

### **Development of CDOT EPD Protocols**

CDOT EPD Workshop June 8, 2022

# Introduction



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- Summary / Questions



HB 1303 Implementation Update



### **Key Team Members**

- CDOT Members
  - Keith Stefanik
  - Andy Karsian
  - Craig Wieden
  - Hailey Goodale
- Consultant / SME
  - Bill Schiebel Rocksol
  - Joep Meijer The Right Environment Ltd.
- FHWA
  - Brian Dobling
- Academia / Research (CU Boulder)
  - Christopher Senseney
  - Michael Seamon









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### HB 21-1303 Recap

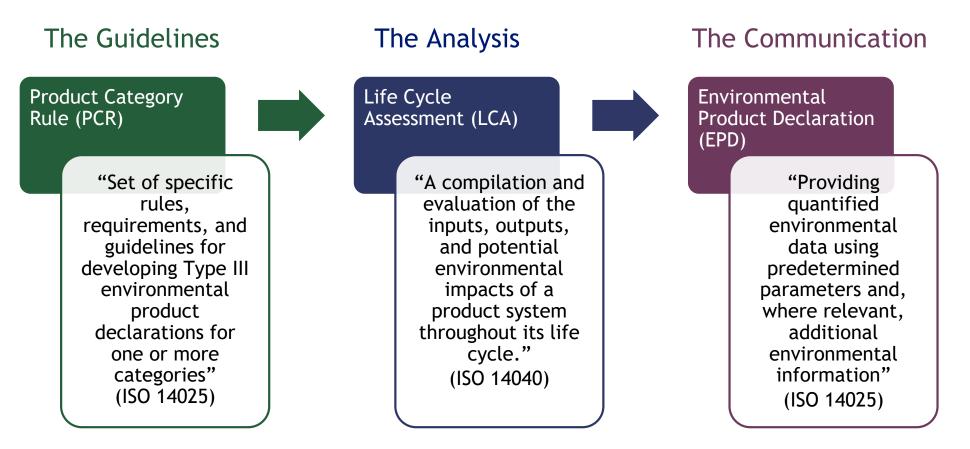
- CO HB 21-1303 was passed in July 2021 and incorporated into CRS Statutes 24-91-117/118. <u>https://leg.colorado.gov/bills/hb21-1303</u>
- Section 118 requires CDOT to begin collecting Environmental Product Declarations (EPDs) on eligible materials including:
  - Asphalt and Asphalt Mixtures; Cement and Concrete Mixtures; Steel.
- EPD Data collection to begin for eligible materials on eligible projects advertised on or after July 1, 2022
  - Projects requiring EPD collection will contain the Standard Special Provision Revision of Sections 101 and 106 - Environmental Product Declarations.
- CDOT will then use these EPDs to develop a policy by January 1, 2025, that will establish a maximum Global Warming Potential (GWP) for each eligible material, with an overall intent of reducing GWP in the future.

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### Key Terms



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# Analyses Process Overview/Results

- Eligible CDOT Bid Items
- 95th Percentile Item Expenditure Analysis
- Project Level Expenditure Analysis
- Five Major Items Analysis
- Focus EPD Bid Item Collection Items
- Project Cost Limit Evaluation
- Item Quantity / Cost Limits Evaluation



- 13 Focus Bid Items
- Projects > \$3M
- Quantity Exceptions

# What are the 13 Focus Bid Items?



#### • <u>13 Focus Bid Items</u> include:

- Item 206 Structure Backfill
- Item 403 Hot Mix / Stone Matrix Asphalt
- Item 411 Asphalt Binder/Emulsion
- Item 412 Portland Cement Concrete Pavement
- Item 503 Drilled Shafts
- Item 504 Retaining Walls
- Item 601 Structural Concrete
- Item 602 Reinforcing Steel
- Item 604 Inlets / Manholes
- Item 606 Guardrail
- Item 608 Sidewalk & Bikeway
- Item 609 Curb & Gutter/Sidewalk
- Item 610 Median Cover Material



# Industry Readiness / Iterative Growth

- Most North American EPD processes to date have centered around Buildings / LEED
- Current Industry PCR / EPD Readiness
  - Focus initial collection with July 1 Specification on those ready to go <u>now</u>
    - Hot Mix Asphalt Producers/Suppliers
    - Concrete Ready Mix Suppliers and Concrete Paving Companies
    - Steel Reinforcing Steel
- Iterative Growth Year 2 and Year 3 EPDs
  - Outreach and Education to Industry Stakeholders
  - Local and National Level



### Current Progress / Next Steps

- Industry Stakeholder Coordination
  - Complete meetings held with asphalt, concrete, steel and CCA
- Specification Development
  - Complete approved June 2, 2022, by the Specifications Committee
- Protocol Document (Appendix O in the Field Materials Manual)
  - Complete approved at the May MAC meeting
- Create Templates / Data Structure for submittal/entry to be used in the cataloging and reporting of EPD data
  - EPD submittal form is complete. We will use a Google Form initially but are working to set up a long-term solution through OnBase for a form and data storage/reporting tool.



# Current Progress / Next Steps (cont.)

- Update to PDAC on the new EPD requirement June 8th.
- Construction Bulletin to be issued with links to relevant items.
- CDOT EPD Website Development



# Specification / Protocol Document

- Specification Revision of Section 101 and 106
  <u>Specification</u>
- Protocol Document Appendix O Field Materials Manual <u>Protocol Document</u>



### Summary/Questions

- Initial EPD Collection starting on projects advertised on or after July 1, 2022, will include:
  - Projects over \$3 Million Total Cost (engineers estimate of bid items only)
    - Asphalt
    - Concrete
    - Reinforcing Steel
  - Small quantity limits
- Future Iterative program growth with industry development and maturity
- Questions on Initial EPD Data Collection Plan?