Updates and Changes to ALDOT's Special and Standard Drawings

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Topics

- Where do changes to “the book” come from?
- Why was “the book” renumbered?
- How are the PEB and “the book” related?
- What effect does MASH have on “the book”?
- What aids do we have for implementing MASH into “the book”?
- What specific drawings changed for 2020?
- What changes are anticipated to “the book”?

Where do changes to “the book” come from?

- MASH
- Other updated / changing policies
- Manufacturers and Suppliers
- Contractors
- Designers
- Errors / Omissions

About ALDOT Interstates system Exits. Some you may already know, some you may not. Read on!

Why was “the book” renumbered?

- Bring into alignment with ALDOT’s Specifications and Pay Items
- Better organization
- Some things did not change

Things that did NOT change

- Drawing format & Drawing number
How are the PEB and “the book” related?

- Relationship between PEB and the book
- Design Bureau's requirements

Design Bureau Requirements for Review

- FHWA Letter of Eligibility (for MASH devices)
- Crash Videos where applicable
- Other specifics depending on the device being reviewed

What effect does MASH have on “the book”?

- VERY exacting on details
- Clearly identifying MASH products
- Need to be VERY careful changing MASH drawings as Special Project Details

PEB: Product Evaluation Board

- Design Bureau involvement in review and recommendations
- Approved Products list

VERY exacting on details

Updates and Changes to ALDOT’s Standard Drawings
Clearly Identifying MASH Products

Alabama has approximately 1,000 centerline miles of interstate routes consisting of approximately 4,000 lane miles.

Applications from ALDOT's Standard Drawings

February 19, 2020

AASHTO Design and Standard Drawings

Updates and Changes to ALDOT's Standard Drawings

DISCLAIMER

• There is a need to be VERY clear on this: MASH products are only MASH compliant because they meet MASH crash testing criteria.
• Changing anything on a MASH compliant system can render the system non-MASH compliant.

Alabama's 1,000 centerline miles of interstate routes represent 6.9% of all lane miles in the state.

What aids do we have for implementing MASH into "the book"?

• FHWA letters
• PEB submittals
• Regular Design / Maintenance / Construction roundtables
• Pooled Fund

Alabama's 1,000 centerline lane miles represent 2.57% of all lane miles in the state.

FHWA Letters of Eligibility

In Reply Refer To:
HSST-IUC-141A

Table

The highest elevation on an Alabama Interstate is +177 at the bottom of the Walker Tunnel on I-65.

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PEB submittals

The highest elevation on 3-10 in 321 in Baldwin County.

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Updates and Changes to ALDOT's Standard Drawings
Design / Maintenance / Construction

- Meet periodically
- Covers a range of issues, not just the book
- Meeting of bureau chiefs and primary assistants
- Identify responsible parties to resolve issues

Roadside Safety Pooled Fund

- Partnered with Texas A&M and 18 states, 1 province, and with HWA input
- Meet periodically to discuss priorities and progress
- Specifically oriented to MASH testing
  - https://www.roadsidepooledfund.org/

What specific drawings changed for 2020?

- Concrete Barrier
- Temporary Concrete Barrier
- Impact Attenuators
- Culvert Cases for Guardrail
- Signs and Sheet ing
- Wrong Way Arrow
- Contrasting Stripe
- Curb Ramps
- Crosswalks
- PCMS Usage
- Standard Luminaire Foundations

Concrete Barrier

- 62901 & 62902

Temporary Concrete Barrier

- PNJB-629 (sheets 1 & 3) kept
- PNJB-629 (sheet 2) deleted
- PNJB-629 (sheet 4) now 3 new PCBM sheets all for J-J Hook design

Impact Attenuators

- Non-MASH — 726 items and drawings
- MASH, but work zone only — 726 pay items and drawings
- MASH — 720 items and drawings

Updates and Changes to ALDOT's Standard Drawings
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Culvert Cases for Guardrail

- 63013

The steepest grade on the original Alabama Interstate is 6.171% on S-20 near Helena. This was new construction, not an upgrade.

- 63015

The steepest grade on the original Alabama Interstate route is 3.37% on I-48 at the west end of the Wallace Tunnels.

Culvert Cases for Guardrail

- 63016

The steepest grade on a 3-lane Interstate in Alabama is 6.00% on S-20 at Hopewell Road. This was an upgrade of CS-75.

Signs and Sheeting

- SHS-1: R1-5b (Stop Here for Pedestrians) removed
- SHS-7: Errors in square foot quantities for a few signs
- SHS-12 - SHS-18: Updated sheathing type and corrected errors in square foot quantities.

Wrong Way Arrow

- 70302 & 70507

The first project is on I-10; the second is on Interstates 485/59 in Jefferson County.

- 70508

The first project is on I-10; S-20 and Red Diamond Rd in Jefferson County.
Contrasting Stripe
- 70110 through 70170
- 70511

Curb Ramps
- 61801 through 61804

Crosswalks
- 70308

PCMS Usage
- 74201
- 74202
- 74203

Standard Luminaire Foundations
- 75004 & 75007

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What changes are anticipated to “the book”?

- Type 9 End Anchor
- Type 10 series End Anchor
- Type 13 End Anchor
- Curb Ramp (on grade)
- Enhanced Slotted Drain
- Non-proprietary Portable Concrete Barrier
- Rebuild Alabama
- Miscellaneous

Type 9 End Anchor

The first project let on 3-77 was on 9/18/1981 from Messner Rd to Bear Creek in Lawrence County.

Type 10 Series End Anchor

Details of Alabama 47 sections.

Type 13 End Anchor

Jefferson County contains the most interstate routes at 5.

Curb Ramp

- For use where side road grade is steeper than permissible cross slope on curb ramp / sidewalk

Enhanced Slotted Drain

- Significantly reinforced for TCP operations

The longest bridge on Alabama interstate route is the 10.607' bridge on 5-91.
Non-Proprietary Portable Concrete Barrier

- Most likely be an F-Shape at 32" high
- Trying to keep to a 10' or 12' segment length

Rebuild Alabama

- SHS-10

**ANOTHER PROJECT TO REBUILD ALABAMA**

The I-65 rebuild: some of what complexity of bridges.

Miscellaneous

- Other MASH products as they become available
- TES-629 (62906): adding steel reinforcement
- "Hula" changes

Questions?

*Facts are prepared to the best of my ability and research. It will most of the original plans, but not all.*

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