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### NOTES:

1. An Index Number beginning with a prefix letter S. i.e. S-102, is used to designate a Semi-Standard sheet.
2. An Index Number beginning with prefix letter I. i.e. I-122, is used to designate a sheet providing Instructions.
3. An asterisk (*) adjacent to an Index Number designates a drawing not yet available at time of printing.
4. Comments and or questions concerning these Standards shall be directed (preferably in writing) to Angelo J. Garcia.
PREFACE

These Standard Drawings were produced with the use of our Computer Aided Design and Drafting (CADD) equipment.

The drawings herein depict common structural components or elements suitable for standardization. Whenever possible the drawings were developed to full completion, that is, they are ready for insertion in the Contract Documents. These drawings are generally referred to as "Standards" (Index Numbers).

Some other drawings are not fully developed and should, therefore, be completed by the designer prior to their inclusion in the Contract Documents. These drawings are commonly referred to as "Semi-Standards" (S-Index Numbers).

Some occasions may arise where the designer will need to alter a "Standard" drawing to suit a particular design. In this event the designer may proceed as follows:

1. Produce a new project specific drawing using the "Standard" as a guide, or:

2. Obtain a reproducible copy of the "Standard" and perform the needed modifications on the reproducible copy. At this time the drawing will cease to be a "Standard" and the original index number and initials (designers and others) shall be deleted, or:

3. Show the modifications on a separate sheet and provide cross-reference notes stating that the "Standard" is subject to modifications shown on another sheet.

It should be clearly understood that any modification to a "Standard" transfers the responsibility for that drawing to the designer, and requires his seal and signature.

The number indicates the year. If the letter "R" is added, the drawing issued the previous year was revised.
INSTRUCTIONAL NOTES

GENERAL: This instructional drawing has been prepared for use with prestressed beam Semi-Standard Drawings Nos. S-100, S-101, S-102, S-110, and S-111 and depicts only those portions of the Semi-Standards that would normally require design input for completion of the drawing. The Semi-Standards must be used in conjunction with the appropriate Standard drawings, and use sufficient information to the Contractor to prepare fabrication information from the design plans without requiring a formal Shop Drawing submission subject to compliance with the requirements of the Specifications. The following list illustrates how to Standard Drawings and the corresponding Semi-Standards to which they relate:

- Standard Drawing No. 100, 101, 110
- Use with Semi-Standards Drawings Nos. S-102, S-103 and/or S-104
- Indicates fully bonded strands.
- Indicates not bonded.

OTHER CONSIDERATIONS:

1. Site conditions dictate special bearing locations at the end of the bridge.
2. The locations and placement of Bars C in the bottom flange.
3. The beam and skew.
4. The designation of plates on exterior beams.

The method of showing the following listed information is noteworthy:

- Design input for completion of the drawings. The Semi-Standards must be used in conjunction with the appropriate "TYPICAL NOTES AND DETAILS" sheet(s) as required.

The following list describes the requirements of the Specifications. The following list describes the information to the Contractor to permit beam fabrication from the design plans in conjunction with the appropriate Standard drawings, provide sufficient information to complete the drawings. The Semi-Standards may suffice for many Semi-Standards. When completed, the Semi-Standards must be used in conjunction with the appropriate Semi-Standards to which they relate.

NOTE: All dimensions are given in feet and inches or millimeters. When making a drawing to scale, 1" = 1'-0" = 1:12 scale, except for Beam Dimensions (Standard Drawing Nos. 100, 101 and 110); however, the method of showing the following listed information is noteworthy.

- The use of stirrup spacing "S6" and the corresponding dimension "V" may suffice for many Semi-Standards.
- The use of double lines of referenced, selected data to describe differences in end of beam geometry.
- The use of double lines of referenced, selected data to describe differences in end of beam geometry.

EXAMPLE: This example drawing shows the data required to complete a Type III beam Semi-Standard Drawings Nos. S-102 thru S-106, S-111, S-112 and/or S-113.

3. The beam and skew.
4. The beam and bevel.
5. The designation of plates on exterior beams.
6. The use of stirrup spacing "S6" and the corresponding dimension "V" may suffice for many Semi-Standards.
**GENERAL NOTES**

(1) Spacing for Bars K, L, N, and Z shown are measured along centerline of beam.

(2) Bars L shall be bent prior to the beam leaving the prestressing yard.

(3) Bars D, K, and Z shall be bent around pins having the following diameters:
- Bars D: 0.75" Min.
- Bars K and Z: 0.75" Min.

(4) Bars L shall be bent prior to the beam leaving the prestressing yard. The bar will be embedded in the diaphragm concrete.

(5) Caution should be used with Bars L in the ends of exterior beams to assure that the bent portion of the bar is properly oriented so that the bar will be embedded in the diaphragm concrete.

(6) Bars N shall be either ASTM A416, Grade 250 or 270, seven-wire strands when inserts are required the dimensions and orientation will be shown in the Table.

(7) Bars N (strand) do not need to be epoxy coated.

(8) (NS) means Near Side and (FS) means Far Side, both referring to which location. (NS) and (FS) are referenced to the DIRECTION OF STATIONING

**TABLE OF BEAM VARIABLES**

<table>
<thead>
<tr>
<th>Beam</th>
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<th>Prestress</th>
<th>Cover Plate</th>
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**REINFORCING STEEL**

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<tr>
<th>Main</th>
<th>Size</th>
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<th>Length</th>
<th>Epoxy</th>
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**BILL OF REINFORCING STEEL**

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**ENGINEER OF RECORD:**

[Name]

[Signature]

[Date]

**CHECKED BY:**

[Name]

[Signature]

[Date]

**DESIGNED BY:**

[Name]

[Signature]

[Date]

**DRAWN BY:**

[Name]

[Signature]

[Date]
**BEAM NO.**

- Concrete Properties
- Steel Type
- Plan View of Curved Beam
- Plan View of Flat Beam
- End of Beam and Column Dimensions
- Beam Dimensions
- Number of Spaces
- Summary of Beam Specifications
- Reinforcing Steel

**SUMMARY OF BEAM SPECIFICATIONS**

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<td>AASHTO TYPE II BEAMS</td>
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**GENERAL NOTES**

1. All bar dimensions are out-to-out.
2. Beam sizes and chords should be near the outer edges of the beams, not at the center.
3. Bars K and Z shall be spaced at least 1'-0" from the center of the beam.
4. Bars K and Z shall be spaced at least 1'-0" from the center of the beam.
5. Bars D shall be bent prior to the beam leaving the prestressing yard.
6. Bars N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
7. Bars A shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
8. (NS) means Near Side and (FS) means Far Side, both referring to which side of the beam.
9. Bars L shall be epoxy coated.
10. Bars M shall be epoxy coated.
11. Bars A shall be bent prior to the beam leaving the prestressing yard.
12. Bars N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
13. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
14. Bars L shall be bent prior to the beam leaving the prestressing yard.
15. Bars M shall be bent prior to the beam leaving the prestressing yard.
16. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
17. Bars L shall be bent prior to the beam leaving the prestressing yard.
18. Bars M shall be bent prior to the beam leaving the prestressing yard.
19. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
20. Bars L shall be bent prior to the beam leaving the prestressing yard.
21. Bars M shall be bent prior to the beam leaving the prestressing yard.
22. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
23. Bars L shall be bent prior to the beam leaving the prestressing yard.
24. Bars M shall be bent prior to the beam leaving the prestressing yard.
25. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
26. Bars L shall be bent prior to the beam leaving the prestressing yard.
27. Bars M shall be bent prior to the beam leaving the prestressing yard.
28. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
29. Bars L shall be bent prior to the beam leaving the prestressing yard.
30. Bars M shall be bent prior to the beam leaving the prestressing yard.
31. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
32. Bars L shall be bent prior to the beam leaving the prestressing yard.
33. Bars M shall be bent prior to the beam leaving the prestressing yard.
34. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
35. Bars L shall be bent prior to the beam leaving the prestressing yard.
36. Bars M shall be bent prior to the beam leaving the prestressing yard.
37. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
38. Bars L shall be bent prior to the beam leaving the prestressing yard.
39. Bars M shall be bent prior to the beam leaving the prestressing yard.
40. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
41. Bars L shall be bent prior to the beam leaving the prestressing yard.
42. Bars M shall be bent prior to the beam leaving the prestressing yard.
43. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
44. Bars L shall be bent prior to the beam leaving the prestressing yard.
45. Bars M shall be bent prior to the beam leaving the prestressing yard.
46. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
47. Bars L shall be bent prior to the beam leaving the prestressing yard.
48. Bars M shall be bent prior to the beam leaving the prestressing yard.
49. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
50. Bars L shall be bent prior to the beam leaving the prestressing yard.
51. Bars M shall be bent prior to the beam leaving the prestressing yard.
52. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
53. Bars L shall be bent prior to the beam leaving the prestressing yard.
54. Bars M shall be bent prior to the beam leaving the prestressing yard.
55. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
56. Bars L shall be bent prior to the beam leaving the prestressing yard.
57. Bars M shall be bent prior to the beam leaving the prestressing yard.
58. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
59. Bars L shall be bent prior to the beam leaving the prestressing yard.
60. Bars M shall be bent prior to the beam leaving the prestressing yard.
61. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
62. Bars L shall be bent prior to the beam leaving the prestressing yard.
63. Bars M shall be bent prior to the beam leaving the prestressing yard.
64. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
65. Bars L shall be bent prior to the beam leaving the prestressing yard.
66. Bars M shall be bent prior to the beam leaving the prestressing yard.
67. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
68. Bars L shall be bent prior to the beam leaving the prestressing yard.
69. Bars M shall be bent prior to the beam leaving the prestressing yard.
70. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
71. Bars L shall be bent prior to the beam leaving the prestressing yard.
72. Bars M shall be bent prior to the beam leaving the prestressing yard.
73. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
74. Bars L shall be bent prior to the beam leaving the prestressing yard.
75. Bars M shall be bent prior to the beam leaving the prestressing yard.
76. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
77. Bars L shall be bent prior to the beam leaving the prestressing yard.
78. Bars M shall be bent prior to the beam leaving the prestressing yard.
79. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
80. Bars L shall be bent prior to the beam leaving the prestressing yard.
81. Bars M shall be bent prior to the beam leaving the prestressing yard.
82. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
83. Bars L shall be bent prior to the beam leaving the prestressing yard.
84. Bars M shall be bent prior to the beam leaving the prestressing yard.
85. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
86. Bars L shall be bent prior to the beam leaving the prestressing yard.
87. Bars M shall be bent prior to the beam leaving the prestressing yard.
88. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
89. Bars L shall be bent prior to the beam leaving the prestressing yard.
90. Bars M shall be bent prior to the beam leaving the prestressing yard.
91. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
92. Bars L shall be bent prior to the beam leaving the prestressing yard.
93. Bars M shall be bent prior to the beam leaving the prestressing yard.
94. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
95. Bars L shall be bent prior to the beam leaving the prestressing yard.
96. Bars M shall be bent prior to the beam leaving the prestressing yard.
97. Bars A and N shall be either ASTM A416, Grade 250 or 270, seven-wire strands.
98. Bars L shall be bent prior to the beam leaving the prestressing yard.
99. Bars M shall be bent prior to the beam leaving the prestressing yard.
Three types of drawings are included: Instructional Drawings, Standard Drawings, and Semi-standard Drawings. The Instructional Drawings are provided to assist designers in preparing the contract drawings. These drawings are typically used for the Florida Double-Tee Bridge Plans. The Standard Drawings are complete except for the title blocks. Only the applicable FDOT Standard Drawings are provided in the general drawings. The semi-standard drawings provide general instructions, notes, and drawings. The standard is also limited to simply supported spans, over 4'-0".
SECTION NO. 1: shows a non-symmetrical bridge section with crowned and sidewalk beams. The width of the sidewalk beam is sized to accommodate vehicle and pedestrian crossings.

SECTION NO. 2: represents a symmetrical bridge section with constant cross slope. The section shown uses an even number of beams. If the number of beams is odd, a crowned beam is required similar to that shown in Section No. 1.

SECTION NO. 3: represents a symmetrical crowned bridge section. The section shown uses an even number of beams. If the number of beams is odd, a crowned beam is required similar to that shown in Section No. 1.

SECTION NO. 4: represents a variation of SECTION NO. 1. In this case, the sidewalk is raised above the traffic riding surface.

Keeper block shall be built after completion of transverse post-tensioning. The width of the sidewalk beam is sized to accommodate vehicle and pedestrian crossings. Use bars T5 at all tendon deviations (Designer shall detail Blocks and locations). Use Bars T5 at all tendon deviations (Designer shall detail Blocks and locations) and 4 - #4 bars min. between bridge seat and block. (Designer shall detail Blocks and locations) and 4 - #4 bars min. between bridge seat and block. (Designer shall detail these bars and other sidewalk reinforcement in the Superstructure Drawings.)

Foundation/Soil: Keep all sidewalks clear of any settlement or subsidence. (Designer shall detail these bars and other sidewalk reinforcement in the Superstructure Drawings.)

Elastomeric Bearing Pad

Notes:
The bridge sections depicted on this sheet show several possible applications of Double-Tee beams. The bridge sections are intended to provide guidance for the design of Double-Tee bridge sections. The sections shown are not intended to be used as a standard design. The sections shown are intended to provide guidance for the design of Double-Tee bridge sections. The sections shown are not intended to be used as a standard design. The sections shown are intended to provide guidance for the design of Double-Tee bridge sections. The sections shown are not intended to be used as a standard design.
**NOTICE**

Reinforcement for Barrier Transition shall be provided in accordance with Note A of Standard Index No. 500.

1. All reinforcement shall be welded in accordance with Section 504.

2. Bars "T2" are required per beam.

3. Bars "T1" are required per beam.

4. Bars "T3" are required per beam.

5. Bars "T5" are required per beam.

6. Bars "T4" are required per beam.

7. All bar bends shall be made with a 2" diameter pin unless otherwise noted.

8. Refer to General Notes for spacing requirements.

**NOTE**

Intermediate Strands not shown.

**NOTE**

For Dimensions "A", "L", "W", "X" & "Y", and Strand Pattern, see FDT18 Table of Variables & Strand Patterns Sheet.

**NOTE**

Refer to General Notes for epoxy steel requirements.

**NOTE**

1. The Welded Wire Fabric (T3) shall consist of eight (8) longitudinal W8 wires spaced at twelve (12) inches.

2. The Welded Wire Fabric (T4) shall consist of eight (8) longitudinal D8 wires spaced at six (6) inches.

3. The W8 wires shall be spaced as shown above and their length, in the finished beam, shall be equal to the length of the precast flange strands plus one (1) foot. Sufficient material to include splices shall be provided. Splices, if needed, shall be 14" Minimum.

4. The W8 wires shall be welded to transverse D8 wires spaced at twelve (12) inches.

5. The longitudinal W8 wires for the welded wire fabric (T3) do not require splicing. Splices, if needed, shall be 2" Pitch.

6. The Welded Wire Fabric (T4) shall consist of eight (8) longitudinal W8 wires spaced at twelve (12) inches.

7. The Welded Wire Fabric (T5) shall consist of eight (8) longitudinal D8 wires spaced at six (6) inches.

8. All bar bends shall be made with a 2" diameter pin unless otherwise noted.

9. Refer to General Notes for spacing requirements.
**DGNSPECIFICATION**

**PROJECT NO.**

**SIDE VIEW**

**By**

**COUNTY**

**FISCAL**

**STATE**

**REVISIONS**

**ENGINEER OF RECORD:**

**STRUCTURES DESIGN OFFICE**

Tallahassee, Florida 32399-0450

**LOGO:**

See Standard Index No. 720

**TYPE 2**

**TYPE 5**

**TYPE 1**

**TYPE 4**

See "Strand Cutting" note, Index No. 123.

The Welded Wire Fabric (T3) shall consist of eight (8) longitudinal strands spaced as shown above and their length, in the finished beam, shall be equal to the length of the precast flange plus one (1) foot. Sufficient material to include splices shall be provided. Splices, if needed, shall be 14" Minimum.

The longitudinal W8 wires for the welded wire fabric (T3) do not require splicing. The W8 wires shall be spaced as shown above and their length, in the finished beam, shall be equal to the length of the precast flange plus one (1) foot. Sufficient material to include splices shall be provided. Splices, if needed, shall be 14" Minimum.

The W8 wires welded to transverse D8 wires spaced at twelve (12) inches. The Welded Wire Fabric (T4) shall consist of eight (8) longitudinal strands spaced at twelve (12) inches and their length, in the finished beam, shall be equal to the length of the precast flange plus one (1) foot. Sufficient material to include splices shall be provided. Splices, if needed, shall be 14" Minimum.

**NOTES:**

- All bar bends shall be made with a 2" diameter pin unless otherwise noted.
- Refer to General Notes for epoxy steel requirement.
- W8 wires shall conform to ASTM A185.
- D8 wires shall conform to ASTM A497.
- The longitudinal W8 wires for the welded wire fabric (T3) do not require splicing. The W8 wires shall be spaced as shown above and their length, in the finished beam, shall be equal to the length of the precast flange plus one (1) foot. Sufficient material to include splices shall be provided. Splices, if needed, shall be 14" Minimum.
- The longitudinal W8 wires for the welded wire fabric (T3) do not require splicing. The W8 wires shall be spaced as shown above and their length, in the finished beam, shall be equal to the length of the precast flange plus one (1) foot. Sufficient material to include splices shall be provided. Splices, if needed, shall be 14" Minimum.
- The Welded Wire Fabric (T4) shall consist of eight (8) longitudinal strands spaced as shown above and their length, in the finished beam, shall be equal to the length of the precast flange plus one (1) foot. Sufficient material to include splices shall be provided. Splices, if needed, shall be 14" Minimum.
- The longitudinal W8 wires for the welded wire fabric (T3) do not require splicing. The W8 wires shall be spaced as shown above and their length, in the finished beam, shall be equal to the length of the precast flange plus one (1) foot. Sufficient material to include splices shall be provided. Splices, if needed, shall be 14" Minimum.

**DATE:**

**DRAWING NO.:**

**checked by:**

**signed by:**

**checked by:**

**signed by:**

**Approved by:**
Construct Ion Notes

Each double tee has been designed to bear equally on four bearing pads. Deflecting and/or grinding under one or more pads may be necessary to obtain proper seating. The contractor shall adhere to the following illustration of sequence during erection of the beam.

1. Check the bearings. If contact between beam and pad is not apparent, trimming of the low bearing and/or grinding of the adjacent high bearing is required. Grouting of the concrete bridge seat shall be limited to 0.25 inch maximum.

2. Insert backer rods in keyways between beams. Each double tee beam is designed to bear equally on four bearing pads. Shimming and/or grinding under one or more pads may be necessary to center the pads under stems.

3. After erection of all beams, a final check of their positions shall be done prior to proceeding with additional work.

4. After erection of all beams, a final check of their positions shall be done prior to proceeding with additional work.

5. Insert backer rods in keyways between beams.

6. Join post-tensioning ducts as detailed in the plans. The couplers at the ends of the strands shall be "color coded" to prevent misalignment of the anchor plates.

7. If for any reason a tendon must be stressed, adjacent tendons on both sides of the tendon shall be stressed from the same side of the bridge. The jacking force required for each tendon strain before anchor set is

8. Post-tensioning tests:

9. Construct and cure grout. Non-shrink grouting is the preferred method. The grouted keyways shall not be disturbed for a period of not less than 72 hours.

10. Post-tensioning may start after grout has cured and reached a minimum strength of 4000 psi.

11. Grout ducts and fill anchor blockouts with approved non-shrink, non-metallic grout. The color of the grout shall match the color of the adjacent concrete surface. Depths of grinding shall be limited to 1/4 inch maximum.

12. Grout ducts and fill anchor blockouts with approved non-shrink, non-metallic grout. The color of the grout shall match the color of the adjacent concrete surface. Depths of grinding shall be limited to 1/4 inch maximum.

13. Construct transverse deck joints of open type in accordance with the details.

14. Post-tension the centermost (at or near midspan) tendon first. Then, adjacent tendons on both sides, repeating this sequence until all tendons are stressed.

15. Check riding surface in accordance with the specifications and grind areas not in compliance. Depths of grinding shall be limited to 1/4 inch maximum.

16. Check riding surface in accordance with the specifications and grind areas not in compliance. Depths of grinding shall be limited to 1/4 inch maximum.

17. Assemble grate and place it on the bridge seat. The grate shall be centered under stems.

18. Install grate and fill anchorage blockouts with approved non-shrink, non-metallic grout. The color of the grout shall match the color of the adjacent concrete surface. Depths of grinding shall be limited to 1/4 inch maximum.

19. Install grate and fill anchorage blockouts with approved non-shrink, non-metallic grout. The color of the grout shall match the color of the adjacent concrete surface. Depths of grinding shall be limited to 1/4 inch maximum.

20. Construct transverse deck joints of open type in accordance with the details.
### TABLE OF VARIABLES

<table>
<thead>
<tr>
<th>SPAN NO.</th>
<th>BEAM NO.</th>
<th>NO. OF BEAMS</th>
<th>WIDTH</th>
<th>SPAN</th>
<th>L/3</th>
<th>CONCRETE DATA</th>
<th>REINF. STEEL DATA</th>
<th>STRAND PATTERN</th>
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</thead>
<tbody>
<tr>
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#### POST-TENSIONING DUCT DATA

**A** - Diagonal, **L** - Longitudinal

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>POST-TENSIONING DUCT DATA</th>
<th>CONCRETE DATA</th>
<th>REINF. STEEL DATA</th>
<th>STRAND PATTERN</th>
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</thead>
<tbody>
<tr>
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</tbody>
</table>

#### STRAND PATTERN

**CASE**

1. **Type 1**
2. **Type 2**
3. **Type 3**
4. **Type 4**

**NOTE:** Strand Pattern Type at "End" applies at the extreme end of the beam. The pattern at the "Center" applies between hold-down points.

**NOTE:** All strands shall be Low Relaxation Strands conforming to ASTM A416, Grade 270. Dimensions "L" apply along bottom of beam. This dimension requires no correction for elastic and time-dependent shortening. The strands at skewed bridges shall be offset to clear backwall; see Index 127.

### CONCRETE DATA

- **f'c**: 90 MPa
- **f'ci**: 9 MPa

**NOTE:** Strands terminating within Diaphragm Blockout

- **9" (Typ.)**: Strands terminating within Diaphragm Blockout

**NOTE:** Reinf. Steel Data refers to reinforcement for superimposed cast-in-place elements such as Barriers, etc.

**NOTE:** All strands shall be Low Relaxation Strands conforming to ASTM A416, Grade 270. Dimensions "L" apply along bottom of beam. This dimension requires no correction for elastic and time-dependent shortening. The strands at skewed bridges shall be offset to clear backwall; see Index 127.

**Note to Designer:** Show all strands and dimensions within circle and total number of strands within circle. Also, erase all strands not used, and this note after completing this drawing.

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TABLE OF VARIABLES & STRAND PATTERNS

<table>
<thead>
<tr>
<th>STRAND PATTERN CASE</th>
<th>STRAND PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASE 1</td>
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<tr>
<td>CASE 2</td>
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<tr>
<td>CASE 3</td>
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<tr>
<td>CASE 4</td>
<td></td>
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<tr>
<td>CASE 5</td>
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</tbody>
</table>

**NOTE:** Strand Pattern Type at "End" applies at the extreme end of the beam. The pattern at the "Center" applies between hold down points.

"L" applies along bottom of Stem. This dimension requires no correction for elastic and time-dependent shortening effects; however, at End Bents of skewed bridges the stem end may require coping to clear backwall, See Index 127.

**NOTE:** Reinf. Steel Data refers to reinforcement for superimposed cast-in-place elements such as Barriers, etc.

**NOTE:** All strands shall be 1/8" Low Relaxation Strands conforming to ASTM A416, Grade 270. Dimension
### TABLE OF VARIABLES

<table>
<thead>
<tr>
<th>Span No.</th>
<th>Beam Type</th>
<th>No. of Beams</th>
<th>( \phi )</th>
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<table>
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<th>Dimensions</th>
<th>Post- tensioning duct data</th>
<th>Concrete data</th>
<th>Steel data</th>
<th>Strand pattern type</th>
<th>Case</th>
<th>Zone Center</th>
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<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>F</td>
<td>G</td>
<td>H</td>
</tr>
</tbody>
</table>

*Type 1: Low Relaxation Strands conforming to ASTM A416, Grade 270. Dimension \( ' \) applies along bottom of Stem. This dimension requires no correction for months and years. Important dimensioning: accuracy is crucial, especially for skewed bridges. The Stem end may require coping to clear backwall. See Index 127.

**NOTE:** Strand Pattern Type at "End" applies at the extreme end of the beam. The pattern at the "Center" applies between hold down points.

*NOTE: Reinf. Steel Data refers to reinforcement for superimposed cast-in-place elements such as Barriers, etc.

---

**TABLE OF VARIABLES & STRAND PATTERNS**

***Note to Designer: Show all strands and dimensions within circle, and total number of strands within circle. Any work on strands described in this drawing shall not interfere with completing this drawing.***

---

**STRAND PATTERN CASE**

*Case 1*

---

**STRAND PATTERN TYPE**

*Type 1*

---

**STRAND PATTERN CASE**

*Case 2*

---

**STRAND PATTERN TYPE**

*Type 2*

---

**STRAND PATTERN TYPE**

*Type 3*

---

**STRAND PATTERN TYPE**

*Type 4*
**BEARING PLATE DETAILS**

**ELEVATION**

*Note: Contractor shall provide all bearing Plates.

**GENERAL NOTES**

- **DESIGN LOAD FOR PILES:** 20 TONS
- **LOADING:** HS20-44
- **STRUCTURAL TIMBER:** Timber piles and structural timber may be treated or untreated at the option of the Contractor.
- **SPAN LENGTH:** 30'-0" Maximum
- **PAYMENT:** See Roadway Plans for payment of detour.
- **AVAILABILITY:** Contractor shall pickup and return all Bailey Bridge components at the FDOT maintenance yard located in Defuniak Springs, Florida.
- **ERECTON:** The Contractor shall erect the detour bridge in accordance with the specifications, plans, and instructions of the Engineer of Record.
- **NOTE:** Eliminate bracing at the beginning and end of bridge.
- **For Single Lane Bailey Bridge:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Size</th>
<th>Qty</th>
<th>Req'd</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAP</strong></td>
<td>12&quot; x 12&quot;</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>MARK C</strong></td>
<td>6&quot; x 6&quot;</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td><strong>SPACEERING BLOCK</strong></td>
<td>12&quot; x 2&quot;</td>
<td>1</td>
<td>20</td>
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</tbody>
</table>

**TOTAL:** 32

*Quantities shown are for One Timber Bent only.
**Two (2) rectangular caps of same size are required for each end for most of grating approaches on RHS.

**LIST OF STRUCTURAL TIMBER**

- **TIMBER PILE BENT**
  - 12" X 12" X 18'-0" Timber
  - 12" X 12" X 3" Steel Plates
  - 12" x 12" x 1/8" Steel Plates

**MARK C**

- 6" x 6" Timber Cap
- 6" x 6" Timber Chord

**SPACEERING BLOCK**

- 12" x 2" x 1/4" Timber Spacing

**GENERAL NOTES**

- **DESIGN LOAD FOR PILES:** 20 TONS
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**GENERAL NOTES**

- **DESIGN LOAD FOR PILES:** 20 TONS
- **LOADING:** HS20-44
- **STRUCTURAL TIMBER:** Timber piles and structural timber may be treated or untreated at the option of the Contractor.
- **SPAN LENGTH:** 30'-0" Maximum
- **PAYMENT:** See Roadway Plans for payment of detour.
- **specifications, these plans, and the “Bailey Uniflote Handbook”. Steel grid**

**ITEM**

<table>
<thead>
<tr>
<th>ITEM</th>
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<tr>
<td>Cap</td>
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<td>2</td>
</tr>
</tbody>
</table>

- **NOTE:** Eliminate bracing 1'-6" x 2'-0" Dome Head Drive Spike (Typ.)

- **End View**

- **Cross Section**

- **Plan View**

- **Elevation**

- **Effect Details**

- **Phase Notes**

- **Bridge Details**

- **Footnotes**

- **List of Structural Timber**

- **Design Criteria**

- **Drawing Information**

- **Approval Information**

- **Seal Information**

- **Revision History**

- **Engineer of Record Information**

- **Drawn by Information**

- **Designed by Information**

- **Approved by Information**

- **Seal Information**

- **Project Name Information**

- **Sheet Title Information**

- **Structures Design Office Information"
**GENERAL NOTES**

- **DESIGN LOAD FOR PASSENGER CARS**
- **STRUCTURAL TIMBER** Timber sizes and structural timber may be treated or untreated at the option of the contractor.
- **LOADING** HS20-44
- **DESIGN LOAD FOR PILES** 20 TONS
- **PAYMENT** See Roadway Plans for payment of detour.

**STORAGE**

- 25' x 20' Bailey Truss
- 22' x 18' Bailey Truss
- 22' x 16' Bailey Truss

**SPACING**

- UNITS: Type M-1
- LENGTH: 12'-11" (Type M-1)
- LENGTH: 17'-1" (Type M-1)
- LENGTH: 19'-0" (Type M-2)
- LENGTH: 38'-0" (Type M-2)
- LENGTH: 34'-2" (Type M-1)

**NOTES**

- Contractor shall provide all Bearing Plates.
- Contractor shall contact the District Structures Engineer for requirements regarding Bailey Bridge components for damage upon return.
- Damage to Bailey Bridge components shall be upon return of Bailey Bridge components which occurs while in his possession. FDOT inspection of the Bailey Bridge components will be at the FDOT maintenance yard located in Defuniak Springs, Florida.
- Availability: Contractor shall pickup and return all Bailey Bridge components prior to placing traffic on the Bailey Bridge.
- Bailey Bridge components for damage will be upon return of the Bailey Bridge components to the FDOT maintenance yard.
- Detour Bridge: The contractor shall be responsible for contacting the FDOT Structures Division prior to driving piles or purchasing timber. The Bailey Bridge components are to be returned to the FDOT maintenance yard.

**DETOUR BRIDGE TYPE:** The contractor shall be responsible for contacting the FDOT Structures Division prior to driving piles or purchasing timber. The Bailey Bridge components will be furnished for this project.

**LIST OF STRUCTURAL TIMBER**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>SIZE</th>
<th>UNITS/PC</th>
<th>WEIGHT/PC</th>
<th>CUTTING DIAGRAMS</th>
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<td>46</td>
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</tbody>
</table>

**TOTAL** 548 pc

**NOTE:** Quantity is for one bent only.
**Light Pole Pilaster**

*Quantity:
- 5A1 Bars
- 4A1 Bars
- 4A2 Bars

*Materials:
- Reinforcing Steel

*Notes:
- Construction of the Pilaster and Light Pole shall be designed to be in accordance with the requirements specified in the Structural Specifications.
- All reinforcing steel required for the Pilaster shall be fabricated in accordance with the Florida Building Code.

*Requirements:
- The Pilaster shall be designed to resist loads from the Light Pole, including wind loads and seismic loads.
- The Light Pole shall be designed to be flexible and allow for movement of the Pilaster.
- All concrete and reinforcing steel required for the Pilaster shall be fabricated in accordance with the Florida Building Code.

*Design:
- The Pilaster shall be designed to resist loads from the Light Pole, including wind loads and seismic loads.
- The Light Pole shall be designed to be flexible and allow for movement of the Pilaster.
- All concrete and reinforcing steel required for the Pilaster shall be fabricated in accordance with the Florida Building Code.

*Details:
- Reinforcing steel shall be grouped and spaced according to the requirements specified in the Structural Specifications.
- All concrete required for the Pilaster shall be designed to resist loads from the Light Pole, including wind loads and seismic loads.

*Approval:
- The requirements and design of the Pilaster and Light Pole shall be reviewed and approved by a Professional Engineer registered in the State of Florida before construction commences.

*Date:
- [Date]

*Review:
- The requirements and design of the Pilaster and Light Pole shall be reviewed and approved by a Professional Engineer registered in the State of Florida before construction commences.

*Payment:
- The cost of all labor, concrete, and reinforcing steel required for the Pilaster shall be included in the Contractor's Bid Price for the Traffic Railing Barrier.
### TABLE OF BONDED SPLICE DATA

<table>
<thead>
<tr>
<th>PILE SIZE</th>
<th>SUPPORT POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; PILE</td>
<td>SINGLE POINT</td>
</tr>
<tr>
<td>8&quot; PILE</td>
<td>DOUBLE POINT</td>
</tr>
<tr>
<td>10&quot; PILE</td>
<td>TRIPLE POINT</td>
</tr>
</tbody>
</table>

### PILE NOTES

- PRESTRESSED CONCRETE PILES
- PILE SIZE 4", 6", 8", 10", 12" and 14" are provided from stock.
- PILES 16", 20", and 24" are made to order.
- Reviews the materials to be used in the construction of the pile, section and details to meet the requirements of the project.
- ALL PRECAST PILES ARE TO BE SHIPPED UNDER THE FOLLOWING CONDITIONS:
  - Single point pickup and double point pickup.
  - Triples point pickup.
  - Full Epoxy usage of all components.

### DETAIL FOR REINFORCED PRECAST & PRESTRESSED PRECAST PILES SPLICES

- **Reinforced Precast Splice**
  - Full Epoxy Mortar to fill hole with.
  - Before bonding.
  - 2'-5" long.
  - 3" Cover.

- **Prestressed Strands**
  - L > 95' Full Epoxy Mortar Joint.
  - Gasket.

- **Support**
  - For actual prestressing strand placement, see Drawing 2 of 2.

- **Spiral Ties**
  - W3.4 Spiral Ties for the 28-day strength as noted below.

- **Staging Information**
  - Low-Relaxation Strand (L.R.S.)
  - Stress Relieved Strand (S.R.)
  - For actual prestressing strand placement, see Drawing 2 of 2.

- **Storage and Transportation**
  - Must be properly supported and adequate supports must be available.
  - Must be properly supported and adequate supports must be available.

- **W2" ~ No. 7 Bars**
  - For reinforcing steel in walls and slabs.

- **W3" ~ No. 10 Dowels**
  - For reinforcing steel in walls and slabs.

- **W4" ~ No. 10 Dowels**
  - For reinforcing steel in walls and slabs.

- **5" ~ No. 12 Dowels**
  - For reinforcing steel in walls and slabs.

- **7" ~ No. 12 Dowels**
  - For reinforcing steel in walls and slabs.

- **10" ~ No. 12 Dowels**
  - For reinforcing steel in walls and slabs.

- **12" ~ No. 10 Dowels**
  - For reinforcing steel in walls and slabs.

- **14" ~ No. 10 Dowels**
  - For reinforcing steel in walls and slabs.

- **16" ~ No. 8 Bars**
  - For reinforcing steel in walls and slabs.

- **18" ~ No. 8 Bars**
  - For reinforcing steel in walls and slabs.

- **24" ~ No. 8 Bars**
  - For reinforcing steel in walls and slabs.

- **30" ~ No. 8 Bars**
  - For reinforcing steel in walls and slabs.

- **36" ~ No. 8 Bars**
  - For reinforcing steel in walls and slabs.
TRANSPORTATION
DESIGN
Open Joint

Description

OFFICE

*1'-9" Maximum

*30'-0" Maximum

*30'-0" Maximum

*30'-0" Maximum

NOTE: After nuts have been tightened the threads shall be nicked to prevent removal of nuts.

NOTE: See Superstructure Drawing for details of Bridge expansion joints. Rail expansion joints shall be similar to rail expansion joints of Bridge expansion joints. Rail expansion joints shall occur in the panel between posts on either side of Open Joints.

RAIL INSTALLATION: Rail Post shall be normal to Profile Grade. Posts shall be a minimum of three posts before splicing with provision for movement equal to 1" times the bridge joint spacing.

RAIL CLAMP BAR: Aluminum; A.S.T.M. B221, alloy 6061-T6 or alloy 6351-T5.

RAIL SPICE BAR: 4P @ 1'-0"

BAR 4P

NOTE: See Note "B" ~ Rough cut ends and edges of aluminum rails shall be ground or filed smooth to remove all sharp edges, nicks or burrs that would be injurious to the human touch.

RAIL COMPONENTS

RAIL END CAP

VIEW E-C

NOTE: "B" Rough cut ends and edges of aluminum rails shall be ground or filed smooth to remove all sharp edges, nicks or burrs that would be injurious to the human touch.

TYPICAL SECTION THRU PARAPET AND RAIL

RAIL SPLICE

SECTION D-D

EXPANSION BAR

EXPANSION BAR

NOTE: Expansion Bar, when used, shall have smooth finish in Parapet and include concrete and reinforcing Steel (Superstructure) and Reinforcing Steel (Superstructure). Aluminum Rail shall be hot-dip galvanized in accordance with Article 400-15.1 to prevent water leakage.

EXPANSION BAR

NOTES

EXPANSION BAR

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RAIL COMPONENTS

RAIL END CAP

VIEW E-C

NOTE: "B" Rough cut ends and edges of aluminum rails shall be ground or filed smooth to remove all sharp edges, nicks or burrs that would be injurious to the human touch.

TYPICAL SECTION THRU PARAPET AND RAIL

RAIL SPLICE

SECTION D-D

EXPANSION BAR

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NOTES

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### RETAINING WALL DATA

#### WALL DIMENSIONS

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#### BENDING DIAGRAM

**Note:** All bar dimensions are out to out.

**Note:** Bars G and M are No. 4 Bars. Bars J are as shown.

**Note:** Bars F and M are as paired with Bars J. Bars G and H are as paired with Bars I.

**Note:** The drawing is made to a scale of 2.0 feet per inch. All dimensions are in feet and inches.
### Retaining Wall Data

#### Wall Dimensions

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#### Reinforcing Steel Schedule

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#### Notes

- To accommodate the variable height of a wall unit, vertical bars may be placed per section to outline the region of reinforcement. The number of bars should be equally spaced at each end of the units.

---

**View A-A**

**Typical Section**

**Bending Diagram**

**Note:**

- Bars M are placed with bars F, and bars A are placed with bars G.

---

**Quantities**

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**Seal:**

- A (Bars G)
- B (Bars F & M)

---

**Construction Joint**

- A (Paired with Bars F)
- J, K & L

---

**FS:**

- A
- B
- C

---

**References:**

- For M Bars see Section

---

**FLORIDA DEPARTMENT OF TRANSPORTATION**

**Structures Design Office**

350 North West Second Street, Tallahassee, FL 32399-0200
### Retaining Wall Data

#### Retaining Steel Schedule

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#### Typical Section

- **Case 1** (5.0 KIPS/SQ. FT. MAX. BEARING PRESSURE) 6 FT. TO 30 FT. HEIGHT
- **Case 2** (5.0 KIPS/SQ. FT. MAX. BEARING PRESSURE) 30 FT. TO 60 FT. HEIGHT
- **Case 3** (5.0 KIPS/SQ. FT. MAX. BEARING PRESSURE) 60 FT. TO 120 FT. HEIGHT

#### Bending Diagram

- Bars A and Bars B are No. 4 Bars. Bars J are as shown.
- Bars F and M are No. 4 Bars. Bars J are as shown.
- Bars G are No. 4 Bars. Bars J are as shown.
- Bars H are No. 4 Bars. Bars J are as shown.
- Bars I are No. 4 Bars. Bars J are as shown.
- Bars J are No. 4 Bars. Bars J are as shown.
- Bars K are No. 4 Bars. Bars J are as shown.
- Bars L are No. 4 Bars. Bars J are as shown.
- Bars M are No. 4 Bars. Bars J are as shown.
- Bars N are No. 4 Bars. Bars J are as shown.
- Bars O are No. 4 Bars. Bars J are as shown.
- Bars P are No. 4 Bars. Bars J are as shown.
- Bars Q are No. 4 Bars. Bars J are as shown.
- Bars R are No. 4 Bars. Bars J are as shown.
- Bars S are No. 4 Bars. Bars J are as shown.
- Bars T are No. 4 Bars. Bars J are as shown.
- Bars U are No. 4 Bars. Bars J are as shown.
- Bars V are No. 4 Bars. Bars J are as shown.
- Bars W are No. 4 Bars. Bars J are as shown.
- Bars X are No. 4 Bars. Bars J are as shown.
- Bars Y are No. 4 Bars. Bars J are as shown.
- Bars Z are No. 4 Bars. Bars J are as shown.

#### Sealing:
- **A** (Paired with Bars J)
- **B** (Paired with Bars J)
- **C** (Paired with Bars J)
- **D** (Paired with Bars J)
- **E** (Paired with Bars J)
- **F** (Paired with Bars J)
- **G** (Paired with Bars J)
- **H** (Paired with Bars J)
- **I** (Paired with Bars J)
- **J** (Paired with Bars J)
- **K** (Paired with Bars J)
- **L** (Paired with Bars J)
- **M** (Paired with Bars J)
- **N** (Paired with Bars J)
- **O** (Paired with Bars J)
- **P** (Paired with Bars J)
- **Q** (Paired with Bars J)
- **R** (Paired with Bars J)
- **S** (Paired with Bars J)
- **T** (Paired with Bars J)
- **U** (Paired with Bars J)
- **V** (Paired with Bars J)
- **W** (Paired with Bars J)
- **X** (Paired with Bars J)
- **Y** (Paired with Bars J)
- **Z** (Paired with Bars J)
### Sheet Title:
CASE 1 (6.0 KIPS/SQ. FT. MAX. BEARING PRESSURE)

### TYPICAL SECTION

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### BENDING DIAMON

#### TYPICAL SECTION

---

**Checked by**

**Designed by**

**Drawn by**

**ENGINEER OF RECORD:**

STRUCTURES DESIGN OFFICE

605 Suwannee Street, MS 33

Tallahassee, Florida 32399-0450

---

**LOGO:**

---

**NOTE:**
- The retaining wall height of a wall (in) should be equal to the height of the wall at the location of the wall and should be equal to the height of each row of the wall.
## RETAINING WALL DATA

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### STEEL QUANTITIES

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### REINFORCING STEEL SCHEDULE

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### BENDING DIAGRAM

- For design details, see Section No. 800.
- Bars F and M are No. 4 Bars. Bars J are as shown.
- Bars G are equally spaced of each wall of the structure.

### TYPICAL SECTION

- Variable Height of a wall slab shall be equally distributed across the wall.
- Vertical Bars (Bars G) may be field cut to fit.
- Horizontal Bars (Bars D) and Vertical Bars (Bars G) shall be equally spaced.

### SYTIME

- For placement details for Bars D, see Section No. 800.
- Bars M are paired with Bars F and Bars A are paired with Bars J.
### Steel Schedule

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<th>Bars J</th>
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### Retaining Wall Data

#### Wall Dimensions

| Height | Bars A | Bars B | Bars C | Bars D | Bars E | Bars F | Bars G | Bars H | Bars I | Bars J | Bars K | Bars L | Bars M | Bars N | Bars O | Bars P | Bars Q | Bars R | Bars S | Bars T | Bars U | Bars V | Bars W | Bars X | Bars Y | Bars Z |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 12     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 11     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 10     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 9      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 8      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 7      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
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#### Quantities

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**NOTE:** This schedule includes the reinforcing steel for the walls. The bars are placed as shown in the typical section and the bending diagram. The bar dimensions are out to out. The engineer of record is responsible for the final placement and the conformity with the plans and specifications.
### Retaining Wall Data

**Reinforcing Steel Schedule**

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**Quantities**

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**Drawing Details**

- **View A**: View A of the retaining wall.
- **Bending Diagram**: Detailed view showing bending of reinforcing bars.
- **Typical Section**: Section view showing typical construction details.

*Note: For placement details for Bars D, please refer to the standard index No. 800.*
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### Concrete and Steel Sizes

- **Concrete**
  - Diameter: 6" (Max.)
  - Spacing: @ 1'-6"
- **Steel**
  - Diameter: 4" (Typ.)
  - Spacing: @ 1'-6"
  - **BARS A**
    - @ 1'-0" M in (Bars G)
  - **BARS J**
    - @ 1'-0" M in (Bars G)
  - **BARS K**
    - @ 1'-0" M in (Bars G)

### Details

- **View A-A**
- **Typical Section**
- **Bending Diagram**
- **Seal:**
  - A (F.S.)
  - B (F.S.)
  - C (F.S.)

### Notes

- Bars M are paired with Bars F and Bars A are paired with Bars J.
- Bars D are spaced at each end of the Unit.
- Bar dimensions are out to out.
- Vertical Bars may be field cut to fit and the number of horizontal Bars G required may be field cut to fit and the number of horizontal Bars G required.
### Wall Dimensions

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### Retaining Wall Data

- **Height**: Max. 3'-0" (Max.)
- **Spans**: 2'-6" (Max.)
- **A**: For F Bars are Sawcut
- **B**: For F Bars are Sawcut
- **C**: For F Bars are Sawcut
- **D**: For F Bars are Sawcut
- **E**: 3" Cover (Paired with Bars J)
- **F**: 3" Cover (Paired with Bars J)
- **G**: 3" Cover (Paired with Bars J)

### Bending Diagram

- **NOTE**: To approximate the bar's height of a wall, use the appropriate bar schedule and the number of reinforcing bars. It is important to ensure that the bars are evenly spaced along the height of the wall.
- **NOTE**: Other dimensions are to be followed.
- **NOTE**: Bars D are designed with Bars F and Bars A are paired with Bars J. Bars D and F are No. 4 Bars. Bars J are as shown.

**NOTE**: The bending moment for Bars G and Steelwork per FLD No. 800.

**NOTE**: This Drawing was done with Standard Index No. 800.
## Retaining Wall Data

### Wall Dimensions

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### Retaining Steel Schedule

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### Rebar Schedules

#### BARS A

- **Steel Design Length**: 24'-4"
- **Counties**: L, B, F, S

#### BARS B

- **H**: 6'-0" 2'-8" 16'-7"
- **L**: 2'-2" 1'-2" 8'-9"
- **NO.**: 18

#### BARS C

- **H**: 5'-4" 2'-8" 15'-0"
- **L**: 2'-2" 1'-2" 8'-2"
- **NO.**: 17

#### BARS D

- **H**: 4'-7" 2'-2" 13'-3"
- **L**: 1'-11" 1'-0" 7'-7"
- **NO.**: 16

#### BARS E

- **H**: 4'-0" 1'-2" 4'-4"
- **L**: 1'-2" 11" 4'-10"
- **NO.**: 9

#### BARS F

- **H**: 3'-10" 1'-8" 11'-1"
- **L**: 1'-8" 11" 11'-1"
- **NO.**: 10

#### BARS G

- **H**: 2'-10" 1'-6" 2'-10"
- **L**: 1'-6" 11" 2'-10"
- **NO.**: 6

#### BARS H

- **H**: 1'-6" 1'-6" 2'-10"
- **L**: 1'-6" 11" 2'-10"
- **NO.**: 6

#### BARS J

- **H**: 1'-5" 1'-5" 2'-10"
- **L**: 1'-5" 11" 2'-10"
- **NO.**: 4

#### BARS K

- **H**: 1'-11" 1'-11" 5'-7"
- **L**: 2'-10" 2'-9" 5'-7"
- **NO.**: 5

### Typical Section

- **Bending Diagram**: shows typical bending stresses and forces.
- **Construction Joint**:

### Notes

- **Case 1 (150 kips/sq ft)**: Max Bending Pressure: 6 ft. to 30 ft. (unknown)
- **Steel Design Office**: Structures Design Office
- **Structures Design Office**: Tallahassee, Florida 32399-0450
- **Name**: M.P. 3/87
- **Name**: M.I. 3/87
- **Name**: A.G.M.
### RETAINING WALL DATA

#### WALL DIMENSIONS

<table>
<thead>
<tr>
<th>F</th>
<th>G</th>
<th>S</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### REINFORCING STEEL SCHEDULE

<table>
<thead>
<tr>
<th>BARS A</th>
<th>BARS B</th>
<th>BARS C</th>
<th>BARS D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

#### QUANTITIES

<table>
<thead>
<tr>
<th>BARS A</th>
<th>BARS B</th>
<th>BARS C</th>
<th>BARS D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

#### BENDING DIAGRAM

- **Bars J, K, & L**
- **5.5 KIPS/SQ. FT. MAX. BEARING**

#### TYPICAL SECTION

**VIEW A**

- **A-Panled with Bars J**
- **Bars J, K, & L spaced at each end of the Unit.**

**To accommodate the Variable Height of a wall Unit, vertical Bars are spaced at each end of the Unit.**

**ENGINEER OF RECORD:**

Tallahassee, Florida 32399-0450

**LOGO:**

For F Bars see Section

**NOTE:** Bars M are paired with Bars F and Bars A are paired with Bars J.

**NOTE:** Bars L are spaced at each end of the Unit.**

- **WIDTH OF WALL:**
- **HEIGHT OF WALL:**
- **DEPTH OF WALL:**

- **Typename:**
- **Project Name:**
- **Case Reference:**
- **Function of Region:**
- **Structures Design Office:**
- **Florida Department of Transportation:**
  - **Case III**
  - **5.5 KIPS/SQ. FT. MAX. BEARING**
  - **ENGROOM A FT. TO 30 FT. DEPTH**

**NOTE:**

- **For Bars Cross Section Case No.501.**

- **NOTE:** Bars J, K, & L spaced at each end of the Unit.**

- **NOTE:** Bars L are spaced at each end of the Unit.**

- **NOTE:** Bars M are paired with Bars F and Bars A are paired with Bars J. Bars L are spaced at each end of the Unit.**

- **NOTE:** Bars L are spaced at each end of the Unit.**

- **NOTE:** Bars L are spaced at each end of the Unit.**
### Reinforcing Steel Schedule

<table>
<thead>
<tr>
<th>Size</th>
<th>Spacing</th>
<th>Length</th>
<th>Qty.</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot;</td>
<td>1'-6&quot;</td>
<td>1'-0&quot;</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>7&quot;</td>
<td>1'-6&quot;</td>
<td>1'-0&quot;</td>
<td>10</td>
<td>60</td>
</tr>
<tr>
<td>8&quot;</td>
<td>1'-6&quot;</td>
<td>1'-0&quot;</td>
<td>10</td>
<td>70</td>
</tr>
<tr>
<td>9&quot;</td>
<td>1'-6&quot;</td>
<td>1'-0&quot;</td>
<td>10</td>
<td>80</td>
</tr>
</tbody>
</table>

### Notes
- Bars G: 1'-6" (Max.) + 3" Cover (Typ.)
- Bars J: 1'-6" (Min.)
- Bars F: 6" (Max.)
- Bars M: Paired with Bars F and Bars H (see Section)

### Construction Joint
- Cut neat trench face into undisturbed soil for Shear Key G @ 1'-6" (Max.)

### Bending Diagram
- Bars J and Bars M paired with Bars F and Bars H (see Section)
- Bars H, see Section.

### Typical Section
- For Shear Key.

### Retaining Wall Data

<table>
<thead>
<tr>
<th>Wall Dimensions</th>
<th>Shear Key Dimensions</th>
<th>Reinforcing Steel Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>H x W x D</td>
<td>B x V x X</td>
<td>H x W x D</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Reinforcing Steel Schedule

<table>
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<th>Spacing</th>
<th>Length</th>
<th>Qty.</th>
<th>Value</th>
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### Notes
- Bars G: 1'-6" (Max.) + 3" Cover (Typ.)
- Bars J: 1'-6" (Min.)
- Bars F: 6" (Max.)
- Bars M: Paired with Bars F and Bars H (see Section)

### Construction Joint
- Cut neat trench face into undisturbed soil for Shear Key G @ 1'-6" (Max.)

### Bending Diagram
- Bars J and Bars M paired with Bars F and Bars H (see Section)
- Bars H, see Section.

### Typical Section
- For Shear Key.
### RETAINING WALL DATA

#### WALL DIMENSIONS

<table>
<thead>
<tr>
<th>H</th>
<th>BARS A1</th>
<th>BARS A2</th>
<th>BARS A3</th>
<th>BARS D</th>
<th>BARS F</th>
<th>BARS G</th>
<th>BARS H</th>
<th>H</th>
<th>BARS J</th>
<th>BARS W</th>
</tr>
</thead>
<tbody>
<tr>
<td>LENGTH</td>
<td>C/CX</td>
<td>LENGTH</td>
<td>C/CX</td>
<td>LENGTH</td>
<td>C/CX</td>
<td>LENGTH</td>
<td>C/CX</td>
<td>LENGTH</td>
<td>C/CX</td>
<td>LENGTH</td>
</tr>
<tr>
<td>26</td>
<td>8'- 0&quot;</td>
<td>3'- 5&quot;</td>
<td>25'- 9&quot;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>6'- 0&quot;</td>
<td>3'- 2&quot;</td>
<td>19'- 8&quot;</td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>22</td>
<td>5'- 6&quot;</td>
<td>2'-11&quot;</td>
<td>18'- 1&quot;</td>
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</tbody>
</table>

#### SHEAR KEY DIMENSIONS

<table>
<thead>
<tr>
<th>SIZE</th>
<th>NO.</th>
<th>SPACING G (N.S.&amp; F.S.)</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
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<td>16  1'- 6&quot;  13'-10&quot;</td>
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</tr>
<tr>
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<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>16  1'- 6&quot;  12'- 4&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>16  1'- 6&quot;  12'- 4&quot;</td>
<td></td>
</tr>
</tbody>
</table>

#### REINFORCING STEEL SCHEDULE

<table>
<thead>
<tr>
<th>SIZE</th>
<th>NO.</th>
<th>SPACING + (Bar A)</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>20  1'- 3&quot;  11'-11&quot; 8'-10&quot; 20'- 9&quot;</td>
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<tr>
<td></td>
<td>6</td>
<td>20  1'- 3&quot;  3'-11&quot; 3'- 4&quot;  7'- 3&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>25  1'- 0&quot;  5'- 5&quot; 1'- 3&quot;  6'- 8&quot;</td>
<td></td>
</tr>
</tbody>
</table>

#### QUANTITIES

<table>
<thead>
<tr>
<th>SIZE</th>
<th>NO.</th>
<th>SPACING</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>20</td>
<td>1'- 3&quot;  5&quot;  23'- 8&quot;</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>18</td>
<td>1'- 5&quot;   4'- 2&quot;</td>
<td></td>
</tr>
</tbody>
</table>

### NOTES

- The dimensions shown do not include joints in walls, etc. that may be field cut to fit the number of required bars G required by the condition and geometry within G. 10% of bars may be field cut to fit shown lengths.

- The maximum size of bars G may be field cut to fit and the number of horizontal bars G required by the condition and geometry within G. 10% of bars may be field cut to fit shown lengths.

- The maximum size of bars G may be field cut to fit and the number of horizontal bars G required by the condition and geometry within G. 10% of bars may be field cut to fit shown lengths.

### BENDING DIAGRAM

- Bars W paired with Bars F and Bars A paired with Bars B.  All other bars are #3 bars, Bars A are on shown.

- For reinforcement details for Bars D, see Standard Index No. W/B.

- For shear key details for Bars F, see Standard Index No. W/B.

- For typical section details for Bars J, see Standard Index No. W/B.
Reinforcing Steel shall be Grade 60 (epoxy coated if the environment is highly corrosive). See Bridge Plans.

Outside Edge of Approach Slab shall conform with alignment using plain (unreinforced) concrete. The sidewalk width shall be extended to the outside edge of approach slab at areas beyond wingwall. See Roadway Plans for additional details.

Outline of Barrier if Wing Post is used.

NOTE: Total area of Approach Slab is given in the Bridge Plans.
INTEGRAL PILE JACKET TYPE "A"

- Use No. 3 Bars (Typ.)
- Use No. 3 Ties @ 12"
- Use "F" Wood Stiffback
- 4" Min. Void All Around
- Form 45° Fillet to outside of fiberglass form
- Existing precast concrete pile

INTEGRAL PILE JACKET TYPE "B"

- Use No. 3 Bars (Typ.)
- Use No. 3 Ties @ 12"
- Use "F" Wood Stiffback
- 4" Min. Void All Around
- Form 45° Fillet to outside of fiberglass form
- Existing precast concrete pile

**SEAL:**
- Seal filler, unless another method is presented and approved.