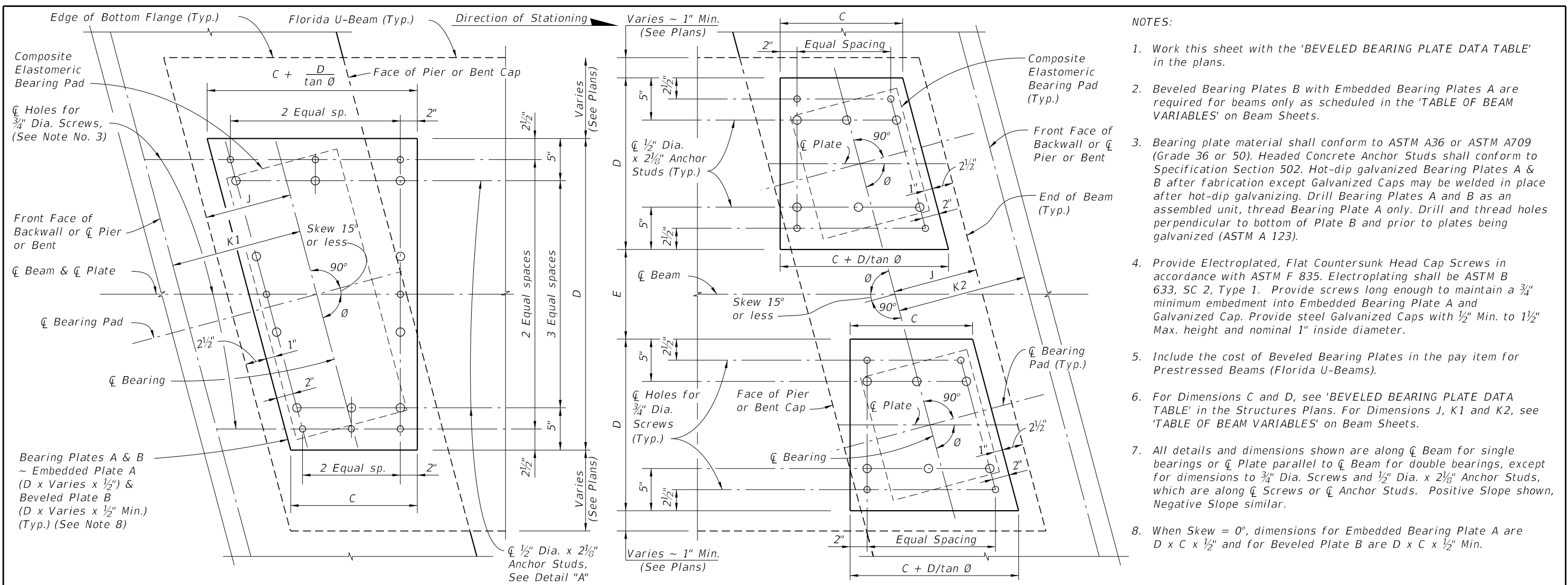


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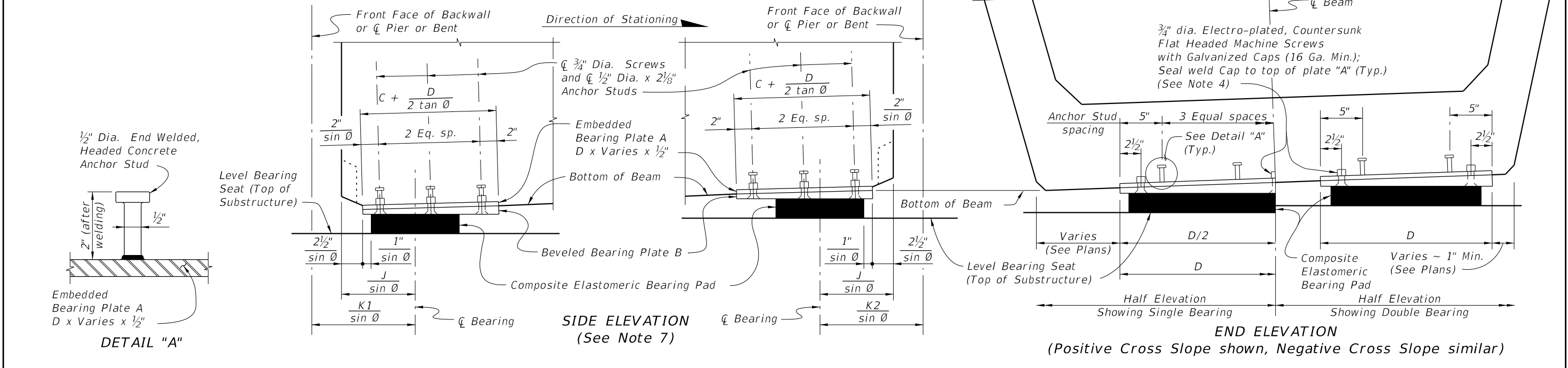


- NOTES:**
1. Work this sheet with the 'BEVELED BEARING PLATE DATA TABLE' in the plans.
 2. Beveled Bearing Plates B with Embedded Bearing Plates A are required for beams only as scheduled in the 'TABLE OF BEAM VARIABLES' on Beam Sheets.
 3. Bearing plate material shall conform to ASTM A36 or ASTM A709 (Grade 36 or 50). Headed Concrete Anchor Studs shall conform to Specification Section 502. Hot-dip galvanized Bearing Plates A & B after fabrication except Galvanized Caps may be welded in place after hot-dip galvanizing. Drill Bearing Plates A and B as an assembled unit, thread Bearing Plate A only. Drill and thread holes perpendicular to bottom of Plate B and prior to plates being galvanized (ASTM A 123).
 4. Provide Electroplated, Flat Countersunk Head Cap Screws in accordance with ASTM F 835. Electroplating shall be ASTM B 633, SC 2, Type 1. Provide screws long enough to maintain a 3/4" minimum embedment into Embedded Bearing Plate A and Galvanized Cap. Provide steel Galvanized Caps with 1/2" Min. to 1 1/2" Max. height and nominal 1" inside diameter.
 5. Include the cost of Beveled Bearing Plates in the pay item for Prestressed Beams (Florida U-Beams).
 6. For Dimensions C and D, see 'BEVELED BEARING PLATE DATA TABLE' in the Structures Plans. For Dimensions J, K1 and K2, see 'TABLE OF BEAM VARIABLES' on Beam Sheets.
 7. All details and dimensions shown are along \bar{C} Beam for single bearings or \bar{C} Plate parallel to \bar{C} Beam for double bearings, except for dimensions to 3/4" Dia. Screws and 1/2" Dia. x 2 1/8" Anchor Studs, which are along \bar{C} Screws or \bar{C} Anchor Studs. Positive Slope shown, Negative Slope similar.
 8. When Skew = 0°, dimensions for Embedded Bearing Plate A are $D \times C \times 1/2"$ and for Beveled Plate B are $D \times C \times 1/2"$ Min.

PLAN VIEW OF TYPICAL SINGLE BEARING

PLAN VIEW OF TYPICAL DOUBLE BEARING

(0° < Skew ≤ 15° shown, Skew = 0° Similar)

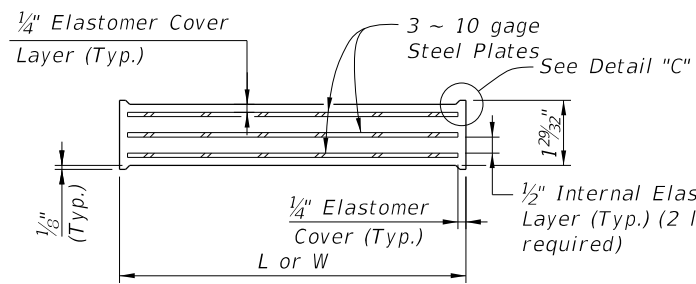
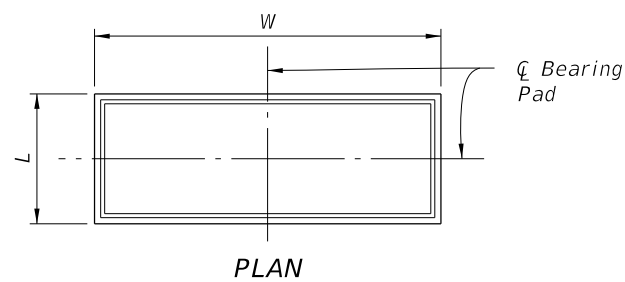


SIDE ELEVATION (See Note 7)

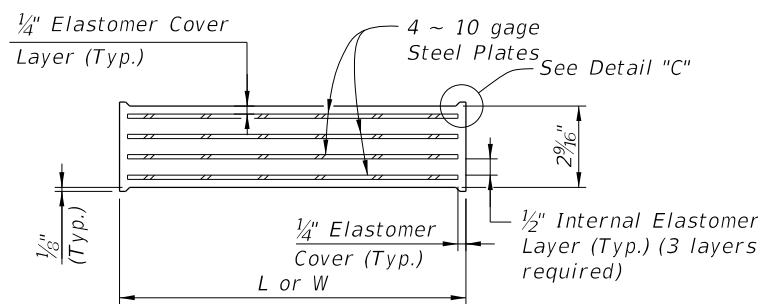
END ELEVATION

(Positive Cross Slope shown, Negative Cross Slope similar)

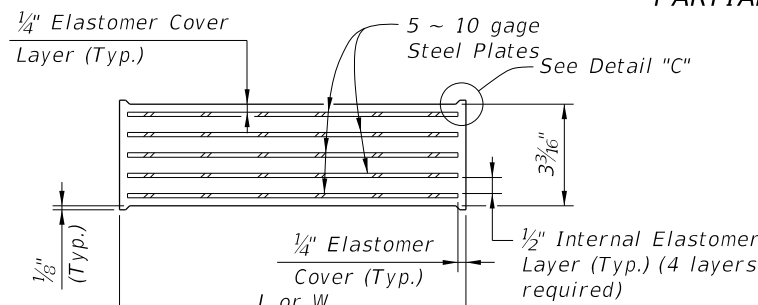
| LAST REVISION | DESCRIPTION: |  FDOT DESIGN STANDARDS FY 2012/2013 | BEVELED BEARING PLATE DETAILS - PRESTRESSED FLORIDA-U BEAMS | | INDEX NO. | SHEET NO. |
|---------------|--------------|--|--|--|-----------|-----------|
| 01/01/10 | | | | | 20502 | 1 |



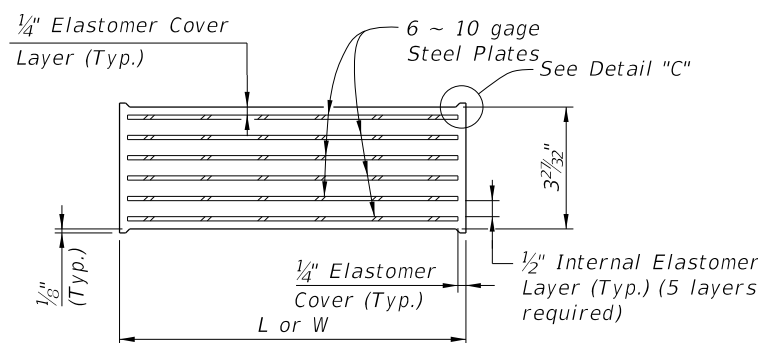
TYPICAL SECTION TYPE D & E PAD



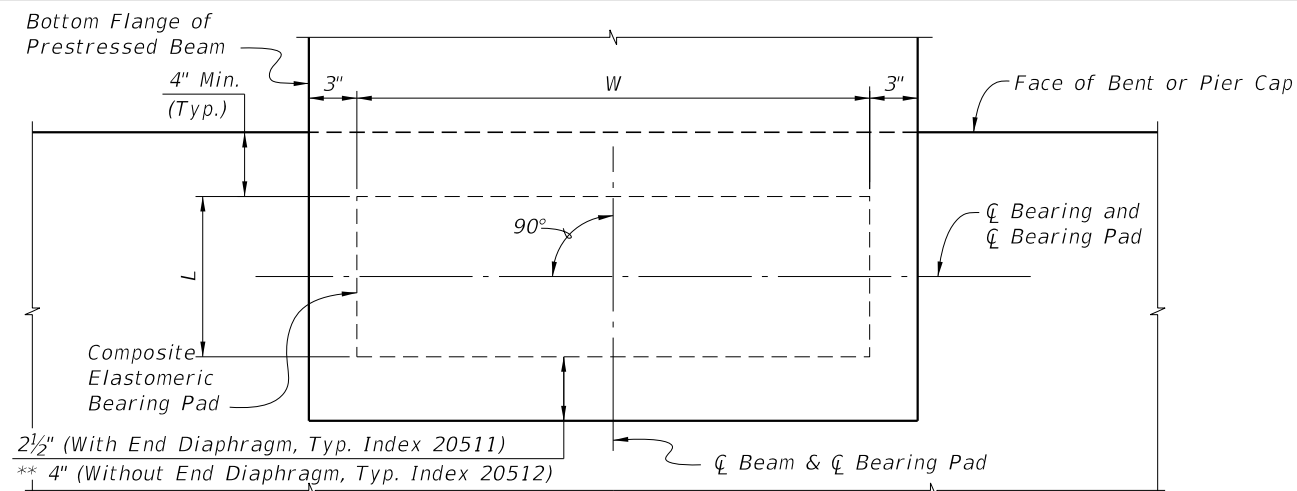
TYPICAL SECTION TYPE F & G PAD



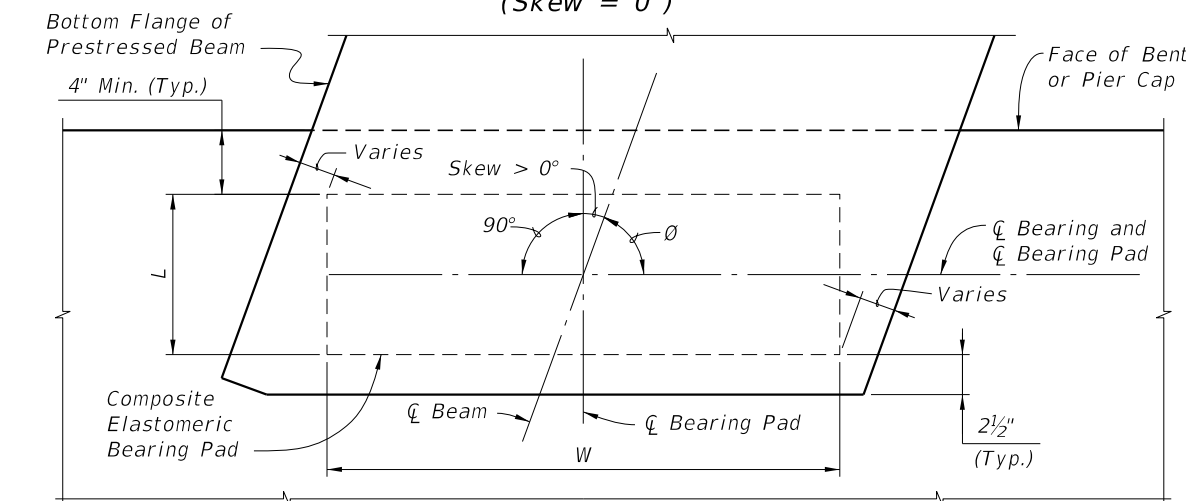
TYPICAL SECTION TYPE H PAD



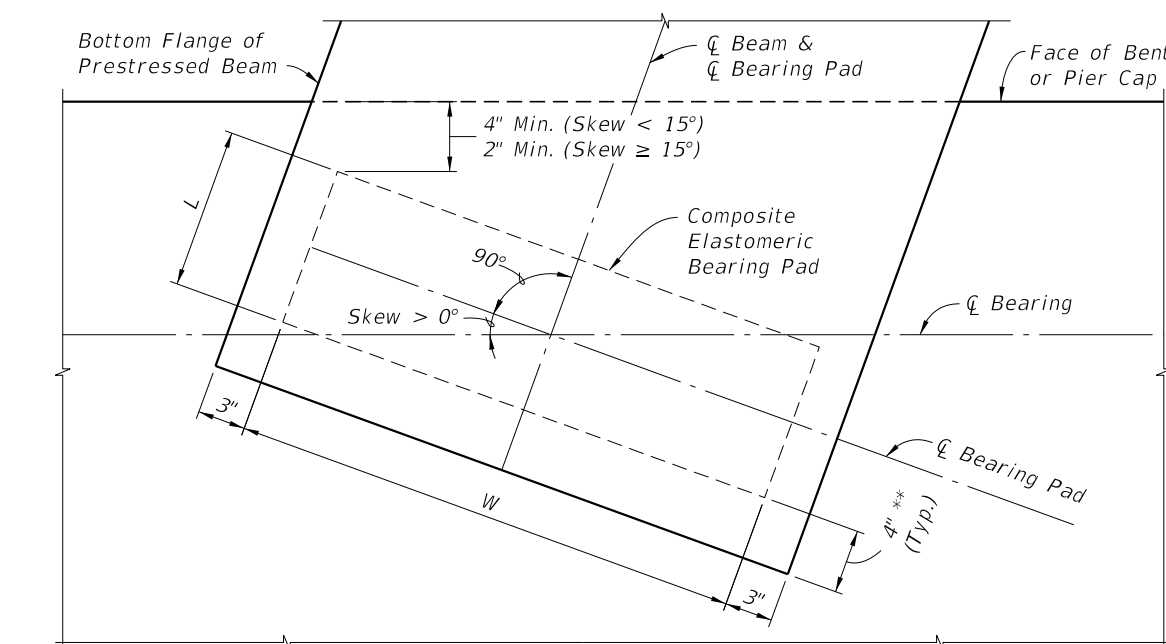
TYPICAL SECTION TYPE J & K PAD



PARTIAL PLAN WITH OR WITHOUT FULL DEPTH END DIAPHRAGM (Skew = 0°)



PARTIAL PLAN WITH SKEWED END BEAM AND FULL DEPTH END DIAPHRAGM (Use Index 20511) (Skew > 0°)

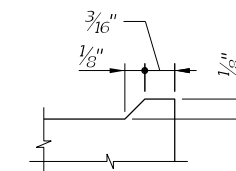


PARTIAL PLAN WITH SQUARED END BEAM (Use Index 20512) (Skew > 0°)

| PAD TYPE (See Note 1) | BEARING PAD DIMENSIONS | | *BEVELED BEARING PLATE DIMENSIONS | |
|--------------------------|------------------------|-------|-----------------------------------|-------|
| | L | W | C | D |
| D (G=110psi) | 8" | 2'-8" | 1'-0" | 3'-0" |
| E (G=110psi) | 10" | 2'-8" | 1'-0" | 3'-0" |
| F (G=110psi) | 10" | 2'-8" | 1'-0" | 3'-0" |
| G (G=150psi) | 10" | 2'-8" | 1'-0" | 3'-0" |
| H (G=150psi) | 10" | 2'-8" | 1'-0" | 3'-0" |
| J (G=150psi) | 10" | 2'-8" | 1'-0" | 3'-0" |
| K (G=150psi) | 1'-0" | 2'-8" | 1'-1 1/2" | 3'-0" |

* Work this sheet with the appropriate type Bearing Plate Detail (See Bearing Plate Data Table) and BEARING PAD DATA TABLE in the Structures Plans. See TABLE OF BEAM VARIABLES and BEARING PLATE DATA TABLE in the Structures Plans for locations where beveled bearing plates are required.

** Offset to End of Beam is reduced to 2" for Type K Pad using Index No. 20512.



DETAIL "C"

BEARING PAD NOTES:

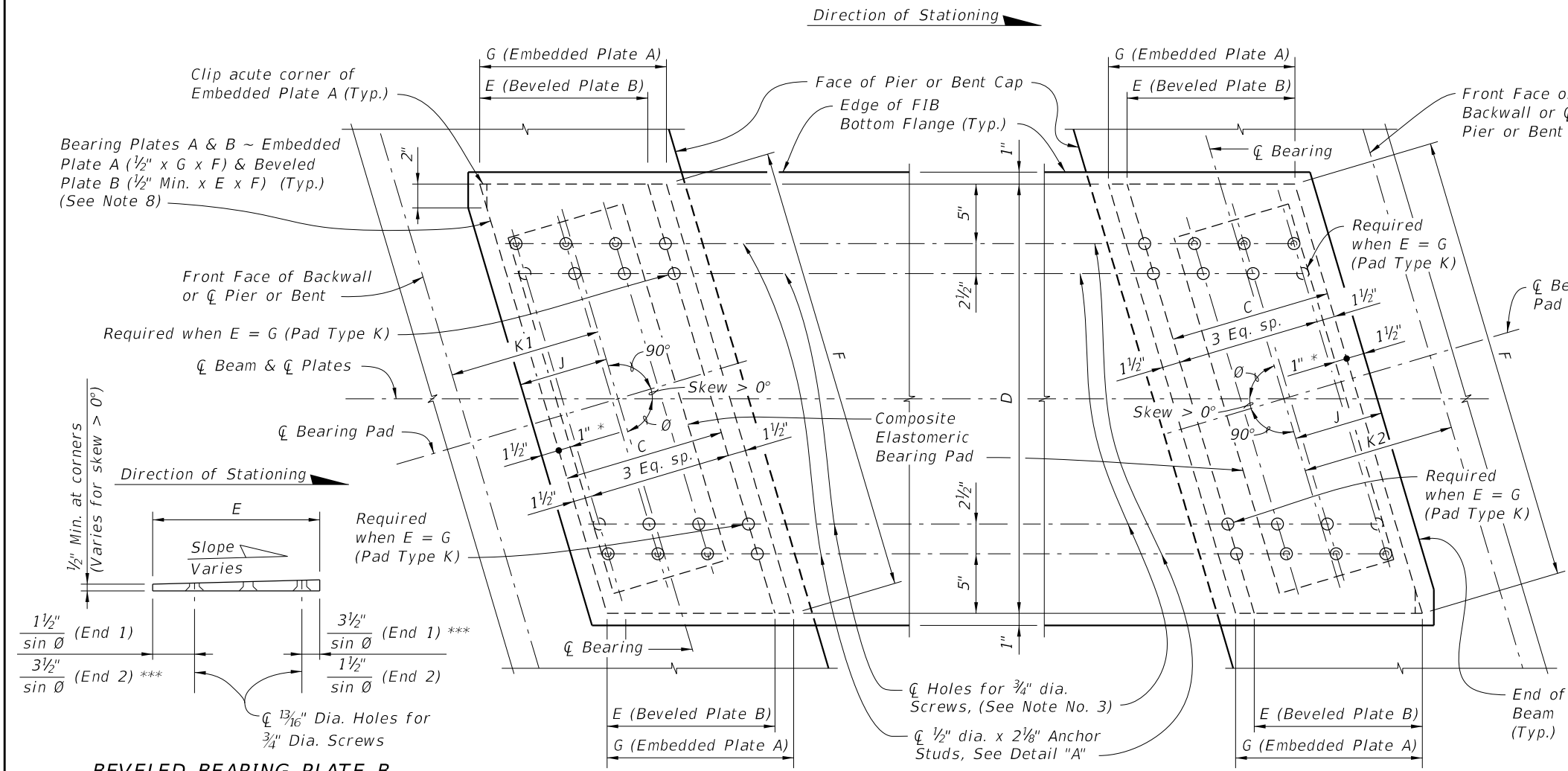
1. Neoprene in Type D, E & F bearing pads shall have a shear modulus (G) of 110 psi. Neoprene in Type G, H, J & K bearing pads shall have a shear modulus (G) of 150 psi.
2. Steel Plates in bearing pads shall conform to ASTM A1011 Grade 36, Type 1.
3. Unless otherwise shown in the Structures Plans:
 - (a) For beam grades less than 0.5%, finish the Beam Seat level.
 - (b) For beam grades between 0.5% and 2%, finish the Beam Seat parallel to the bottom of the beam in both transverse and longitudinal directions.
 - (c) For beam grades greater than 2% finish the Beam Seat level and provide Beveled Bearing Plates.
4. See Bearing Pad Data Table in Structures Plans for quantities of Type D, E, F, G, H, J and/or K Bearing Pads.

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12/30/2011 8:31:20 AM r0960rh C:\projects\standards\structures\current\ready\4release\2012book_draft\20511-1of2.dgn

NOTES:

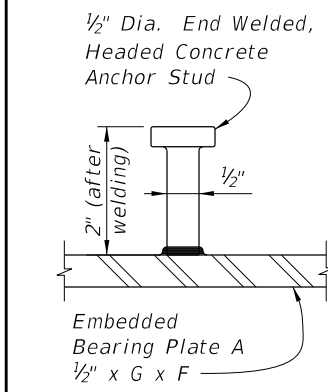
1. Work this sheet with Index No. 20510 - Composite Elastomeric Bearing Pads, and 'BEARING PLATE DATA TABLE' in the Structures Plans.
2. Embedded Bearing Plates A are required for all Florida-I beams. Beveled Bearing Plates B with Embedded Bearing Plates A are required for beams as scheduled in the 'BEARING PLATE DATA TABLE' in the Structures Plans.
3. Bearing plate material shall conform to ASTM A36 or ASTM A709 (Grade 36 or 50). Headed Concrete Anchor Studs shall conform to Specification Section 502. Hot-dip galvanize Bearing Plates A & B after fabrication except that Galvanized Caps may be welded in place after hot-dip galvanizing. Drill Bearing Plates A and B as an assembled unit, thread Bearing Plate A only. Holes are not required in Plate A when Plate B is not required. Drill and thread holes perpendicular to the bottom of Plate B and prior to plates being galvanized (ASTM A 123).
4. Provide Electroplated, Flat Countersunk Head Cap Screws in accordance with ASTM F 835. Electroplating shall be ASTM B633, SC 2, Type 1. Provide screws long enough to maintain a 3/4" minimum embedment into Embedded Bearing Plate A and Galvanized Cap. Provide steel Galvanized Caps with 1/2" Min. to 1 1/2" Max. height and nominal 1" inside diameter.
5. Include the cost of Bearing Plates in the pay item for Prestressed Beams.
6. For Pad Type and Dimensions C, D, E, F and G, see the 'BEARING PLATE DATA TABLE' in the Structures Plans. For Dimensions J, K1 and K2, see 'TABLE OF BEAM VARIABLES' in the Structures Plans.
7. All details and dimensions shown are along \bar{C} Beam, except for dimensions to 3/4" Dia. Screws and 1/2" Dia. x 2 1/8" Anchor Studs, which are along \bar{C} Screws or \bar{C} Anchor Studs. Positive Slope shown, Negative Slope similar.
8. When Skew = 0°, D = F and E = C; therefore, dimensions for Embedded Bearing Plate A are 1/2" x G x D and for Beveled Plate B are 1/2" Min. x C x D.
9. Slope is determined along \bar{C} Beam at \bar{C} Bearing. See 'BEARING PLATE DATA TABLE' in the Structures Plans for Slope and Angle θ .



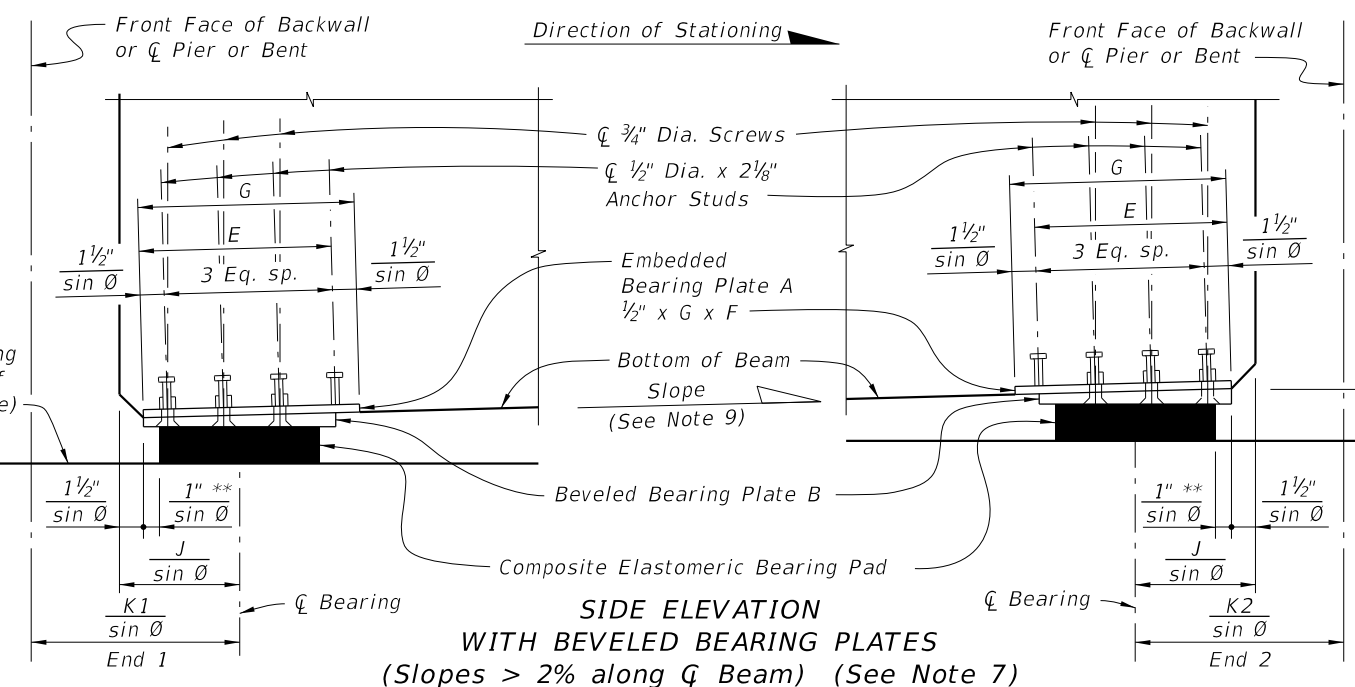
PLAN
 (0° < Skew ≤ 45° shown, Skew = 0° Similar)

BEVELED BEARING PLATE B
 (Along \bar{C} Beam)
 (Positive Slope shown;
 Negative Slope similar)

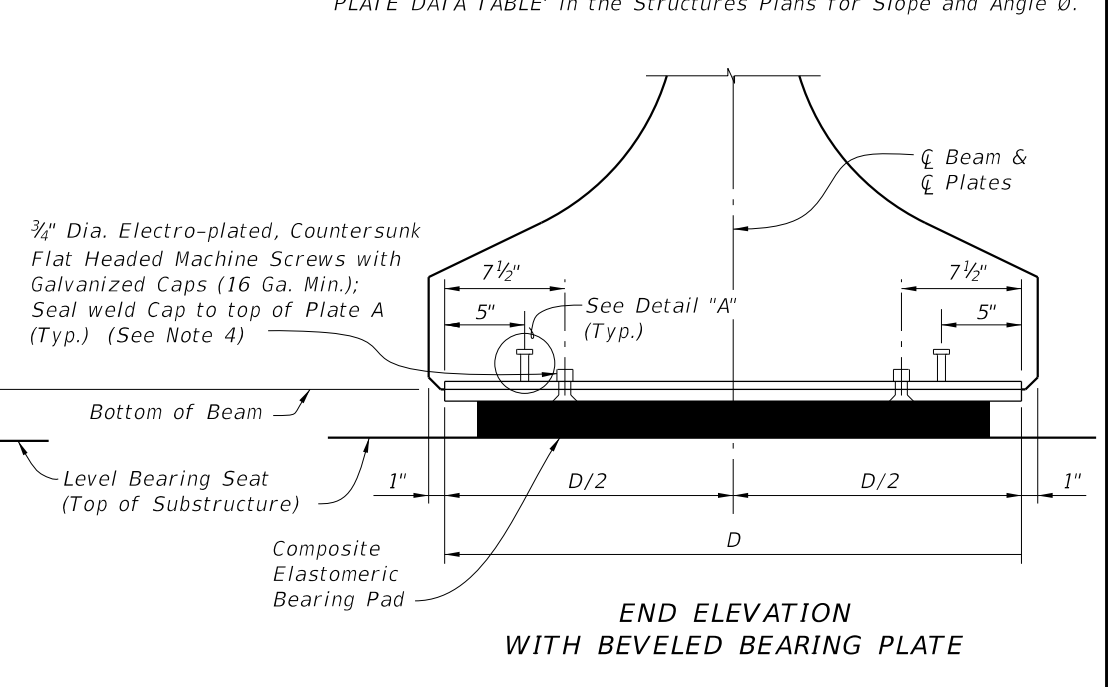
- * 1/2" when E = G (Pad Type K)
- ** 1/2" / sin θ when E = G (Pad Type K)
- *** 1 1/2" / sin θ when E = G (Pad Type K)



DETAIL "A"



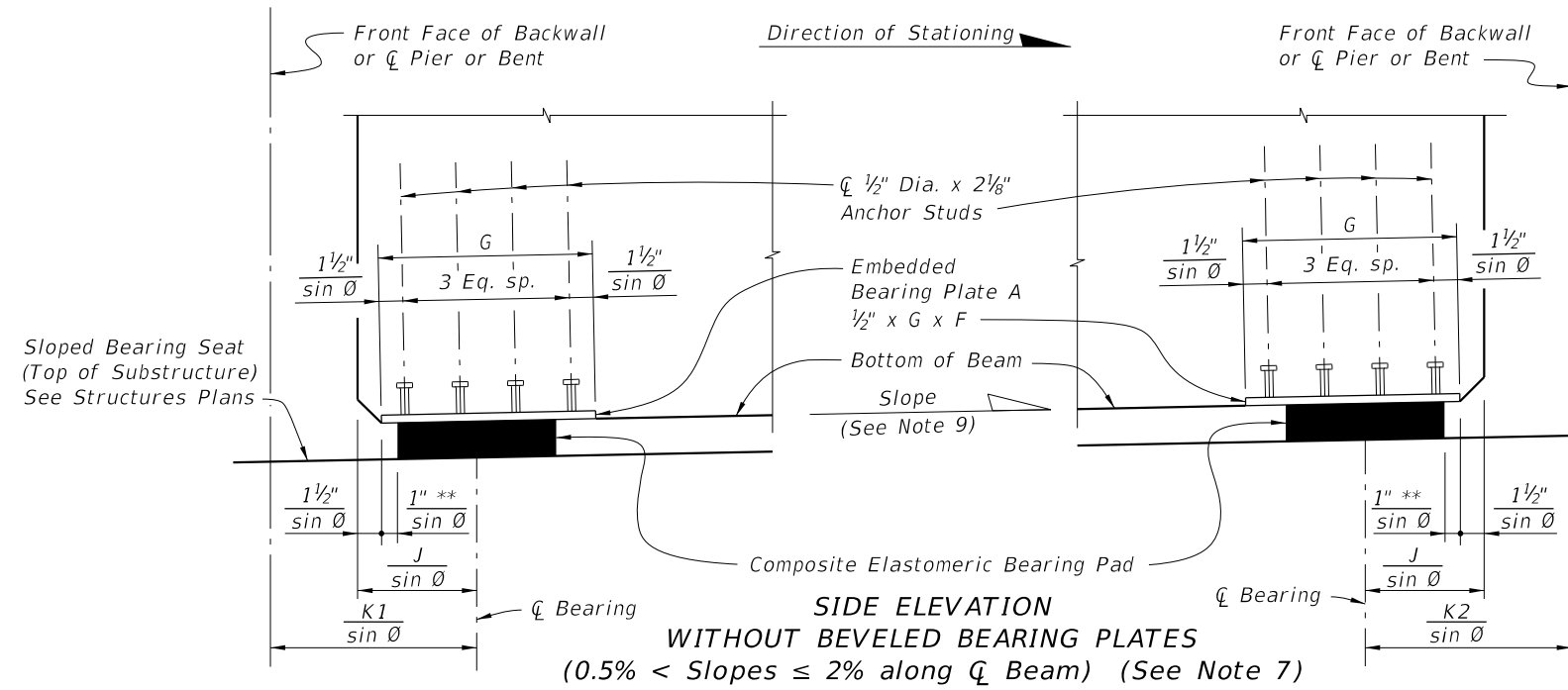
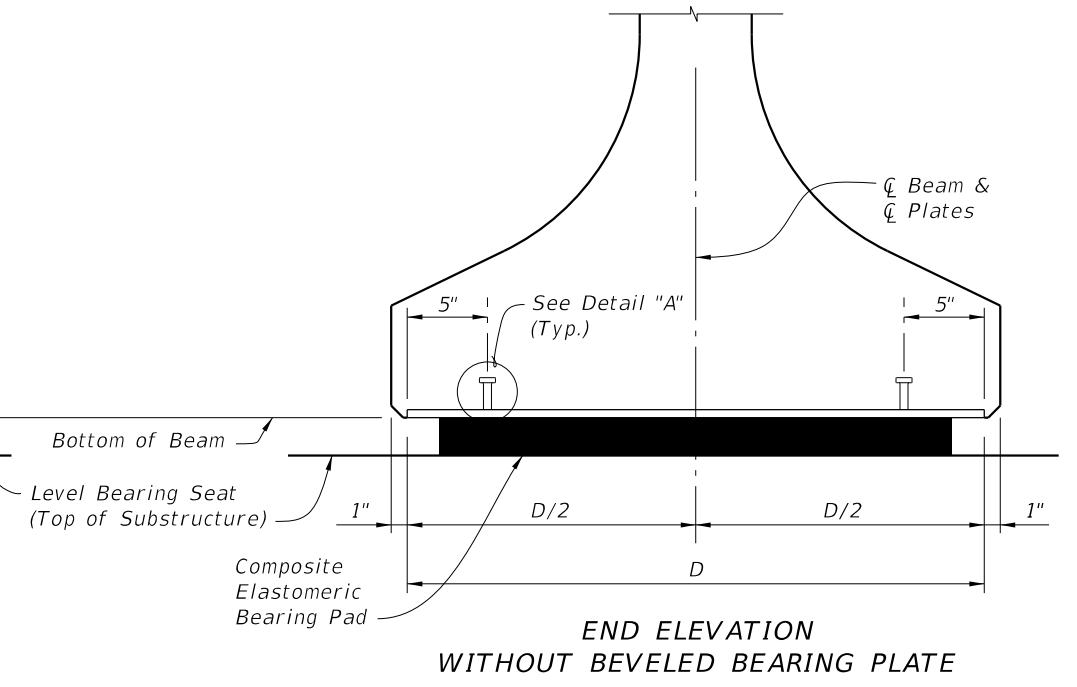
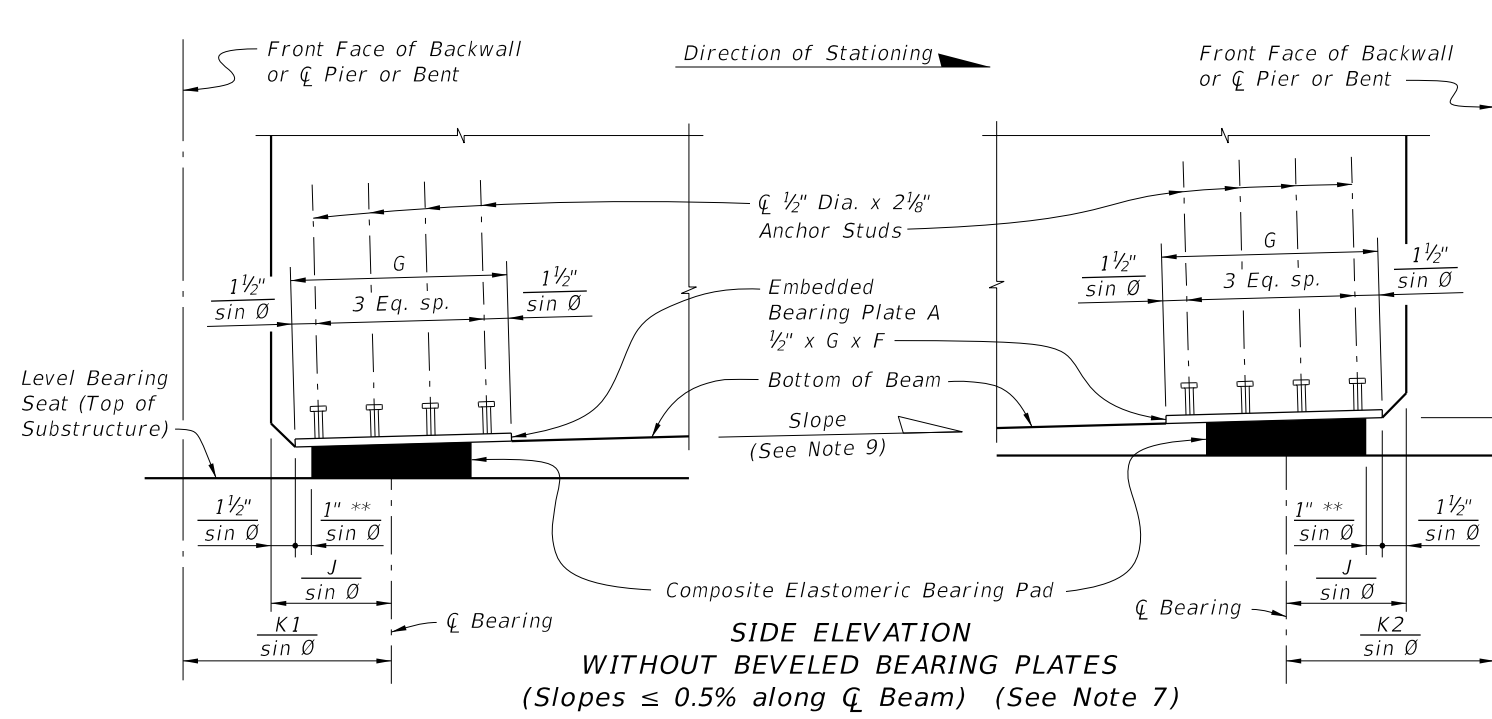
SIDE ELEVATION
 WITH BEVELED BEARING PLATES
 (Slopes > 2% along \bar{C} Beam) (See Note 7)



END ELEVATION
 WITH BEVELED BEARING PLATE

| | | | | | | |
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| LAST REVISION | DESCRIPTION: | | FDOT DESIGN STANDARDS FY 2012/2013 | BEARING PLATES (TYPE 1) - PRESTRESSED FLORIDA-I BEAMS | INDEX NO. | SHEET NO. |
| 01/01/12 | REVISION | | | | 20511 | 1 |

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Sloped Bearing Seat (Top of Substructure) See Structures Plans

** $\frac{1\frac{1}{2}}{\sin \theta}$ for Pad Type K

| LAST REVISION | DESCRIPTION: |
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| 01/01/12 | |

| REVISION | DESCRIPTION: |
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FDOT DESIGN STANDARDS
FY 2012/2013

BEARING PLATES (TYPE 1) - PRESTRESSED FLORIDA-I BEAMS

| INDEX NO. | SHEET NO. |
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| 20511 | 2 |

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Bearing Plates A & B ~ 1'-1 1/2"
 Embedded Plate A (1/2" x 1'-1 1/2" x 3'-0"
 & Beveled Plate B (1/2" Min. x C x 3'-0") (Typ.)

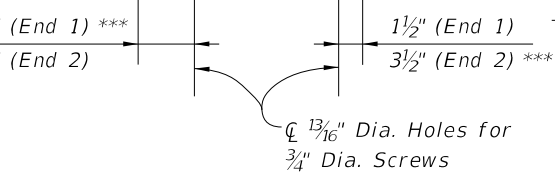
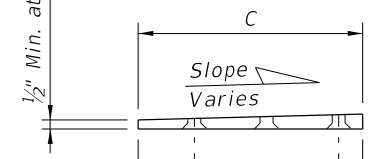
Front Face of Backwall or
 C Pier or Bent

Required when
 C = 1'-1 1/2" (Pad Type K)

C Beam, C Plates
 & C Bearing Pad

Required when
 C = 1'-1 1/2" (Pad Type K)

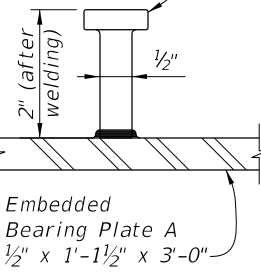
Direction of Stationing



**BEVELED BEARING PLATE B
 (Along C Beam)
 (Positive Slope shown;
 Negative Slope similar)**

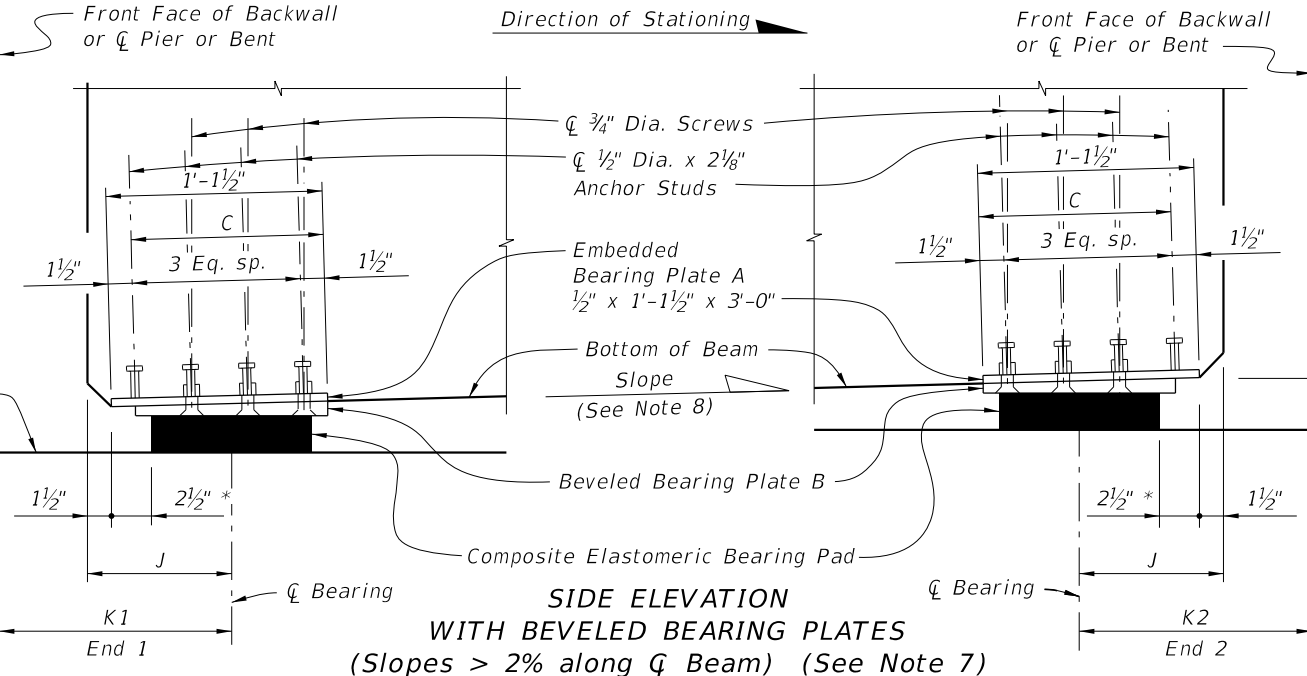
- * 1/2" when C = 1'-1 1/2" (Pad Type K)
- ** 0" when C = 1'-1 1/2" (Pad Type K)
- *** 1 1/2" when C = 1'-1 1/2" (Pad Type K)

1/2" Dia. End Welded,
 Headed Concrete
 Anchor Stud



DETAIL "A"

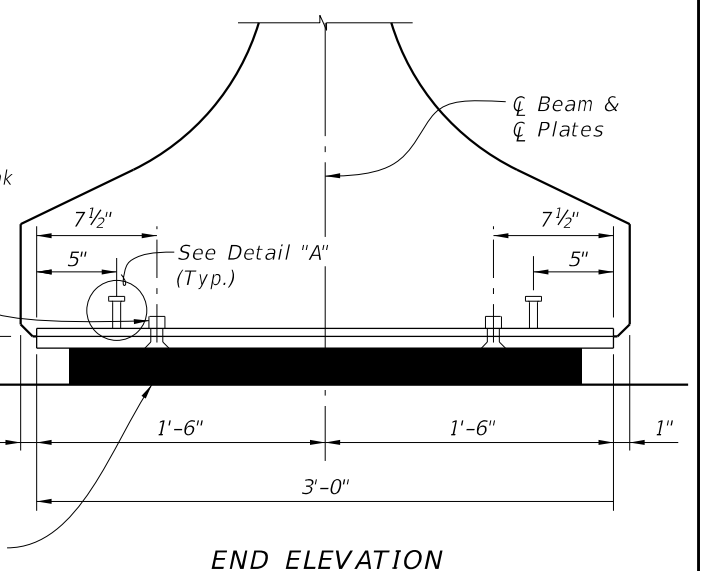
Level Bearing Seat
 (Top of Substructure)



**SIDE ELEVATION
 WITH BEVELED BEARING PLATES
 (Slopes > 2% along C Beam) (See Note 7)**

3/4" Dia. Electro-plated, Countersunk
 Flat Headed Machine Screws with
 Galvanized Caps (16 Ga. Min.);
 Seal weld Cap to top of Plate A
 (Typ.) (See Note 4)

Level Bearing Seat
 (Top of Substructure)



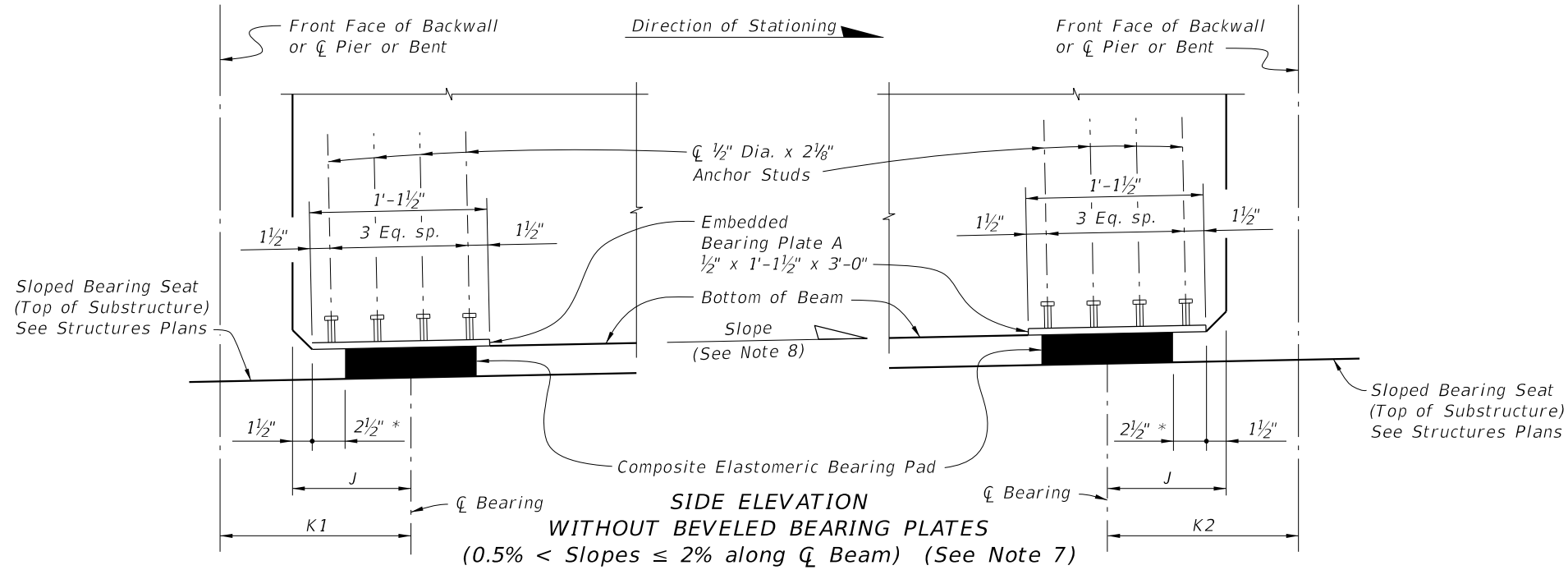
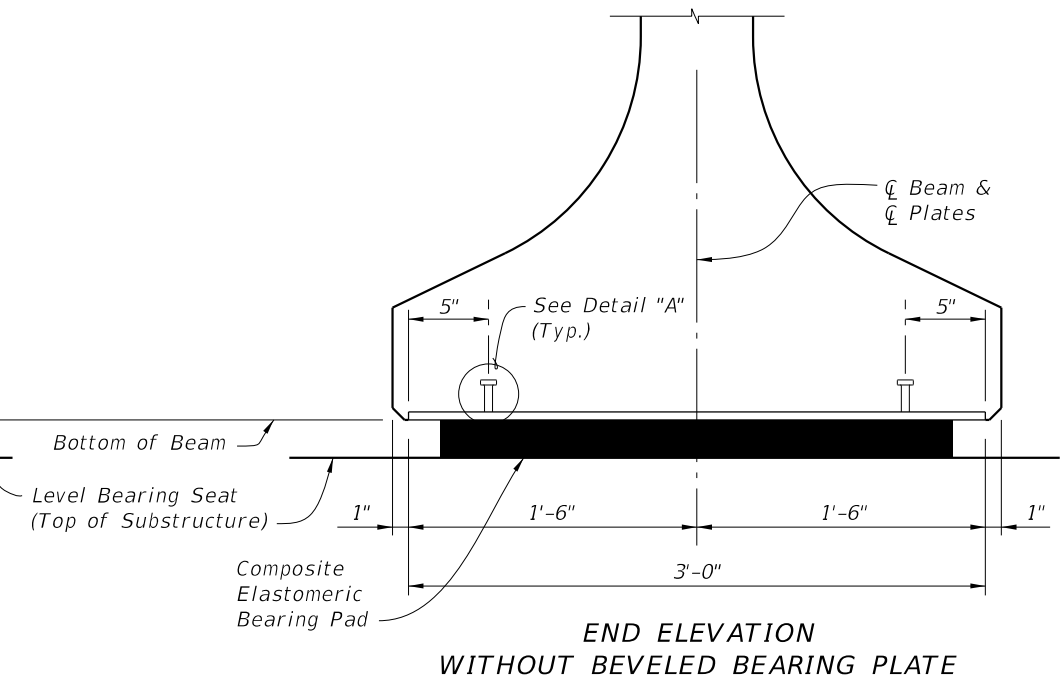
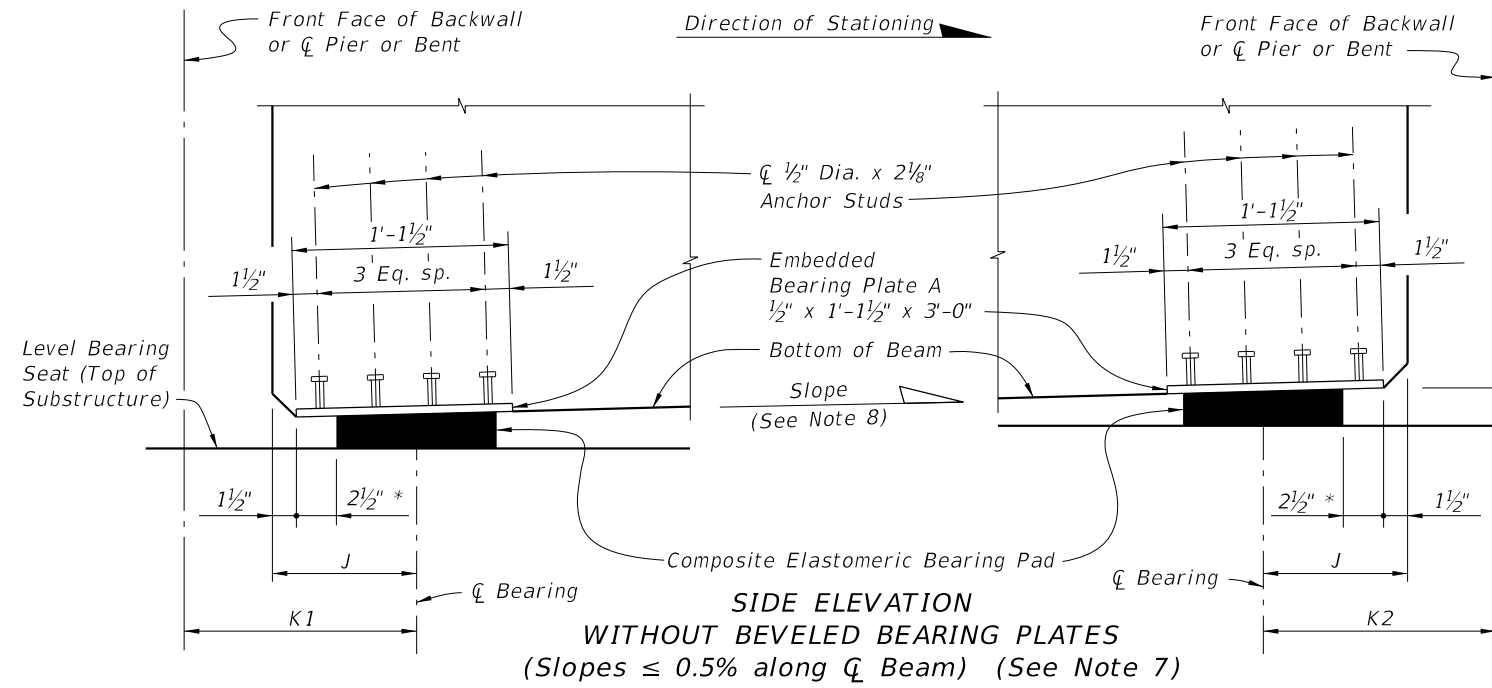
**END ELEVATION
 WITH BEVELED BEARING PLATE**

NOTES:

1. Work this sheet with Index No. 20510 - Composite Elastomeric Bearing Pads, and 'BEARING PLATE DATA TABLE' in the Structures Plans.
2. Embedded Bearing Plates A are required for all Florida-I beams. Beveled Bearing Plates B with Embedded Bearing Plates A are required for beams as scheduled in the 'BEARING PLATE DATA TABLE' in the Structures Plans.
3. Bearing plate material shall conform to ASTM A36 or ASTM A709 (Grade 36 or 50). Headed Concrete Anchor Studs shall conform to Specification Section 502. Hot-dip galvanize Bearing Plates A & B after fabrication except that Galvanized Caps may be welded in place after hot-dip galvanizing. Drill Bearing Plates A and B as an assembled unit, thread Bearing Plate A only. Holes are not required in Plate A when Plate B is not required. Drill and thread holes perpendicular to the bottom of Plate B and prior to plates being galvanized (ASTM A 123).
4. Provide Electroplated, Flat Countersunk Head Cap Screws in accordance with ASTM F 835. Electroplating shall be ASTM B633, SC 2, Type 1. Provide screws long enough to maintain a 3/4" minimum embedment into Embedded Bearing Plate A and Galvanized Cap. Provide steel Galvanized Caps with 1/2" Min. to 1 1/2" Max. height and nominal 1" inside diameter.
5. Include the cost of Bearing Plates in the pay item for Prestressed Beams.
6. For Pad Type and Dimension C, see the 'BEARING PLATE DATA TABLE' in the Structures Plans. For Dimensions J, K1 and K2, see 'TABLE OF BEAM VARIABLES' in the Structures Plans.
7. All details and dimensions shown are along C Beam. Positive Slope shown, Negative Slope similar.
8. Slope is determined along C Beam at C Bearing. See 'BEARING PLATE DATA TABLE' in the Structures Plans for Slope.

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| LAST REVISION | REVISION | DESCRIPTION: | | FDOT DESIGN STANDARDS FY 2012/2013 | BEARING PLATES (TYPE 2) - PRESTRESSED FLORIDA-I BEAMS | INDEX NO. 20512 | SHEET NO. 1 |
| 01/01/12 | | | | | | | |

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* 1/2" for Pad Type K

| | | | | | |
|---------------|--------------|--|--|-----------|-----------|
| LAST REVISION | DESCRIPTION: |  FDOT DESIGN STANDARDS FY 2012/2013 | BEARING PLATES (TYPE 2) - PRESTRESSED FLORIDA-I BEAMS | INDEX NO. | SHEET NO. |
| 01/01/12 | | | | 20512 | 2 |