

DESIGN STANDARDS (ENGLISH UNITS).

(REV 4-2-04) (7-04)

SUBARTICLE 5-1.1 (Page 26). The “Design Standards” booklet for English Units, dated January 2004, is modified as follows:

Index No. 199 (Sheet 1 of 1), “MIN GRAB TENSILE STRENGTH kN”, “MIN SEWN STRENGTH kN/M”, “MIN PUNCTURE kN” and “MIN TRAPEZOIDAL TEAR kN” - All “>50%” values deleted and “≥50%” values substituted.

Index No. 200 (Sheet 1 of 2), “GENERAL NOTES”, Note 3, “ 96’ “ deleted and “96”” substituted.

Index No. 206 (Sheet 1 of 2), “GENERAL NOTES”, Note 1 deleted and the following note substituted:

“1. Trench drain is intended for use in gutters and driveways as shown on the typical locations on Sheet 2. Type I is intended for use in Type E, F and drop curbing, and adjacent to traffic separators and standard barrier walls. The width of the channel grate for Type I Trench Drain shall be 1 3/4” throughout the length of its application. The linear slope or gradient for Type I may be manufactured by varying the depth of the channel neck. Type II may also be used in those locations if an independent laboratory certifies that the grating used has an open area equal to at least 0.27 square feet per linear foot. Type II is primarily intended for use in valley gutter across driveway openings and drop curbing; Type I may also be used in those locations. The width of the channel grate for Type II Trench Drain shall be the same as the width of the channel. The linear slope or gradient for Type II may be manufactured by varying the depth of the channel. Trench Drain shall not be placed in designated pedestrian paths unless ADA compliant grates are used.”

Note 8 deleted and the following note substituted: “Payment to be made under the contract unit price for Trench Drain, LF.”

“DESIGN NOTES”- Note 3, the following sentence added: “Grate Type I and Type II must have at least 30% open area.”

“PREFORMED POLYETHYLENE ALTERNATE”, Section Line A-A deleted.

“ROUND CSP ALTERNATE”, Section Line B-B deleted.

Index No. 260 (Sheet 1 of 1), “GENERAL NOTES”, Note 4 - Text “With Grate” deleted from the first sentence.

Index No. 261 (Sheet 1 of 3), “GENERAL NOTES”, Note 9 deleted and the following note substituted:

“9. Endwall to be paid for under the contract unit price for U-Endwall, Each. Payment shall include cost of concrete, reinforcing steel, and when called for in the plans, steel grating and accessories. Quantities shown are for estimating purposes only.”

“ENDWALLS FOR 2:1 SLOPES”-text “2:1” deleted and “1:2” substituted.

Index No. 280 (Sheet 2 of 4), "GUARD AT PIPE ENDS", "Note" text "for Endwall Grate, LB" deleted and "Reinforcing Steel (Miscellaneous)" substituted:

"CONCRETE GUTTER AND DRAINS AT RETAINING WALLS"- "Note:" deleted and the following note substituted: "PVC pipe, Schedule 40, to be paid for under the contract unit price for Polyvinyl Chloride Pipe Culvert (4"), LF."

Index No. 287 (Sheet 1 of 3), "GENERAL NOTES FOR CONCRETE PAVEMENT SUBDRAINAGE", Note 8, text "Type S" deleted and "Type SP" substituted.

Index No. 287 (Sheet 2 of 3), "NOTES FOR DRAINCRETE PAVEMENT SUBDRAINAGE", Note 1 - Text" Alternate #1" deleted.

"FOR REHABILITATION:", Note 1, paragraph 4 - Text "Tack coat shall be paid for under the contact unit price for Bit Mat'1 (Tack Coat), GA." deleted.

Index No. 304 (Sheet 1 of 5), Plan view detail in lower left corner, dimension "3' Min." deleted and the following substituted: "4' Std., May be reduced to 3' Min. in restricted conditions when approved by the Engineer."

"CURB RAMP DETECTABLE WARNING" text "Dome Pattern Shall Be In-Line With Direction of Travel" deleted and the following text substituted: "On Ramps Perpendicular With Curb Line, Dome Pattern Shall Be In-Line With Direction of Travel. On Ramps Intersecting Curbs on a Radius, Dome Pattern Shall Be In-Line With Direction of Travel To The Extent Practical."

"GENERAL NOTES", Note 6 text - Text deleted and the following text substituted: "Unless otherwise called for in the plans, the ramp detectable warning surface shall be colored with an iron oxide pigment meeting the requirements of Section 927 of the Standard Specifications, or two coats of a good grade of commercial permanent black stain approved by the Engineer. Application of the pigment or stain shall be in accordance with the manufacturer's recommendations."

"GENERAL NOTES", Note No. 10 added as follows: "10. Acceptance Criteria for Detectable Warnings:

- The ramp detectable warning surface shall be complete and uniform in color and texture.

- 90% of the individual truncated domes must comply with the design criteria.

- There may be no more than 4 non-complying domes in any one square foot of surface.

- No two adjacent domes may be non-compliant.

- Surface may not deviate more than 0.1" from a true plane."

Note No. 11 added as follows: "11. All sidewalk surfaces, ramp surfaces, and landings with a cross slope shown in this Index to be 0.02 shall be 0.02 maximum. All ramp surfaces and ramp flare surfaces with a slope shown in this Index to be 1:12 shall be 1:12 maximum."

"TRUNCATED DOME" detail, dimension "0.2'" deleted and "0.2" +/- 0.02'" substituted. Dimension "0.9'" deleted and "0.9" minimum to 1.4" maximum"

substituted. The following note added: "The top width of the dome shall be a minimum 50% and a maximum 65% of the base diameter."

“PLAN VIEW” detail, dimension 2.35” deleted and “1.6” minimum to 2.4” maximum” substituted. The following note added: “Base-to-base spacing shall be 0.65” minimum between domes.

Index No. 304 (Sheet 2 of 5), The following note added: “Ramp widths for Curb Ramps CR 1, CR 2, CR 6, CR 7, and CR 8 may be reduced to 3’ minimum in restricted conditions when approved by the Engineer.”

Index No. 304 (Sheet 3 of 5), The following note added: “Ramp widths for Curb Ramps CR 10, CR 11, CR 15, CR 16, and CR 17 may be reduced to 3’ minimum in restricted conditions when approved by the Engineer.”

Index No. 304 (Sheet 4 of 5), Details for “CR 20”, “CR 21”, “CR 22”, “CR 24”, and “CR 25”, dimensions “(3’ Min.)” deleted and “(4’ Min.)” substituted.
The following note added: “Ramp widths for Curb Ramps CR 20, CR 21, CR 22, CR 24, and CR 25 may be reduced to 3’ minimum in restricted conditions when approved by the Engineer.”

Index No. 310 (Sheet 1 of 2), “SECTION AA” Sidewalk surface cross slope “0.02” deleted and “0.02 Max” substituted.
“SIDEWALK WITH UTILITY STRIP” plan view walkaround dimensions “3’ Min” deleted and the following substituted: “4’ Std., May be reduced to 3’ Min. in restricted conditions when approved by the Engineer.”
“SECTION BB” Sidewalk surface cross slope “0.02” deleted and “0.02 Max” substituted.
“SIDEWALK WITHOUT UTILITY STRIP” plan view walkaround dimensions “3’ Min” deleted and the following substituted: “4’ Std., May be reduced to 3’ Min. in restricted conditions when approved by the Engineer.”

Index No. 310 (Sheet 2 of 2), “SECTION CC” Sidewalk surface cross slope “0.02” deleted and “0.02 Max” substituted.

Index No. 400 (Sheet 1 of 31), “GENERAL NOTE”, Note 7 - Text “General Note No. 10” deleted and “General Note No. 11” substituted.
“GENERAL NOTES”, Note 6, add the following text: “Guardrail end anchorage assemblies shall be of the type called for in the plans. If the plans call for end anchorage assembly “flared” and does not identify the specific system(s) to be used, the contractor has the option to construct any FDOT approved flared assembly provided in this Index or identified on the Qualified Products List (QPL), subject to the conditions identified in the approved Index drawings, or QPL drawings if applicable.

If the plans call for end anchorage assembly “parallel” and does not identify the specific system(s) to be used, the contractor has the option to construct any FDOT approved parallel assembly provided in this Index or identified on the QPL, subject to the conditions identified in the approved Index drawings, or QPL drawings if applicable.

If the plans call for a specific end anchorage assembly, substitutions with other end anchorage assemblies will not be permitted unless approved by the Engineer. Approved substitutions will not be eligible for VECP consideration.

Proprietary end anchorage systems must be identified on the QPL. Manufacturers seeking approval of proprietary end anchorage systems for inclusion on the QPL must submit application along with design documentation showing the end anchorage system is crash tested to NCHRP Report 350 Test Level 3 criteria, is accepted by FHWA for use as a guardrail end anchorage system, and is compatible with FDOT guardrail systems. System approvals will be contingent on FDOT's evaluation of crash test performance results for consistency with FDOT guardrail application and use. If approved, installation drawings signed and sealed by a professional engineer licensed in the State of Florida will be required."

Index No. 400 (Sheet 4 of 31), "GUARDRAIL APPLICATION FOR NARROW MEDIAN AND GORE HAZARDS" - Notation text referring to "General Note No. 13" deleted and "General Note No. 14" substituted. Text "*1:10 Taper Rate For Design Speeds \leq 45 mph, 1:15 Taper Rate For Design Speeds \geq 50 mph" added.

Index No. 400 (Sheet 15 of 31), "STEEL MODIFIED THRIE-BEAM OFFSET BLOCK", "SIDE VIEW" – Text "M14x17.2" deleted and "M14x18" substituted.

Index No. 400 (Sheet 17 of 31), "5/8" OVAL SHOULDER BUTTON HEAD BOLT" - in table under "APPLICATION" for 10" bolt, text added as follows: "As an option, a single 25"* long post bolt may be used." Under "APPLICATION" for 25" bolt, text added as follows: "Double Faced Guardrail Steel Posts."

Index No. 400 (Sheet 18 of 31), "THRIE-BEAM", Notation text "Anchor Plate" deleted and "Post Bolt Slot" substituted.
"GALVANIZED STEEL BACK-UP PLATES FOR CONNECTING SPECIAL END SHOES AND TERMINAL CONNECTORS TO CONCRETE BRIDGE TRAFFIC RAILING BARRIERS AND CONCRETE BARRIER WALLS", "THRIE-BEAM TERMINAL CONNECTOR", dimension "20" " deleted and "21" " substituted.
Dimension "2 3/8""deleted and "2 7/8" " substituted.

Index No. 400 (Sheet 24 of 31), "ET 2000 NOTES", Note 6, Paragraph (b), second and third line, text "two parallel 3" x 3" x 1/4" steel angles, one angle each side between Post No. 1 and No. 2." deleted and text "one 3" x 3" x 1/4" steel angle on the back side between Post No. 1 and No. 2." substituted.

Index No. 400 (Sheet 27 of 31), "LET NOTES", Note 6, Paragraph (b), second and third line, text "two parallel 3" x 3" x 1/4" steel angles, one angle each side between Post No. 1 and No. 2." deleted and text "one 3" x 3" x 1/4" steel angle on the back side between Post No. 1 and No. 2." substituted.

Index No. 410 (Sheet 20 of 22), Plan detail “MEDIAN BARRIER WALL” - Text “ 16’-3” “ deleted and “ 6’-3” “substituted.

Interim Index No. 412 (Sheet 1 of 5), - Dated 09-29-03 Sheet 1 of 5 “GENERAL NOTES”, Note 6, the following sentence added: “The cost of the tubular markers and Type 1 object marker shall be included in the cost of the low profile barrier.”

Index No. 415 (Sheet 2 of 10), “ALIGNMENT AND LENGTH OF NEED”, “*” Last sentence text – “600”deleted and “642” substituted and text – “expressway” deleted and “freeway” substituted.

Index No. 417 (Sheet 1 of 1), “NOTES FOR TEMPORARY INERTIAL CRASH CUSHIONS” - Note 1 deleted and the following note substituted: “1. The crash cushion arrays shown on this Index can be used on the State Highway System only when all of the following conditions are met:

- a. Use is limited to shielding temporary concrete barrier wall approach ends.
- b. Use only when a temporary gating crash cushion or inertial crash cushion is specifically called for in the plans.
- c. Use is limited to installations that will not exceed 30 calendar days in duration, unless otherwise called for in the plans.

When the plans do not specifically call for a temporary gating crash cushion, and/or when the installation will exceed 30 days in duration, a redirective crash cushion system in accordance with Index 415 is required.”

Note 6 deleted and the following note substituted: “6. Temporary gating crash cushion systems listed on the Department’s Qualified Products List (QPL) may be substituted for the crash cushion arrays shown in this Index, provided a configuration using the system for this substitution has been detailed in the approved QPL drawings. Manufacturers seeking approval of temporary gating crash cushions for inclusion on the QPL must submit application along with design documentation showing the crash cushion system is crash tested to NCHRP Report 350 Test Level 3 criteria, is accepted by FHWA and is compatible with FDOT temporary barrier wall systems. System approvals will be contingent on FDOT’s evaluation of crash test performance results for consistency with FDOT temporary barrier wall end shielding applications and uses. If approved, installation drawings signed and sealed by a professional engineer licensed in the State of Florida will be required.

”Note 7 added as follows: “7. Temporary crash cushions (gating) are to be paid for per array under the contract unit price for Vehicular Impact Attenuator/Crash Cushion (Gating) (Temporary), LO.”

Index No. 451 (Sheet 1 of 2), “GENERAL NOTES”, Note 19 - text last sentence “Type A” deleted.

Note 20 - text first sentence “and pay” deleted.

Note 21- Note deleted and the following substituted: “This index details fencing that is constructed with farm fabric 46 ½” (47” nominal) in height and with specific ground clearance and specific barbed wire spacings.”

Note 22 added with the following text- “22. All posts, braces, tension wires, fabric, tie wires, Class 1 concrete and all miscellaneous fittings and hardware to be included in the cost for Fencing, LF. Fencing shall be inclusive of the lengths of pull, end and corner post assemblies, but exclusive of gate widths.”

Index No. 452 (Sheet 1 of 2), “GENERAL NOTES”- Note 11- text last sentence “Type B,” deleted.

Note 12-text deleted and the following substituted: “For construction purposes, corner post assemblies shall consist of one corner post, two braces, two truss rods, and all necessary fittings and hardware as detailed above. End Post assemblies shall consist of one end post, one brace, one truss rod and all necessary fittings and hardware as detailed above.”

Note 13 added with the following text: “All posts, tension wires, chain link fabric, tie wires, Class I concrete, and all miscellaneous fittings and hardware to be included in the cost for Fencing, LF.”

Index No. 452 (Sheet 2 of 2), “BARB WIRE ATTACHMENT”, “NOTES”, - text “Attachments to be paid for under the contract unit price for Fencing, Type B (With Barb Wire Attachment) LF.” deleted.

Index No. 505 (Sheet 3 of 3), “RIGID PAVEMENT - SPECIAL SELECT SOIL OPTION”- bottom note deleted and the following substituted: “ 3” of #57 or #89 Coarse Aggregate Mixed into Top 6”.

Index No. 515 (Sheet 2 of 6), “Plan A” in the plan view detail the line indicating the back of sidewalk at the driveway is modified to be a continuous straight line in-line with the back of the sidewalk on each side of the driveway. Dimension “4’ Min.” deleted and the following substituted: “4’ Min., May be reduced to 3’ Min. in restricted conditions when approved by the Engineer.”

“SPECIAL NOTES FOR URBAN FLARED TURNOUTS”, Note 11 is added as follows: All sidewalk surfaces crossing driveways with a cross slope shown in this Index to be 0.02 shall be 0.02 Maximum”.

Index No. 515 (Sheet 3 of 6), Notation “Δ”, Text “Depth less than 4’ allowable only under findings of infeasibility” deleted and the following text substituted: “May be reduced to 3’Min. in restricted conditions when approved by the Engineer. Depth less than 3’ allowable only under findings of infeasibility.”

Index No. 515 (Sheet 4 of 6), Notation “Δ”, Text “Depth less than 4’ allowable only under findings of infeasibility” deleted and the following text substituted: “May be reduced to 3’Min. in restricted conditions when approved by the Engineer. Depth less than 3’ allowable only under findings of infeasibility.”

Index No. 515 (Sheet 6 of 6), “URBAN TURNOUT PROFILE” – text “3’ walk around” deleted and the following substituted: “4’ std., 3’ min.”

Index No. 544 (Sheet 1 of 1), “NOTES:” Note 5 added with the following text. “5. Commercial tree bracing systems approved by the Engineer may be used in lieu of the tree bracing methods detailed on is Index.”

Index No. 560 (Sheet 1 of 1), Title “TYPICAL FLEXIBLE PAVEMENT REPLACEMENT AT PANEL RR CROSSINGS” deleted and new title substituted “TYPICAL CROSSING MATERIAL REPLACEMENT AT RR CROSSING”. Text “Type S Asphalt” deleted and “Type SP Asphalt” substituted.

Index No. 600 (Sheet 1 of 10), “PREFACE”, first paragraph, 3rd sentence - Text deleted and the following text substituted: - “This index contains information specific to Federal and State guidelines and standards for the preparation of traffic control plans and for the execution of traffic control in work zones, for construction and maintenance operations and utility work on highways, roads and streets on the State Highway System. Certain requirements in this Index are based on the high volume nature of State Highways. For highways, roads and streets off the State Highway System, the local agency (City/County) having jurisdiction may adopt requirements based on the minimum requirements provided in the MUTCD.”

Index No. 600 (Sheet 2 of 10), Under the Heading “OVERHEAD WORK”, the following text after the first sentence added. “Overhead work on multilane facilities with speeds of 45 mph or less for a period of 15 minutes or less may use aerial lift equipment on a vehicle displaying strobe lights and a taper using cones in advance of the vehicle to close the lane directly below the work area. Volume or complexity of the roadway may dictate additional devices, signs, flagmen and/or a traffic control officer.”

Index No. 600 (Sheet 4 of 10), Add New Heading –“GROOVED PAVEMENT AHEAD SIGN” and text “The GROOVED PAVEMENT AHEAD sign is required 500’ in advance of a milled or grooved surface open to traffic.”

Index No. 5021 (Sheet 1 of 13), Index deleted.

Index No. 5120 (Sheet 1 of 5), Index deleted.

Index No. 11862 (Sheet 1 of 1), Col. Size “4 x 3/16” deleted and “4 x 1/4” substituted in two columns.

Index No. 17344 Sheet 2 of 6, Text “see Index No. 17346 Sheet 9 of 13” deleted and the following text substituted: “See Index No. 17346 Sheets 2 and 7 of 13”

Index No. 17346 (Sheet 8 of 13), “TURN LANE * CURBED AND UNCURBED MEDIANS”-table, “RURAL CONDITIONS”, L2 and L distance values deleted and the following values substituted:

L2 L

185' 290'
225' 350'
260' 405'
290' 460'

Index No. 17355 (Sheet 10 of 10) "MOT-13-04"- text "Freeway Sign" added. "MOT-14-04"-
text "Arterial Sign" added.

Index No. 17502 (Sheet 4 of 4), "SLAB DIMENSIONS"-detail dimensions "2'-8", 2'-01/2" and
4'-1" " deleted and text 'varies' substituted. Detail dimensions "2'-11 1/2" " -deleted.