

Structures Related 2014 Design Standards Revisions



2014 Design Update Training

Gevin J. McDaniel, P.E.
State Structures Design Office
gevin.mcdaniel@dot.state.fl.us
(850) 414-4284

2014 Release Update Training is Online

Office of Design

[Office of Design / Training / Engineering Academy](#)

Library



Webinar	Instructor	Date
Structures Design Standards Update Training Webinar	Structures Design Office	08/08/2013

The information covered in this training is only regarding recent Design Standards Revisions to the 2014 Design Standards e-Booklet.

In August 2013, training was held for the release of the 2014 Design Standards e-Booklet (DSeB). A video of this training is currently available online at the following link:

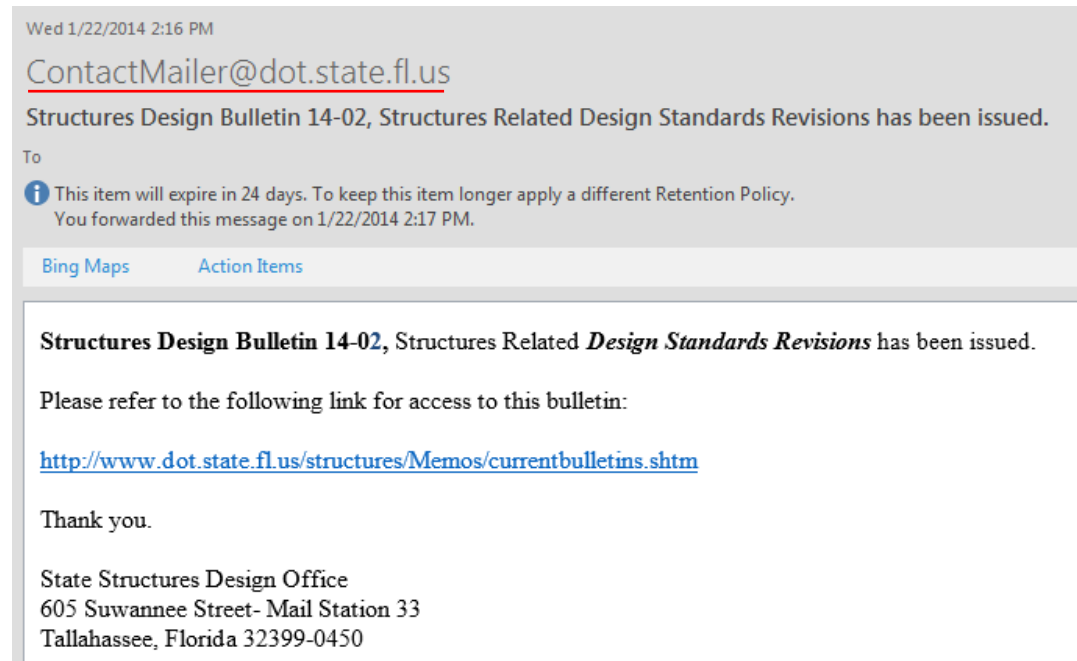
<http://www.dot.state.fl.us/officeofdesign/Training/EngineeringAcademy/files/2013StructuresDesignStandardsUpdateTraining.wmv>

Note: The training begins at 31 minutes and 40 seconds (31:40) into the video.



Design Standards Revisions (DSR)

- Design Standards Revisions must be released through Design Bulletins
- The most effective way of being notified of new Design Bulletins is through Contact Mailer (E-Updates)



- Register for Contact Mailer at the following link:

[E-Updates](#) FL511 | Mobile | Site Map

Search FDOT...

<http://www2.dot.state.fl.us/contactmanagement/Utilities/login.aspx?ReturnUrl=%2fcontactmanagement%2fDefault.aspx>

Design Standards Revisions (DSR)

Office of Design / Design Standards

Design Standards



INDUSTRY REVIEW

[Origination Form - Instructions - Example](#)

[Current Submittals Under Review](#)

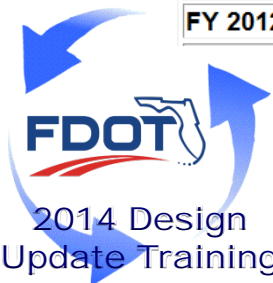
[Submittal History](#)

CURRENT

Year	Design Standards eBooklet	Design Standards Revisions	Developmental Design Standards	<p><i>Click on the Current eBooklet link "DSeB" for the most current Design Standards.</i></p> <p><i>Thank you for visiting our site.</i></p>
2014	DSeB	→ DSR	DDS	

HISTORICAL

Year	Design Standards eBooklet	Design Standards Revisions
2013	DSeB	DSR
FY 2012/13	DSeB	DSR



Design Standards Revisions (DSR)

Office of Design

Office of Design / Design Standards / Design Standards eBooklet 2014

Design Standards eBooklet 2014



Download the free [Adobe Acrobat Reader](#) to view and/or print Indexes. Entire Index Groups may be printed by selecting the group's Index Title at the default 11 X 17 inch size. Any available Instructions for Design Standards (IDS) are listed with their related Index. For Index related questions, please select the contact listed beside Index Title group headings. For use concerning plans incorporation, effective dates and for information on the Data Tables select the [General Web Site Information](#) link.

To skip directly to groups of Indexes, click on the index series:

100, 200, 300, 400, 500, 600, 700, 800, 5200, 6000, 11200, 13000, 17300, 17500, 17700, 17900, 18100, 20000, 20500, 20600, 20900, 21100, 21200, 21300, 21600, 21800, 21900

Index Number	Design Standards Revision (DSR)	Index Title	Design Information		
			Instructions for Design Stds (IDS)	Data Table Cell Library	Borderless DGNs
(PDF)			(PDF)	(ZIP)	(ZIP) Terms of Use
NOISE WALL SYSTEMS			Structures Contact		
5200	DSR	Precast Noise Walls	IDS-5200	CEL-5200 CEL-5200- Graphics	DGN-5200
5210		Traffic Railing/Noise Wall (8'-0")	IDS-5210		DGN-5210
5211		Traffic Railing/Noise Wall (14'-0")	IDS-5211		DGN-5211
5212		Traffic Railing/Noise Wall (8'-0") Junction Slab	IDS-5212		DGN-5212
5213		Traffic Railing/Noise Wall T-Shape Spread Footing	IDS-5213		DGN-5213
5214		Traffic Railing/Noise Wall L-Shaped Spread Footing	IDS-5214		DGN-5214
5215		Traffic Railing/Noise Wall Trench Footing	IDS-5215		DGN-5215
5250	DSR	Perimeter Walls			

Design Standards Revisions (DSR)

Office of Design

Office of Design / Design Standards / Design Standards Revisions 2014

Design Standards Revisions 2014



n/a = Non Applicable

n/c = No Change

Index Number	Revised Sheets	Index Title	Design Information			
			Instructions for Design Standards (IDS)	Data Table Cell Library	Borderless DGNs	Associated Design Bulletin
	(PDF)		(PDF)	(ZIP)	(ZIP) Terms of Use	(PDF)
05200	n/c	Precast Noise Walls	IDS-5200	CEL-5200	n/c	SDB14-02
05250	1-10 of 10	Perimeter Walls	IDS-5250	CEL-5250	DGN-5250	SDB14-02
21110	1 of 2	Poured Joint with Backer Rod Expansion Joint System	n/c	n/c	DGN-21110	SDB14-02
21250	n/c	Access Hatch Assembly for Steel Box Sections	IDS-21250	n/a	n/c	SDB14-02
21251	n/c	Access Hatch Assembly for Concrete Box Sections		n/a	n/c	SDB14-02
21252	1 of 1	Access Door Assembly for Steel Box Sections	IDS-21252	CEL-21252	DGN-21252	SDB14-02

Design Standards Revisions may include revised Index Drawings, revised IDS or revised Data Tables (Cells). If revised Index Drawings are present, the associated revised borderless DGN files are also provided.

Design Standards Revisions (DSR)

Office of Design

Office of Design / Design Standards / Design Standards Revisions 2014

Design Standards Revisions 2014



n/a = Non Applicable

n/c = No Change

Index Number	Revised Sheets	Index Title	Design Information			
	(PDF)		Instructions for Design Standards (IDS) (PDF)	Data Table Cell Library (ZIP)	Borderless DGNs (ZIP) Terms of Use	Associated Design Bulletin (PDF)
05200	n/c	Precast Noise Walls	IDS-5200	CEL-5200	n/c	SDB14-02
05250	1-10 of 10	Perimeter Walls	IDS-5250	CEL-5250	DGN-5250	SDB14-02
21110	1 of 2	Poured Joint with Backer Rod Expansion Joint System	n/c	n/c	DGN-21110	SDB14-02
21250	n/c	Access Hatch Assembly for Steel Box Sections	IDS-21250	n/a	n/c	SDB14-02
21251	n/c	Access Hatch Assembly for Concrete Box Sections		n/a	n/c	SDB14-02
21252	1 of 1	Access Door Assembly for Steel Box Sections	IDS-21252	CEL-21252	DGN-21252	SDB14-02

The associated Design Bulletin provides additional critical information regarding the Design Standards Revisions and describes the implementation schedule.


SDB 14-02 – Structures Related DSR

Structures Design

Structures Design

Current Bulletins



Date of Bulletin	Subject	Effective Date	Referenced Documents
January 30, 2014	14-03 Perimeter Walls	Immediately	PD&E Manual, Project Management Handbook, PPM
 January 22, 2014	14-02 Structures Related <i>Design Standards Revisions</i>	Immediately	Design Standards, Instructions for Design Standards
January 21, 2014	14-01 Buried Footings for Land Piers	Immediately	Structures Manual
July 22, 2013	13-12 Replacement of Computation Books with Plan Summary Boxes	Immediately	Structures Manual, PPM, BOE, CPAM, CPCH, IDS
July 3, 2013	13-10 2014 Design Standards e-Booklet	Immediately	Design Standards, Structures Manual
March 21, 2013	13-02 Direction to Design-Build and Public-Private-Partnership Project Phase Reviewers Modifications to the Electronic Review Comment System (ERC)	Immediately	Electronic Review Comments

[Archived Bulletins](#)

Include revised Index Drawings in the Plans

- ◆ Any applicable revised Index Drawings must be included in the Plans based on the implementation schedules defined within the associated Design Bulletin.
- ◆ See the **PPM**, Vol. 2, Sections 3.6.1 and 3.8 for more information.

1 of 2

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. 469998

FINANCIAL PROJECT NO. 469998
(FEDERAL AID)
BAY COUNTY
STATE ROAD 125

COMPONENTS OF CONTRACT PLANS SET

ROADWAY PLANS
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS
INTELLIGENT TRANSPORTATION SYSTEMS PLANS
LIGHTING PLANS
LANDSCAPE PLANS
ARCHITECTURAL PLANS
STRUCTURE PLANS

EXAMPLE ONLY: CONTRACT PLANS SET
MAY NOT CONTAIN ALL OF THE
LISTED COMPONENTS/SHEETS.

A DETAILED INDEX APPEARS ON THE
KEY SHEET OF EACH COMPONENT

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY SHEET
2-2A	SUMMARY OF PAY ITEMS
3	DRAINAGE MAP
4-5	TYPICAL SECTIONS
6	TYPICAL SECTION DETAILS
7	SUMMARY OF QUANTITIES
8	SUMMARY OF DRAINAGE STRUCTURES
9	OPTIONAL MATERIALS TABULATION
10	PROJECT LAYOUT
11-15	ROADWAY PLAN-PROFILES
16-17	SPECIAL PROFILES
18	INTERSECTION LAYOUT/DETAIL
19-25	DRAINAGE STRUCTURES
26-32	BOX CULVERT DETAILS
33	LATERAL DITCH PLAN-PROFILES
34	LATERAL DITCH CROSS SECTIONS
35	SPECIAL DETAILS
36	ROADWAY SOIL SURVEY
37-47	CROSS SECTIONS
48	STORMWATER POLLUTION PREVENTION PLANS
49-52	TEMPORARY TRAFFIC CONTROL PLANS
53-57	UTILITY ADJUSTMENTS
58-62	SELECTIVE CLEARING AND GRUBBING

LIST OF REVISED INDEX DRAWINGS

INDEX NO.	SHEET NO.
11871	1

GOVERNING STANDARDS AND SPECIFICATIONS:
Florida Department of Transportation, 2013 Design Standards and Revised Index Drawings as appended herein, and 2013 Standard Specifications for Road and Bridge Construction, as amended by Contract Documents.

For Design Standards click on the "Design Standards" link at the following web site:
<http://www.dot.state.fl.us/rddesign/>

For the Standard Specifications for Road and Bridge Construction click on the "Specifications" link at the following web site:
<http://www.dot.state.fl.us/specificationsoffice/>

END BRIDGE#469998
STA. 232+61.63

BEGIN BRIDGE#469998
STA. 231+29.85

BEGIN PROJECT
STA. 125+87.16
MP 3.592

TO PANAMA CITY
T 3 S
T 4 S

TO MEXICO BEACH
R 14 W
R 13 W

CALLAWAY
Pop. 12,203

Design Standards Revisions (DSR)

Office of Design

Office of Design / Design Standards / Design Standards Revisions 2014

Design Standards Revisions 2014



n/a = Non Applicable

n/c = No Change

Index Number	Revised Sheets	Index Title	Design Information			
			Instructions for Design Standards (IDS)	Data Table Cell Library	Borderless DGNs	Associated Design Bulletin
	(PDF)		(ZIP)	(ZIP) Terms of Use	(PDF)	
05200	n/c	Precast Noise Walls	IDS-5200	CEL-5200	n/c	SDB14-02
05250	1-10 of 10	Perimeter Walls	IDS-5250	CEL-5250	DGN-5250	SDB14-02
21110	1 of 2	Poured Joint with Backer Rod Expansion Joint System	n/c	n/c	DGN-21110	SDB14-02
21250	n/c	Access Hatch Assembly for Steel Box Sections	IDS-21250	n/a	n/c	SDB14-02
21251	n/c	Access Hatch Assembly for Concrete Box Sections		n/a	n/c	SDB14-02
21252	1 of 1	Access Door Assembly for Steel Box Sections	IDS-21252	CEL-21252	DGN-21252	SDB14-02

New →

New →

Office of Design

Office of Design / Design Standards / Design Standards eBooklet 2014

Design Standards eBooklet 2014



Download the free **Adobe Acrobat Reader** to view and/or print Indexes. Entire Index Groups may be printed by selecting the group's Index Title at the default 11 X 17 inch size. Any available Instructions for Design Standards (IDS) are listed with their related Index. For Index related questions, please select the contact listed beside Index Title group headings. For use concerning plans incorporation, effective dates and for information on the Data Tables select the **General Web Site Information** link.

To skip directly to groups of Indexes, click on the index series:

100, 200, 300, 400, 500, 600, 700, 800, 5200, 6000, 11200, 13000, 17300, 17500, 17700, 17900, 18100, 20000, 20500, 20600, 20900, 21100, 21200, 21300, 21600, 21800, 21900

Index Number	Design Standards Revision (DSR)	Index Title	Design Information		
			Instructions for Design Stds (IDS)	Data Table Cell Library	Borderless DGNs
(PDF)			(PDF)	(ZIP)	(ZIP) Terms of Use
NOISE WALL SYSTEMS			Structures Contact		
5200	DSR	Precast Noise Walls	IDS-5200	CEL-5200 CEL-5200- Graphics	DGN-5200
5210		Traffic Railing/Noise Wall (8'-0")	IDS-5210		DGN-5210
5211		Traffic Railing/Noise Wall (14'-0")	IDS-5211		DGN-5211
5212		Traffic Railing/Noise Wall (8'-0") Junction Slab	IDS-5212		DGN-5212
5213		Traffic Railing/Noise Wall T-Shape Spread Footing	IDS-5213		DGN-5213
5214		Traffic Railing/Noise Wall L-Shaped Spread Footing	IDS-5214		DGN-5214
5215		Traffic Railing/Noise Wall Trench Footing	IDS-5215		DGN-5215
5250	DSR	Perimeter Walls			

For New Indexes, the Index Number and Title will be presented in the DSeB; however, the only active link will be to the DSR page.

Index 5250 – Perimeter Walls

- ◆ Not to be used for noise abatement
- ◆ Use in accordance with criteria stated in SDB 14-03
- ◆ Surface finish is limited to only what is commercially available in masonry block
- ◆ Construction of either Precast or Masonry Option is at the sole discretion of the Contractor
- ◆ Wall Height = 8'-0"
- ◆ No special designs allowed...“You get what you get”

Index 5250 – Perimeter Walls

- ◆ Not to be used for noise abatement
- ◆ Use in accordance with criteria stated in SDB 14-03
- ◆ Surface finish is limited to only what is commercially available in masonry block
- ◆ Construction of either Precast or Masonry Option is at the sole discretion of the Contractor
- ◆ Wall Height = 8'-0"
- ◆ No special designs allowed...




SDB 14-03 – Perimeter Walls

Structures Design

Structures Design

Current Bulletins



Date of Bulletin	Subject	Effective Date	Referenced Documents
 January 30, 2014	14-03 Perimeter Walls	Immediately	PD&E Manual, Project Management Handbook, PPM
January 22, 2014	14-02 Structures Related Design Standards Revisions	Immediately	Design Standards, Instructions for Design Standards
January 21, 2014	14-01 Buried Footings for Land Piers	Immediately	Structures Manual
July 22, 2013	13-12 Replacement of Computation Books with Plan Summary Boxes	Immediately	Structures Manual, PPM, BOE, CPAM, CPCH, IDS
July 3, 2013	13-10 2014 Design Standards e-Booklet	Immediately	Design Standards, Structures Manual
March 21, 2013	13-02 Direction to Design-Build and Public-Private-Partnership Project Phase Reviewers Modifications to the Electronic Review Comment System (ERC)	Immediately	Electronic Review Comments

[Archived Bulletins](#)

AKA:  Project Management Bulletin 14-01
 Roadway Design Bulletin 14-02

Perimeter Wall Questions:

- ◆ Direct questions regarding usage criteria and justification for Perimeter Walls to Mariano Berrios.
- ◆ Questions regarding the Index Drawing or structural design issues may be directed to Gevin McDaniel.

Project Management Bulletin 14-01
Roadway Design Bulletin 14-02
Structures Design Bulletin 14-03
Perimeter Walls
Page 23 of 23

CONTACTS

Noise and Perimeter Wall usage criteria:

Mariano Berrios
Environmental Programs Coordinator
Florida Department of Transportation
605 Suwannee Street, MS 37
Tallahassee, FL 32399-0450
Phone (850)-414-5250
mariano.berrios@dot.state.fl.us

Structural Design Criteria and *Design Standards* usage:

Gevin McDaniel, P.E.
Senior Structures Design Engineer
Florida Department of Transportation
605 Suwannee Street, MS 33
Tallahassee, FL 32399-0450
Phone (850)-414-4284
gevin.mcdaniel@dot.state.fl.us

Design Standards Revisions (DSR)

Office of Design

Office of Design / Design Standards / Design Standards Revisions 2014

Design Standards Revisions 2014



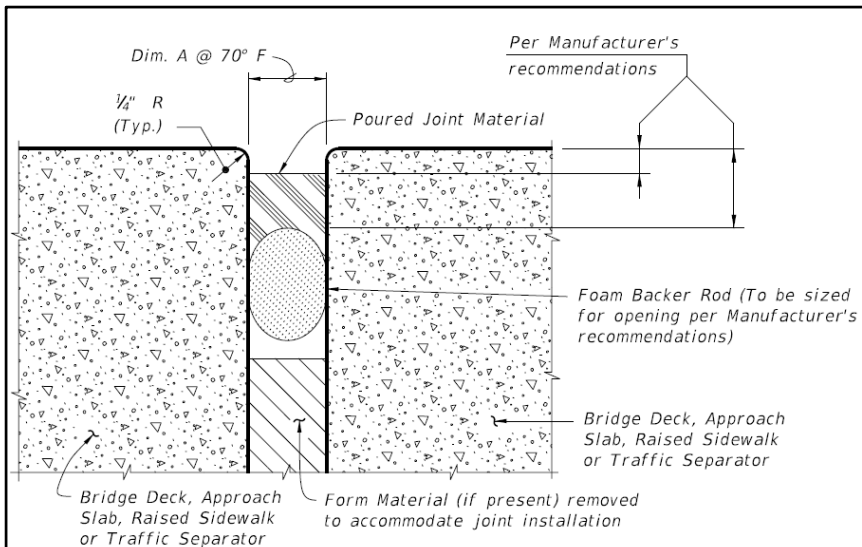
n/a = Non Applicable

n/c = No Change

Index Number	Revised Sheets (PDF)	Index Title	Design Information			
			Instructions for Design Standards (IDS) (PDF)	Data Table Cell Library (ZIP)	Borderless DGNs (ZIP) Terms of Use	Associated Design Bulletin (PDF)
05200	n/c	Precast Noise Walls	IDS-5200	CEL-5200	n/c	SDB14-02
05250	1-10 of 10	Perimeter Walls	IDS-5250	CEL-5250	DGN-5250	SDB14-02
21110	1 of 2	Poured Joint with Backer Rod Expansion Joint System	n/c	n/c	DGN-21110	SDB14-02
21250	n/c	Access Hatch Assembly for Steel Box Sections	IDS-21250	n/a	n/c	SDB14-02
21251	n/c	Access Hatch Assembly for Concrete Box Sections		n/a	n/c	SDB14-02
21252	1 of 1	Access Door Assembly for Steel Box Sections	IDS-21252	CEL-21252	DGN-21252	SDB14-02



Index 21110 - Poured Joint With Backer Rod Expansion Joint System

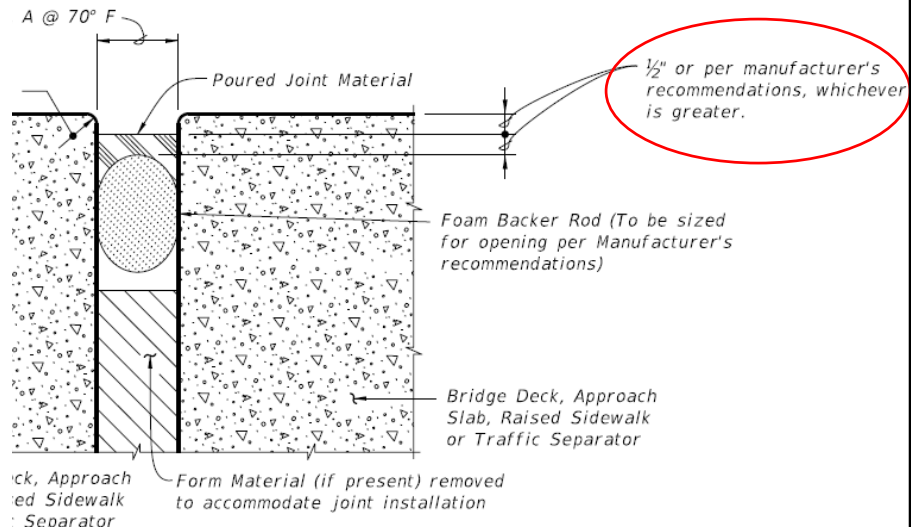


TYPICAL SECTION THRU JOINT

GENERAL NOTES:

1. Furnish Poured Joint With Backer Rod Expansion Joint Systems in accordance with Specification Section 458 and 932.
2. Submit shop drawings for Sidewalk Cover Plates showing all materials and project specific details and dimensions.
3. Refer to Specification Section 458 for installation and construction requirements.
4. Refer to the Structures Plans, Poured Expansion Joint Data Table for Dim. A @ 70° F.

2014 DSeB



TYPICAL SECTION THRU JOINT

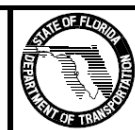
GENERAL NOTES:

1. Furnish and install Poured Joint With Backer Rod Expansion Joint Systems in accordance with Specification Sections 458 and 932 using Type D silicone sealant material.
2. Refer to the Structures Plans, Poured Expansion Joint Data Table for Dim. A @ 70° F.

DSR



LAST REVISION 01/01/14	REVISION	DESCRIPTION: Delete Notes 2 and 3; Clarified Note 1 to specify Type D silicone is to be used; Clarified "Typical Section Thru Joint" detail to show 1/2" recess and silicone thickness.
------------------------------	----------	--



Recent Design Standards Revisions (DSR)

Office of Design

Office of Design / Design Standards / Design Standards Revisions 2014

Design Standards Revisions 2014



n/a = Non Applicable

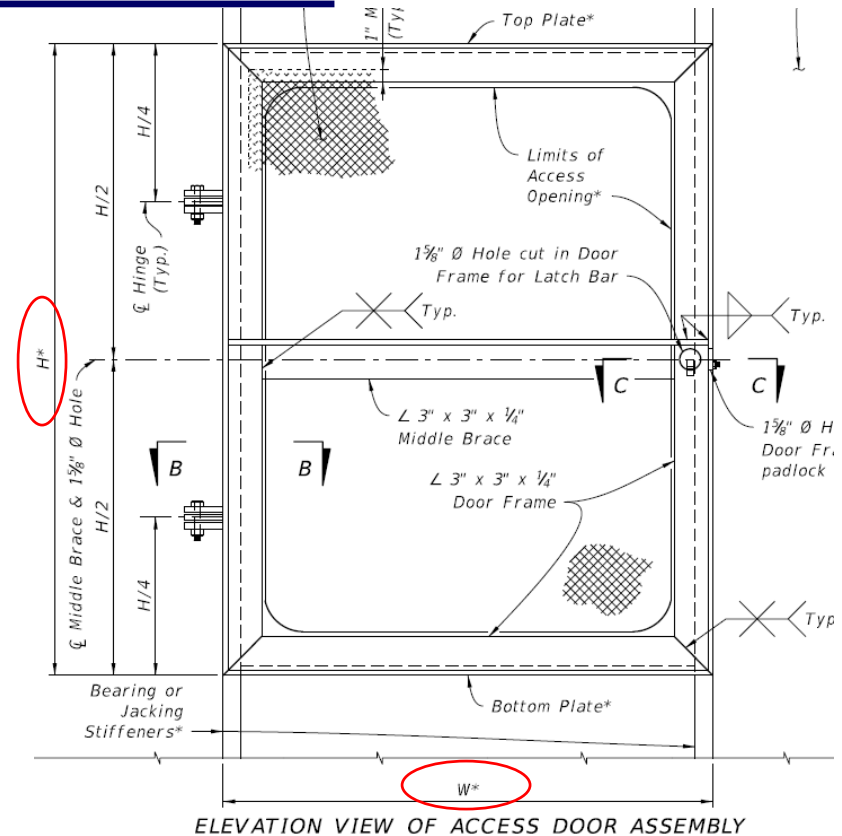
n/c = No Change

Index Number	Revised Sheets	Index Title	Design Information			
	(PDF)		Instructions for Design Standards (IDS) (PDF)	Data Table Cell Library (ZIP)	Borderless DGNs (ZIP) Terms of Use	Associated Design Bulletin (PDF)
05200	n/c	Precast Noise Walls	IDS-5200	CEL-5200	n/c	SDB14-02
05250	1-10 of 10	Perimeter Walls	IDS-5250	CEL-5250	DGN-5250	SDB14-02
21110	1 of 2	Poured Joint with Backer Rod Expansion Joint System	n/c	n/c	DGN-21110	SDB14-02
21250	n/c	Access Hatch Assembly for Steel Box Sections	IDS-21250	n/a	n/c	SDB14-02
21251	n/c	Access Hatch Assembly for Concrete Box Sections		n/a	n/c	SDB14-02
New →	1 of 1	Access Door Assembly for Steel Box Sections	IDS-21252	CEL-21252	DGN-21252	SDB14-02

New →

Index 21252 - Access Door Assembly for Steel Box Girders

- ◆ New Index requested by Industry
- ◆ Included in the cost of the steel box girders
- ◆ See [IDS](#) for more information
- ◆ Not for use on ends of straddle pier box sections
- ◆ Insert completed Data Table into the Plans (and Index until 2015 Design Standards are effective)



ACCESS DOOR ASSEMBLY FOR STEEL BOX GIRDERS INDEX NO. 21252 - TABLE OF VARIABLES		Table Date 01-01-14
ACCESS DOOR ASSEMBLY LOCATION	H	W
Unit 1 - End Bent 1	4'-0 ⁵ / ₈ "	3'-1 ⁷ / ₈ "
Unit 1 - Pier 4	4'-0 ⁵ / ₈ "	3'-1 ⁷ / ₈ "
Unit 2 - Pier 4	4'-0 ⁵ / ₈ "	3'-1 ⁷ / ₈ "
Unit 2 - End Bent 7	4'-0 ⁵ / ₈ "	3'-1 ⁷ / ₈ "

Questions?

Please feel free to contact me anytime using my information below:



2014 Design Update Training

Gevin J. McDaniel, P.E.
State Structures Design Office

gevin.mcdaniel@dot.state.fl.us

(850) 414-4284