NOTES

SPECIFICATIONS:
1. Geotechnical Specifications:
The Florida Department of Transportation "Standard Specifications for Road and Bridge Construction", Current Edition and Supplements as Amended.
2. Design Specifications:

DESIGN CRITERIA:
1. Design is based on the assumption that the materials contained within the reinforced soil volume, methods of construction and quality of prefabricated materials are in accordance with Specification Section 546 and the reinforced backfills are free of subsurface drainage of water (leakage).
2. It is the responsibility of the Engineer of Record to determine that the maximum factored bearing pressure shown for the walldoes not exceed the factored bearing resistance of the foundation for that specified wall location.
3. The Wall Company is responsible for internal stability of the wall. External stability design, including foundation and slope stability, is the responsibility of the Engineer of Record.

SOIL PARAMETERS:
1. See Wall Control Drawings for soil characteristics of foundation material to be used in the design of the wall system. The Contractor will provide such design parameters for backfill material based on the actual soil characteristics utilized at the site. The Contractor shall provide the values of unit weight, cohesion and friction angle in the Shop Drawings.

MATERIALS:
1. Concrete class and minimum compressive strength (fck):
a. Except for precast wall facing panels and leveling pads, use Class II concrete for slightly aggressive environments and Class IV concrete for moderately or extremely aggressive environments. Provide all concrete, except for precast wall facing panels and leveling pads in accordance with Specification Section 546. Provide concrete for precast wall facing panels and leveling pads in accordance with Specification Section 546.
b. For precast wall facing panels only, see Wall Control Drawings.
2. Reinforce structural steel systems with non-metallic soil reinforcement and metallic soil reinforcement above the 100 year flood elevation in accordance with Specification Section 546. For reinforcing steel requirements for systems with metallic soil reinforcement below the 100 year flood elevation see Wall Company Drawings.
3. Provide soil reinforcement in accordance with Specification Section 546.
4. Payment for DowelBars 40 used with precast or CIP coping will be made under Retaining Wall System (separate):
5. For additional interior notes see Wall Company General Notes.

CONSTRUCTION:
1. Walls will be constructed in accordance with Specification Section 548 and the Wall Company Drawings.
2. For location and alignment of retaining walls, see Wall Control Drawings.
3. If present, consider in design and analysis and locate manholes and drain inlets as shown on wall elevations.
4. Refer to Wall Control Drawings of individual walls for minimum reinforcement mesh/shotcrete mesh length, factored bearing resistances, minimum wall embedment and anticipated long term and differential settlements.
5. The Contractor is responsible for water retention as needed during construction.
6. It is the Contractor’s responsibility to determine the location of any guardrail posts behind retaining walls. Prior to placement of the top layer of soil reinforcement, individual reinforcing strands/mesh may be skewed (±5° maximum) to avoid the post locations if authorized by the Engineer.
7. If existing or future structures, pipes, foundations or guardrail posts within the wall volume and adjacent structures interfere with the normal placement of soil reinforcement and specific directions have not been provided on the plans, the Contractor will notify the Engineer to determine what course of action should be taken.
8. The Contractor is responsible for gradually displacing upper layer(s) of soil reinforcement downward (10% minimum from horizontal) to avoid cutting contour reinforcement and conflicts with paving and subgrade preparation.
9. Complete sidewalks in accordance with Specification Section 529.
10. Complete sidewalks in accordance with Specification Section 459.
11. For concrete facing panels for treatment, see Wall Control Drawings. Extend surface treatment a minimum of 6” below ground line.
12. Piles within the soil volume will be allowed in the drawing for construction of the retaining wall. Unless a method to provide protection is acceptable, the Contractor and Engineer, is responsible, and approved in writing.
13. A structural break or the connection of the retaining wall soil reinforcement will be used whenever necessary to avoid cutting or excessive shearing (greater than 15° of the soil reinforcement around obstacles (i.e., piles, pipes, etc.).
14. For Mechanically Stabilized Earth (MSE) Walls, steps in leveling pads will occur at panel interfaces. Panels will adder four to seven past the end of the leveling pad.
15. The top of the leveling pad or footing will be 2'-0" minimum below final ground line.
16. The height of panels in the bottom course of MSE Walls must be less than 1/2 the height of a standard panel.

QUALIFIED PRODUCTS LIST:
1. Manufacturers seeking approval of proprietary retaining wall systems for inclusion on the Qualified Products List as pre-approved wall system suppliers must submit a G-18 Permit Evaluation Application for each wall design, wall system construction manual and other information as required by the Florida Water/Wall System. G18 Acceptance Criteria showing the proprietary wall system is designed to meet or specified requirements. Project specific Shop Drawings are required for G18 approved wall systems (see Shop Drawing Requirements)

SHOP DRAWING REQUIREMENTS:
The successful bidder will submit the final design of the wall for review as Shop Drawings. Details and Design Criteria shown or shown on the approved G18 Vendors Drawings, The Shop Drawings will include detailed design computations and all details, dimensions and quantities necessary to construct the wall. The detail and fully detailed plans will be prepared as required by the current FDOT standards at time of bidding and will include, but not be limited to, presentation or information as follows:
1. Provide an elevation view of the wall:
   a. Elevations/Sections: Show top of wall, top view of leveling pad or footing and bottom view of footing/End Retaining Wall/terraces in vertical alignment, all walls and every 25 foot station increments.
   b. Panel designs and detail of the length and designation of soil reinforcement in elevation view.
   c. Designation of the proposed final ground line.
2. Provide a plane view detailing the horizontal alignment and offsets from the horizontal control lines to the exterior face of the wall.
3. Show in plan and elevations, light pole platers, drainage structures, drainage pipes, etc. that affect the wall.
4. Provide a detail of the wall below the soil reinforcement, including those for future widening, as shown on Foundation Layout Drawings.
TABLE OF FDOT WALL TYPES

<table>
<thead>
<tr>
<th>Wall Type1</th>
<th>OPL Item</th>
<th>Typical Wall Construction</th>
<th>Durability Factors</th>
<th>Other Allowable Wall Types*</th>
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<td></td>
<td></td>
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<td>Concrete Cover</td>
<td>Concrete Class</td>
</tr>
<tr>
<td>Type 1</td>
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<td></td>
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<td>Type 2</td>
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<td>Type 2A</td>
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<td>Project Specific</td>
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<td>Temporary Walls</td>
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FDOT WALL TYPE TABLE NOTES

1. Listed in the Plans: Wall Type combines both Settlement Limitations and Durability Factors.

2. Amount of wall settlements that will occur in its design life and includes both short and long term settlements. Short term settlements occur during wall construction and may contain elastic deformation and densification settlement. Long term settlements continue after the completion of the wall and may include consolidation and secondary consolidation/creep settlements.

3. Settlements along the alignment of and perpendicular to the wall face usually are not uniform. Expansion joints for the cast-in-place walls and slip joints for MSE walls are provided to control wall and wallpanel cracks, respectively.

4. Includes all underground walls and walls submerged in water.

5. For concrete requirements, see Specification Section 546 using slightly aggressive environment.

6. For concrete requirements, see Specification Section 546 using extremely aggressive environment.

7. “Other Allowable Wall Types” listed with on “✓” have Settlement Limitations and Durability Factors greater than those required by the “Wall Type” (Column 1).

TYPICAL RETAINING WALL SECTION
WITH A TRAFFIC RAILING
(MSE Wall Type Shown, Others Similar)
(Showing Limits of the Reinforced Soil Volume)
## Reinforcing Steel Bending Diagrams - Precast and C.I.P. Coping

### Reinforcing Steel Notes:
1. All dimensions in the bending diagrams are out to out.
2. Reinforcing steel at the open joints will have a 2" minimum cover.
3. Bars 4A may be continuous or spliced at the construction joints. Lap splices for Bars 4A will be a minimum of 1'-0".
4. The Contractor may use Welded Wire Reinforcement when approved by the Engineer. Welded Wire Reinforcement shall conform to ASTM A 497.

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<th>SIZE</th>
<th>LENGTH #</th>
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<td>AS REDO.</td>
<td>B</td>
<td>4</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>2'-0&quot;</td>
<td>2'-0&quot;</td>
<td>U1</td>
<td>4</td>
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<td>4</td>
<td>Panel width = 4&quot;</td>
<td>Panel width = 3&quot;</td>
<td>U3</td>
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<td></td>
<td>Panel width = 6&quot;</td>
<td>Panel width = 5&quot;</td>
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- **S** = Slightly Aggressive
- **M** = Moderately Aggressive
- **E** = Extremely Aggressive

- **2" Min. Cover (Typ.)**
- **3" Min. Cover (Typ.)**
- **3/8" Chamfer (Typ.)**

### C.I.P. Coping Used with Precast Coping

**Note:** When precast coping units do not fit the entire length of the retaining wall, use this similar C.I.P. coping for short portions between precast coping units. This C.I.P. coping may also be used for vertical copings.

**Dimensions:**
- **# 2" Cover (Top & Sides)**
- **# 3" Cover (Top & Sides)**
- **3/8" Chamfer (Typ.)**
**JUNCTION SLAB NOTES:**

1. **CONSTRUCTION REQUIREMENTS:** Construct the Junction Slab level, transversely and expansion joints plumb. Do not construct the junction slab or C.I.P. coping perpendicular to the roadway surface. Slip forming is not permitted.

2. **APPLICATION:** This Junction slab is only applicable for a Ti-4 crash test rating.

3. **REINFORCING STEEL:** Dowell Load Transfer Devices walls ASTM A 36 smooth round bar and hot-dip galvanized in accordance with Specification Section 965. Install Dowell Load Transfer Devices in accordance with Specification Section 350.

4. **Construction:** Construct the Expansion Joints in junction slabs and C.I.P. coping plumb and perpendicular to the Gutter Line, Provide a 30'-0" maximum intervals as shown.

5. **Provide and Install Expansion Joint Covers in accordance with Section 932.**

6. **Construct 3/8" V-Grooves in junction slabs and C.I.P. coping plumb and provide at 30'-0" maximum intervals as shown. Space V-Grooves equally between Expansion Joints and/or Begin or End Junction Slab. V-Groove locations are to coincide with V-Groove locations in the Traffic Railing.

7. **FILL REQUIREMENTS:** Shoulder or Roadway Pavement or Fill is required on top of the Junction slab for its entire length on the traffic side of the Traffic Railing. See Typical Sections on Sheet Nos. 6 and 7 of 19 for details.

8. **Spacing shown is along the Gutter Line.**

9. **For Precast Coping only, Dowella/Bars 40 are to extend 1'-0" above the top of the retaining wall panel. Field cut as necessary to maintain 2'-0 minimum cover to the top of the building concrete. See Wall Company Drawings for number and spacing of Dowella/Bars 40.**

10. **Work this Index with the following:**

    Index No. 420 - Traffic Railing - (32") F-Shape
    Index No. 425 - Traffic Railing - (42") F-Shape

11. **The following Indexes contain details of the intersection of the retaining wall at approach slabs:**

    Index No. 201990 - Approach Slabs (Flexible Pavement Approaches)
    Index No. 209200 - Approach Slabs (Rigid Pavement Approaches)

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**PARTIAL PLAN VIEW FOR F-SHAPE TRAFFIC RAILING**

(Skewed Approach Slab Shown, Perpendicular Approach Slab Similar)

(Precast Coping Shown, C.I.P. Coping Similar) (Traffic Railing not Shown for Clarity)

**PARTIAL ELEVATION VIEW**

(Precast Coping and Junction Slab Reinforcing not Shown for Clarity)

(Precast Coping Shown, C.I.P. Coping Similar)
PARTIAL END VIEW OF TRAFFIC RAILING END TRANSITION FOR GUARDRAIL ATTACHMENT (Showing Bars 5V and Bars SS) (Precast Coping Shown, C.I.P. Coping Similar)

NOTE: See Index No. 420 and Index No. 425, Detail 'A' for details.

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<tr>
<th>ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
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<tr>
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<td>CY</td>
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<tr>
<td>Concrete (C.I.P. Junction Slab)</td>
<td>CY/FT</td>
<td>0.370</td>
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<tr>
<td>Reinforcing Steel (Precast Coping) excluding Bars 5V and SS (Typ.)</td>
<td>LB</td>
<td>282.04</td>
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<tr>
<td>Reinforcing Steel (C.I.P. Junction Slab) (Typ.)</td>
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<tr>
<td>Additional Rein. &amp; Expansion Joint</td>
<td>LB</td>
<td>42.72</td>
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(The above concrete quantities are based on a superlevel of 6.25% and a 5" wide retaining wall, beneath a 32" F-Shape Traffic Rail. The above Precast Coping quantities are based on one 10'-0" Precast Coping segment.)

TYPICAL SECTION THRU PRECAST COPING WITH C.I.P. JUNCTION SLAB AND RETAINING WALL AT EXPANSION JOINTS

JUNCTION SLAB NOTES:
1. Match Cross Slope of Travel Lane or Shoulder.
2. The minimum dimension of 6" corresponds to a superlevel of 6.25%. For superlevels exceeding 6.25%, increase this dimension (i.e., shift control points down) as required to match roadway superlevel.
3. Actual width varies depending on type of Retaining Wall used.
4. See Index No. 420 and Index No. 425 for Bars SS and 5V.
5. The Precast Coping width is based on a maximum 65" wide Retaining Wall Panel. If the Retaining Wall Panel is wider than 65", increase the width by the difference between the two Retaining Wall Panel widths. Increase the length of Bars 6L and decrease the length of Bars 5A & 5C as required when the coping width is increased and adjust spacing of Bars 5B as required to maintain 2" minimum cover.
6. Increase the width (2" - 25") of Bars 6L as required to maintain 2" minimum cover when recess width exceeds 8".
7. At the Contractor's option, mechanical couplers may be used to splice reinforcing. Complete details, including reinforcement lengths are required in Shop Drawings. Mechanical couplers shall develop 125% of the bar yield strength.

PRECAST OR C.I.P. COPING WITH C.I.P. JUNCTION SLAB DETAILS (F-SHAPE TRAFFIC RAILINGS)
REINFORCING STEEL BENDING DIAGRAMS - JUNCTION SLAB

BIL OF REINFORCING STEEL

<table>
<thead>
<tr>
<th>MARK</th>
<th>SIZE</th>
<th>132&quot; F-SHAPE</th>
<th>42&quot; F-SHAPE</th>
</tr>
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<td>A</td>
<td>5</td>
<td>7-0&quot;</td>
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<td>9-6&quot;</td>
<td>9-6&quot;</td>
</tr>
<tr>
<td>B2</td>
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<td>AS REQU.</td>
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<tr>
<td>C</td>
<td>5</td>
<td>7-0&quot;</td>
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</tr>
<tr>
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</tr>
<tr>
<td>F</td>
<td>5</td>
<td>8-3&quot;</td>
<td>8-3&quot;</td>
</tr>
<tr>
<td>L</td>
<td>6</td>
<td>5-4&quot;</td>
<td>5-7&quot;</td>
</tr>
<tr>
<td>U1</td>
<td>6</td>
<td>3-8&quot;</td>
<td>3-8&quot;</td>
</tr>
</tbody>
</table>

1" ø Dowel Smooth Steel (Top)
2-0"        2-0"        2-0"

5A Precast & C.I.P. Coping ~ 7-0"
5B1 Precast Coping ~ 9-6"
5B2 Length as Required
5C Precast Coping ~ 7-0" (See Note 7)
5F 8-3"

BARS 5A, 5B1, 5B2, 5C & 5F DOWEL BAR 4D

PRECASTING STEEL NOTES:
1. All bar dimensions in the bending diagrams are cut to size.
2. All reinforcing steel at expansion joints will have a 2" minimum cover.
3. Lap splice for Bars 42" with a minimum of 6-2.".
4. For Precast Coping only, lap splice Bars 6L with Bars 4C.
5. Lap splice with a minimum of 2-2."
6. Dimension shown is for lap splice option. For mechanical coupler option, this dimension is 1-4-1/2" (132 F-SHAPE) or 1-7" (42 F-SHAPE).
7. Dimension shown is for lap splice option. For mechanical coupler option, this dimension is 7-9."
8. The Contractor may use Welded Wire Reinforcement when approved by the Engineer. Welded Wire Reinforcement will conform to ASTM A 497.

REINFORCING STEEL BENDING DIAGRAMS - JUNCTION SLAB

BILL OF REINFORCING STEEL

<table>
<thead>
<tr>
<th>LENGTH</th>
<th>PRECAST COPING</th>
<th>C.I.P. COPING</th>
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<tr>
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<td>132&quot; F-SHAPE</td>
<td>42&quot; F-SHAPE</td>
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<tr>
<td>A</td>
<td>5</td>
<td>7-0&quot;</td>
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<tr>
<td>B1</td>
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<tr>
<td>B2</td>
<td>5</td>
<td>AS REQU.</td>
</tr>
<tr>
<td>C</td>
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<td>7-0&quot;</td>
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<tr>
<td>D</td>
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</tr>
<tr>
<td>U1</td>
<td>6</td>
<td>3-8&quot;</td>
</tr>
</tbody>
</table>

1" ø Dowel Smooth Steel (Top)
2-0"        2-0"        2-0"

5A Precast & C.I.P. Coping ~ 7-0"
5B1 Precast Coping ~ 9-6"
5B2 Length as Required
5C Precast Coping ~ 7-0" (See Note 7)
5F 8-3"

BARS 5A, 5B1, 5B2, 5C & 5F DOWEL BAR 4D

PRECAST OR C.I.P. COPING WITH C.I.P. JUNCTION SLAB DETAILS (F-SHAPE TRAFFIC RAILINGS)

PERMANENT RETAINING WALL SYSTEMS

2010 FDOT Design Standards

Graphical Details

Precast or C.I.P. Coping with C.I.P. Junction Slab Details (F-Shape Traffic Railings)
**Plan View**

(Skewed Approach Slab shown, Perpendicular Approach Slab similar)

(Traffic Railing reinforcement not shown, except for Bars 7P1 & 4V1)

**Partial Plan View of Guardrail Transition at Begin or End Retaining Wall**

(Precast Coping shown, C.I.P. Coping similar)

(Traffic Railing reinforcement not shown, except for Bars 7P1 & 4V1)

**Partial Plan View of Coping with Curb**

(Precast Coping shown, C.I.P. Coping similar)

(Traffic Railing reinforcement not shown, except for Bars 4P5, 4R3, 7P1 & 4V1)

**Precast or C.I.P. Coping with Junction Slab**

(Corrail Shape Traffic Railing)
PARTIAL ELEVATION VIEW OF OUTSIDE FACE OF COPING
(End Transition and Typical Precast Coping with Curb shown, C.I.P. Coping similar)

PARTIAL ELEVATION VIEW OF OUTSIDE FACE OF COPING
(Precast Coping at Expansion Joint and Typical Precast Coping without Curb shown, C.I.P. Coping similar)

PRECAST OR C.I.P. COPING WITH JUNCTION SLAB (CORRAL SHAPE TRAFFIC RAILING)
PARTIAL END VIEW OF TRAFFIC RAILING END TRANSITION FOR GUARDRAIL ATTACHMENT (Showing Bars 55, Bars 5T and Bars 5X) (Precast Coping Shown, C.I.P. Coping Similar)

NOTE: See Index No. 422 and Index No. 423, Railing End Detail for details.

ESTIMATED QUANTITIES FOR PRECAST COPING

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<tr>
<th>ITEM</th>
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<tr>
<td>Additional Rein. @ Expansion Joints</td>
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(The above concrete quantities are based on a 5" wide retaining wall panel and a Type D Concrete Curb (See Note 2). The above Precast Coping quantities are based on one 10'-0" Precast Coping segment.)

TYPICAL SECTION THRU PRECAST COPING WITH C.I.P. RAISED SIDEWALK AND RETAINING WALL AT EXPANSION JOINTS

1. Actual values vary depending on type of Retaining Wall used.
2. Match roadway curb shape (Typel and height. See Roadway Plans and Index No. 300. 5'-11" dimension is based on a 32" Vertical Shape Traffic Railing with a Type D curb adjacent to a 6'-0" wide sidewalk. Adjust this dimension as required for other curb types or transitions at Begin or End Retaining Wall.
3. See Index No. 422 and Index No. 423 for Bars 5S, 5T & 5X and bullet railing details. Adjust vertical dimension of Bars 5T and 5S, see Reinforcing Steel Note 5.
4. Increase the width (2'-28") of Bars 5T as required to maintain 2" minimum cover when recessed with subgrade. If sidewalk.
5. At the Contractor's option, mechanical couplers may be used to splice reinforcing. Complete details, including reinforcement lengths are required in the Shop Drawings. Mechanical couplers shall develop 125% of the bar yield strength.
6. Trim end of Bars 5T and 5X to clear construction joint for 42" Vertical Shape Traffic Railing.

PRECAST OR C.I.P. COPING WITH C.I.P. RAISED SIDEWALK DETAILS (VERTICAL SHAPE TRAFFIC RAILINGS)
**PRECAST COPING/PARAPET AND SIDEWALK NOTES:**

1. Construct 1/4" Expansion Joints in sidewalk and C.I.P. coping plumb and perpendicular or radial to the Gutter Line. Provide at 90'-0" maximum intervals as shown.
2. Provide and install Preformed Expansion Joint Filler in accordance with Specification Section 933.
3. Construct 1/4" V-Grooves in sidewalk and C.I.P. coping plumb and provide at 90'-0" maximum intervals as shown. Space V-Grooves equally between 1/4" Expansion Joints and/or begin or end Sidewalk. For C.I.P. Coping only, V-Groove locations are to coincide with V-Groove locations in the Concrete Parapet.
4. Spacing shown is along the Gutter Line.
5. For Precast Coping only, Dowel Bars 40 are to extend 1/2'-0" above the top of retaining wall panel. Field cut as necessary to maintain 2'-0" minimum cover to the top of the buildup concrete. See Wall Company Drawings for number and spacing of Dowel Bars 40.
6. Work this Index with the following:
   - Index No. 450 = Concrete Barrier Wall
   - For C.I.P. Coping only, work this Index with the following:
   - Index No. 820 = Pedestrian/Bicycle Railing
   - The following Indexes contain details of the intersection of the retaining wall at approach slabs:
     - Index No. 20900 = Approach Slabs (Flexible Pavement Approaches)
     - Index No. 20950 = Approach Slabs (Rigid Pavement Approaches)

**PARTIAL PLAN VIEW**

(Skewed Approach Slab Shown, Perpendicular Approach Slab Similar)
(Precast Coping Shown, C.I.P. Coping Similar) (Concrete Parapet Not Shown for Clarity)

**PARTIAL ELEVATION VIEW**

(Precast Coping and Sidewalk Reinforcing not Shown for Clarity)
(Precast Coping Shown, C.I.P. Coping Similar)

**PRECAST COPING/ PARAPET OR C.I.P. COPING WITH C.I.P. SIDEWALK DETAILS**
LIGHT PILASTER NOTES:

1. The pilaster and junction slab are designed to resist the following working loads from the light pole applied at the top of the pilaster:
   - Axial/Deadload = 1,560 kip
   - Windload Moment about Transverse Axis (X) = 40.60 kip-ft
   - Windload Moment about Longitudinal Axis (Y) = 28.50 kip-ft
   - Deadload Moment about Longitudinal Axis (Y) = 1,690 kip-ft
   - Maximum Shear = 1,450 kip
   - Torsion about Pole Axis = 3,550 kip-ft
   (X) Axis refers to Bridge Aisle.

2. Provide grout in accordance with Specification Section 934.
3. It is the Contractor's responsibility to provide anchor bolts, nuts, washers and anchor plates that effectively transmit the light pole loads to the pilaster and fit the reinforcing cage. Submit calculations for anchor bolt design and embedment depth, signed and sealed by a Professional Engineer registered in the State of Florida to the Engineer for review and approval prior to construction.
4. Dashed Anchor Bolt plumb.
5. For conduit pullbox, expansion/deflection fittings detail, see Utility Conduit Details Drawings.
6. The cost of anchor bolts, nuts, washers and anchor plates will be included in the Bid Price for Light Poles. Include the cost of all labor, concrete and reinforcing steel required for construction of the pilasters, grout pads, pullboxes and miscellaneous hardware required for the completion of the electrical system in the Bid Price for either the Traffic Railing or Concrete Parapet that the pilaster is behind.
7. Field Cut Bars 4M2 as required to maintain clearance.
8. Anchor Bolt pattern orientation will be as shown.
9. Slip Forming Method of construction is not allowed within the limits shown.
10. Reinforcing shown for light pole pilasters is in addition to typical reinforcing for C.I.P. Junction Slabs and Raised Sidewalks (Bars 5A and 5B). Omit Junction Slab Bars 6J and Raised Sidewalk Bar 5D within light pole pilaster limits.
11. Work this Sheet with the following as appropriate:
   - Sheet Nos. 9, 10, 11 of 19 = Precast or C.I.P. Coping with C.I.P. Junction Slab Details
   - Sheet Nos. 12 and 13 of 19 = Precast or C.I.P. Coping with C.I.P. Raised Sidewalk Details
   - Sheet Nos. 14 and 15 of 19 = Precast Coping/Parapet or C.I.P. Coping with C.I.P. Sidewalk Details

CROSS REFERENCE: For Estimated Quantities, see Sheet No. 18 of 19.
TYPICAL SECTION AT LIGHT POLE PILASTER
(Traffic Railing Shown, Concrete Parapet Similar)
(Junction Slab Shown, Raised Sidewalk or Sidewalk Similar)

NOTES:

1. The 8'-0" dimension shown is for Junction Slabs. This dimension must be a minimum of 5'-0" for all applications.
2. For Junction Slabs, increase the 1'-0" depth dimension to 1'-6". For raised sidewalks, increase the 2'-0" depth dimension to 2'-6". For sidewalks, increase 5'-6" depth dimension to 1'-6". The minimum length of the Junction Slabs, Raised sidewalks and Sidewalks is 50'-0", measured along the Gutter Line.
3. Bars 4# are only required when plasters are behind a Traffic Railing.
4. Match the slope of the adjoining junction slab and shoulder or roadway pavement, raised sidewalk or sidewalk.
5. Actual width varies depending on type of Retaining Wall used.
6. See Index No. 420 for Bars 5V and 5S.

C. I. P. LIGHT POLE PILASTER DETAILS

2010 FDOT Design Standards
PERMANENT RETAINING WALL SYSTEMS
REINFORCING STEEL BENDING DIAGRAMS - LIGHT PILASTER

BILL OF REINFORCING STEEL

<table>
<thead>
<tr>
<th>MARK</th>
<th>SIZE</th>
<th>NO. REQD.</th>
<th>LENGTH</th>
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<tbody>
<tr>
<td>G3</td>
<td>4</td>
<td>16</td>
<td>7' - 2&quot;</td>
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<tr>
<td>G2</td>
<td>4</td>
<td>4</td>
<td>4' - 9&quot;</td>
</tr>
<tr>
<td>G3</td>
<td>4</td>
<td>4</td>
<td>4' - 7&quot;</td>
</tr>
<tr>
<td>G4</td>
<td>4</td>
<td>6</td>
<td>3' - 2&quot;</td>
</tr>
<tr>
<td>G5</td>
<td>4</td>
<td>4</td>
<td>8' - 2&quot;</td>
</tr>
<tr>
<td>M3</td>
<td>4</td>
<td>3</td>
<td>3' - 8&quot;</td>
</tr>
<tr>
<td>M2</td>
<td>4</td>
<td>2</td>
<td>12' - 8&quot;</td>
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<td>4</td>
<td>12</td>
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</tr>
<tr>
<td>M2</td>
<td>4</td>
<td>10</td>
<td>3' - 8&quot;</td>
</tr>
</tbody>
</table>

BARS 4G1, 4G2, 4G3, 4G4 & 4G5

BARS 5B3 & 4J

BAR 4H2

BAR 4H1

BAR 4M1 & 4M2

NOTES:
1. Field cut bars 4M2 as required to maintain minimum cover.
2. Minimum clearances between leveling nut and top of pilaster will not exceed anchor bolt diameter.

ELEVATION VIEW
(Junction Slab Reinforcing & Bars 4J not Shown for Clarity)
(Traffic Railing Shown, Concrete Parapet Similar)
(Junction Slab Shown, Raised Sidewalk or Sidewalk Similar)

DETAIL "A"

C.I.P. LIGHT POLE PILASTER DETAILS

ESTIMATED QUANTITIES

<table>
<thead>
<tr>
<th>ITEM</th>
<th>UNIT</th>
<th>QUANTITY</th>
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<tbody>
<tr>
<td>Concrete (Plaster)</td>
<td>CY</td>
<td>0.925</td>
</tr>
<tr>
<td>Concrete (Thickened Junction Slab)</td>
<td>CY</td>
<td>11.86</td>
</tr>
<tr>
<td>Reinforcing Steel</td>
<td>Lb.</td>
<td>43,65</td>
</tr>
</tbody>
</table>

(CIP, Light Pole Pilaster Details)

The quantities above are for one C.I.P. Light Pole Pilaster. The concrete quantity for the thickened junction slab is based on a 6" increase in thickness and a 5" wide retaining wall panel. Adjust thickened concrete quantity as required for raised sidewalks and sidewalks.)