



Florida Department of Transportation

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ROADWAY DESIGN BULLETIN 11-01

DATE: January 04, 2011

TO: District Design Engineers, Plans Preparation Manual Holders

FROM: David C. O'Hagan, PE, State Roadway Design Engineer

COPIES: David Sadler, Tim Lattner, Robert Robertson,
Duane Brautigam, Mark Wilson, Chris Richter (FHWA)

SUBJECT: Design Standards Modifications July 01, 2011

The Design Standards Modifications to the 2010 Design Standards booklet, Effective Date July 1, 2011, have been posted on the Roadway Design Office web site.

The Design Standards Modifications includes a listing of all Interim Design Standards issued since publication of the applicable booklet, plus all changes and corrections to notes and text within the booklet that do not warrant issuing Interim Indexes.

All plans beginning with the July 2011 letting shall include a reference to Design Standards Modifications Effective Date July 1, 2011, on the lower left corner of the Key Sheet below the Governing Specifications and Standards note, and above the Revisions area. For more information please see the Plans Preparation Manual, Volume II, Section 3.8 and Exhibit KS-1.

All Interim Indexes listed in the Design Standards Modifications publication will be applicable unless otherwise indicated in the contract documents. The July 1, 2011, Design Standards Modifications includes Interim Indexes as follows:

Interim Index No. 001 (Sheets 1-4 of 4), STANDARD ABBREVIATIONS – Dated 1/1/2011: Updating abbreviations.

Interim Index No. 280 (Sheet 1 of 3), MISCELLANEOUS DRAINAGE DETAILS – Dated 1/1/2011: Changed Concrete Collars from Class I Concrete to Class NS Concrete.

Interim Index No. 302 (Sheets 2-3 of 4), TRAFFIC SEPARATORS —Dated 01/01/11:
(Sheet 2)

- Added skewed treatment from Index No. 490,

(Sheet 3)

- Changed Note reference for skewed bridges to “Sheet 2”.

Interim Index No. 304 (Sheets 1-6 of 6), PUBLIC SIDEWALK CURB RAMPS – Dated 1/1/2011: All sheets, removed the 2’ level landing requirement.

Interim Index No. 308 (Sheet 1 of 2), CONCRETE SLAB REPLACEMENT – Dated 1/1/2011:
Extended Bond Breaker leader to include Transverse Joints in Figures 10.3, 10.4 and 10.5.

Interim Index No. 400 (Sheets 1 & 17 of 26), GUARDRAIL – Dated 1/1/2011:

(Sheet 1)

- Deleted second paragraph in note 15 referring to recycled beams, and changed VECP (Value Engineering Change Proposal) to CSIP (Cost Savings Initiative Proposal),

(Sheet 17)

- Changed: 2” Nom. Diameter to NPS 2 Sch. 40 Galv. Pipe Rail Per ASTM F1083.

Interim Index No. 410 (Sheets 1, 3, 7, 8 & 24 of 25), CONCRETE BARRIER WALL—Dated 1/1/2011:
(Sheet 1)

- Updated details and Note 5.

(Sheet 3)

- Added a Construction Joint & Horizontal Bar to Cantilevered Wall Footing,
- Changed Bar Bending Diagrams 4A, 4B, 4C, 4D & 4E and deleted the Min. and Max. designations for X1, X, and Y.

(Sheet 7)

- Updated plan View at Barrier Wall Inlets,
- Updated table DIMENSIONS AND QUANTITIES,
- Changed the Crash Test criteria (Note 2).

(Sheet 8)

- Renamed Bar “4H Modified” to Bar “4J”,
- Updated Bars “4H” & “4J”,
- Changed rebar bending diagrams.

(Sheet 24)

- Updated Note 3.

Interim Index No. 414 (Sheets 4, 6 & 7 of 15), TYPE K TEMPORARY CONCRETE BARRIER SYSTEM – Dated 01/01/11:

(Sheet 4)

- Added language to TRANSITIONS note for QPL Barrier Systems.

(Sheet 6)

- Corrected weld symbol and added optional modifications to top of Stake.

(Sheet 7)

- Added Flowable Fill option to BACK FILLED ROADWAY INSTALLATIONS.

Interim Index No. 420 (Sheets 1, 3 & 4 of 4), TRAFFIC RAILING - (32" F SHAPE) — Dated 01/01/11:

(Sheet 1)

- Changed JOINTS note reference for treatment on skewed bridges to Sheet 3.

(Sheet 3)

- Added new sheet for skew details from Index No. 490.

(Sheet 4)

- Changed Sheet No. and DETAIL "B" to pre-cured silicone sealant.

Interim Index No. 421 (Sheets 1, 3 & 4 of 4), TRAFFIC RAILING - (MEDIAN 32" F SHAPE) — Dated 01/01/11:

(Sheet 1)

- Changed JOINTS note reference for treatment on skewed bridges to Sheet 3.

(Sheet 3)

- Added new sheet for skew details from Index No. 490.

(Sheet 4)

- Changed Sheet No. and DETAIL "B" to pre-cured silicone sealant.

Interim Index No. 422 (Sheets 1-3 of 3), TRAFFIC RAILING - (42" VERTICAL SHAPE) –Dated 01/01/11:

(Sheet 1)

- Changed JOINTS note reference for treatment on skewed bridges to Index No. 420.

(Sheet 2)

- Deleted INSTRUCTIONS TO DESIGNER and added 3/4" V-Groove to VIEW B-B.

(Sheet 3)

- Changed DETAIL "B" to pre-cured silicone sealant.

Interim Index No. 423 (Sheets 1-3 of 3), TRAFFIC RAILING - (32" VERTICAL SHAPE) – Dated 01/01/11:

(Sheet 1)

- Changed JOINTS note reference for treatment on skewed bridges to Index No. 420.

(Sheet 2)

- Deleted INSTRUCTIONS TO DESIGNER.

(Sheet 3)

- Changed DETAIL "B" to pre-cured silicone sealant.

Interim Index No. 424 (Sheets 1 & 3 of 7), TRAFFIC RAILING - (CORRAL SHAPE) – Dated 01/01/11: Added DETAIL "A" (Pre-cured Silicone Sealant) for curbed sections.

Interim Index No. 425 (Sheets 1-3 of 3), TRAFFIC RAILING - (42" F SHAPE) – Dated 01/01/11:

(Sheet 1)

- Changed JOINTS note reference for treatment on skewed bridges to Index No. 420.

(Sheet 2)

- Deleted INSTRUCTIONS TO DESIGNER.

(Sheet 3)

- Changed DETAIL “B” to pre-cured silicone sealant.

Interim Index No. 501 (Sheets 1-12 of 12), GEOSYNTHETIC REINFORCED SOILS – Dated 01/01/11:

(Sheet 1)

- Added “R_{FLT}” to Note 2 and new Sheets 5 & 10 for TENCATE geotextiles.

(Sheets 2-12)

- Renumbered all sheets.

Interim Index No. 600 (Sheets 3, 5, 8 & 9 of 13), GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES – Dated 1/1/2011:

(Sheet 3)

- To TYPICAL PLACEMENT OF TEMPORARY RAISED RUMBLE STRIPS detail added RUMBLE STRIPS AHEAD sign and DISTANCE BETWEEN SIGNS table.

(Sheet 5)

- Deleted section for “SIGN PLACEMENT” and updated text for section “SIGN MATERIALS”.

(Sheet 8)

- Added signs
 - RUMBLE STRIPS AHEAD (MOT-18-10) and,
 - BE PREPARED TO STOP (W3-4) signs, and
 - Graphic sign with motorcycle (W8-15P) under GROOVED PAVEMENT AHEAD (MOT-15-06) and LOOSE GRAVEL (W8-7) sign
- Changed designation of WORKERS sign to (W21-1) for the symbol sign and (W21-1A) for the word message sign.

(Sheet 9)

- Added note
 - To STANDARD ORANGE FLAG that Standard Orange Flags are not to be used on portable sign supports, and
 - To WARNING LIGHTS added note to clarify that Type B lights are not required on portable sign supports.

Interim Index No. 642 (Sheet 1 of 1), TRANSITIONS FOR TEMPORARY CONCRETE BARRIER WALL ON FREEWAY FACILITIES – Dated 1/1/2011: Corrected offset in detail TWO OR MORE LANES ONE WAY LANE DROP AND LANE SHIFTS -PLAN SHOWN FOR RIGHT LANE MERGE LEFT- INVERTED PLAN FOR LEFT LANE MERGE RIGHT, from “x (Varies: 2’-6” Min.)” to “y (Varies: 6” Min., 4’ Std.)”.

Interim Index No. 670 (Sheet 1 of 1), MOTORIST AWARENESS SYSTEM – Dated 01/01/11: Corrected reference in detail from Note 7 to Note 6.

Interim Index No. 810 (Sheets 1-3 of 4), BRIDGE FENCING (VERTICAL) – Dated 01/01/11: Change cut at bottom of post to 45 degree angle.

Interim Index No. 820 (Sheet 1 of 1), BRIDGE PEDESTRIAN/BICYCLE BULLET RAILING – Dated 01/01/10: Added “Bridge” and “Bullet” to title, Changed * note reference for Skew Treatment to Index No. 420, and changed DETAIL “A”.

Interim Index No. 825 (Sheet 1 of 2), 42” CONCRETE PEDESTRIAN/BICYCLE RAILING – Dated 01/01/11: Changed * note reference for Skew Treatment to Index No. 420.

Interim Index No. 826 (Sheet 1 of 2), 54” CONCRETE PEDESTRIAN/BICYCLE RAILING – Dated 01/01/11: Changed * note reference for Skew Treatment to Index No. 420.

Interim Index No. 851 (Sheets 1-3 of 3), BRIDGE PEDESTRIAN/BICYCLE RAILING (STEEL) – Dated 01/01/11: Changed railing to match Index No. 852 Deleted INSTRUCTIONS TO DESIGNER note.

Interim Index No. 852 (Sheets 1-8 of 8), STEEL PEDESTRIAN/BICYCLE RAILING – Dated 01/01/11: New Design Standard to replace Index No. 850.

Interim Index No. 861 (Sheets 1-3 of 3), STEEL PEDESTRIAN/BICYCLE RAILING – Dated 01/01/11: New Design Standard to replace Index No. 850.

Interim Index No. 862 (Sheets 1-8 of 8), ALUMINUM PEDESTRIAN/BICYCLE RAILING – Dated 01/01/11: New Design Standard to replace Index No. 860.

Interim Index No. 870 (Sheets 1 & 5 of 5), ALUMINUM PIPE GUIDERAIL – Dated 01/01/11:
(Sheet 1)

- Deleted APPLICABILITY NOTE TO DESIGNER.

(Sheet 5)

- Added 2” min. curb height dimension to TYPICAL SECTION ON GRAVITY WALL.

Interim Index No. 880 (Sheets 1 & 5 of 5), STEEL PIPE GUIDERAIL – Dated 01/01/11:
(Sheet 1)

- Deleted “APPLICABILITY NOTE TO DESIGNER”.

(Sheet 5)

- Added 2” min. curb height dimension to TYPICAL SECTION ON GRAVITY WALL.

Interim Index No. 5200 (Sheets 1-15 of 15), PRECAST SOUND BARRIERS – Dated 01/01/11: Changed Title & number of sheets to include Indexes 5201-5207, Note B from “PPM” to “SDG”, Notes E, K, & O to remove foundation and post “Options”, Note L from “VECP” to “CSIP”.

Interim Index No. 5210 (Sheets 1-2 of 5), TRAFFIC RAILING/SOUND BARRIER (8’-0”) – Dated 01/01/11: Changed “Mortar Plug” to “Pre-cured Silicone Sealant” joint.

Interim Index No. 5212 (Sheets 1-2 of 2), TRAFFIC RAILING/SOUND BARRIER (8'-0") JUNCTION SLAB – Dated 01/01/11: Revised Junction Slab detail.

Interim Index No. 6010 (Sheets 1-2 of 2), C-I-P CANTILEVER WALL – Dated 01/01/11: New Design Standard Index No. & Title (Previously Index No. 5100).

Interim Index No. 6011 (Sheet 1 of 1), C-I-P GRAVITY RETAINING WALL – Dated 01/01/11: New Design Standard Index No. & Title (Previously Index No. 520), Revised Junction Slab detail and changed concrete cover to 3".

Interim Index No. 6020 (Sheet 1 of 1), PERMANENT MSE RETAINING WALL SYSTEMS – Dated 01/01/11: New Design Standard Index (Previously Index No. 5300, Sheets 1 & 2).

Interim Index No. 6030 (Sheet 1 of 1), TEMPORARY MSE RETAINING WALL SYSTEMS – Dated 01/01/11: New Design Standard Index No. & Title (Previously Index No. 5301).

Interim Index No. 6040 (Sheets 1-4 of 4), PRECAST CONCRETE SHEET PILE WALL – Dated 01/01/11: New Design Standard Index Number (Previously Index Nos. 20400 - 20440).

Interim Index No. 6100 (Sheets 1-2 of 2), MSE WALL COPING (PRECAST OR C-I-P) – Dated 01/01/11: New Design Standard Index No. & Title (Previously Index No. 5300, Sheets 3 & 4).

Interim Index No. 6110 (Sheets 1-6 of 6), WALL COPING WITH TRAFFIC RAILING/JUNCTION SLAB – Dated 01/01/11: New Design Standard Index No. & Title (Previously Index No. 5300 Sheets 5 -10), Revised junction slab configuration and precast traffic railing option.

Interim Index No. 6120 (Sheets 1-3 of 3), WALL COPING WITH TRAFFIC RAILING/RAISED SIDEWALK – Dated 01/01/11: New Design Standard Index No. & Title (Previously Index No. 5300 Sheets 11-13), Changed raised sidewalk depth.

Interim Index No. 6130 (Sheets 1-2 of 2), WALL COPING/PARAPET WITH C-I-P SIDEWALK – Dated 01/01/11: New Design Standard Index No. & Title (Previously Index No. 5300 Sheets 14 & 15).

Interim Index No. 6200 (Sheets 1-3 of 3), COPING MOUNTED LIGHT POLE PEDESTAL – Dated 01/01/11: New Design Standard Index No. & Title (Previously Index No. 5300 Sheets 16-18).

Interim Index No. 6201 (Sheet 1 of 1), JUNCTION SLAB AT DRAINAGE INLET OPENINGS – Dated 01/01/11: New Design Standard Index No. & Title (Previously Index No. 5300 Sheet 19).

Interim Index No. 11200 (Sheet 2 of 2), MULTI-COLUMN GROUND SIGN – Dated 1/1/2011: Added Section W 8x18 to table and updated values.

Interim Index No. 11860 (Sheets 3 & 5 of 8), Single Column Ground Signs – Dated 1/1/2011: (Sheet 3) Added Stub Length to POST AND FOUNDATION TABLE and Note 3, (Sheet 5) Changed Dimensions in details.

Interim Index No. 17345 (Sheet 4 of 4), INTERCHANGE MARKINGS – Dated 1/1/2011: WRONG WAY ARROW Revised and RPM's respaced.

Interim Index No. 17346 (Sheet 10 of 14), SPECIAL MARKING AREAS – Dated 1/1/2011: Current MUTCD changes added Note 100' of Solid White added to details. Signs rotated 90 degrees. Chart revised and in Note 3 "high" changed to "special".

Interim Index No. 17347 (Sheets 1-4 of 4), BICYCLE MARKINGS – Dated 1/1/2011:
(Sheet 1)

- Sheet completely revised.

(Sheets 2-4)

- 4' bike lane width removed, notes revised.

Interim Index No. 17355 (Sheets 2, 4 & 11 of 11), SPECIAL SIGN DETAILS – Dated 1/1/2011:
(Sheet 2)

- FLORIDA'S TURNPIKE (FTP-16-06) deleted and FLORIDA'S TURNPIKE sign (FTP-16-10) added.

(Sheet 4)

- Changed Message on Sign No. FTP-22-06.

(Sheet 11)

- added RUMBLE STRIPS AHEAD sign (MOT-18-10).

Interim Index No. 17502 (Sheet 3 of 7), HIGHMAST LIGHTING – Dated 1/1/2011: Note 9 changed Information required on the aluminum identification tag, Note 10 deleted QPL Language, Note 11 changed to Note 10.

Interim Index No. 17515 (Sheets 2-4 of 8), STANDARD ALUMINUM LIGHTING – Dated 1/1/2011:
(Sheet 2)

- Removed QPL Language from Index.

(Sheet 3)

- Added Dimensions in Section AA.

(Sheet 4)

- Changed ASTM Specification in note 1.

Interim Index No. 17700 (Sheet 1 of 1), PULL, SPLICE AND JUNCTION BOX – Dated 1/1/2011:
Revised details and notes.

Interim Index No. 17723 (Sheet 1 of 3), STEEL STRAIN POLE – Dated 1/1/2011: Changed Information required on the aluminum identification tag, deleted Note 8, changed Note 9 to Note 8.

Interim Index No. 17743 (Sheet 2 of 3), STANDARD MAST ARM ASSEMBLIES – Dated 1/1/2011:
Revised table values.

Interim Index No. 17745 (Sheet 1 of 5), MAST ARM ASSEMBLIES – Dated 1/1/2011: Modified Standard Design and Special Design Notes, deleted Note 17, changed Note 18 to Note 17.

Interim Index No. 17882 (Sheets 1, 2 & 4 of 4), RAILROAD GRADE CROSSING TRAFFIC CONTROL DEVICES – Dated 1/1/2011: Added description for Lowest Point of Overhead Signal Unit and changed dimension from 57” Max. to 51” Max. for Types II & IV to all sheets.

Interim Index No. 18111 (Sheets 1-2 of 2), STEEL CCTV POLE – Dated 1/1/2011:
(Sheet 1)

- FOUNDATION AND HANDHOLE DETAIL, Changed Plate Washer requirements.

(Sheet 2)

- Modified Design Notes and Pole General Notes.

Interim Index No. 18113 (Sheets 1-2 of 2), CONCRETE CCTV POLE – Dated 1/1/2011:
(Sheet 1)

- Revised location of couplings.

(Sheet 2)

- Revised pole burial depth table.

Interim Index No. 20005 (Sheet 1 of 1), PRESTRESSED I-BEAM TEMPORARY BRACING – Dated 01/01/11: Added “I-” to Title.

Interim Index No. 20010 (Sheets 1-2 of 2), TYPICAL FLORIDA-I BEAM DETAILS AND NOTES – Dated 01/01/11:

(Sheet 1)

- Revised Notes 4 & 5.

(Sheet 2)

- Strand protection detail at beam ends.

Interim Index No. 20199 (Sheet 1 of 1), BUILD-UP & DEFLECTION DATA FOR AASHTO, BULB-T AND FLORIDA-I BEAMS – Dated 01/01/11: Deleted INSTRUCTIONS TO DESIGNER, Added SECTION A-A location to BUILD-UP DIAGRAMS, Changed note at CL Beam in SECTION A-A.

Interim Index No. 20248 (Sheet 3 of 3), FLORIDA U 48 BEAM - STANDARD DETAILS – Dated 01/01/11: Changed number of Bars D1 & D2 in BILL OF REINFORCING STEEL.

Interim Index No. 20254 (Sheet 3 of 3), FLORIDA U 54 BEAM - STANDARD DETAILS – Dated 01/01/11: Changed number of Bars D1& D2 in BILL OF REINFORCING STEEL.

Interim Index No. 20263 (Sheet 3 of 3), FLORIDA U 63 BEAM - STANDARD DETAILS – Dated 01/01/11: Changed number of Bars D1& D2 in BILL OF REINFORCING STEEL.

Interim Index No. 20299 (Sheet 1 of 1), BUILD-UP & DEFLECTION DATA FOR FLORIDA U BEAMS – Dated 01/01/11: Deleted INSTRUCTIONS TO DESIGNER, Added SECTION A-A location to BUILD-UP DIAGRAMS, Changed note at CL Flanges in SECTION A-A.

Interim Index No. 20399 (Sheet 1 of 1), OVERLAY & DEFLECTION DATA FOR PRESTRESSED SLAB UNITS – Dated 01/01/11: Deleted INSTRUCTIONS TO DESIGNER, Added SECTION A-A location to BUILD-UP DIAGRAMS, Changed note at CL Slab in SECTION A-A.

Interim Index No. 20510 (Sheet 1 of 1), COMPOSITE ELASTOMERIC BEARING PADS - PRESTRESSED FLORIDA-I BEAMS – Dated 01/01/11: Added usage reference to Index No. 20511 in PARTIAL PLAN WITH END DIAPHRAGM, and Index No. 20512 to PARTIAL PLAN WITHOUT END DIAPHRAGM.

Interim Index No. 20910 (Sheets 1-2 of 2), APPROACH SLABS (RIGID PAVEMENT APPROACHES) – Dated 01/01/11:

(Sheet 1)

- Added Bars 5B2 (Top) & Bars 5B3 (Bottom) for skewed end and Deleted INSTRUCTIONS TO DESIGNER.

(Sheet 2)

- Deleted diaphragm line in VIEW C-C.

Interim Index No. 21100 (Sheets 1-2 of 3), STRIP SEAL EXPANSION JOINT – Dated 01/01/11: Deleted Notes 3 & 4, Changed Notes 1 & 2, Moved MOVEMENT SCHEMATIC from Sheet 2 to Sheet 1.

Interim Index No. 21110 (Sheets 1-2 of 2), POURED JOINT WITH BACKER ROD EXPANSION JOINT SYSTEM – Dated 01/01/11:

(Sheet 1)

- Deleted INSTRUCTIONS TO DESIGNER and Notes 2, 3 & 5 (covered by Spec. 458).

(Sheet 2)

- Added note requiring Sleeve Anchors at fixed side corners of sidewalk cover plate.

Interim Index No. 21200 (Sheets 1-3 of 3), LIGHT POLE PEDESTAL – Dated 01/01/11: Changed Index title and Deleted INSTRUCTIONS TO DESIGNER.

Interim Index No. 21250 (Sheet 1 of 1), ACCESS HATCH ASSEMBLY FOR STEEL BOX SECTIONS – Dated 01/01/11: New Design Standard Index.

Interim Index No. 21251 (Sheet 1 of 1), ACCESS HATCH ASSEMBLY FOR CONCRETE BOX SECTIONS – Dated 01/01/11: New Design Standard Index.

Interim Index No. 21300 (Sheet 1 of 1), STANDARD BAR BENDING DETAILS – Dated 01/01/11: Added dimension “H” to Bar TYPE 25.

Interim Index No. 21600 (Sheet 1 of 7), TEMPORARY DETOUR BRIDGE GENERAL NOTES AND DETAILS – Dated 01/01/11: Added Payment and Applicability notes. Deleted INSTRUCTIONS TO DESIGNER.

Interim Index No. 21802 (Sheets 1-2 of 2), POST-TENSIONING ANCHORAGE PROTECTION – Dated 01/01/11:

(Sheet 1)

- Changed ANCHOR PROTECTION FOR PT BARS details for Type 5, 6, & 7.

(Sheet 2)

- Added new Sheet 2.

Interim Index No. 21803 (Sheets 1-3 of 3), POST-TENSIONING ANCHORAGE AND GROUTING DETAILS – Dated 01/01/11: Added Grout Outlet to PT Bar Anchorage End and revised PT Bar Grouting Details.

The design Standards, Interim Indexes and Design Standards Modifications can be accessed at the following web site:

<http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm>

If you have any questions please contact this office.