

INDOT Policy Updates
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 INDOT Standards and Policy Director
 May 24, 2022

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2021-2022 List of Related Design Memos

Design Memo	Subject	Date
21-20	Spray Paver Use with HMA/SMA	09/09/21
21-22	Pay Item Revision of Geotextile for Subgrade	09/14/21
21-23 and 22-07	Revisions to Letting Preparation Schedule	09/28/21 04/20/22
21-24	Pavement Markings	12/09/21
21-25	Mechanically Stabilized Earth (MSE) Walls	12/30/21
22-01	Stage 2 Documents for Publications	01/06/22
22-02	Life-Cycle Pavement Cost Analysis	01/21/22
22-03	Pavement Design for Small Structure and Bridge Projects	01/21/22
22-04	Payment Revisions of Construction-Zone Energy-Absorbing Terminals and Temporary Traffic Barriers	02/09/22
22-05	Concrete Median Barrier for Interstate Routes	04/20/22
22-06	Revisions to Maintenance of Traffic Standards	04/20/22
22-08	Revisions to Hydraulics Submittal Process and Editable Documents	04/20/22
22-XX	Revisions to Roadway Plans Submittals	??

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21-20 Spray Paver Use with HMA/SMA

- Intended for roadways with higher ESAL
- Uses a polymer modified emulsion and a higher application rate
- Benefits include better layer bonding, less/delayed cracking and longer pavement life
- Should be specified on any interstate HMA project with
 - >3,000 tons of surface material and/or
 - >5,000 tons of intermediate /base material on mainline pavement.
- Should be specified on limited access freeways and 4-lane divided highways
 - >3,000 tons of ESAL category 4 HMA surface and/or
 - >5,000 tons of ESAL category 4 HMA intermediate/base material
- Should be specified on SMA projects with more than 2,400 tons of surface and/or 4,000 tons of intermediate material



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21-20 Spray Pavers Use with HMA/SMA

Should be considered when HMA is placed directly on top of PCC

The modified polymer emulsion and the increased application rate enhance the bond

Ideal for “nightwork only projects” , no need to wait for the emulsion to set



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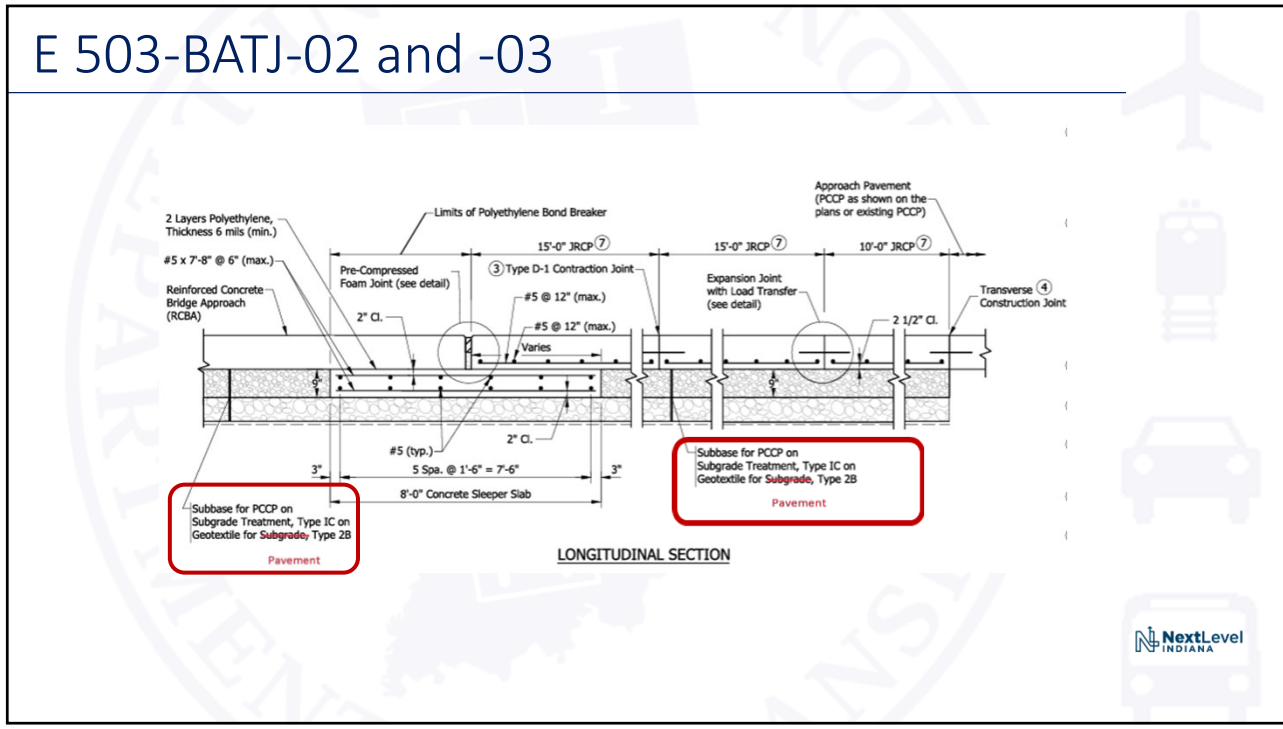
21-22 Pay Item Revision of Geotextile for Subgrade

- RSP 214-R-733 revises 214.02, 214.03(c) , 214.03(d), 214.04 , 214.05 and 214.06.
- Deletes Pay Item “ Geotextile for Subgrade, _____”.
- The basis for payment clarified that geotextile for subgrade and geotextile for embankment will be paid for as geotextile for pavement .
- E 503-BATJ-02 and 03
- E 609-RCBA-04

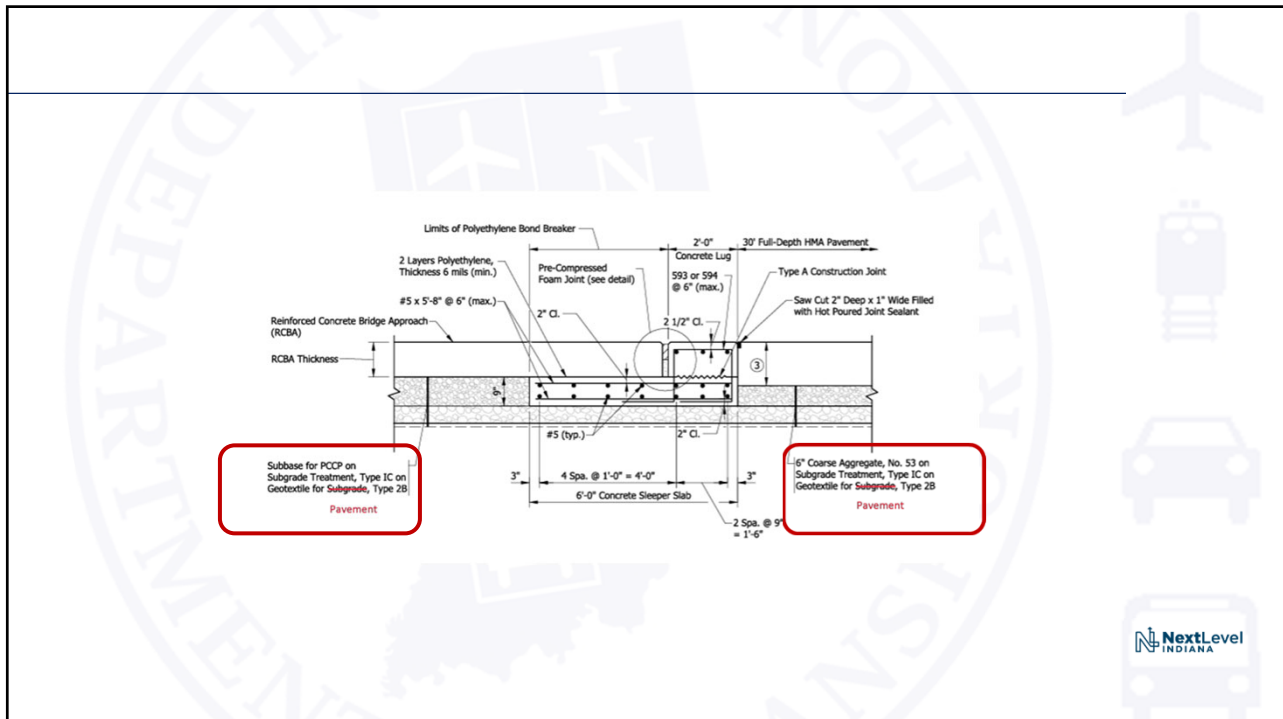


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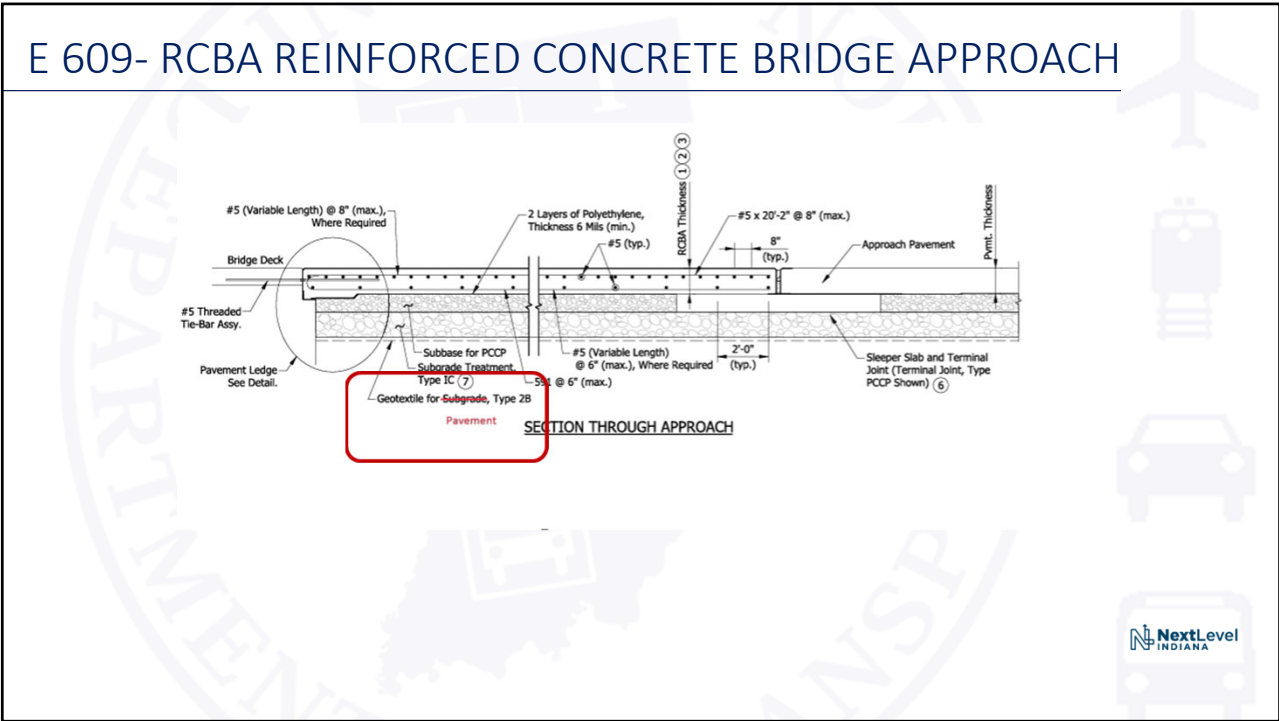
E 503-BATJ-02 and -03



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- ### 21-24 Pavement Traffic Markings
- Retro-reflectivity testing included as a pay item as per Section 808.13 of the INDOT *Standard Specifications*.
 - Contrast Markings on concrete pavements
 - Black markings should be used in combination with the white or yellow markings for freeway segments with 8 or more continuous lanes and interchanges

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21-24 Pavement Traffic Markings

6 in. yellow edge line with 1.5 in. black trim on each side

10 ft black contrast marking (6 in.)

20 ft

10 ft white lane line (6 in. wide)

6 in. white edge line with 1.5 in. black trim on each side

CONTRAST MARKINGS FOR CONCRETE PAVEMENT

Figure 502-2D

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21-24 Pavement Traffic Markings

DESCRIPTION	COLOR	WIDTH	APPLICATION
Single Broken Line	White	6 in	Separation of lanes on which travel is in the same direction, with crossing from one lane to the other permitted (e.g., lane lines on multilane roadways). The broken line is formed by a pattern of segments and gaps. The typical pattern is a 10 ft segment followed by a 30 ft gap for a total cycle length of 40 ft.
	Yellow	6 in	Separation of lanes on which travel is in the opposite direction, and where overtaking with care is permitted (e.g., centerline on 2-lane, 2-way roadways). The broken line is formed by a pattern of segments and gaps. The typical pattern is a 10 ft segment followed by a 30 ft gap for a total cycle length of 40 ft.
Single Solid Line	White	6 in	Separation of lanes, or of a lane and shoulder, where lane changing is discouraged (e.g., lane lines at intersection approaches, right-edge lines).
		6 in	Lane lines separating a motor vehicle lane from a bike lane.
		10 in	Delineation of locations where crossing is strongly discouraged (e.g., separation of turn lanes from through lanes, gore areas at ramp terminals, paved turnouts, edge lines at lane drops, painted island edges).
	Yellow	6 in	Delineation of left-edge lines on divided highways, 1-way roads and ramps.
Double Solid Lines	White	6-6-6 in*	Separation of lanes on which travel is in the same direction, with crossing from one side to the other prohibited (e.g., channelization in advance of obstructions which may be passed on either side).
	Yellow	6-6-6 in*	Separation of lanes on which travel is in the opposite direction, where overtaking is prohibited in both directions. Left-turn maneuvers across this marking are permitted. Also used in advance of obstructions which may be passed only on the right side.
Solid Line Plus Broken Line	Yellow	6-6-6 in*	Separation of lanes on which travel is in the opposite directions, where overtaking is permitted with care for traffic adjacent to the broken line, but prohibited for traffic adjacent to a solid line. Used on 2-way roadways with 2 or 3 lanes. Also used to delineate edges of a two-way left-turn lane - solid lines on the outside, broken lines on the inside.
Double Broken Line	Yellow	6-6-6 in*	Delineates the edges of reversible lanes. The broken or dashed line is formed by a pattern of segments and gaps. The typical pattern is a 10 ft segment followed by a 30 ft gap for a total cycle length of 40 ft.

*6-6-6 in indicates typical width of the lines and the 6 in unpainted gap between them

Figure 502-2B – Pavement Marking Lines Applications

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21-25 Revisions to MSE Walls

- 21-02 MSE Wall Feasibility Review at Stage 1 and Stage 3 of PDP.
- 21-25 Final Feasibility at Stage 2 instead of Stage 3, if sufficient information is available.

MSE Wall Design Review Checklist

4. Are utilities located under the wall? Where utility placement under the wall is unavoidable, they should be placed deep enough to minimize the effect of failure as per IDM.	IDM 410-5.01(06)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Place comments here. If NO or N/A is checked comments are required.				
5. Are culverts located within the reinforced zone? If so, slip joints should be provided. If the culvert is at skew, the skew should not affect the placement of reinforcement as per IDM.	IDM 410-5.01(06)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Place comments here. If NO or N/A is checked comments are required.				
14. Have the piles been located a minimum of 4 times the diameter of pile between the back of the wall panels and the center of the piles?	IDM 402-6.02(02)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Place comments here. If NO or N/A is checked comments are required.				

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21-25 Revisions to MSE Walls Review

- Initial feasibility review and MSE wall design review checklist are submitted to INDOT Geotechnical Services via email.
MSEWallShopDrawings@indot.in.gov
- Submit Stage 1 plans (after review) for an initial feasibility review
- Submit MSE Wall Design Review Checklist at Stage 3
Checklist is available from the Editable Documents webpage

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22-01 Stage 2 Documents for Publications

- Stage 2 plans, unique special provisions , and quantity calculations are now available to contractors and the public via the Contract Letting Information webpage
- Designers upload a separate set of Stage 2 plans specifically for publication. The letters “Pub” is added to the end of the description abbreviation







STG2 PlansPub [Des] for Roadway Services

<https://entapps.indot.in.gov/lettings/Dashboard#>








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22-01 Stage 2 Documents for Publications


		2101024	B-43707	Superstructure Repair and Reh...	Monroe	169
		2000889	R-42753	Concrete Pavement Restoration...	Vanderburgh	169
		2000692	R-42753	Small Structure Pipe Lining	Vanderburgh	169

Documents for DES: 2000889 Contract Number: R-42753

Some documents may not be available at this time. If you think there is an issue, please click the email icon and let us know.

Document Name
 STG2 PlansXsectPub 2000889 for Roadway Services
 STG2 PlansPub 2of2 2000889 for Roadway Services
 STG2 PlansPub 1of2 2000889 for Roadway Services
 STG2 QtyCalcs 2of2 2000889 for Roadway Services
 STG2 UnqSpiProv 2000889 for Roadway Services

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22-02 Life-Cycle Pavement Cost Analysis (LCPCA) Update

- The revisions align the analysis with the anticipated maintenance and rehabilitation cycles of the INDOT Pavement Asset Management 20-year Plan.
 - Minimum pavement area required for LCPCA increased from 10,000 yd² to 15,000 yd²
 - Discount rate revised from 4% to 3.5%.
 - New LCPCA calculation added where Void Reducing Asphalt Membrane (VRAM) is used.
 - Concrete pavement restoration (CPR) and concrete overlay added for PCCP analysis period.



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22-02 Life-Cycle Pavement Cost Analysis (LCPCA) Update

Office of Pavement Design

The Office of Pavement Design is responsible for the pavement design analyses of new, reconstruction, rehabilitation, and preservation projects for INDOT's roadways. Our responsibilities include the pavement design analysis, alternate pavement designs (HMA and concrete) and life-cycle pavement cost analysis for INDOT roadway projects. The Office of Pavement Design also reviews and approves pavement design analyses for federal aid LPA projects on state routes or National Highway System (NHS) routes.

Life-Cycle Pavement Cost Analysis:

- [Major Projects' PCCP & HMA Pavement Unit Prices](#)
- [Life-Cycle Pavement Cost Analysis \(LCPCA\) Example](#)
- [Life-Cycle Pavement Cost Analysis \(LCPCA\) Example 2](#)



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22-03 Pavement Design for Small Structure and Bridge Projects

Standard Pavement Section for select project work activities

- Catalog Pavement Design process has been standardized for eligible small structure replacement and bridges projects.
- Pavement Design requests will no longer be required for these project types.
- The pavement section is selected using the ESAL category (based on the average annual daily truck traffic, AADTT) at the project location in Figure 601- 5C.

Road Category	Annual Average Daily Truck Traffic (Construction Year)	ESAL (millions)	ESAL Category Name	Minimum HMA Pavement Depth (in.)	Pavement Type ⁽²⁾
Interstate (A)	1900 < AADTT < 5700 ⁽¹⁾	10 < ESAL < 30	High	14	QC/QA-HMA Cat. 4 / HMA Type D
	AADTT < 570	< 3	Low	10	QC/QA-HMA Cat. 3 / HMA Type B
Freeway and Principal Arterial (B)	570 < AADTT < 1900	3 < ESAL < 10	Medium	12	QC/QA-HMA Cat. 3 / HMA Type C
	1900 < AADTT < 5700 ⁽¹⁾	10 < ESAL < 30	High	14	QC/QA-HMA Cat. 4 / HMA Type D
Remaining Road Classes (C)	AADTT < 510	< 3	Low	10	QC/QA-HMA Cat. 3 / HMA Type B
	510 < AADTT < 1700	3 < ESAL < 10	Medium	12	QC/QA-HMA Cat. 3 / HMA Type C
	1700 < AADTT < 5700 ⁽¹⁾	10 < ESAL < 30	High	14	QC/QA-HMA Cat. 4 / HMA Type D

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22-03 Pavement Design for Small Structure and Bridge Projects

- Project Eligibility
- Standard pavement sections may be used in lieu of project-specific pavement designs as shown below. For projects that do not meet both criteria below, a pavement design request is required.
 1. The project is a standalone bridge or small structure with minimal or no increase in profile grade. Minimal increase is considered 12 in. or less.
 2. The project does not include any of the following elements:
 - a. Underdrains
 - b. Curbed roadway cross section
 - c. Inadequate cover over the buried structure
 - d. Existing shoulder used for maintenance of traffic.
- Pavement Design Requests
- Complete pavement design requests and attachments should be uploaded as a single file to ERMS using the following naming convention, as appropriate
 - PVMTDGN Request [Des #] for Roadway Services
 - PVMTDGN Request [Des #] for Roadway Services Shoulder MOT
[Shoulder MOT is added as Extra Information when using the ERMS MFUT]

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22-04 Payment Revisions of Construction-Zone (CZ) Energy-Absorbing Terminals and Temporary Traffic Barriers

1. All CZ terminals used on Type 1, Type 2, or Type 3 Temporary Traffic Barrier will be measured by each CZ terminal placed.
2. End treatments that are not CZ terminals will be measured by the linear foot included with the Temporary Traffic Barrier.

Lettings on or after June 1, 2022, that include End Treatments and Temporary Traffic Barrier should be based on RSP 801-T-232 Traffic Controls for Construction and Maintenance



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22-05 Concrete Median Barrier for Interstate Routes

- Travel lanes added to the median often reduce the median width such that a cable barrier system is no longer a viable option.
- Concrete barrier wall has also proven effective in preventing median crossover crashes.
- Although concrete barrier wall has higher initial costs, those costs are offset quickly by the reduction in maintenance and repair.
 - 45 in. height concrete barrier wall should be used for median barrier applications where the following conditions are met :
 1. The route is an interstate with 20,000 ADT or greater,
 2. The scope of work is added travel lanes (4-lane to 6-lane section) or pavement replacement (existing 6-lane section); and
 3. The median width is or will be reduced to 50 ft or less.



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22-05 Concrete Median Barrier for Interstate Routes



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22-06 Revisions to Maintenance of Traffic Standards



For all interstate and freeway projects, the standard initial taper and subsequent merges lengths should be based on 70 mph speed (801-TCDV-03)



Tall cones, 42" channelizers may be specified on interstate and freeway tangents in lieu of drums where the effective lane width with drums is less than 10 ft.



Temporary lane shifts on interstate and freeway projects should be staggered 40 ft from line to line (801-TCLC-02)

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22-06 Revisions to Maintenance of Traffic Standards



For lane closures , the MOT plans should detail the channelizing devices in the adjacent, open lane with the near edge of the CD shown at the permanent lane line (801-TCLC-04, -07, and -09)



For interstate and freeway lane closures, a longitudinal buffer space should be provided immediately upstream of any shadow vehicles. The length is based on MUTCD, Table 6C-2.



On interstate and freeway projects with three travel lanes per direction, center lane closures should also include left lane closure.

Safer and more viable .

An exception to the Interstate Highway Congestion Policy .

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22-06 Revisions to Maintenance of Traffic Standards



Shoulder closure tapers should be 1/3 L of a merge taper
(801-TCSC-03,-04,-06)

Shoulder closures for longer than 14 days will require a barrier wall
(801-TCSC-04)



For two-way non-divided highways , channelizing devices may be used to close a shoulder in lieu of a temporary barrier
(801 -TCSC-06)

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22-06 Revisions to Maintenance of Traffic Standards



Temporary Worksite Speed Limit Assembly, Continuous Use , each
Temporary Worksite Speed Limit Assembly, Intermittent Use , each



Currently, the revised standard drawings are available in the final approved minutes of the meeting on the Standards Committee webpage for March 17, 2022



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21-23 and 22-07 Revisions to Letting Preparation Schedule

INDOT LETTING PREPARATION SCHEDULE 2022-2032
 April 12, 2022

All District documents including the Ten Week Letter and the Contract Requirements Worksheet are due to Contracts Administration by the Ready For Contracts Date.

Bid Letting	Stage 3 Submitted to INDOT	RFW Docs due to District	Final Tracings Submission Due	Ready for Contracts Docs to CA	CIB Cert Returned to Tech Writer	Notice to Contractors Published	Final Revisions Due to Contracts Administration (No Later Than 11:00 AM)
	75 Days Prior to RFC	75 Days Prior to RFC	30 Days Prior to RFC	10.0 Weeks	6.7 Weeks	4 Weeks	1 Week
	222 Days	145 Days	100 Days	70 Days	47 Days	28 Days	7 Days
Wed 1/12/22	Fri 8/20/21	Fri 8/20/21	Mon 10/4/21	Wed 1/13/21	Fri 1/1/20/21	Wed 12/15/21	Wed 1/15/22
Wed 2/9/22	Fri 9/17/21	Fri 9/17/21	Mon 11/1/21	Wed 1/21/21	Fri 1/24/21	Wed 1/12/22	Wed 2/2/22
Wed 3/9/22	Fri 10/15/21	Fri 10/15/21	Mon 11/29/21	Wed 1/29/21	Fri 1/21/22	Wed 2/9/22	Wed 3/2/22
Wed 4/6/22	Fri 11/12/21	Fri 11/12/21	Mon 12/27/21	Wed 1/26/22	Fri 2/18/22	Wed 3/9/22	Wed 3/30/22
Thu 5/5/22	Fri 12/10/21	Fri 12/10/21	Mon 1/24/22	Wed 2/23/22	Fri 3/18/22	Wed 4/6/22	Wed 4/27/22
Wed 7/13/22	Fri 2/18/22	Fri 2/18/22	Mon 4/4/22	Wed 5/4/22	Fri 5/27/22	Wed 6/15/22	Wed 7/6/22
Wed 8/10/22	Fri 3/18/22	Fri 3/18/22	Mon 5/2/22	Wed 6/1/22	Fri 6/24/22	Wed 7/13/22	Wed 8/2/22
Wed 9/14/22	Fri 4/22/22	Fri 4/22/22	Mon 5/8/22	Wed 7/6/22	Fri 7/29/22	Wed 8/17/22	Wed 9/7/22
Thu 10/13/22	Fri 5/20/22	Fri 5/20/22	Mon 7/4/22	Wed 8/3/22	Fri 8/26/22	Wed 9/14/22	Wed 10/5/22
Wed 11/16/22	Fri 6/24/22	Fri 6/24/22	Mon 8/8/22	Wed 9/7/22	Fri 9/30/22	Wed 10/19/22	Wed 11/9/22
	152 Days Prior to RFC	75 Days Prior to RFC	30 Days Prior to RFC	12.0 Weeks	6.7 Weeks	4 Weeks	1 Week
	238 Days	169 Days	114 Days	84 Days	47 Days	28 Days	7 Days
Wed 12/7/22	Fri 4/15/22	Fri 7/1/22	Mon 8/15/22	Wed 9/14/22	Fri 10/21/22	Wed 11/9/22	Wed 11/30/22
Thu 1/19/23	Fri 5/27/22	Fri 8/1/22	Mon 10/6/22	Wed 10/26/22	Fri 1/3/23	Wed 1/21/23	Wed 1/11/23
Wed 2/15/23	Fri 6/24/22	Fri 9/9/22	Mon 10/24/22	Wed 11/23/22	Fri 1/20/23	Wed 1/18/23	Wed 2/8/23
Wed 3/15/23	Fri 7/22/22	Fri 10/7/22	Mon 11/21/22	Wed 12/1/22	Fri 1/27/23	Wed 2/15/23	Wed 3/8/23
Wed 4/12/23	Fri 8/19/22	Fri 11/4/22	Mon 12/19/22	Wed 1/18/23	Fri 2/24/23	Wed 3/15/23	Wed 4/5/23
Wed 5/16/23	Fri 9/16/22	Fri 12/2/22	Mon 1/16/23	Wed 2/15/23	Fri 3/24/23	Wed 4/12/23	Wed 5/3/23
Wed 7/13/23	Fri 11/18/22	Fri 2/3/23	Mon 3/20/23	Wed 4/19/23	Fri 5/26/23	Wed 6/14/23	Wed 7/5/23

- 22-07
 - The Ready for Contracts (RFC) date is now 12 weeks (84 days) prior to letting.
 - For Stage 3 submittals, through the March 2023 bid letting, designers may use the dates shown prior to this memo (shown below) or those previously agreed upon with the INDOT project manager.
- 21-23
 - The Ready for Contracts (RFC) date was revised to 10 weeks (70 days) prior to letting.



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22-08 Revisions to Hydraulics Submittal Process and Editable Documents

- Hydraulics Request Application (HRA) to process all hydraulic design and review requests
- HRA should be used instead of uploading files directly to ERMS and instead of emailing Hydraulics staff for requests
- The documents in the Hydraulics category on the Design Manual Editable Documents webpage are now available on the Hydraulic Engineering website under the Related Links and Documents section
- Figure 203-2L “ Riprap Basin Checklist”, and Figure 203-3C “Hydraulics Quality Assurance Checklist” have been deleted

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Questions



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