



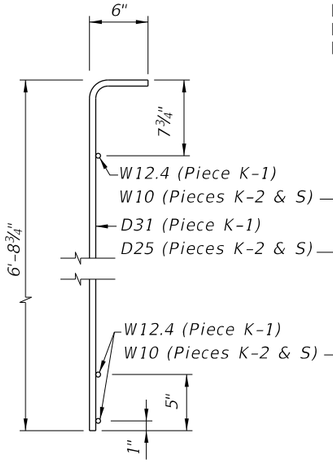
SECTION A-A
FOR WELDED WIRE REINFORCEMENT



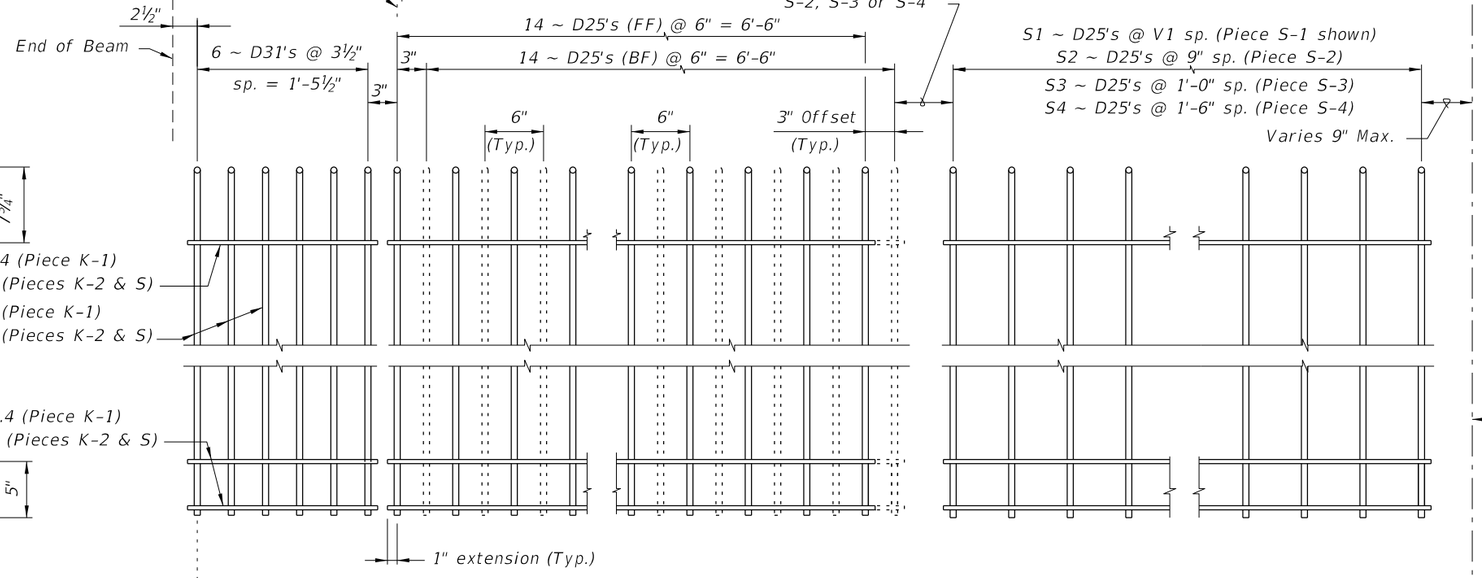
PARTIAL SECTION AT CENTER BEAM



PARTIAL BEAM END VIEW
(Conventional Reinforcing Bars A, C, Y
and Strands N not Shown for Clarity)



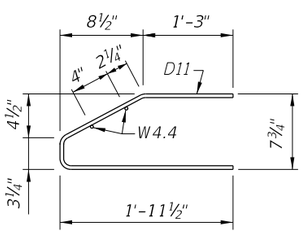
PIECES K & S
END VIEW



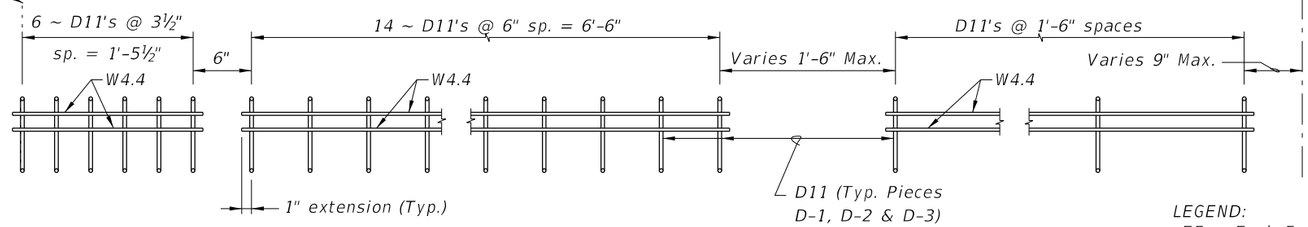
PIECE K-1
(Aligned EF)
(4 Required
~ 2 Pairs)

PIECE K-2
(FF Shown Solid, BF Shown Dashed)
(4 Required)

PIECE S-1, S-2, S-3 or S-4
(2 Required ~ Each Piece)



PIECES D
END VIEW



PIECE D-1
(4 Required ~ 2 Pairs)

PIECE D-2
(4 Required ~ 2 Pairs)

PIECE D-3
(4 Required ~ 2 Pairs)

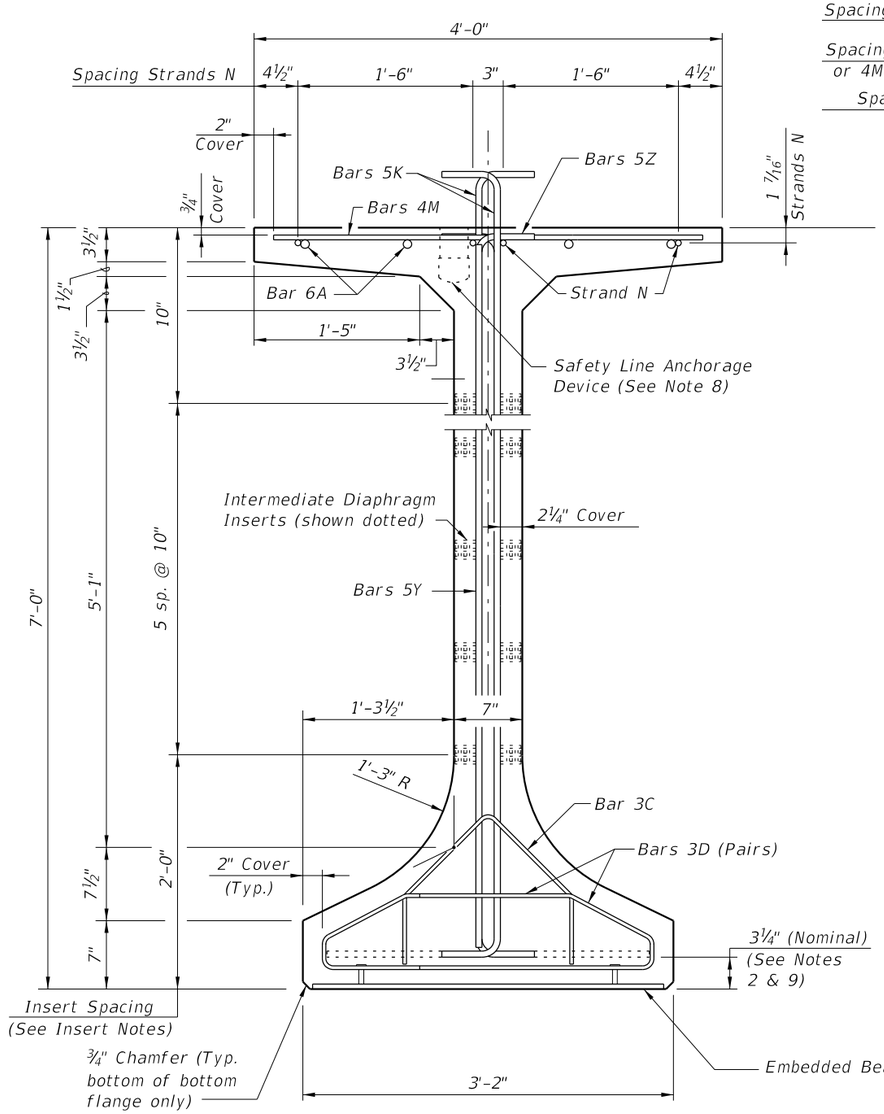
LEGEND:
EF = Each Face
FF = Front Face
BF = Back Face

NOTES:

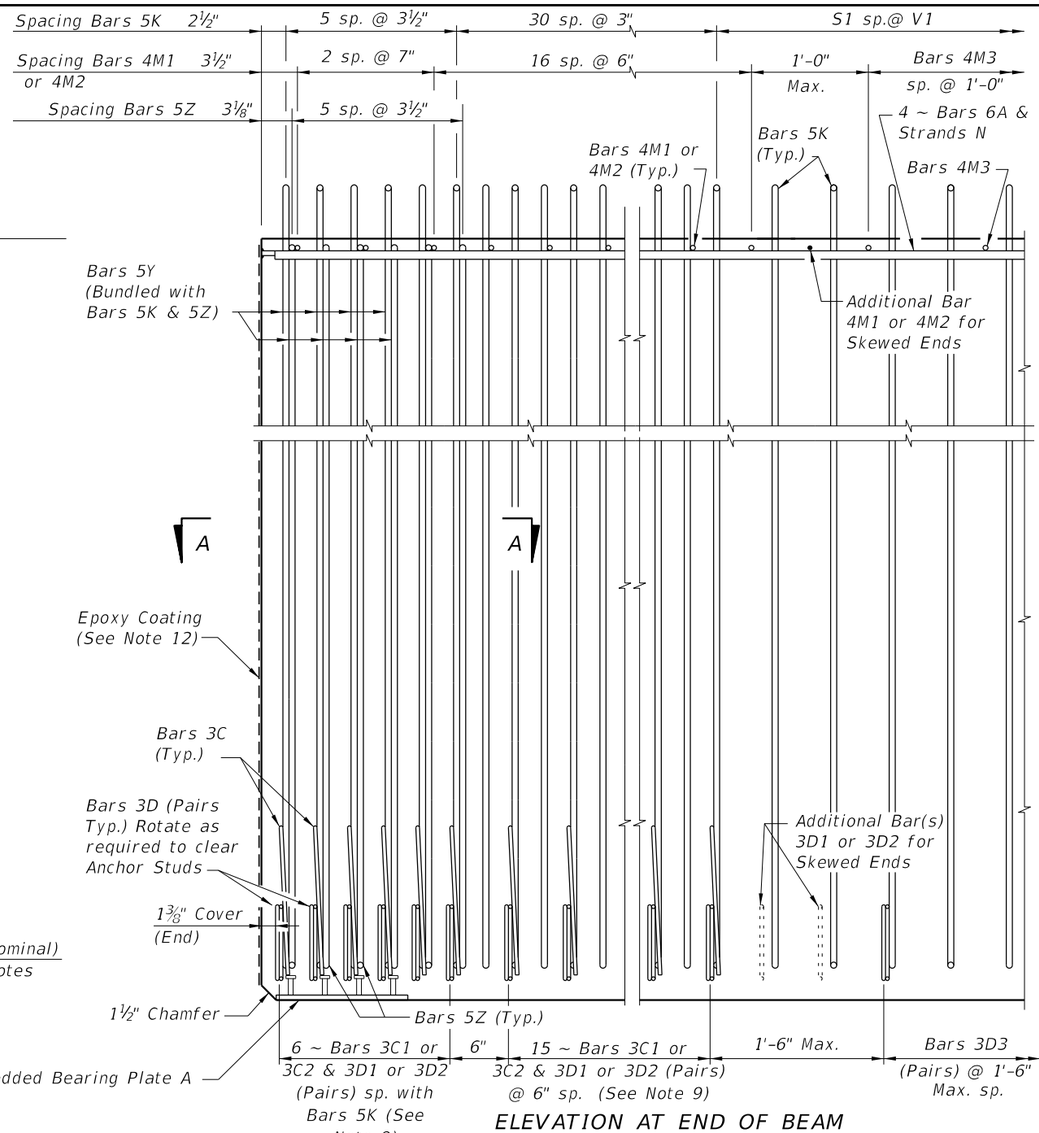
a. See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
b. Place Conventional Reinforcement Bars 6A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
c. Pieces may be fabricated in multiple length sections.
d. For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index 20010 Skewed Beam End Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

10/26/2016 8:47:31 AM

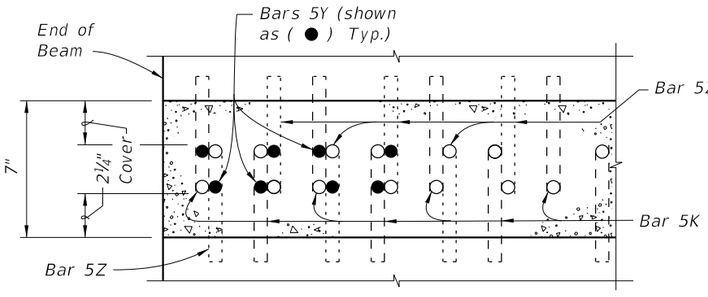
LAST REVISION	REVISION	DESCRIPTION:				
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 78 BEAM - STANDARD DETAILS	INDEX NO. 20078	SHEET NO. 2 of 2



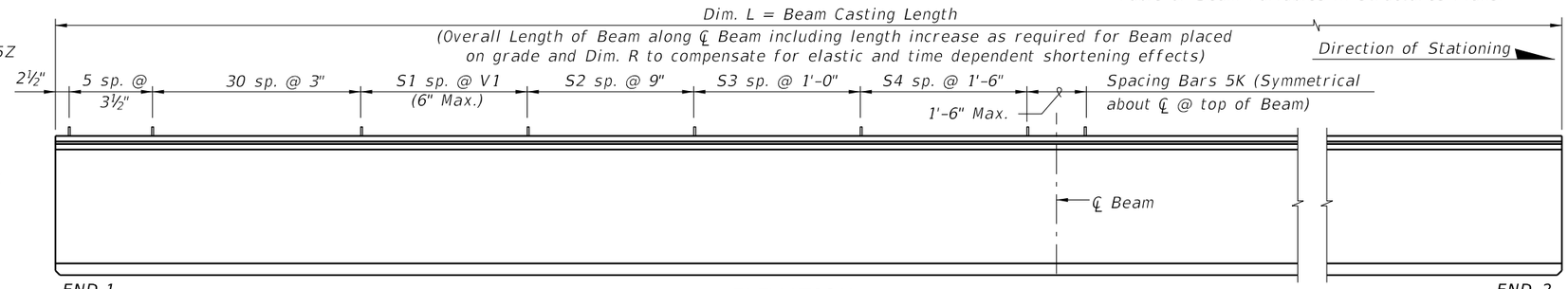
END VIEW



ELEVATION AT END OF BEAM
(Flanges Not Shown For Clarity)
(End 1 Shown, End 2 Similar)



SECTION A-A FOR CONVENTIONAL REINFORCING
(Showing Bars 5K, 5Y & 5Z Only)



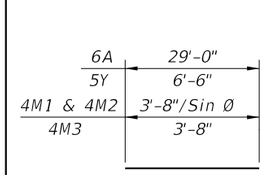
END 1 ELEVATION END 2

CONVENTIONAL REINFORCING BAR BENDING DETAILS

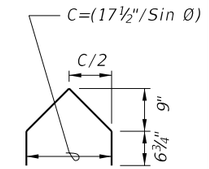
BILL OF REINFORCING STEEL

MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 2)
A	—	6	8	29'-0"
C1	9, 10 & 11	3	21 (End 1)	Varies
C2	9, 10 & 11	3	21 (End 2)	Varies
D1	9, 10, 11 & 14	3	42 (End 1)	Varies
D2	9, 10, 11 & 14	3	42 (End 2)	Varies
D3	9 & 14	3	See Table	4'-3"
K	2, 9, 11 & 13	5	See Table	8'-2"
M1	9 & 10	4	19 (End 1)	Varies
M2	9 & 10	4	19 (End 2)	Varies
M3	9	4	See Table	3'-8"
N	3 & 4	½" Ø Strand	4	Dim. L
Y	9 & 11	5	16	6'-6"
Z	2, 9, 11 & 13	5	12	7'-8"

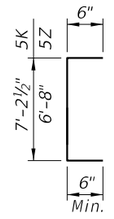
BENDING DIAGRAMS (See Note 2)



BARS 6A, 4M1, 4M2, 4M3 & 5Y

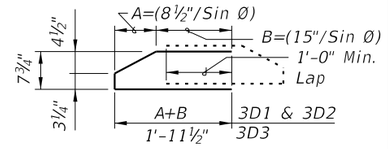


BARS 3C1 & 3C2



BARS 5K & 5Z

Ø=90° for Bars 3D3



BARS 3D1, 3D2 & 3D3

NOTES:

A. Work this Index with Index 20010 – Typical Florida-I Beam Details and Notes and the Florida-I Beam – Table of Beam Variables in Structures Plans.
B. For referenced notes, see Index 20010.
C. For Dimensions A, B, C, D, L, R & V1 and number of spaces S1 thru S4, see Florida-I Beam – Table of Beam Variables in Structures Plans.

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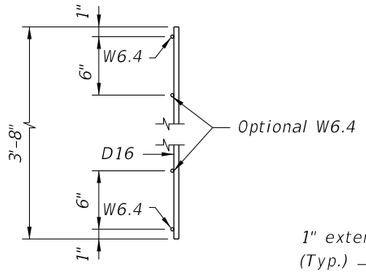
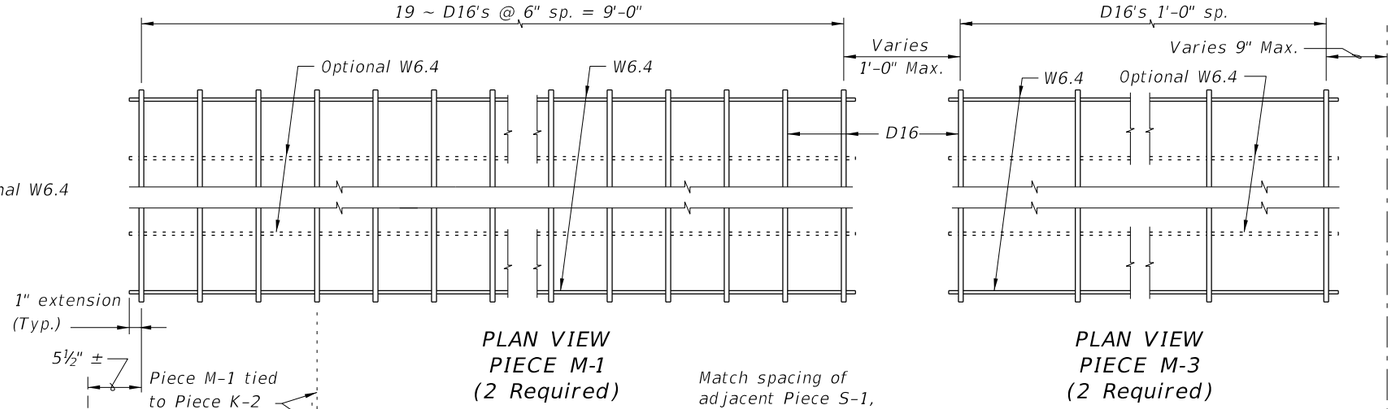
LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 84 BEAM - STANDARD DETAILS	INDEX NO. 20084 / SHEET NO. 1 of 2

ALTERNATE REINFORCING STEEL (WWR) DETAILS

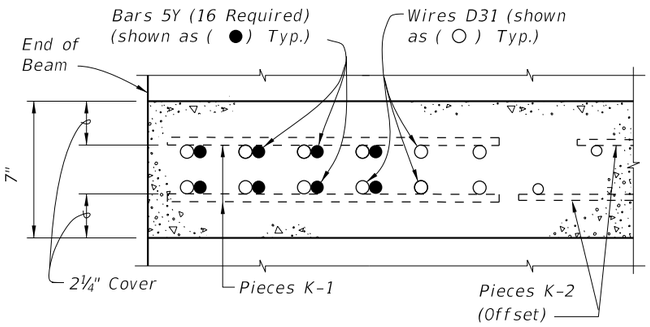


PIECES M
END VIEW

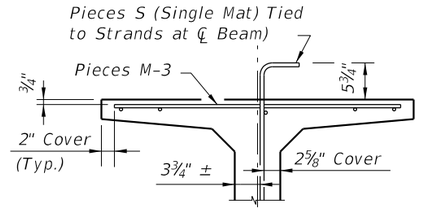


PLAN VIEW
PIECE M-1
(2 Required)

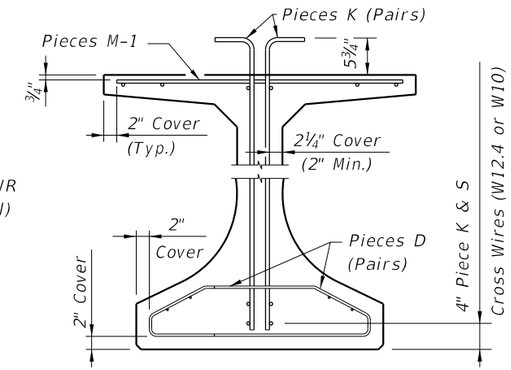
PLAN VIEW
PIECE M-3
(2 Required)



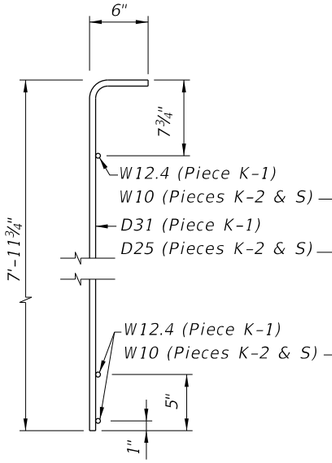
SECTION A-A
FOR WELDED WIRE REINFORCEMENT



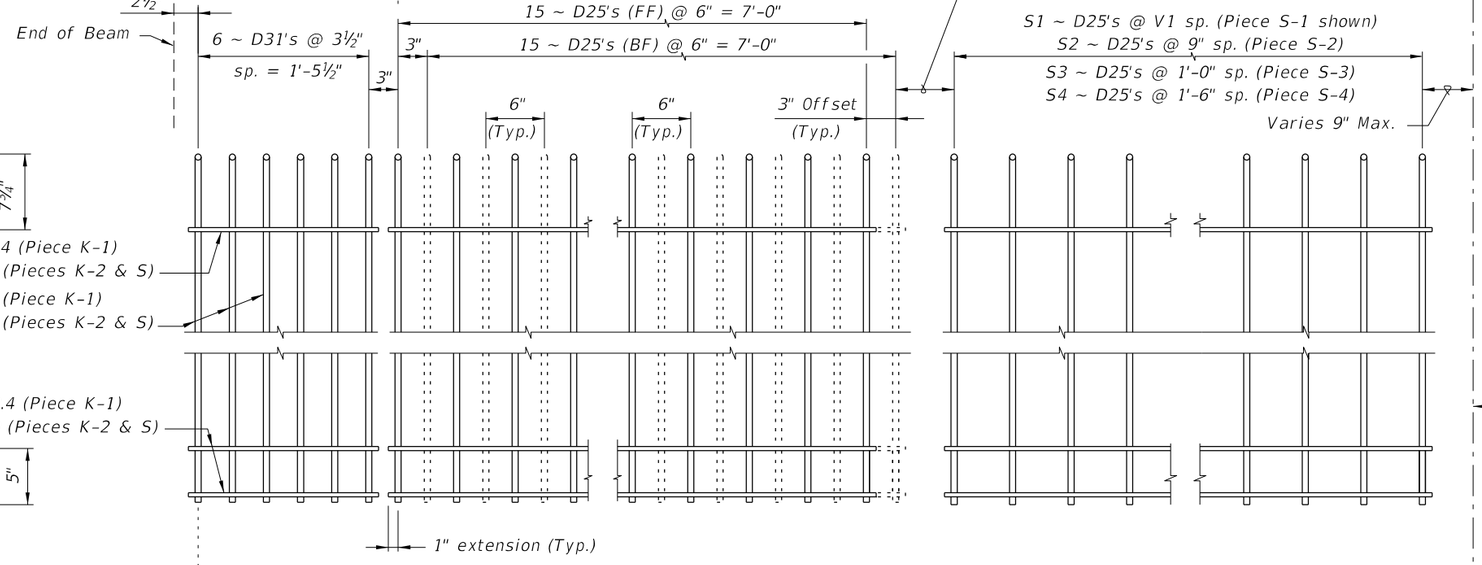
PARTIAL SECTION AT CENTER BEAM



PARTIAL BEAM END VIEW
(Conventional Reinforcing Bars A, C, Y
and Strands N not Shown for Clarity)



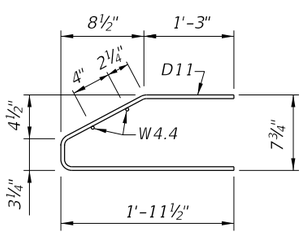
PIECES K & S
END VIEW



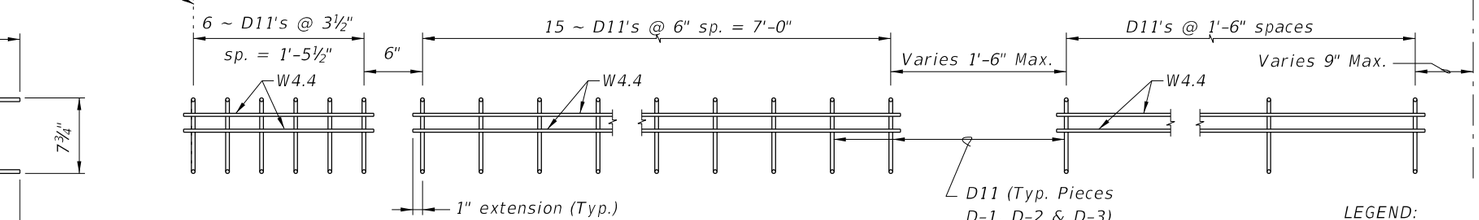
PIECE K-1
(Aligned EF)
(4 Required ~
2 Pairs)

PIECE K-2
(FF Shown Solid, BF Shown Dashed)
(4 Required)

PIECE S-1, S-2, S-3 or S-4
(2 Required ~ Each Piece)



PIECES D
END VIEW



PIECE D-1
(4 Required ~ 2 Pairs)

PIECE D-2
(4 Required ~ 2 Pairs)

PIECE D-3
(4 Required ~ 2 Pairs)

LEGEND:
EF = Each Face
FF = Front Face
BF = Back Face

NOTES:

a. See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
b. Place Conventional Reinforcement Bars 6A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
c. Pieces may be fabricated in multiple length sections.
d. For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index 20010 Skewed Beam End Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

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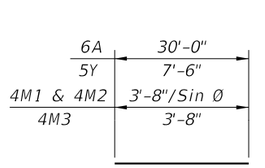
LAST REVISION	REVISION	DESCRIPTION:				
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 84 BEAM - STANDARD DETAILS	INDEX NO. 20084	SHEET NO. 2 of 2

CONVENTIONAL REINFORCING BAR BENDING DETAILS

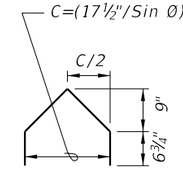
BILL OF REINFORCING STEEL

MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 2)
A	—	6	8	30'-0"
C1	9, 10 & 11	3	23 (End 1)	Varies
C2	9, 10 & 11	3	23 (End 2)	Varies
D1	9, 10, 11 & 14	3	46 (End 1)	Varies
D2	9, 10, 11 & 14	3	46 (End 2)	Varies
D3	9 & 14	3	See Table	4'-3"
K	2, 9, 11 & 13	5	See Table	9'-2"
M1	9 & 10	4	21 (End 1)	Varies
M2	9 & 10	4	21 (End 2)	Varies
M3	9	4	See Table	3'-8"
N	3 & 4	½" Ø Strand	4	Dim. L
Y	9 & 11	5	16	7'-6"
Z	2, 9, 11 & 13	5	12	8'-8"

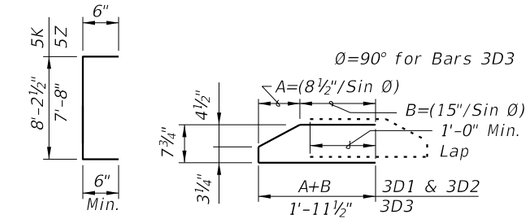
BENDING DIAGRAMS (See Note 2)



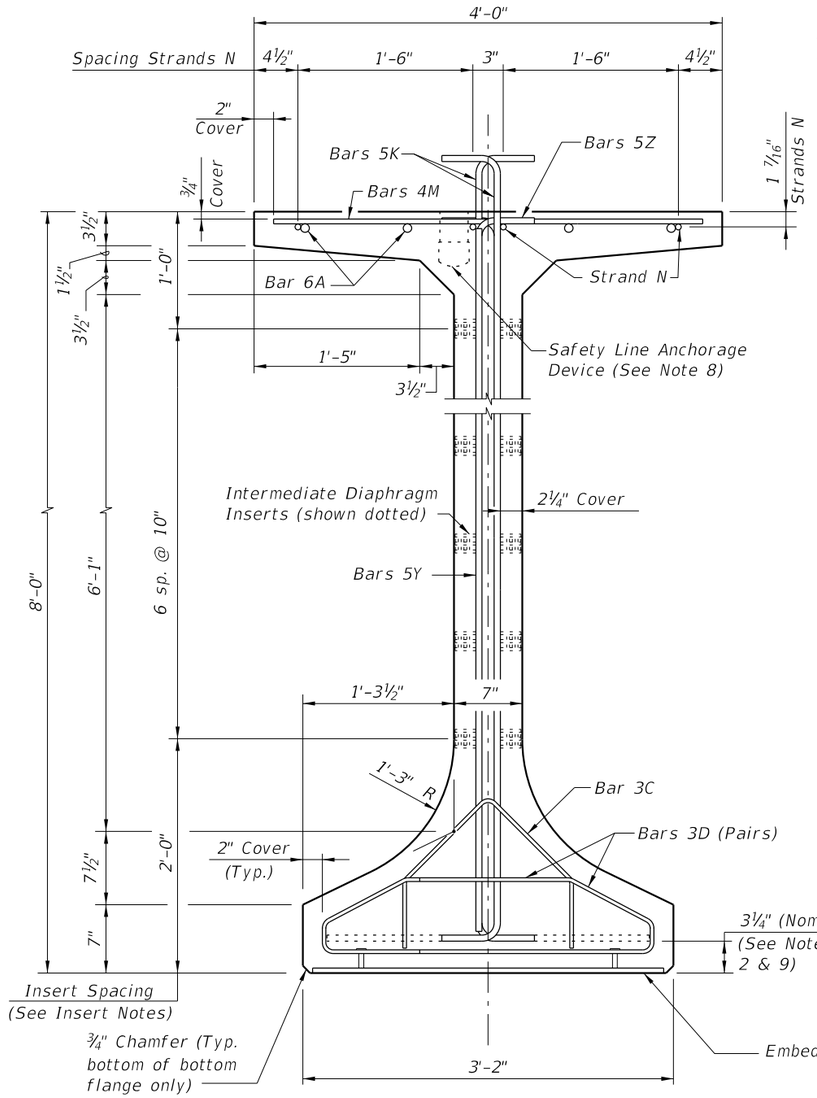
BARS 6A, 4M1, 4M2, 4M3 & 5Y



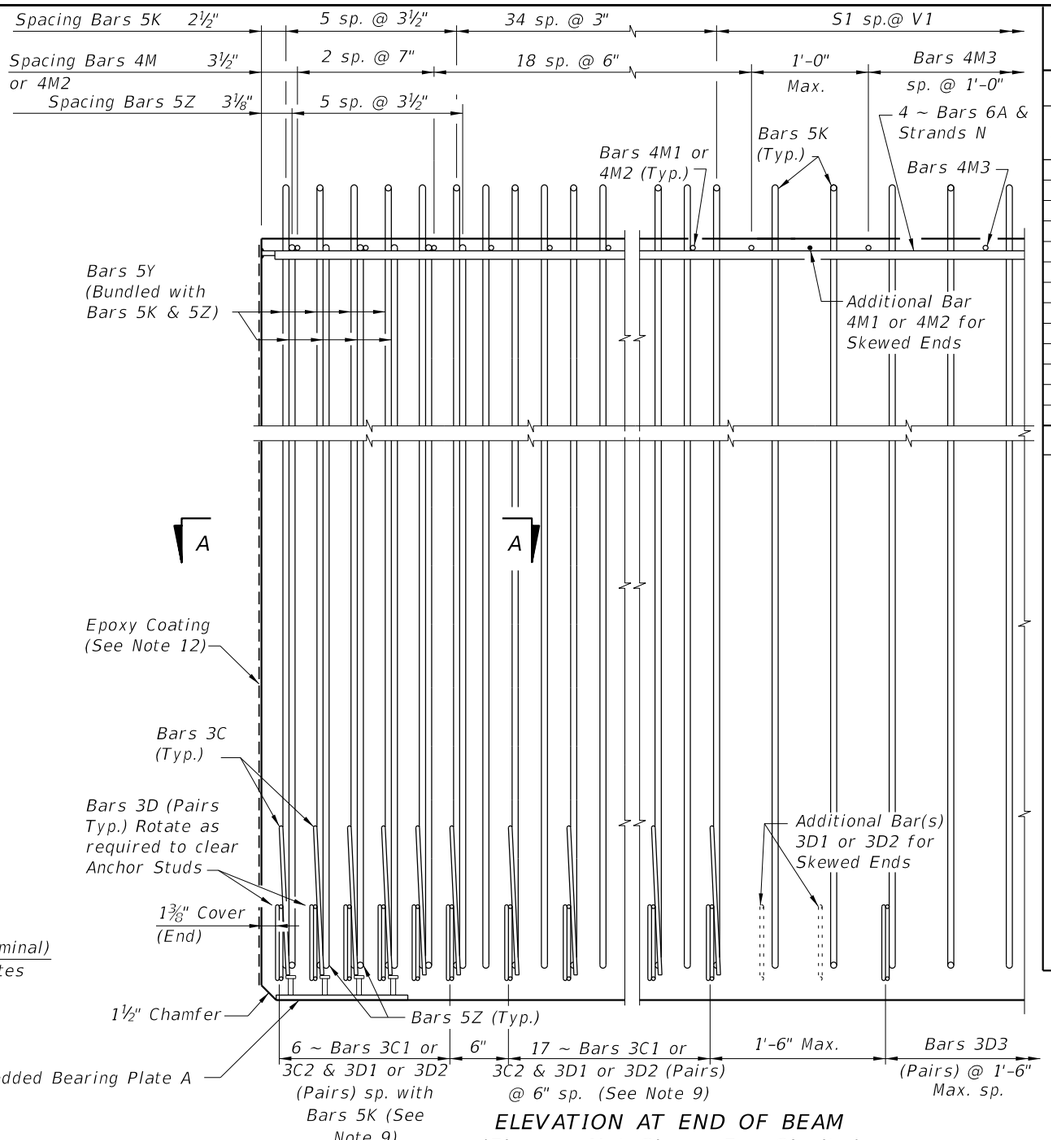
BARS 3C1 & 3C2



BARS 5K & 5Z BARS 3D1, 3D2 & 3D3



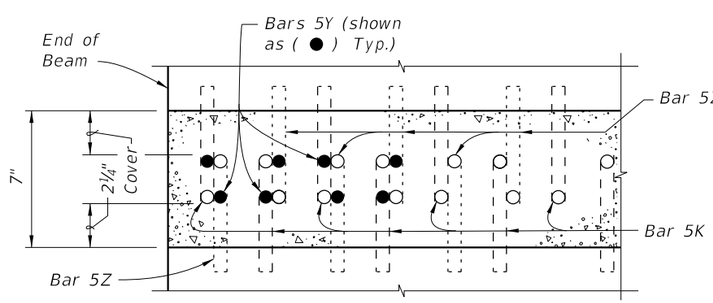
END VIEW



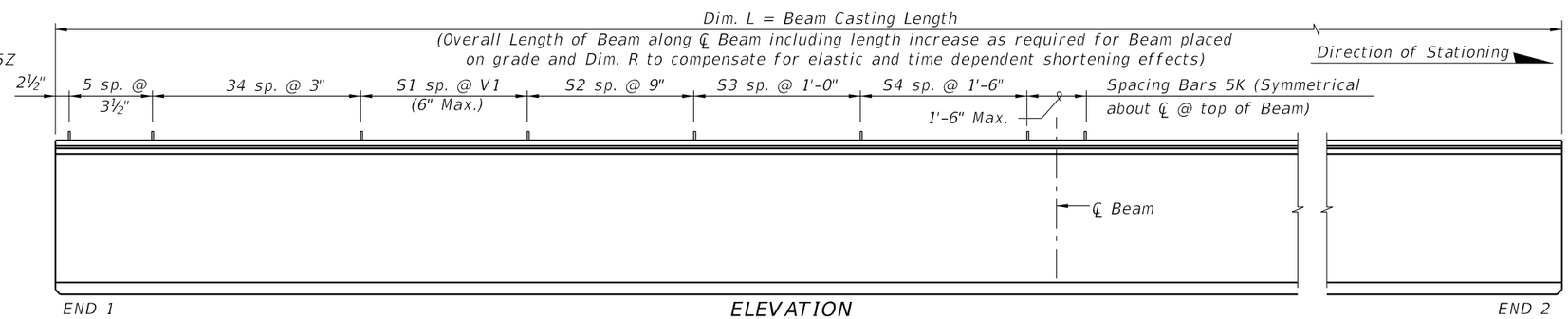
ELEVATION AT END OF BEAM
(Flanges Not Shown For Clarity)
(End 1 Shown, End 2 Similar)

NOTES:

A. Work this Index with Index 20010 – Typical Florida-I Beam Details and Notes and the Florida-I Beam – Table of Beam Variables in Structures Plans.
B. For referenced notes, see Index 20010.
C. For Dimensions A, B, C, D, L, R & V1 and number of spaces S1 thru S4, see Florida-I Beam – Table of Beam Variables in Structures Plans.



SECTION A-A FOR CONVENTIONAL REINFORCING
(Showing Bars 5K, 5Y & 5Z Only)



ELEVATION

LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 96 BEAM - STANDARD DETAILS	INDEX NO. 20096 / SHEET NO. 1 of 2

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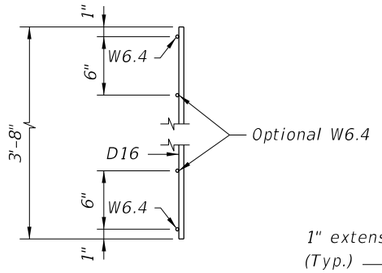
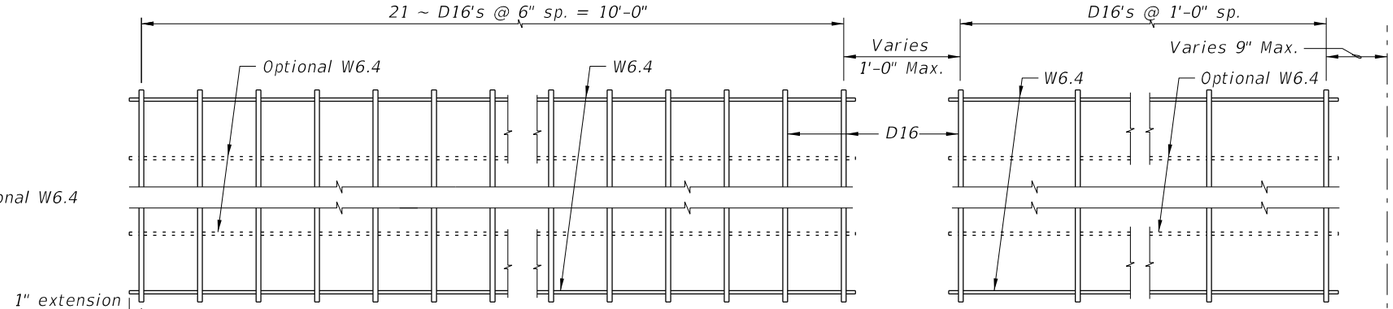
ALTERNATE REINFORCING STEEL (WWR) DETAILS

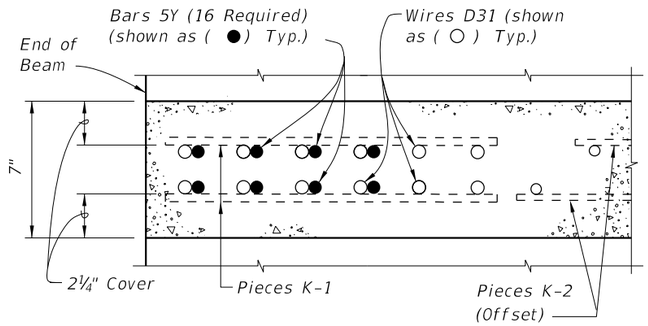


PIECES M
END VIEW

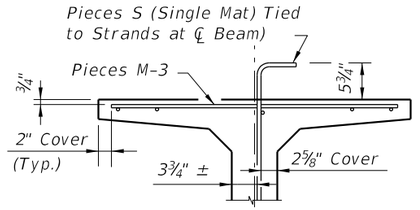


PLAN VIEW
PIECE M-1
(2 Required)

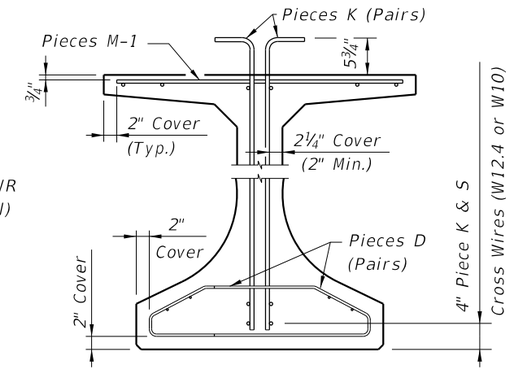
PLAN VIEW
PIECE M-3
(2 Required)



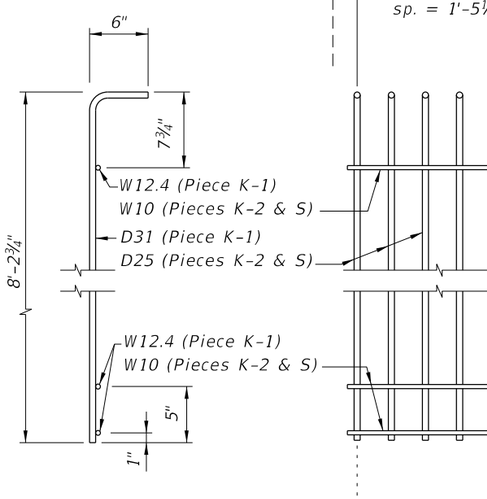
SECTION A-A
FOR WELDED WIRE REINFORCEMENT



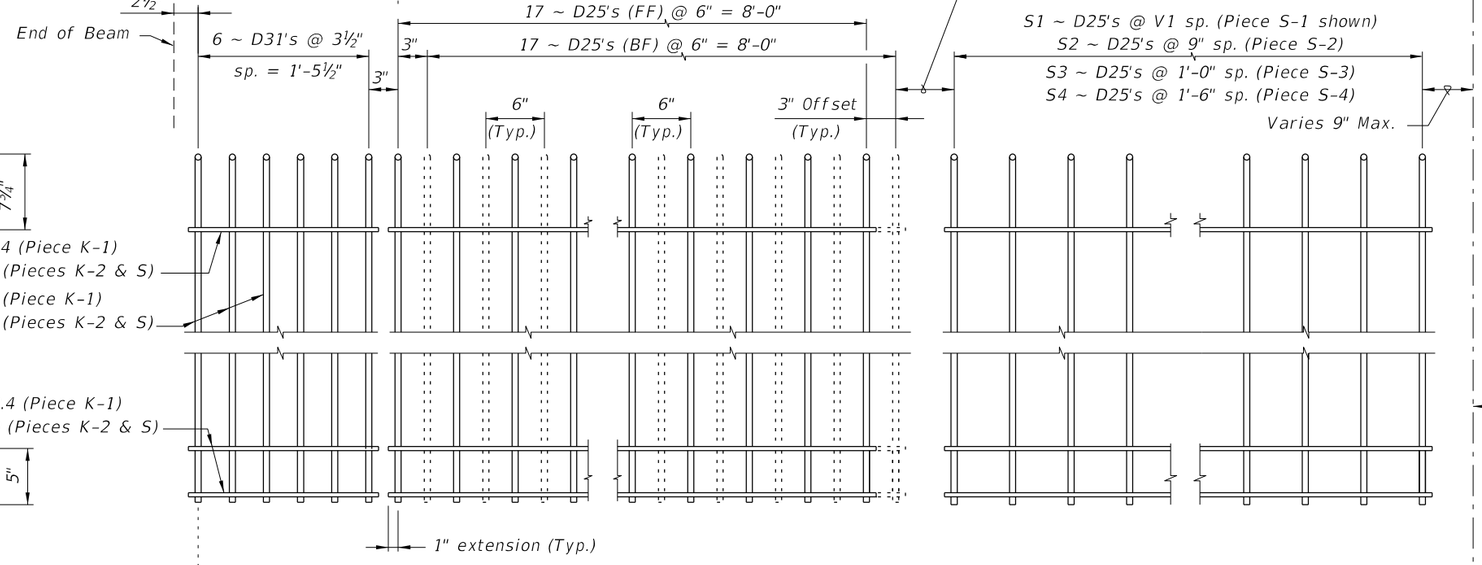
PARTIAL SECTION AT CENTER BEAM



PARTIAL BEAM END VIEW
(Conventional Reinforcing Bars A, C, Y
and Strands N not Shown for Clarity)



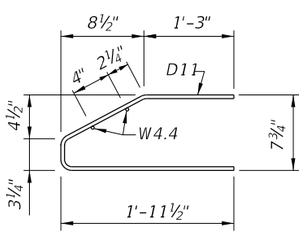
PIECES K & S
END VIEW



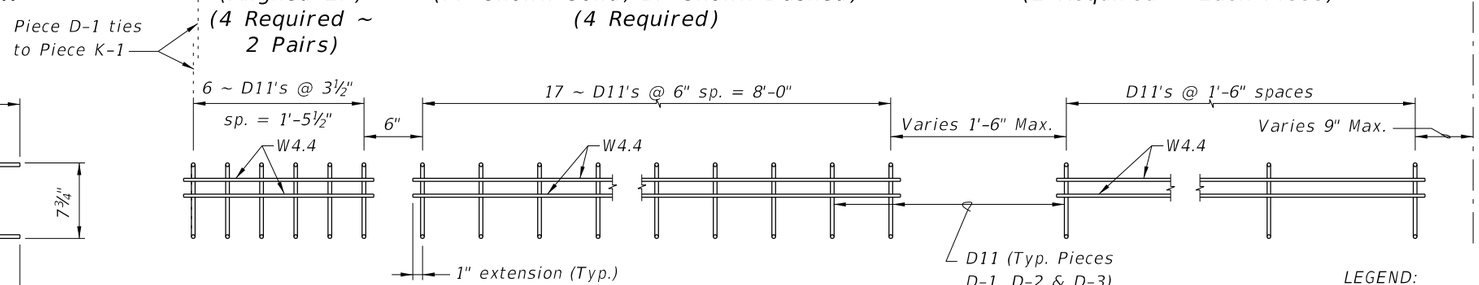
PIECE K-1
(Aligned EF)
(4 Required ~
2 Pairs)

PIECE K-2
(FF Shown Solid, BF Shown Dashed)
(4 Required)

PIECE S-1, S-2, S-3 or S-4
(2 Required ~ Each Piece)



PIECES D
END VIEW



PIECE D-1
(4 Required ~ 2 Pairs)

PIECE D-2
(4 Required ~ 2 Pairs)

PIECE D-3
(4 Required ~ 2 Pairs)

LEGEND:
EF = Each Face
FF = Front Face
BF = Back Face

NOTES:

a. See Sheet 1 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
b. Place Conventional Reinforcement Bars 6A & 3C as shown on Sheet 1. Place additional Bars 5Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
c. Pieces may be fabricated in multiple length sections.
d. For beams with skewed end conditions, Pieces D-1, D-2 & M-1 shall not be used; Conventional Reinforcement Bars D1, D2, C1, C2, M1 & M2 shall be used. See Index 20010 Skewed Beam End Details and Note 9 for placement details. Shift Pieces K & Bars 5Y to accommodate skewed end conditions and align with Bars C and D.

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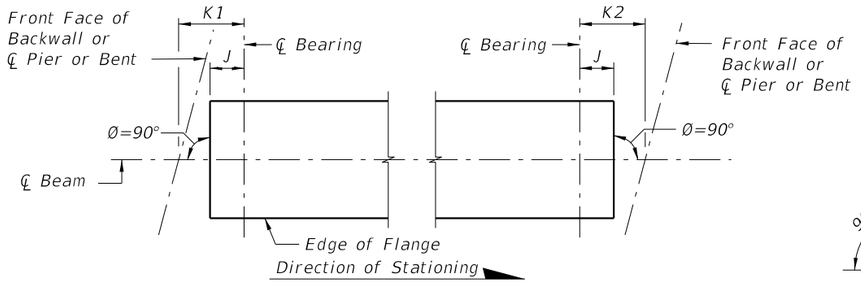
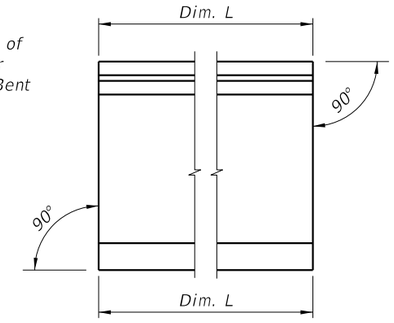
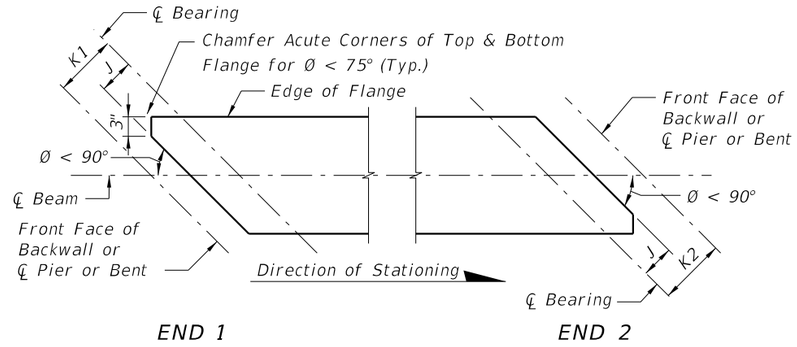
LAST REVISION	REVISION	DESCRIPTION:				
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-I 96 BEAM - STANDARD DETAILS	INDEX NO. 20096	SHEET NO. 2 of 2



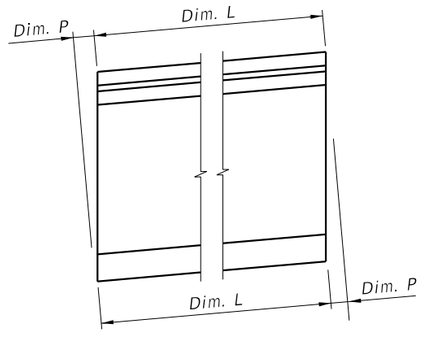
CASE 1
(Standard Orientation for New Construction)



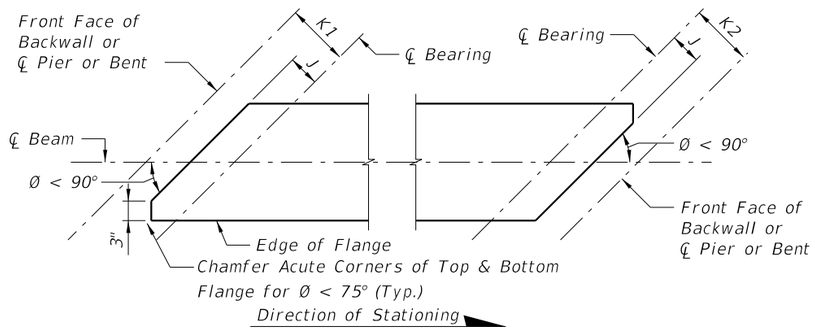
CONDITION 1
(Dim P = 0.0)



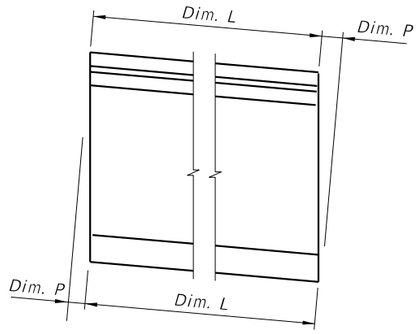
CASE 2
(Special Orientation for Widenings)



CONDITION 2



CASE 3
(Special Orientation for Widenings)



CONDITION 3

SCHEMATIC PLAN VIEWS AT BEAM ENDS

SCHEMATIC END ELEVATIONS OF BEAMS
(Showing Vertical Bevel of Beam End)

BEAM NOTES

1. Work this Index with the Table of Beam Variables in Structures Plans.
2. All bar bend dimensions are out to out.
3. Concrete cover: 2 inches minimum.
4. Strands N: 3/8" Ø minimum, stressed to 10,000 lbs. each.
5. Place one (1) Bar 4K or 5Z at each location. Alternate the direction of the ends for each bar.
6. Tie Bars 4K and 5Z to the fully bonded strands in the bottom or center row (see "STRAND PATTERN" on the Table of Beam Variables sheet in Structures Plans).
7. Place Bars 3C1, 3D1 and 4M1 in beam END 1, and Bars 3C2, 3D2 and 4M2 in beam END 2.
8. For Beams with vertically beveled end conditions:
   A. Place first row of Bars 3D1, 3D2, 4K, 4Y and 5Z parallel to the end of the beam. Progressively rotate remaining bars within the limits of Bars 5Z until vertical by adjusting the spacing at the top of beam up to a maximum of 1".
   B. For deformed WWR, cut top cross wire and rotate bars as required or reduce end cover at top of the beam to minimum 1".
9. For beams with skewed end conditions:
   A. WWR is not permitted for end reinforcement Bars 3D1, and 3D2 on skewed ends; use bar reinforcement.
   B. Place end reinforcement parallel to the skewed end of the beam. End reinforcement is defined as Bars 3D1, 3D2, 4K, 4Y and 5Z placed within the limits of the spacing for Bars 3D in "ELEVATION AT END OF BEAM".
   C. Beyond the limits of the spacing for Bars 3D, place Bars 3D3 and 4K perpendicular to the longitudinal axis of the beam. For placement see "SKEWED BEAM END DETAILS FOR WIDENING EXISTING BRIDGES" (Sheet 2).
10. Contractor Options:
    A. Deformed WWR may be used in lieu of Bars 3D, 4K, and 5Z as shown on Sheet 4; except at skewed ends (See Note 9).
    B. Bars 3D1 and 3D2 may be fabricated as a two-piece bar with a 1'-0" minimum lap splice of the bottom legs.
    C. For deformed WWR, supplemental transverse #4 bars are permitted to support Pieces K & S under the cross wires on the bottom row of strands or above Strands N.
11. Embedment of Safety Line Anchorage Devices are permitted in the top flange to accommodate fall protection systems. See shop drawings for details and spacing of required anchorage devices.
12. For beams with ends that will not to be encased in concrete diaphragms, cut wedges and recess Prestressing Strands at the end of the beam without damaging the surrounding concrete. See "STRAND CUTTING AND PROTECTING DETAIL" on Sheet 2.

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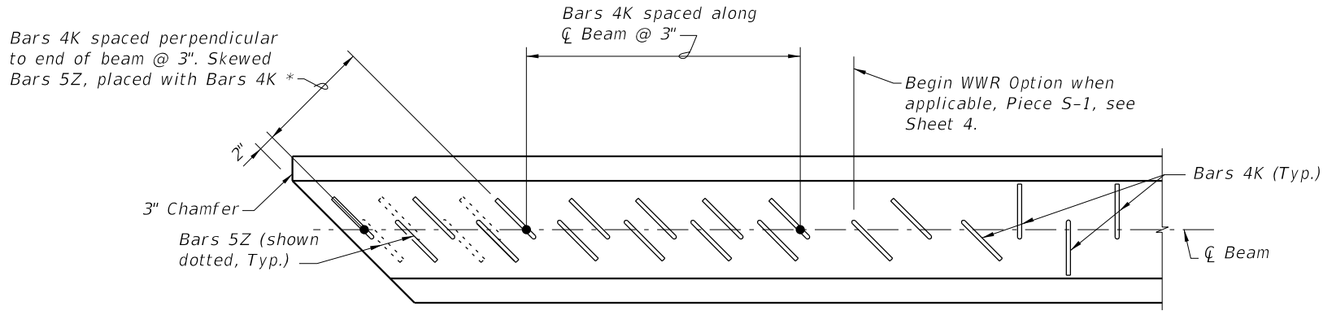
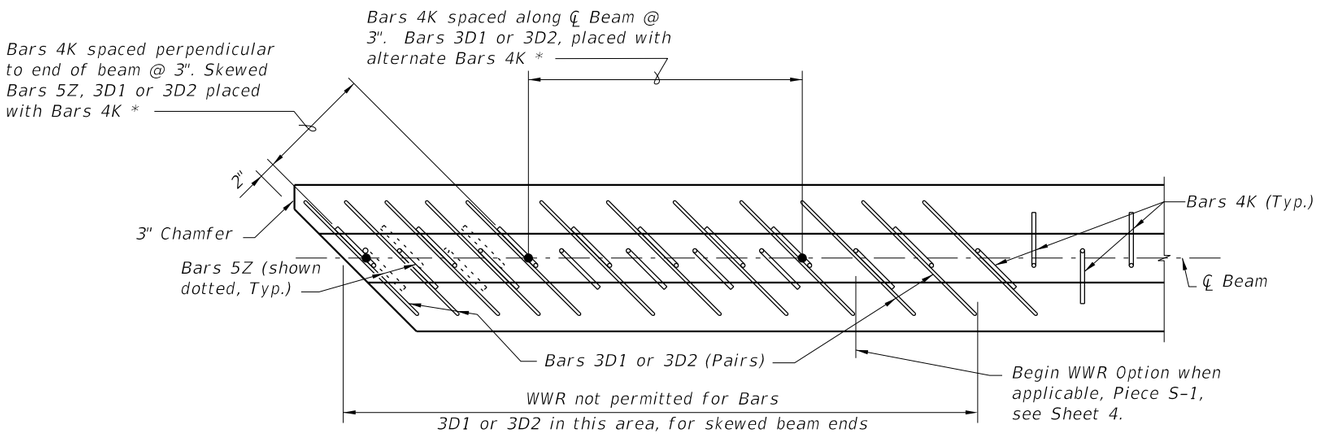
DETAILS AND NOTES

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	AASHTO TYPE II BEAM	INDEX NO.	SHEET NO.
11/01/16					20120	1 of 4



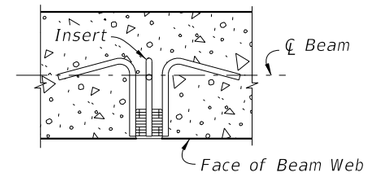
PARTIAL PLAN VIEW (SHOWING TOP FLANGE)
(End 1 Shown, End 2 Similar)
(Bars 5A, 4Y & Strands N not shown for clarity)

* For number of Bars, spacing and placement details see Sheet 3. See Sheet 3 for Conventional Reinforcement, Sheet 4 for WWR.



PARTIAL SECTION THRU WEB (SHOWING BOTTOM FLANGE)
(End 1 Shown, End 2 Similar)
(Bars 4Y & Strands not shown for clarity)

SKEWED BEAM END DETAILS FOR WIDENING EXISTING BRIDGES

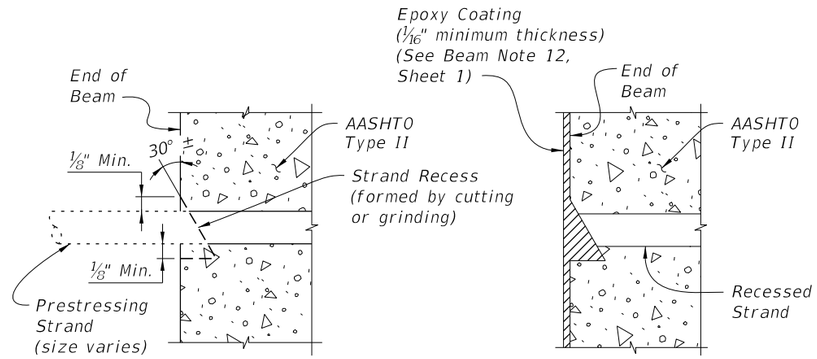


PLAN SECTION THRU BEAM WEB AT INSERT FOR DIAPHRAGM REINFORCING
(When Intermediate Diaphragms are Required by Design)

INSERT NOTES

1. Provide 1" Ø, zinc-electroplated, ferrule wing nut or coil inserts, UNC threads, 1/0 minimum gage wire, not more than 4" in depth with a minimum ultimate tensile strength of 11,400 lbs. in 4,000 psi concrete.
2. If inserts are needed on both sides (faces) of beam webs, an assembly as long as the thickness of the beam web, consisting of two (2) ferrule or coil inserts attached by two (2) or more struts may be utilized. The connecting struts shall have a minimum ultimate tensile strength of 11,400 lbs.
3. Inserts for diaphragm reinforcing are required at each end of each intermediate diaphragm shown on the Beam Framing Plan and may be required at the end of the beams when end diaphragms are shown. See Superstructure and Beam Framing Plans for longitudinal location of inserts for each face of beam.

INSERT DETAIL



TYPICAL SECTION SHOWING CUT STRAND RECESS LIMITS

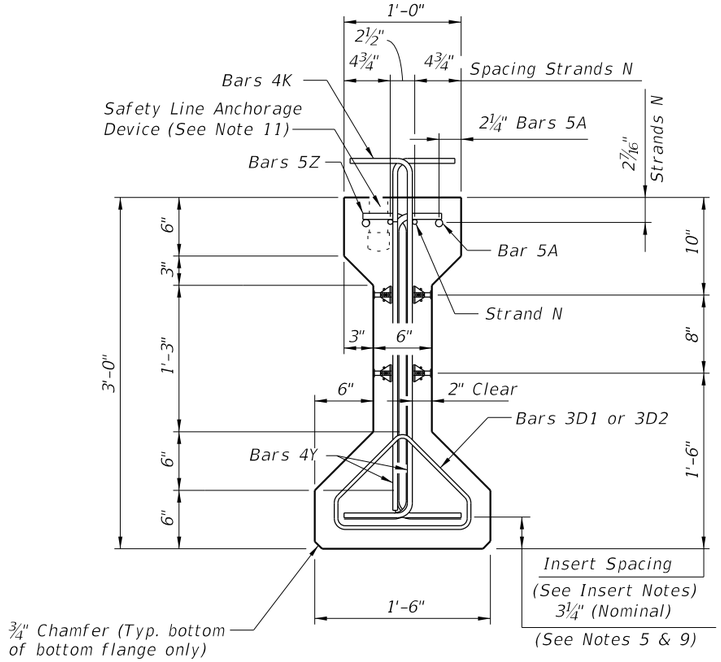
TYPICAL SECTION AFTER PROTECTING

STRAND CUTTING AND PROTECTING DETAIL

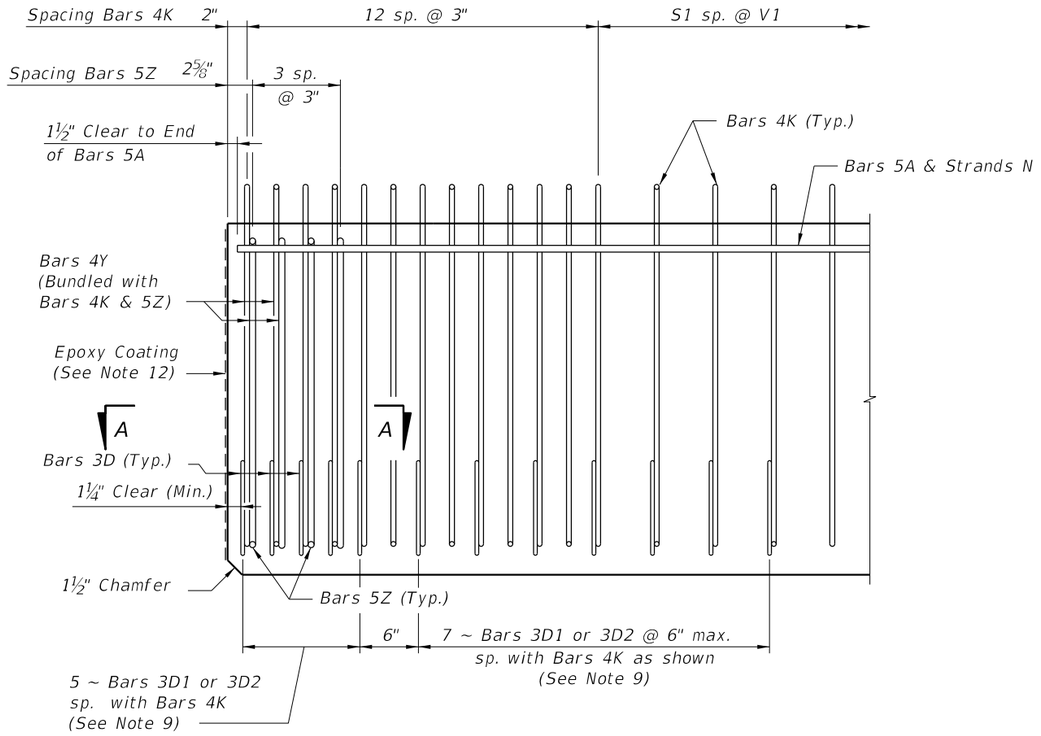
DETAILS AND NOTES

10/26/2016 8:48:37 AM

LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	AASHTO TYPE II BEAM	INDEX NO.	SHEET NO.
11/01/16					20120	2 of 4



END VIEW

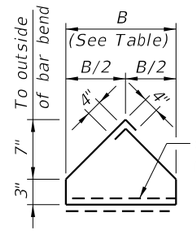


ELEVATION AT END OF BEAM
(Flanges Not Shown For Clarity)

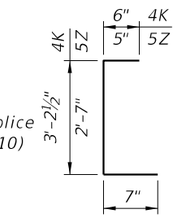
BILL OF REINFORCING STEEL FOR ONE BEAM ONLY

MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 1)
A	—	5	4	12'-0"
D1	9, 11 & 14	3	12	See Table
D2	9, 11 & 14	3	12	See Table
K	2, 9, 11 & 13	4	See Table	4'-4"
N	3 & 5	⅜" Ø Strand	2	DIM L+5"
Y	9 & 11	4	8	2'-6"
Z	2, 9, 11 & 13	5	8	3'-7"

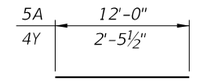
BENDING DIAGRAMS (See Note 1)



BARS 3D1 & 3D2



BARS 4K & 5Z



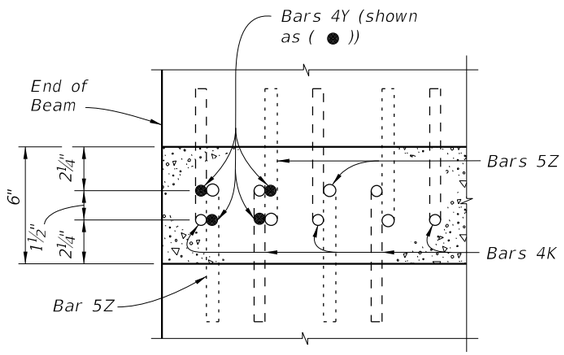
BARS 5A & 4Y

NOTES:

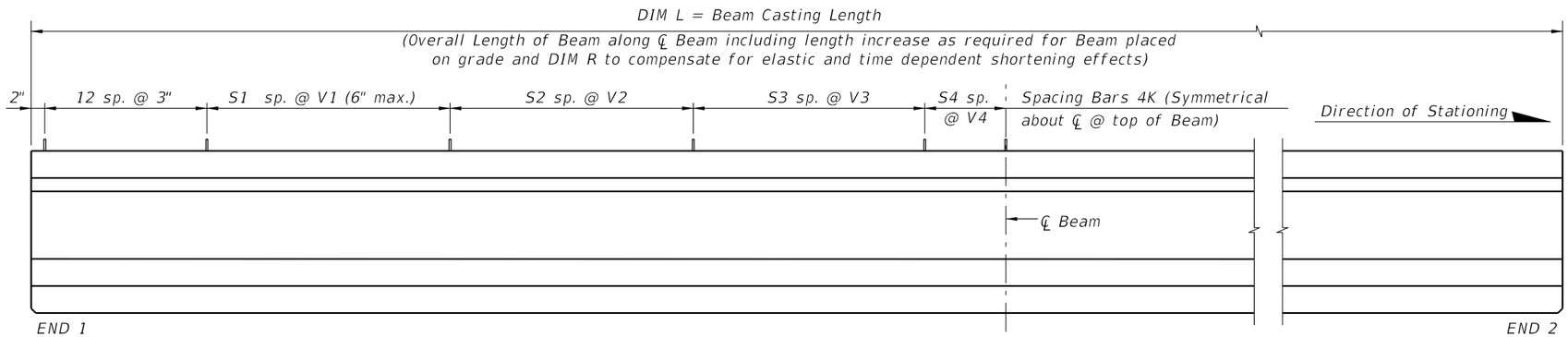
Work this Index with the AASHTO Type II Beam – Table of Beam Variables in Structures Plans.

For referenced notes, see Sheet 1.

For Dimensions L, R, V1 thru V4 and number of spaces S1 thru S4, see AASHTO Type II Beam – Table of Beam Variables.



SECTION A-A
(Showing Bars 4K, 4Y & 5Z Only)



ELEVATION

STANDARD DETAILS

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	AASHTO TYPE II BEAM	20120	3 of 4

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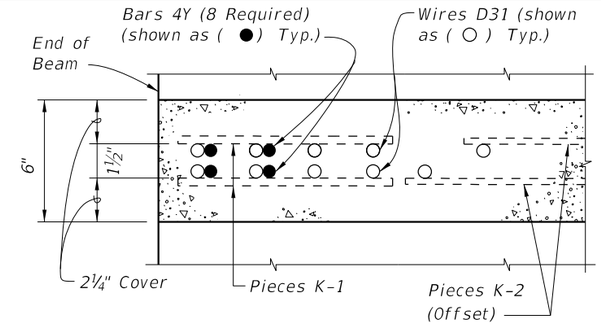
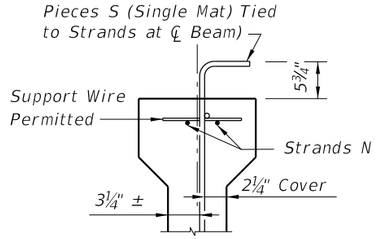
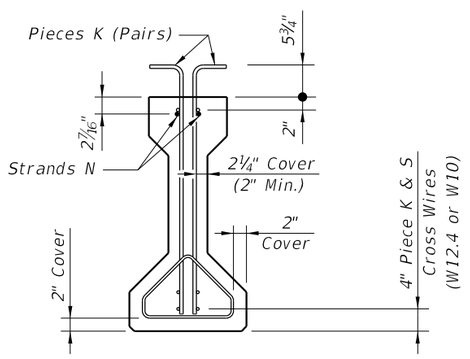


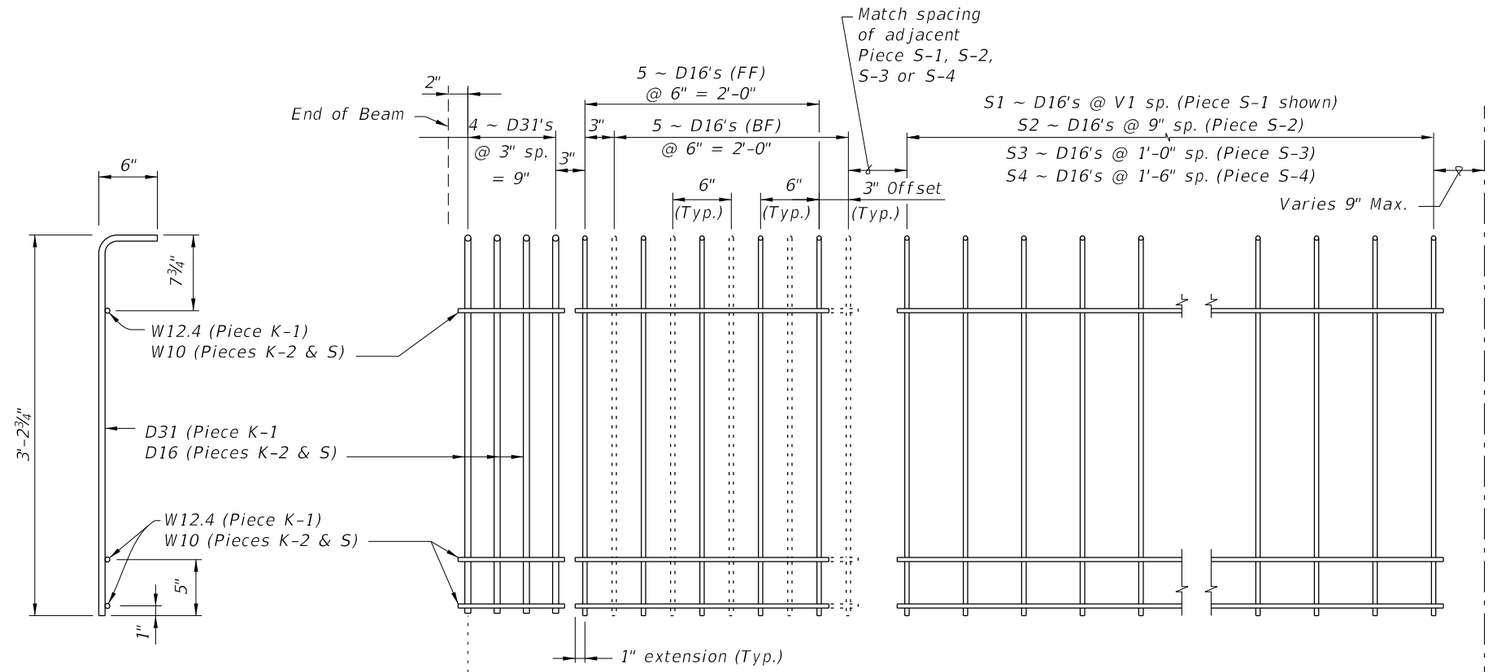
SECTION A-A
FOR WELDED WIRE REINFORCEMENT

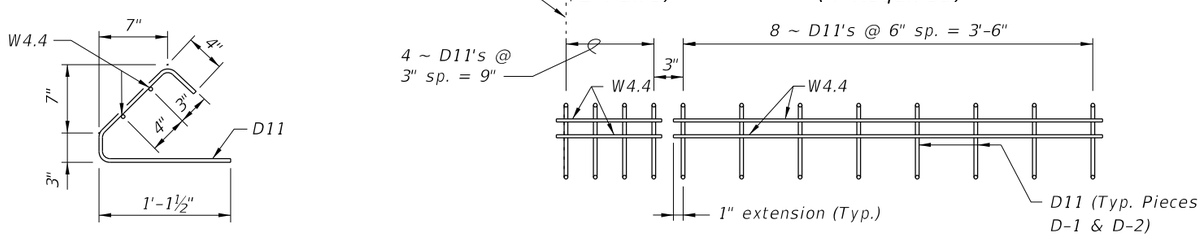


PARTIAL SECTION AT CENTER BEAM



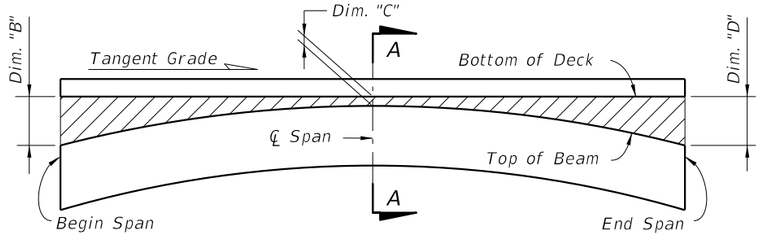
PARTIAL BEAM END VIEW
(Conventional Reinforcing Bars A, Y and
Bottom Strands not Shown for Clarity)



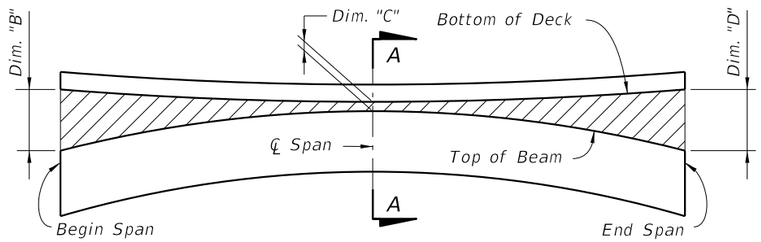


LEGEND:
EF = Each Face
FF = Front Face
BF = Back Face

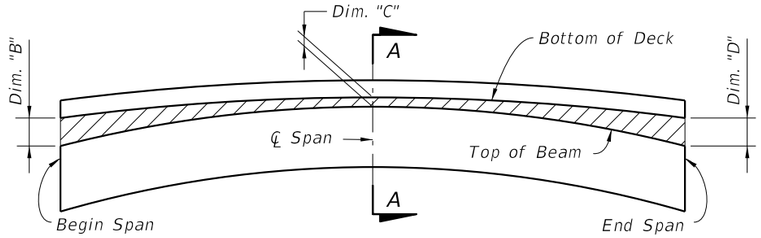
NOTES:
a. See Sheet 3 for placement details & Table of Beam Variables in Structures Plans for variables S1, S2, S3, S4 & V1.
b. Place Conventional Reinforcement Bars 5A as shown on Sheet 3. Place additional Bars 4Y as shown in Section A-A for WWR. Bars 5Z will not be used with the WWR Option.
c. Pieces may be fabricated in multiple length sections.
d. For beams with skewed end conditions, Pieces D-1 & D-2 shall not be used; Conventional Reinforcement Bars D1 & D2 shall be used. See Sheet 2 Skew Details and Sheet 1 Note 9 for placement details. Shift Pieces K & Bars 4Y to accommodate skewed end conditions and align with Bars D.



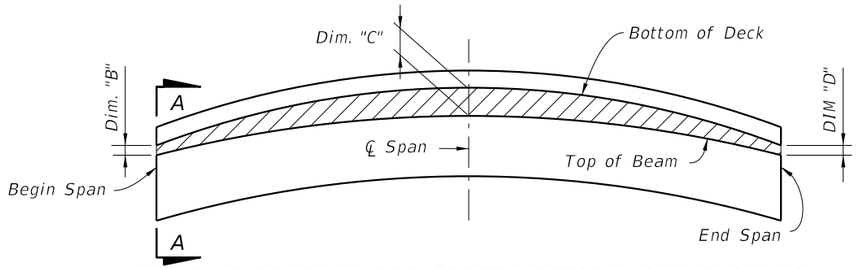
BUILD-UP DIAGRAM FOR TANGENT SPANS
(ALONG ℄ BEAM) (CASE 1)



BUILD-UP DIAGRAM FOR SAG VERTICAL CURVE & HORIZONTAL CURVE SPANS
(ALONG ℄ BEAM) (CASE 2)



BUILD-UP DIAGRAM FOR CREST VERTICAL CURVE SPANS
- CONTROL AT ℄ SPAN
(ALONG ℄ BEAM) (CASE 3)

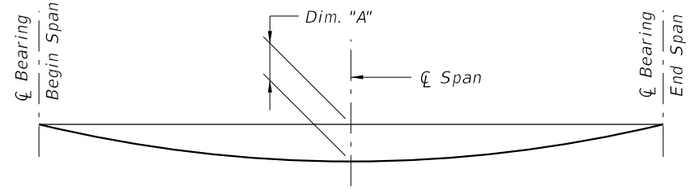


BUILD-UP DIAGRAM FOR CREST VERTICAL CURVE SPANS
- CONTROL AT BEGIN OR END SPAN
(ALONG ℄ BEAM) (CASE 4)

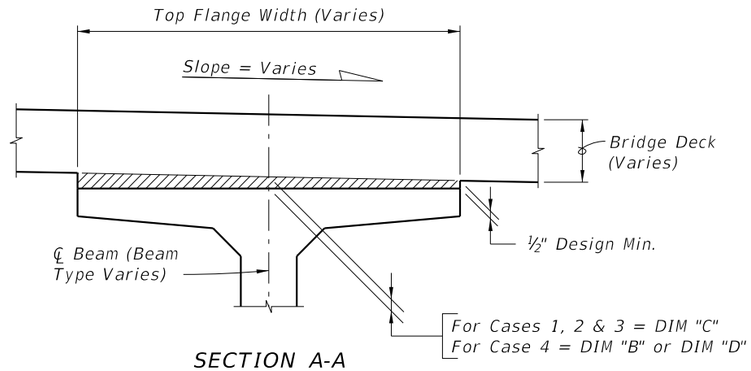
BEAM CAMBER AND BUILD-UP NOTES:

The build-up values given in the Data Table* are based on theoretical beam cambers. The Contractor shall monitor beam cambers for the purpose of predicting camber values at the time of the deck pour. If the predicted cambers based on field measurements differ more than +/- ½" from the theoretical "Net Beam Camber @ 120 Days" shown in the Data Table*, obtain approval from the Engineer to modify the build-up dimensions as required. When the measured beam cambers create a conflict with the bottom mat of deck steel, notify the Engineer a minimum of 21 days prior to casting.

Dim. "A" includes the weight of the Stay-In-Place Formwork.



DEAD LOAD DEFLECTION DIAGRAM



SECTION A-A
BUILD-UP OVER BEAMS
(Florida-I Beam Shown
AASHTO Type II Similar)

* NOTE:
Work this Index with the Build-up and Deflection Data Table for Florida-I and AASHTO Type II Beams in Structures Plans.

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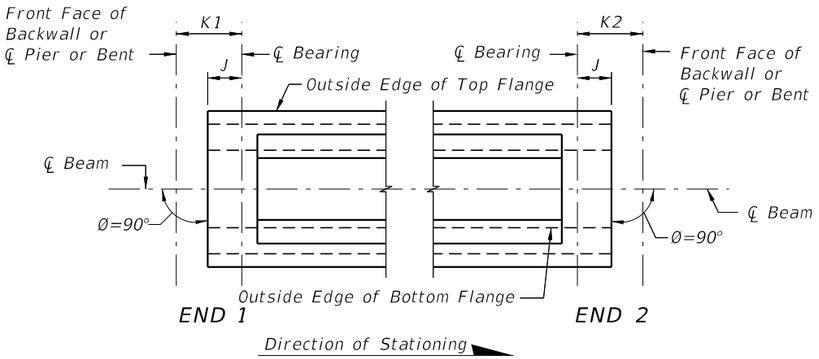
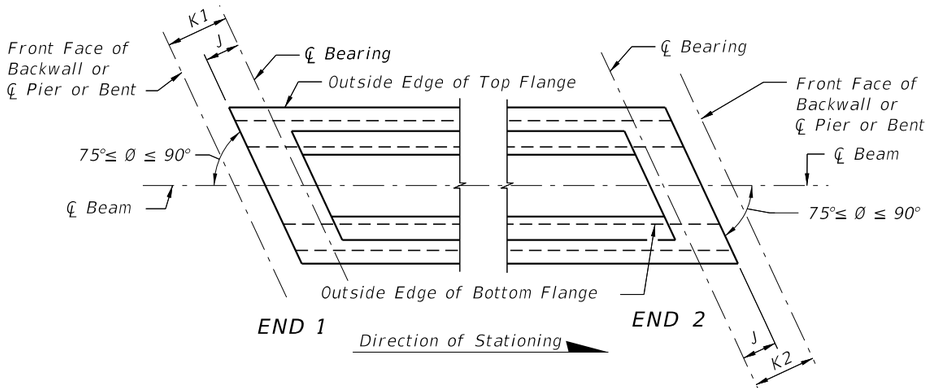
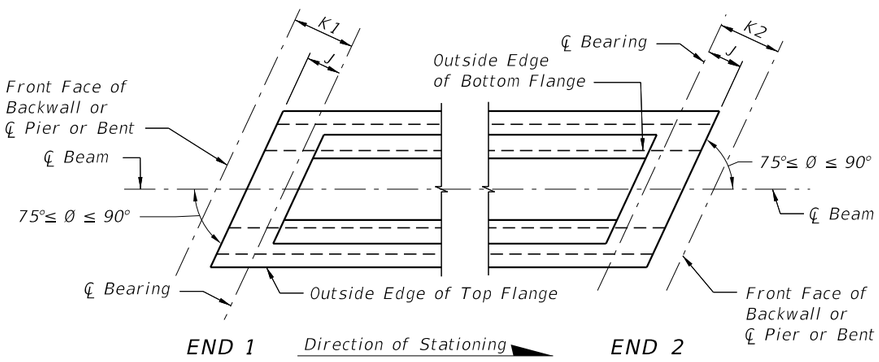
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
07/01/15			FY 2017-18 DESIGN STANDARDS	BUILD-UP & DEFLECTION DATA FOR PRESTRESSED I-BEAMS	20199	1 of 1



CASE 1



CASE 2



CASE 3

SCHEMATIC PLAN VIEWS AT BEAM ENDS

BEAM NOTES

1. Work this Index with the Florida-U Beam Standard Details (Index 20248, 20254, 20263 and 20272) and the Table of Beam Variables in Structures Plans.
2. All bar bend dimensions are out-to-out.
3. Concrete cover: 2 inches minimum. Maximum aggregate size is a No. 67.
4. Concrete face may be sloped with a maximum 1:24 draft to facilitate formwork removal.
5. Strands N: ⅜" Ø minimum, stressed to 10,000 lbs. each.
6. Tie Bars 5K to the fully bonded strands in the bottom row (see "STRAND PATTERN" on the Table of Beam Variables sheet in Structures Plans).
7. For beams without skewed ends or vertically beveled end conditions (see Note 8) the Engineer may approve the use of deformed WWR in lieu of Bars 6A1, 4A2, 5B, 4C, 3D, 5E, 4F, 4G, 4H, 5K, 5L and 4M. The spacing and sizes of deformed WWR must match the reinforcing sizes shown on the Florida-U Beam Standard Details sheets.
8. For Beams with vertically beveled end conditions, where "Dim. P" exceeds 1", place Bars 5E, and the first Bars 4F and 5K parallel to the end of the beam. Fan the remaining Bars 4F and 5K within the limits of "Dim. B" (End Diaphragm) at equal spaces until vertical.
9. Embedment of Safety Line Anchorage Devices are permitted in the top flange to accommodate fall protection systems. See shop drawings for details and spacing of any anchorage devices or other required embedded hardware.
10. Intermediate diaphragms must be cast and concrete release strength obtained prior to removing the beam from casting bed.
11. Place drains pipes adjacent to each web at each beam end (four drains per beam).
    - A. Drain Pipe: 2" NPS Schedule 80 PVC.
    - B. Cover, wrap and secure wire screen around the end of the pipe prior to casting. Extend screen a minimum of 1" down the pipe sides.
    - C. Provide removable pipe plugs during casting. Remove plugs from the inside of pipes after casting.
12. Protection of Strands:
    - A. Provide a 2" deep recess around all strands (including dormant) or strand groups. Extend the recessed blockout to the web face and bottom of the flange for the bottom row of strands.
    - B. After detensioning, cut strands ½" from recessed surface and fill the blockout to protect strands with Type F-2 or Q Epoxy Compound in accordance with Specification Section 926.
13. Use Stay-In-Place metal deck forms inside the beams.
14. Prior to deck placement, provide temporary blocking under each web at both ends of every beam. Ensure the temporary blocking is adequate to resist movements and rotations during deck placement. Leave temporary blocking and bracing in place for a minimum of four days after the deck is placed.
15. Based on the deck forming system and deck placement sequence, evaluate and provide any required temporary bracing between the U Beams.

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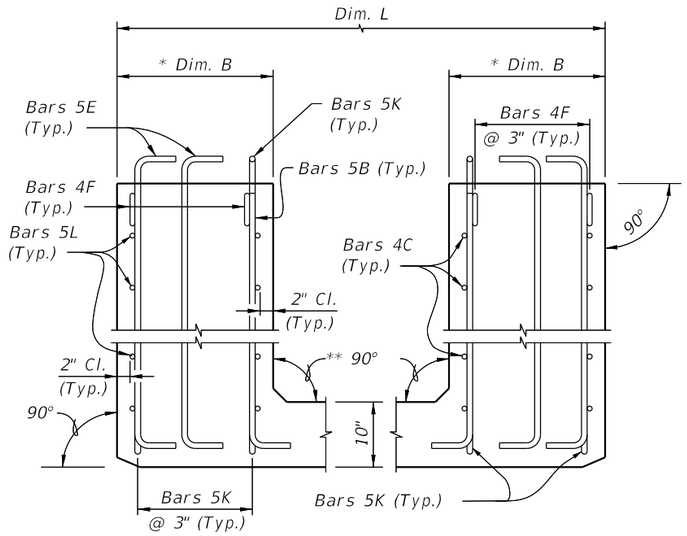
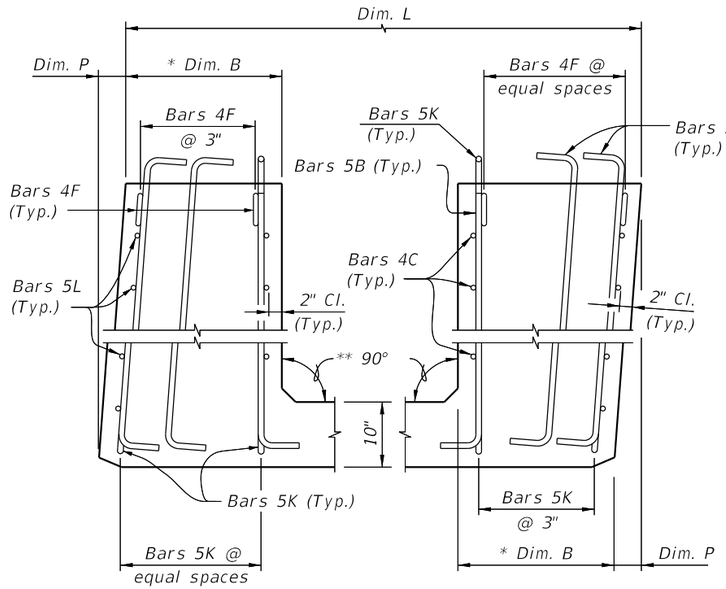
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	TYPICAL FLORIDA-U BEAM DETAILS AND NOTES	20210	1 of 2



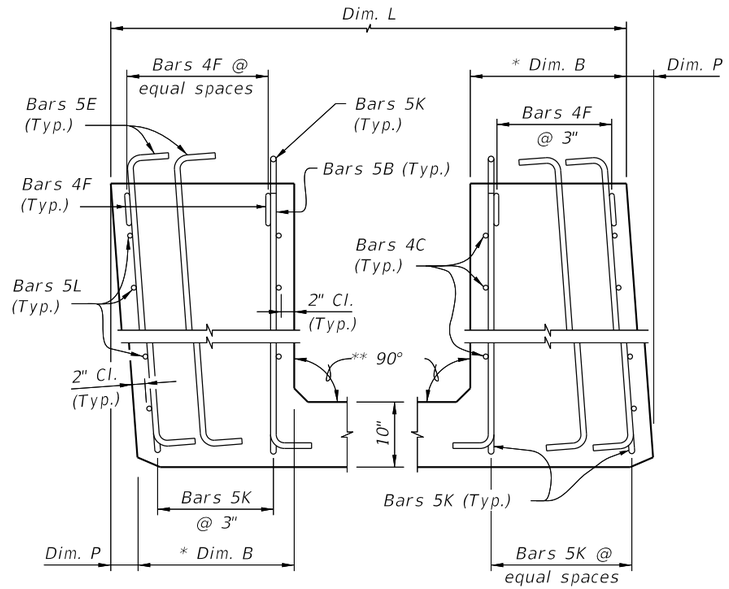
* Dim. B is 1'-6" for Florida-U 48 and 54 Beams and 2'-0" for Florida-U 63 and 72 Beams.

** Note 4, Sheet 1.

CONDITION 1
(P = 0.0)



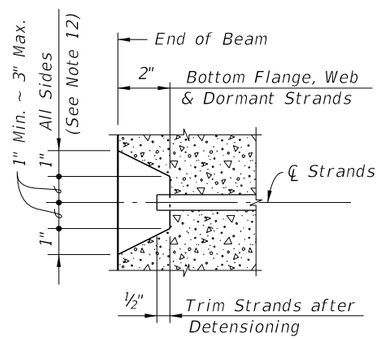
CONDITION 2



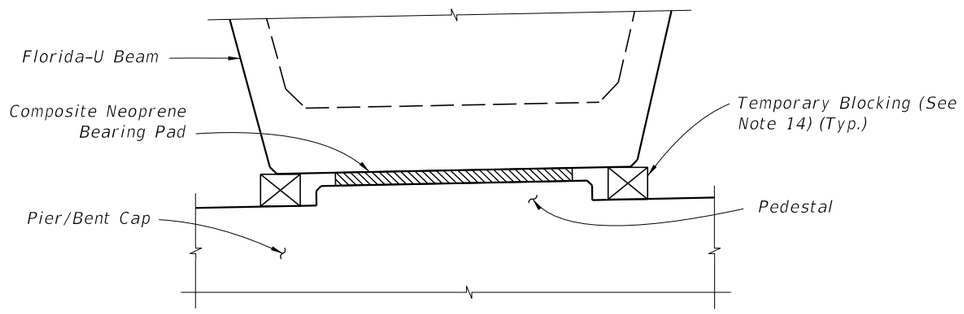
CONDITION 3

SCHEMATIC END ELEVATIONS OF BEAMS

(Showing Vertical Bevel of Beam End)



TYPICAL STRAND BLOCKOUT DETAIL



TEMPORARY BLOCKING OF BEAM ENDS

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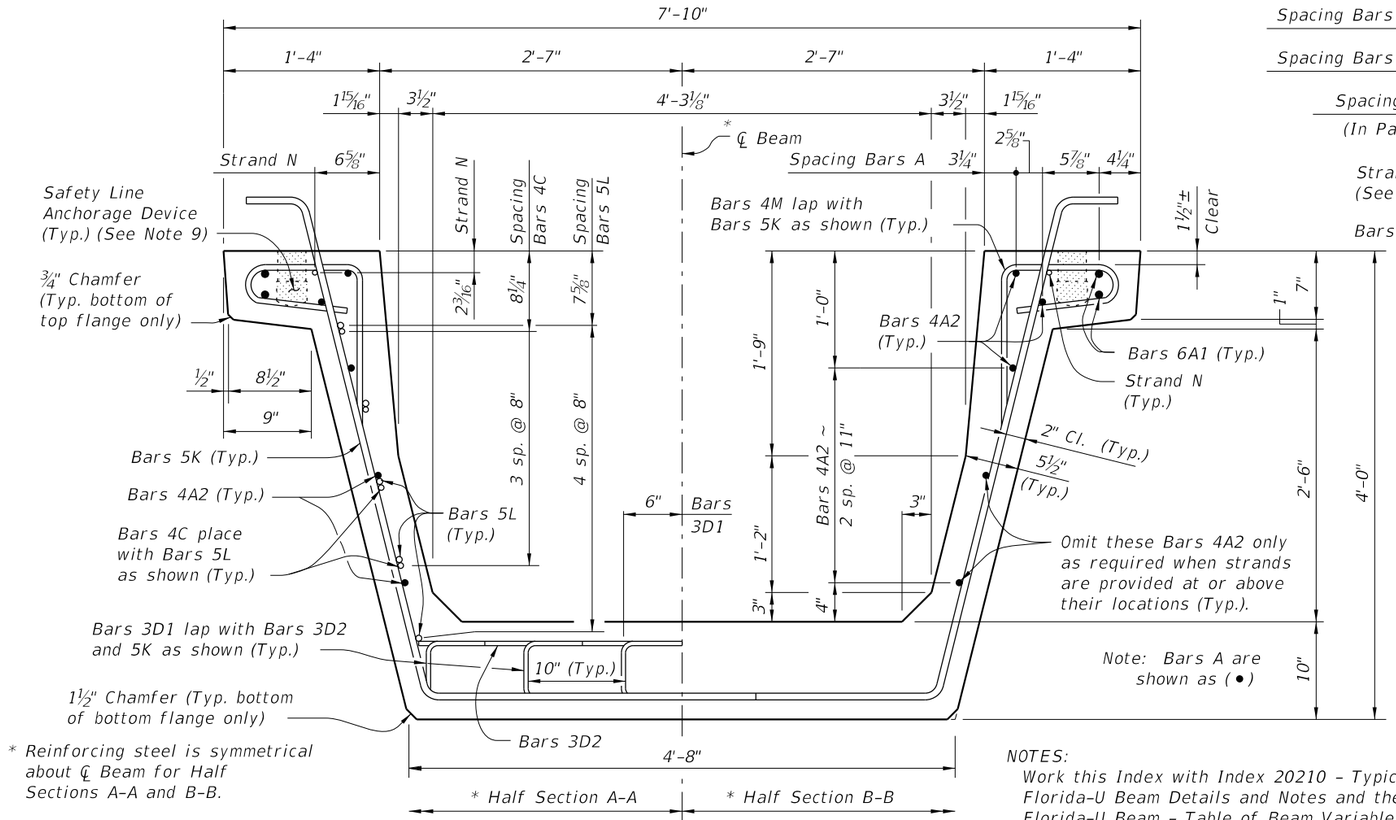
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	TYPICAL FLORIDA-U BEAM DETAILS AND NOTES	20210	2 of 2



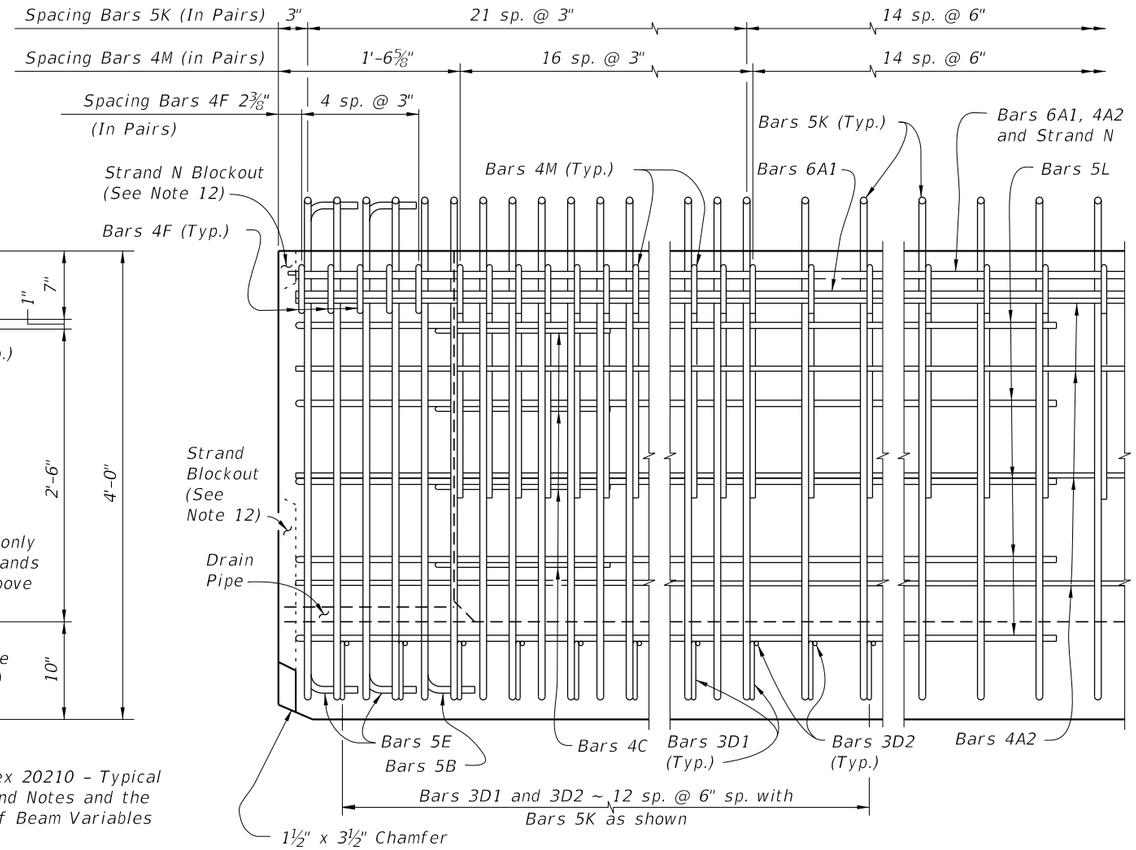
* Reinforcing steel is symmetrical about ℄ Beam for Half Sections A-A and B-B.

** Intermediate Diaphragms shall be provided:
(1) - At midspan.
(2) - At 20'-0" Max. from midspan when beam length (L) exceeds 60 Ft.

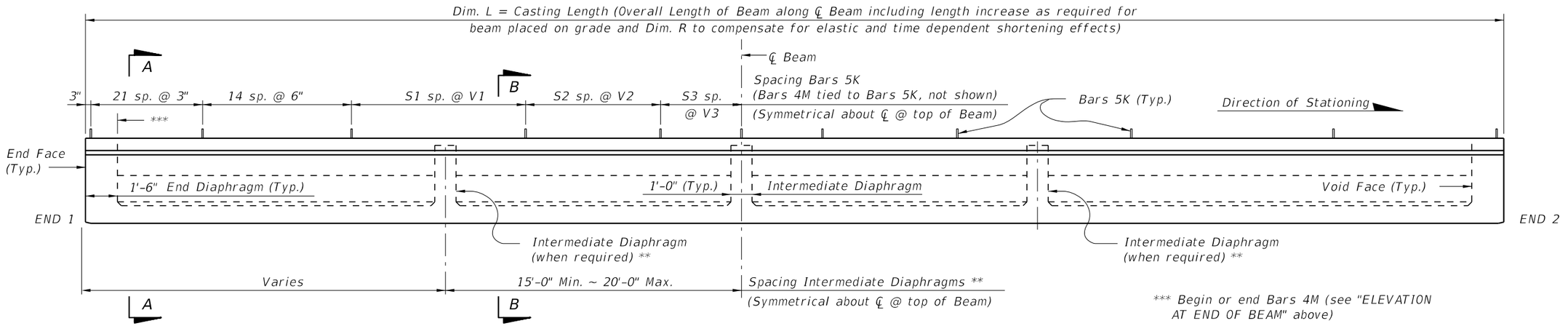
TYPICAL SECTION

NOTES:
Work this Index with Index 20210 - Typical Florida-U Beam Details and Notes and the Florida-U Beam - Table of Beam Variables in Structures Plans.

For referenced notes see Index 20210.



ELEVATION AT END OF BEAM

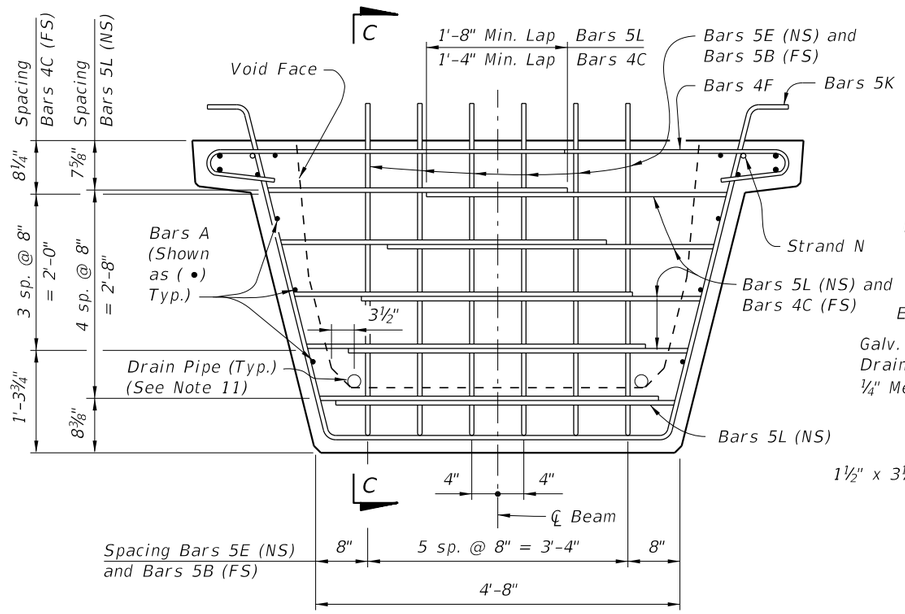


*** Begin or end Bars 4M (see "ELEVATION AT END OF BEAM" above)

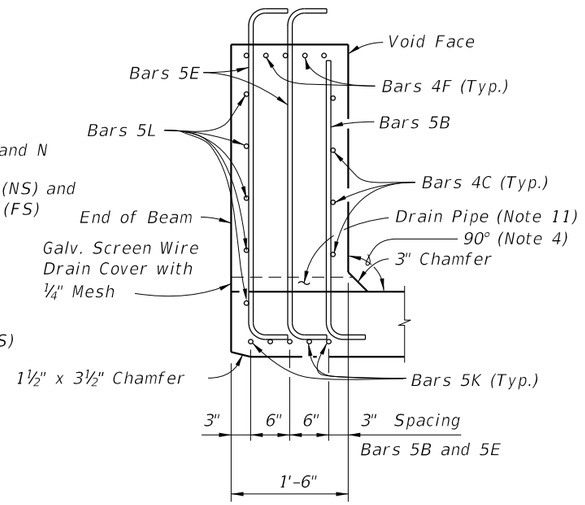
ELEVATION

10/26/2016 8:50:23 AM

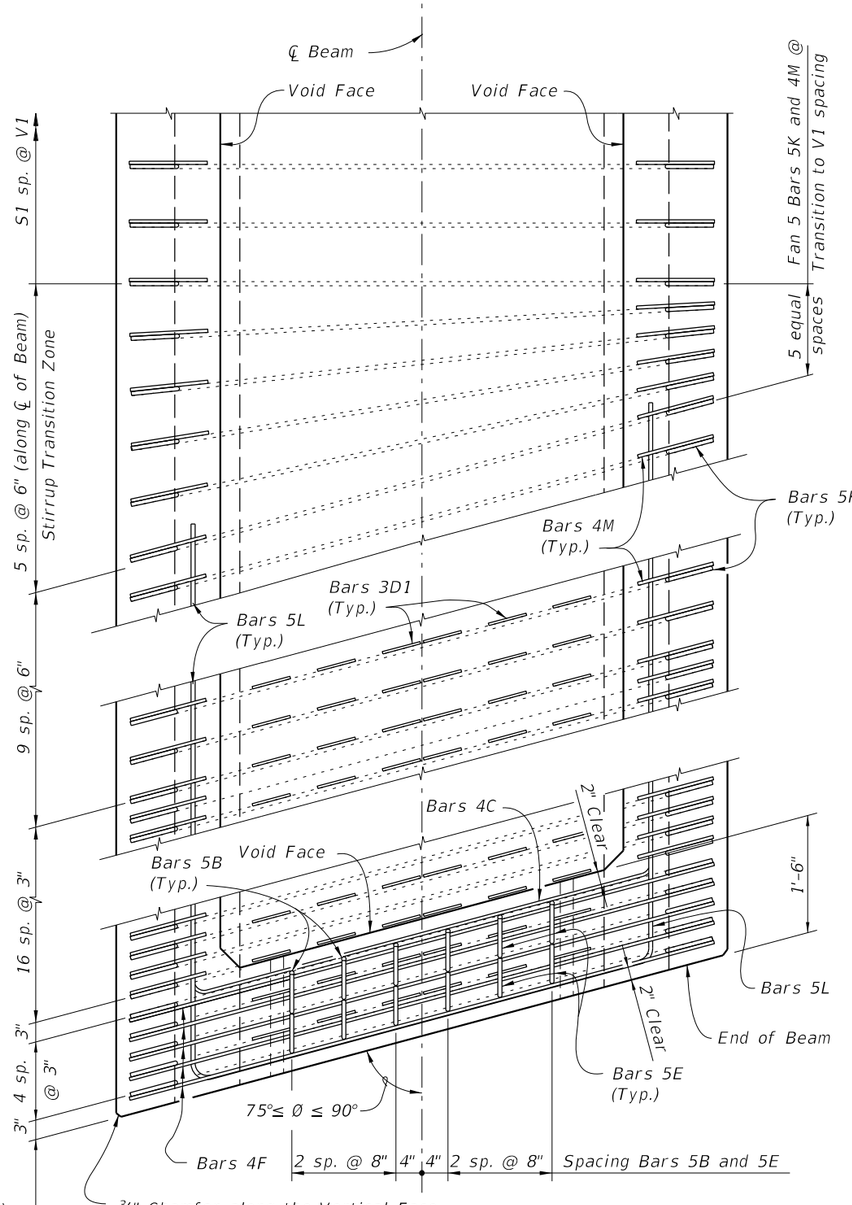
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	FLORIDA-U 48 BEAM - STANDARD DETAILS	20248	1 of 3



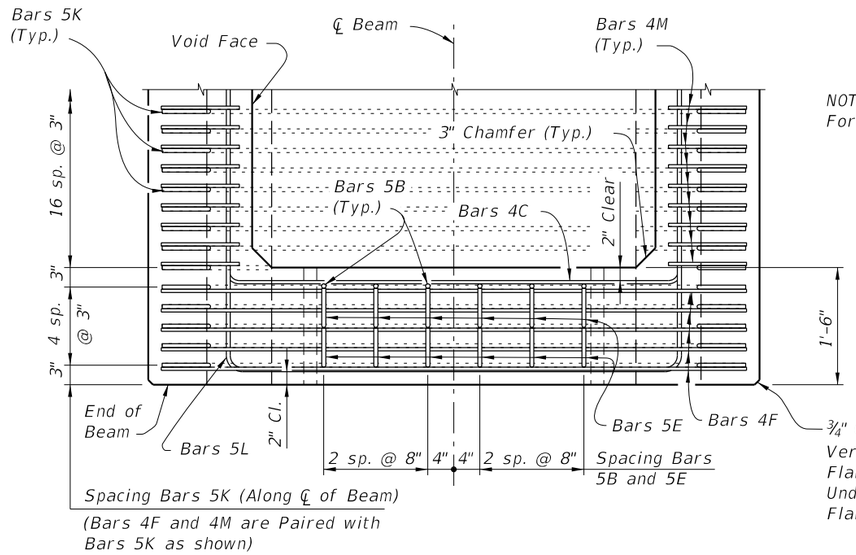
END VIEW AT END DIAPHRAGM



SECTION C-C



TOP VIEW OF SKEWED END DIAPHRAGM
AND STIRRUP TRANSITION ZONE
(Bars 3D2 Not Shown For Clarity)

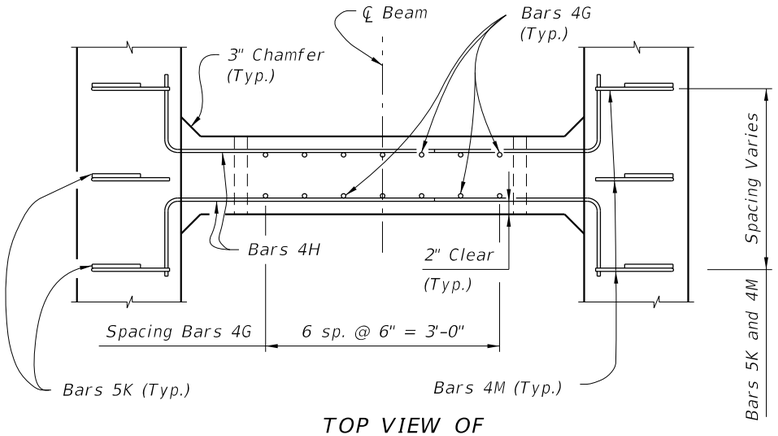


NOTES:
For referenced notes see Index 20210.

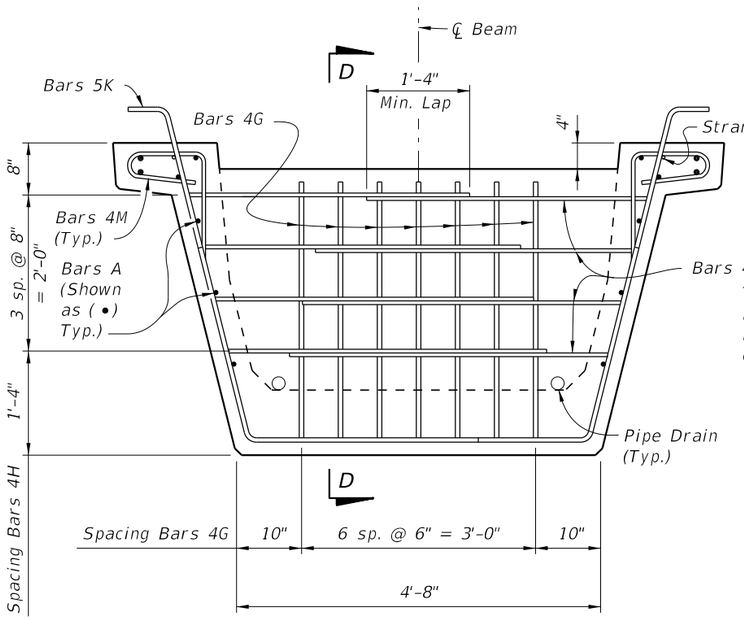
TOP VIEW OF END DIAPHRAGM
(Bars 3D1 And 3D2 Not Shown For Clarity)

10/26/2016 8:50:26 AM

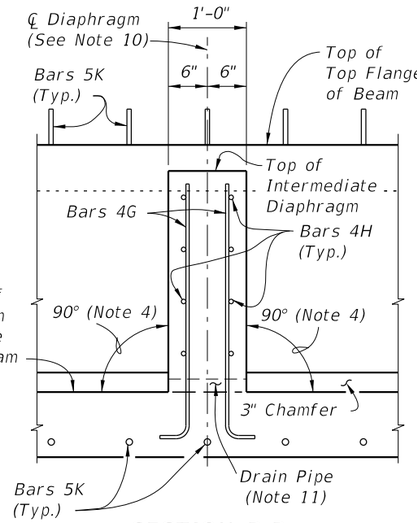
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	FLORIDA-U 48 BEAM - STANDARD DETAILS	20248	2 of 3



TOP VIEW OF INTERMEDIATE DIAPHRAGM



SECTION AT INTERMEDIATE DIAPHRAGM



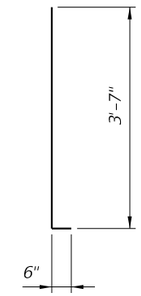
SECTION D-D

NOTES:
For referenced notes see Index 20210.

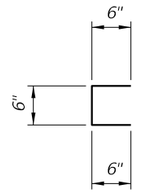
CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL FOR ONE BEAM ONLY

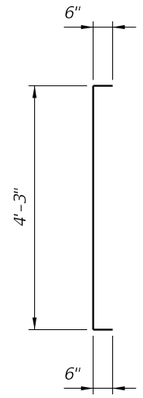
MARK	SIZE	NO. REQD.	LENGTH
A1	6	4	Dim. L - 4"
A2	4	10	Dim. L - 4"
B	5	12	4'-1"
C	4	16	5'-1"
D1	3	156	1'-6"
D2	3	26	4'-6"
E	5	24	5'-3"
F	4	20	6'-2"
G	4	See Table	4'-0"
H	4	See Table	4'-7"
K	5	See Table	8'-0"
L	5	20	14'-0"
M	4	See Table	3'-11"
N	3/8" Ø Strand	2	Dim. L - 3"



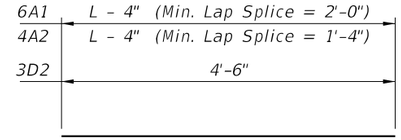
Bars 5B



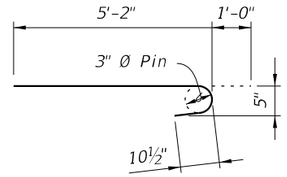
Bars 3D1



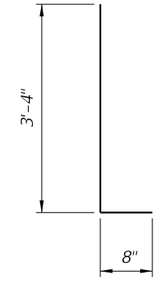
Bars 5E



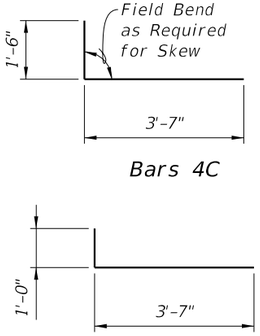
Bars 6A1, 4A2 and 3D2



Bars 4F

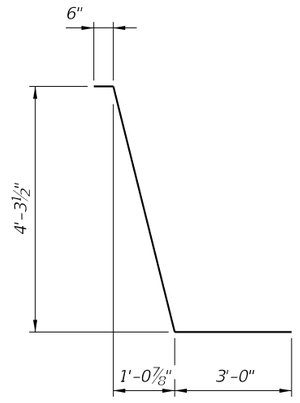


Bars 4G

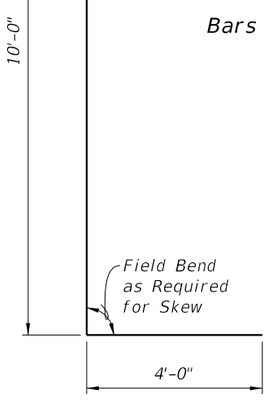


Bars 4C

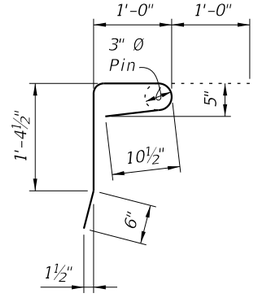
Bars 4H



Bars 5K



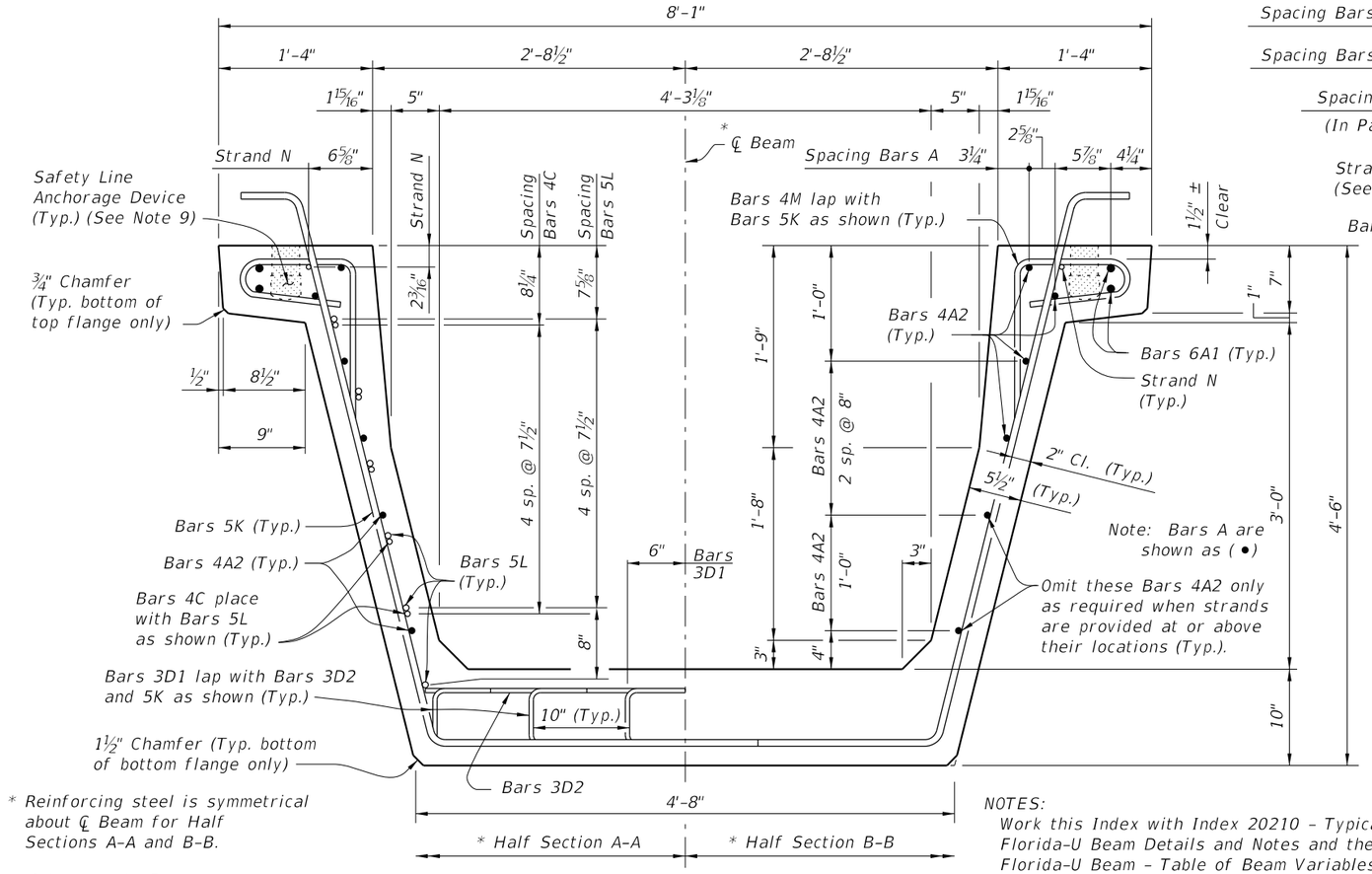
Bars 5L



Bars 4M

10/26/2016 8:50:28 AM

LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-U 48 BEAM - STANDARD DETAILS	INDEX NO. 20248 / SHEET NO. 3 of 3



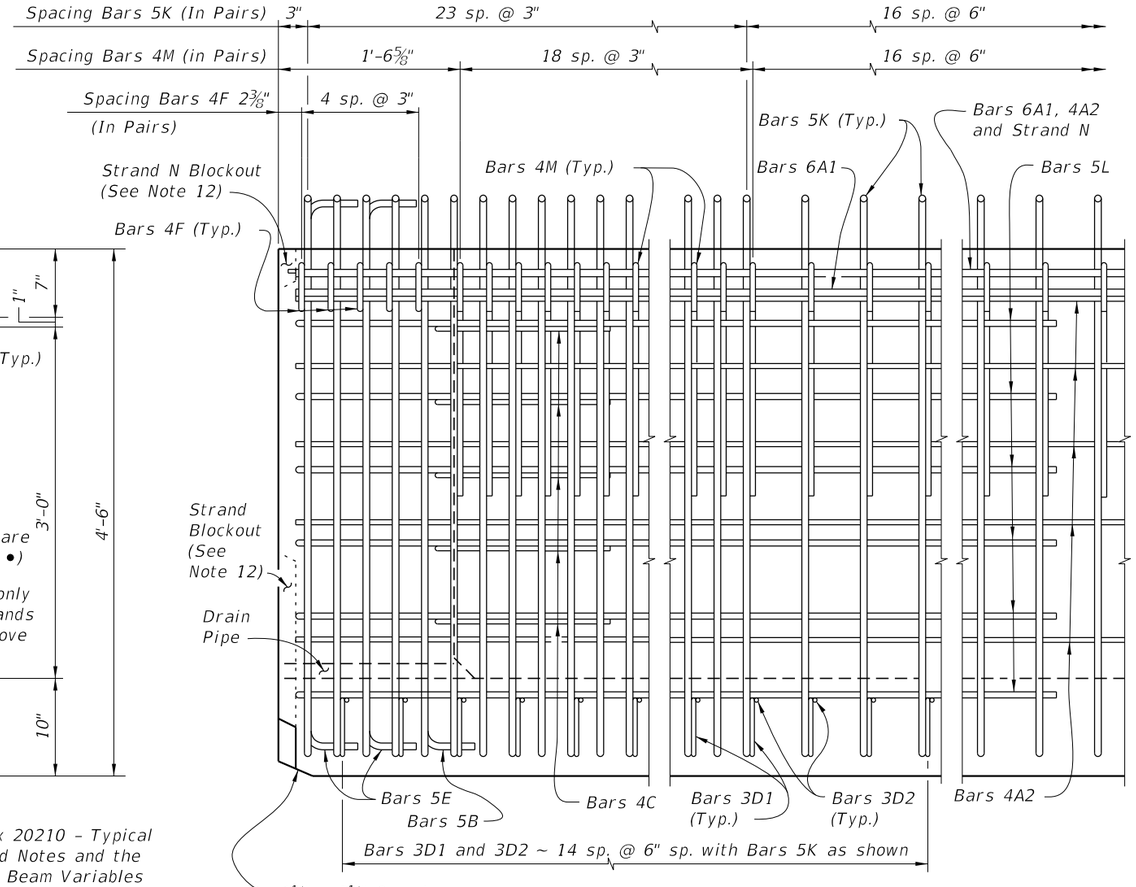
* Reinforcing steel is symmetrical about ℄ Beam for Half Sections A-A and B-B.

** Intermediate Diaphragms shall be provided:
(1) - At midspan.
(2) - At 20'-0" Max. from midspan when beam length (L) exceeds 60 Ft.

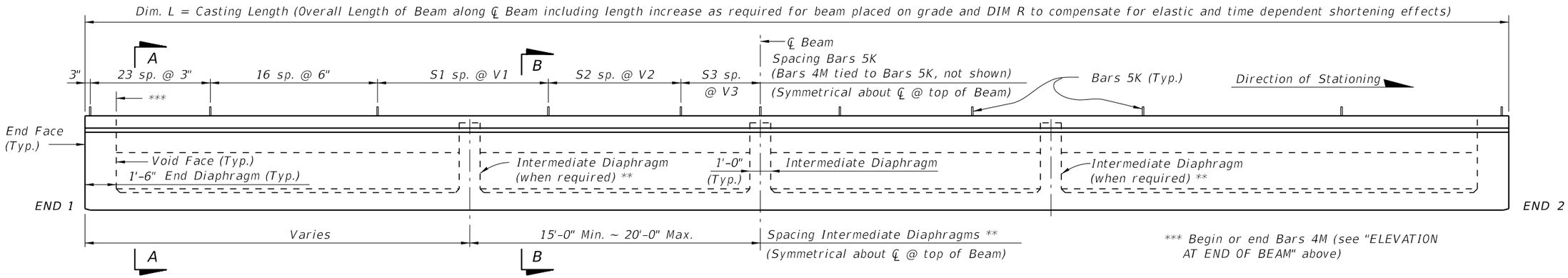
TYPICAL SECTION

NOTES:
Work this Index with Index 20210 - Typical Florida-U Beam Details and Notes and the Florida-U Beam - Table of Beam Variables in Structures Plans.

For referenced notes see Index 20210.



ELEVATION AT END OF BEAM

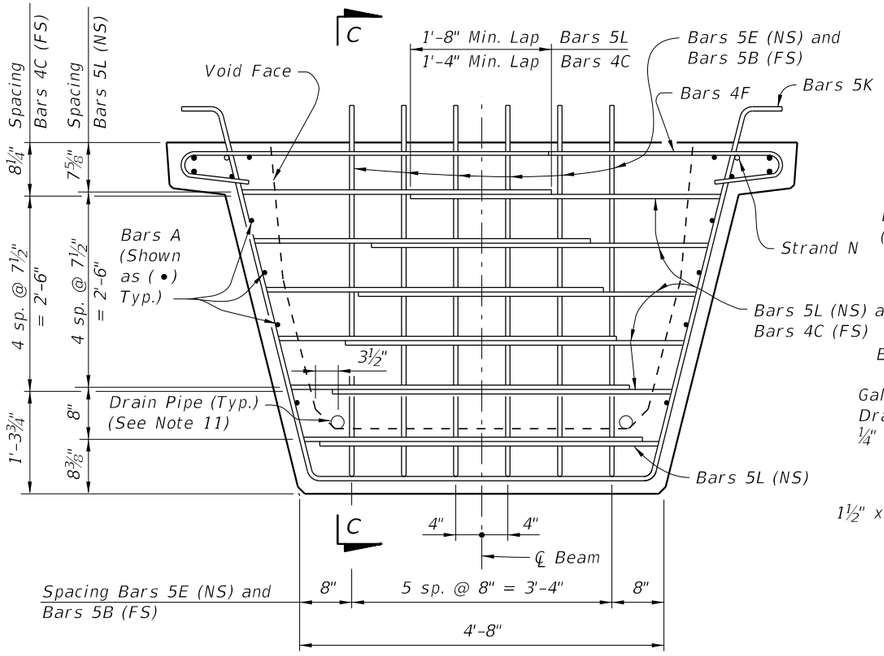


*** Begin or end Bars 4M (see "ELEVATION AT END OF BEAM" above)

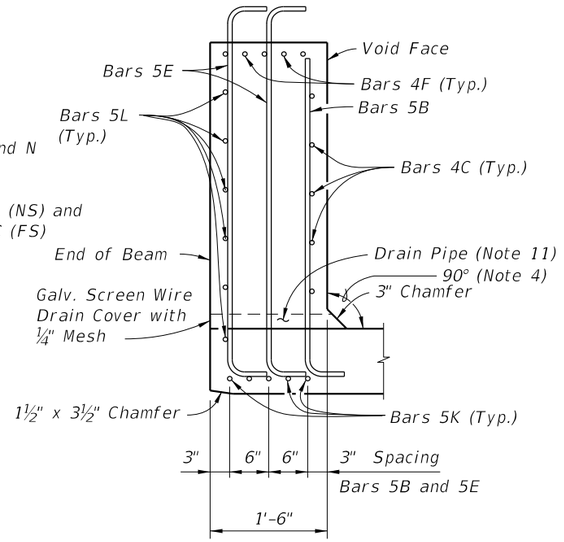
ELEVATION

10/26/2016 8:50:53 AM

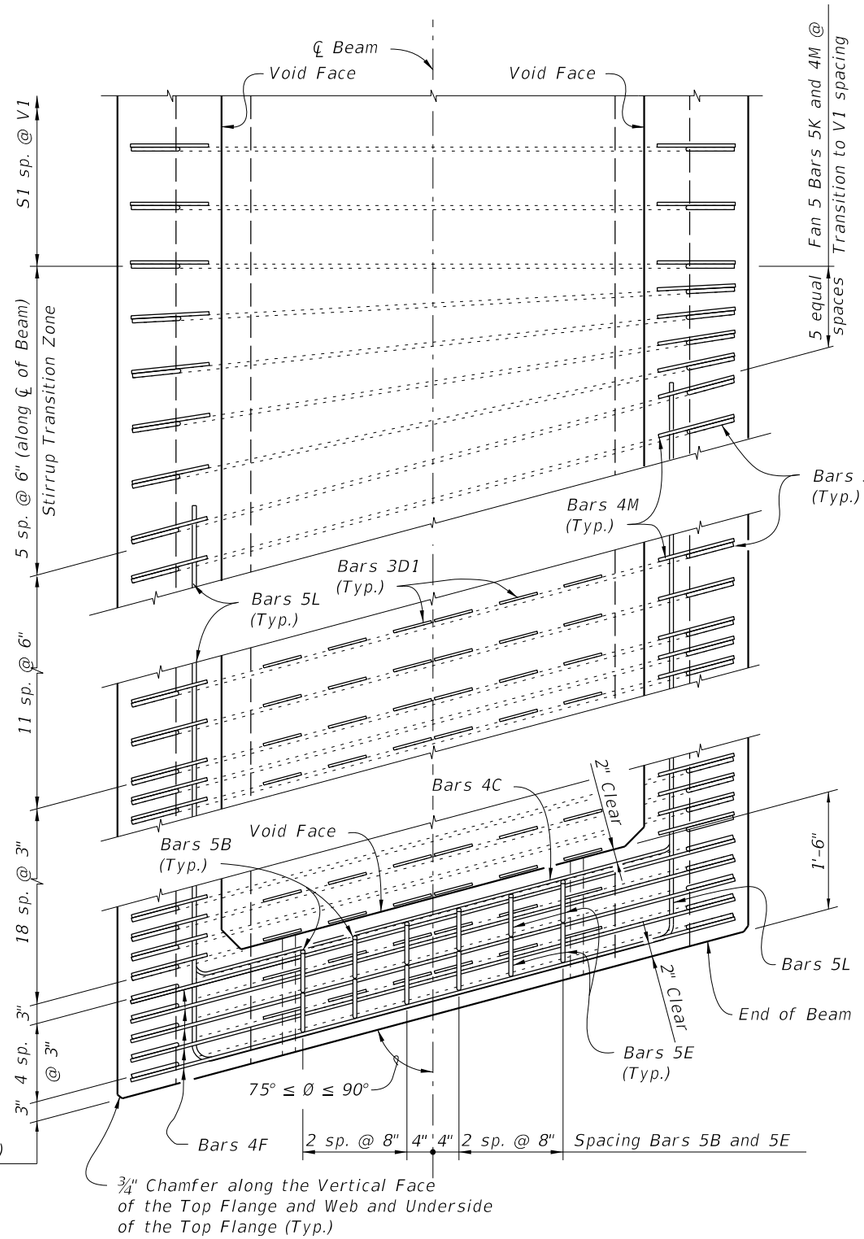
LAST REVISION	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	FLORIDA-U 54 BEAM - STANDARD DETAILS	INDEX NO.	SHEET NO.
11/01/16					20254	1 of 3



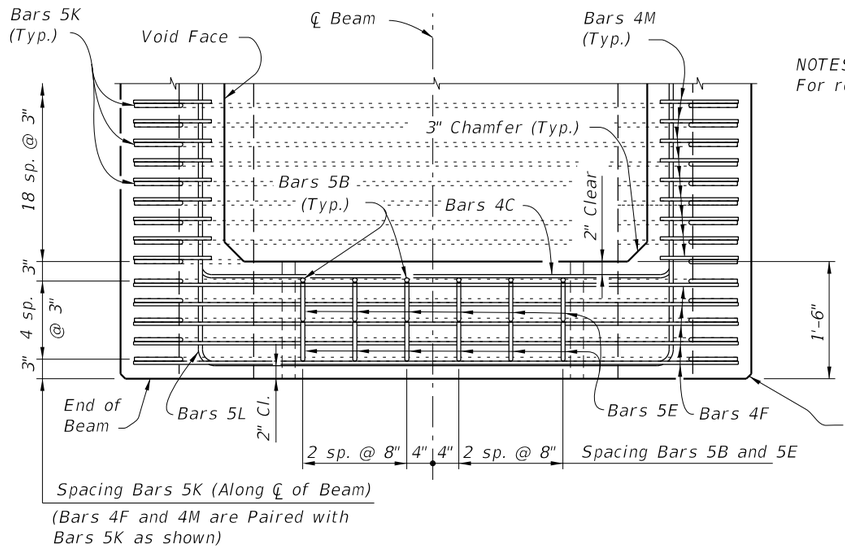
END VIEW AT END DIAPHRAGM



SECTION C-C



TOP VIEW OF SKEWED END DIAPHRAGM
AND STIRRUP TRANSITION ZONE
(Bars 3D2 Not Shown For Clarity)

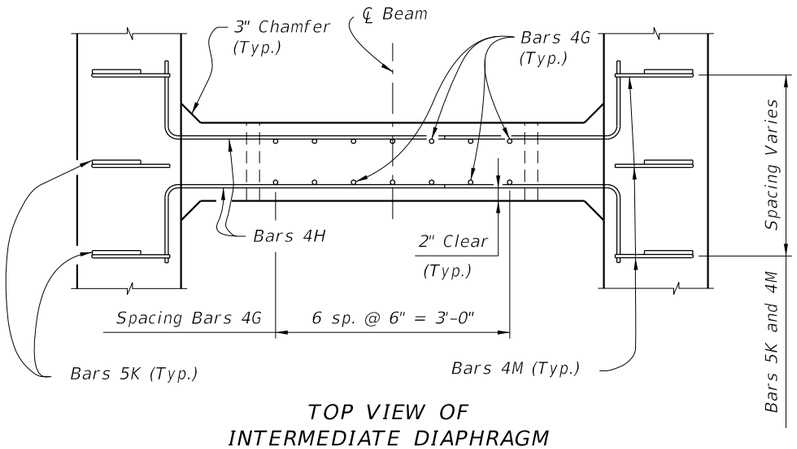


TOP VIEW OF END DIAPHRAGM
(Bars 3D1 And 3D2 Not Shown For Clarity)

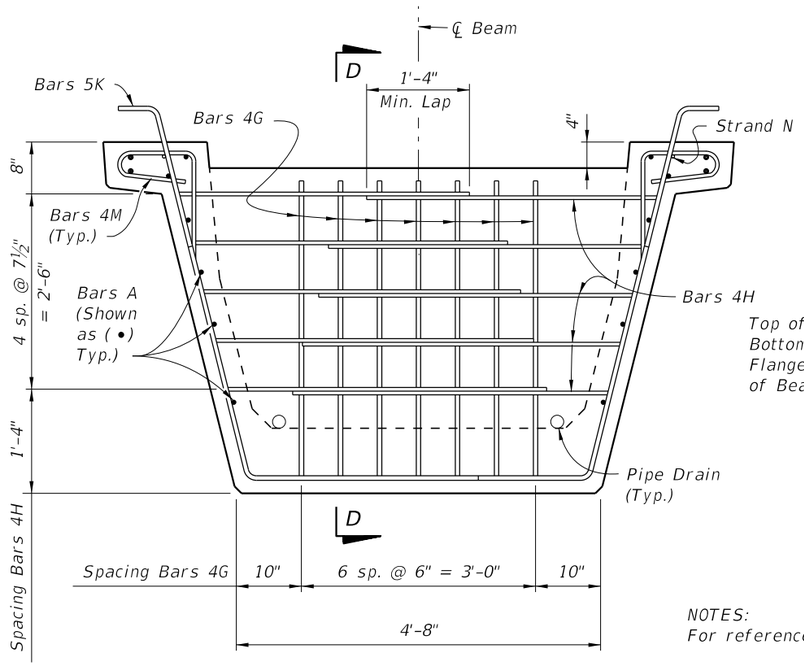
NOTES:
For referenced notes see Index 20210.

10/26/2016 8:50:56 AM

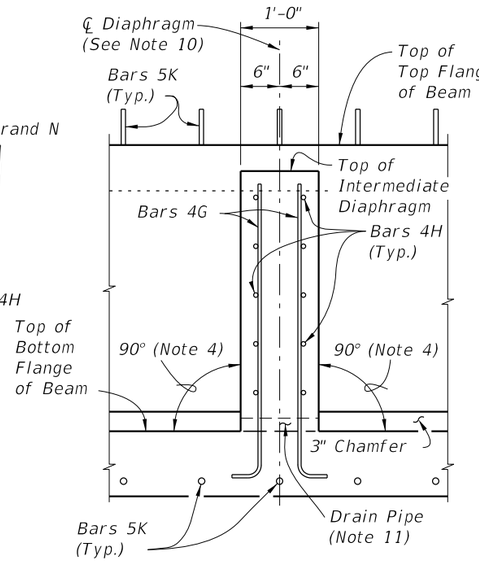
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-U 54 BEAM - STANDARD DETAILS	20254	2 of 3



TOP VIEW OF INTERMEDIATE DIAPHRAGM



SECTION AT INTERMEDIATE DIAPHRAGM



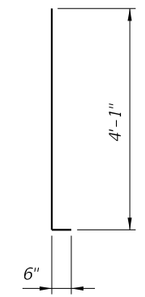
SECTION D-D

NOTES:
For referenced note see Index 20210.

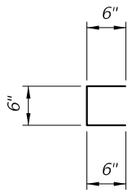
CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL FOR ONE BEAM ONLY

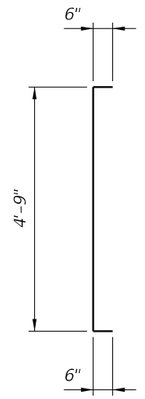
MARK	SIZE	NO. REQD.	LENGTH
A1	6	4	Dim. L – 4"
A2	4	12	Dim. L – 4"
B	5	12	4'-7"
C	4	20	5'-3"
D1	3	180	1'-6"
D2	3	30	4'-6"
E	5	24	5'-9"
F	4	20	6'-4"
G	4	See Table	4'-6"
H	4	See Table	4'-9"
K	5	See Table	8'-6"
L	5	24	16'-2"
M	4	See Table	3'-11"
N	⅜" Ø Strand	2	Dim. L – 3"



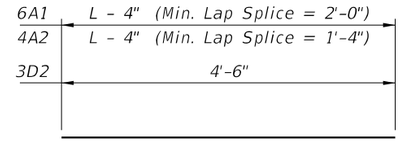
Bars 5B



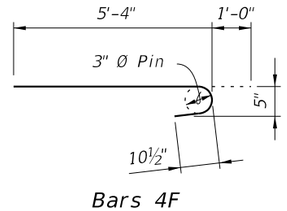
Bars 3D1



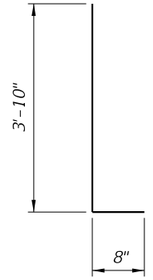
Bars 5E



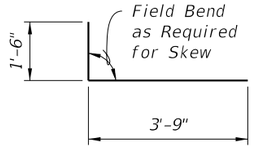
Bars 6A1, 4A2 and 3D2



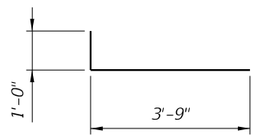
Bars 4F



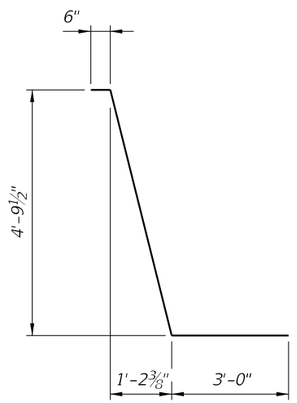
Bars 4G



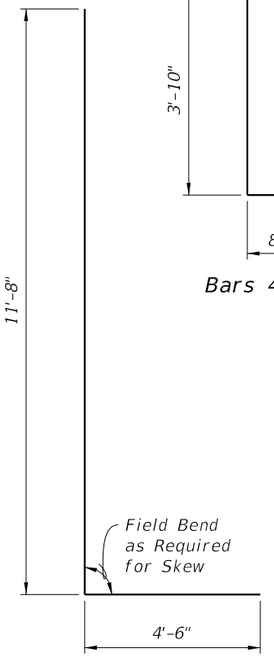
Bars 4C



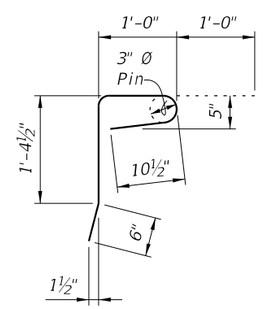
Bars 4H



Bars 5K



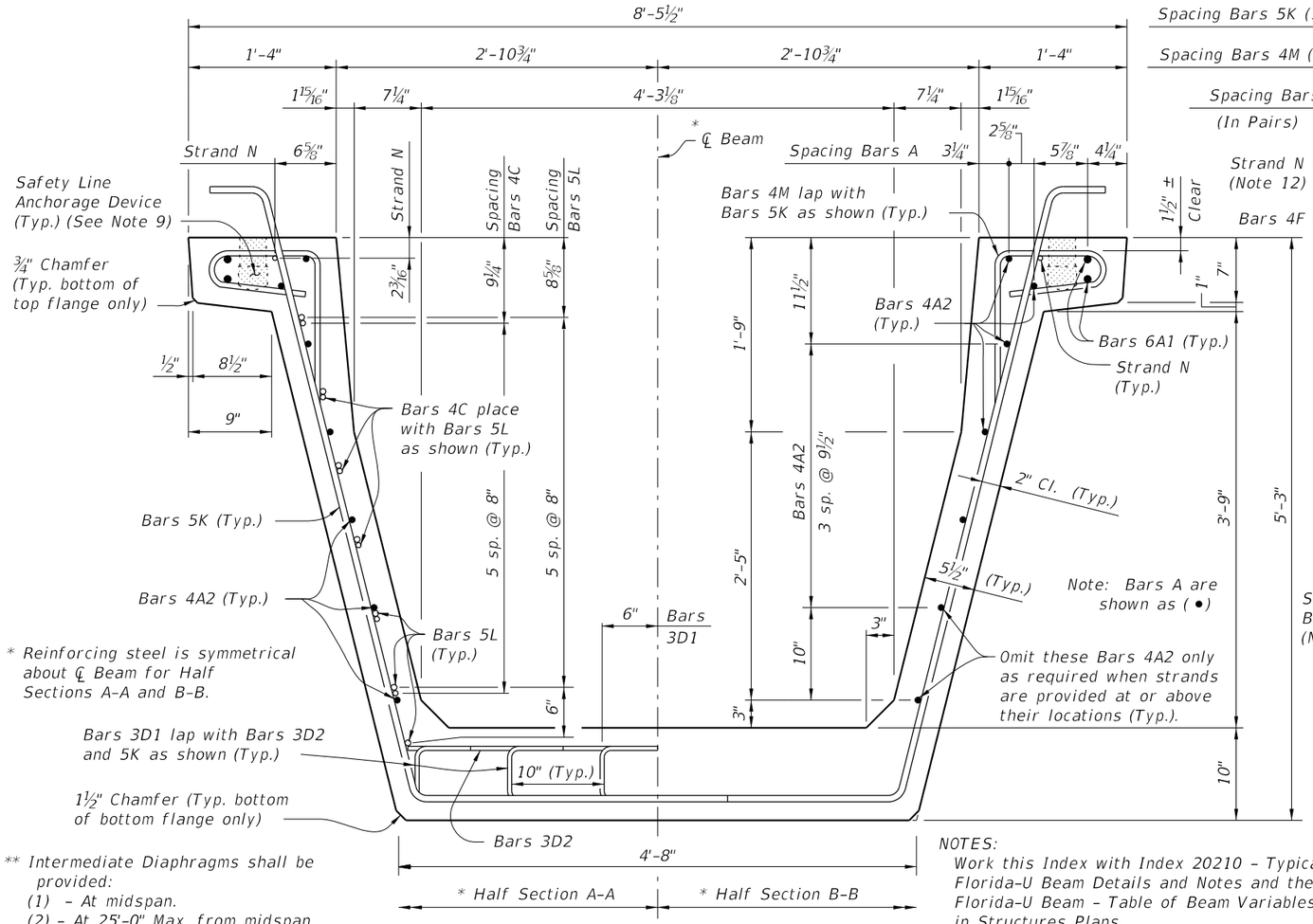
Bars 5L



Bars 4M

10/26/2016 8:50:59 AM

LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-U 54 BEAM - STANDARD DETAILS	INDEX NO. 20254 / SHEET NO. 3 of 3



* Reinforcing steel is symmetrical about ℄ Beam for Half Sections A-A and B-B.

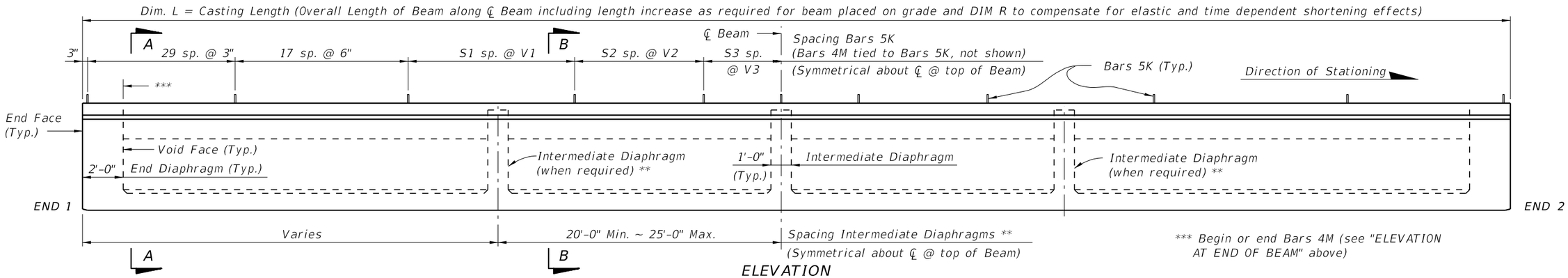
** Intermediate Diaphragms shall be provided:
(1) - At midspan.
(2) - At 25'-0" Max. from midspan when beam length (L) exceeds 70 Ft.

TYPICAL SECTION

NOTES:
Work this Index with Index 20210 - Typical Florida-U Beam Details and Notes and the Florida-U Beam - Table of Beam Variables in Structures Plans.

For referenced notes see Index 20210.

ELEVATION AT END OF BEAM

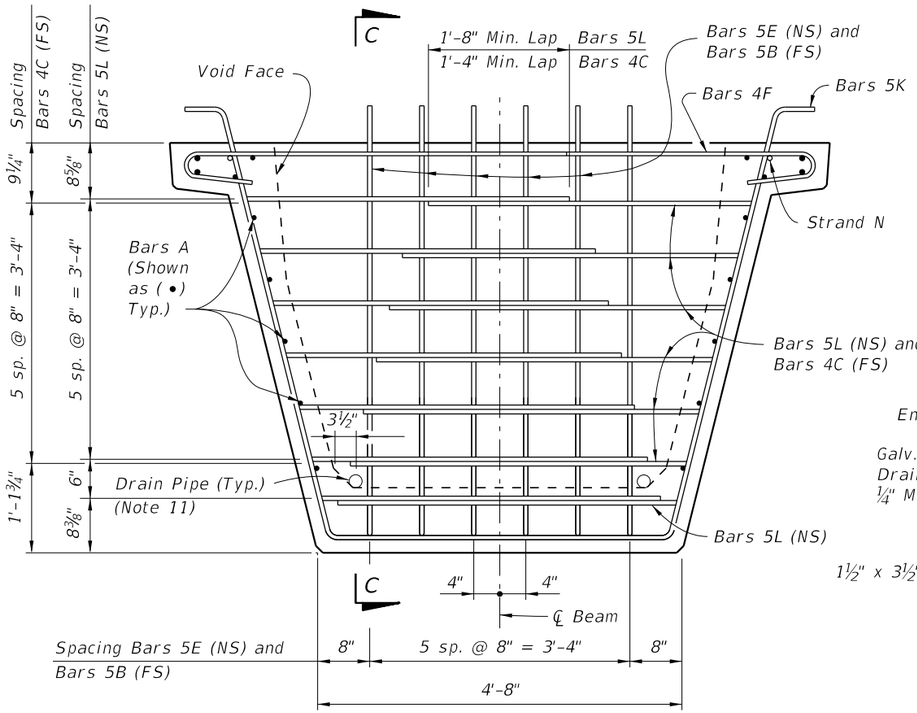


ELEVATION

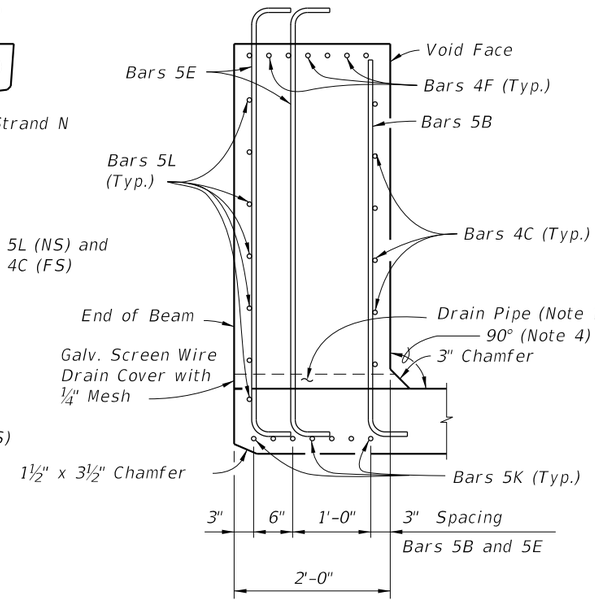
*** Begin or end Bars 4M (see "ELEVATION AT END OF BEAM" above)

10/26/2016 8:51:22 AM

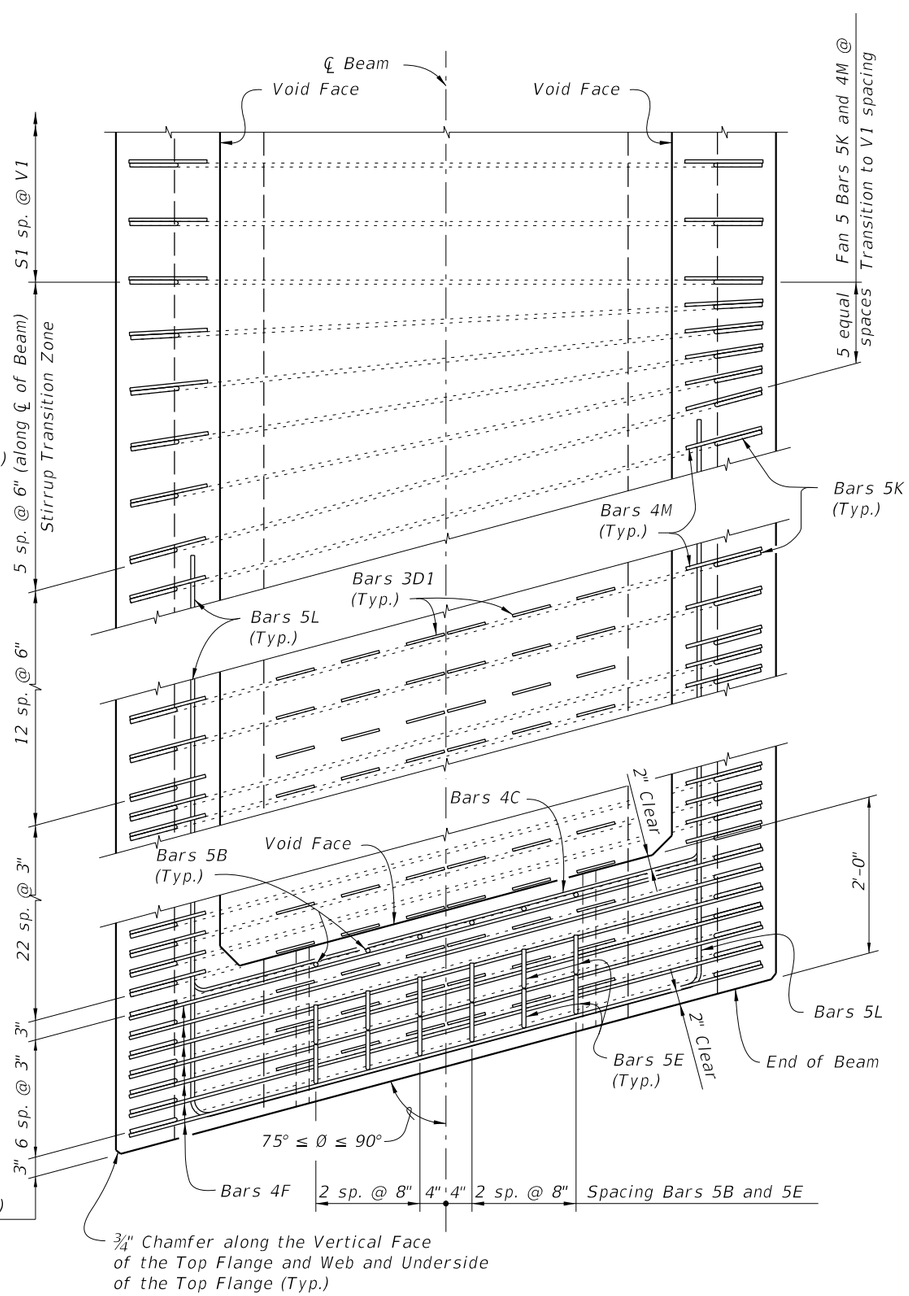
LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FDOT FY 2017-18 DESIGN STANDARDS	FLORIDA-U 63 BEAM - STANDARD DETAILS	20263	1 of 3



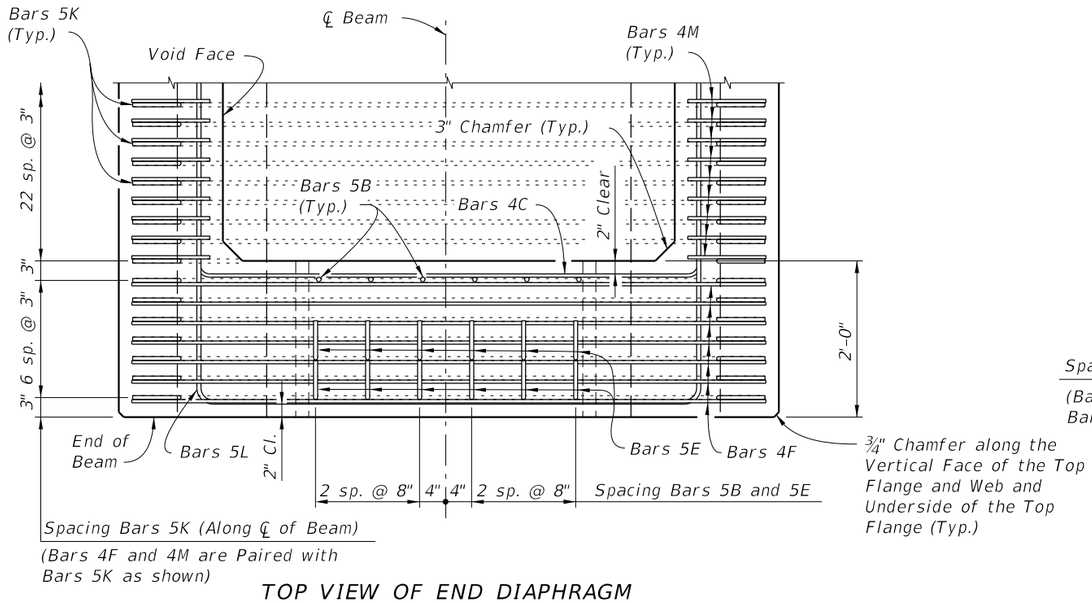
END VIEW AT END DIAPHRAGM



SECTION C-C



TOP VIEW OF SKEWED END DIAPHRAGM
AND STIRRUP TRANSITION ZONE
(Bars 3D2 Not Shown For Clarity)

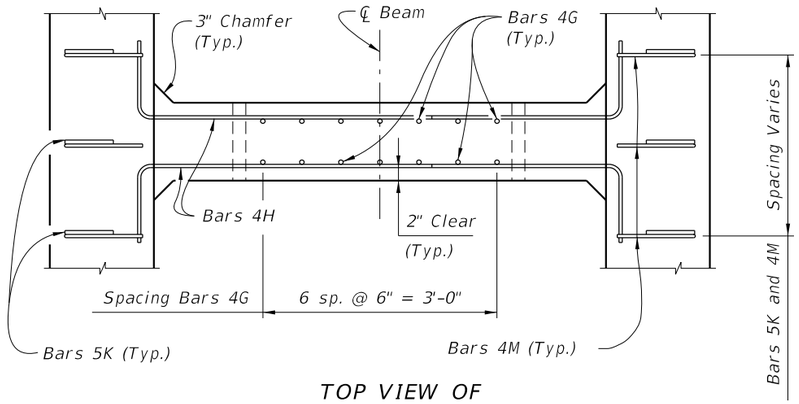


TOP VIEW OF END DIAPHRAGM
(Bars 3D1 And 3D2 Not Shown For Clarity)

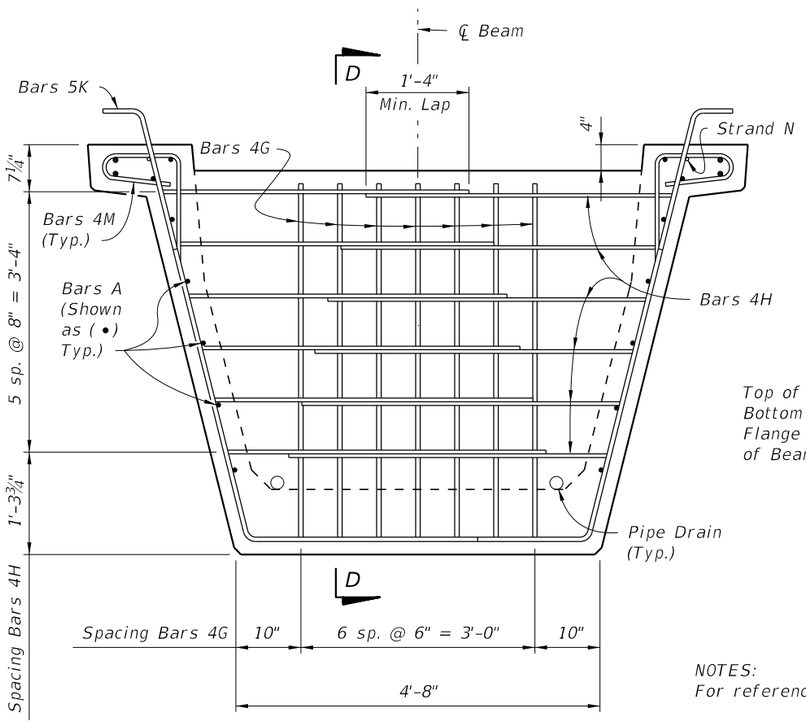
NOTES:
For referenced note see Index 20210.

10/26/2016 8:51:27 AM

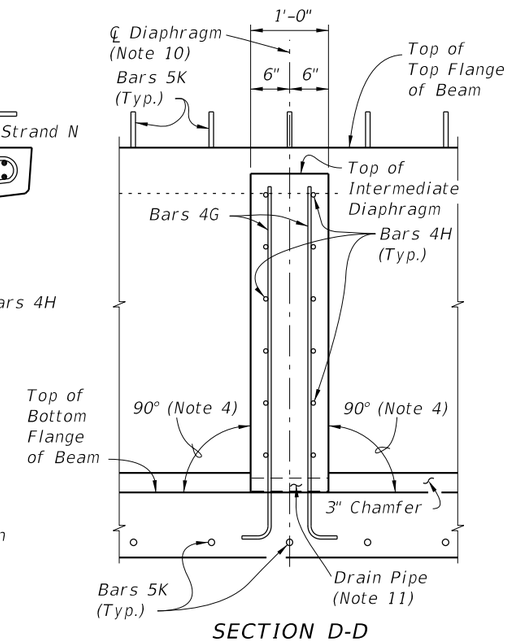
LAST REVISION	REVISION	DESCRIPTION:				
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-U 63 BEAM - STANDARD DETAILS	INDEX NO. 20263	SHEET NO. 2 of 3



TOP VIEW OF INTERMEDIATE DIAPHRAGM



SECTION AT INTERMEDIATE DIAPHRAGM



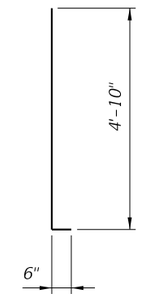
SECTION D-D

NOTES:
For referenced notes see Index 20210.

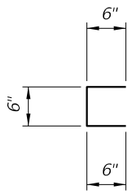
CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL FOR ONE BEAM ONLY

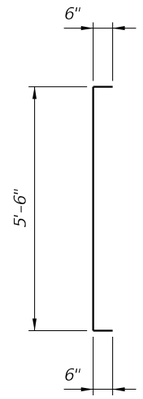
MARK	SIZE	NO. REQD.	LENGTH
A1	6	4	Dim. L – 4"
A2	4	12	Dim. L – 4"
B	5	12	5'-4"
C	4	24	5'-5"
D1	3	204	1'-6"
D2	3	34	4'-6"
E	5	24	6'-6"
F	4	28	6'-6"
G	4	See Table	5'-3"
H	4	See Table	4'-11"
K	5	See Table	9'-2½"
L	5	28	17'-8"
M	4	See Table	3'-11"
N	⅜" Ø Strand	2	Dim. L – 3"



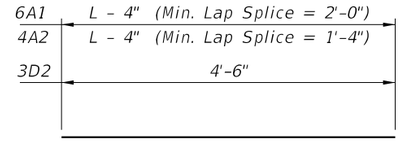
Bars 5B



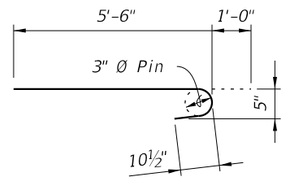
Bars 3D1



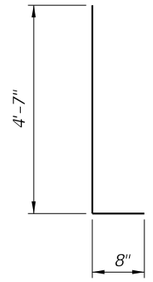
Bars 5E



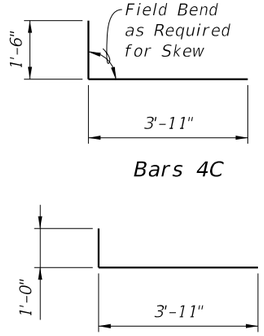
Bars 6A1, 4A2 and 3D2



Bars 4F

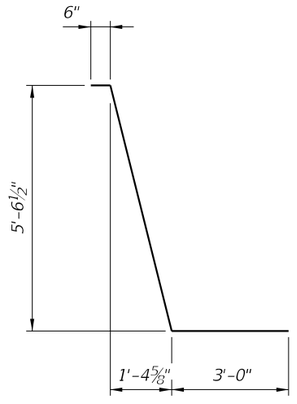


Bars 4G

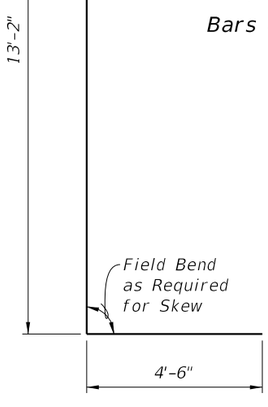


Bars 4C

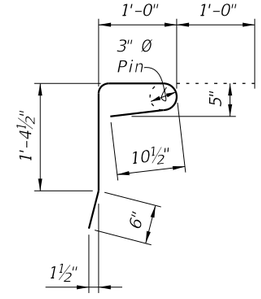
Bars 4H



Bars 5K



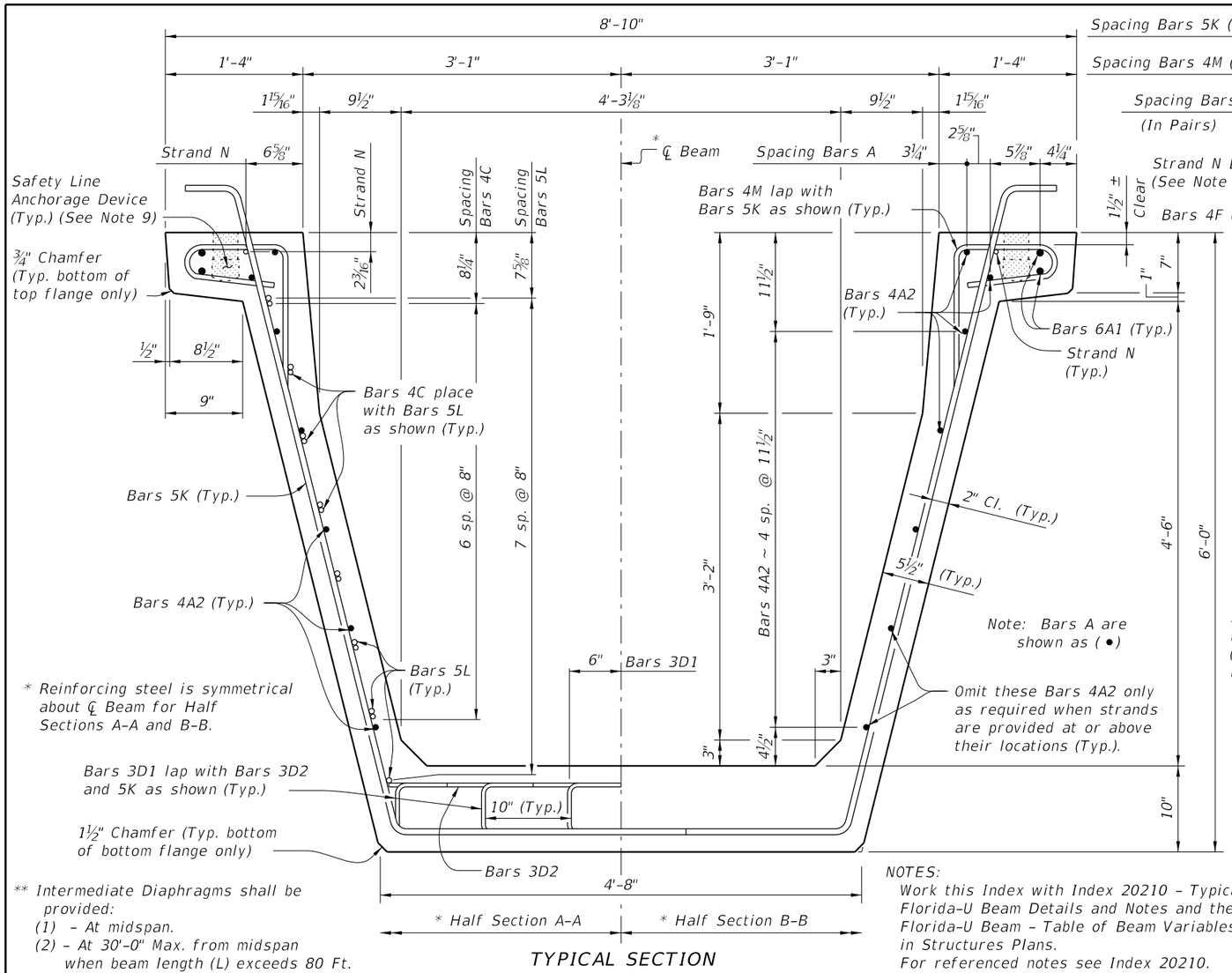
Bars 5L



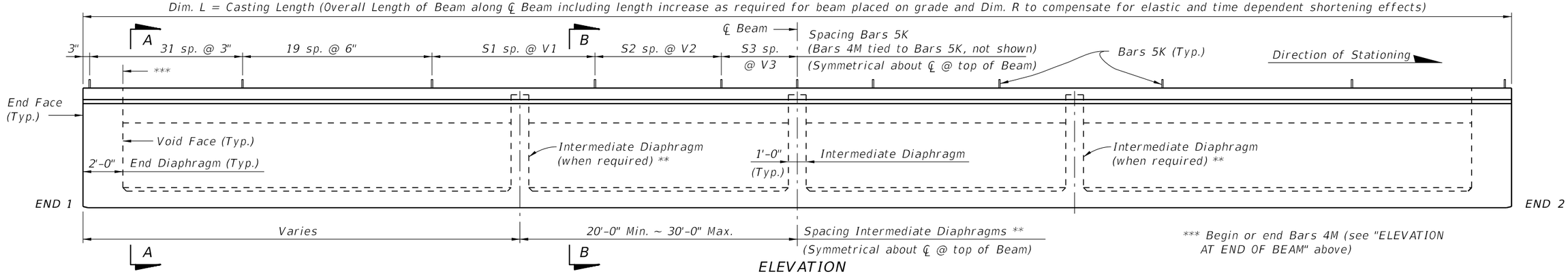
Bars 4M

10/26/2016 8:51:29 AM

LAST REVISION	REVISION	DESCRIPTION:			
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-U 63 BEAM - STANDARD DETAILS	INDEX NO. 20263 / SHEET NO. 3 of 3



Dim. L = Casting Length (Overall Length of Beam along ℄ Beam including length increase as required for beam placed on grade and Dim. R to compensate for elastic and time dependent shortening effects)



ELEVATION

*** Begin or end Bars 4M (see "ELEVATION AT END OF BEAM" above)

LAST REVISION	REVISION	DESCRIPTION:			INDEX NO.	SHEET NO.
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-U 72 BEAM - STANDARD DETAILS	20272	1 of 3

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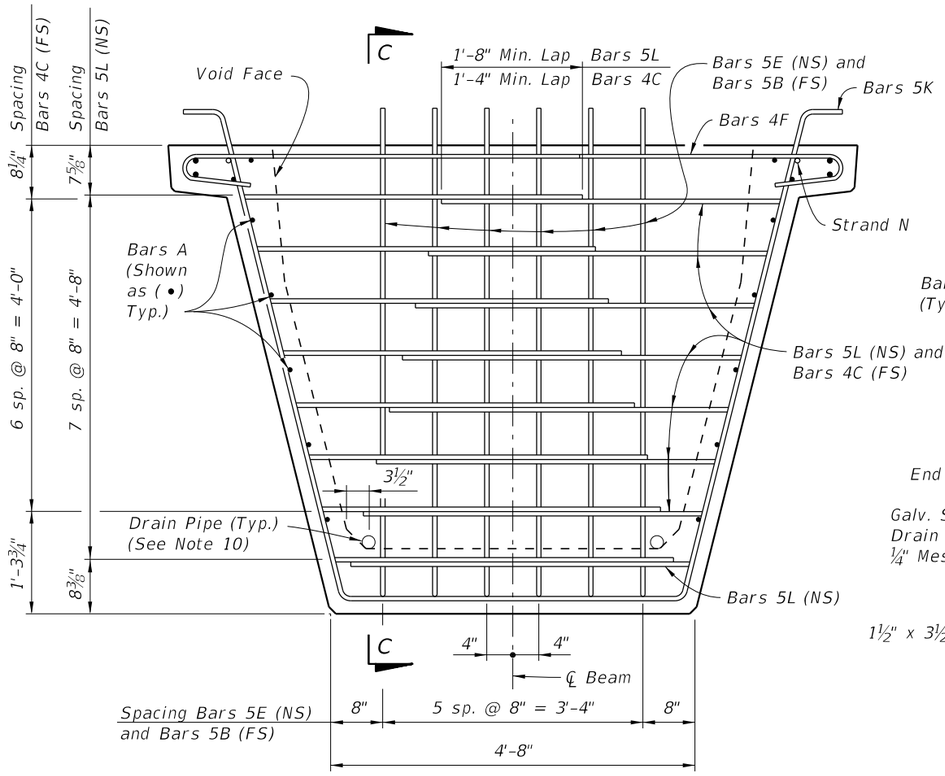
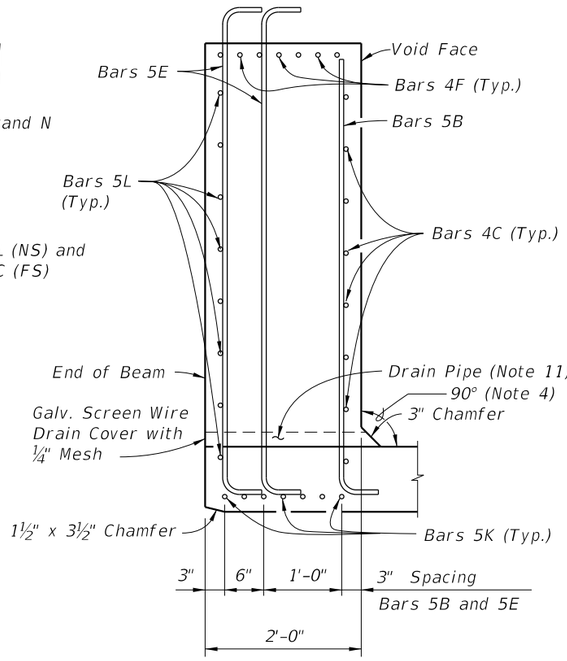
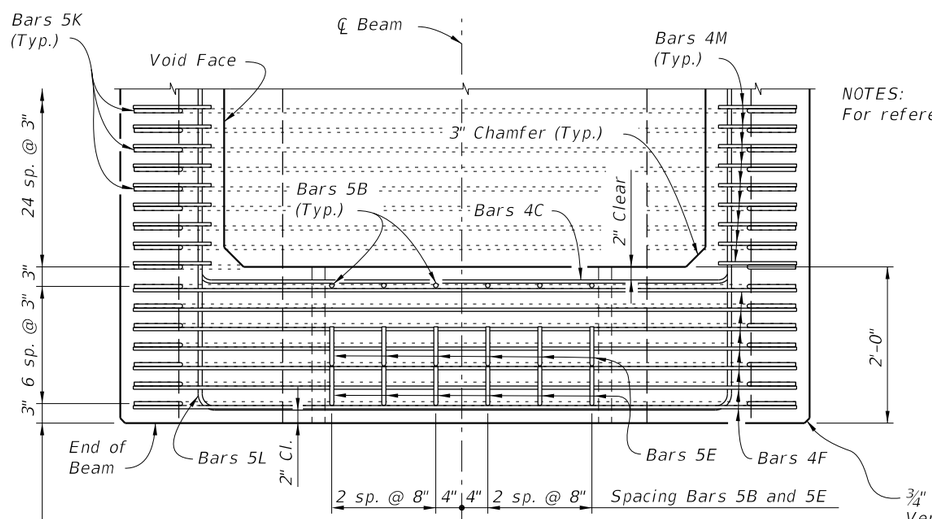


END VIEW AT END DIAPHRAGM



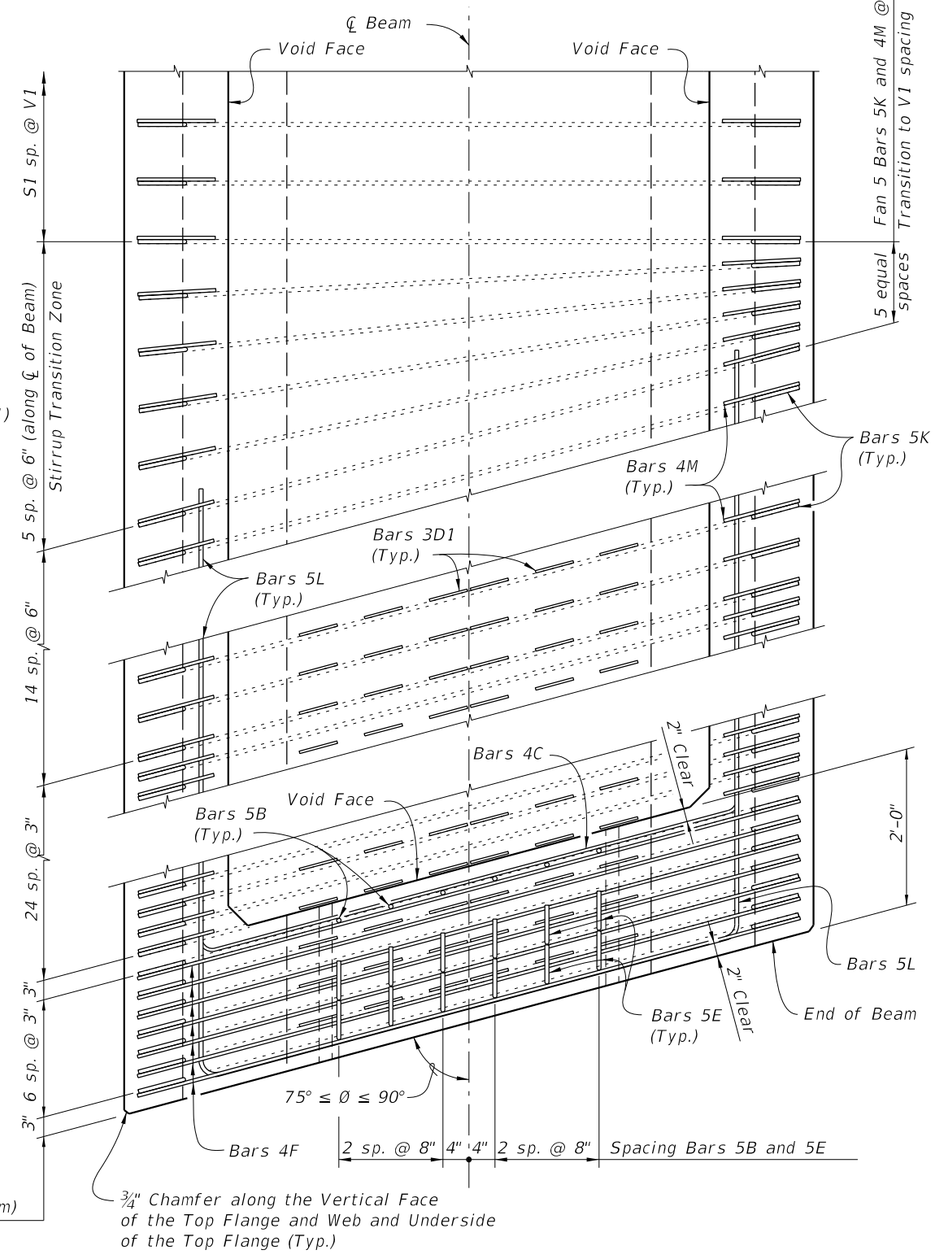
SECTION C-C



NOTES:
For referenced notes see Index 20210.

¾" Chamfer along the Vertical Face of the Top Flange and Web and Underside of the Top Flange (Typ.)

TOP VIEW OF END DIAPHRAGM
(Bars 3D1 And 3D2 Not Shown For Clarity)



¾" Chamfer along the Vertical Face of the Top Flange and Web and Underside of the Top Flange (Typ.)

TOP VIEW OF SKEWED END DIAPHRAGM
AND STIRRUP TRANSITION ZONE
(Bars 3D2 Not Shown For Clarity)

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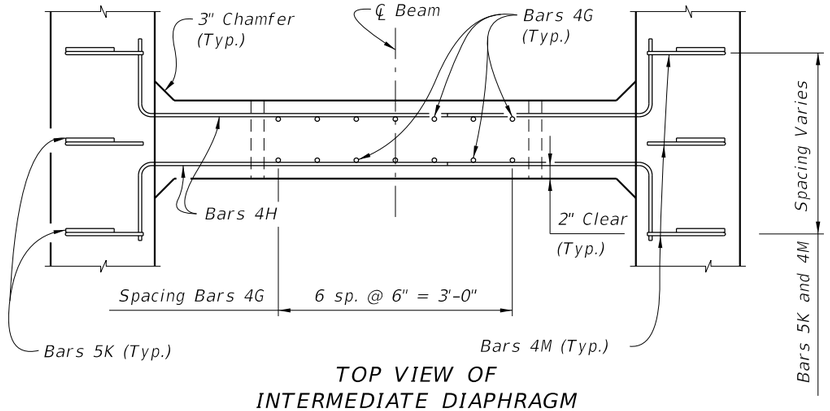
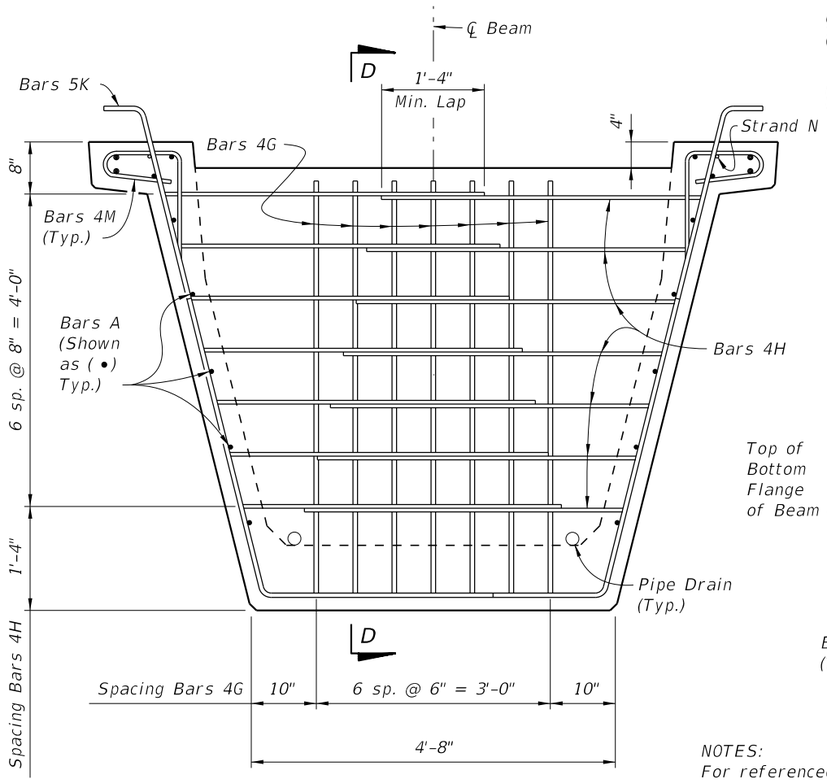
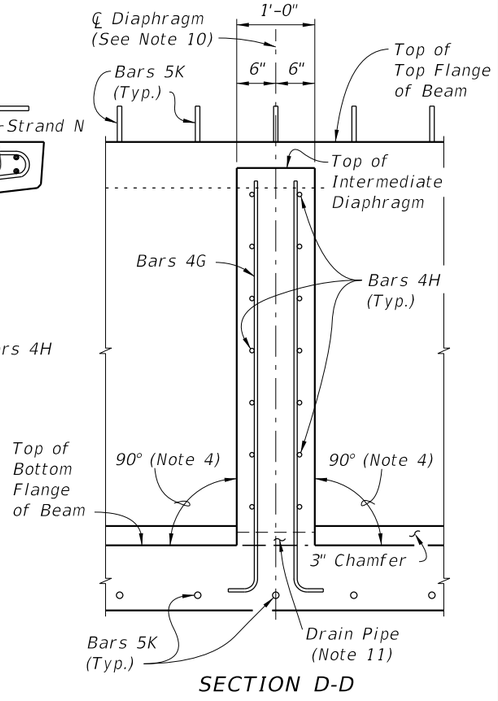
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-U 72 BEAM - STANDARD DETAILS	20272	2 of 3



TOP VIEW OF INTERMEDIATE DIAPHRAGM





SECTION D-D

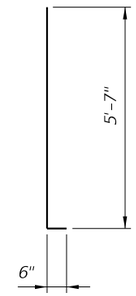
SECTION AT INTERMEDIATE DIAPHRAGM

NOTES:
For referenced notes see Index 20210.

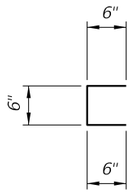
CONVENTIONAL REINFORCING STEEL BENDING DIAGRAMS

BILL OF REINFORCING STEEL FOR ONE BEAM ONLY

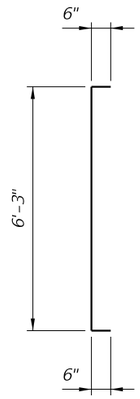
MARK	SIZE	NO. REQD.	LENGTH
A1	6	4	Dim. L - 4"
A2	4	14	Dim. L - 4"
B	5	12	6'-1"
C	4	28	5'-7"
D1	3	228	1'-6"
D2	3	38	4'-6"
E	5	24	7'-3"
F	4	28	6'-9"
G	4	See Table	6'-0"
H	4	See Table	5'-1"
K	5	See Table	10'-0"
L	5	32	19'-6"
M	4	See Table	3'-11"
N	3/8" Ø Strand	2	Dim. L - 3"



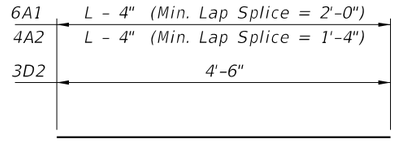
Bars 5B



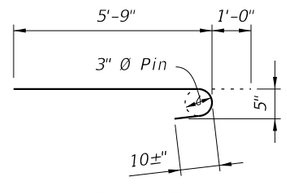
Bars 3D1



Bars 5E

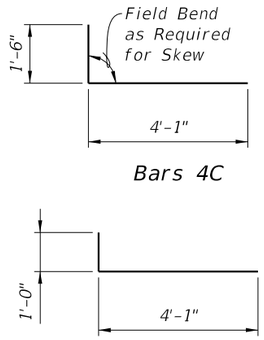


Bars 6A1, 4A2 and 3D2



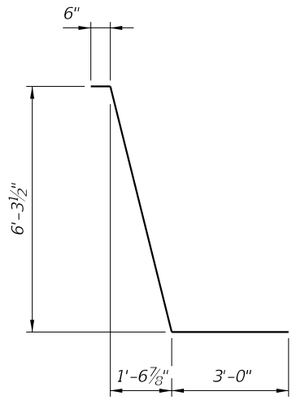
Bars 4F

Bars 4G

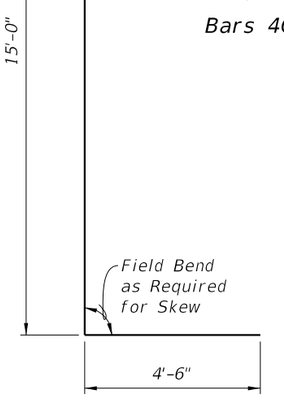


Bars 4C

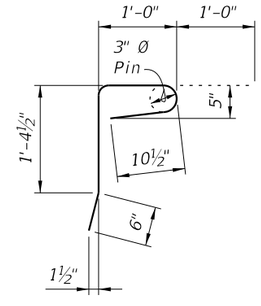
Bars 4H



Bars 5K



Bars 5L



Bars 4M

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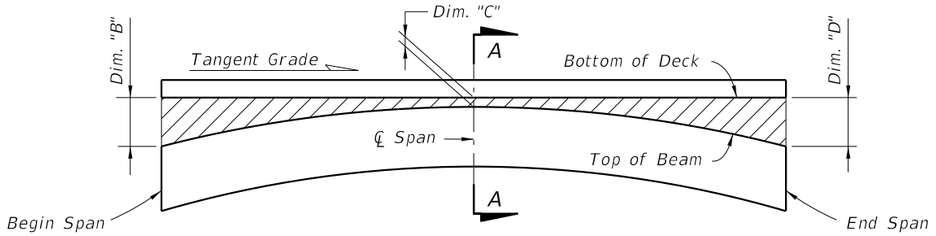
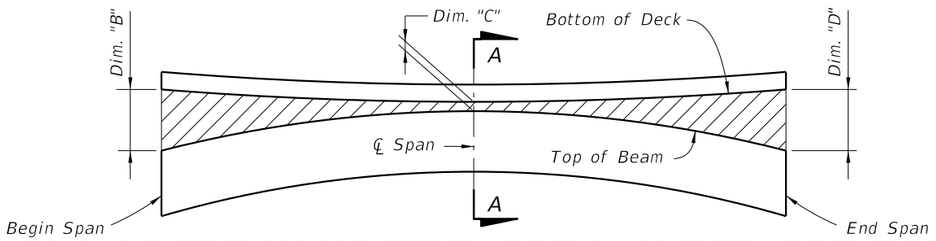
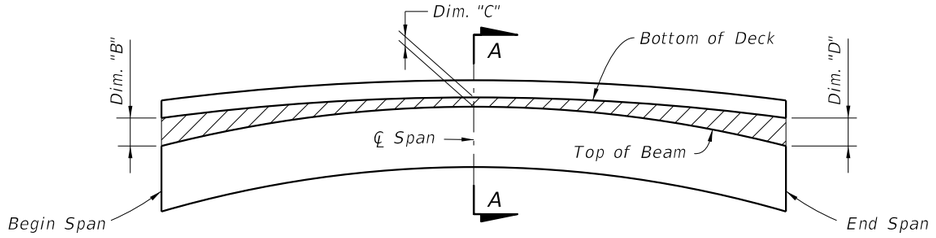
11/01/16			FY 2017-18 DESIGN STANDARDS	FLORIDA-U 72 BEAM - STANDARD DETAILS	20272	3 of 3



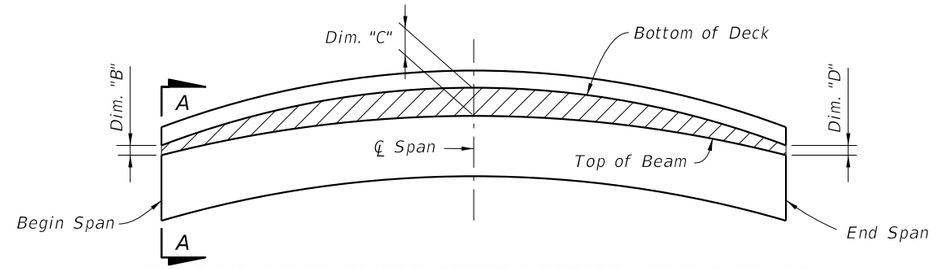
BUILD-UP DIAGRAM FOR TANGENT SPANS
(ALONG ℄ FLANGE) (CASE 1)



BUILD-UP DIAGRAM FOR SAG VERTICAL CURVE & HORIZONTAL CURVE SPANS
(ALONG ℄ FLANGE) (CASE 2)



BUILD-UP DIAGRAM FOR CREST VERTICAL CURVE SPANS
- CONTROL AT ℄ SPAN
(ALONG ℄ FLANGE) (CASE 3)

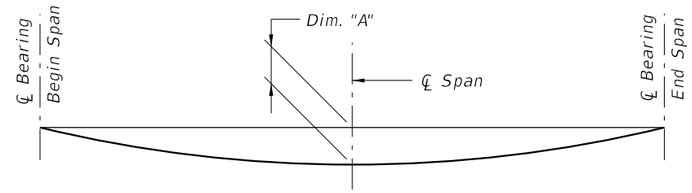


BUILD-UP DIAGRAM FOR CREST VERTICAL CURVE SPANS
- CONTROL AT BEGIN OR END SPAN
(ALONG ℄ FLANGE) (CASE 4)

BEAM CAMBER AND BUILD-UP NOTES:

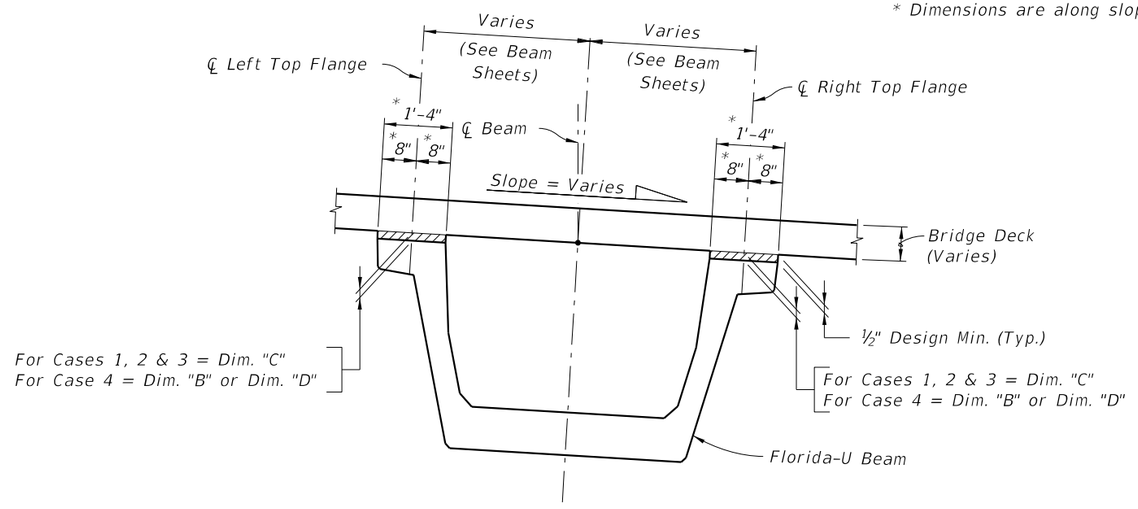
The build-up values given in the Data Table* are based on theoretical beam cambers. The Contractor shall monitor beam cambers for the purpose of predicting camber values at the time of the deck pour. If the predicted cambers based on field measurements differ more than +/- ½" from the theoretical "Net Beam Camber @ 120 Days" shown in the Data Table*, obtain approval from the Engineer to modify the build-up dimensions as required. When the measured beam cambers create a conflict with the bottom mat of deck steel, notify the Engineer a minimum of 21 days prior to casting.

Dim. "A" includes the weight of the Stay-In-Place Formwork.



DEAD LOAD DEFLECTION DIAGRAM
(ALONG ℄ BEAM)

* Dimensions are along slope.



SECTION A-A
BUILD-UP OVER BEAMS
(LOOKING AHEAD STATION)

* NOTE:
Work this Index with the Build-up and Deflection Data Table for Florida-U Beams in Structures Plans.

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