

**Origination Form**  
Proposed Revisions to a Standard Plans Index

|                    |                               |                         |                       |
|--------------------|-------------------------------|-------------------------|-----------------------|
| <b>Originator:</b> | Turley, Joshua                | <b>Index Number:</b>    | 450-453               |
| <b>Date:</b>       | 6/12/2025                     | <b>Sheet Number(s):</b> | 1                     |
| <b>E-mail:</b>     | Joshua.Turley@dot.state.fl.us | <b>Index Title:</b>     | 18" FLORIDA SLAB BEAM |

**Summary of the changes:**

Sheet 1: Updated to the 5Z to increase their length.

**Commentary/Background:**

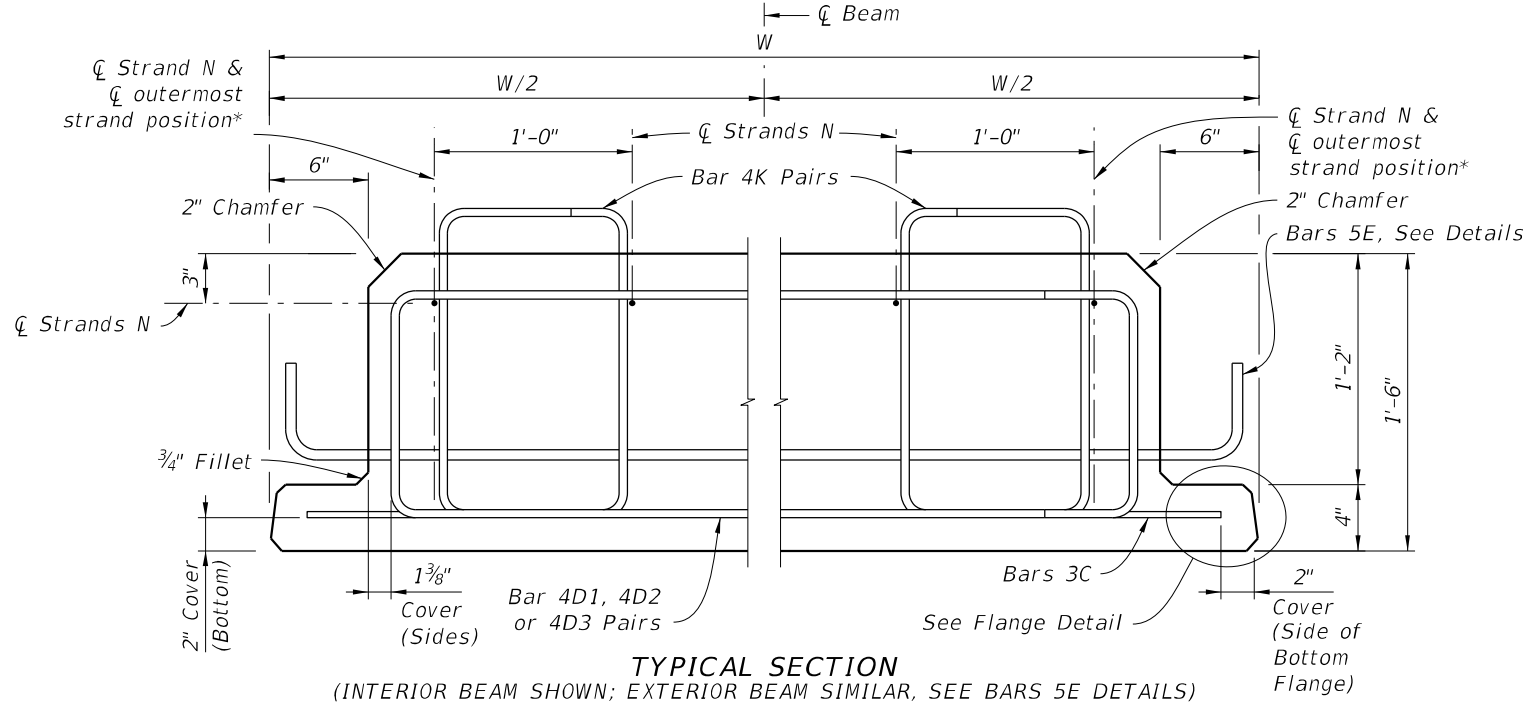
To improve resistance to increased tensile stresses from recent design checks using FDOT's Prestressed Beam program, and mitigate the risk of cracking, the standard detail is being updated to extend the length of the existing 5Z bars.

| Other Affected Documents/Offices | Person Contacted | Affected (Yes/No) |
|----------------------------------|------------------|-------------------|
| Other Standard Plans             |                  | No                |
| FDOT Design Manual               |                  | No                |
| Standard Specifications          |                  | No                |
| Basis of Estimates Manual        |                  | No                |
| Approved Product List            |                  | No                |
| Construction Office              |                  | No                |
| Maintenance Office               |                  | No                |

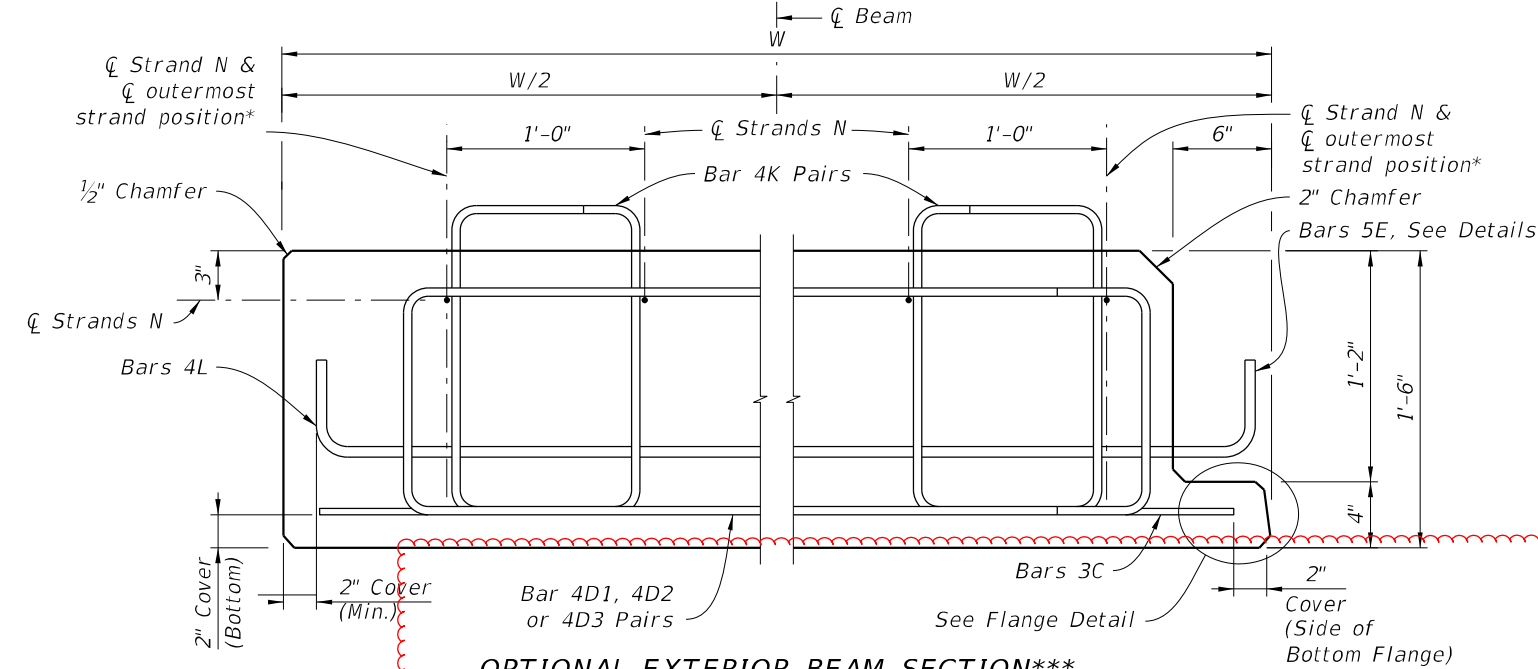
**Implementation**

["FY-Standard Plans (Next Release)"]

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**TYPICAL SECTION**  
(INTERIOR BEAM SHOWN; EXTERIOR BEAM SIMILAR, SEE BARS 5E DETAILS)

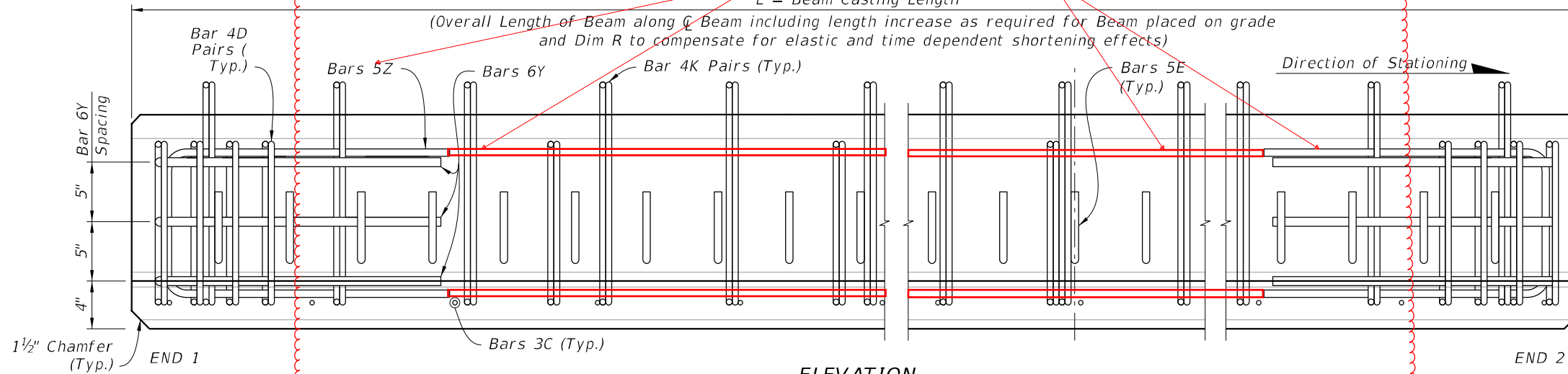


**OPTIONAL EXTERIOR BEAM SECTION\*\***

Lengthen these 5z bars

L = Beam Casting Length

(Overall Length of Beam along CL Beam including length increase as required for Beam placed on grade and Dim R to compensate for elastic and time dependent shortening effects)

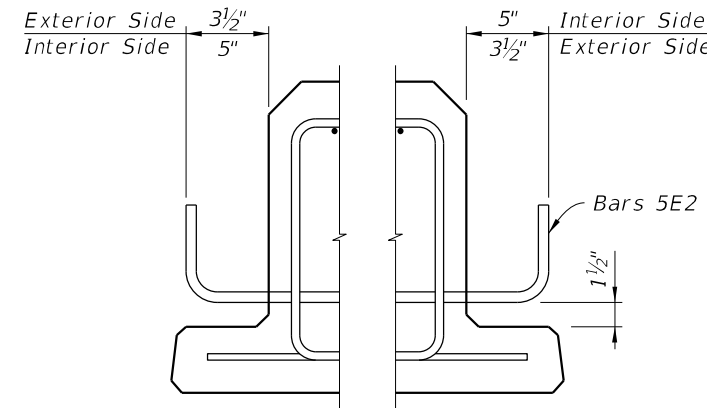


**ELEVATION**

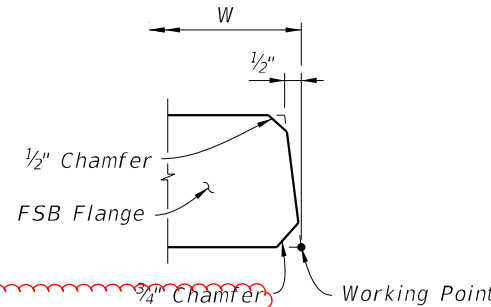
**NOTES:**  
Work this Index with Index 450-450 and Florida Slab Beams - Table of Variables in Structures Plans.  
For Dimensions C, D, E, L, R, W & Y and Angle  $\theta$ , see Florida Slab Beam - Table of Variables in Structures Plans.  
For referenced notes, see Index 450-450, Sheet 1.

\* For CL of outermost strand positions, see corresponding Strand Pattern on Florida Slab Beams - Table of Variables in Structures Plans.

\*\* At the Contractor's option, the Detail as shown for Interior Beams may be used for Exterior Beams and the Bars 5E field bent on the exterior side of the Beam to provide the specified cover to the coping line.



**EXTERIOR BEAMS\*\***

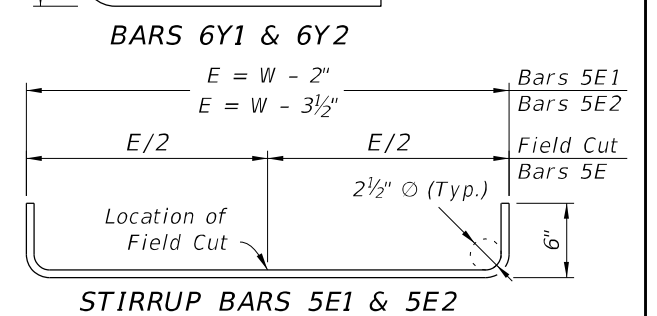
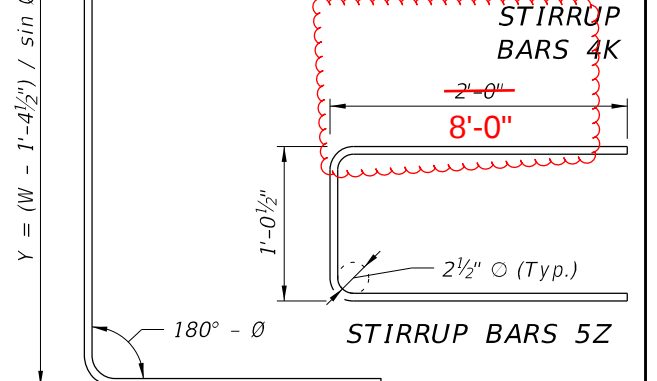
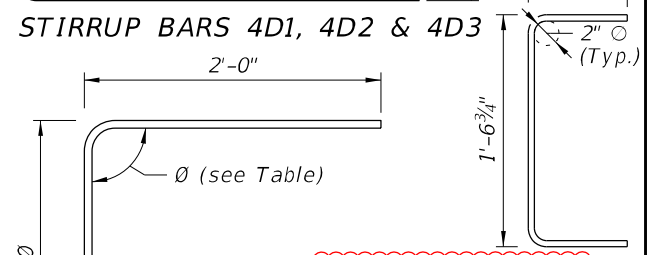
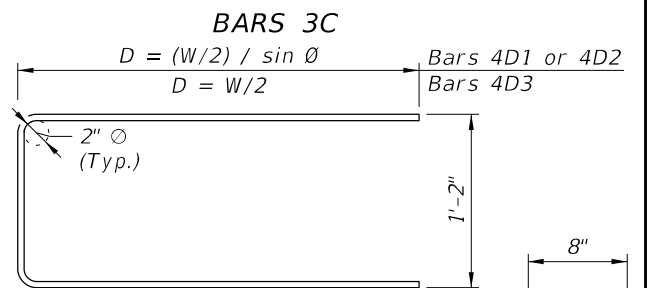
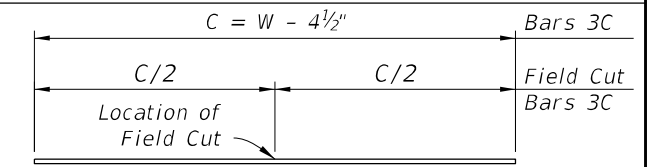


**FLANGE DETAIL**  
(TYPICAL BOTH SIDES OF FSB)

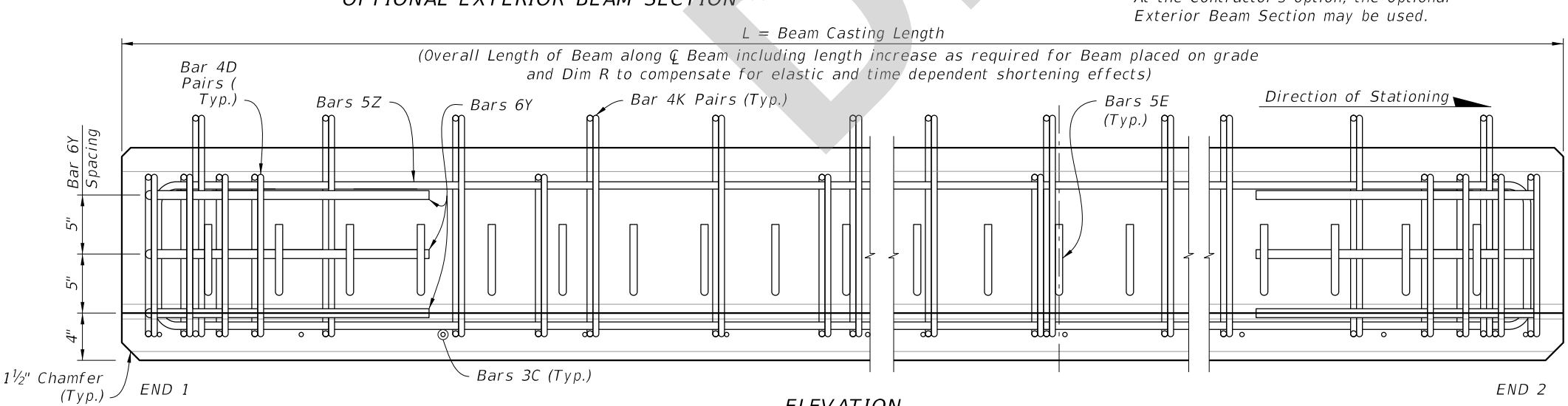
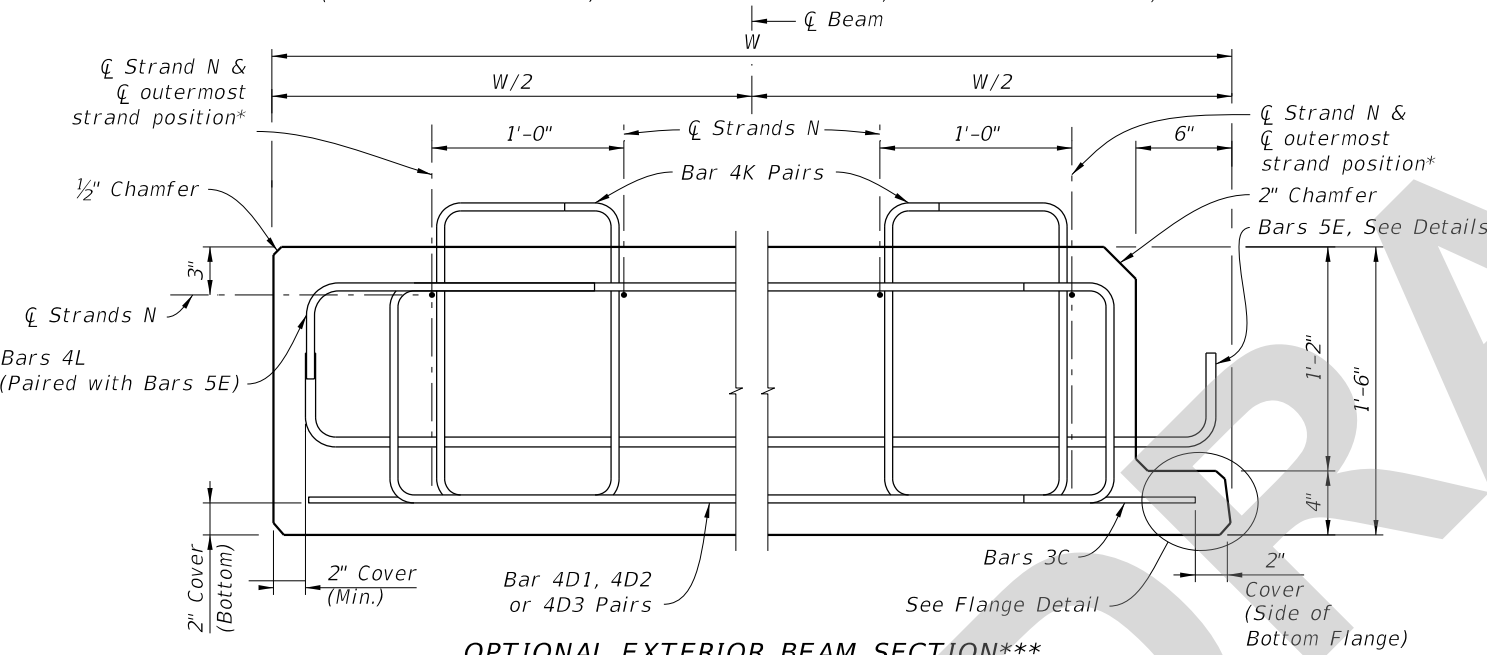
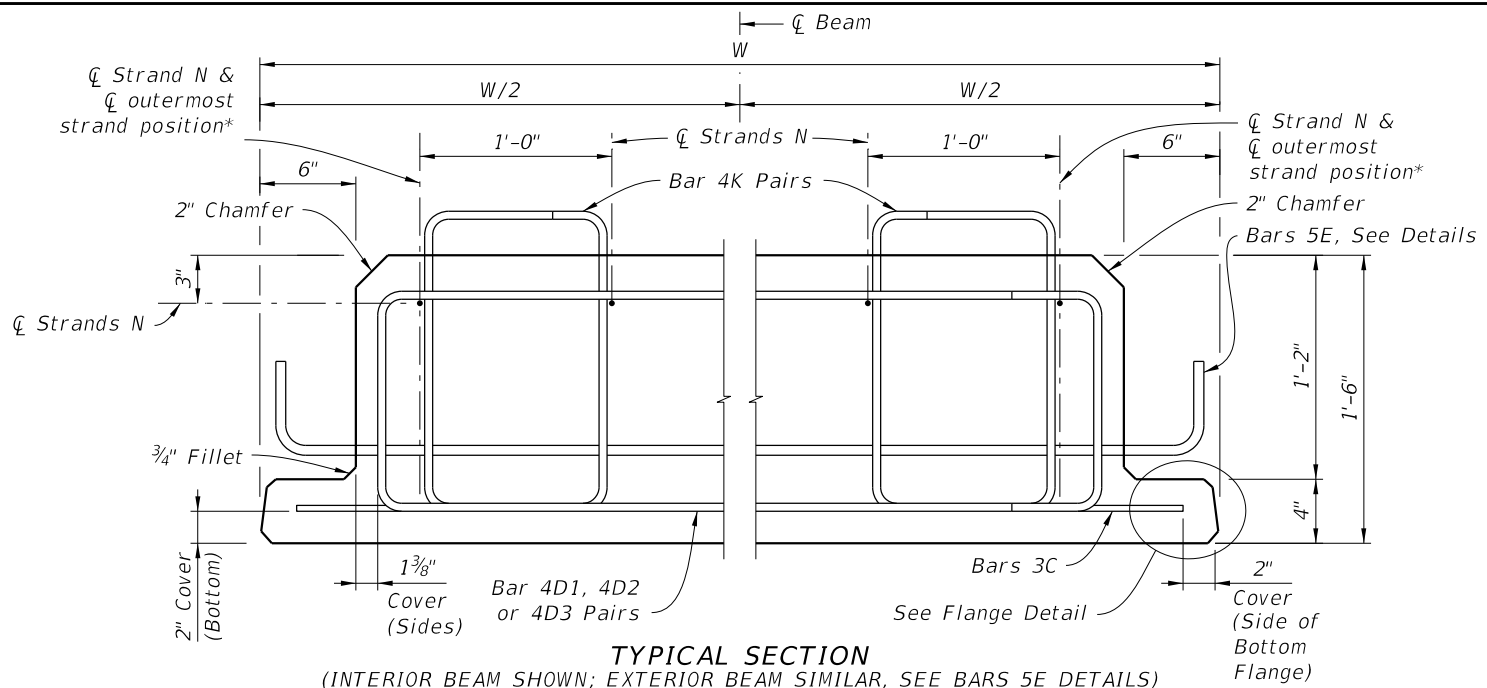
\*\*\* At the Contractor's option, the Optional Exterior Beam Section may be used.

| BILL OF REINFORCING STEEL<br>FOR ONE BEAM ONLY |               |                 |                    |                    |
|------------------------------------------------|---------------|-----------------|--------------------|--------------------|
| MARK                                           | SIZE          | NOTE<br>NUMBERS | NUMBER<br>REQUIRED | LENGTH<br>(NOTE 1) |
| C                                              | 3             |                 | See Table          | Varies             |
| D1                                             | 4             | 6               | 10 (End 1)         | Varies             |
| D2                                             | 4             | 6               | 10 (End 2)         | Varies             |
| D3                                             | 4             |                 | See Table          | Varies             |
| E1                                             | 5             | 7               | See Table          | Varies             |
| E2                                             | 5             | 7               | See Table          | Varies             |
| K                                              | 4             |                 | See Table          | 2'-11"             |
| N                                              | See<br>Note 3 | 3               | 4                  | Varies             |
| Y1                                             | 6             | 6               | 3 (End 1)          | Varies             |
| Y2                                             | 6             | 6               | 3 (End 2)          | Varies             |
| Z                                              | 5             |                 | 6                  | 17'-5'-0 1/2"      |

**BENDING DIAGRAMS** (See Note 1)



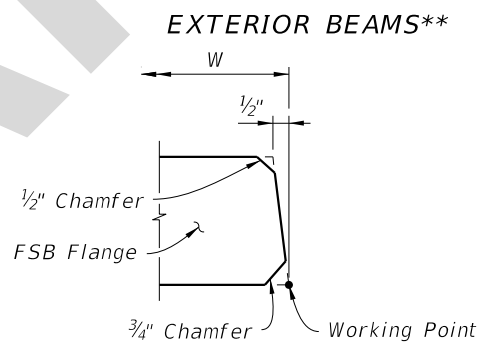
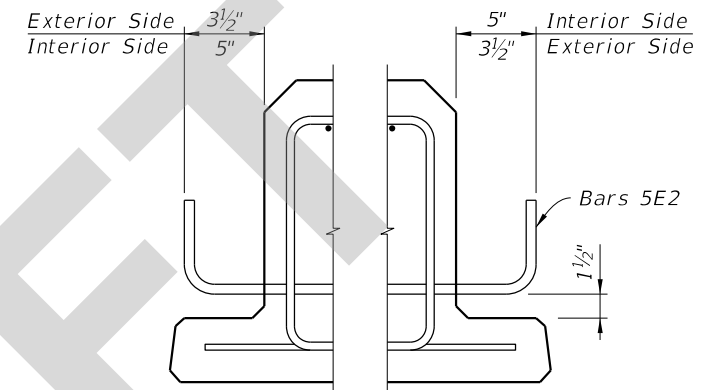
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NOTES:  
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| BILL OF REINFORCING STEEL FOR ONE BEAM ONLY |            |              |                 |                 |
|---------------------------------------------|------------|--------------|-----------------|-----------------|
| MARK                                        | SIZE       | NOTE NUMBERS | NUMBER REQUIRED | LENGTH (NOTE 1) |
| C                                           | 3          |              | See Table       | Varies          |
| D1                                          | 4          | 6            | 10 (End 1)      | Varies          |
| D2                                          | 4          | 6            | 10 (End 2)      | Varies          |
| D3                                          | 4          |              | See Table       | Varies          |
| E1                                          | 5          | 7            | See Table       | Varies          |
| E2                                          | 5          | 7            | See Table       | Varies          |
| K                                           | 4          |              | See Table       | 2'-11"          |
| L                                           | 4          | **           | See Table       | 2'-0"           |
| N                                           | See Note 3 | 3            | 4               | Varies          |
| Y1                                          | 6          | 6            | 3 (End 1)       | Varies          |
| Y2                                          | 6          | 6            | 3 (End 2)       | Varies          |
| Z                                           | 5          |              | 6               | 17'-0 1/2"      |

