

DESIGN STANDARDS MODIFICATIONS

(2006 Booklet)

(English Units)

Effective Date: July 1, 2006

NOTE: Interim Indexes listed in these Modifications may be viewed by going to www.dot.state.fl.us/rddesign/Design%20Standards/Standards.htm.

On the “INDEX NUMBER CHANGE REFERENCES AND QPL INFO” sheet, the table is revised to indicate that 2006 Design Standards Index 414 replaces Structures Standard 715.

Index No. 001 (Sheets 1 and 2 of 2), Add the following standard abbreviations:

| | |
|------|------------------------------------|
| CCTV | Closed Circuit Television |
| EIA | Electronic Industries Alliance |
| EPDM | Ethylene Propylene Diene Monomer |
| ETP | Electrolytic Tough Pitch |
| GFI | Ground Fault Interrupter |
| NPT | National Pipe Thread |
| PVC | Polyvinyl Chloride |
| RGS | Rigid Galvanized Steel |
| RU | Rack Unit |
| RX | Receive |
| TVSS | Transient Voltage Surge Supression |
| TX | Transmit |
| UPS | Uninterruptible Power Supply |

Index No. 102 (Sheet 1 of 3), “CHART I”, delete the title and substitute “RECOMMENDED SPACING FOR SYNTHETIC BALES AND BALE TYPE BARRIERS AND TYPE III SILT FENCE”

Index No. 102 (Sheet 2 of 3), “BARRIER FOR PAVED DITCH” is deleted and “SYNTHETIC BALE AND BALE TYPE BARRIER FOR PAVED DITCH” substituted.

“BARRIERS FOR UNPAVED DITCHES” is deleted and “SYNTHETIC BALES OR BALE TYPE BARRIERS FOR UNPAVED DITCHES” is substituted.

“NOTES FOR BALED HAY OR STRAW BARRIERS” is deleted and “NOTES FOR SYNTHETIC BALES AND BALE TYPE BARRIERS” is substituted.

Note 1 is deleted and the following substituted: “1. Type I synthetic barrier should be spaced in accordance with Chart I on Sheet 1.”

Note 2, delete the word “Hay”.

Note 4, delete the second sentence.

Note 5 is deleted and the following substituted: “5. Where used in conjunction with silt fence, bales shall be placed on the downstream side of the fence.”

Note 6 is deleted and the following substituted: “6. Bales to be paid for under the contract unit price for Synthetic Bales, EA. The unit price shall include the cost of filter fabric for Type I Barrier. Sand bags shall be paid for under the contract unit price for Sandbagging, CY. Rock bags to be paid for under the contract unit price for Rock Bags, EA.

Index No. 104 (Sheet 1 of 2), under the “WILDFLOWER SEEDING RATE” chart add the following footnote: “Wildflower seeding rates are for restoring impacted wildflower areas.”

Index No. 105 (Sheet 1 of 1), “TREATMENT I”, add width dimension of the sod strip as “2’-8”” and the note “See Pattern Detail”.

Index No. 106 (Sheet 1 of 1), “GENERAL NOTES”, in Note 9, the sentence “Hay bales shall be paid for under the contract unit price for Hay or Straw, Baled, EA.” is deleted and “Synthetic bale or bale type barrier shall be paid for under the contract price for Synthetic Bales, EA.” is substituted.

Index No. 199 (Sheet 1 of 1), “STANDARD CRITERIA”, under “APPLICATION DESCRIPTION”, Type D-2, add 4 asterisks (“****”) after “Articulating Block”.

Under “COMMENTS”, Type D-1, delete the text “Provide 6” thick aggregate bedding layer” and substitute “Provide 12” thick bedding stone layer”.

Under “COMMENTS”, Type D-2, delete the text “Provide 150mm thick aggregate bedding layer for revetment (standard)” and substitute “Provide 12” bedding stone layer for revetment (standard)”. Also add the following note in this block “**** Bedding stone not required for Articulating Block”.

Index No. 200 (Sheet 1 of 3), “GENERAL NOTES”, Note 4 text “for structures located in extremely aggressive environments” is deleted and “for special applications of structures located in extremely aggressive environments” is substituted.

Note 11 is deleted and the following substituted: “11. Inlet walls, throats, risers and manhole tops shall be secured to structures as shown on Index No. 201 (Sheet 3 of 6) “OPTIONAL CONSTRUCTION JOINTS””.

Index No. 200 (Sheet 3 of 3), “STRUCTURE BOTTOMS TYPE J AND P”, is deleted and Interim Index No. 200 (Sheet 3 of 3), Dated 01-01-06 is substituted.

Index No. 201 (Sheet 4 of 4), “SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS”, is deleted and Interim Index No. 201 (Sheets 4 of 4), Dated 01-01-06 is substituted.

Index No. 205 (Sheet 1 of 5), In each of the three tables, under the pipe type “CORRUGATED POLYETHYLENE”, delete “15”-48” Round” and insert “15”-60” Round”.

Index No. 264 (Sheet 1 of 1), “GENERAL NOTES”, in Note 6, delete the second sentence.

Index No. 301 (Sheet 1 of 1), in the table “TURN LANES – CURBED AND UNCURBED MEDIANS” correct the spelling of “CONDITIONS”.

Index No 302 (Sheets 2 and 3 of 3), “TRAFFIC SEPARATORS”, are deleted and Interim Index No. 302 (Sheets 2 and 3 of 3), Dated 01-01-06 is substituted.

Index No. 304 (Sheet 1 of 6), Detail in lower left corner, the note “When crosswalk markings - -” is deleted and the following note substituted: “When crosswalk markings are required, ramp runs must fall within crosswalk limits and where practical, be parallel with the projected crosswalk alignment. The bottom of the ramp beyond the curb line shall have a clear space 48” minimum within the markings of a marked crosswalk. If no crosswalk markings are present, the bottom of the ramp beyond the curb ramp shall have a clear space 48” minimum outside active traffic lanes.”

Index No. 304 (Sheet 5 of 6), “MEDIAN CROSSWALKS”, “PLAN”, As an alternative to the curb transitions shown, the designer may detail the curb to extend along the crosswalk in similar manner to a CR 6 Curb Ramp”.

Index No. 310 (Sheet 1 of 2), “SIDEWALK WITH UTILITY STRIP” and “SIDEWALK WITHOUT UTILITY STRIP”, width of the sidewalk walkarounds at driveways delete “4”” and insert “4””.

Index No. 400 (Sheet 1 of 23), “GENERAL NOTES”, Note 6, add the following text as paragraph 5: “When an end treatment is attached to guardrail with Pedestrian Safety Treatment, only end treatment systems with timber posts are to be used.”

Index No. 400 (Sheet 2 of 23), Beneath the paragraph that begins “d = Distance - -”, add the following paragraphs:

“For flared and parallel end anchorage assemblies the beginning length of need is to be set at the center of post #3. That is, the departure line must intersect the face of the rail at post #3.”

“For flared end anchorage assemblies the offset distance “d” will equal the normal guardrail offset measured from the face of the guardrail to the edge of the near approach travel lane plus 1’-2” for 45 mph or less and 1’-9 ¼” for greater than 45 mph.”

Index No. 400 (Sheet 14 of 23), “GUARDRAIL LOCATION – DETAIL K”, “LOCATION ON FRONT SLOPES”, delete the note “Connect Beginning Of Rubrail To Back Side Of No. 3 Post With Post Bolt” and the reference arrow and add the following note: “Connect the beginning of rubrail to the backside of the last post of the end anchorage (first post of normal guardrail)”.

Index No. 400 (Sheet 15 of 23), “PEDESTRIAN SAFETY TREATMENTS”, under Note 1 add the following: “Refer to Sheet 1, Note 6 for end treatment requirements.”

“LOCATIONS AT CURB & GUTTER SECTIONS – DETAIL L”, delete text “(Maximum Speed 50 mph)” and “6’ or Greater Desirable” and add the following below the subtitle: “NOTE: For location of guardrail with offset behind curb and gutter refer to the January 2006 Plans Preparation Manual, Volume I, Section 4.3.5”

“MOUNTING HEIGHTS ON SHOULDERS AND IN MEDIANS”, “MODIFIED THRIE-BEAM”, delete “4” and insert “3’-11””.

Index No. 400 (Sheet 17 of 23), “5/8” STEEL WASHER”, at the end of the second sentence of the note add: “and under hex nut for connecting rubrail to wood and steel posts.”

Index No. 402 (Sheet 25 of 26), Details are revised to show the “Traffic Railing Barrier (Thrie-Beam Retrofit)” to be installed on the outside of the “Trailing End Guardrail” to provide the proper overlap.”

Interim Index No. 403 (Sheets 1 – 2 of 2), Dated 07-01-05, “GUARDRAIL TRANSITIONS FOR EXISTING BRIDGE TRAFFIC RAILING RETROFITS” is added.

Index No. 410 (Sheet 1 of 22), “GENERAL NOTES”, Add note 10 as follows: “10. Concrete barrier wall with New Jersey Safety Shape may not be substituted for the Standard F Shape Barrier”.

Index No 414 (Sheets 1 – 7 of 7) “TYPE K TEMPORARY CONCRETE BARRIER” are deleted and Interim Index No. 414 (Sheets 1 – 7 of 12) Dated 01-01-06 are substituted and new sheets 8 – 12 of 12 are added.

Index No. 415 (Sheet 1 of 10), “TEMPORARY CONCRETE BARRIER”, “DEFLECTION SPACE REQUIREMENTS” are added as follows:

When Shielding Above Ground Hazards:

| Design Speed | Deflection Space |
|---------------------|-------------------------|
| 45 mph or Less | 2' |
| 50 mph and Greater | 4' |

When Shielding Dropoffs:

| Design Speed | Deflection Space |
|---|-------------------------|
| 45 mph or Less | 2' |
| 50 mph and Greater | |
| a. Dropoffs 4' or Less and No Traffic Below | 2' |
| b. All dropoff conditions other than 'a'. | 4' |

When used as a Temporary Median Barrier separating opposing traffic lanes:

| Design Speed | Offset to Travelway |
|---------------------|----------------------------|
| 45 mph or Less | 0' minimum, 2' preferred |
| 50 mph and Greater | 2' |

These deflection space requirements also apply to approved options to the 415 barrier identified in General Note 1 of Index 415.

Index No. 415 (Sheet 2 of 10), Add the following text to this sheet: “The surface cross slope approaching the barrier wall and continuing across the required deflection space shall not exceed a rate of 1 vertical : 10 horizontal.”

Index No. 415 (Sheets 9 and 10 of 10), “NOTES”, delete Note 3 and substitute the following, “3. For crash cushion details see drawings posted on the Qualified Products List at “544 Vehicle Impact Attenuators””.

Interim Index No. 430 (Sheets 1 – 2 of 2), “OPTIONAL CRASH CUSHION DETAILS”, Dated 01-01-06 is added.

Index No. 461 (sheet 1 of 1), “END VIEW” drawing, delete the dimensions “2” Clear” and substitute “1 ½” Clear Min.” “GENERAL NOTES”, Note 2, Add the following paragraph as paragraph 3: “When longitudinal reinforcing bars are encountered in the stem of existing barrier, shift the dowels to clear, maintaining the 1 ½” Clear Minimum to the face of the Opaque Visual Barrier”.

Index No. 520 (Sheet 1 of 1), “GRAVITY WALL” is deleted and Interim Index 520 (Sheet 1 of 1), Dated 01-01-06 is substituted.

Index No. 532 (Sheet 1 of 3), “GENERAL NOTES”, Note 4, the first paragraph is deleted and the following substituted: “Mailboxes shall be light sheet metal or plastic construction, in traditional style only, and only in Size 1 as prescribed by the Domestic Mail Manual of the U. S. Postal Service (DMM).”

Index No. 600 (Sheet 5 of 10), “MANHOLES/CROSSWALKS/JOINTS”, the second paragraph is deleted and the following substituted: “All transverse joints that have a difference in elevation of 1” or more shall have a temporary asphalt apron constructed as shown in the diagram below.”

Index No. 600 (Sheet 6 of 10), “DROPOFF NOTES”, Note 3, delete the line “416 Temporary water filled barriers” and substitute: “For temporary water filled barriers see the QPL”

Index No. 613 (Sheet 1 of 2), For device spacing see Table I on Index No. 612.

Index No. 631 (Sheet 1 of 2), “GENERAL NOTES”, add note 8 as follows: “8. Temporary crossovers on limited access right of way and use of this Index are prohibited unless specifically permitted in the Contract Plans or Special Provisions. When permitted in the Contract Plans or Special Provisions and prior to construction of any temporary crossover, the Contractor must submit, in writing, a request identifying specific locations for approval by the Engineer.”

Index No. 670 (Sheet 1 of 1), Delete from the drawing the box labeled “SLEO” and related text “Speed and Law Enforcement Officer (Patrolling The Active Work Area)”. Also delete the symbol and text for SLEO under the heading “SYMBOLS”.

Index No. 802 (Sheet 1 of 2), “GENERAL NOTES”- Note 7(b) is deleted and the following note substituted: “(b) In accordance with ASTM F567 Subsections 5.4 through 5.10 as approved by the engineer.”

Index No. 810 (Sheet 1 of 4), “FENCING NOTES”, Payment note, delete “(Pedestrian Overpass)” in the first sentence.

Index No. 811 (Sheet 1 of 3), “FENCING NOTES”, Payment note, delete “(Pedestrian Overpass)” in the first sentence.

Index No. 812 (Sheets 1 and 4 of 4), “BRIDGE FENCING (ENCLOSED)” are deleted and Interim Index No. 812 (Sheets 1 and 4 of 4) Dated 01-01-06 is substituted.

Index No. 850 (Sheet 2 of 2), “STEEL PEDESTRIAN/BICYCLE PICKET RAILING” is deleted and Interim Index No. 850 (Sheet 2 of 2), Dated 01-01-06 is substituted.

Index No. 5200 (Sheet 1 of 1), "PRECAST SOUND BARRIERS – GENERAL NOTES" is deleted and Interim Index No. 5200 (Sheet 1 of 1), Dated 01-01-06 is substituted.

Index No. 5202 (Sheet 2 of 4), "TYPICAL PANEL ELEVATION", "NOTE", text "Smooth" is deleted and "Smooth or Deformed" is substituted.

Index No. 5203 (Sheet 2 of 4), "TYPICAL PANEL ELEVATION", "NOTE", text "Smooth" is deleted and "Smooth or Deformed" is substituted.

Index No. 5205 (Sheet 6 of 7), "NOTES", Beneath Note 4, delete the address for State Contracting and Engineering, Corp. and substitute the following: "State Contracting and Engineering, Corp., 3800 North 29th Avenue, Hollywood, FL 33020."

Index No. 5300 (Sheets 1 – 15 of 15), "PERMANENT RETAINING WALL SYSTEMS" is deleted and Interim Index No. 5300 (Sheets 1 – 16 of 16), Dated 01-01-06 is substituted.

Index No. 11200 (Sheets 1 – 3 of 3), "STANDARD ROADSIDE SIGN" are deleted and Interim Index No. 11200 (Sheets 1 – 3 of 3), Dated 01-01-06 is substituted.

Index No. 17344 (Sheet 3 of 6), below the "SCHOOL CROSSWALK" note add: "See Index No. 17346 Sheets 2 and 7."

Index No. 17345 (Sheet 3 of 4), "TYPICAL LANE DROP MARKINGS AT EXIT RAMPS" and "TYPICAL MARKINGS AT DUAL LANE EXITS": Sheets in the printed booklets have a printing error/glitch that caused some of the lines in these drawings to be broken or irregular and the reflective pavement markers are not shown. Refer to the sheet posted on the Roadway Design Office website for details of these two layouts.

Index No. 17346 (Sheet 7 of 13), "SPECIAL EMPHASIS CROSSWALK YIELD MARKINGS", delete the W11-2 and W16-7p sign references and the symbol.

Index No. 17355 (Sheet 6 of 11), Signs FTP-40-04 and FTP-41-04, in the sign text delete "\$50" and insert "\$100".

Index No. 17501 (Sheet 1 of 1), Delete note 12 and substitute the following: "12. Install pole foundations in accordance with Section 715 of the Specifications.

Index No. 17505 (Sheet 2 of 2), "EXTERNAL LIGHTING FOR SIGNS" is deleted and Interim Index No. 17505 (Sheet 2 of 2), Dated 01-01-06 is substituted.

Index No. 17515 (Sheet 3 of 7), "FOUNDATION", delete the note "Class I (Special) Foundation Concrete may be cast-in-place or precast with flowable fill backfill" and substitute the following: "Class I (Special) Foundation Concrete may be cast-in-place or precast with installation in accordance with Section 715 of the Specifications".

Index No. 17515 (Sheet 7 of 7), “DATA FOR POLE WITH 15 FT ARM”, delete Case Nos. 8, 9, 10, and 11.

Index No. 17725 (Sheet 1 of 1), “NOTES”, add the following new note: “Rake pole back from the span wire as necessary to achieve a final rake of $\frac{1}{2} \pm \frac{1}{4}$ inch per foot.”

Interim Index No. 18100 (Sheet 1 of 1), “CCTV POLE PLACEMENT” Dated 01-01-06 is added.

Interim Index No. 18101 (Sheet 1 of 1), “TYPICAL CCTV SITE”, Dated 01-01-06 is added.

Interim Index No. 18102 (Sheet 1 – 2 of 2), “CCTV POLE GROUNDING”, Dated 01-01-06 is added.

Interim Index No. 18104 (Sheet 1 of 1), “CCTV CABINET EQUIPMENT LAYOUT”, Dated 01-01-06 is added.

Interim Index No. 18105 (Sheet 1 of 1), “CCTV BLOCK DIAGRAM”, Dated 01-01-06 is added.

Interim Index No. 18107 (Sheet 1 of 1), “GROUND MOUNTED CCTV CABINET”, Dated 01-01-06 is added.

Interim Index No. 18108 (Sheet 1 of 1), “POLE MOUNTED CCTV CABINET”, Dated 01-01-06 is added.

Interim Index No. 18110 (Sheet 1 – 2 of 2), “CAMERA MOUNTING DETAILS”, Dated 01-01-06 is added.

Interim Index No. 18111 (Sheet 1 – 2 of 2), “STEEL CCTV POLE”, Dated 01-01-06 is added.

Interim Index No. 18113 (Sheet 1 – 2 of 2), “CONCRETE CCTV POLE”, Dated 01-01-06 is added.

Interim Index No. 18202 (Sheet 1 of 1), “FIBER OPTIC PULLBOX AND TRENCH DETAILS”, Dated 01-01-06 is added.

Interim Index No. 18204 (Sheet 1 of 1), “FIBER OPTIC SPLICE BOX AND PULLBOX”, Dated 01-01-06 is added.

Interim Index No. 18300 (Sheet 1 of 1), “DMS CABINET AND SIGN WIRING AND BLOCK DIAGRAM”, Dated 01-01-06 is added.

Interim Index No. 18301 (Sheet 1 of 1), “DMS CABINET LAYOUT”, Dated 01-01-06 is added.

Interim Index No. 18302 (Sheet 1 of 1), “TYPICAL DMS MOUNTING DETAILS”, Dated 01-01-06 is added.

Interim Index No. 18303 (Sheet 1 – 2 of 2), “DMS STRUCTURE DETAILS”, Dated 01-01-06 is added.

Interim Index No. 18305 (Sheet 1 – 2 of 2), “DMS GROUNDING DETAILS”, Dated 01-01-06 is added.

Index No. 20150 (Sheet 1 of 1), “AASHTO TYPE V BEAM” is deleted and Interim Index No. 20150 (Sheet 1 of 1), Dated 01-01-06 is substituted.

Index No. 20160 (Sheet 1 of 1), “AASHTO TYPE VI BEAM” is deleted and Interim Index No. 20160 (Sheet 1 of 1), Dated 01-01-06 is substituted.

Index No. 20172 (Sheet 1 of 1), “FLORIDA BULB-T 72 BEAM” is deleted and Interim Index No. 20172 (Sheet 1 of 1), Dated 01-01-06 is substituted.

Index No. 20178 (Sheet 1 of 1), “FLORIDA BULB-T 78 BEAM” is deleted and Interim Index No. 20178 (Sheet 1 of 1), Dated 01-01-06 is substituted.

Index No. 20400 (Sheet 1 of 1), “NOTES AND DETAILS FOR PRECAST CONCRETE SHEET PILES” is deleted and Interim Index No. 20400 (Sheet 1 of 1), Dated 01-01-06 is substituted.

Index No. 20501 (Sheet 1 of 1), “BEVELED BEARING PLATE DETAILS” is deleted and Interim Index No 20501 (Sheet 1 of 1), “BEVELED BEARING PLATE DETAILS – PRESTRESSED AASHTO AND BULB-T BEAMS”, Dated 01-01-06 is substituted.

Interim Index No. 20502 (Sheet 1 of 1), “BEVELED BEARING PLATE DETAILS – FLORIDA U-BEAMS”, Dated 01-01-06 is added.

Index No. 20630 (Sheet 1 of 1), “30” SQUARE PRESTRESSED CONCRETE PILE” is deleted and Interim Index No 20630 (Sheet 1 of 1), Dated 01-01-06 is substituted.

Interim Index No. 21110 (Sheets 1 – 2 of 2), “POURED JOINT WITH BACKER ROD EXPANSION JOINT SYSTEM”, Dated 01-01-06 is added.

Index No. 21220 (Sheet 1 of 2), “NAVIGATION LIGHT SYSTEM DETAILS (FIXED BRIDGES)” is deleted and Interim Index No. 21220 (Sheet 1 of 2), Dated 01-01-06 is substituted.

Interim Index No. 21900 (Sheet 1 – 2 of 2), “FENDER SYSTEM GENERAL NOTES AND LAYOUT”, Dated 01-01-06 is added.

Interim Index No. 21910 (Sheets 1 – 5 of 5), “FENDER SYSTEM HEAVY DUTY”, Dated 01-01-06 is added.

Interim Index No. 21920 (Sheets 1 – 5 of 5), “FENDER SYSTEM MEDIUM DUTY”, Dated 01-01-06 is added.

Interim Index No. 21930 (Sheets 1 – 5 of 5), “FENDER SYSTEM LIGHT DUTY”, Dated 01-01-06 is added.