The slide features a large, rounded rectangular frame with a dark blue border. Inside the frame, the text is centered. The background of the slide is light blue with a faint, large watermark of the Indiana Department of Transportation seal and various transportation icons like an airplane, a train, a car, and a bus. In the bottom right corner of the slide, there is a small logo for 'NextLevel INDIANA'.

INDOT Updates

Elizabeth Phillips, PE
INDOT Standards and Policy
INDOT Bridge Design Conference – January 21, 2020

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1

The slide has a white background with a dark blue border. At the top, the title 'Standards & Policy Housekeeping Reminders' is written in a large, dark blue font. Below the title is a horizontal line. Underneath the line is a bulleted list of items. The background of the slide is light blue with a faint, large watermark of the Indiana Department of Transportation seal and various transportation icons like an airplane, a train, a car, and a bus. In the bottom right corner of the slide, there is a small logo for 'NextLevel INDIANA'.

Standards & Policy Housekeeping Reminders

- Design Consultant Listserv (link available from Design Manual webpage)
 - Communication
 - Design Memos - changes to design policies, procedures, and criteria
 - Training opportunities, surveys
- 2020 *Standard Drawings* – September 2020
 - Published every year
- 2020 *Standard Specifications* – September 2019 (**Constr. Management**)
 - Published on 2-year cycle
 - Get the news first from Standards Committee webpage
- Recurring Special Provisions Menu (**Constr. Management**)
 - Quarterly updates
 - Applicable menu is based on contract letting date, not RFC date. Available from the Standards Committee webpage

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Webpages to Bookmark – Indiana Design Manual

- IDM https://www.in.gov/indot/design_manual/

For *Indiana Design Manual 2013* inquiries please contact [Design Manual Inquiries](#).

As of January 7, 2020 the *Design Manual* has been converted to a portfolio format. Click on *Indiana Design Manual (Portfolio)* link. Parts will appear as folders along the left panel. Double click to begin navigation. Keyword searches can be performed for the entire document by selecting Search Entire Portfolio from the Search pull down menu. Individual chapters are available to export within the portfolio. If you encounter issues loading the portfolio please default to an Internet Explorer or Mozilla Firefox browser. It doesn't play nice with other browsers at this point.

Welcome to the current version of the *Indiana Design Manual*. [Indiana Design Manual \(Portfolio\)](#) (PDF 72.7 MB)

The on-line version of the *Design Manual* was last updated: 01/13/2020

Revisions to the *Design Manual* occurring after January 1, 2013 have been incorporated into this current *Indiana Design Manual 2013*. Users should consult [design memos](#) for revision details and policy updates. Stay current on INDOT design standards and policy changes by subscribing to [Design Consultants Listserv](#).

3

Webpages to Bookmark – Indiana Design Manual

NEW For *Indiana Design Manual 2013* inquiries please contact [Design Manual Inquiries](#).

As of January 7, 2020 the *Design Manual* has been converted to a portfolio format. Click on *Indiana Design Manual (Portfolio)* link. Parts will appear as folders along the left panel. Double click to begin navigation. Keyword searches can be performed for the entire document by selecting Search Entire Portfolio from the Search pull down menu. Individual chapters are available to export within the portfolio. If you encounter issues loading the portfolio please default to an Internet Explorer or Mozilla Firefox browser. It doesn't play nice with other browsers at this point.

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4

Webpages to Bookmark – Indiana Design Manual

The screenshot shows the Indiana Department of Transportation website. At the top, there is a navigation bar with the IN.gov logo and links for 'Contact INDOT', 'Careers', and 'Subscri...'. Below the navigation bar, a message states: 'For Indiana Design Manual 2013 inquiries please contact [Design Manual Inquiries](#).' The main content area features a large heading: 'As of January 7, 2020, the Design Manual (Portfolio) has been converted to a portfolio and will appear as folders along the left panel. Keyword searches for the entire document by selecting any of the chapters are available to export via PDF. Please default to an Internet Explorer browser at this point.' A right-click context menu is open over a link that reads 'Indiana Design Manual (Portfolio) (PDF 72.7 MB)'. A red arrow points to the 'Save target as...' option in the menu, which is highlighted in yellow. A red box around the arrow is labeled 'Right Click'. Other menu options include 'Open', 'Open in new tab', 'Open in new window', 'Open with Microsoft Edge', 'Print target', 'Cut', 'Copy', 'Copy shortcut', 'Paste', 'E-mail with Windows Live', 'Translate with Bing', 'All Accelerators', 'Inspect element', 'Add to favorites...', 'Add Web Page to Existing PDF', 'Append Link Target to Existing PDF', 'Convert Web Page to Adobe PDF', 'Convert Link Target to Adobe PDF', and 'Properties'. Below the menu, the text 'Welcome to the current version of the Design Manual' and 'The on-line version of the Design Manual' is visible. A 'NextLevel INDIANA' logo is in the bottom right corner.

5

Webpages to Bookmark – Indiana Design Manual

The screenshot shows a web browser window displaying the 'Cover sheet' for the Indiana Design Manual. The browser's address bar shows 'Cover sheet'. On the left side, there is a sidebar with a file explorer view showing a folder structure: 'Indiana Design Manual At-A-Glance.pdf', 'Part 1 - Project Design Development', and another folder. The main content area features the Indiana Department of Transportation logo and the title 'Indiana Design Manual'. Below the title, there is a red text warning: 'To open this portfolio, you must use either an Internet Explorer or Mozilla Firefox browser.' Further down, it states: 'The portfolio experience is best with Acrobat or Adobe Reader version X or later.' At the bottom, it says: 'See Indiana Design Manual At-a-Glance for an overview of the'.

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Webpages to Bookmark – Indiana Design Manual

The screenshot shows a PDF viewer interface. At the top, there is a search bar with the text "bridge deck" entered. Below the search bar, a dropdown menu is open, displaying a table of contents for "Chapter 203 - Hydraulics and Drainage Design". The table lists various sections and their page numbers:

203-4.03(07) Bridge-Deck Drainage	
203-4.04(16) Bridge Deck Drainage [Rev. Apr. 2017]	
203-4.03(07) Bridge-Deck Drainage	56
203-4.03(08) Construction and Maintenance	
203-4.04(16) Bridge Deck Drainage [Rev. Apr. 2017]	64
203-4.04(16) Bridge Deck Drainage [Rev. Apr. 2017]	64

Other visible text in the viewer includes "INDIANA", "PART 1 -", "(Ch. 102)", "(Ch. 103) Plan Development", and "Ch. 14 Plan Development (Rev. Sep. 2019)".

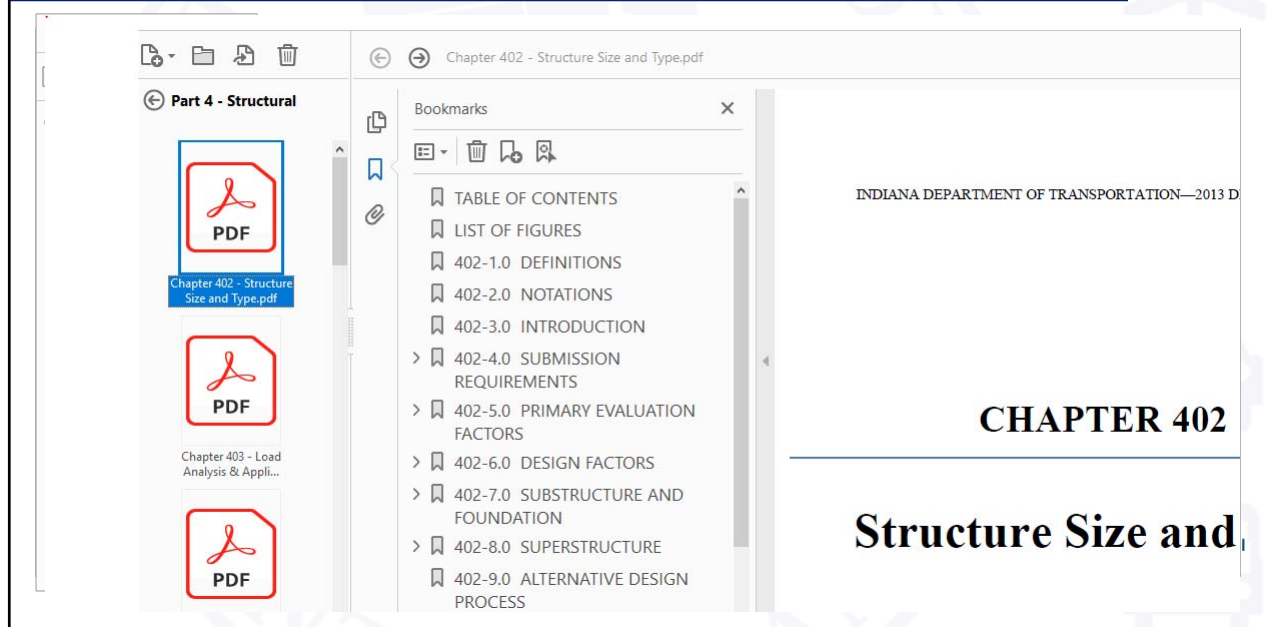
7

Webpages to Bookmark – Indiana Design Manual

The screenshot shows a webpage titled "Cover sheet" for the Indiana Design Manual. The page features the logo of the Indiana Department of Transportation (INDOT) and the text "Indiana Design Manual". Below the logo, there is a red warning message: "To open this portfolio, you must use either an Internet Explorer or Mozilla Firefox browser." Further down, it states: "The portfolio experience is best with Acrobat or Adobe Reader version X or later." At the bottom, it says: "See Indiana Design Manual At-a-Glance for an overview of the".

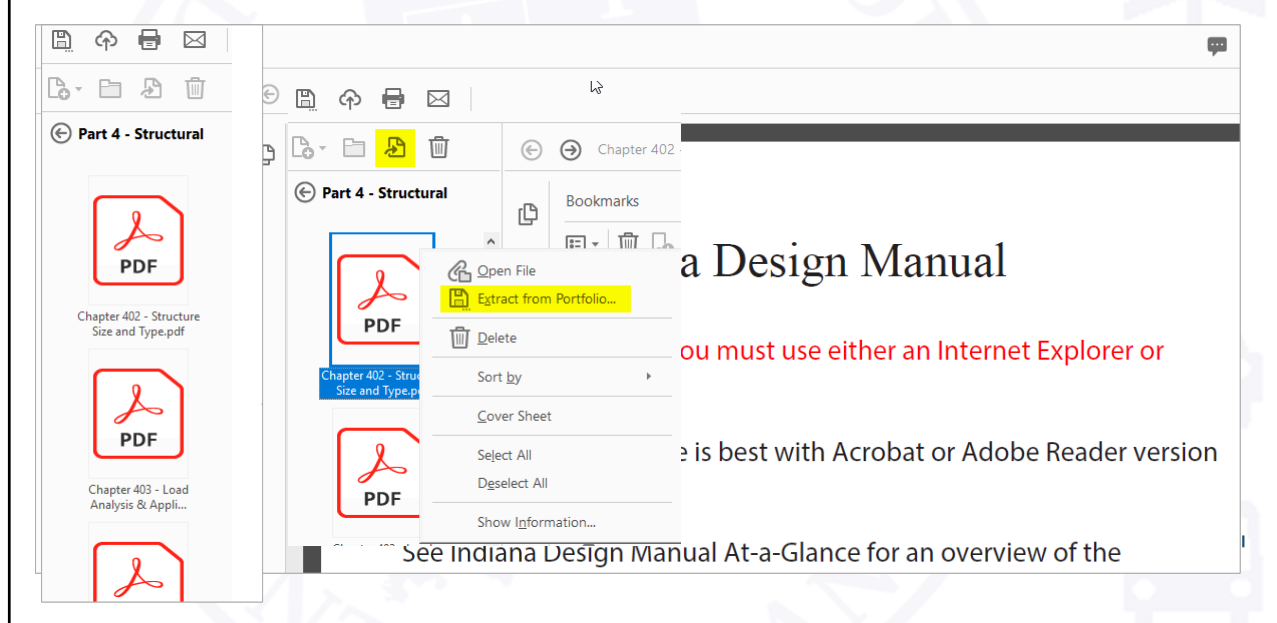
8

Webpages to Bookmark – Indiana Design Manual



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Webpages to Bookmark – Indiana Design Manual



Indiana Design Manual

You must use either an Internet Explorer or

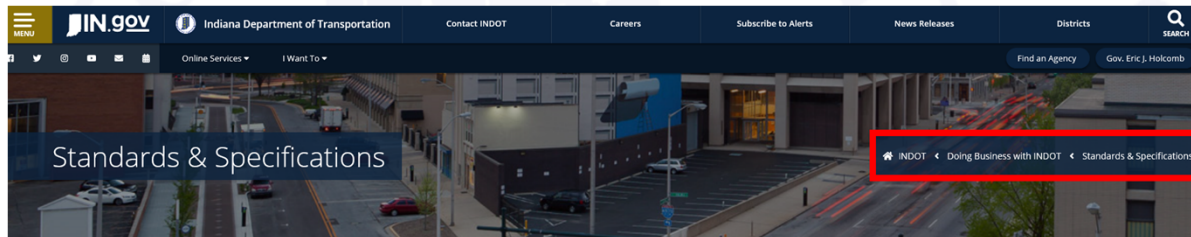
is best with Acrobat or Adobe Reader version

See Indiana Design Manual At-a-Glance for an overview of the

10

Webpages to Bookmark – Standards & Specifications

- Standards & Specifications <https://www.in.gov/dot/div/contracts/standards/>



Standards, Specifications, and Provisions

- Standards Committee
- Standard Specifications
- Standard Drawings
- Recurring and Unique Special Provisions & Recurring Plan Details
- Indiana Design Manual

Special Provisions Technical Advisories have been discontinued as of 08/06/18. The publication schedule for the RSP Menu has been standardized and occurs in February, May, August, and November, approximately 14 days after the preceding Standards Committee meeting. The schedule of Standards Committee meetings, submittals, and distributions is available from the Standards Committee webpage found in the link above titled "Standards Committee."

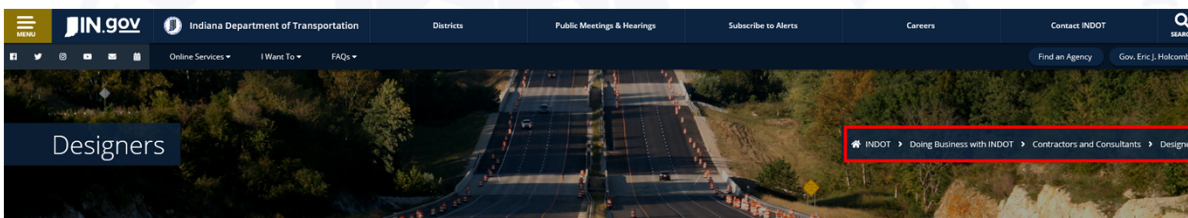
Memos, Policies, and Instructions

- Design Memorandums
- Construction Memorandums

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Webpages to Bookmark - Designers

- Designers <https://www.in.gov/indot/2731.htm>



The INDOT Standards and Policy Division maintains this webpage to provide resources that support the design and development of INDOT bridge and road projects.

General Design

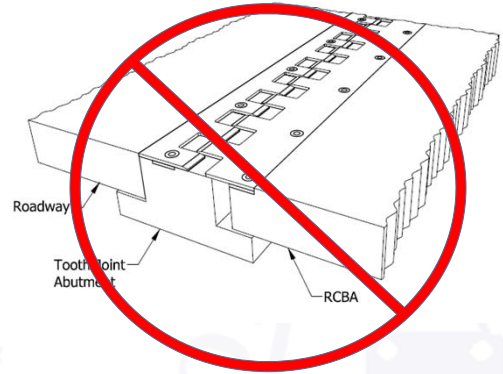
- Indiana Design Manual (IDM)
- INDOT Standards and Specifications
- Design Memos (IDM, Standards, and policy updates)
- Design Manual Editable Documents
- Maps for Designers (Traffic Statistics, NHS and more)
- INDOT Research & Archive Request Form Historical construction plans and right of way information from INDOT's archives. This request form is not to be used for the contract bidding process. Note: Standard drawings referenced in old plans must be requested separately. Send the request to DesignManualInquiries@indot.in.gov and include the title sheet with the standard identified.
- INDOT Technical Applications Pathway (ITAP)



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19-03: Tooth Joint Details

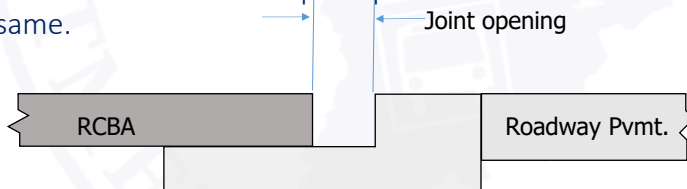
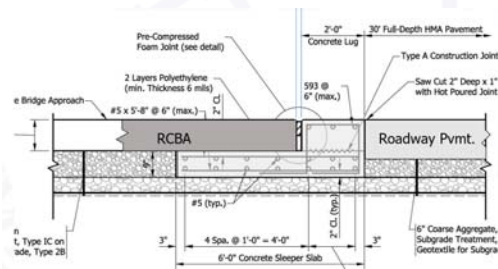
- Deleted details shown in IDM Figure 409-2F
- Steel finger joint required for bridge length > 500 ft (integral end bent)



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19-10: Terminal Joints

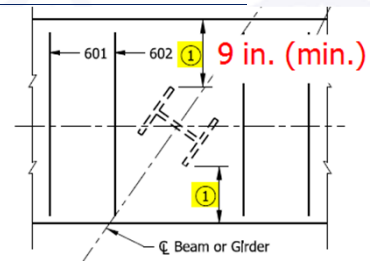
- New details 503-R-692d (2020 Std. Dwg. 503-BATJ)
- Pre-compressed foam joint replaces HMA material
- Use with PCCP approach pavement and HMA based on **expansion** length
 - Separate details for HMA and PCCP
- Anticipated movements were based on integral end bent research by Dr. Frosch, but the thermal movement principles remain the same.



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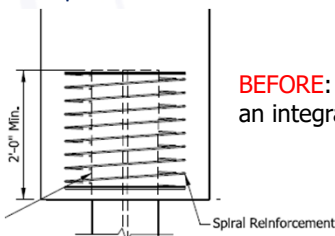
19-04: End Bent Details

- Edge Distance
 - Added 9-in min. edge distance to Ch. 409 text and figures.
 - Minimum distance considers
 - LRFD 9-in. minimum edge distance
 - LRFD allowance for 6 in. + misalignment for CIP
 - SS 701.09(b) "no pile shall be closer than 4 in. from the edge of the pile cap."

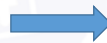


NOTE:
 ① Minimum distance from front or back face of end bent should be 9 in.

• Spiral Reinforcement



BEFORE: All bridges with an integral end bent



AFTER: Bridges with an integral end bent AND expansion length of 250 ft or greater.



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19-05 Spare Parts Packages

- Department no longer requires spare part packages for guardrail end treatments and impact attenuators.



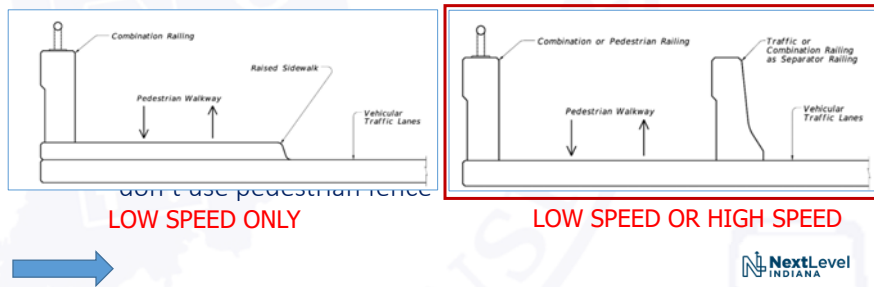
16

19-07 Pedestrian Fence

- Use subject to review under the Bridge Aesthetics Policy
- Added guidance on the use of pedestrian fence (protective screening*) to IDM Ch. 404
 - History of objects being thrown from the bridge and other measures have not effectively alleviated the problem
 - Location expected to be frequently used by children not accompanied by adults
 - Urban areas not easily kept under surveillance by law enforcement
 - Private property is subject to damage located beneath the structure
- Placement and Traffic

LOW SPEED (≤ 45 mph):
raised sidewalk or separated by traffic railing

HIGH SPEED (≥ 50 mph):
separated by traffic railing



*AASHTO Roadside Design Guide

17

19-08: Bridge Railing

- Revisions to IDM Section 404-4.0
 - Updated to include information on MASH implementation
 - Test level no longer requires a formal design exception but should be coordinated with the Bridge Design Division.
 - Test level selection procedures revised

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19-08: Bridge Railing


If ...	And...	Minimum (MASH) test level is	INDOT Standard Bridge Railing	Notes
Bridge carries interstate mainline or system interchange ramp traffic		TL-5	Type FT Type TF-2	Once the minimum test level is determined, use the evaluation criteria listed below to assess if a higher test level is appropriate. A higher test level railing may be used to satisfy lower test level requirements.
The design speed is ≥ 50 mph		TL-3	Type FC Type PF-1 Type PS-1	
The design speed is ≤ 45 mph	The route is on the NHS	TL-3	Type FC Type PF-1 Type PS-1	
The design speed is ≤ 45 mph	The route is not on the NHS	TL-2	Type TX*	

19

19-09: Preprint Changes

- Preprint changes will not be accepted within 7 days of advertisement.
- [gentle reminder] the time period after RFC should not be used as an extension of the design phase.





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19-11 Proprietary Materials

- 23 CFR 635.411 (a)-(e) revised such that Federal funds participation no longer restricted when State DOTs specify a trade name for approval in Federal-aid contracts.
- INDOT's process is unchanged, except
 - Highway Design Division will continue to coordinate all requests during design.
 - Traffic Division will approve traffic items, Highway Design all others
 - FHWA signatures no longer required
 - Applicable to LPA projects

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20-01 Pavement Design

- Reorganized Chapter 304 into a standalone Part 6
- Catalog design process for small structure replacement projects. (605-1.09)
 - Based on district, ESALs and design speed
- Guidance on standard vs. minor/abbreviated pavement design for bridge deck overlay and bridge rehabilitation/replacement projects. (605-1.10 and 605-1.11)



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QUESTIONS

Standards and Policy



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