PAVEMENT HISTORICAL DATABASE (PHD)

REFRESHER TRAINING

November 2025

MDOT

Training Presentation

- ❑ 10:00 am **to** 11:15 am
- ❑ Presentation Slides

Break

- ❑ 11:15 am **to** 11:25 am

Demonstration

- ❑ 11:25 am **to** 12:00 pm

Certificate of Attendance

- ❑ This week

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PURPOSE

- ❑ Explain PHD use and its importance
- ❑ Brief refresher on entering PHD data
- ❑ Review recent enhancement and changes
- ❑ Answer Questions

OUTLINE

1 – Background

2 – PHD Uses and Applications

3 – General Information

4 – Dat Entry Process – Overview

5 – PHD Enhancements/Changes

6 – FAQ / Business Rules

7 – PHD Data Review & QA

8 – Data Export & Reports

9 – Resources

10 – Appendix: Data Entry Process

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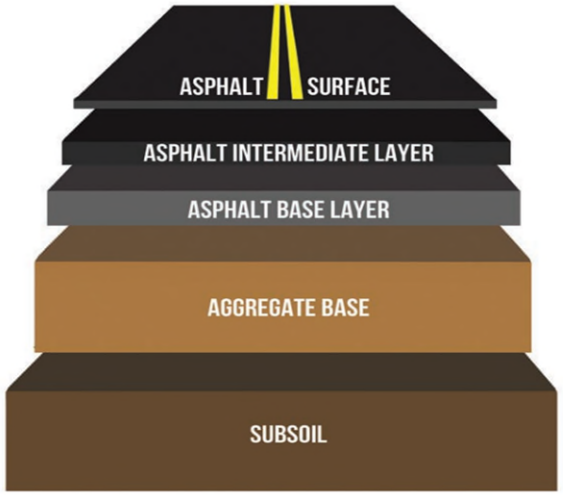
BACKGROUND

PAVEMENT HISTORICAL DATABASE (PHD)

- ❑ MILogin application
- ❑ Centralized electronic data warehouse
- ❑ Primarily tracks "As Built" **pavement cross-section**, **materials**, and **repair work** on **MDOT roadways**
- ❑ Data can be searched, sorted, and exported

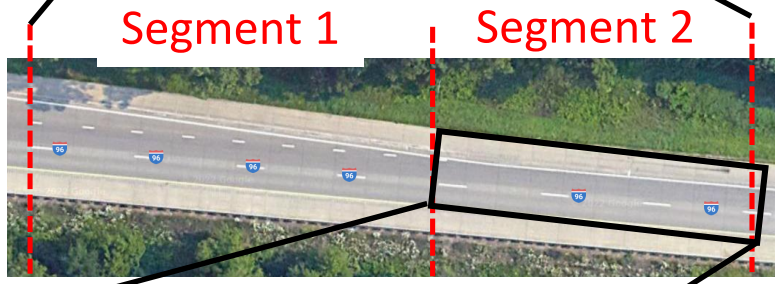


Job Details

(Job ID, WTC, Fix Life, etc.)

Job Details

JobNet Job ID	:	208494
Work Type Code	:	443 - One Course Asphalt Overlay
Fix Life	:	10 Year(s)
* Open to Traffic Date	:	07/31/2023 [mm/dd/yyyy]



Segment Details

(PR# & MPs)

PR Segment List

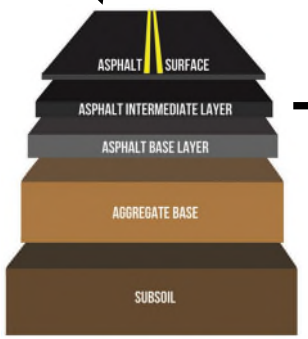
	#	PR Number	PR(v)	BMP	EMP	Route	Direction
◉	1	337310	25	10.3	10.656	I-96	WB
○	2	337310	25	10.656	10.763	I-96	WB
○	3	337310	25	10.763	11.3	I-96	WB

Lanes/Shoulder, C & G Details

(Surface Type, Lane/Shoulder #, Type, and Width, etc.)

Lane Details [Lane #2.0]

* Surface Type (pavement cross-section)	:	HMA over existing HMA
* Width	:	12 ft
* Lane Type	:	Mainline
* Year [Paved/Placed]	:	2023 [yyyy]



Layers / Repair Work

Lane Section [Lane # 2.0]

#	Layer Name
2	HMA Top Course
1	Cold Milling

Layer Attributes

(Mix Type, thickness, Material Source, Aggregate Source, etc.)

Pavement Attributes - HMA Top Course

* Mix Type	:	5EML
* Mix Design No (Case Sensitive)	:	23MD133
* Application Rate	:	165 #/syd
* Asphalt Binder	:	PG 64-28
* Asphalt Binder Cert. Supplier	:	BP, Bay City, MI

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PHD DATA: USES AND APPLICATIONS

HIGHWAY PERFORMANCE MONITORING SYSTEM (HPMS)

- HPMS is the official federal government source of data on the extent, condition, performance, use, and operating characteristics of the nation's highways
  - A federal report **required annually** for apportioning Federal-aid highway funds.
  - Includes pavement related data such as ***surface type***, ***total thickness***, ***last overlay thickness***, ***base type & thickness***, ***year of last construction***, etc.

- PHD is a data source for the **HPMS report** for **State of Michigan.**

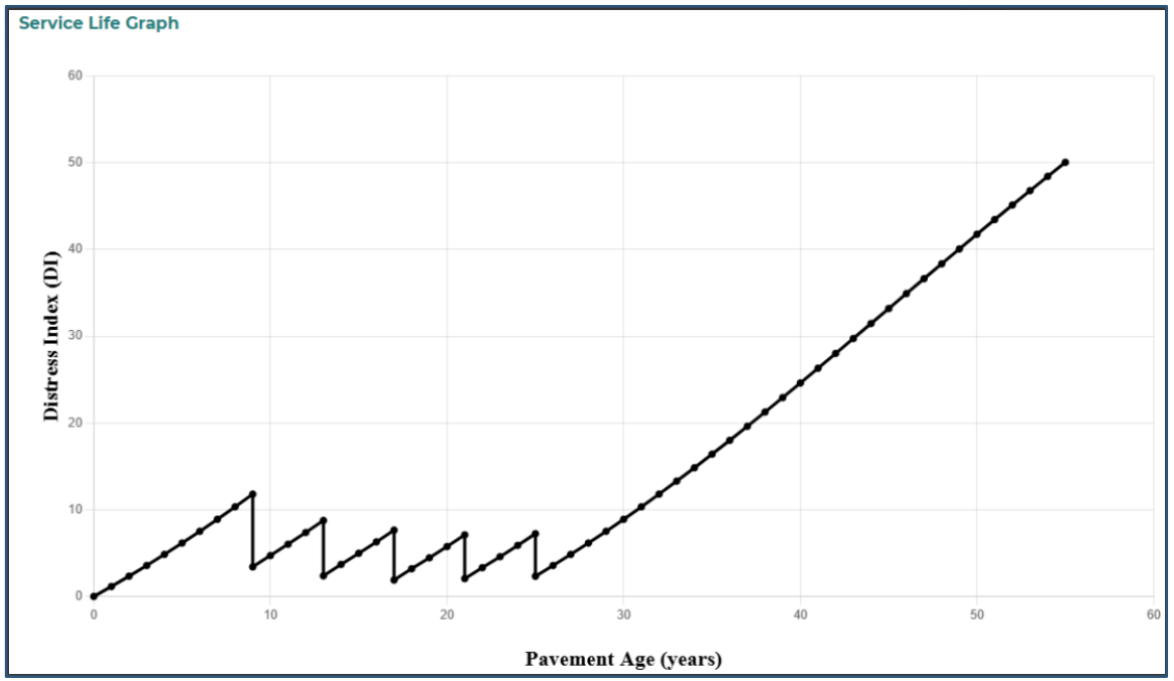
	PR#	PR BMP	PR EMP	NUMBER OF LANES	SURFACE TYPE	RIGID PAVEMENT THICKNESS	FLEXIBLE PAVEMENT THICKNESS	BASE THICKNESS	LANE WIDTH	SHOULDER SURFACE TYPE	RIGHT SHOULDER WIDTH	LEFT SHOULDER WIDTH	MEDIAN TYPE	MEDIAN WIDTH
1														
2	505	0	0.055	1	JRCP	9		16	16	Existing HMA Shoulder	10	5	None	0
3	505	0.055	0.069	2	JRCP	9		16	16	Existing HMA Shoulder	10	5	None	0
4	505	0.069	0.207	1	JRCP	9		16	16	Existing HMA Shoulder	10	5	None	0
5	21202	0.073	0.107	3	HMA Overlay over Existing JPCP		1.5		12	Existing HMA Shoulder	10	4	Unprotected	36
6	21202	0.107	0.298	2	HMA Overlay over Existing JPCP		1.5		12	Existing HMA Shoulder	10	4	Unprotected	36
7	21202	0.298	0.312	3	HMA Overlay over Existing JPCP		1.5		12	Existing HMA Shoulder	10	4	Unprotected	36
8	21202	0.312	0.394	4	HMA Overlay over Existing JPCP		1.5		12	Existing HMA Shoulder	5	6	Curbed	5
9	21202	0.394	1.491	2	HMA Overlay over Existing JPCP		1.5		12	Existing HMA Shoulder	10	4	Unprotected	36
10	21202	1.491	1.546	3	HMA Overlay over Existing JPCP		1.5		12	Existing HMA Shoulder	10	4	Unprotected	36
11	21202	1.546	1.601	4	HMA Overlay over Existing JPCP		1.5		12	Existing HMA Shoulder	10	4	Unprotected	36
12	21202	1.601	1.741	2	HMA Overlay over Existing JPCP		1.5		12	Existing HMA Shoulder	10	4	Unprotected	36

PAVEMENT ANALYSIS, VALUATION, EVALUATION, AND TRACKING (PAVETrack)

PAVETrack
Michigan Department of Transportation

- PAVETrack monitors, analyzes, and reports on the historical performance of MDOT pavements
  - Part of the MDOT's **Pavement Performance Monitoring process** and MDOT's **Life-Cycle Cost Analysis (LCCA) process**

- PHD is a data source of **Recon/Rehab** and **CPM project segments** in PAVETrack



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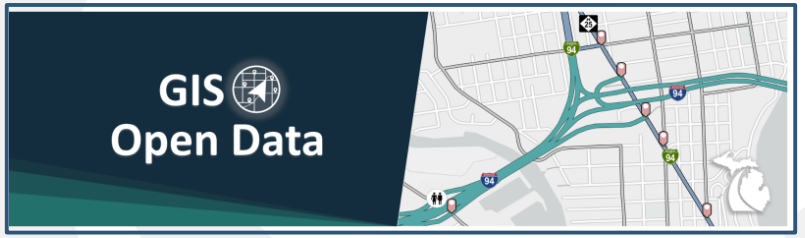
PAVEMENT MANAGEMENT PROCESS PLAN (PaveMaPP)

- PaveMaPP is the source of pavement condition data for the Michigan Trunkline Highway System, and the source of **Remaining Service Life (RSL)** estimates.
- PHD is PaveMaPP's source of **Pavement Surface Type coding**
- PHD is PaveMaPP's source of **non-let jobs' location, timing, work type, and Fix Life** attributes

LATEST PROJECT WORK TYPE DESCRIPTION	LATEST PROJECT TYPE	2021 PHD PAVEMENT TYPE	LATEST AVG HPMS CRACKING PERCENT YEAR	LATEST AVG HPMS CRACKING PERCENT	LATEST AVG HPMS CRACKING PERCENT G/F/P	LATEST AVG HPMS IRI YEAR	LATEST AVG HPMS IRI (in./mile)	LATEST AVG HPMS IRI G/F/P
Single Course Chip S	CPM	Flexible	2022	3	Good	2022	83	Good
Single Course Chip S	CPM	Flexible	2022	1	Good	2022	66	Good
Cold Milling & Bitumin	CPM	Flexible	2021	0	Good	2021	27	Good
Cold Milling & Bitumin	CPM	Flexible	2021	0	Good	2021	26	Good
Bituminous Reconstru	R&R	Composite	2019	20	Fair	2019	142	Fair
Single Course Chip S	CPM	Flexible	2021	41	Poor	2021	75	Good
Cold Milling & Bitumin	CPM	Composite	2021	0	Good	2021	29	Good
Single Course Chip S	CPM	Composite	2021	3	Good	2021	60	Good
Single Course Chip S	CPM	Composite	2021	0	Good	2021	49	Good
Bituminous Resurfaci	R&R	Rigid	2021	0	Good	2021	51	Good
Recnst Exist, No Wide	R&R	Rigid	2019	73	Poor	2019	198	Poor

ROADS & HIGHWAYS (R&H) / GIS DATABASE



- R&H is MDOT's official linear referencing system for the state trunkline network
  - Supports integration of geospatial data across business areas for consistent mapping and analysis

- PHD provides certain pavement information such as **pavement surface type**, **layer thickness**, **lane width**, **shoulder surface type & width**, etc.

MATERIALS AND WORK TYPE TREND ANALYSIS

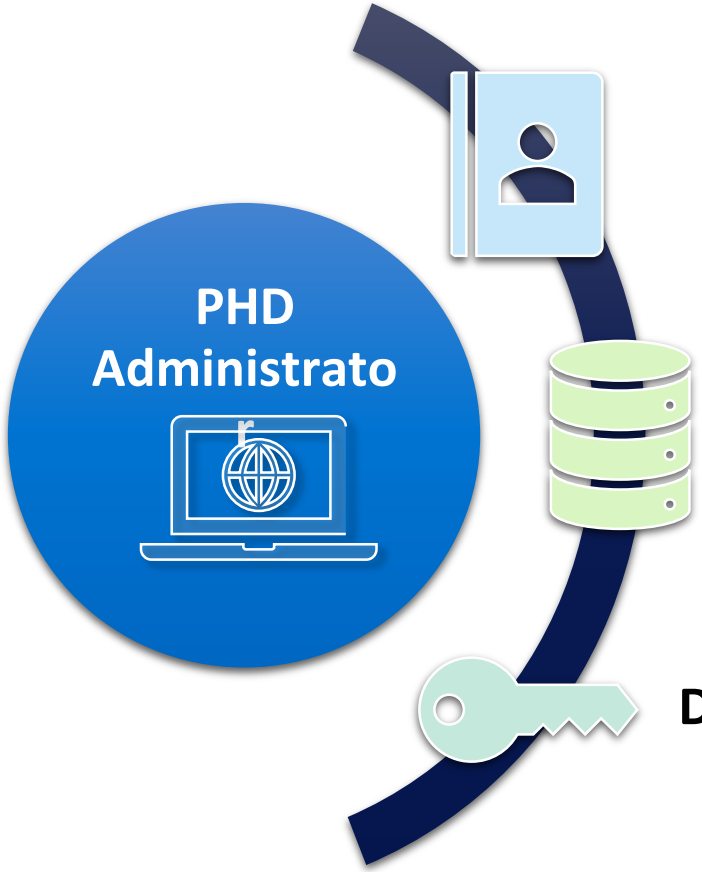
- PHD can be used in researching individual state routes, specific pavement work type (reconstruction, overlays, pavement repairs, etc.), as well as performing materials trend analysis.

- Examples:
  - Provide **lane miles of Crack Seal or Chip Seal** within certain years at a certain location (Region, TSC, or County).
  - Track **paved lane and shoulder widths** for a particular Region, TSC, or County.
  - Track the use of certain **asphalt binders (PG grade and source)**, **emulsions**, and/or **aggregates** within a Region, TSC, or route.

GENERAL INFORMATION

PHD USER ROLES (ACCESS LEVEL)

Support and maintain PHD function, assign user rights, and provide aid to PHD users



Read Only user — Search and Export Data

Data Entry user — Enter Data into PHD

Data Owner user — Review & Finalize Data in PHD

PHD WORKFLOW

Data Entry User

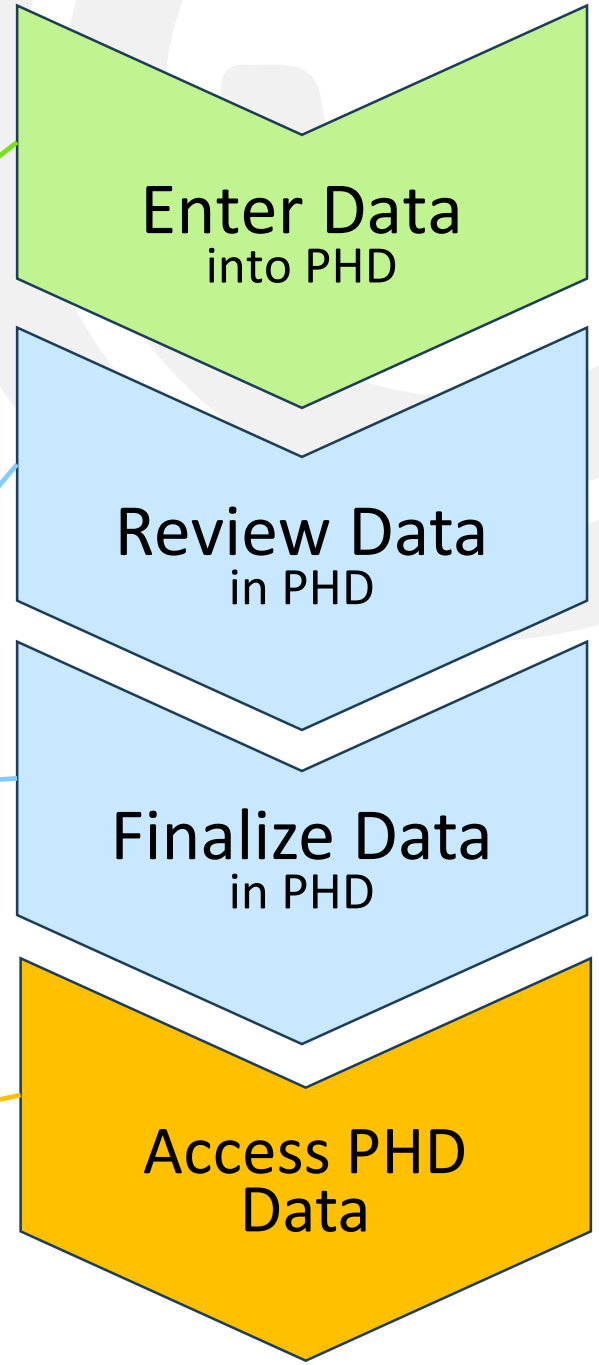
- Gather construction records and assemble information
- Enter data into PHD
- Send PHD job to Data Owner for Review/QA

Data Owner User

- Review the job for errors/omissions
- Finalize if no errors/omissions (job is sent to PHD database)
- IF errors/omissions:
  - Make corrections, or
  - Send back to the Data Entry User for corrections, then resubmitted to Data Owner for Review and Finalization

Read Only user

- Search and Export PHD Data



DATA ENTRY TIMELINE

- **Collect**: during or after construction
- **Enter**: during construction & complete entry after job complete

- **Due date** is **January 31st, 2026** for projects completed in **2025**

- Exceptions – projects built over **multiple years**
  - Complete entry of multi-year projects when project is **finished**
  - Users are encouraged to **enter** the first-year data **(as Draft)**

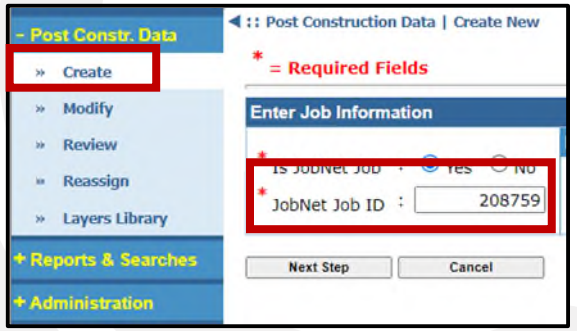
WHAT IS ENTERED?

- ❑ All projects with **pavement work** on MDOT trunkline for mainline, ramps, shoulders, or curb & gutter (≥ 0.1 mile) is **required**
  - **Let jobs:** Programed jobs in the JobNet application (Planning Database)
    Has an MDOT Job Number (JN) – such as 208782A
  - **Non-let jobs:** Maintenance projects, Transportation Work Authorizations (TWA), Direct Forces Work
    Mostly without MDOT Job Number – Need to create a Job ID in PHD
  - **Pavement work**: HMA/Conc. layers, CPM, repair work (joint sealing, Detail 7's & 8's, etc.)
- ❑ Projects <0.1 mile are **optional**
- ❑ **No** local roads and **no** projects without pavement work such as bridge work, pavement markings, etc.

DATA ENTRY PROCESS – *OVERVIEW*

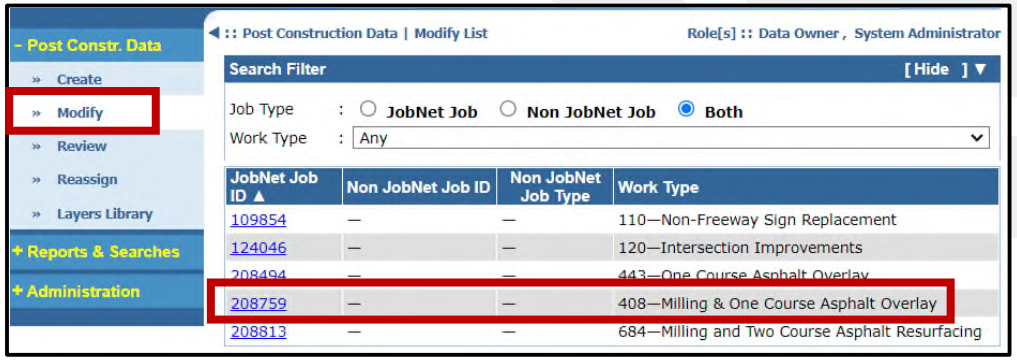
PHD DATA ENTRY PROCESS

- ❑ **Create** the job in PHD (by Data Entry or Data Owner user)



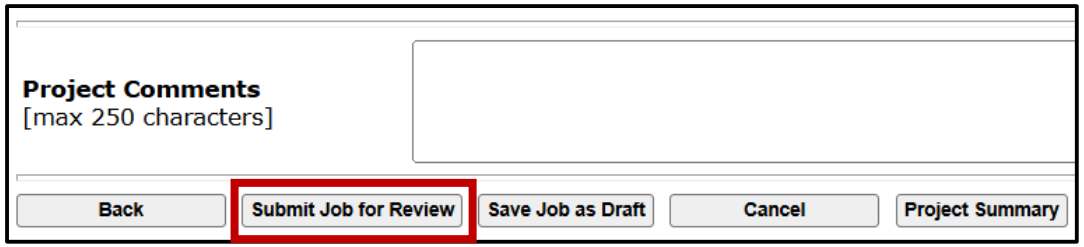
- ❑ **Modify** the job

  (start the data entry process)

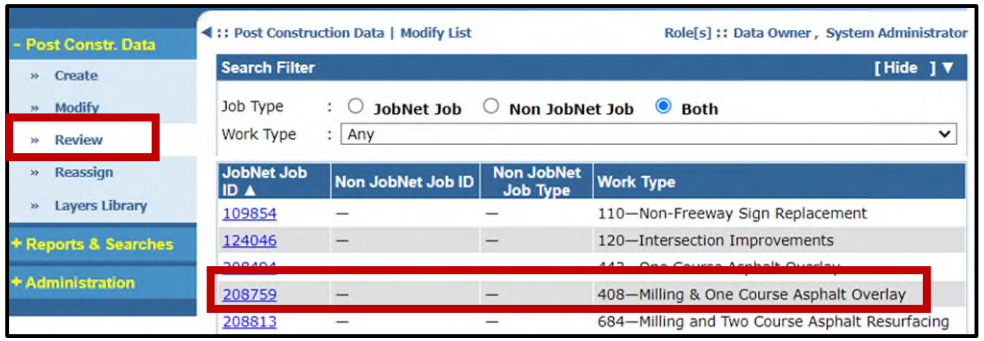


- ❑ **Submit for Review**

  (by Data Entry user)



- ❑ **Review** & **Finalize** the job
  (by Data Owner user)



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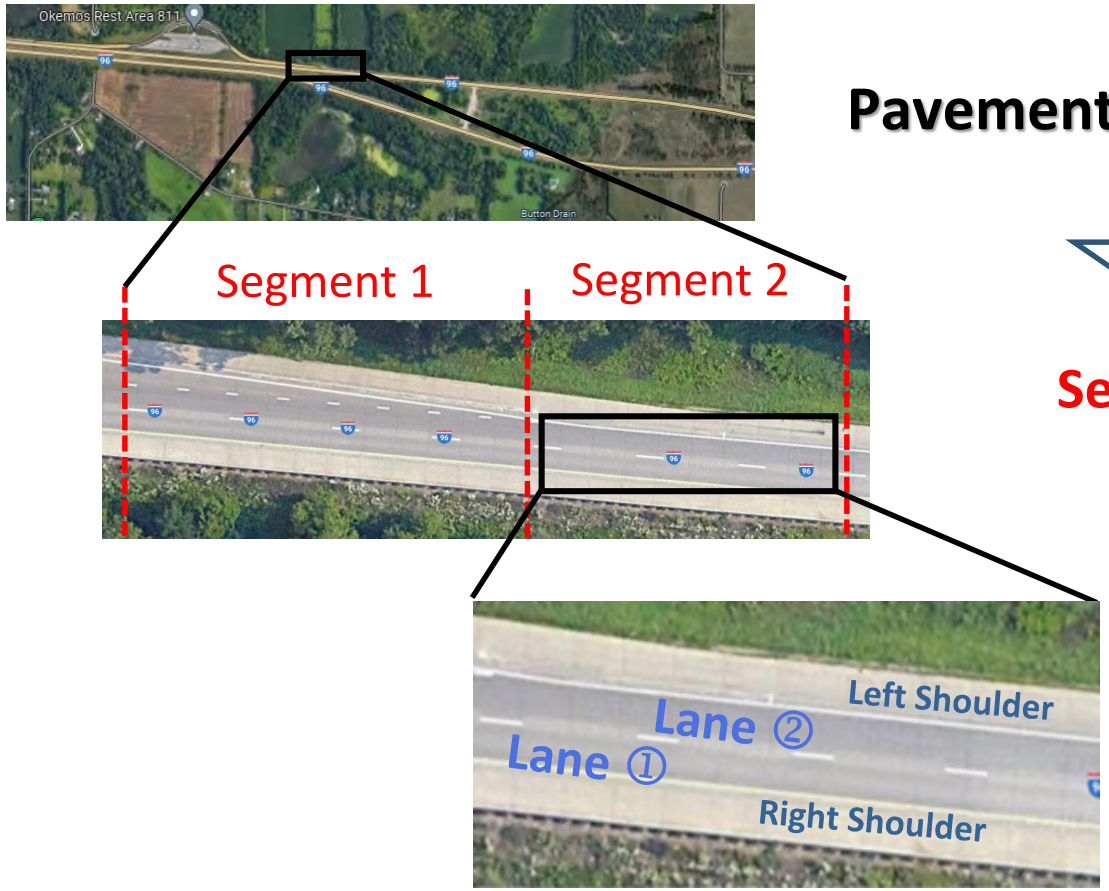
PHD DATA ENTRY PROCESS

- In the **Demonstration Section**, we will highlight recent changes in PHD interface
- The Appendix (slides **76 – 133**) summarizes the Data Entry Process
  - **Create Jobs**
  - **Modify Jobs**
    - **Segments:** create, modify, and delete segments, copy segment details, change segment MPs, etc.
    - **Segment Details:** create and modify Lanes, Shoulders, and Curb & Gutter
    - **Lane/Shoulder Details:** add layers and their attributes
    - **Median:** enter median information
    - **Other functions:**
      - Project and Segment Comment Boxes
      - View MAP function
      - Layers Library
      - Using copy functions (copy segment, copy lane, copy layers, etc.)
  - **Submit for Review / Finalize Jobs**

DATA HIERARCHY IN PHD



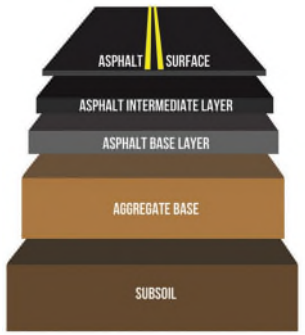
Pavement Job (i.e., Job ID, Work Type Code, etc.)

have

Segments (i.e., PR from MP to MP)

have

Lanes/Shoulder, Curb & Gutter, Median



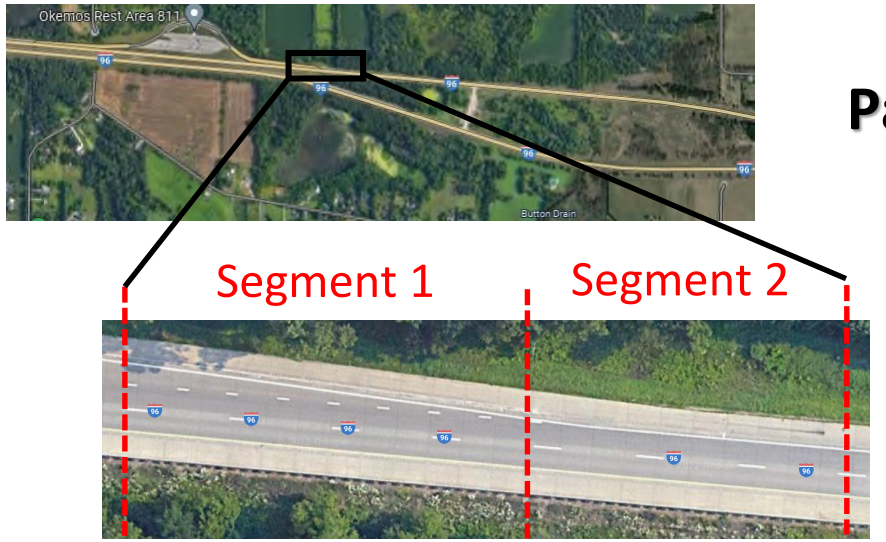
have

Layers

have

Attributes

DATA HIERARCHY IN PHD



Pavement Job (i.e., Job ID, Work Type Code, etc.)

Segments (i.e., PR from BMP to EMP)

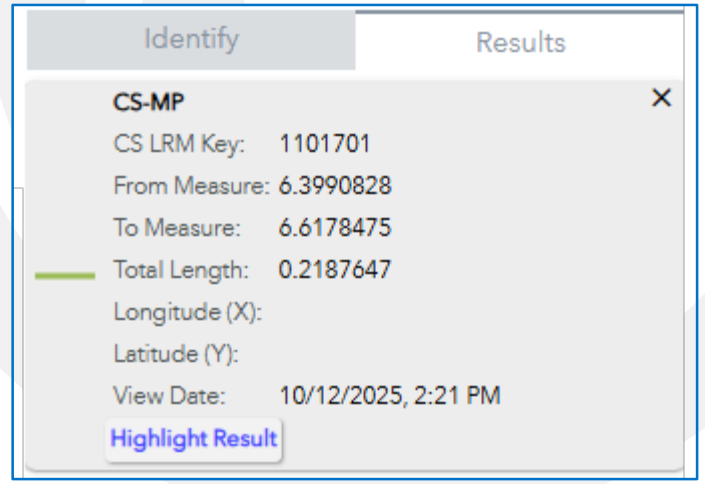
PR Segment List

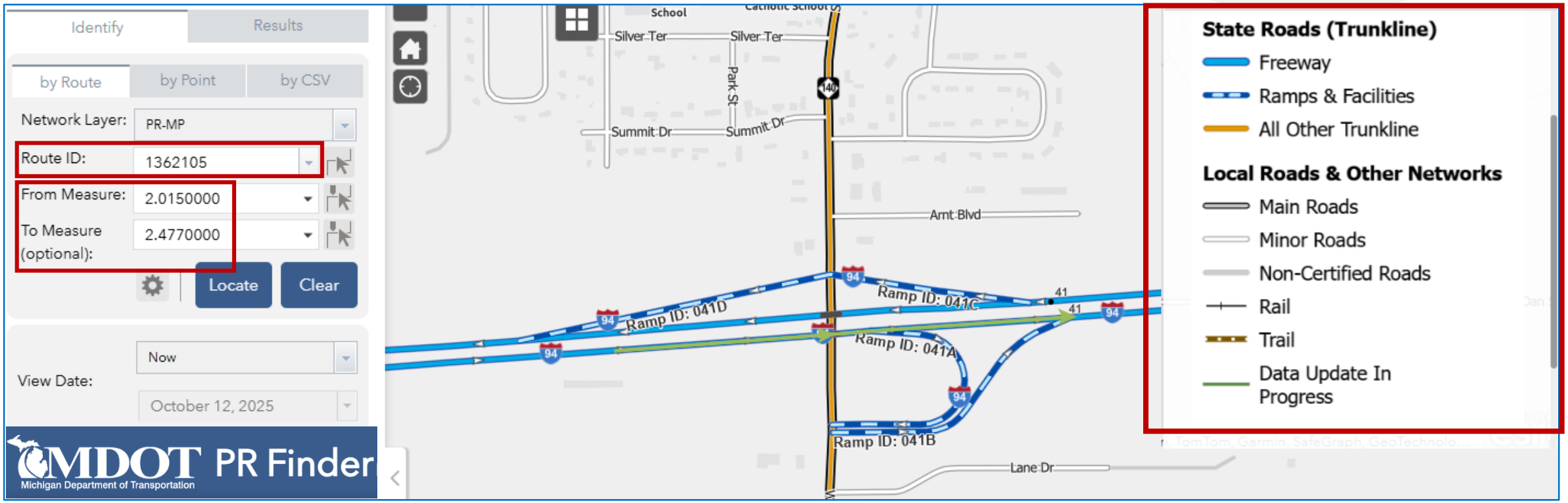
	#	PR Number	PR(v)	BMP	EMP	Route	Direction
◉	1	337310	25	10.3	10.656	I-96	WB
○	2	337310	25	10.656	10.763	I-96	WB
○	3	337310	25	10.763	11.3	I-96	WB

SEGMENTS IN PHD

- Roadway locations are entered into PHD using:
  - PR Number (Route ID)
  - PR milepoints
- Use [MDOT PRFinder]

Control Section (CR)

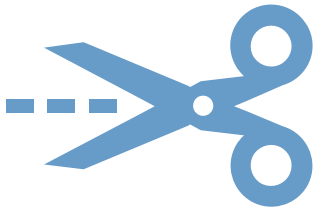




SEGMENTATION

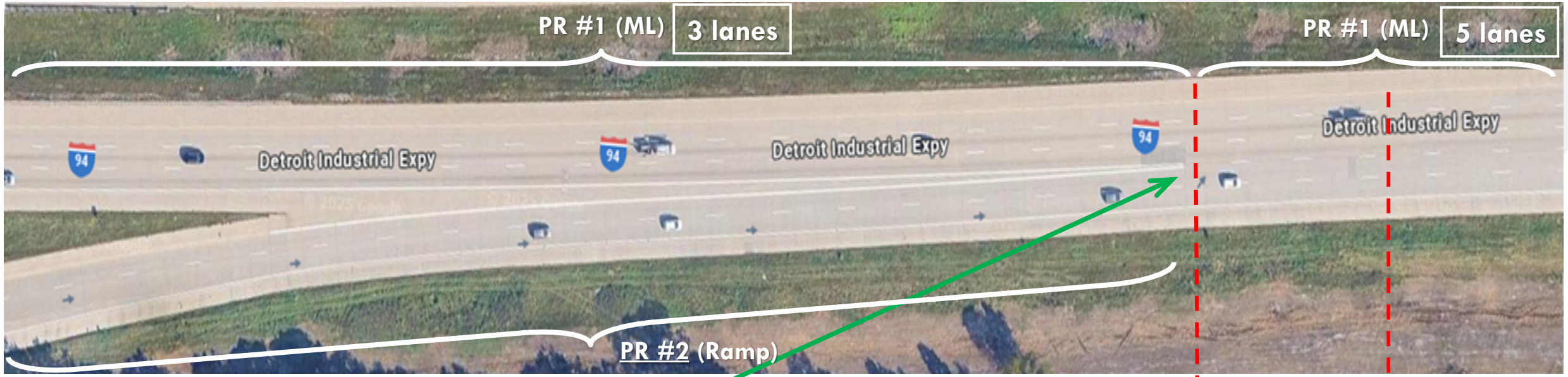
- **New segments** or **sub segments** are <u>required</u> — changes **≥ 0.10 mile**
- Changes in:
  - PR number
  - Lane(s) details (number of lanes or lane width)
  - Pavement cross-section (layer or material changes)
  - Shoulder, Curb & Gutter (new construction or change in existing)
  - Years of construction (multi-year projects)
  - Median details (only when significant - type or major width change)

Primary reasons for segmentation in PHD
<u>Usually</u> automatically generated (imported from JobNet)



- Changes **< 0.1 mile** can be entered as a **new subsegment** or can be entered/combined with the **adjacent segment** at the user's discretion
  - **<u>Exception:</u>** Segments involving additional lanes (turn lanes, for example)
    - ➢ Should be entered as new or subsegments

SEGMENTATION EXAMPLE



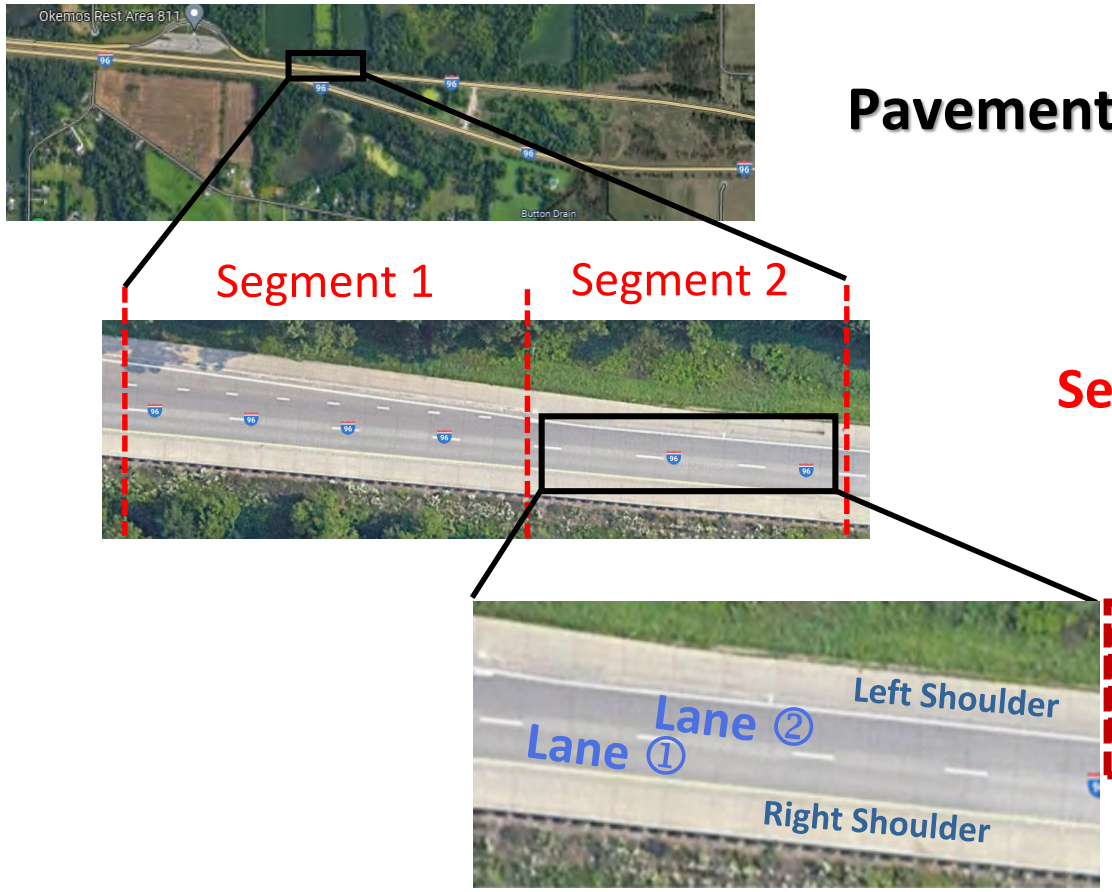
Ramp segmentation begins/ends at the 2' gore point

- Segment (1) – PR#1: 14.940-15.131 / **3 lanes (ML)** (Cement supplier #1)
- Segment (2) – PR#1: 15.131-15.200 / **5 lanes (ML)** (Cement supplier #1)
- Segment (3) – PR#1: 15.200-16.458 / **5 lanes (ML)** (Cement supplier **#2**)
- Segment (4) – PR#2: 0-0.373 / **2 lanes (Ramp)**

PR Segment List [Hide]

#	PR Number	PR(v)	BMP	EMP	Route	Direction	Framework Status
1	1576405	24	14.94	15.131	I-94	EB	Active
2	1576405	24	15.131	15.2	I-94	EB	Active
3	1576405	24	15.2	16.458	I-94	EB	Active
4	1576808	24	0	0.373	Telegraph/E I 94 RAMP		Active

DATA HIERARCHY IN PHD



Pavement Job (i.e., Job ID, Work Type Code, etc.)

Segments (i.e., PR from MP to MP)

Lanes/Shoulder, Curb & Gutter, Median

LANE NUMBERING

- Lanes are always numbered **right to left** facing toward increasing milepoints in the PR segment (no matter the traffic direction)
- Lane 1 is the **right-most through lane** of the PR segment
- Increasing lane numbers 2, 3, etc. are lanes **left** of Lane 1
  - *Examples: passing lane, center turn lane*
- Decreasing lane numbers 0, -1, and less are lanes **right** of Lane 1
  - *Examples: ramp lane, passing flare, right turn lane*
- The begin/end taper point is the start/end of the lane

***Important** because automated segmentation of lanes doesn't always identify numbering correctly*

LANE NUMBERING (EXAMPLE)

Divided Roadway

Separate PR# for EB vs WB / NB vs SB

PR # MP INCREASING →

Lane #
2.0
1.0

Lane #
3.0
2.0
1.0

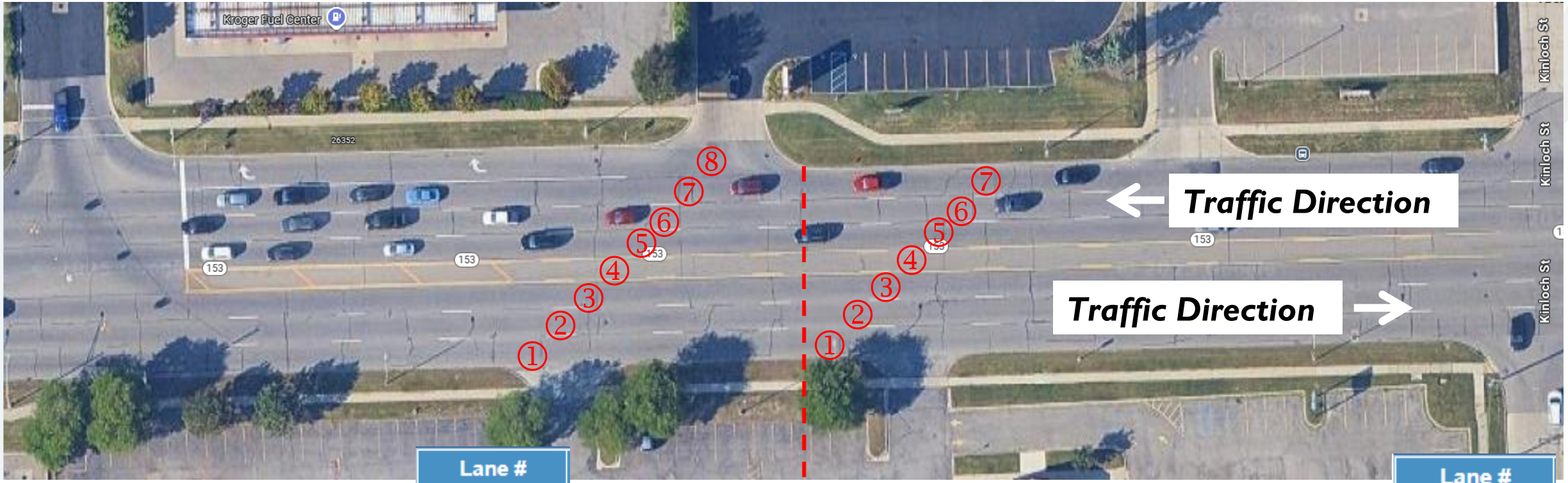
Lane #
3.0
2.0
1.0
0.0
-1.0

LANE NUMBERING (EXAMPLE)

Undivided Roadway

Same PR# for EB & WB / NB & SB

PR # MP INCREASING →



- Segment (1) – **8 lanes** (w right-turn lane)

Lane #
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0

- Segment (2) – **7 lanes**

Lane #
7.0
6.0
5.0
4.0
3.0
2.0
1.0

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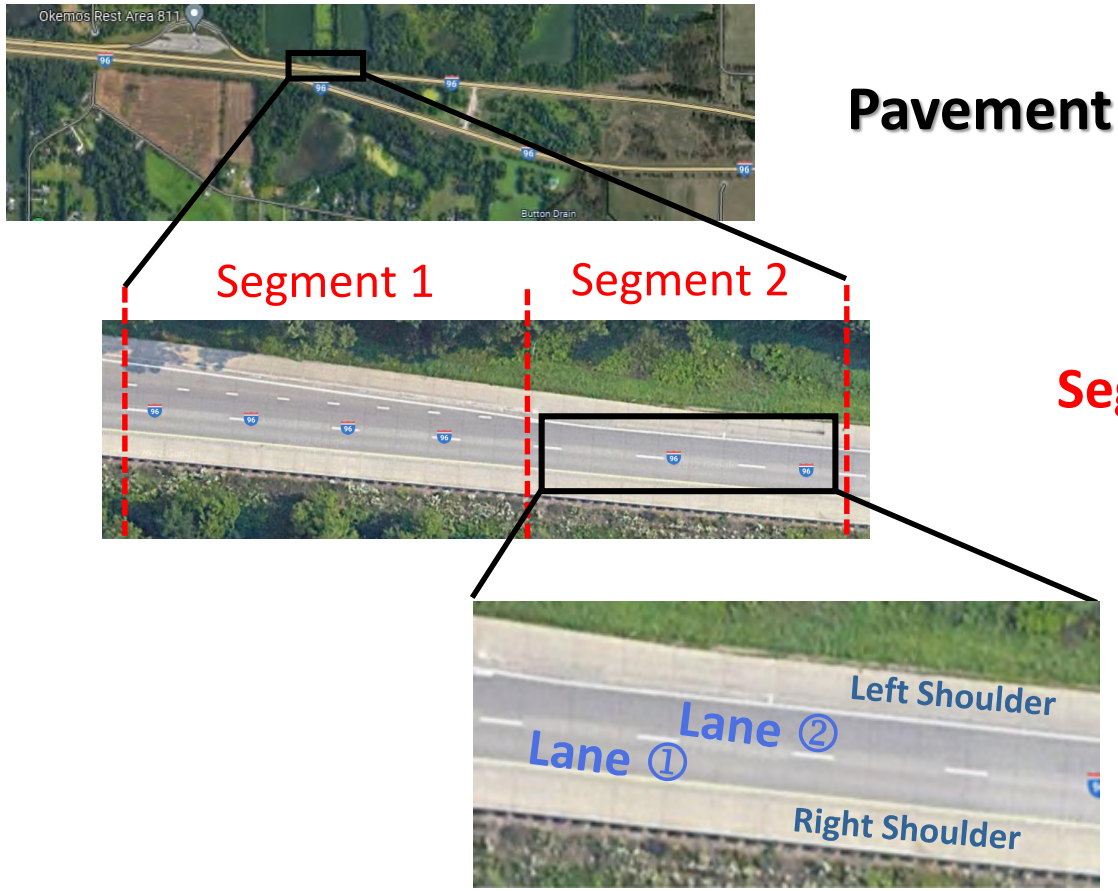
DATA HIERARCHY IN PHD



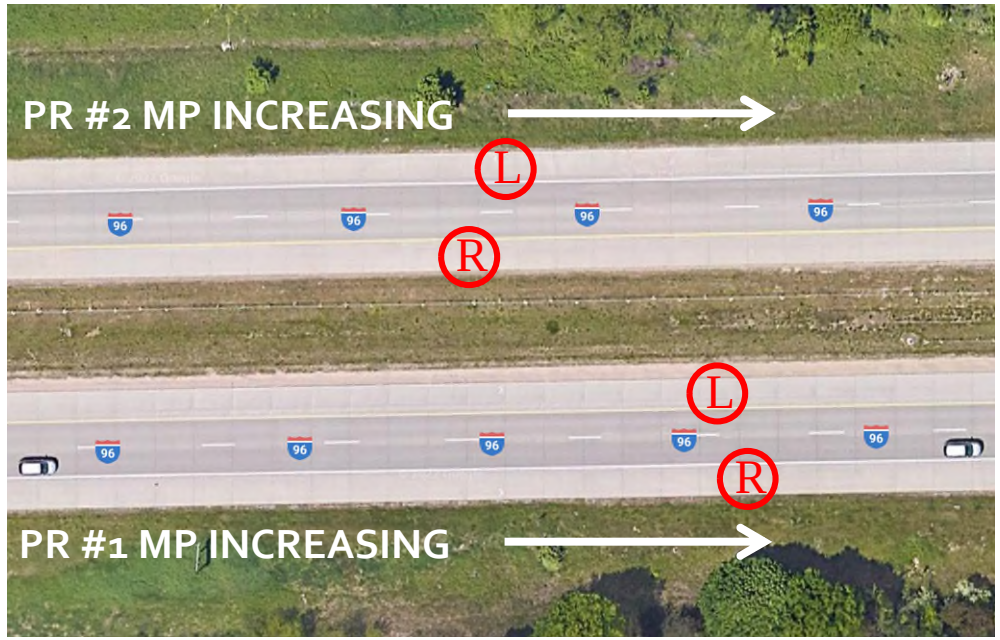
Pavement Job (i.e., Job ID, Work Type Code, etc.)

Segments (i.e., PR from MP to MP)

Lanes/Shoulder, Curb & Gutter, Median

SHOULDER, CURB & GUTTER DIRECTIONS

- ❑ The shoulder/C&G sides are established using the direction of **increasing PR milepoints**
- ❑ Numbered **right to left** facing toward increasing milepoints

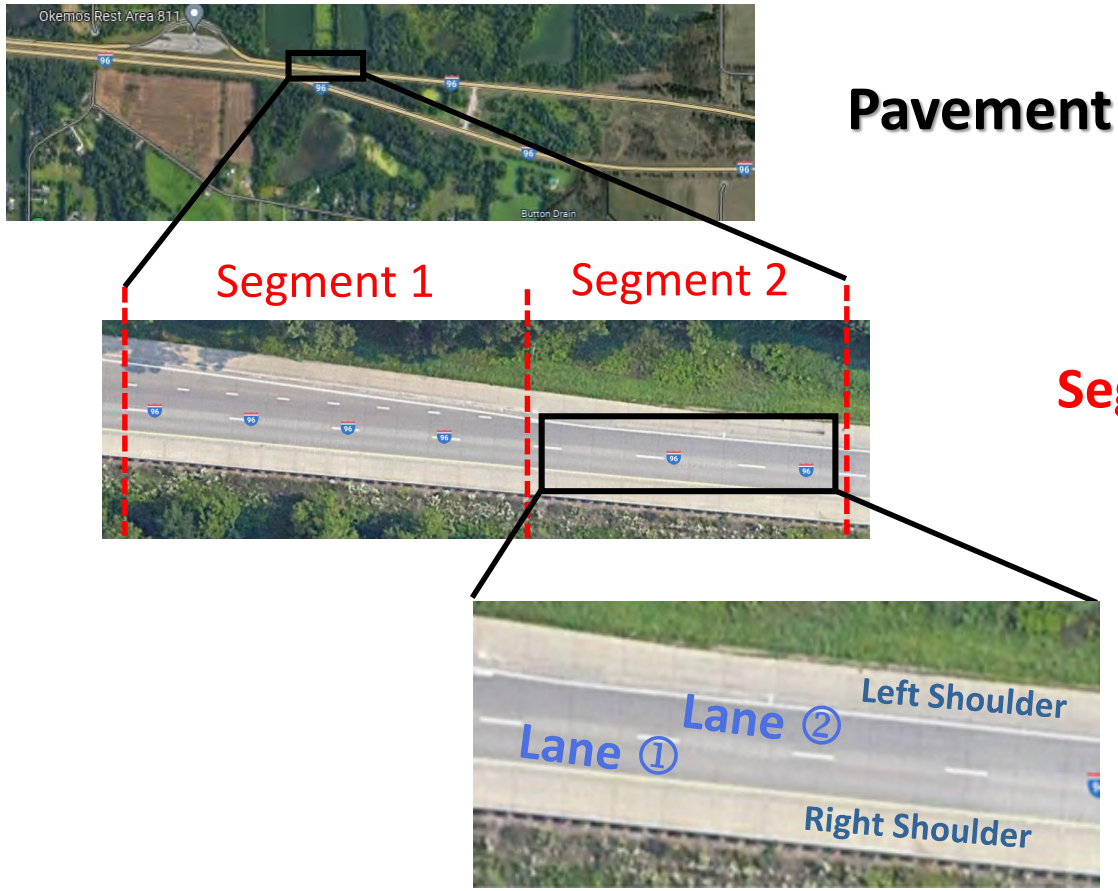


← ***Traffic Direction***

Traffic Direction →

Left Side	Right Side
Shoulder Details [Job # - 124046 / PR # - 124587/ MP :0 ... 2]	
* Work Done :	(•) Yes ( ) No
* Has Corrugations(Rumble Strip) :	( ) Yes ( ) No
* Is Parking Lane :	( ) Yes ( ) No
* Paved Width :	3 Feet
* Total Width :	5 Feet
* Shoulder Surface Type (pavement cross-section) :	HMA full depth

DATA HIERARCHY IN PHD



Pavement Job (i.e., Job ID, Work Type Code, etc.)

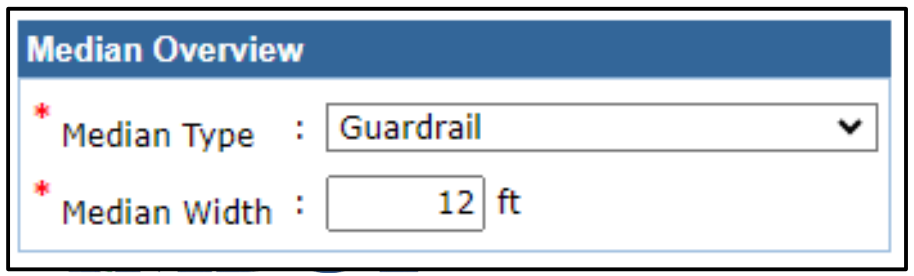
Segments (i.e., PR from MP to MP)

Lanes/Shoulder, Curb & Gutter, Median

MEDIAN INFORMATION

❑ Median Types:

- Undivided
- Concrete Barrier
- Guardrail
- Cable Guardrail
- Raised Island with Curb
- Thick, impenetrable Vegetation
- Graded with ditch
- Flat (paved and unpaved)
- N/A *(i.e., ramps)*
- Other – *input a unique type in a text box*



❑ Median Width:

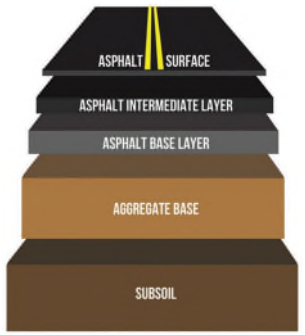
- Average or predominant width <u>including inner shoulders</u>, measured between the inside edges of the leftmost through lanes in both directions, to nearest foot.
- Change if there is a new consistent width.

DATA HIERARCHY IN PHD

Pavement Job (i.e., Job ID, Work Type Code, etc.)

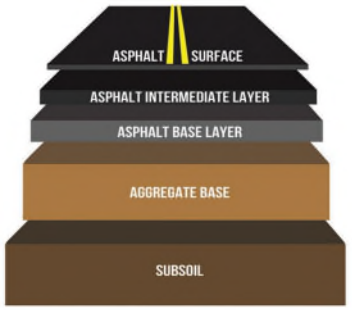
Segments (i.e., PR from MP to MP)

Lanes/Shoulder, Curb & Gutter, Median



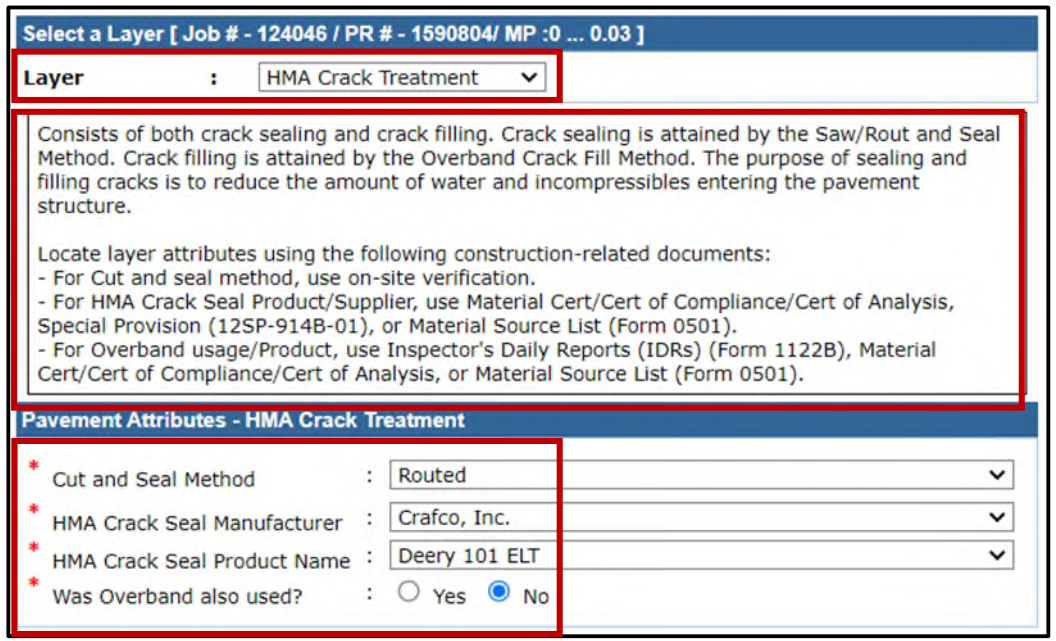
Layers *have* Attributes

LAYERS AND ATTRIBUTES



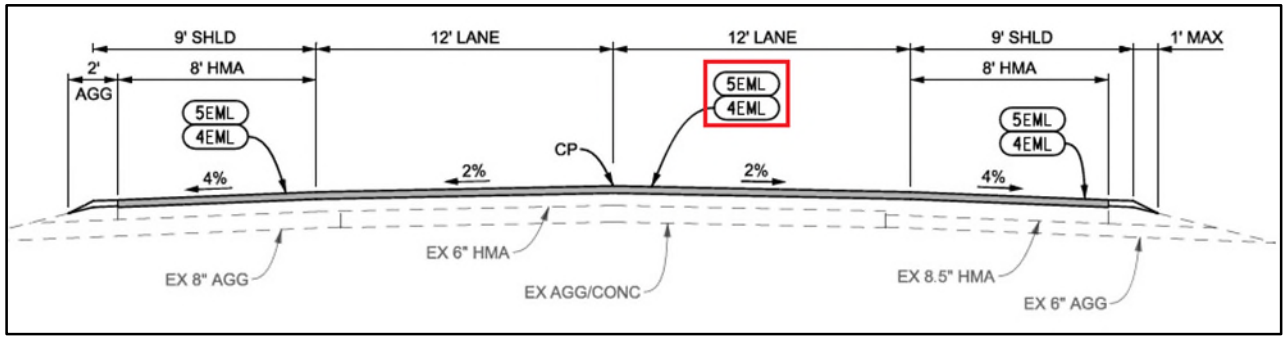
- A layer is a single thickness of a paved/placed **material** or **repair work**
  - **Paved/placed material:** HMA layer(s), Concrete pavement, Base/Subbase layers, chip seal, etc.
  - **Repair work:** asphalt joint/crack repair, HMA cold milling, Overband Crackfill, concrete pavement repairs (Detail 7's & 8's), etc.

- A comprehensive list of all layers and their associated attributes is available in the **"PHD Data Spreadsheet"** and **"PHD Attribute Locations"** documents, on the MDOT PHD website.



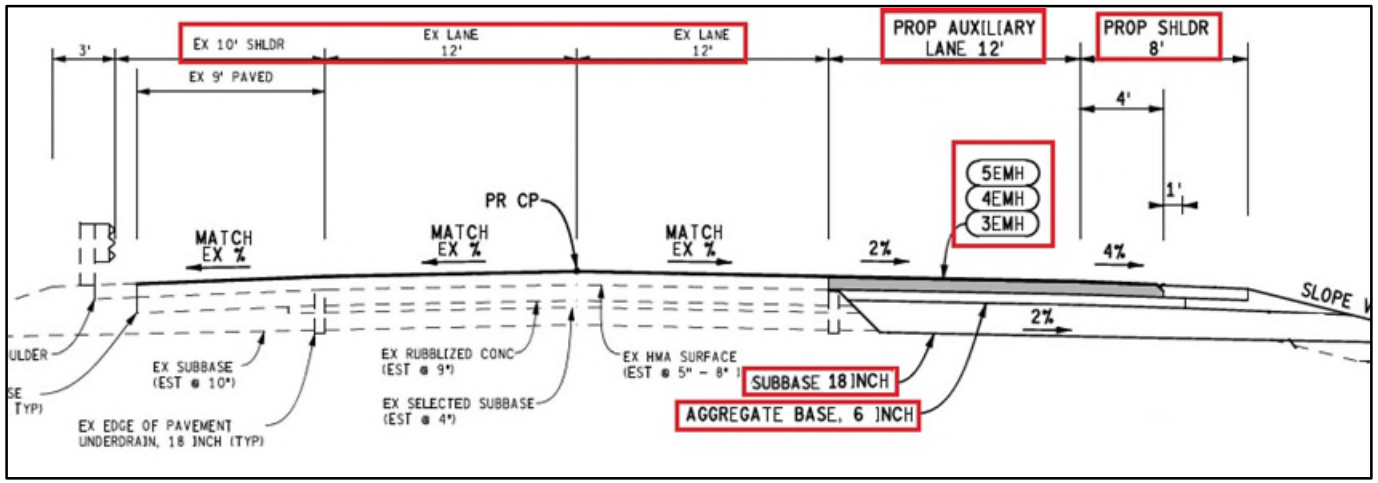
LAYERS

- ❑ Layers/work items should be entered in order of construction
- ❑ Only enter layers paved/placed in the current job
  - Existing layers or layers paved/placed in other jobs **should not** be entered with the current job



Lane Section [Lane # 1.0]

#	Layer Name
3	HMA Top Course
2	HMA Level Course
1	Cold Milling



Segment Lane(s) Overview

Lane #	Work Done
3.0	No
2.0	No
1.0	Yes

Segment Shoulder Overview

	Left	Right
Work Done	No	Yes
Status		Complete

Lane Section [Lane # 1.0]

#	Layer Name
5	HMA Top Course
4	HMA Level Course
3	HMA Base Course
2	Aggregate Base Course
1	Subbase

ATTRIBUTES

Select a Layer [Job # - 1240

Layer : HM

Pavement Attributes - HMA T

* Mix Type
* Mix Design No (Case Sensi
* Application Rate
* Asphalt Binder
* Asphalt Binder Cert. Suppl
* Asphalt % (Total)
* Asphalt Binder %Added (V
* AWI (Actual)
* Warm Mix?
* Shingles used in the mix?

If Warm Mix, Water Foaming
If Warm Mix, select Additive

Select New Aggregate

* Aggregate : Select an Agg
Source : —

Add Aggregate

Michigan Department of Transportation 1911 (08/2024)

JOB MIX FORMULA (JMF)
HMA FIELD COMMUNICATION

Clear Form

This form 1911 applies only to the project listed below and is not transferable to other projects.

DISTRIBUTION: ORIGINAL - Project Engineer **COPIES** - Contractor, Testing Laboratory, Inspector, and TMI File 305

CONTROL SECTION	JOB NO.	PROJECT ENGINEER	DATE EFFECTIVE

CONTRACTOR	PLANT LOCATION	PLANT NO.

TYPE OF MIXTURE	MIX DESIGN NO.	TESTING OPTION	PLANT CERTIFICATION DATE	CONTRACTOR'S QC PLAN TO PROJECT ENGINEER
				☐ YES ☐ NO

STAND. SPEC. DATE	MIX SP. PROV. DATE	QC/QA SP. PROV. DATE	VMA	VFA	% AIR VOIDS	Vbe	ANGULARITY	DUST CORR.

Gmm	Gmb	Gb	Gse	Gsb	FINES/ASPHALT RATIO	COMPACTION TEMP.	MIXING TEMP.

MIX/AGG. GRADATION, %		MIX/AGG. PROPORTION, %		
ITEM	PERCENT	MATERIAL/PRODUCER	PIT NO.	PERCENT
ASPHALT,% (TOTAL)				
P 1-1/2" (37.5 mm)				
P 1" (25.0 mm)				
P 3/4" (19.0 mm)				
P 1/2" (12.5 mm)				
P 3/8" (9.5 mm)				
P No. 4 (4.75 mm)				
P No. 8 (2.36 mm)				
P No. 16 (1.18 mm)				
P No. 30 (600 µm)				
P No. 50 (300 µm)		RECLAIMED	% ASPHALT IN RAP	
P No. 100 (150 µm)		FILLER		
P No. 200 (75 µm)		ASPHALT BINDER (VIRGIN)	GRADE / CERTIFIED SUPPLIER/LOCATION/CERT #	% ADDED
CRUSHED 1 FACE		AWI (Spec.) / AWI (Actual)	WMA ☐YES ☐NO WATER FOAMING ☐ ADDITIVE PRODUCT	
CRUSHED 2 FACES		☐ QUALITY ASSURANCE TESTING	☐ REGULAR TESTING	
BOND COAT		PRODUCER/LOCATION	CERTIFIED ☐ YES ☐ NO	

REMARKS:

JOB LOCATION	TRAVELING MIX INSPECTOR (TMI)	DATE

Michigan Department of Transportation 1911 (03/14)

JOB MIX FORMULA (JMF)
HMA FIELD COMMUNICATION

Clear Form

This form 1911 applies only to the project listed below and is not transferable to other projects.

DISTRIBUTION: ORIGINAL - Project Engineer **COPIES** - Contractor, Testing Laboratory, Inspector, and TMI File 305

CONTROL SECTION	JOB NO.	PROJECT ENGINEER	DATE EFFECTIVE
06071	208813A	Kirk Habowski - Bay City TSC	08/07/2023

CONTRACTOR	PLANT LOCATION	PLANT NO.
Rieth-Riley Construction Co., Inc.	Houghton Lake	390-21

TYPE OF MIXTURE	MIX DESIGN NO.	TESTING OPTION	PLANT CERTIFICATION DATE	CONTRACTOR'S QC PLAN TO PROJECT ENGINEER
5EML	23MD262	vacuum extraction	04/26/2023	☐ YES ☐ NO

STAND. SPEC. DATE	MIX SP. PROV. DATE	QC/QA SP. PROV. DATE	VMA	VFA	% AIR VOIDS	ANGULARITY	DUST CORR.
2020	2020 Std. Spec.	501R-03 9/17/21	15.77	80.97	3.00	42.9	

Gmm	Gmb	Gb	Gse	Gsb	FINES/ASPHALT RATIO	COMPACTION TEMP.	MIXING TEMP.
2.459	2.385	1.030	2.705	2.657	1.05	284 - 293 F	304 - 316 F

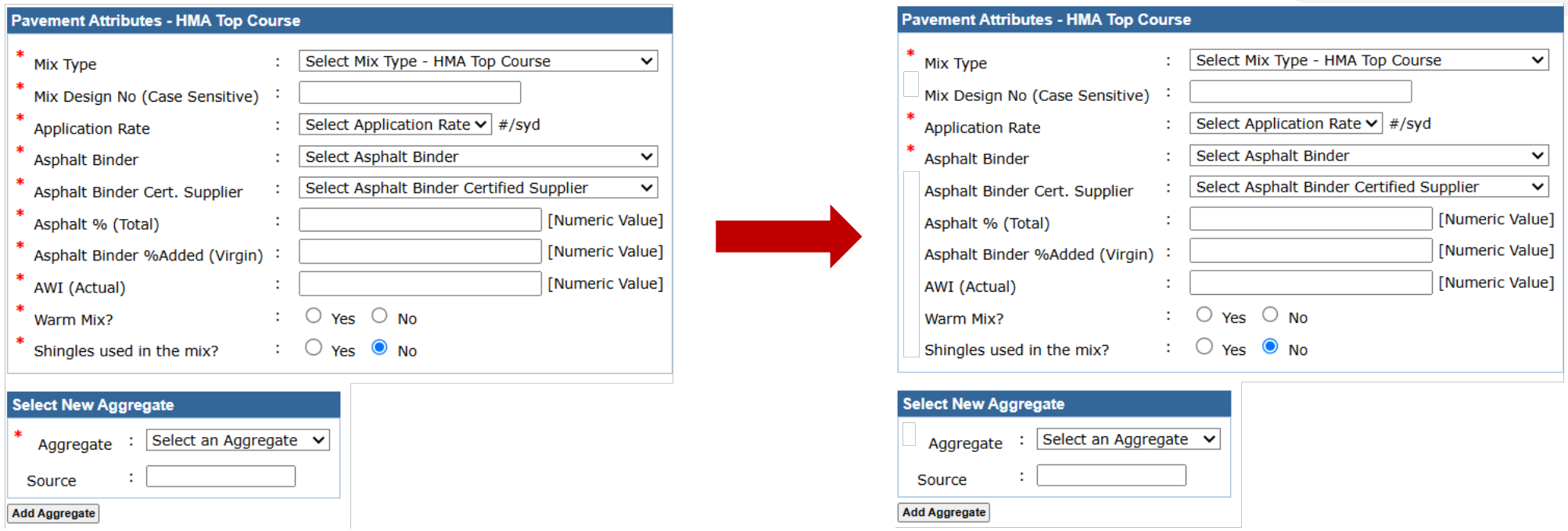
MIX/AGG. GRADATION, %		MIX/AGG. PROPORTION, %		
ITEM	PERCENT	MATERIAL/PRODUCER	PIT NO.	PERCENT
ASPHALT,%	6.16	Sand	72-006	30.0
P 1-1/2" (37.5 mm)	100.00	LWCD	60-018	9.0
P 1" (25.0 mm)	100.00	H2	49-065	16.0
P 3/4" (19.0 mm)	100.00	1/8-(Dust) C	72-027	8.0
P 1/2" (12.5 mm)	100.00	3/8-1/8 C	72-027	16.0
P 3/8" (9.5 mm)	97.20			
P No. 4 (4.75 mm)	83.00			
P No. 8 (2.36 mm)	65.20			
P No. 16 (1.18 mm)	49.20			
P No. 30 (600 µm)	38.10			
P No. 50 (300 µm)	18.50	RECLAIMED	RAP (Yard 4.93% AC)	21.0
P No. 100 (150 µm)	8.00	FILLER		
P No. 200 (75 µm)	5.80	ASPHALT BINDER: GRADE PG 64-28	CERTIFIED SUPPLIER/LOCATION/CERT # Interstate / Manistee / ABS 5560	% ADDED 5.12
CRUSHED 1 FACE	92.9	AWI (Spec.) 260.0	AWI (Actual) 282.0	
CRUSHED 2 FACES		☑ QUALITY ASSURANCE TESTING	☐ REGULAR TESTING	
BOND COAT		PRODUCER/LOCATION LTPG 2 - Pit Mat Products / Bay City, MI	CERTIFIED ☑ YES ☐ NO	

REMARKS:
Warm Mix utilizing Water Foaming for bitumen Introduction but produced at regular mixing

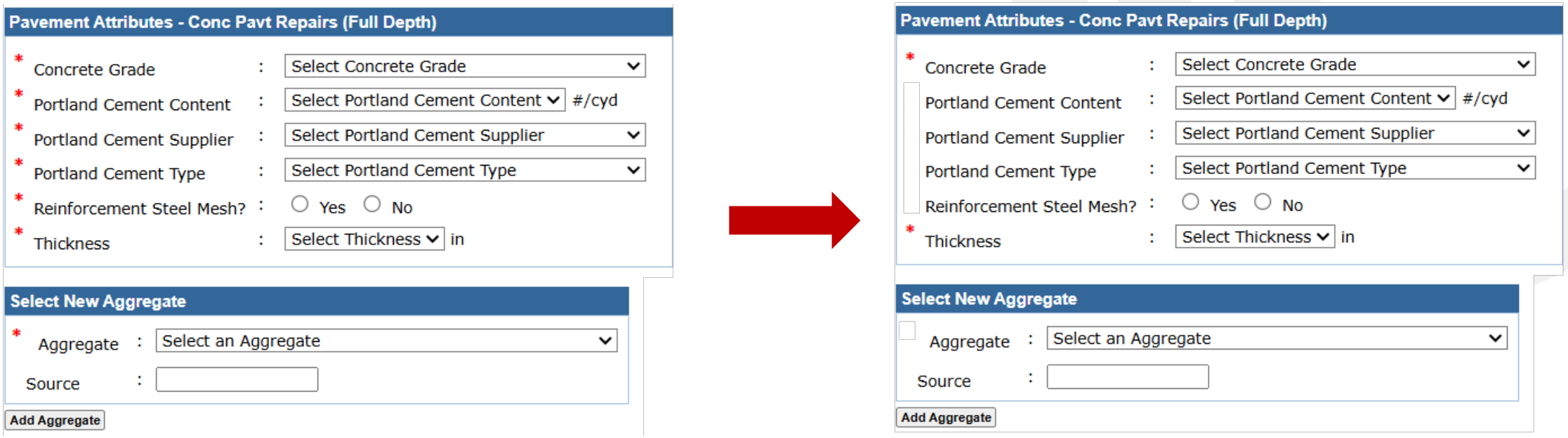
PHD ENHANCEMENTS AND CHANGES

Simplified Data Entry for Non-JobNet Jobs

- **Non-let jobs:** Maintenance projects, TWA, Direct Forces Work, etc.
  - Beginning with PHD data entry for the 2025 construction season, material-related inputs for **Non-JobNet (non-let) jobs** have been simplified.
  - Most material **attributes are now optional** – including **HMA/Conc layers**, **CPM**, **repair work**



Simplified Data Entry for Non-JobNet Jobs

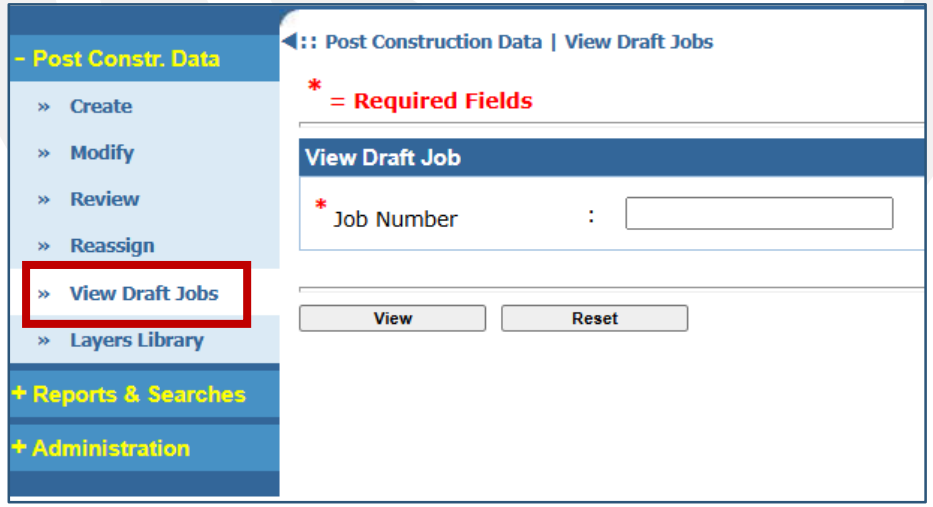


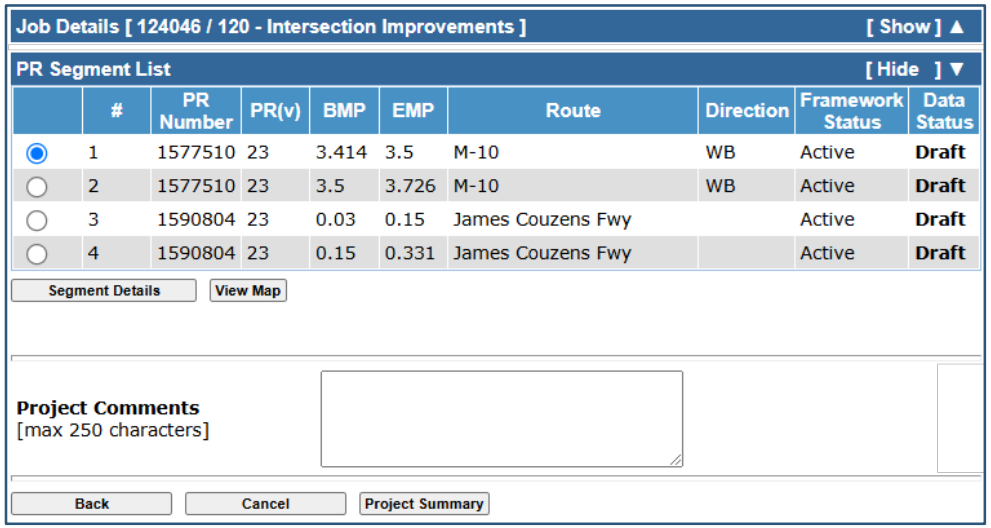
- To make it easier for Regions/TSCs to enter **Non-JobNet jobs** in PHD
- To ensure that all **pavement-related Non-JobNet jobs (≥ 0.1 mile)** are entered into PHD

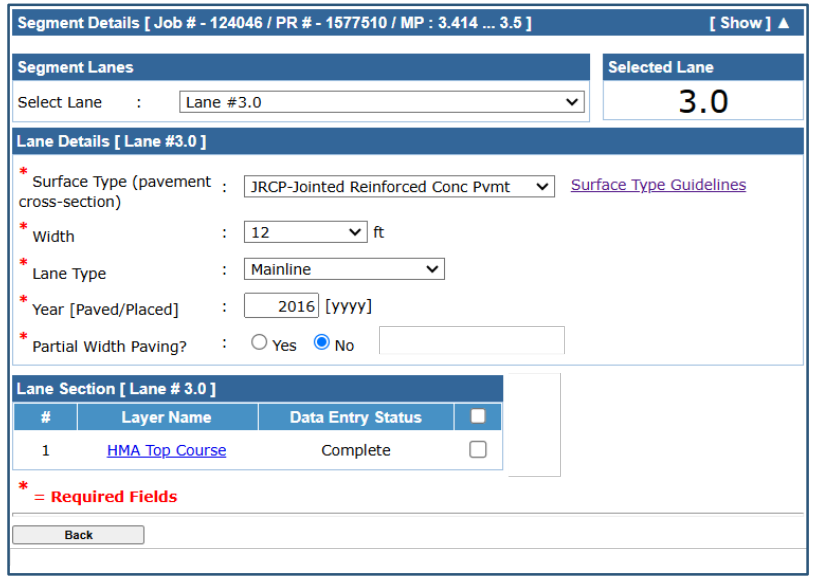
Recommend entering all available information whenever possible

New submenu titled View Draft Jobs

- Added under the **Post Construction Data** menu
  - Provides Data Owners with **view-only** access to their Data Entry users' job entries
  - Data Owners **cannot make any edits**
  - Allows Data Owners to review active jobs and identify any possible missing/incorrect data early in the process



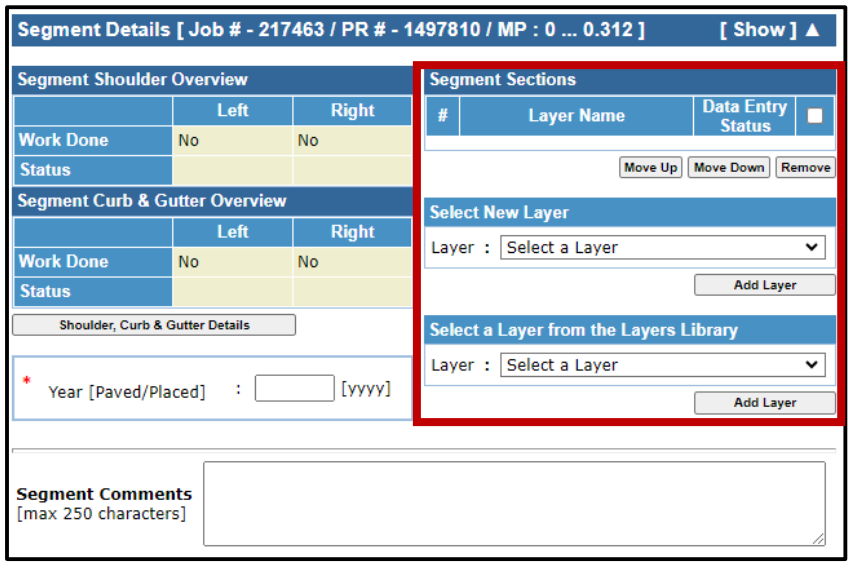




FAQ / BUSINESS RULES

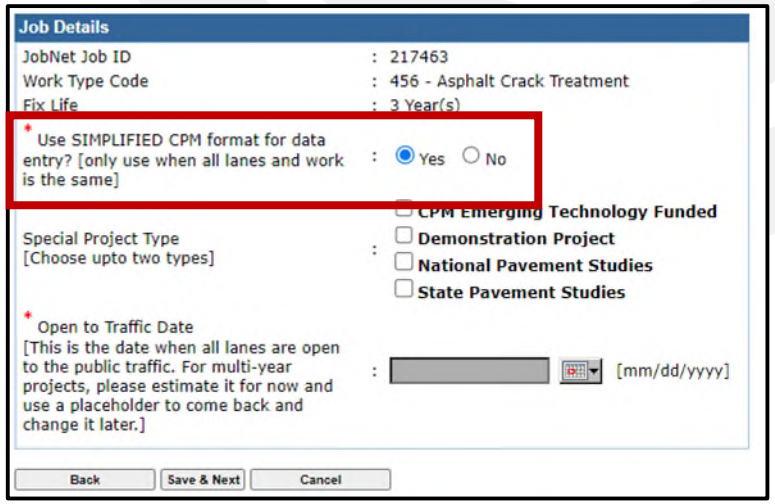
Simplified CPM Jobs in PHD

- Jobs with WTC from 400 – 499 are **Capital Preventive Maintenance (CPM)** type jobs
  - Asphalt Crack Treatments, Sealing Concrete Joints, Overband Crackfill, etc.
  - Simplified data entry process
    - Requires segment layer information **only** (No entry of individual lanes and their details)
    - **Does not** allow entry of **shoulder details** (still requires shoulder layer(s)/work item(s))
    - **Does not** require **segmentation** based on lane or shoulder changes
    - **Does not** allow entry of **median information**
  - Simplified CPM format **should not** be used
    - Lanes have different paved or placed work
    - Projects with HMA paving



Simplified CPM Jobs in PHD

- The **Simplified CPM format** will remain once selected at job creation
  - Cannot be changed later
  - If selected in error – contact the PHD Administrator



- Most other PHD screens, functions, and selections are similar to **Standard format jobs**
  - See the Appendix (slides **76 – 133**) for more details

JOB DATA ENTRY

- Projects with multiple job numbers - **enter each job number separately**
  - **Example:** A project is let with a job number for intersection improvements and another job number for work outside the intersection

CONTRACT ID	CONTROL SECTION		PROJECT
34043-202595	IM	34043	202595A
	IM	41024	208782A

- Job numbers **without** pavement work are **not** entered
  - **Examples:** Freeway lighting, signing, pavement markings, landscaping, culverts, guardrails, drainage structures, etc.

JOB DATA ENTRY

- How do I enter **Multi-year construction**?
  - Keep it in **Draft status** until the project is complete

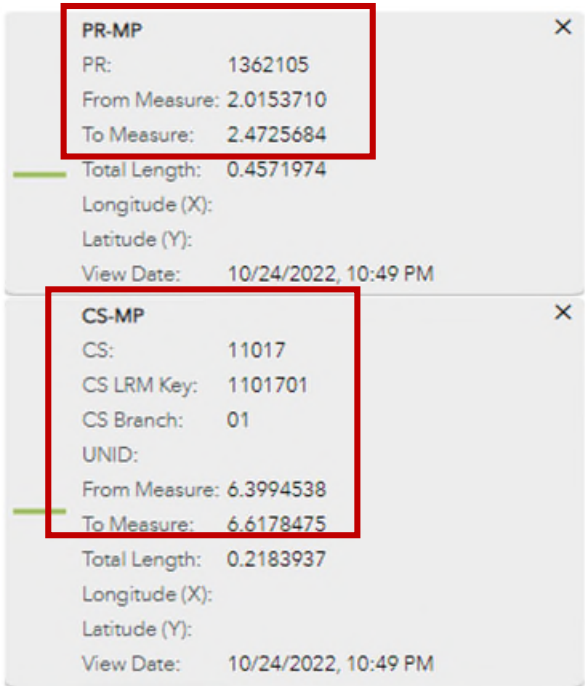
- Jobs with segments **outside your jurisdiction (location)** cannot be started/accessed
  - Contact the **PHD Administrator**

- How do I **edit a Finalized job** in the PHD database?
  - Contact the **PHD Administrator** to **unlock** it and **reassign** it
  - The Administrator will need to know the **Job ID**

SEGMENT DATA ENTRY

- Only enter **work done on MDOT trunkline**
  - **Local** roadways should **not** be entered into PHD

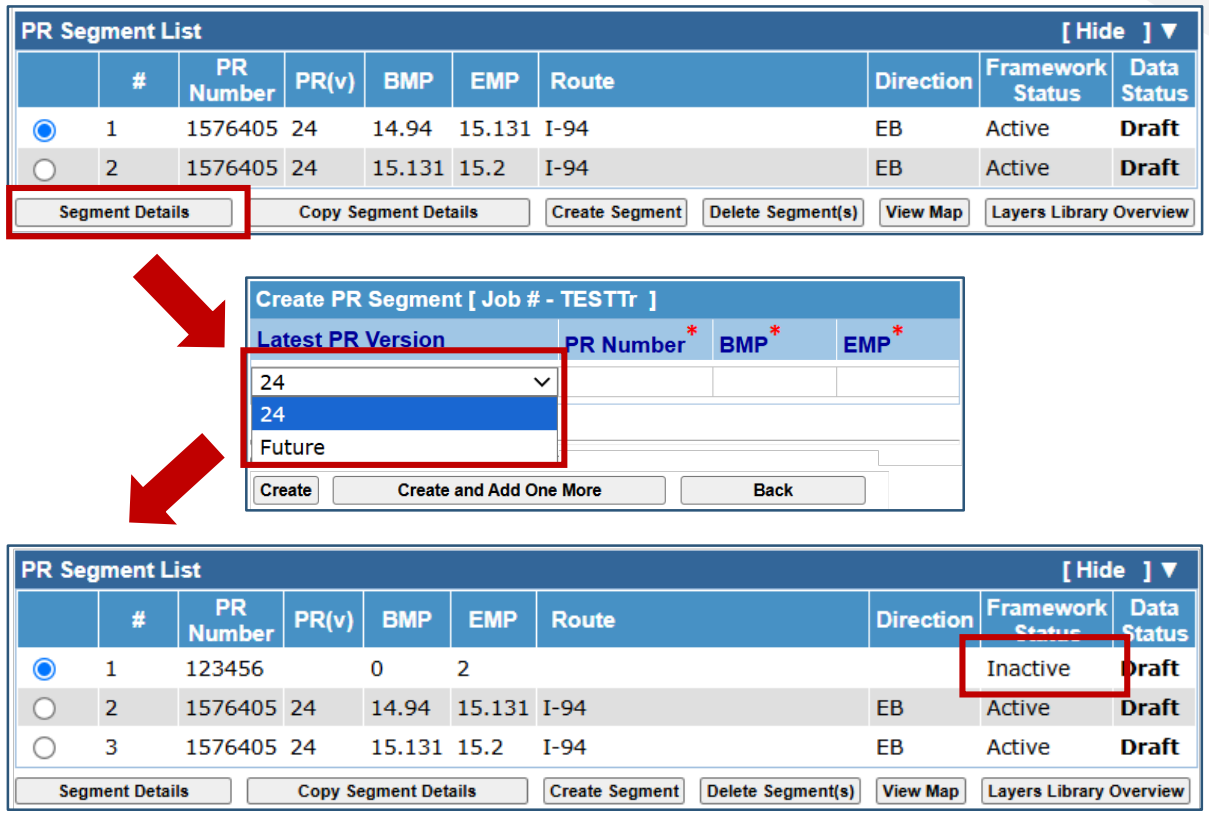
- PHD uses PR info and PR milepoints: might not match CS milepoints
  - Use **MDOT PR Finder** to collect numbers and milepoints



- Auto-populated PHD segments show incorrect milepoints (i.e., as-constructed differs from JobNet):
  - **Change milepoints** in PHD

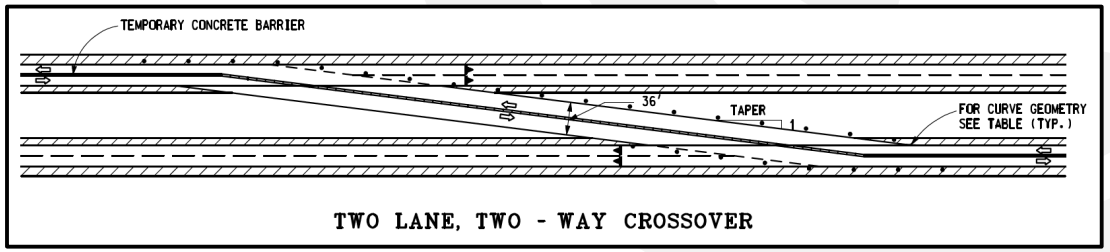
SEGMENT DATA ENTRY

- Segments with a ***new ramp***, ***new roundabout***, or ***alignment changes***
  - Cannot create the segment (with a new PR number) or change MPs of existing segment
- To enter/update such segment(s) select **Future** PR Version



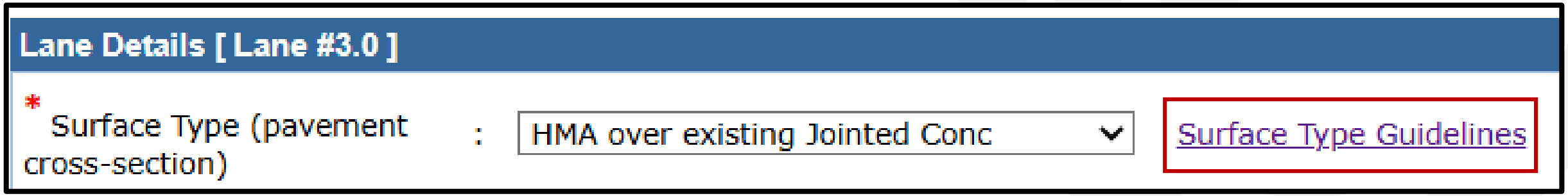
SEGMENT DATA ENTRY

- **Maintenance cross-overs** are not entered
  - Even if they have PR numbers



- Only work/materials assigned to **that Job/Segment**
  - Do not enter existing layers
  - Do not enter Lanes and/or Shoulders when **no work** has been done
  - **Exceptions:**
    - Surface Type (consider entire underlying cross-section)
    - Enter Median Type and Width (predominant/average) even if no work was conducted on the median

LANE, SHOULDER/CURB & GUTTER DATA ENTRY



The entire asphalt pavement replaced in this job → surface type is (HMA Full Depth)

An HMA overlay in a lane with existing HMA (without any existing concrete pavement) → surface type is (HMA over existing HMA)

An HMA overlay in a lane with existing JPCP concrete pavement → surface type is (HMA over existing Jointed Conc)

Micro-Surface, Chip Seal, etc. (thickness ≥0.5“) → surface type is (HMA over existing HMA/Conc)
Considered as a layer

Micro-Surface, Chip Seal, etc. (thickness <0.5“) → Consider the existing layers only
Considered as a non-structural layer *

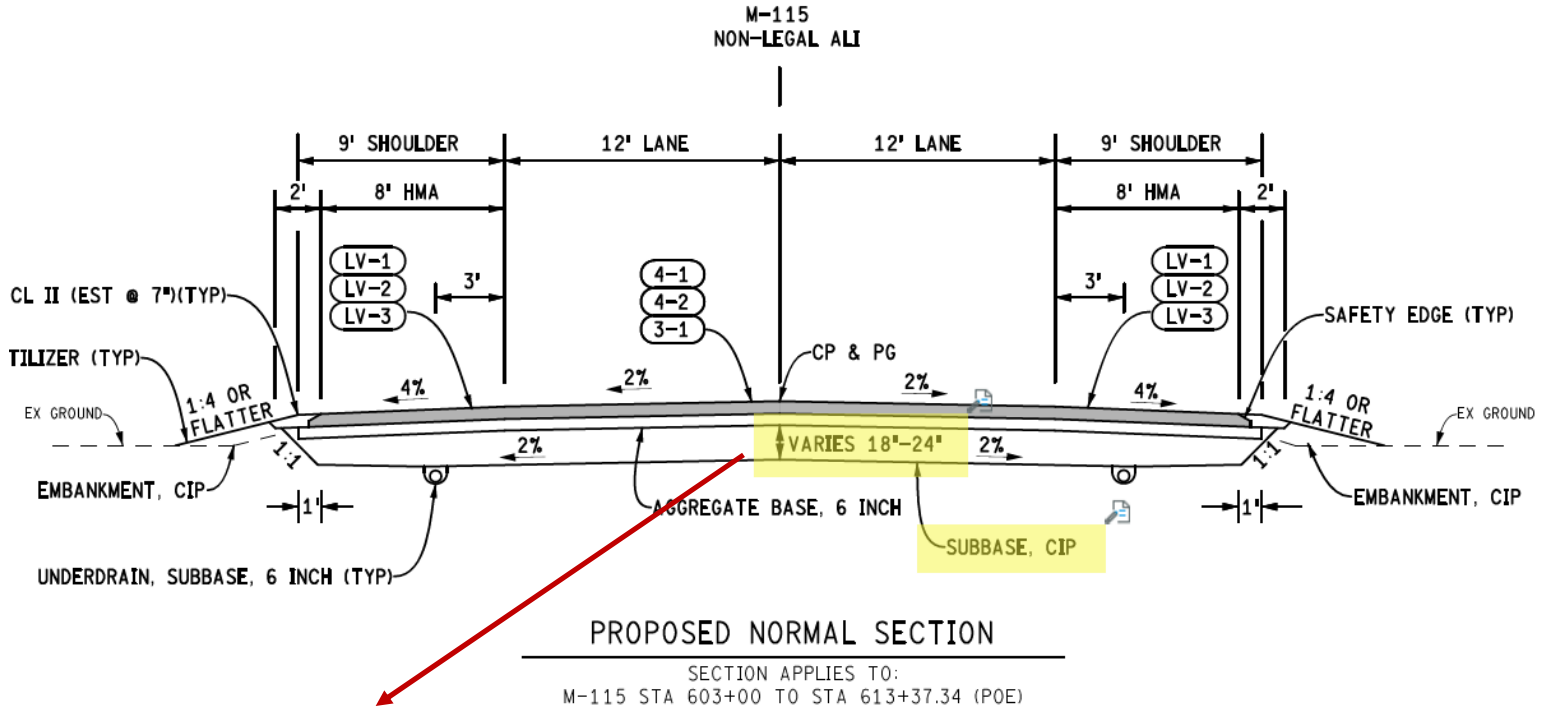
* when defining Surface Type - still need to be entered as a layer in PHD

LANE, SHOULDER/CURB & GUTTER DATA ENTRY

- Partial curb & gutter work – how much requires entry in PHD?
  - **More than 5%** of the total length of the curb & gutter is replaced –
    - Select 'Yes' for Curb & Gutter Work Done (no need to segment on those locations), and
    - Add **comment** that replacement is intermittent

LAYER DATA ENTRY

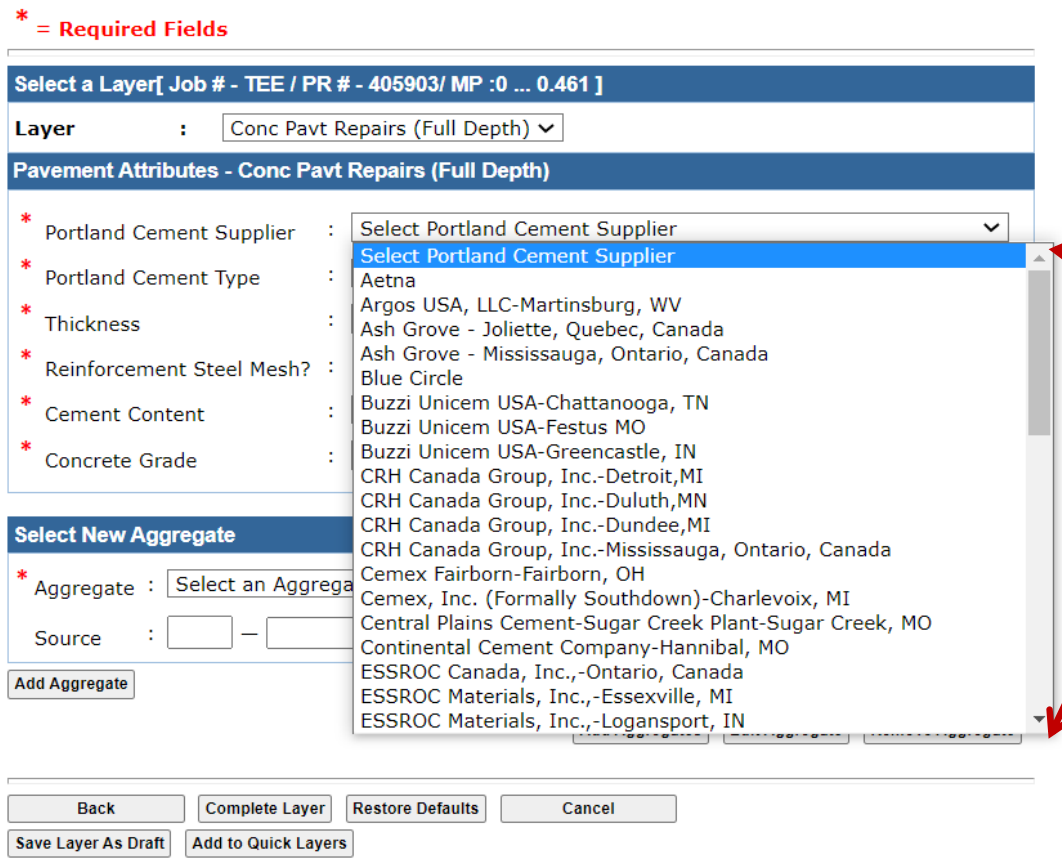
- Layer is variable thicknesses:
  - Use **average** or **predominant thicknesses**
  - Insert a **Segment Comment**



Segment Comments [max 250 characters]	Subbase has a variable depth of 18"-24" in this segment.

GENERAL

- If entry for Layers, measurement units, suppliers, materials, or entry items are ***missing*** in PHD:
  - Contact the **PHD Administrator**

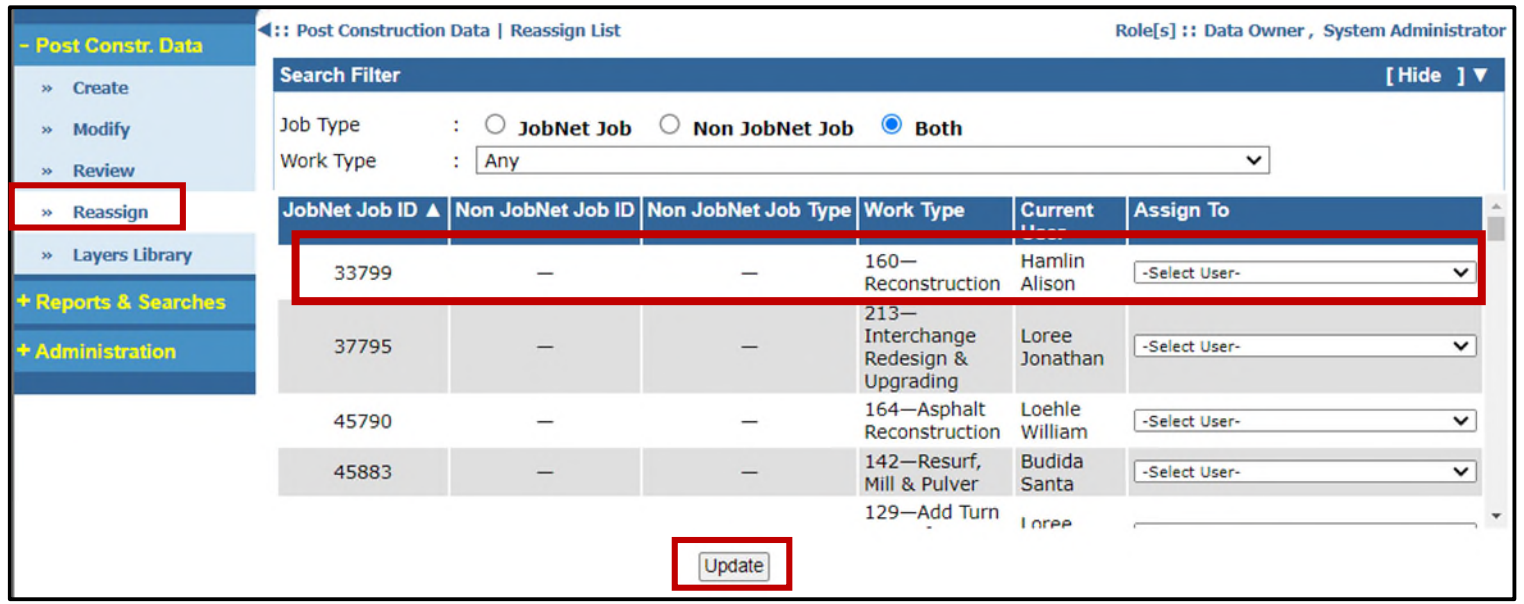


Cannot see the **Cement Supplier name** for my job?

PHD DATA REVIEW & QA

DATA OWNER REVIEW

- ❑ Data Owners review **all** segments/lanes/layers in a job
- ❑ If Data Owner finds errors/omissions:
  - ➢ Data Owner makes changes & Finalize job
  - ➢ **OR** Data Owner reassigns the job back to Data Entry user



COMMON ENTRY ERRORS TO LOOK FOR

- ❑ Incorrect project PR# and milepoints
- ❑ Segments input in the wrong direction
- ❑ Over/Under segmentation
- ❑ Omitted/Missing items:
  - Work items *(example: ramps or pre-overlay work)*
  - Lanes, Shoulder, Curb & Gutter / Layers / Attributes
  - Aggregates from a mix design
  - Warm mix designation (incorrect or missing)

COMMON ENTRY ERRORS TO LOOK FOR

- ❑ Layers:
  - Layers in the wrong order (upside down)
  - Extra/duplicated layers
- ❑ Lane Numbering:
  - Lane 1 not a mainline lane
  - Lane 0, -1, etc. being a mainline lane
- ❑ Incorrect Lane/Shoulder, Curb & Gutter:
  - Surface Type
  - Lane/shoulder Widths
  - Lane Type
- ❑ Copying errors

CENTRAL OFFICE QA

- QA begins immediately following the ***January 31st*** entry closing date
- Two Part evaluation process:

Part 1
Completeness

Part 2
Accuracy

- QA expected to take approximately ***three months*** to complete (ends around ***April***)

CENTRAL OFFICE QA

❑ Part 1 – Completeness

- Are all pavement jobs **entered**?
  - Info compared from **JobNet Database** to **PHD Database**
  - Discrepancies e-mailed to verify if job(s) should be entered
  - **Data Entry user** enters missing job

❑ Part 2 – Accuracy

- Are jobs **entered correctly**?
  - Completed PHD projects are **sampled at random*** for each Region
  - Compare construction documents (**plans** & other **PWise resources)** to PHD
  - Possible errors are sent to the **Data Entry user** to verify/correct

**** Accounts for approx. 15% of all entered jobs. This is not a verification of all jobs.***

DATA EXPORT & REPORTS

PHD REPORTS AND SEARCHES

❑ PHD Reports and Searches:

- Export Data – generates selectable data items (Excel)
- Search Segment(s) – finds segments within finalized jobs
- Construction History Report – generates segment/job info (Excel or PDF)
- Material Information Report – finds segments per materials (PDF or Excel)
- Material Quantity Report – quantities of HMA and PCC per time period (PDF or Excel)
- Network Inventory Report – lane-miles of rigid/flexible/comp lanes or shoulders (PDF or Excel)
- Work Type Report – finds segments by work type code (PDF or Excel)
- JobNet Reconciliation – finds jobs from JobNet (MAP) which are not entered into PHD (PDF)

EXPORT DATA

- Search and export any **MDOT's trunkline road segment** to view **pavement cross-section**, **materials**, **maintenance history**, etc.
- Search segment data by geographic area (Statewide, Region, TSC, or County)
- Various Export Types:
- *Reports in **Excel** format*
- Report per **segment info** (PR#, MPs, Route, etc.)

Export Type	Selectable Items (Column Headers)	
Job Details	• Non MAP Job Type • Special Project Type • National Pavement Study Number • State Pavement Study Number • Work Type Code	• Work Type Code Description • Date (Open to Traffic) • Date Type • Fix Life • Project Comment
Lane: Layers & Details	• Year (Constructed) • Lane Number • Lane Surface Type • Lane Width	• Lane Type • Layer Number • Layer Name • Attributes (Name & Value)
Lane: Aggregates	• Year (Constructed) • Lane Number • Lane Surface Type • Layer Number	• Layer Name • Aggregate Name • Source/Pit Number
Shoulder: Layers & Details	• Side Indicator • Surface Type • Corrugations (Rumble Strip) • Parking Lane • Paved Width • Total Width	• Paved Thickness • Paving Width • Layer Number • Layer Name Attributes (Name & Value)
Shoulder: Aggregates	• Side Indicator • Surface Type • Layer Number	• Layer Name • Aggregate Name • Source/Pit Number
Curb & Gutter: Details	• Side Indicator • Attributes (Name & Value)	
Median: Details	• Median Type • Median Width	

EXPORT DATA (EXAMPLES)

- Export Type – **Job Details**

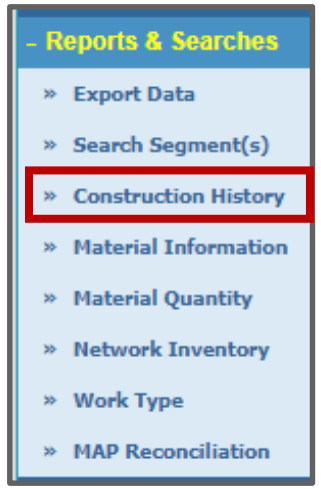
	C	D	E		H	I	J	L	M	N	O	R	S	T	V
1	PR Number	PR BMP	PR EMP	Road Name	County	TSC	Region	MAP Job ID	Non MAP Job ID	Non MAP Job Type	Special Project Type	Work Type Code	Work Type Description	Date (Open to Traffic)	Fix Life
49	535604	0.598	1.387	N I 75 BL	Crawford	Gaylord	North	204234				45	Asphalt Crack Treatment	7/24/2019	1
50	535604	1.387	1.472	N I 75 BL	Crawford	Gaylord	North	204234				45	Asphalt Crack Treatment	7/24/2019	1
51	535604	1.467	3.256	N I 75 BL	Crawford	Gaylord	North	131781				40	Milling & One Course Asphalt Ove	11/1/2018	10
52	535604	3.256	4.015	N I 75 BL	Crawford	Gaylord	North	131781				40	Milling & One Course Asphalt Ove	11/1/2018	10
53	535604	4.017	5.5	N I 75 BL	Crawford	Gaylord	North	200685				44	Single Course Chip Seal	6/13/2019	6
54	535604	5.5	5.58	N I 75 BL	Crawford	Gaylord	North	200685				44	Single Course Chip Seal	6/13/2019	6
55	1283009	0.283	1.96	S Burkett Rd	Missaukee	Traverse City	North		21-3123	TWA		15	Shoulder Rehabilitation	9/29/2021	14
56	1283009	0.3	2.138	S Burkett Rd	Missaukee	Traverse City	North	210772				45	Asphalt Crack Treatment	7/14/2021	3
57	1283009	1.96	1.997	S Burkett Rd	Missaukee	Traverse City	North		21-3123	TWA		15	Shoulder Rehabilitation	9/29/2021	14
58	1283009	1.997	2.018	S Burkett Rd	Missaukee	Traverse City	North		21-3123	TWA		15	Shoulder Rehabilitation	9/29/2021	14

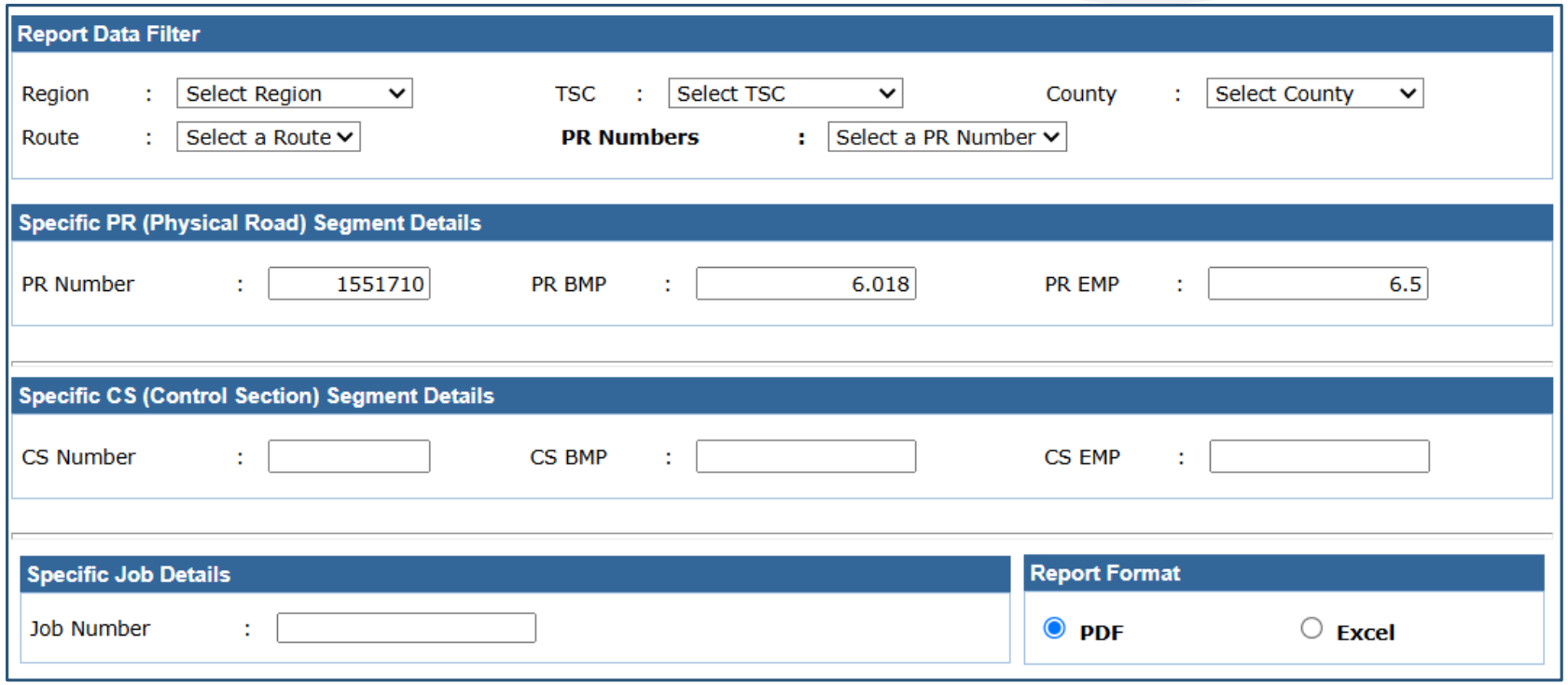
- Export Type – **Lane: Layer Details**

	A	B	C	D	E	F	G	H	I	J	K	M	N	O
1	PR Number	PR BMP	PR EMP	Road Name	County	TSC	Region	MAP Job ID	Year (Constructed)	Lane Number	Lane Surface Type	Layer Name	Attribute	Value
2	935207	25.359	26.023	W I 96	Livingston	Brighton	University	212727	2021	1	HMA over existing Jointed Conc	Overband CrackFill Stand Alone	Overband Crack Fill Product	WR Meadows 1190 (W.R. Meadows, Inc.)
6	935105	25.308	26.293	E I 96	Livingston	Brighton	University	212727	2021	1	HMA over existing Jointed Conc	Overband CrackFill Stand Alone	Overband Crack Fill Product	WR Meadows 1190 (W.R. Meadows, Inc.)
7	935105	26.501	26.695	E I 96	Livingston	Brighton	University	212727	2021	1	HMA over existing Jointed Conc	Overband CrackFill Stand Alone	Overband Crack Fill Product	WR Meadows 1190 (W.R. Meadows, Inc.)
8	935105	26.968	27.461	E I 96	Livingston	Brighton	University	212727	2021	1	HMA over existing Jointed Conc	Overband CrackFill Stand Alone	Overband Crack Fill Product	WR Meadows 1190 (W.R. Meadows, Inc.)
15	1551710	6.018	6.5	US 2	Dickinson	Crystal Fal	Superior	208474	2021	1	HMA over existing Jointed Conc	HMA Top Course	Asphalt Binder	PG 58-28
16	1551710	6.018	6.5	US 2	Dickinson	Crystal Fal	Superior	208474	2021	1	HMA over existing Jointed Conc	HMA Top Course	Asphalt Binder Certified Supplier	Husky Energy, Rhinelander, WI
17	1551710	6.018	6.5	US 2	Dickinson	Crystal Fal	Superior	208474	2021	1	HMA over existing Jointed Conc	HMA Top Course	Mix Design No. (Case Sensitive)	21MD194
18	1551710	7.169	8.242	US 2	Dickinson	Crystal Fal	Superior	208474	2021	1	HMA over existing Jointed Conc	HMA Top Course	Asphalt Binder	PG 58-28
19	1551710	7.169	8.242	US 2	Dickinson	Crystal Fal	Superior	208474	2021	1	HMA over existing Jointed Conc	HMA Top Course	Asphalt Binder Certified Supplier	Husky Energy, Rhinelander, WI
20	1551710	7.169	8.242	US 2	Dickinson	Crystal Fal	Superior	208474	2021	1	HMA over existing Jointed Conc	HMA Top Course	Mix Design No. (Case Sensitive)	21MD194

CONSTRUCTION HISTORY REPORT

- Report shows all completed projects for a specific route/location
- Search by PR#, CS#, or Job #
- *Report in **PDF & Excel format***





Segment Details

Region	TSC	County	Route	PR Number	PR BMP	PR EMP
Superior	Ishpeming	Houghton	M-26	1175102	0	4.000

Job Number	① Work Type	Fix Life (Yrs)	Cost[1] / Lane Mile ($)	Date
124067	400 - Multiple Course Chip Seal	7	0.00	07/28/2015[a]

Job Number	② Work Type	Fix Life (Yrs)	Cost[1] / Lane Mile ($)	Date	Lanes
202213	456 - Asphalt Crack Treatment	3	2,585.18	09/10/2018[a]	2

Job Number	③ Work Type	Fix Life (Yrs)	Cost[1] / Lane Mile ($)	Date	Lanes
208494	443 - One Course Asphalt Overlay	10	115,580.84	09/30/2023[a]	2

Year Constructed	Pavement	Attribute	Value
2018	Overband CrackFill Stand Alone	Overband Crack Fill Product	1190 (Right Pointe)

Pavement	Attribute	Value	Aggregate	Pit / Source
HMA Top Course	AWI (Actual)	327	1/4 MS	31-077
	Application Rate	165 Pounds Per Square Yard	WNS	31-077
	Asphalt % (Total)	5.84	1/2 x 1/4	31-077
	Asphalt Binder	PG 58-34	Nat Sand	31-077
	Asphalt Binder %Added (Virgin)	4.43		
	Asphalt Binder Certified Supplier	Const. Resources Management, Inc., Gladstone, MI		
	Mix Design No. (Case Sensitive)	22MD319		
	Mix Type - HMA Top Course	5EL		
	Shingles Used	N		
	Warm Mix	N		

MATERIAL INFORMATION REPORT

- Finds road segments that have specified **layers** or **layer attributes** for a geographic area
  - Geographic areas include Statewide, Regions, TSCs, and Counties
- *Report in **PDF** or **Excel format***

Material Information Report

Report Criteria [Region: Grand / TSC: Cadillac]

Pavement	Attribute	Attribute Value
HMA Top Course	Asphalt Binder	PG 70-28P

Report Date:

Job Number	Route	County	PR Number	PR BMP	PR EMP	Date	RSL	Year RSL	Work Type
204067	M-66	Mecosta	526107	8.86	8.891	2020-06-19 00:00:00.0	-	-	408 - "Milling & One Course Asphalt Overlay"
204067	M-66	Mecosta	526107	8.86	8.891	2020-06-19 00:00:00.0	-	-	408 - "Milling & One Course Asphalt Overlay"
204067	M-66	Mecosta	526107	9.088	9.221	2020-06-19 00:00:00.0	-	-	408 - "Milling & One Course Asphalt Overlay"
204067	M-66	Mecosta	526107	8.966	9.088	2020-06-19 00:00:00.0	-	-	408 - "Milling & One Course Asphalt Overlay"
204067	M-66	Mecosta	526107	8.966	9.088	2020-06-19 00:00:00.0	-	-	408 - "Milling & One Course Asphalt Overlay"
204208	M-20	Mecosta	524902	3.214	3.401	2021-06-18 00:00:00.0	-	-	440 - "Single Course Chip Seal"
204208	M-20	Mecosta	524902	3.154	3.214	2021-06-18 00:00:00.0	-	-	440 - "Single Course Chip Seal"
204208	M-20	Mecosta	524902	3.154	3.214	2021-06-18 00:00:00.0	-	-	440 - "Single Course Chip Seal"
204208	M-20	Mecosta	524902	3.401	3.496	2021-06-18 00:00:00.0	-	-	440 - "Single Course Chip Seal"
204208	M-20	Mecosta	524902	3.401	3.496	2021-06-18 00:00:00.0	-	-	440 - "Single Course Chip Seal"
204208	M-20	Mecosta	524902	3.154	3.214	2021-06-18 00:00:00.0	-	-	440 - "Single Course Chip Seal"
204208	M-20	Mecosta	524902	3.154	3.214	2021-06-18 00:00:00.0	-	-	440 - "Single Course Chip Seal"
208279	M-82	Newaygo	712309	4.922	4.958	2021-05-19 00:00:00.0	-	-	164 - "Asphalt Reconstruction"
208279	M-82	Newaygo	712309	4.922	4.958	2021-05-19 00:00:00.0	-	-	164 - "Asphalt Reconstruction"
208279	M-82	Newaygo	712309	4.971	5.01	2021-05-19 00:00:00.0	-	-	164 - "Asphalt Reconstruction"
208279	M-82	Newaygo	712309	4.849	4.922	2021-05-19 00:00:00.0	-	-	164 - "Asphalt Reconstruction"
208279	M-82	Newaygo	712309	4.958	4.971	2021-05-19 00:00:00.0	-	-	164 - "Asphalt Reconstruction"
208279	M-82	Newaygo	712309	4.958	4.971	2021-05-19 00:00:00.0	-	-	164 - "Asphalt Reconstruction"

MATERIAL QUANTITY REPORT

- **Compares** quantities of **HMA** and **PCC** placed during a specified time period in a geographic location
- *Report in **PDF** or **Excel format***

Material Quantity Report

Report Criteria

Region	TSC	From Year	To Year
Metro	All TSCs	2017	2020

Report Data

Region	TSC	Lane Miles (miles)		Volume (cu. yds) / Tonnage (tons)		Area (sq. yds)	
		PCC	HMA	PCC	HMA	PCC	HMA
Metro	Detroit	27.33	74.92	190,820.39	530,680.44	65,329.29	49,037.00
Metro	Oakland	0.00	11.51	0.00	79,633.78	0.00	8,334.13
Metro	Taylor	0.03	0.95	315.96	6,607.18	105.32	545.09
Metro	Macomb	0.00	127.02	0.00	885,264.65	0.00	121,652.40
Metro Region Totals		27.36	214.40	191,136.34	1,502,186.06	65,434.61	179,568.62

RESOURCES

RESOURCES

ProjectWise (PWise):	• https://mdotjboss.state.mi.us/SpecProv/projectwisesupport.htm • Plans/proposal/addendum • Pay Items/Tickets/Field Notes/Mix Designs
Construction Inquiry System:	• https://mdotjboss.state.mi.us/CCI/home.htm • Summary of project items (pay items completed)
PR finder:	• https://mdotgis.state.mi.us/portal/apps/webappviewer/index.html?id=c3aa2462a1e24e37a33184a33e5976aa • Find PR via CS, intersection, road name, interactive map
JobNet	• https://miloginworker.michigan.gov/uisecure/selfservice • Find programmed MDOT jobs

PHD WEBSITE

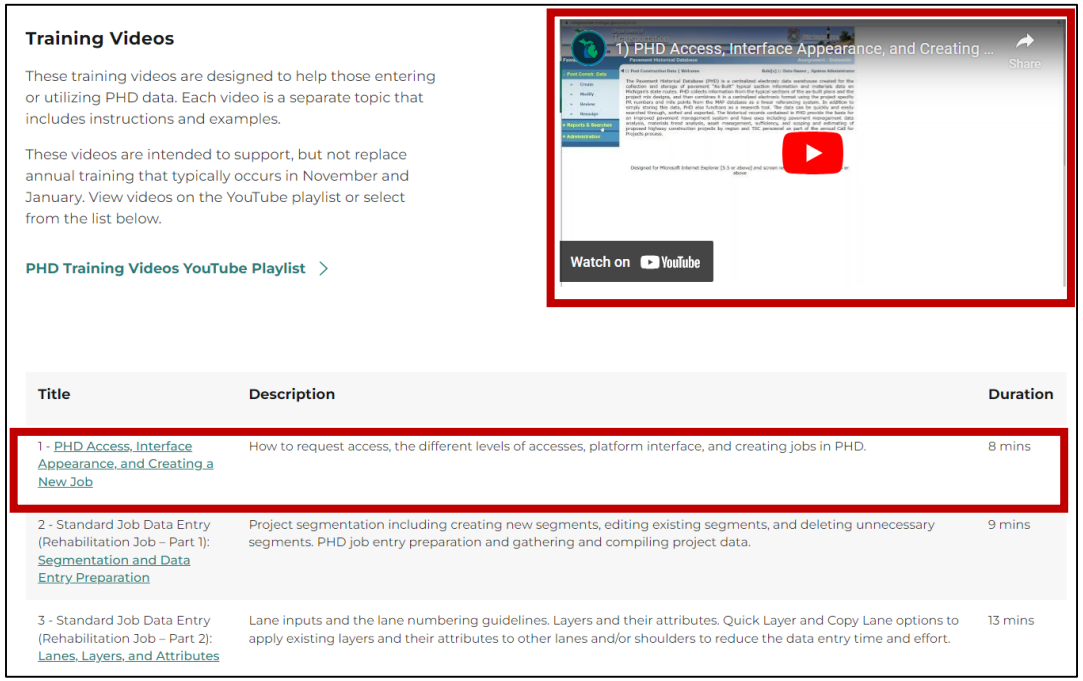
❑ Public:

- https://www.michigan.gov/mdot/business/construction/pavement-operations/pavement-historical-database

❑ MDOT Internal:

- https://stateofmichigan.sharepoint.com/sites/MDOT-SPC-Bureau-Field-Services/SitePages/Pavement-Operations.aspx

  - Links to Resources
  - Helpful Documents:
    - PHD User Guide
    - FAQ, Business Rules
    - Quick Reference Guide
    - PHD Attribute Locations
  - Training Presentations
  - Training/instructional videos



Training Videos

These training videos are designed to help those entering or utilizing PHD data. Each video is a separate topic that includes instructions and examples.

These videos are intended to support, but not replace annual training that typically occurs in November and January. View videos on the YouTube playlist or select from the list below.

PHD Training Videos YouTube Playlist >

Title	Description	Duration
1 - PHD Access, Interface Appearance, and Creating a New Job	How to request access, the different levels of accesses, platform interface, and creating jobs in PHD.	8 mins
2 - Standard Job Data Entry (Rehabilitation Job – Part 1): Segmentation and Data Entry Preparation	Project segmentation including creating new segments, editing existing segments, and deleting unnecessary segments. PHD job entry preparation and gathering and compiling project data.	9 mins
3 - Standard Job Data Entry (Rehabilitation Job – Part 2): Lanes, Layers, and Attributes	Lane inputs and the lane numbering guidelines. Layers and their attributes. Quick Layer and Copy Lane options to apply existing layers and their attributes to other lanes and/or shoulders to reduce the data entry time and effort.	13 mins

ADMINISTRATOR CONTACT

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- Phone: 517-599-1498
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Justin Schenkel

- Phone: 517-242-2788
- E-mail: schenkelj@michigan.gov

REGION PHD LIAISONS

Region PHD Liaisons can help too!

- Bay: Brett Schlager
- Grand: Richard Cnossen / Bill Loehle
- Metro: Jorind Bardhollari
- North: Margaret Szajner
- Southwest: Kyle Rudlaff
- Superior: Alison Hamlin
- University: Robert Green

PHD TRAINING EVALUATION

- Your feedback is greatly appreciated and will be used to assist us in evaluating and improving future training courses

https://www.research.net/r/KTK6KNZ

FEEDBACK

QUESTIONS

Thank You!

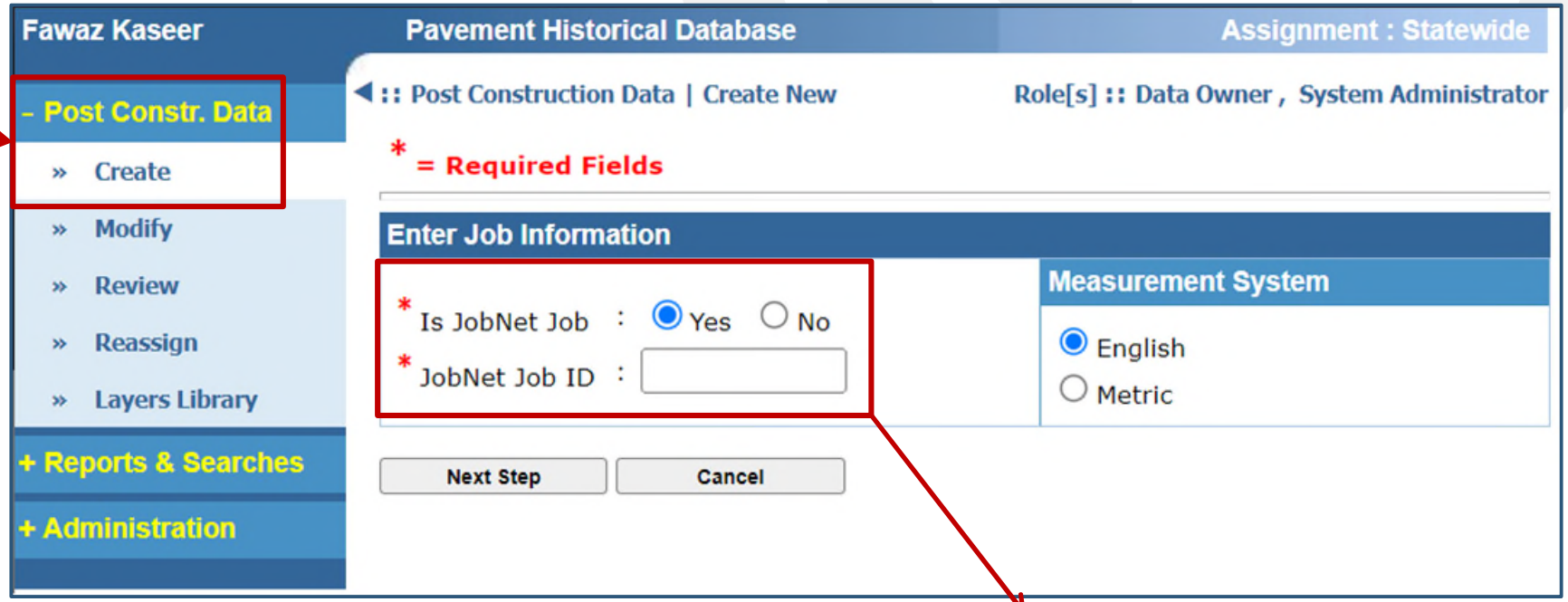
QUESTIONS

APPENDIX
DATA ENTRY PROCESS

CREATE NEW JOB SCREEN

(1) *Navigate to:*

Post Constr. Data
Create



- ❑ For **JobNet jobs**:
  - Job ID is the MDOT Job Number without the 'A', etc.
- ❑ For **Non JobNet** jobs:
  - Job ID naming conventions can be found in the PHD User Guide
  - Job Types: Maintenance, TWA, Warranty, Direct Forces Work, Historic, & Permit

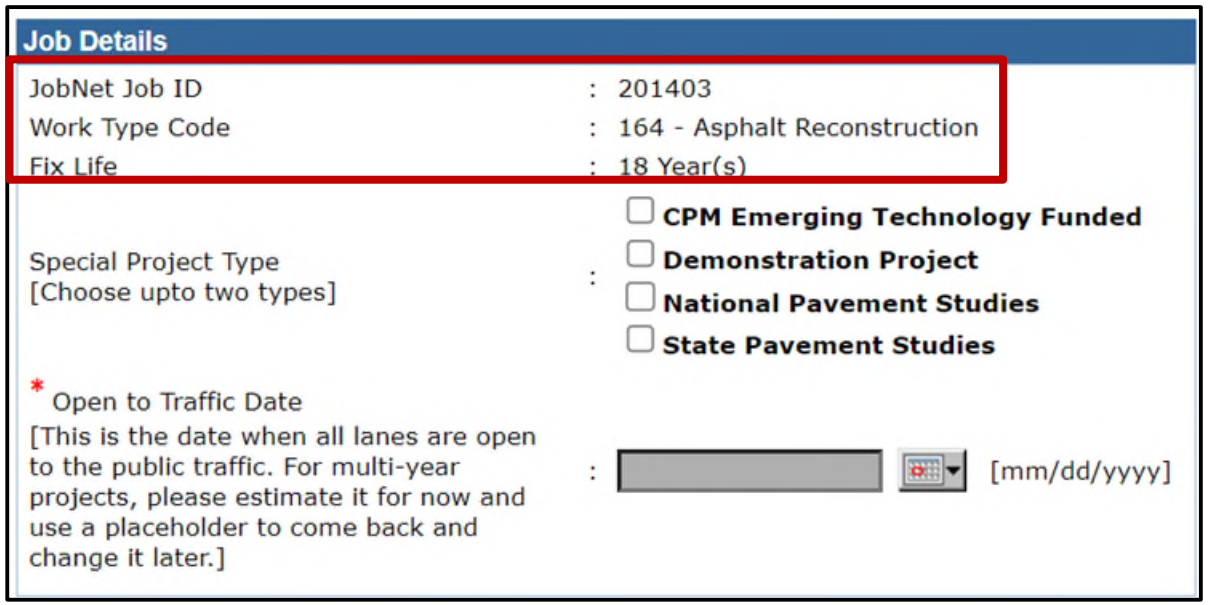
(2) *Select:*

'Yes' for JobNet Job
'No' for Non JobNet Job

JOB DETAILS SCREEN

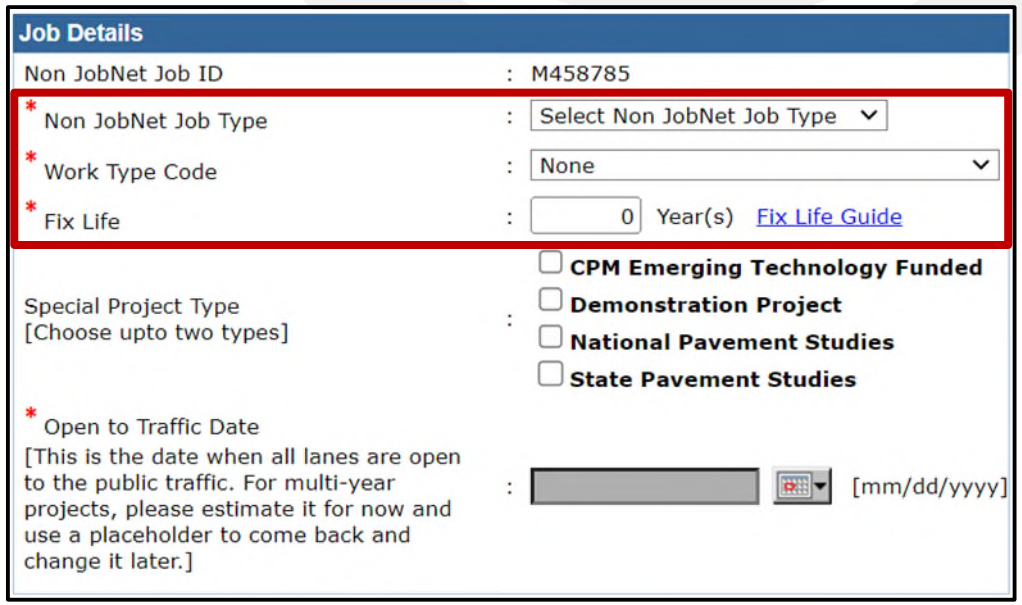
❑ JobNet job:

- *Auto Generated:* Work Type Code & Fix Life
- *User Entered:* Special Project Type, Open to Traffic Date*



❑ Non JobNet job:

- *User select:* Work Type Code*, Special Project Type, Job Type*, Open to Traffic Date*, & Fix Life

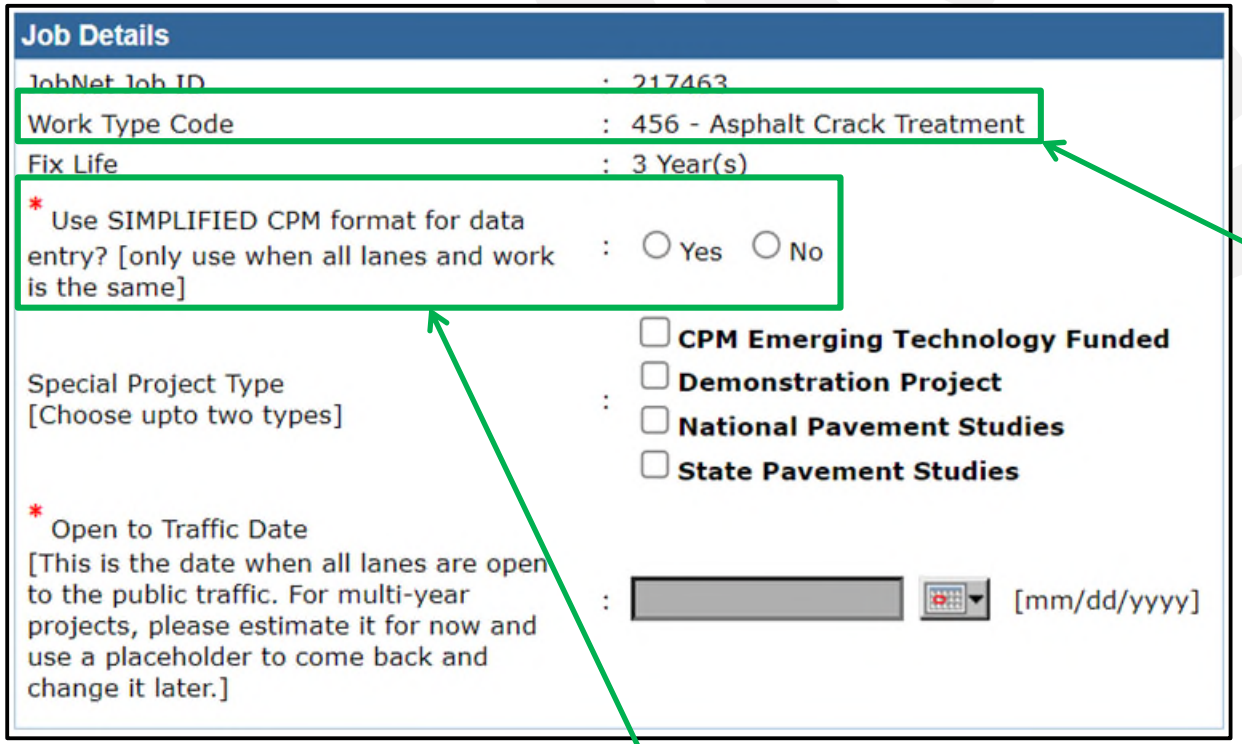


SIMPLIFIED CPM (FOR MAP OR Non MAP JOBS)

- Job must be a **CPM (Capital Preventive Maintenance)** project with Work Type Code **WTC 400 - 499**

- Reduces the amount of data entry:
  - No entry of individual lanes
  - Only enter segment layer information
  - Does not require segment changes based on lane or shoulder changes

- **Note:** this can only be selected once and will remain in the selected format



WTC
400-499

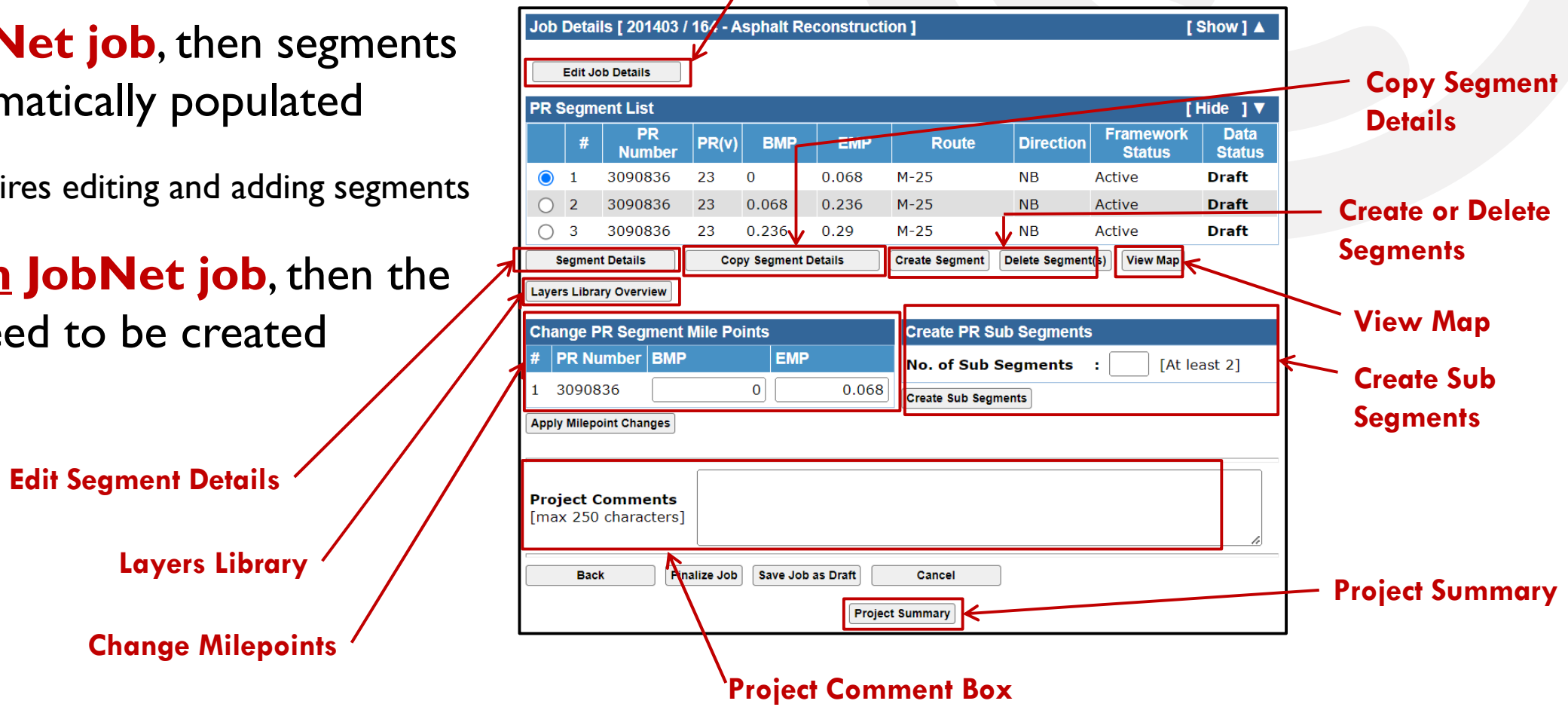
Simplified CPM Check Box
Appears only if WTC is 400-499

SIMPLIFIED CPM (Cont.)

- **Cannot** use Simplified CPM format if the following applies to the job:
  - Does not have **WTC 400 to 499**
  - Lanes have different paved or placed work
  - Has **HMA paving**, which includes these layers:
    - HMA Base Course
    - HMA Leveling Course
    - HMA Top Course
    - HMA Wedge Course
    - HMA Ultra-Thin Overlay
    - Crack Relief Interlayer/DRM
    - Paver Placed Surface Seal

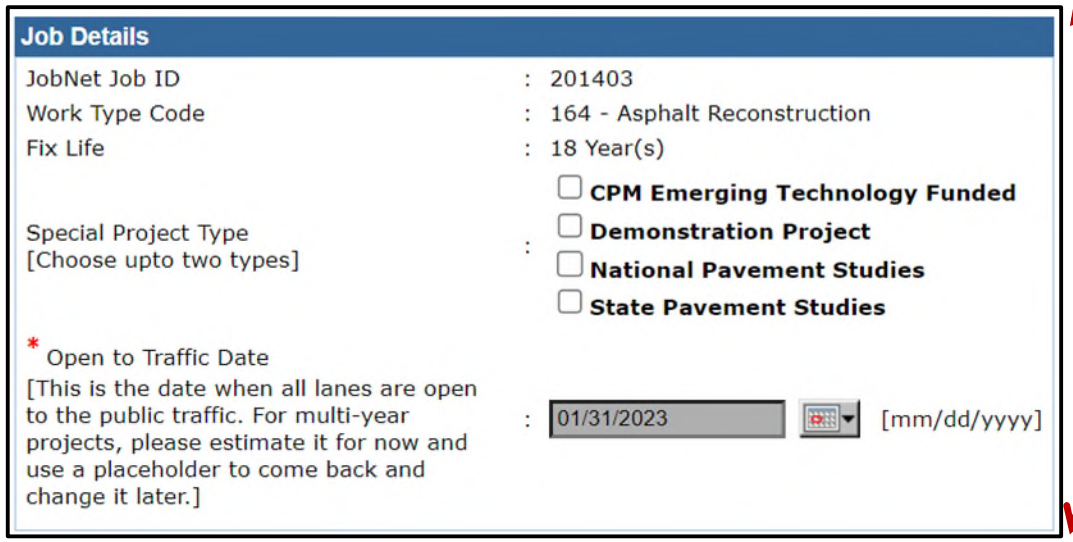
ROAD SEGMENT LIST SCREEN

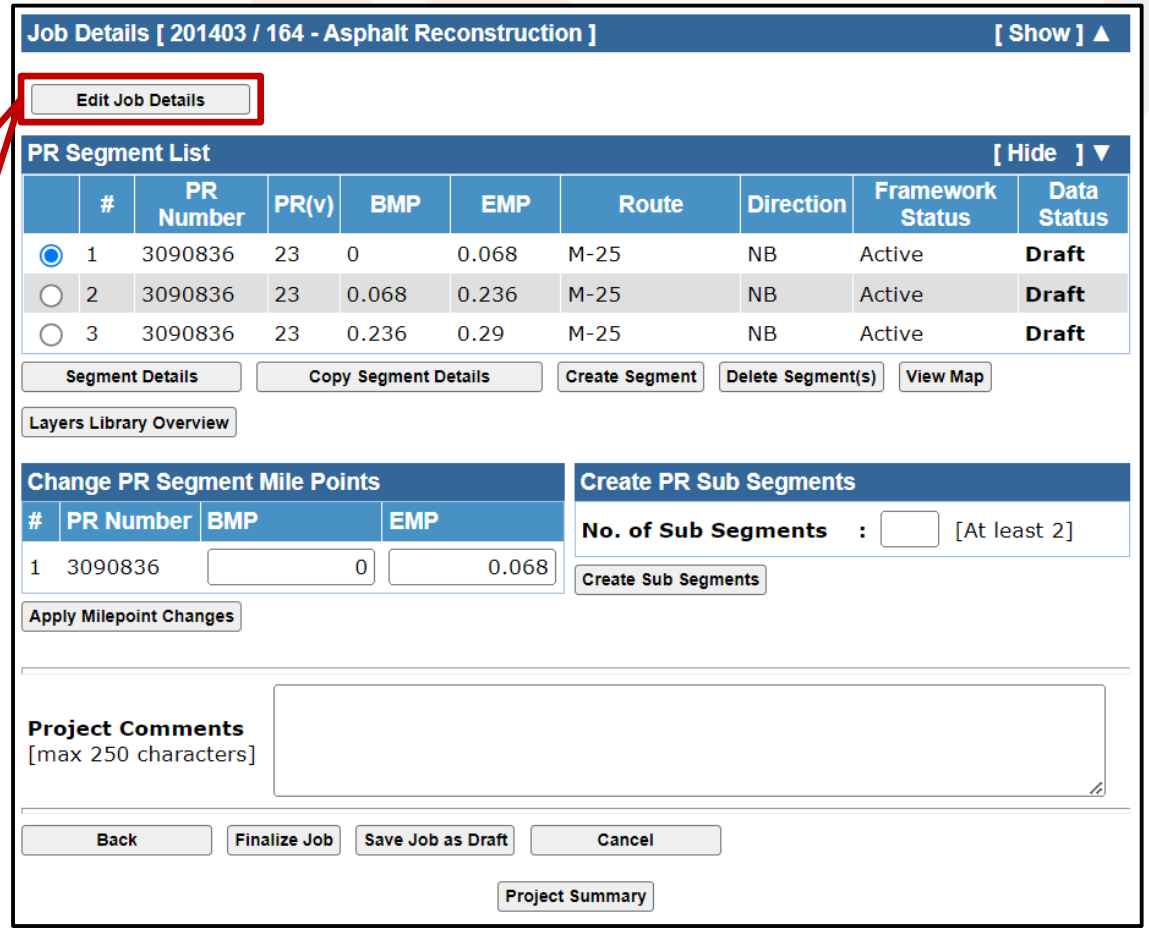
- ❑ This screen appears after creating a job
- ❑ If it is a **JobNet job**, then segments will be automatically populated
  - Likely still requires editing and adding segments
- ❑ If it is a **Non JobNet job**, then the segments need to be created



EDIT JOB DETAILS

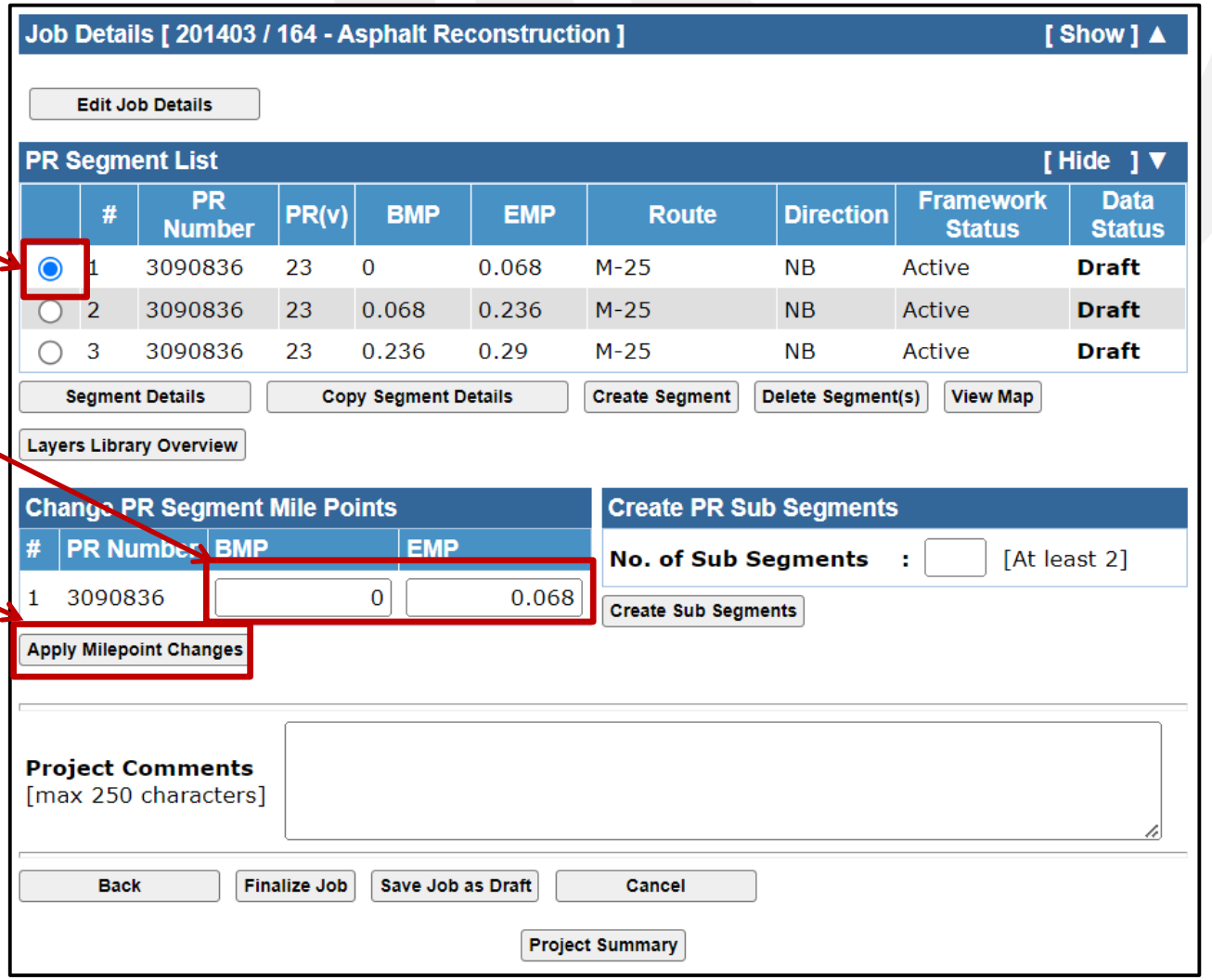
- Returns to the Job Details screen
  - For corrections/changes or review
  - **Note:** ***Simplified CPM*** cannot be changed once job is created. Contact an Administrator if this needs to be changed.





CHANGE PR SEGMENT MILEPOINTS

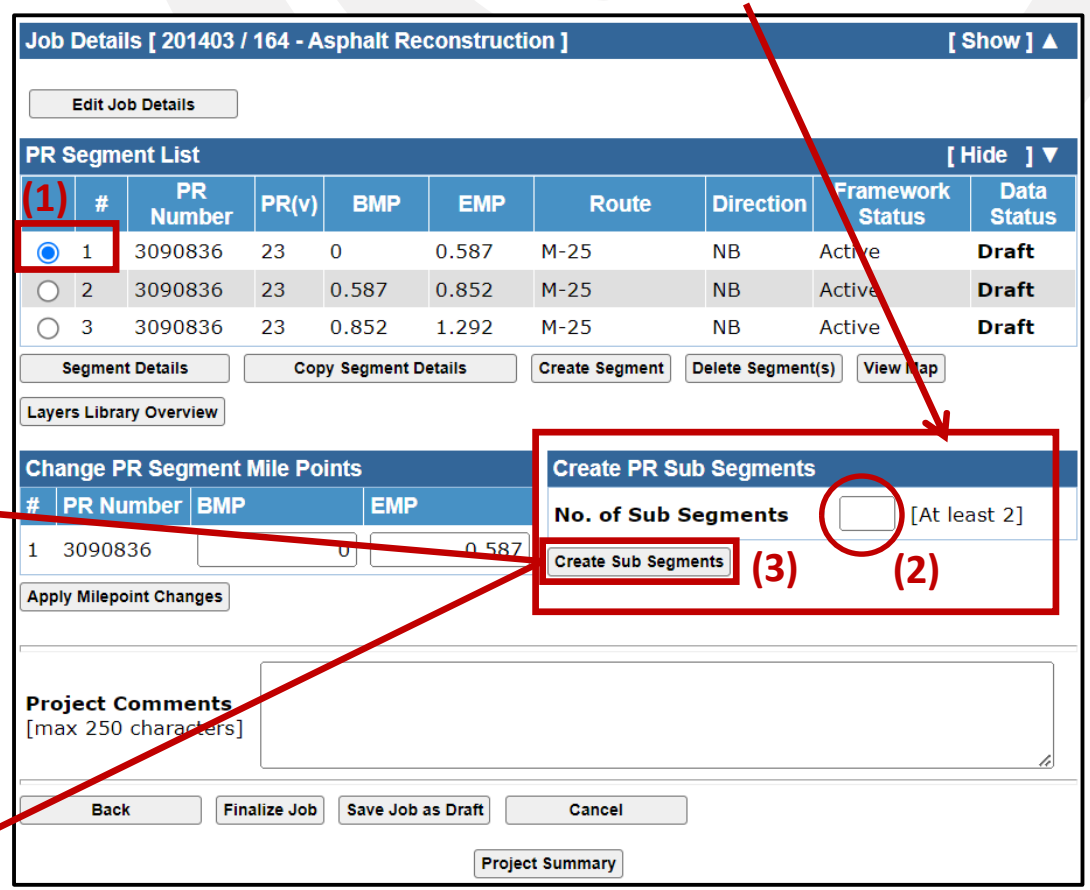
- Select the segment radio button **(1)**
- Change the BMP and/or EMP **(2)**
- Click '*Apply Milepoint Changes*' **(3)**
  - An *error* will occur if a milepoint is added that exceeds the PR length



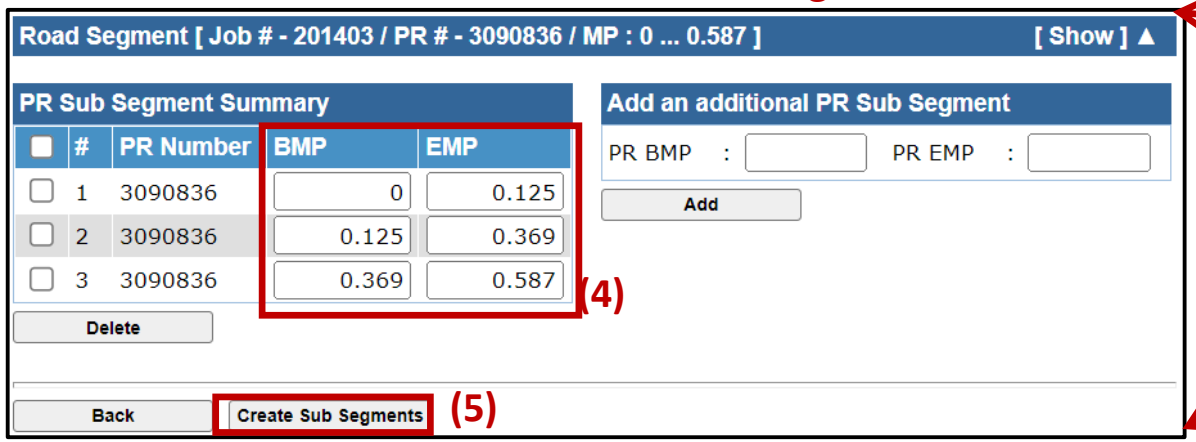
CREATE PR SUBSEGMENTS

- Select the segment radio button **(1)**
- Enter the number of sub segments **(2)**
- Click '*Create Sub Segments*' **(3)**
- Enter BMP & EMP for each new sub segment **(4)**
- Click '*Create Sub Segments*' **(5)**
  - An error will occur if milepoints overlap or exceed the PR length

Create Sub Segments



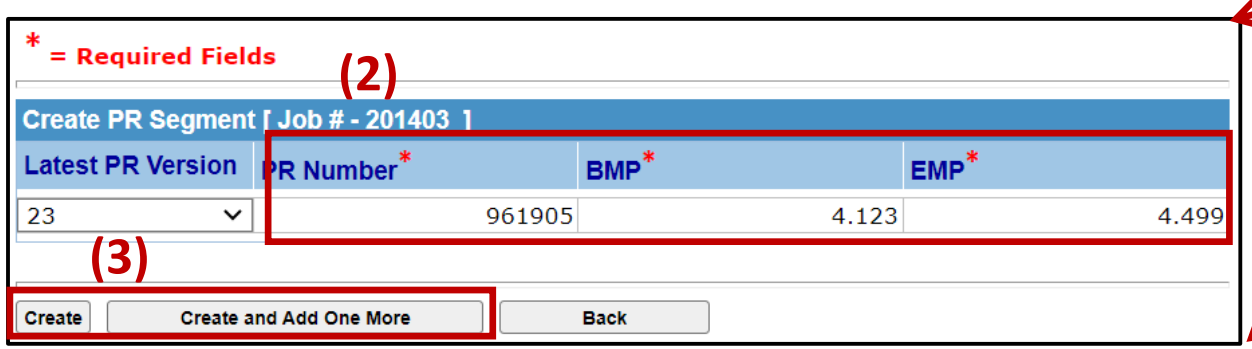
Create Sub Segments screen

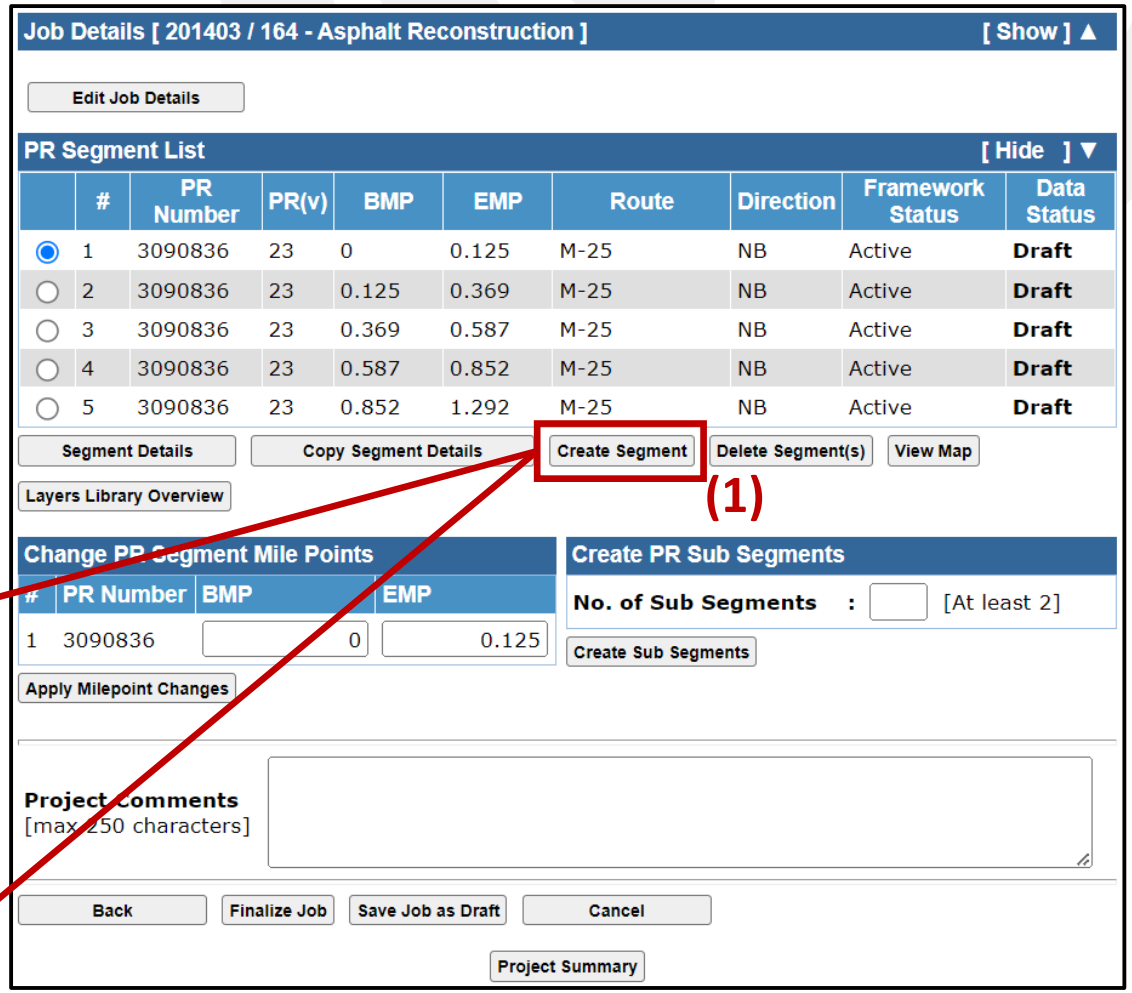


CREATE SEGMENT

- Click '*Create Segment*' **(1)**
- Enter PR Number, BMP, & EMP **(2)**
- Click '*Create*' or '*Create and Add One More*' **(3)**
  - ❖*An error will occur if milepoints exceed the PR length or PR is located outside of user Location Assignment*

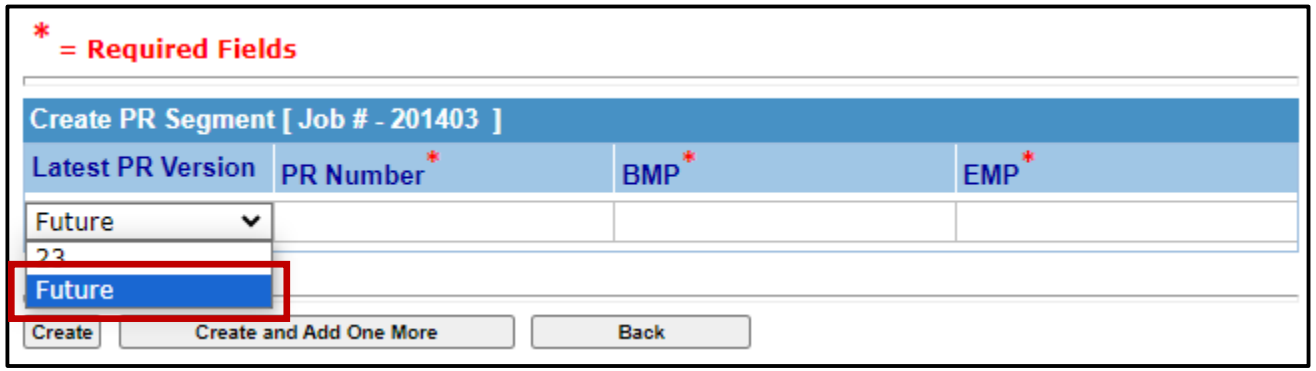
Create PR Segment screen





CREATE SEGMENT

- ❑ If the project has a new ramp, roundabout, or alignment changes
- ❑ The user might not be able to enter/create the segment (with a new PR number or changed MPs)
- ❑ To enter such segment(s):
  - ➢ Select '*Future*'
  - ➢ Enter PR Number, BMP, & EMP
  - ➢ Click '*Create*'



DELETE SEGMENT

- Click '*Delete Segment(s)*' **(1)**
- Check the segment(s) to delete **(2)**
- Click '*Confirm*' (or *Back* to cancel) **(3)**

Delete PR Segment screen

Select segment(s) to delete.

PR Segment Details [Job # - 201403]

	#	PR Number	PR(v)	BMP	EMP	Route	Direction	Framework Status	Data Status
☐	1	961905	23	4.123	4.465	M-19	2 Way	Active	**Draft**
☑	2	961905	23	4.465	4.499	M-19	2 Way	Active	**Draft**
☐	3	3090836	23	0	0.125	M-25	NB	Active	**Draft**
☐	4	3090836	23	0.125	0.369	M-25	NB	Active	**Draft**
☐	5	3090836	23	0.369	0.587	M-25	NB	Active	**Draft**
☐	6	3090836	23	0.587	0.852	M-25	NB	Active	**Draft**
☐	7	3090836	23	0.852	1.292	M-25	NB	Active	**Draft**

(2)

Back | Confirm (3)

Job Details [201403 / 164 - Asphalt Reconstruction] [Show]

Edit Job Details

PR Segment List [Hide]

	#	PR Number	PR(v)	BMP	EMP	Route	Direction	Framework Status	Data Status
◉	1	961905	23	4.123	4.465	M-19	2 Way	Active	**Draft**
○	2	961905	23	4.465	4.499	M-19	2 Way	Active	**Draft**
○	3	3090836	23	0	0.125	M-25	NB	Active	**Draft**
○	4	3090836	23	0.125	0.369	M-25	NB	Active	**Draft**
○	5	3090836	23	0.369	0.587	M-25	NB	Active	**Draft**
○	6	3090836	23	0.587	0.852	M-25	NB	Active	**Draft**
○	7	3090836	23	0.852	1.292	M-25	NB	Active	**Draft**

(1)

Segment Details | Copy Segment Details | Create Segment | Delete Segment(s) | View Map

Layers Library Overview

Change PR Segment Mile Points

#	PR Number	BMP	EMP
1	961905	4.123	4.465

Apply Milepoint Changes

Create PR Sub Segments

No. of Sub Segments : [At least 2]

Create Sub Segments

Project Comments
[max 250 characters]

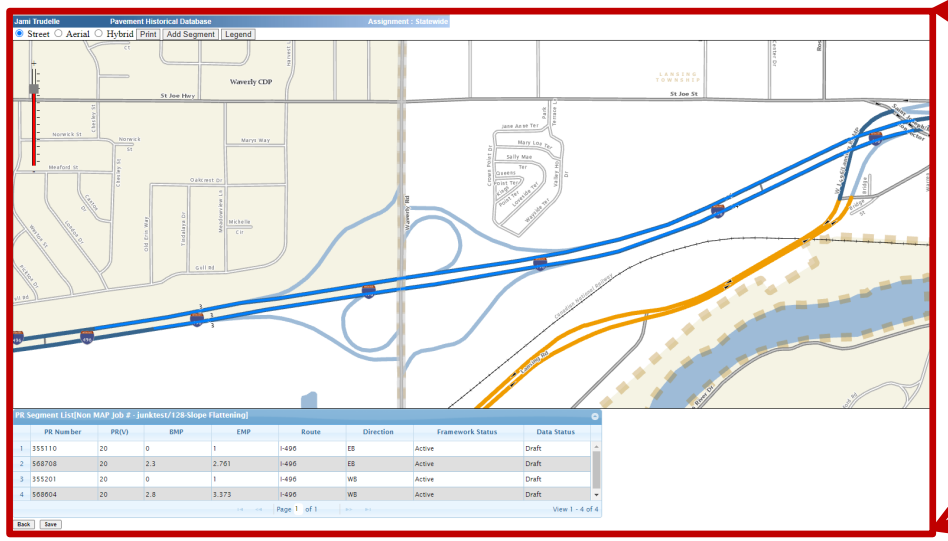
Back | Finalize Job | Save Job as Draft | Cancel

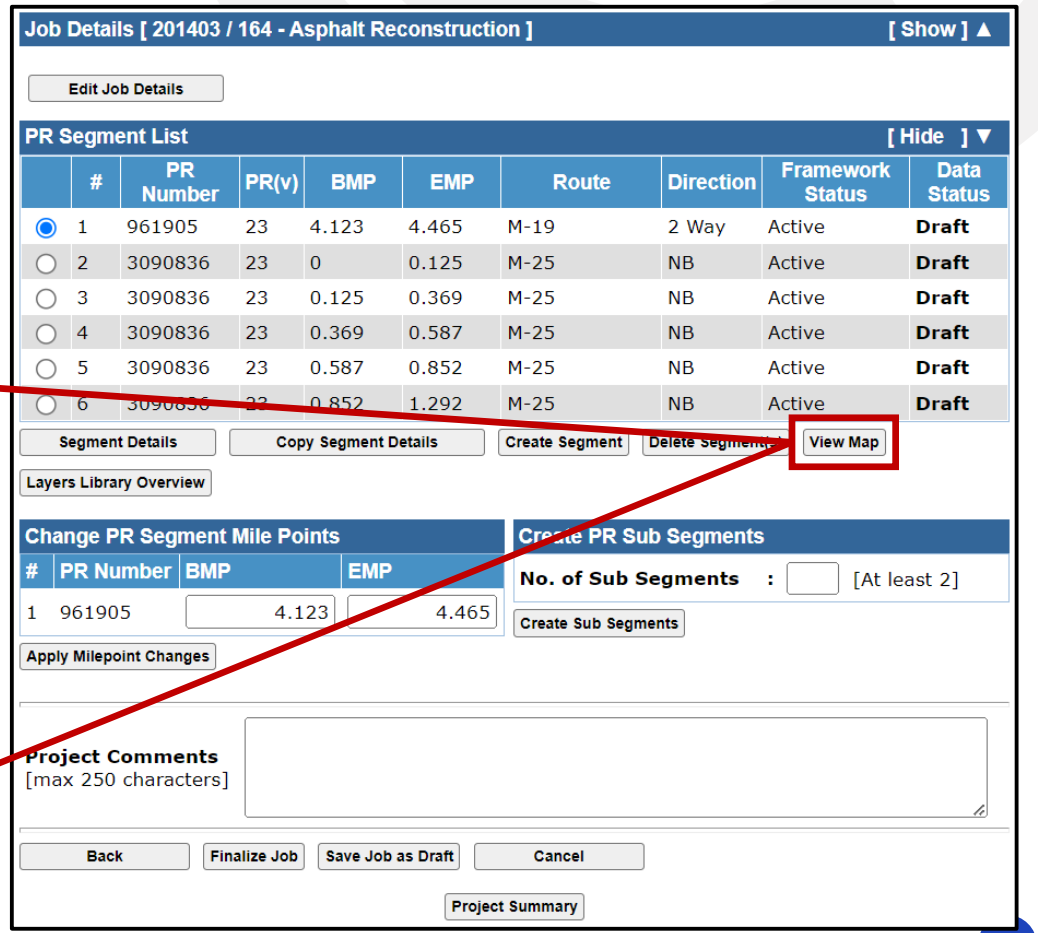
Project Summary

VIEW MAP

- This function shows all Road Segment List segments in a map
- Click '*View Map*'
  - The Map screen will appear
  - Can add new segments, delete segments, change segment milepoints, view/print segments in map

Map screen





VIEW MAP: MAP SCREEN

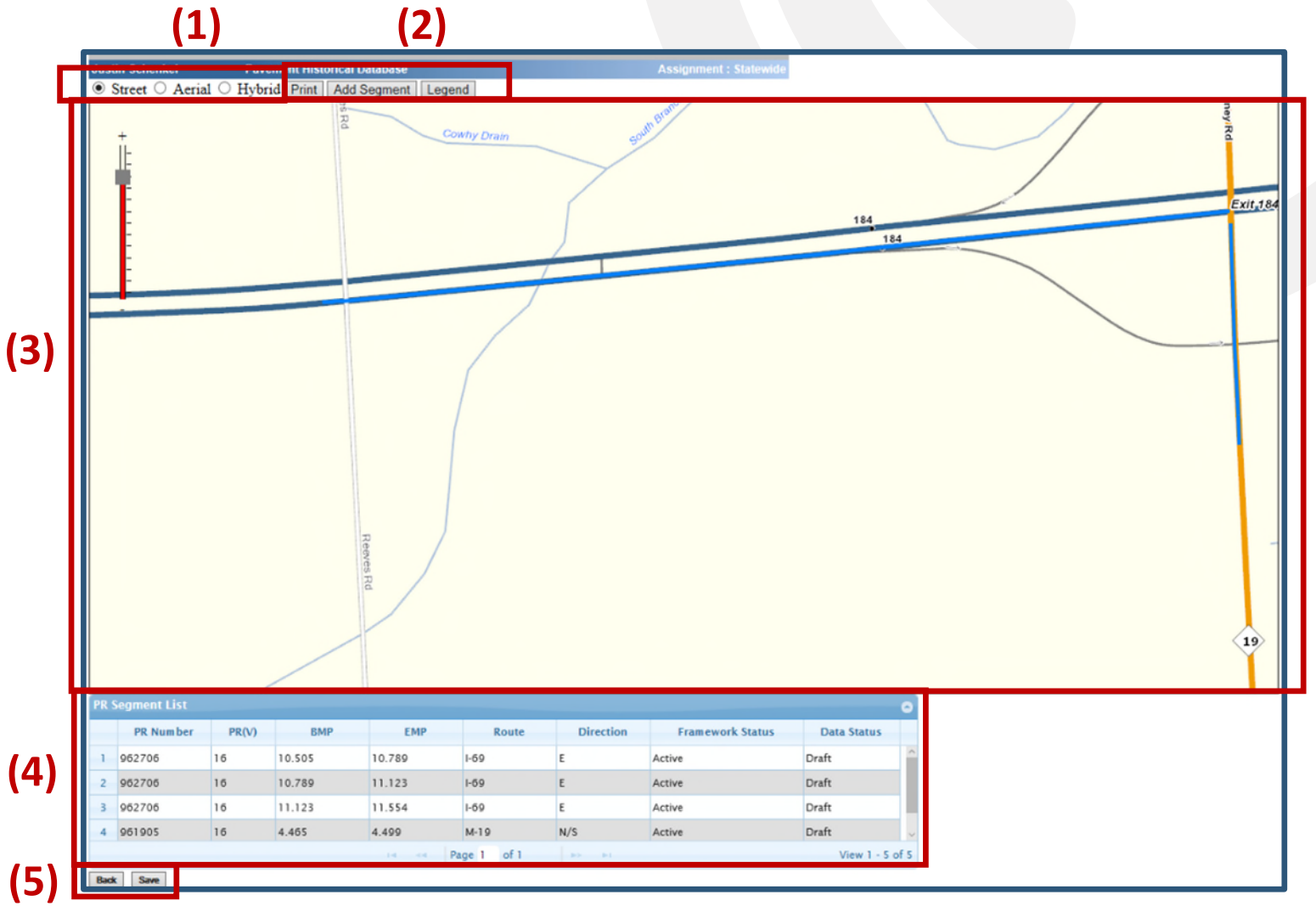
(1) Map View Type

(2) Map Tools

(3) Map

(4) PR Segment List

(5) Back & Save

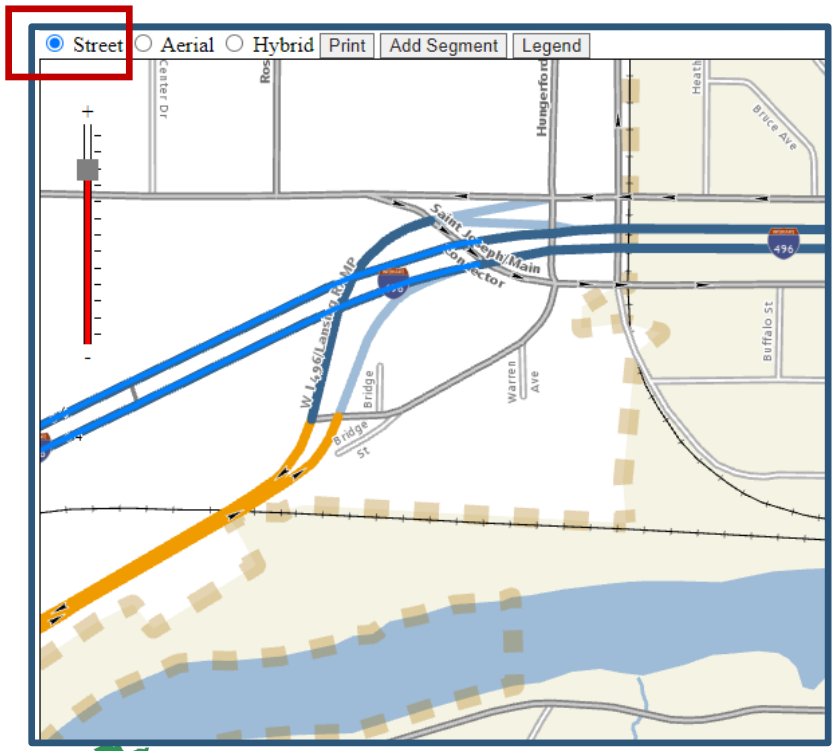


VIEW MAP: MAP SCREEN

❑ Map View Types

- Select the view type radio button to change the map background image

Street

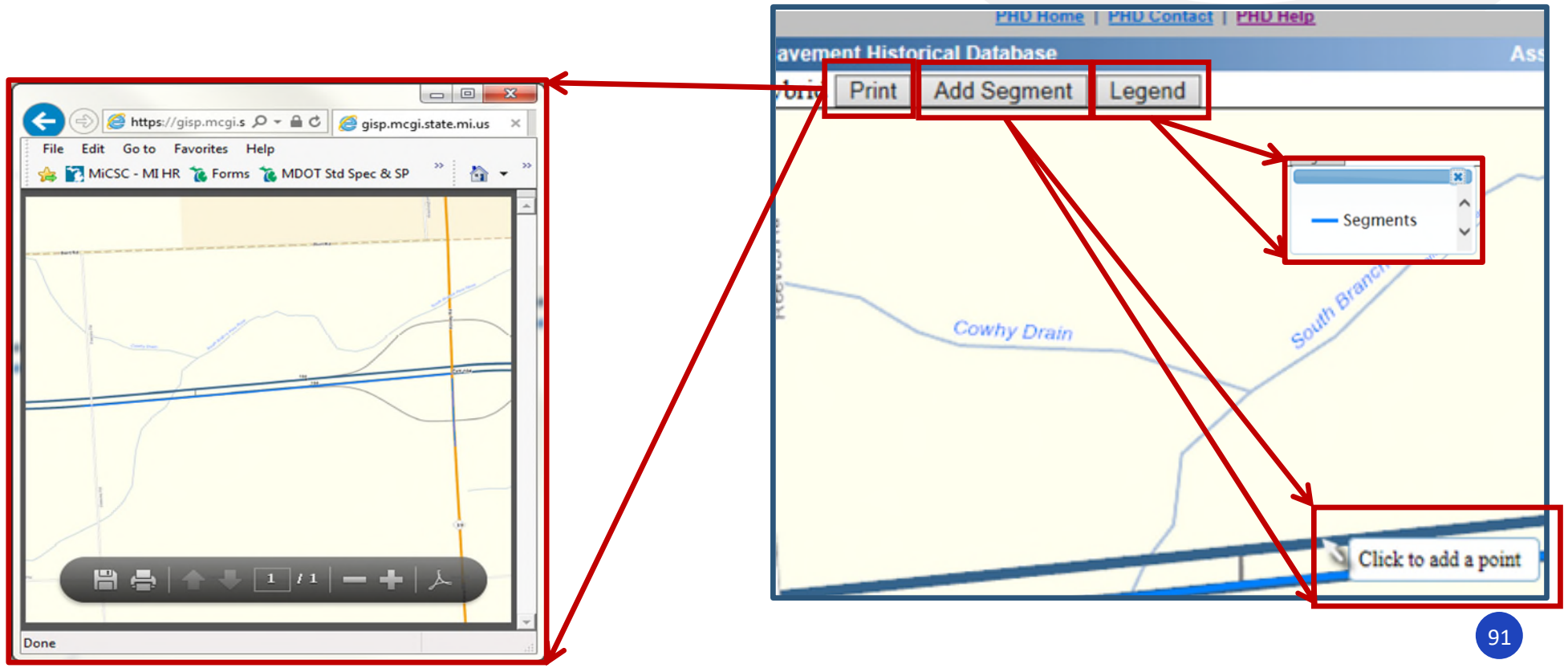


Aerial

Hybrid

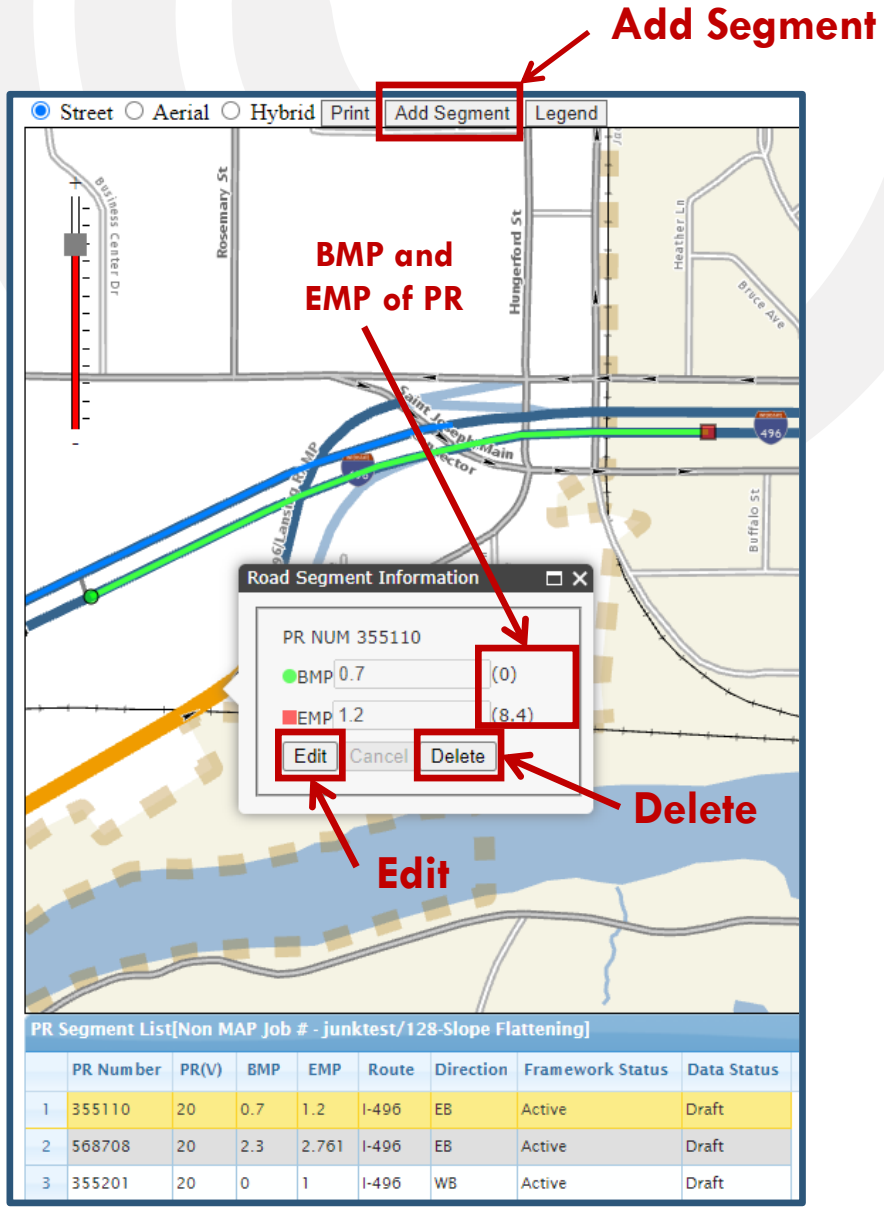
VIEW MAP: MAP SCREEN

- Map Tools
  - Click *Print* to show map image with the segments in a new PDF pop-up window
    - May take 20-30 seconds to load the first print. Following prints should be faster.
  - Click *Add Segment* to add new segments to the PHD job
    - Select the location within the map to add segment. Repeat to add new segments.
  - Click *Legend* to view the meanings of the different colors within the map



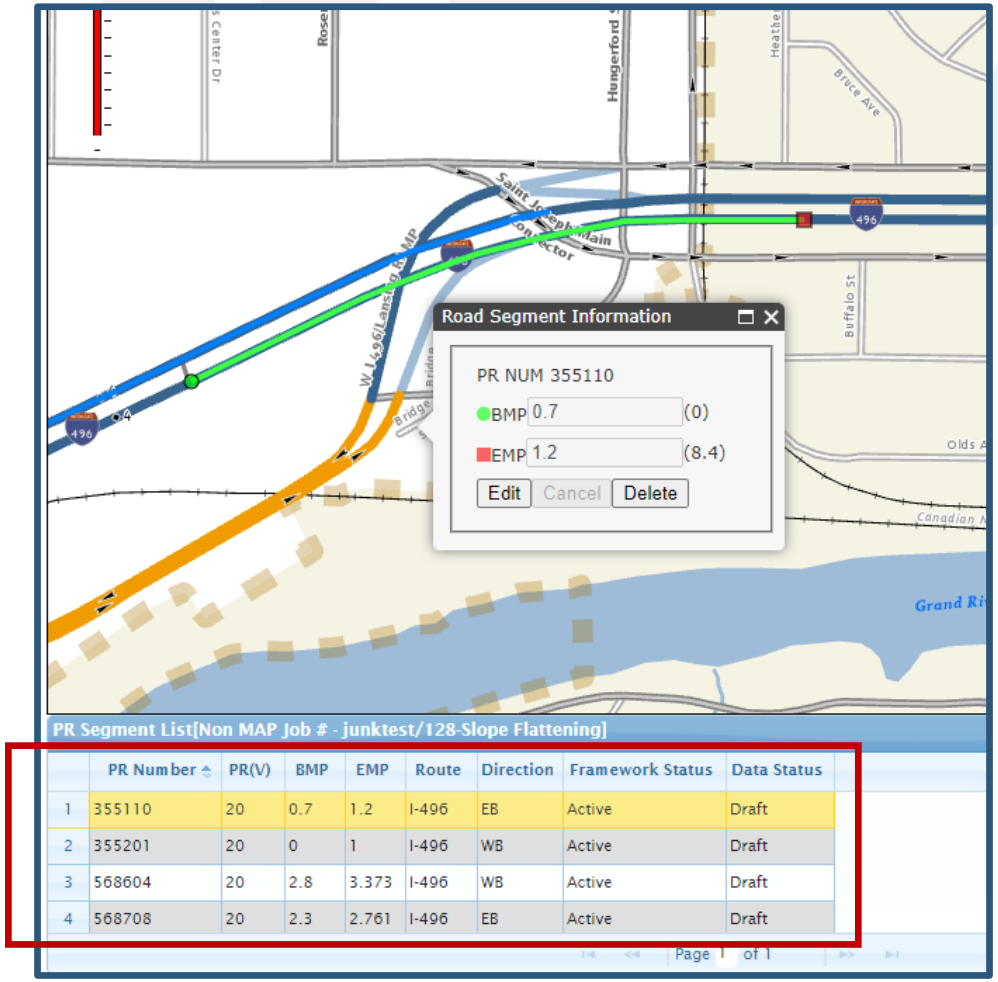
VIEW MAP: ADD SEGMENT

- ❑ Move the map view with click and drag
- ❑ Zoom the view with mouse wheel or click the + or – on the scale
- ❑ Add segments in map:
  - ➢ Click *'Add Segment'*,
  - ➢ Click on the segment in the map,
  - ➢ The **entire PR length** will turn blue and will **<u>be added</u>**
- ❑ View & edit milepoints:
  - ➢ Select a segment using the map or table,
  - ➢ The segment turns green and the Road Segment Information box appears,
  - ➢ Click *'Edit'* and change the BMP and/or EMP,
  - ➢ Click *'Save'* in the box to confirm or click *'Cancel'* in the box to undo
- ❑ Delete segments:
  - ➢ Select a segment in the map or table,
  - ➢ The Road Segment Information box will appear,
  - ➢ Click *'Delete'* in the box or click '*Cancel*' in the box to undo



VIEW MAP: SEGMENT LIST

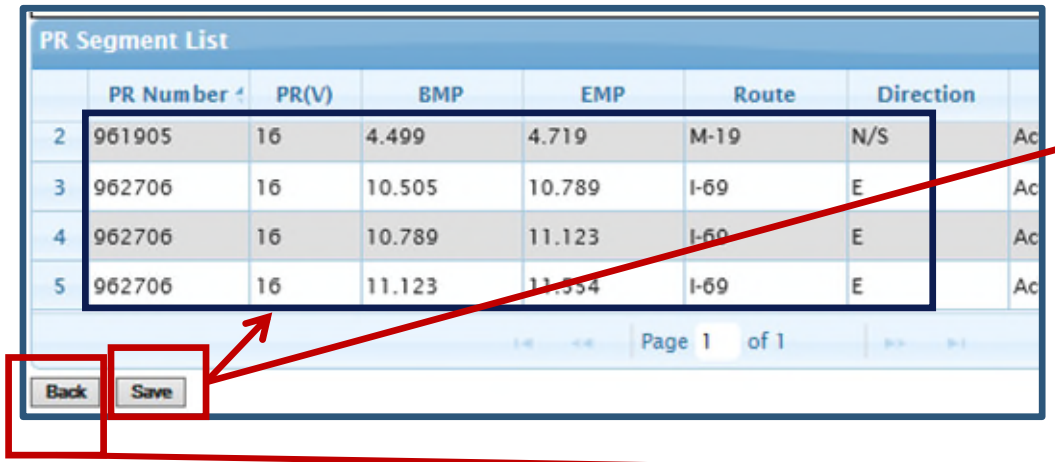
- PR Segment List Table
  - Shows the segments in the Road Segment List screen
    - **Exception:** If changes are made, this table will not match if clicking *Back* before clicking *Save*
  - Click a column header to sort the table, (a triangle will identify the active sort)
  - Click a segment row in the table to zoom to it and show the Road Segment Info box
  - Hide the table by clicking the triangle in the upper right corner

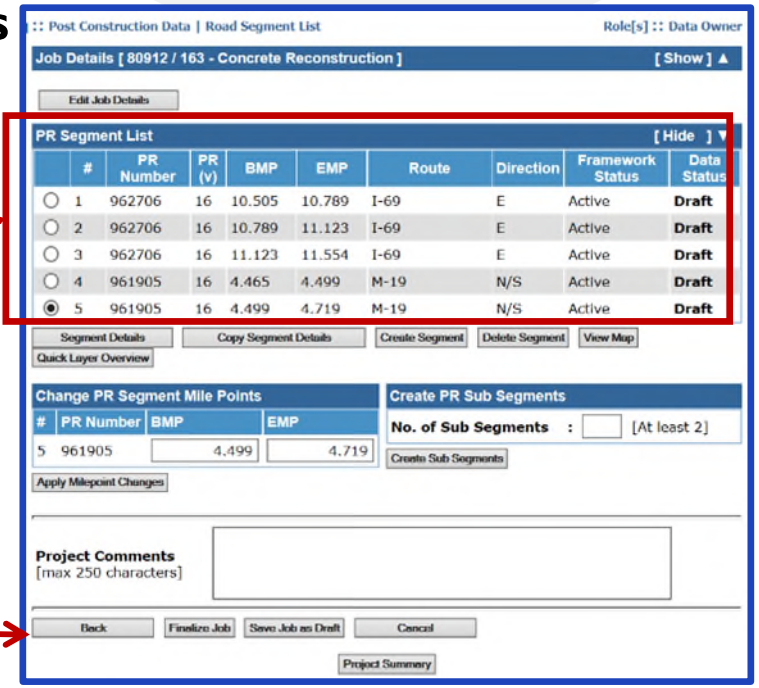


VIEW MAP: MAP SCREEN

❑ Save & Back

- Click *'Save'* to save all added segments, deleted segments, and/or milepoint changes made in the map
  - **Note:** If there are any overlapping segments, a warning message will appear and **not allow the save.** Segments that **overlap must be manually changed.**
- Click *'Back'* to return to the Road Segment List screen
  - **Important: Click Save before clicking Back to save changes**
  - **Note:** To undo all changes, click Back and do not click Save

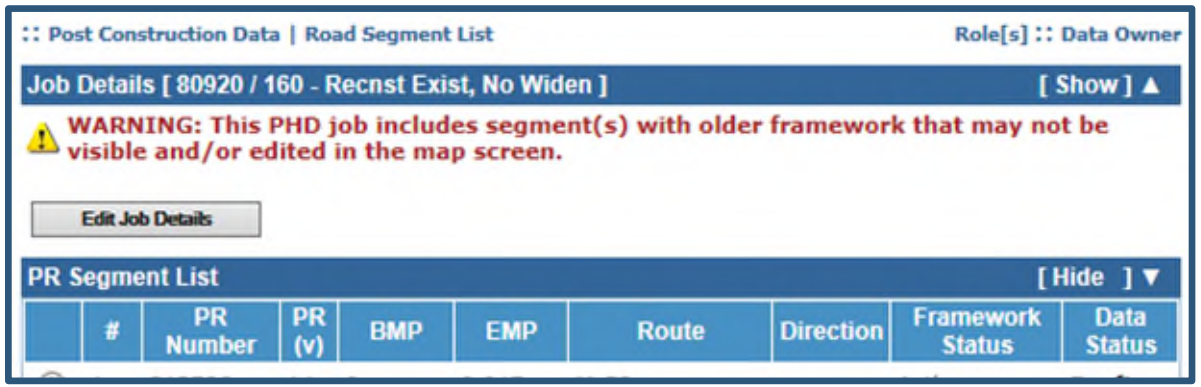


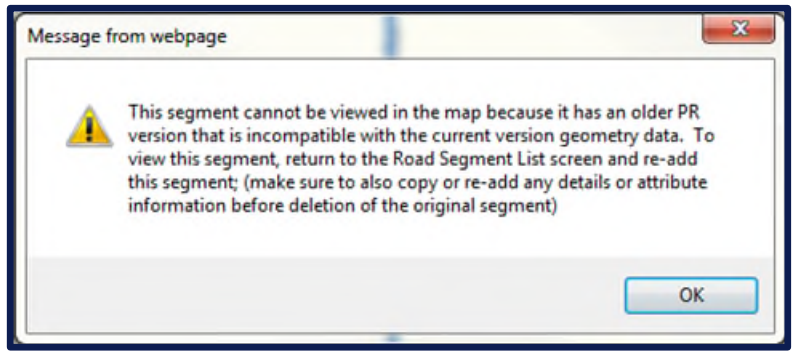


VIEW MAP: MAP SCREEN

❑ Additional Notes:

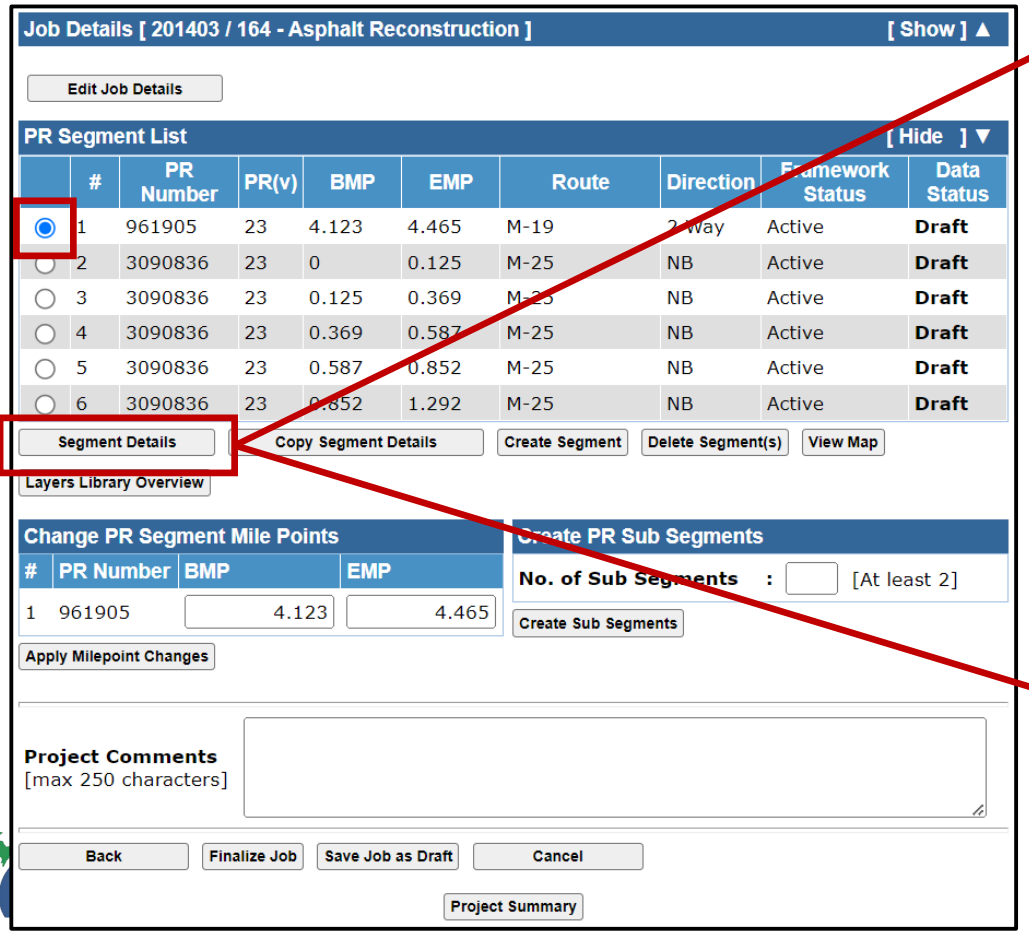
- Segments with **older framework will have warning message and <u>may</u> not be visible in map**
  - Older framework segments can exist if multi-year projects started in the previous year, or PHD jobs that were started early in the year, before new framework was available – *(old framework segments can still be used & saved)*.
  - The map uses the most current framework version
- **If older framework segments are in the PHD job, warnings appear:**
  - At the top of the Road Segment List screen
  - In map screen if selected from the PR Segment List table and it cannot be viewed





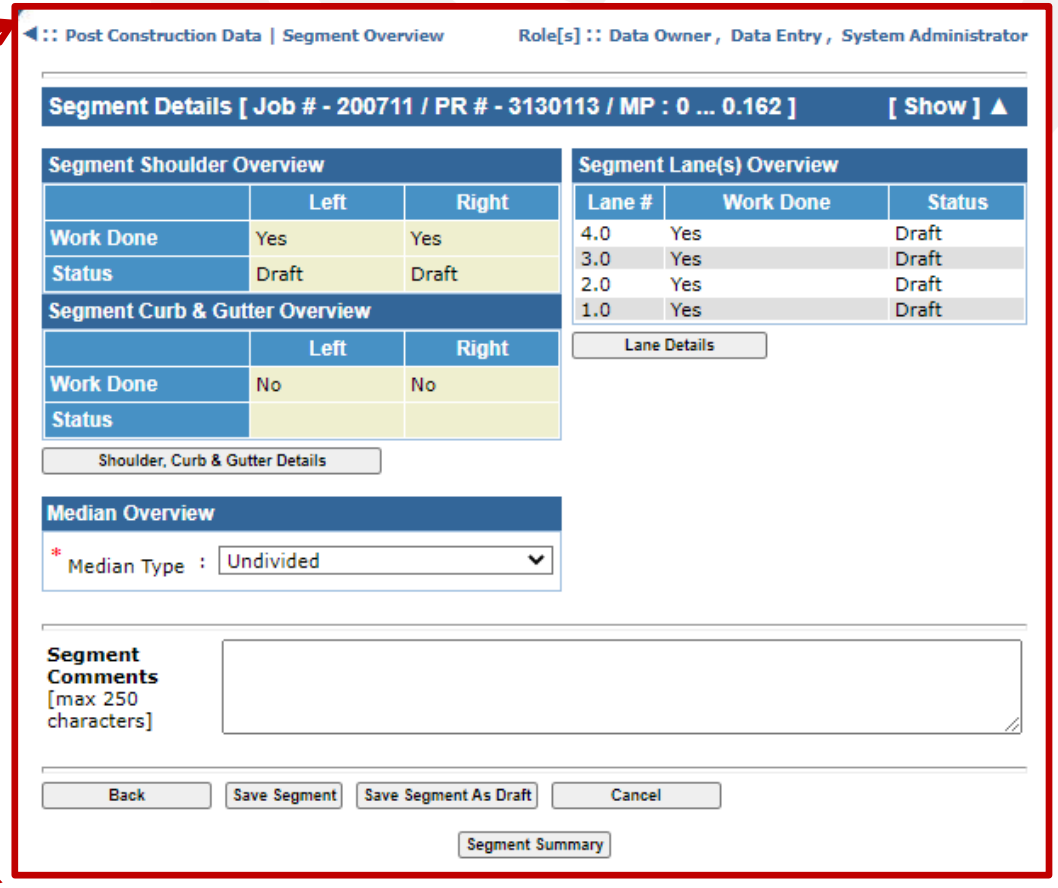
EDIT SEGMENT DETAILS

- Select the segment radio button **(1)**
- Click *'Segment Details'* **(2)**
  - The Segment Overview screen will appear



	#	PR Number	PR(v)	BMP	EMP	Route	Direction	Framework Status	Data Status
◉	1	961905	23	4.123	4.465	M-19	2-Way	Active	Draft
○	2	3090836	23	0	0.125	M-25	NB	Active	Draft
○	3	3090836	23	0.125	0.369	M-25	NB	Active	Draft
○	4	3090836	23	0.369	0.587	M-25	NB	Active	Draft
○	5	3090836	23	0.587	0.852	M-25	NB	Active	Draft
○	6	3090836	23	0.852	1.292	M-25	NB	Active	Draft

#	PR Number	BMP	EMP
1	961905	4.123	4.465



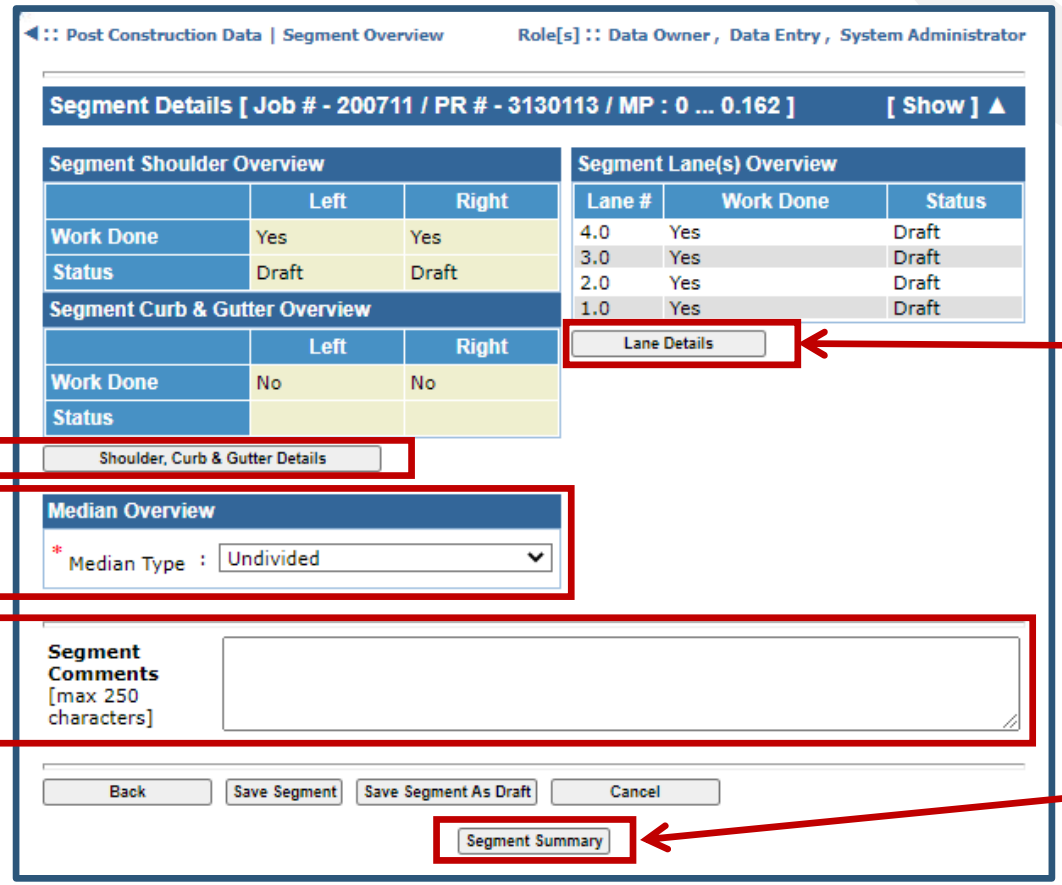
	Left	Right
Work Done	Yes	Yes
Status	Draft	Draft

Lane #	Work Done	Status
4.0	Yes	Draft
3.0	Yes	Draft
2.0	Yes	Draft
1.0	Yes	Draft

	Left	Right
Work Done	No	No
Status		

EDIT SEGMENT DETAILS: SEGMENT OVERVIEW SCREEN

- Entry of work on lanes, shoulder, and/or curb and gutter
- Data entered here is only for the **current selected** segment (not entire project)



Edit Shoulder, Curb & Gutter Details

Median Overview Box

Segment Comment Box

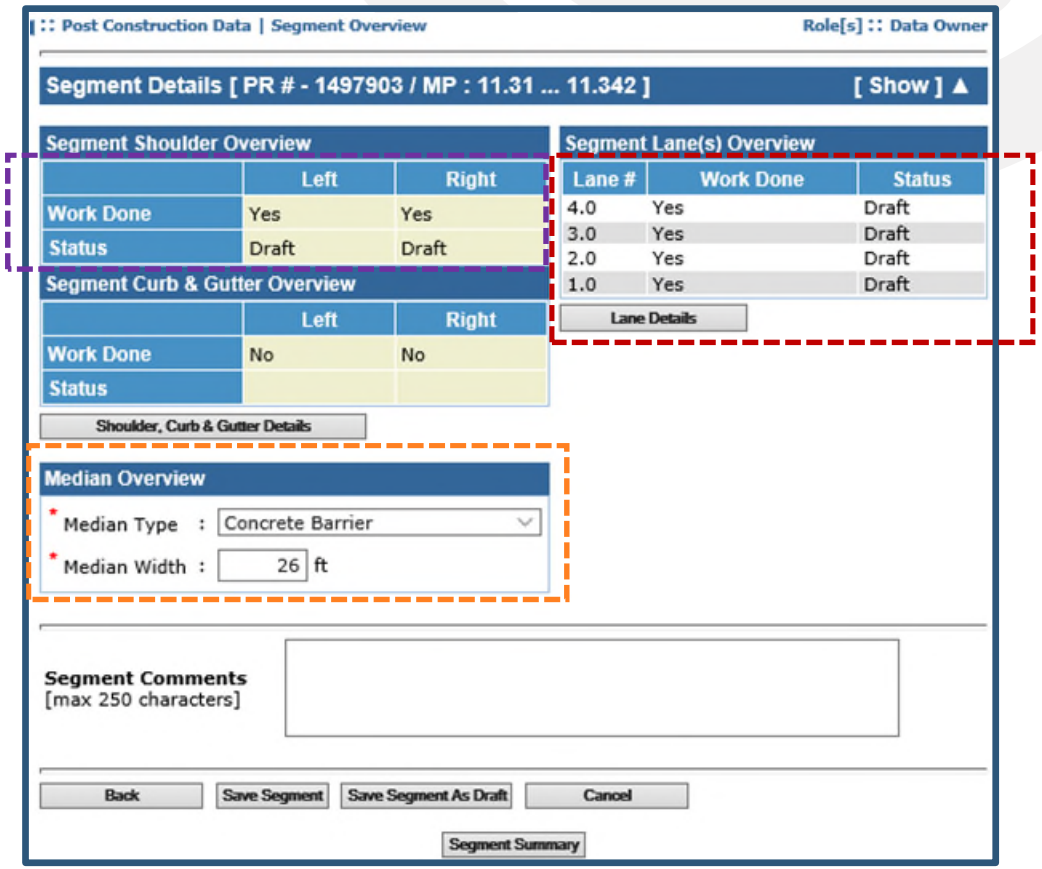
Edit Lane Details

Segment Summary

SEGMENT OVERVIEW SCREEN

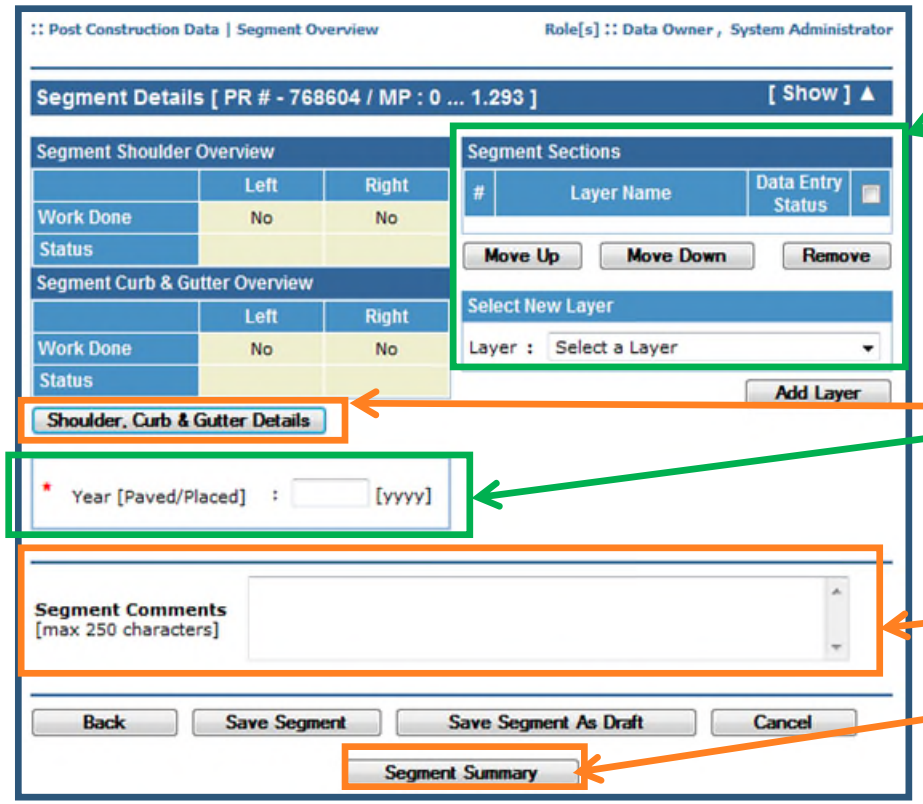
Pre-population of Segment Details Example: **JN 119085, I-475 Reconstruct**

- ❑ Segment Info for PR 1497903, MP 11.310 – 11.342
  - Pre-populated:
    - **Lanes =** 4 lanes (1.0, 2.0, 3.0, 4.0)
    - Shoulders = Left & Right Side
    - **Median Type =** Concrete Barrier
    - **Median Width =** 26’
  - Never Pre-populated:
    - Curb & Gutter
      - Must Add and Modify manually



SEGMENT OVERVIEW SCREEN: SIMPLIFIED CPM

Simplified CPM



Add/Edit Segment Layers (No Lane Details)

Edit Shoulder, Curb & Gutter Details

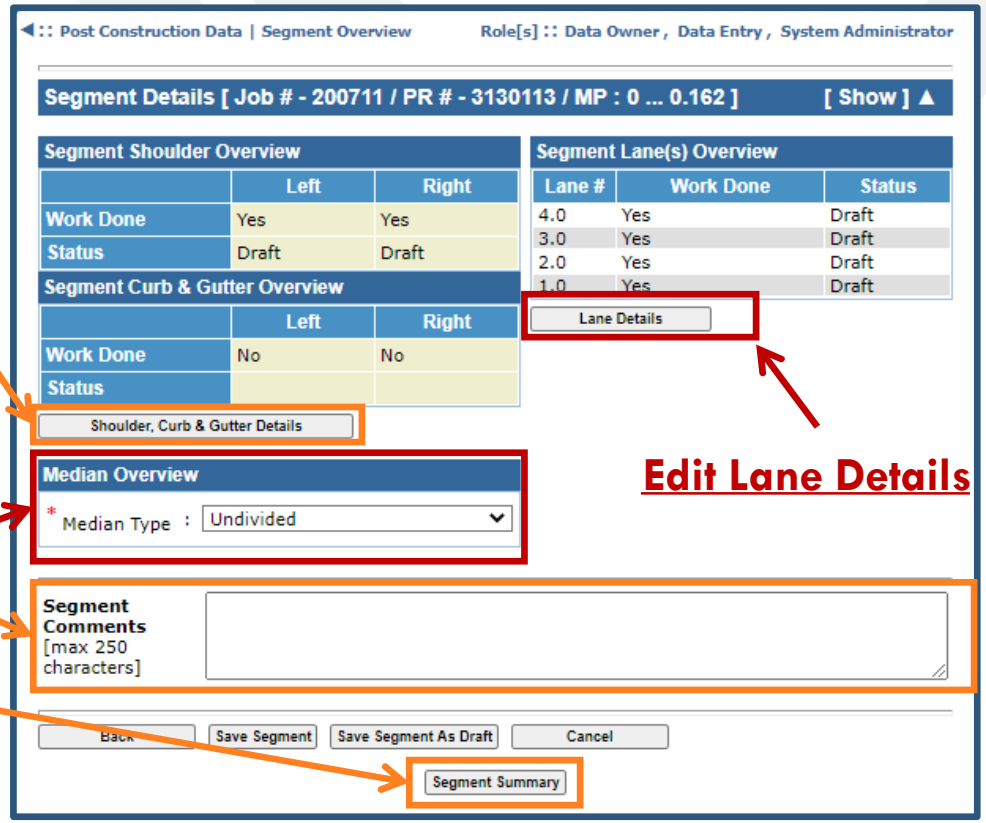
Year the work was Paved/Placed

Median Overview

Segment Comment

Segment Summary

Standard Full Job Entry

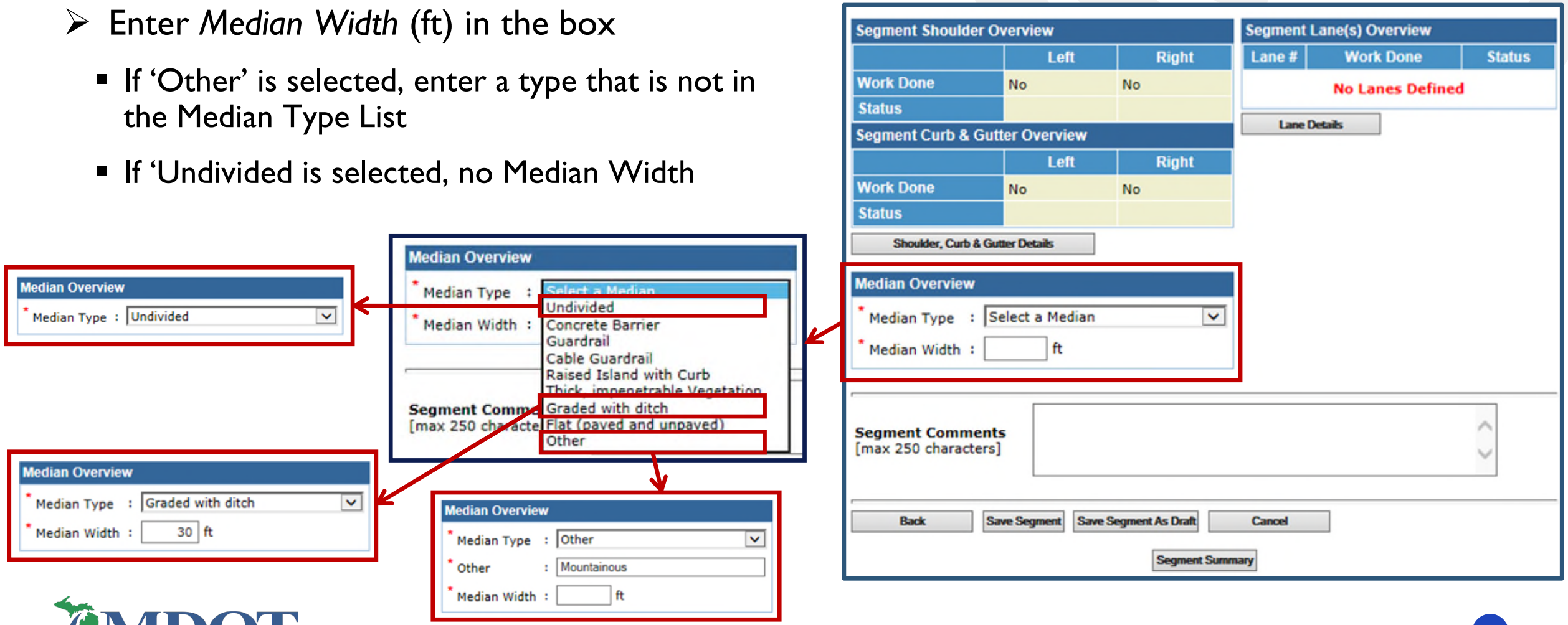


Edit Lane Details

- *Simplified CPM*
- **Full Job**
- **Both**

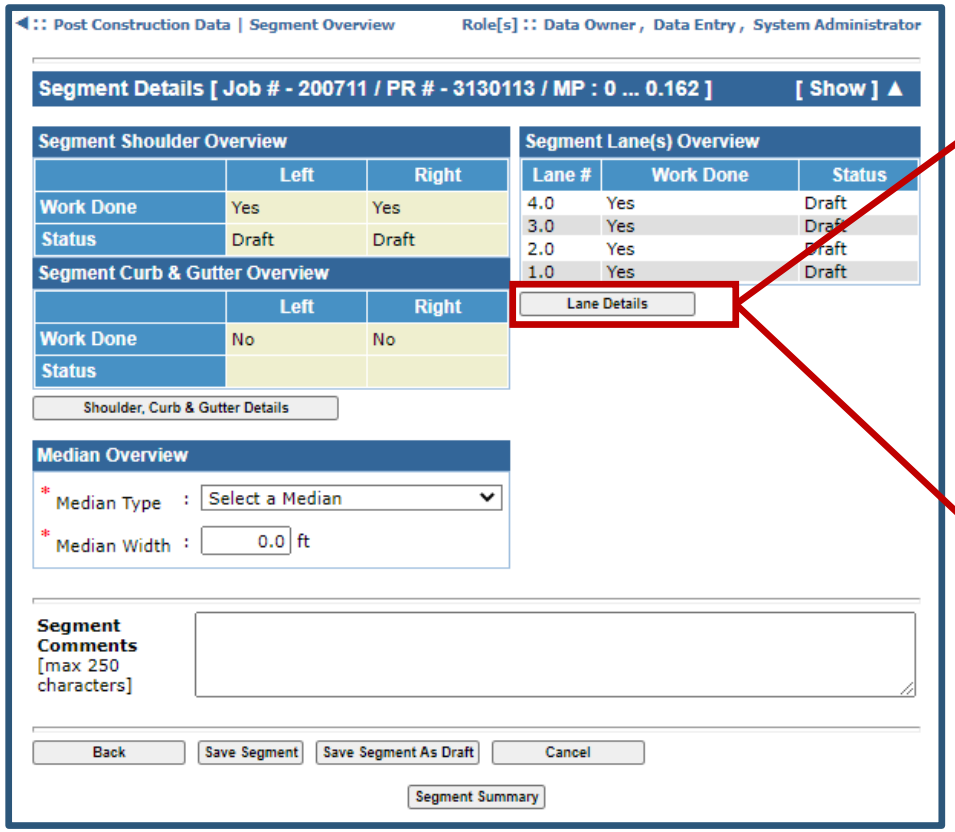
SEGMENT OVERVIEW SCREEN: MEDIAN OVERVIEW

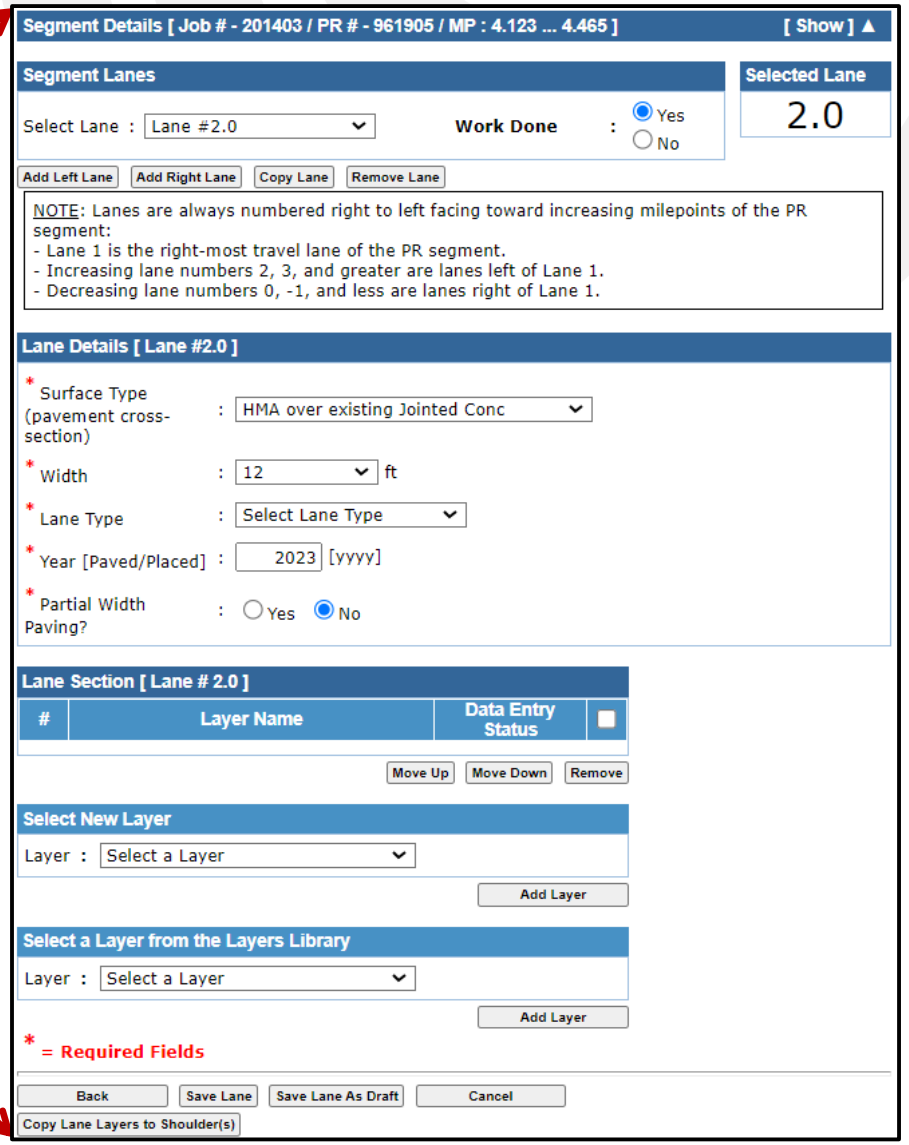
- Select *Median Type* from the drop-down list
- Enter *Median Width* (ft) in the box
  - If 'Other' is selected, enter a type that is not in the Median Type List
  - If 'Undivided is selected, no Median Width



SEGMENT OVERVIEW SCREEN: LANE DETAILS

- Click *'Lane Details'*
  - The Lane Summary screen will appear





EDIT LANE DETAILS

(1) Segment Details Info

(2) Segment Lanes

- Add a lane, remove a lane, copy lane details (from one to another)

(3) Selected Lane

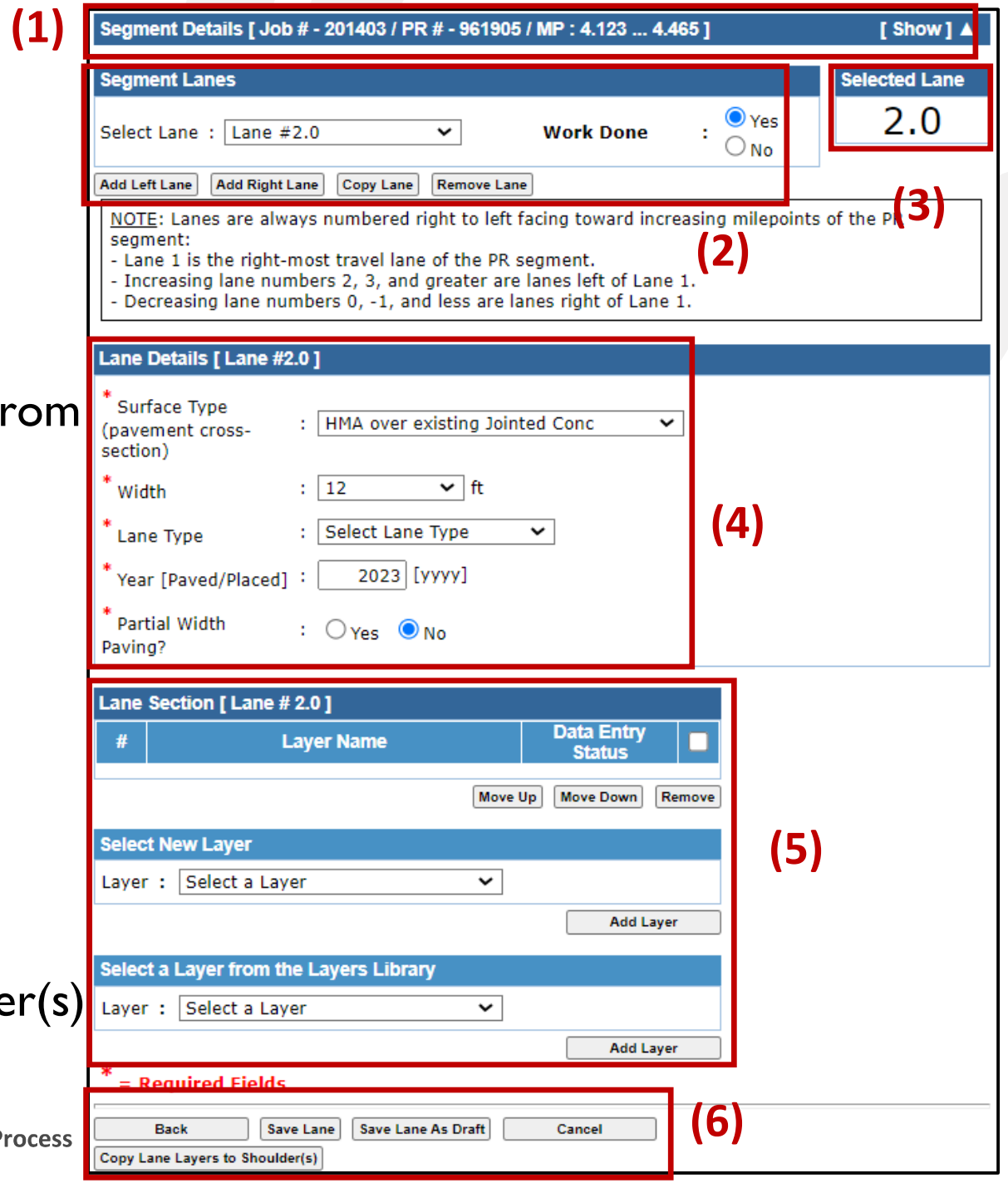
(4) Lane Details

- Enter the details for the selected lane

(5) Lane Section

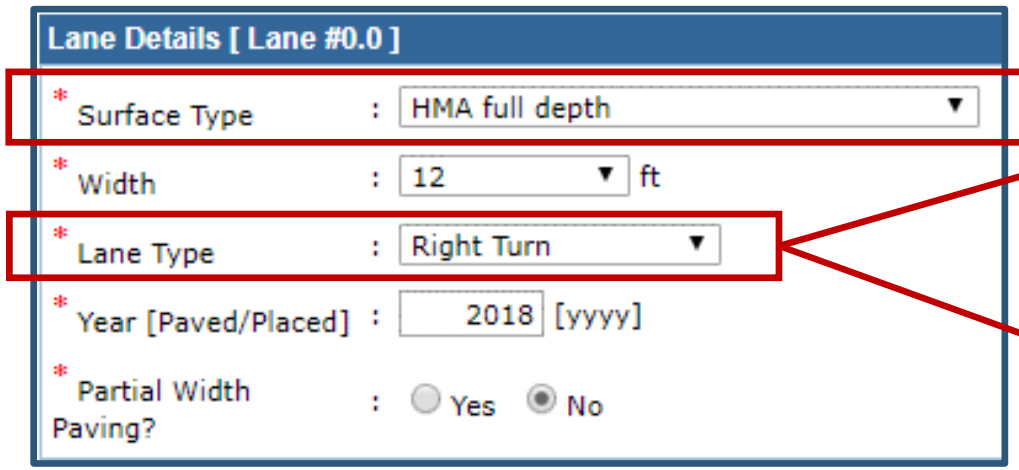
- Add and edit layers

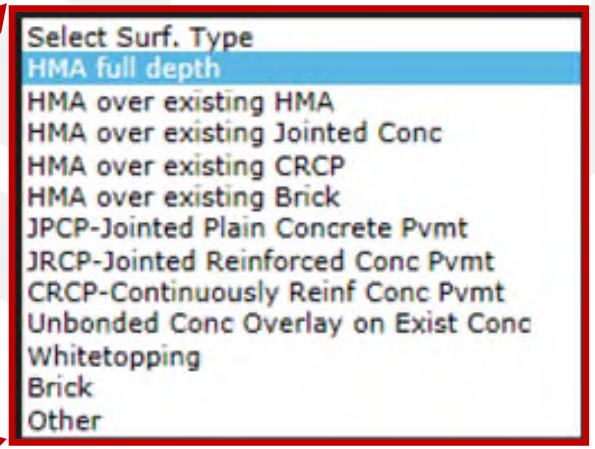
(6) Back/Save/Cancel/Copy Lane Layers to Shoulder(s)

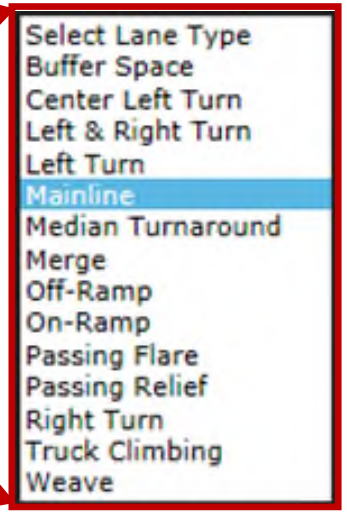


EDIT LANE DETAILS: LANE DETAILS PANE

- Select the *Surface Type* from the drop-down menu
- Select the lane *Width* from the drop-down menu
- Select the *Lane Type* (functional use) from the drop-down menu
- Enter the *Year* the work/material was *Paved or Placed*
- Select 'Yes' if this lane was **Partially Paved* in this job
  * refers to final width of paved lane, not part-width construction

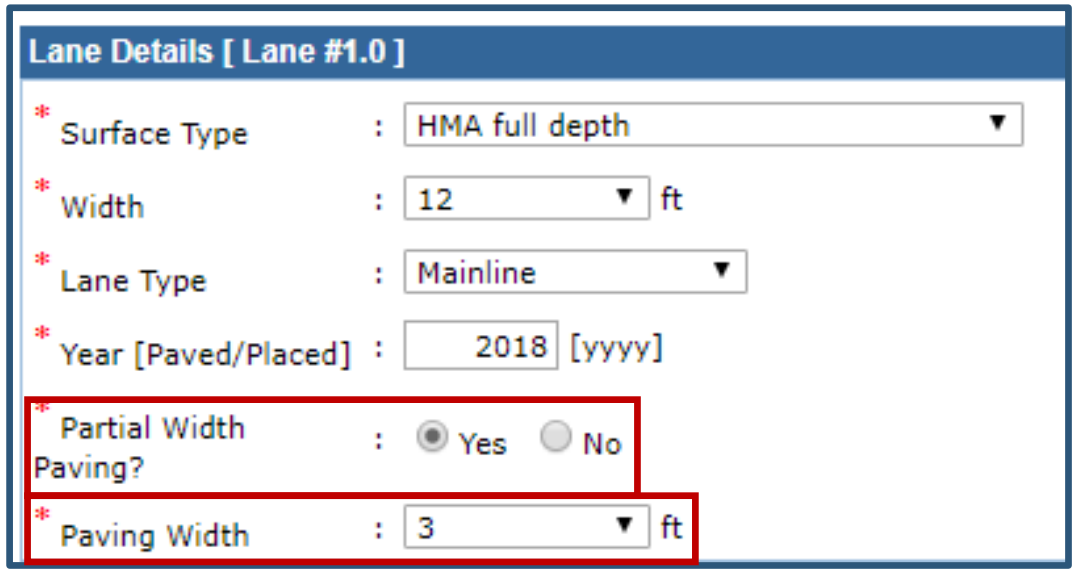






EDIT LANE DETAILS: PARTIAL WIDTH PAVING

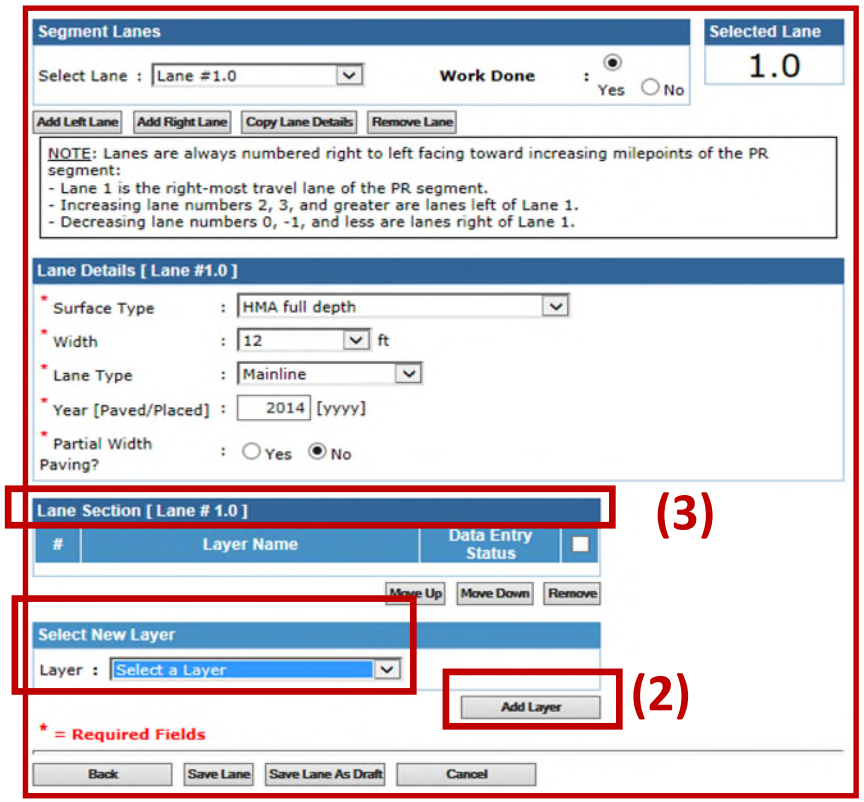
- Click 'No": the **Width** entry will indicate the full width the lane was paved.
- Click 'Yes': the **Paving Width** entry will indicate the partial paving width.
  - ***Note:*** *This does not refer to construction staging part-width paving. This refers to final width of lane paved, regardless of construction staging*



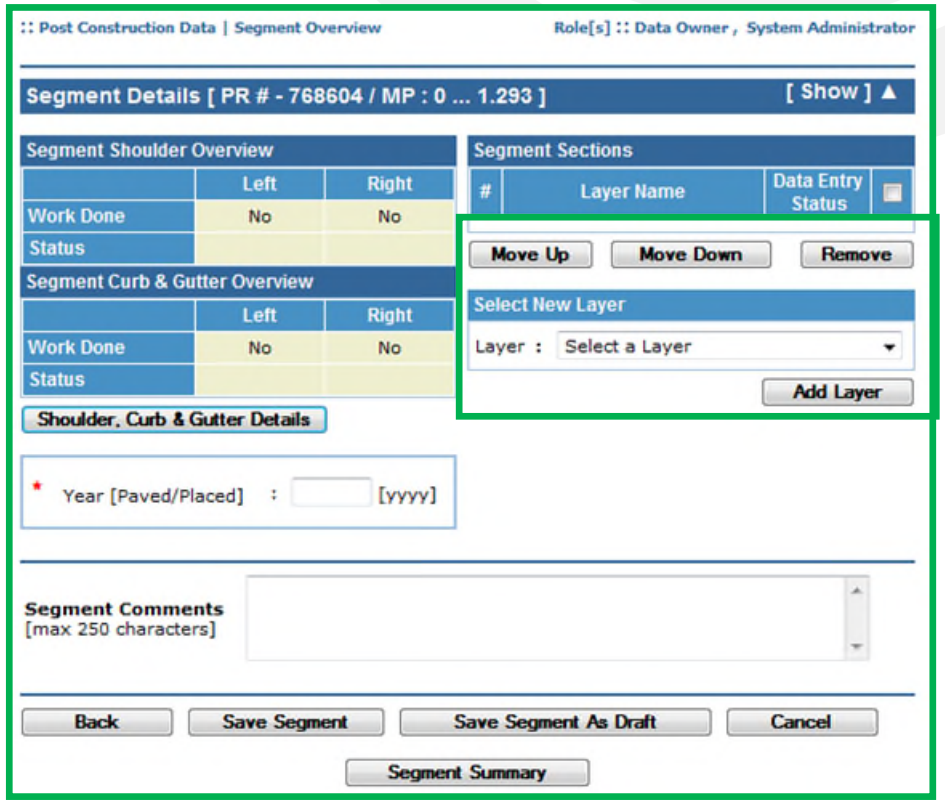
EDIT LANE DETAILS: EDIT LAYER DETAILS

- Select a layer from the Layer drop-down list (1)
- Click '*Add Layer*' (repeat until all layers are added) (2)
- Click on the layer in the Lane Section box to begin editing (3)

Standard Full Job Entry

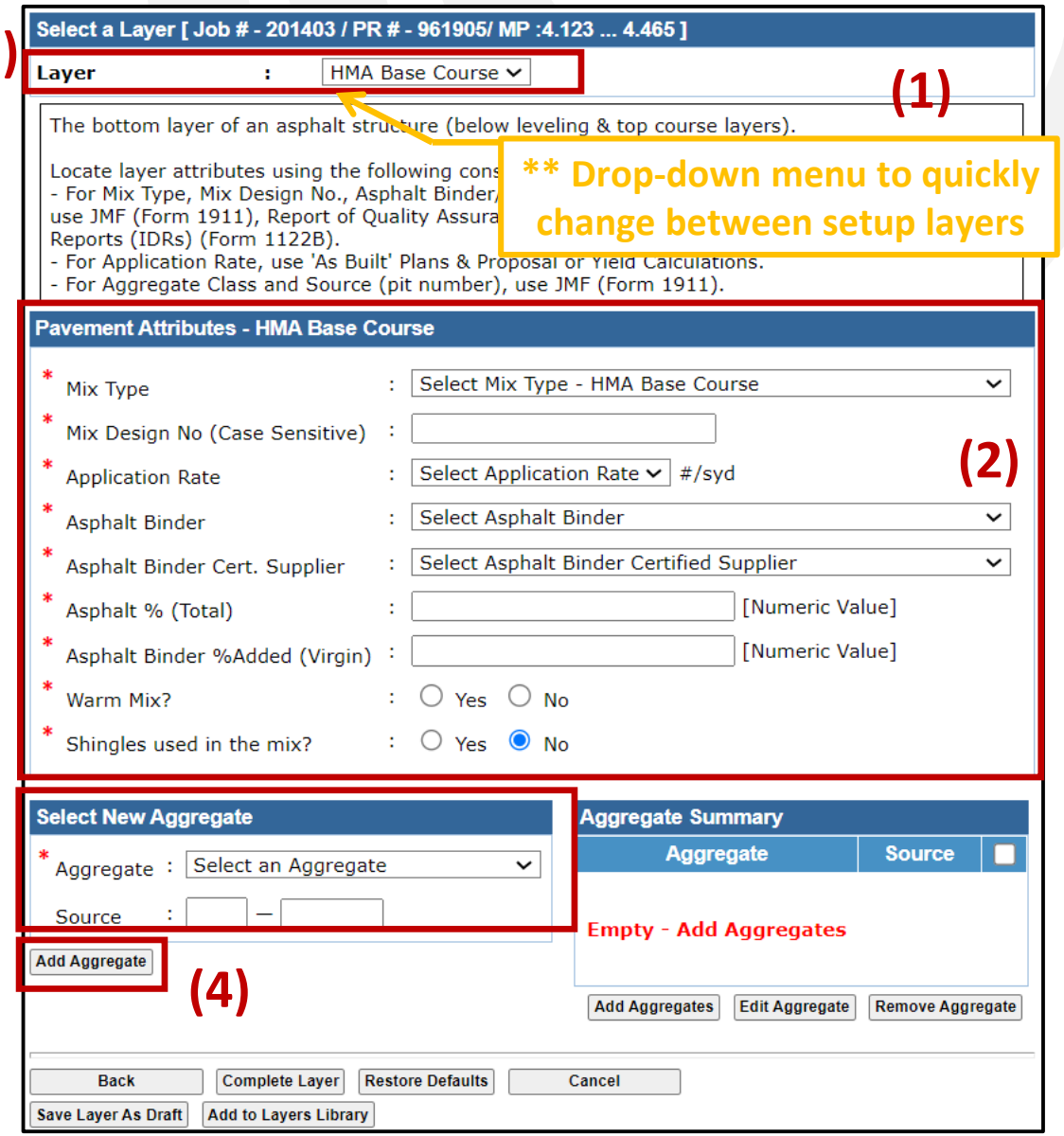


Simplified CPM Job Entry

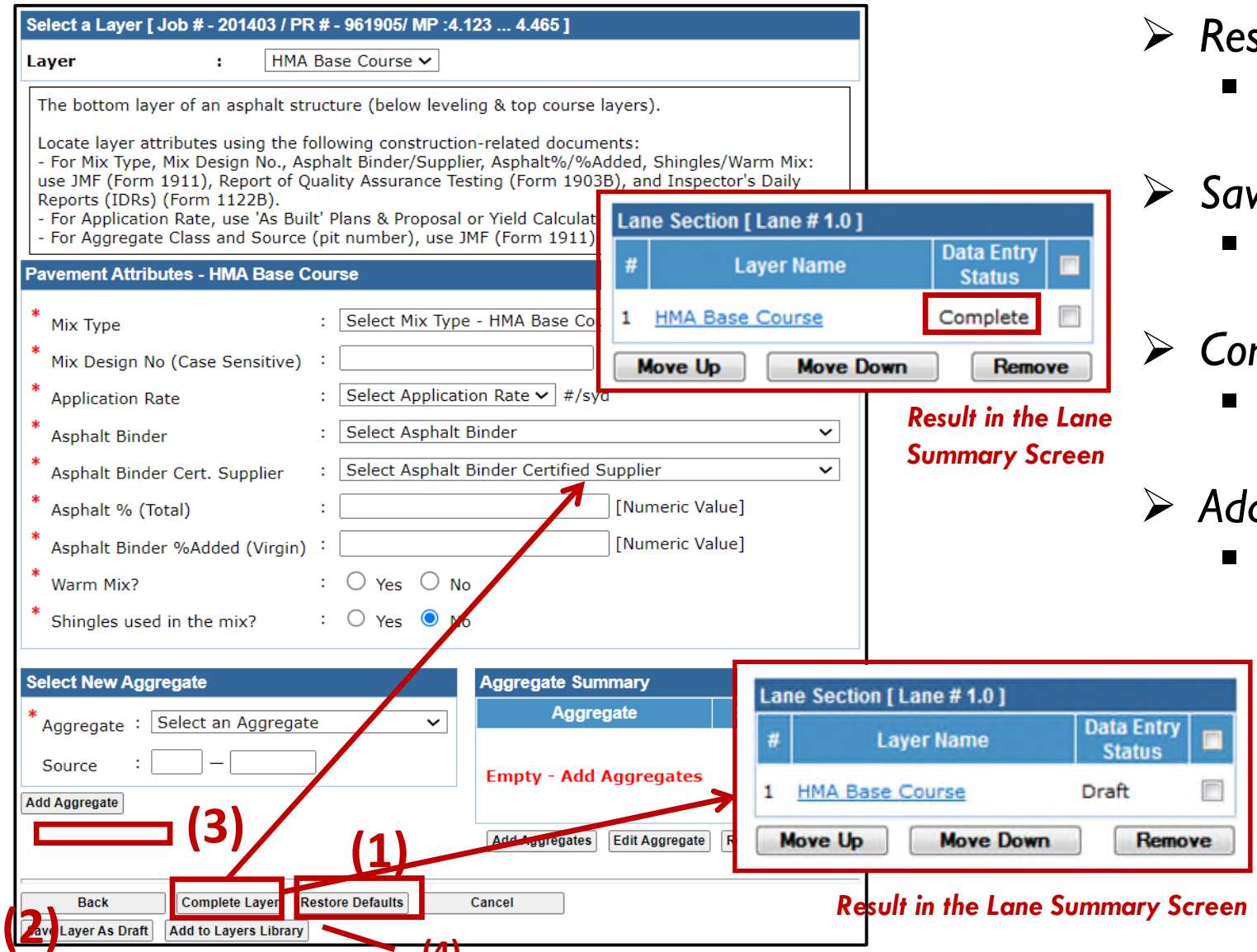


EDIT LANE DETAILS: EDIT LAYER DETAILS

- Select the Layer in the *Select a Layer* drop-down **(1)**
- Enter details in the *Pavement Attributes* pane **(2)**
- Enter aggregate details (If applicable) **(3)**
  - Select the aggregate from the *Aggregate* list (standard MDOT gradations)
    - If *'Other Aggregate'* (non-standard gradation) selected - enter the other aggregate name in the text box
  - Enter the pit source number for *Source*
    - ***Note:*** *"County Code" pit source numbers can be used*
  - Click '*Add Aggregate*' **(4)**
  - Repeat until all aggregates have been added



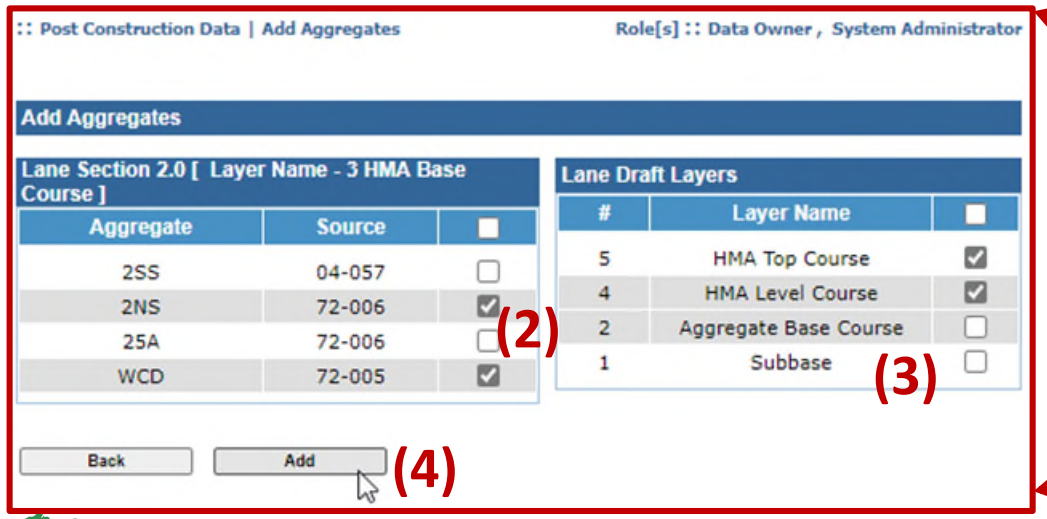
EDIT LANE DETAILS: EDIT LAYER DETAILS

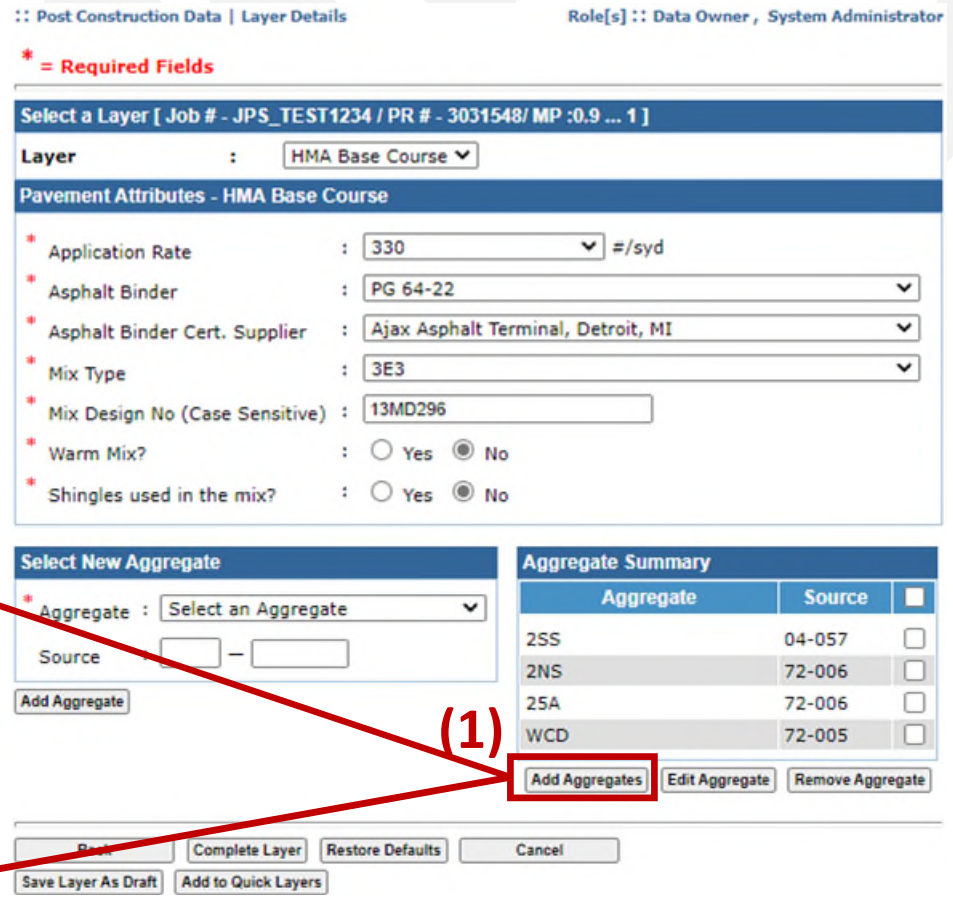


- *Restore Defaults* button: **(1)**
  - To reset the layer and remove all data entry
- *Save Layer As Draft* button: **(2)**
  - Saves layer as **Draft** – use to save and add more data later
- *Complete Layer* button: **(3)**
  - Saves layer as **Complete** – use when all data is added & complete.
- *Add to Layers Library* button: **(4)**
  - To save the layer to the job's list of Layers Library

EDIT LANE DETAILS: EDIT LAYER DETAILS

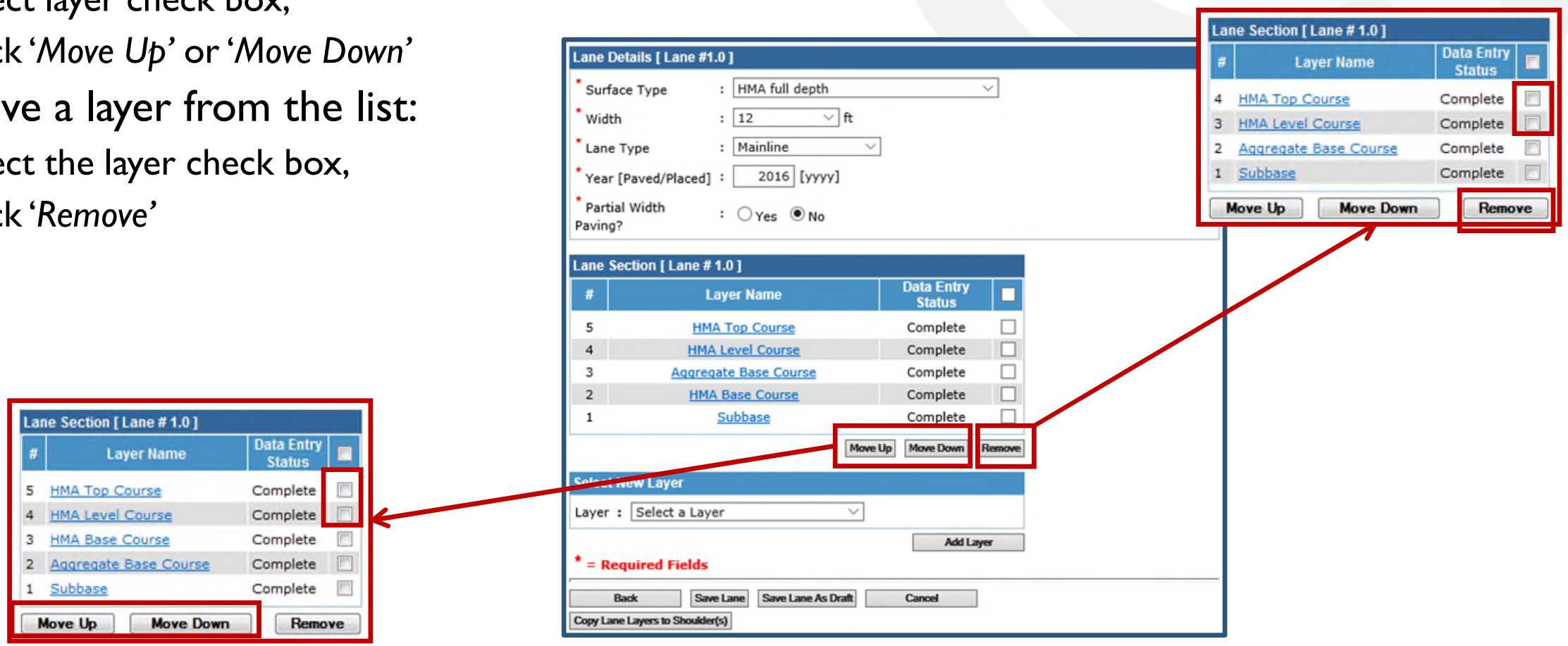
- Add Aggregates *(from one to another layer)*
  - After Saving a Layer as Complete – click 'Add Aggregates' (1)
  - Check the aggregates to add (2)
  - Check the layers to apply aggregates (3)
  - Click 'Add' (4)
  - **Note:** *Any Complete layers will not appear in list to add to*
  - **Note:** *Previously added aggregates will not be deleted*





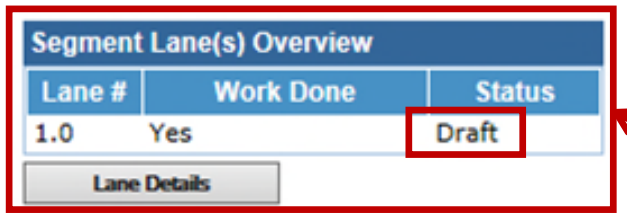
EDIT LANE DETAILS: LANE SECTION PANE

- ❑ Move a layer up or down in list:
  - ➢ Select layer check box,
  - ➢ Click '*Move Up*' or '*Move Down*'
- ❑ Remove a layer from the list:
  - ➢ Select the layer check box,
  - ➢ Click '*Remove*'

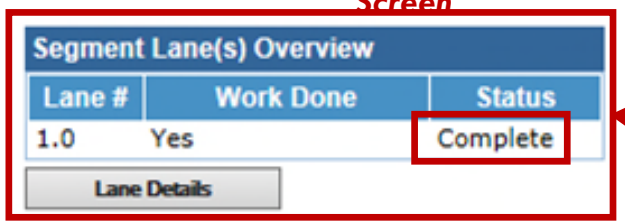


EDIT LANE DETAILS: SAVING

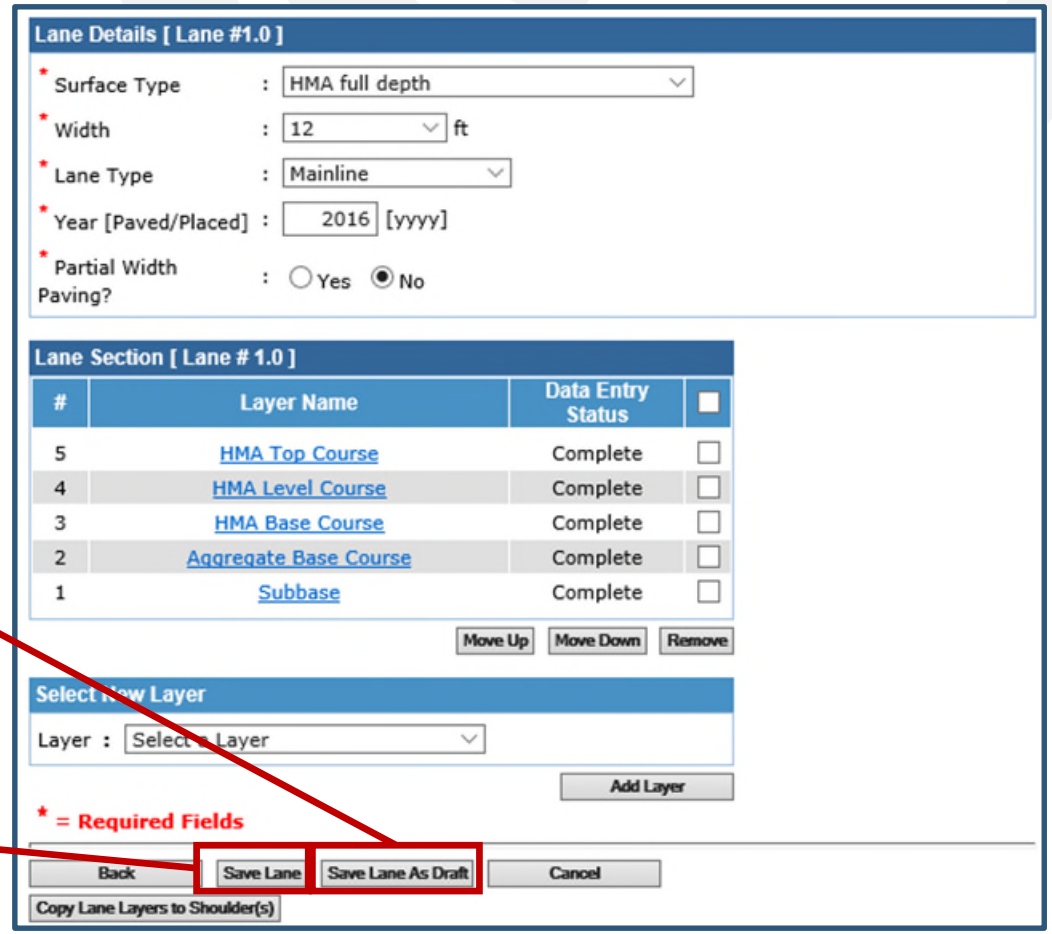
- Click '*Save Lane As Draft*':
  - Saves current lane as **Draft** – use to save and add more data/layers later
- Click '*Save Lane*':
  - Saves current lane as **Complete** – use when all data/layers are added & complete



Result in the Segment Overview Screen

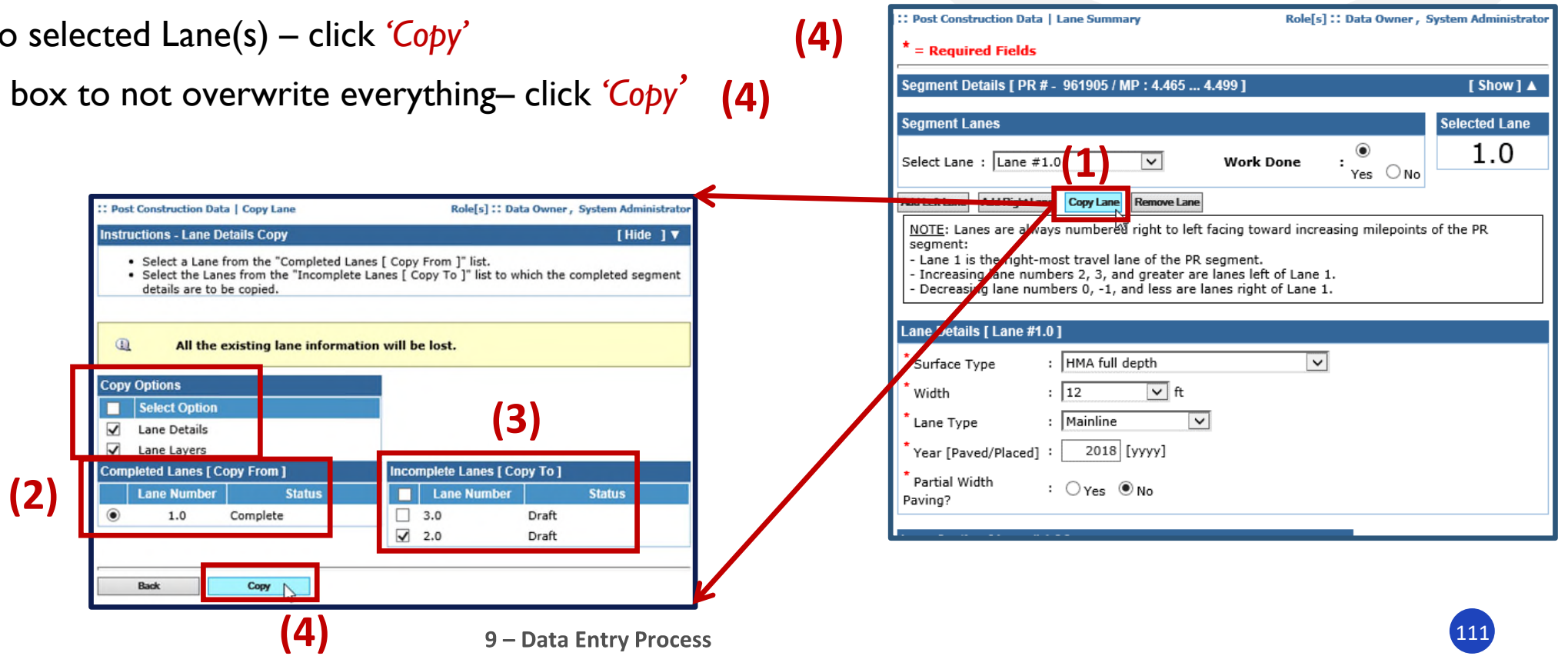


Result in the Segment Overview Screen

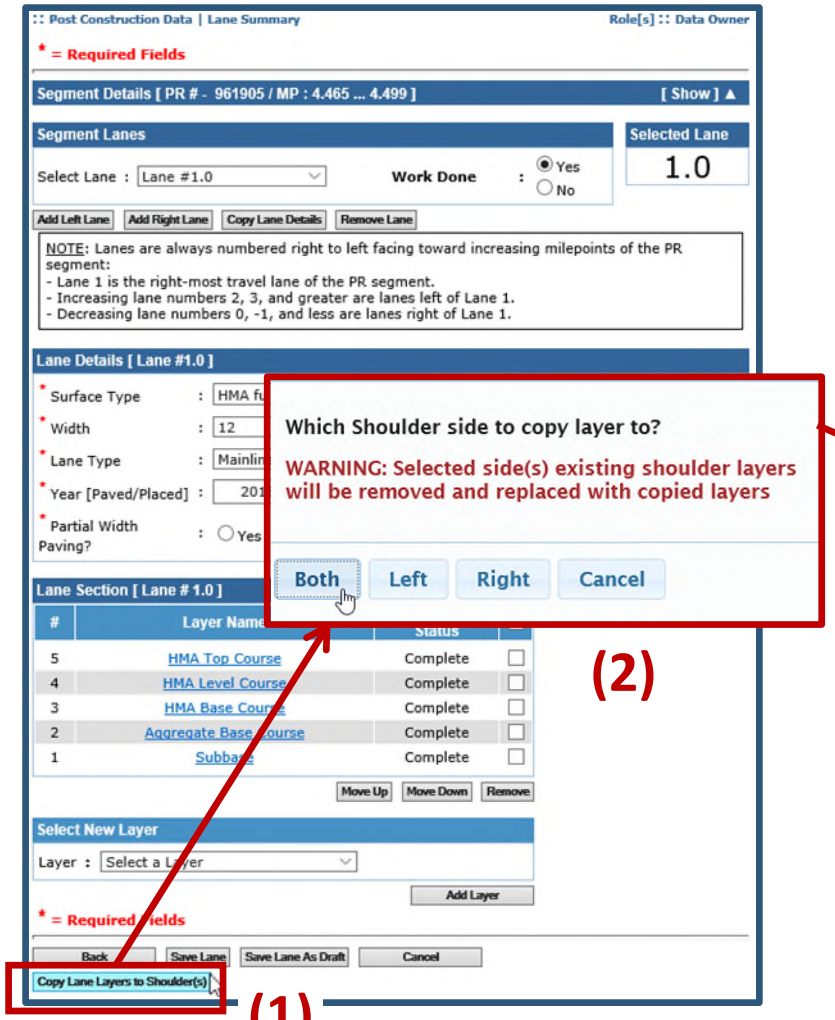


EDIT LANE DETAILS: COPY LANE

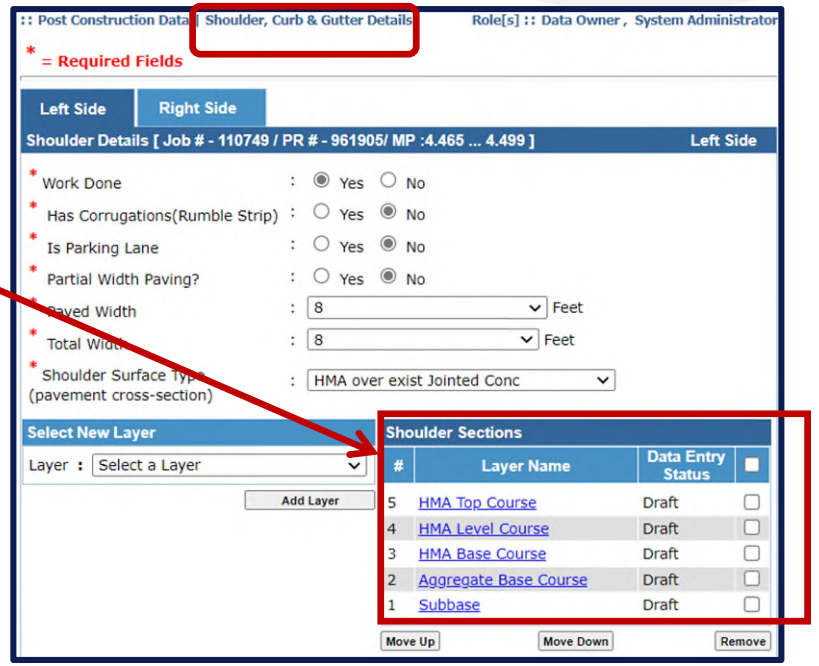
- Click '*Copy Lane*' *(After Saving a lane as Complete)* **(1)**
- Select the Completed Lane to copy from **(2)**
- Select the Draft Lane(s) to copy to **(3)**
- Options:
  - To overwrite to selected Lane(s) – click *'Copy'* **(4)**
  - Else, uncheck a box to not overwrite everything– click *'Copy'* **(4)**



EDIT LANE DETAILS: COPY TO SHOULDER(S)



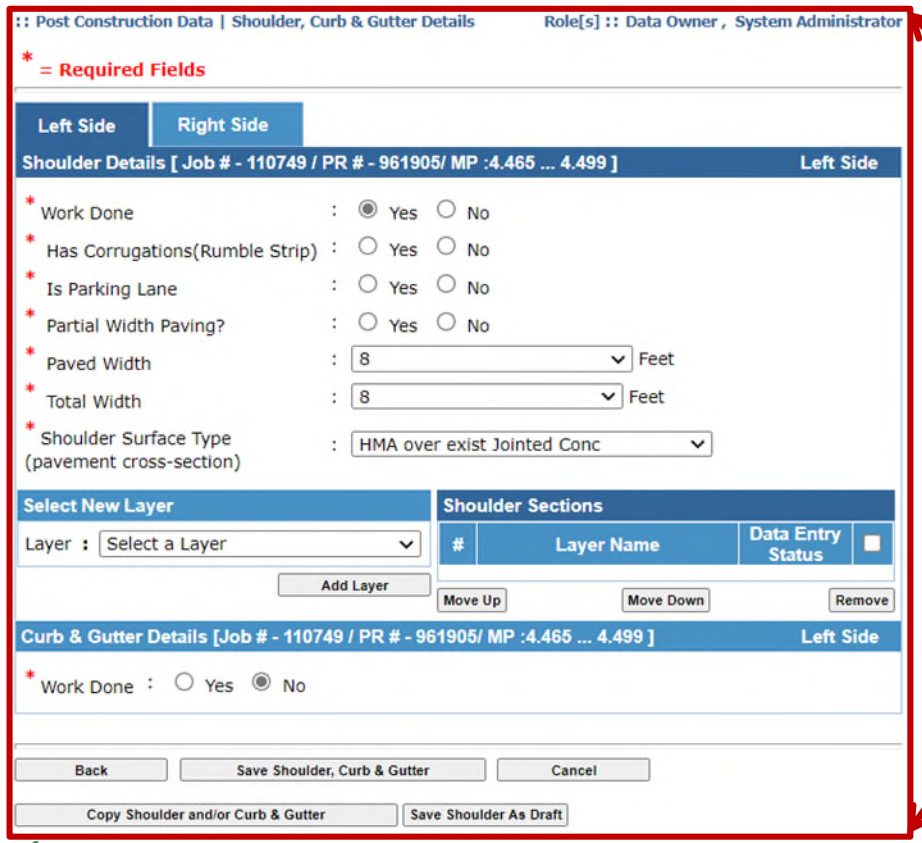
- Click '*Copy Lane Layers to Shoulder(s)*' **(1)**
- Select the Shoulder side to apply the copy to: *Both, Left, Right, or Cancel* **(2)**
  - ***Warning:*** *For the shoulder(s) copied to, all existing Layers will be* ***removed*** *and* ***replaced*** *with those shown in the active lane*

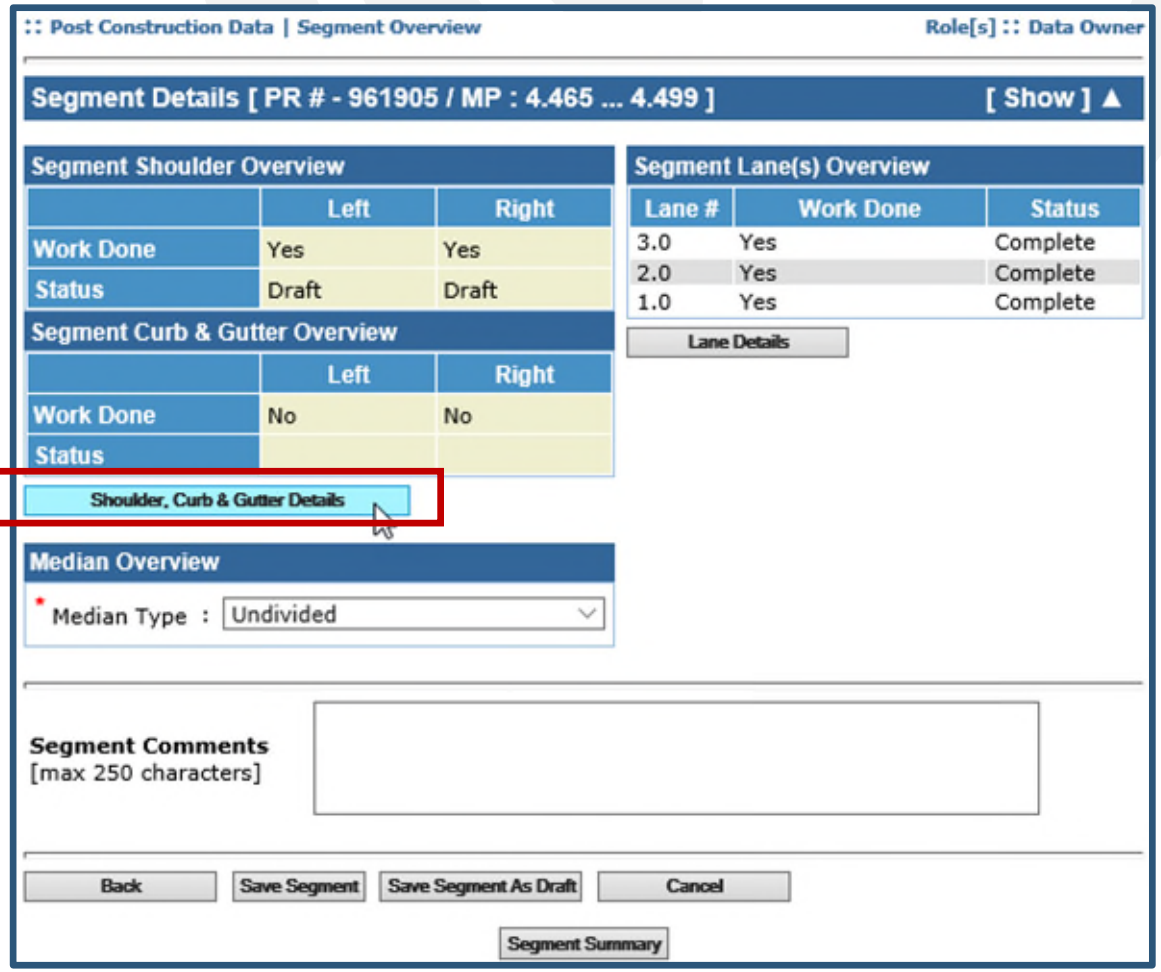


Result in the Shoulder details Screen

EDIT SHOULDER, CURB & GUTTER DETAILS

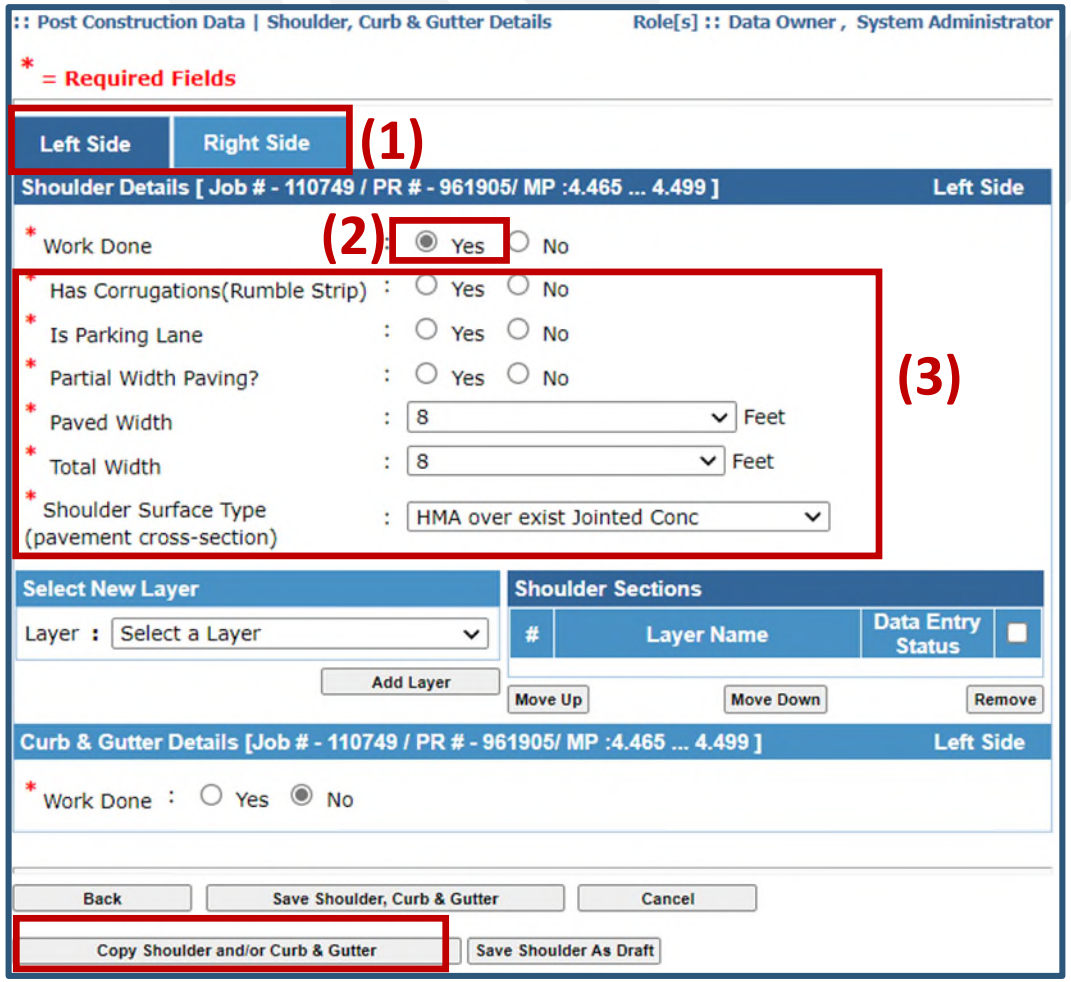
- Click '*Shoulder, Curb & Gutter Details*'
  - The Shoulder, Curb & Gutter Details screen will appear





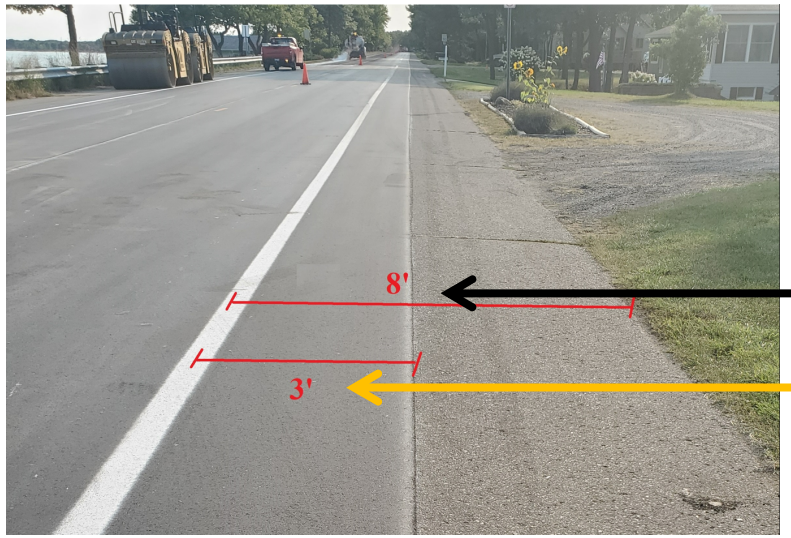
EDIT SHOULDER, CURB & GUTTER DETAILS

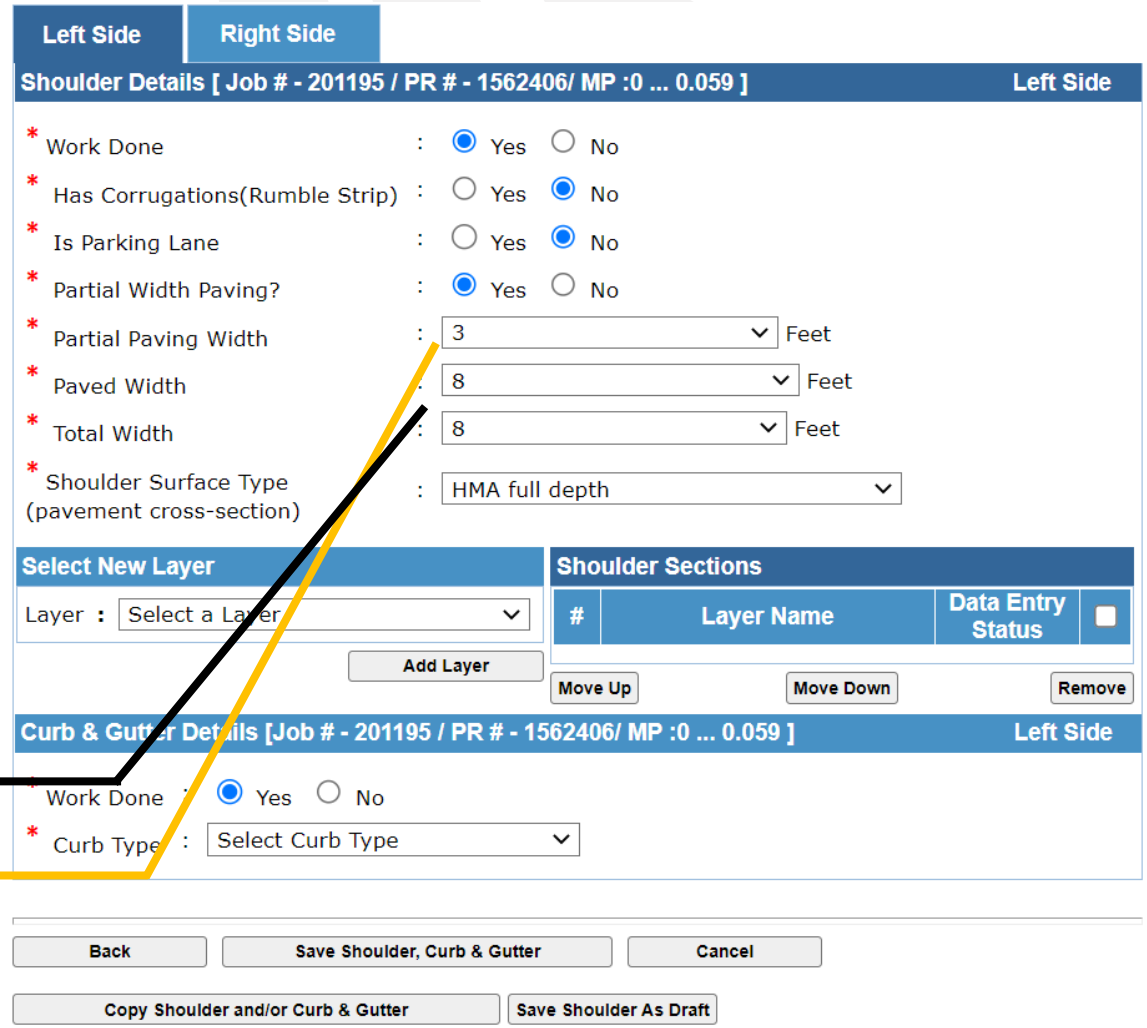
- Select the ***Left Side*** or ***Right Side*** tab **(1)**
- Click *'Yes' or 'No'* for *Work Done* **(2)**
  - *'Yes' will allow entry of details*
- Enter Shoulder details **(3)**
- To **copy** the <u>selected side</u> to the other side – click '*Copy Shoulder, Curb & Gutter Details*' **(4)**
  - **<u>Note:</u>** Right and Left sides are established by facing the direction of increasing milepoints



EDIT SHOULDER, CURB & GUTTER DETAILS

- Partial width paving
  - Select 'Yes' if the shoulder was **partially** paved **within the same job**
  - Select 'No' if the shoulder was **completely** paved **within the same job**
- If 'Yes' is selected:
  - Enter the partial Paving Width





SHOULDER, CURB & GUTTER: SIMPLIFIED CPM

Simplified CPM

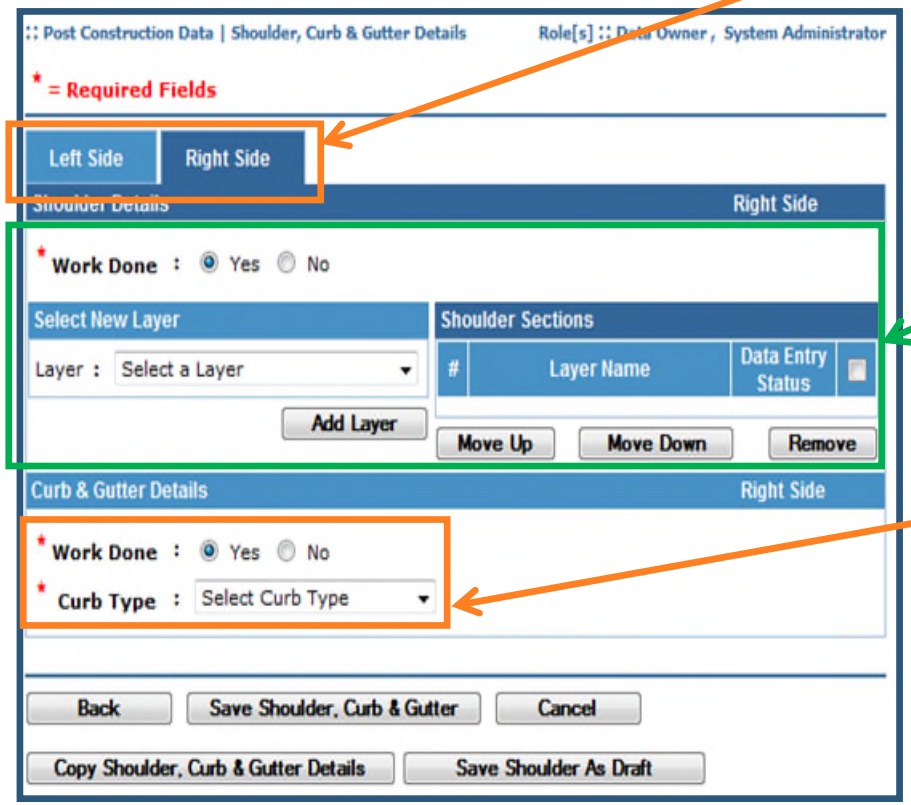
Left Side & Right Side tabs

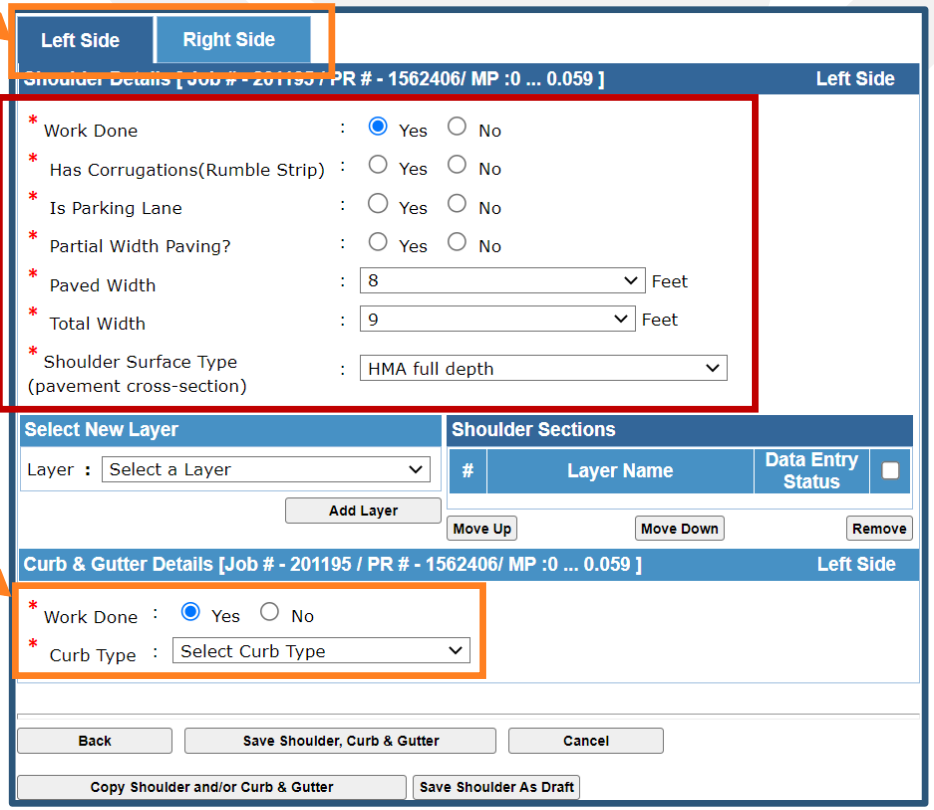
Shoulder Details

Add/Edit Shoulder Layers (No Shoulder Details)

Curb Type drop-down list

Standard Full Job Entry





- *Simplified CPM*
- **Full Job**
- **Both**

EDIT SHOULDER, CURB & GUTTER DETAILS

- *Save Shoulder As Draft*:
  - Saves current side as **Draft** – use to save and add more data/layers later
- *Save Shoulder, Curb & Gutter*:
  - Saves current side as **Complete** – use when all data/layers are added & complete

Result in the Segment Overview Screen

Segment Shoulder Overview

	Left	Right
Work Done	Yes	No
Status	Draft	

Segment Curb & Gutter Overview

	Left	Right
Work Done	No	No
Status		

Shoulder, Curb & Gutter Details

Segment Shoulder Overview

	Left	Right
Work Done	Yes	Yes
Status	Complete	Complete

Segment Curb & Gutter Overview

	Left	Right
Work Done	Yes	Yes
Status	Complete	Complete

Shoulder, Curb & Gutter Details

Result in the Segment Overview Screen

:: Post Construction Data | Shoulder, Curb & Gutter Details Role[s] :: Data Owner , System Administrator

* = Required Fields

Left Side | Right Side

Shoulder Details [Job # - 110749 / PR # - 961905/ MP :4.465 ... 4.499] Left Side

* Work Done : Yes No
* Has Corrugations(Rumble Strip) : Yes No
* Is Parking Lane : Yes No
* Partial Width Paving? : Yes No
* Paved Width : 8 Feet
* Total Width : 8 Feet
* Shoulder Surface Type (Pavement cross-section) : HMA over exist Jointed Conc

Select New Layer

Layer : Select a Layer

Add Layer

Shoulder Sections

#	Layer Name	Data Entry Status	
2	HMA Top Course	Draft	☐
1	Cold Milling	Draft	☐

Move Up | Move Down | Remove

Curb & Gutter Details [Job # - 110749 / PR # - 961905/ MP :4.465 ... 4.499] Right Side

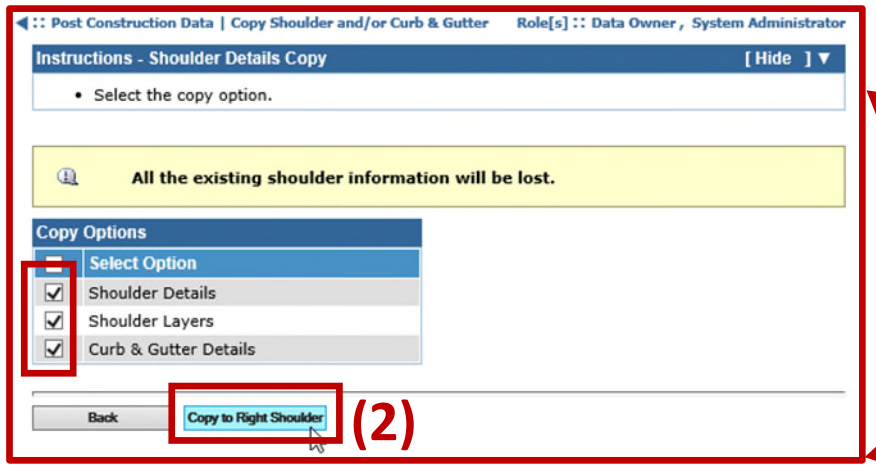
* Work Done : Yes No
* Curb Type : Concrete Curb & Gutter

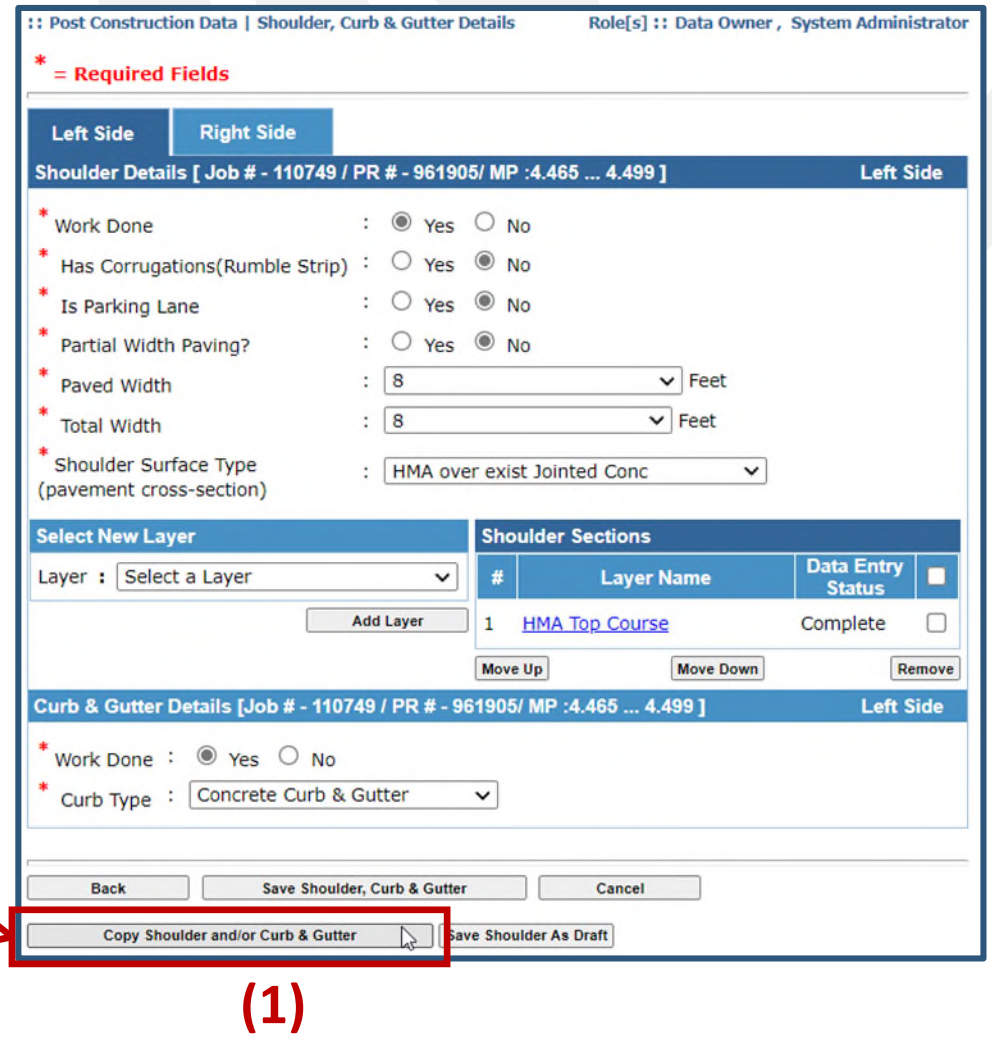
Back | Save Shoulder, Curb & Gutter | Cancel

Copy Shoulder and/or Curb & Gutter | Save Shoulder As Draft

EDIT SHOULDER, CURB & GUTTER DETAILS

- Copying Shoulder details
  - Click '*Copy Shoulder and/or Curb & Gutter'* (After Saving a side as Complete) **(1)**
  - **Options:**
    - To overwrite and copy everything to other side – click 'Copy to…Shoulder' **(2)**
    - Or, uncheck a box to not overwrite everything – click 'Copy to…Shoulder' **(3)**

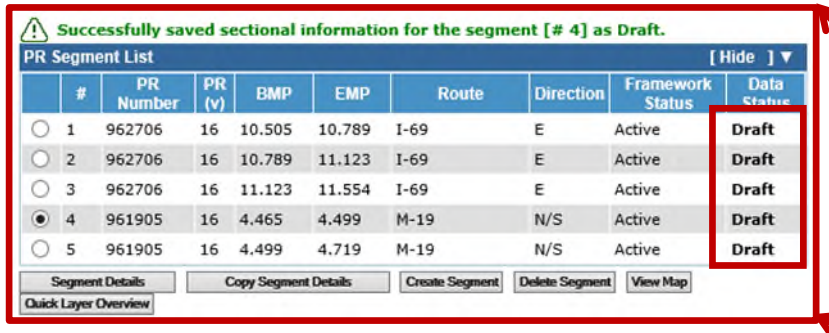


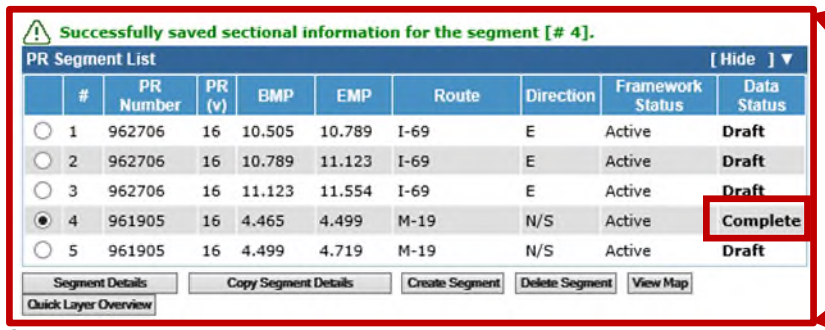


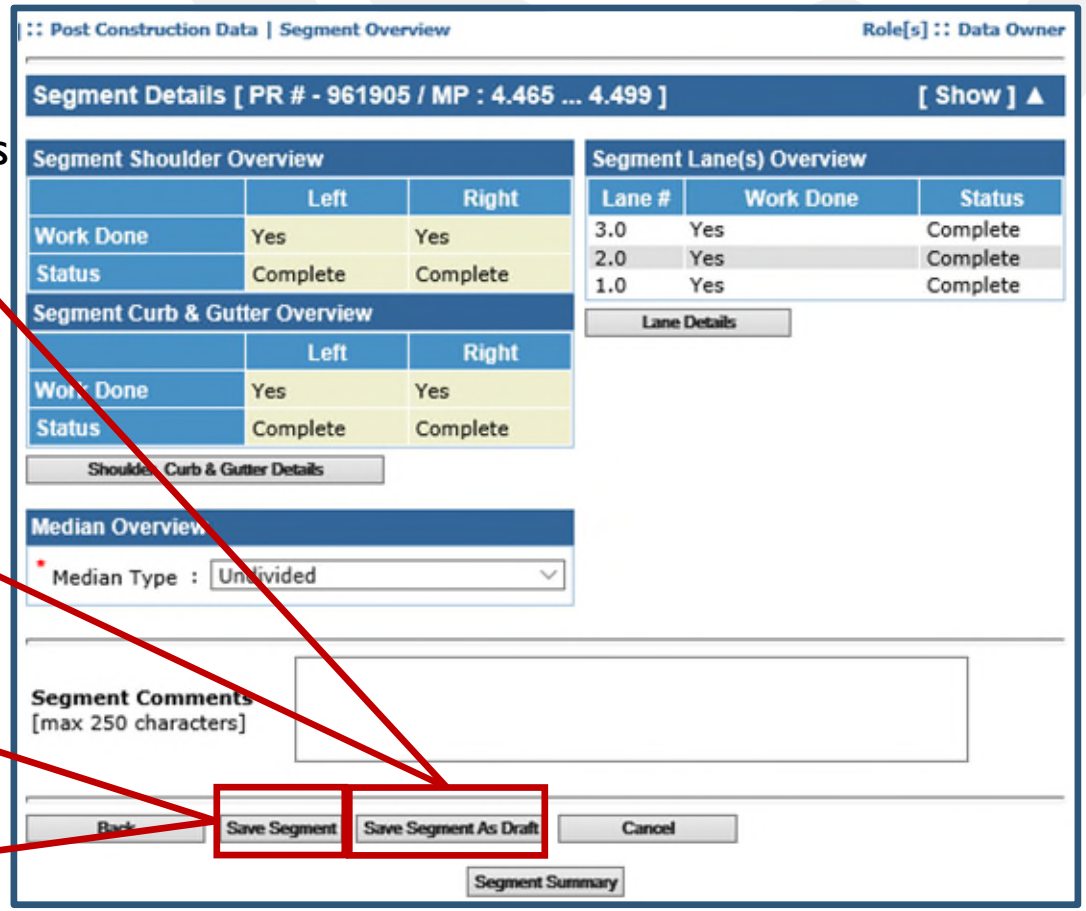
EDIT SEGMENT DETAILS: SAVING

- *Save Segment As Draft*:
  - Lanes/Shoulder, Curb & Gutter **do not** require 'Complete' Status
- Click *Save Segment*:
  - Lanes/Shoulder, Curb & Gutter **does** require 'Complete' Status

Result in the Road Segment List Screen

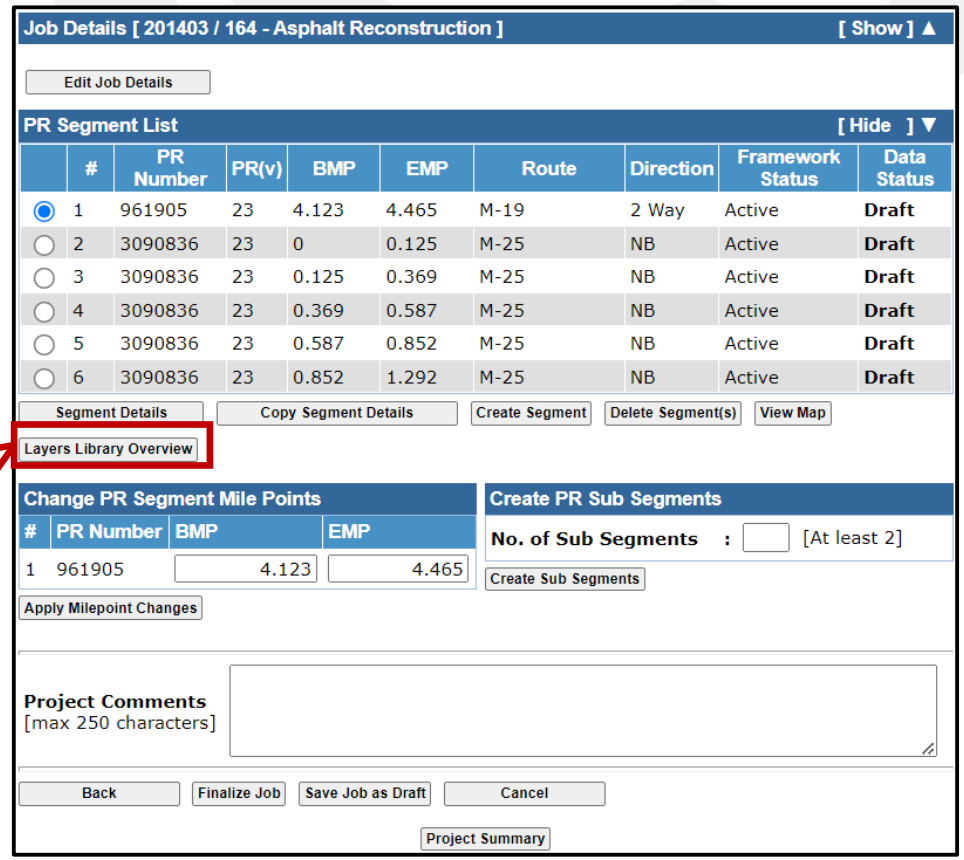


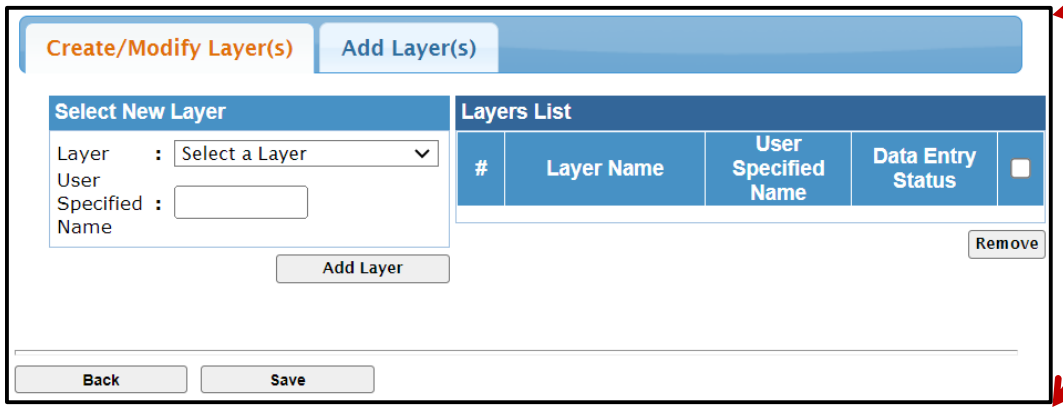




LAYERS LIBRARY OVERVIEW

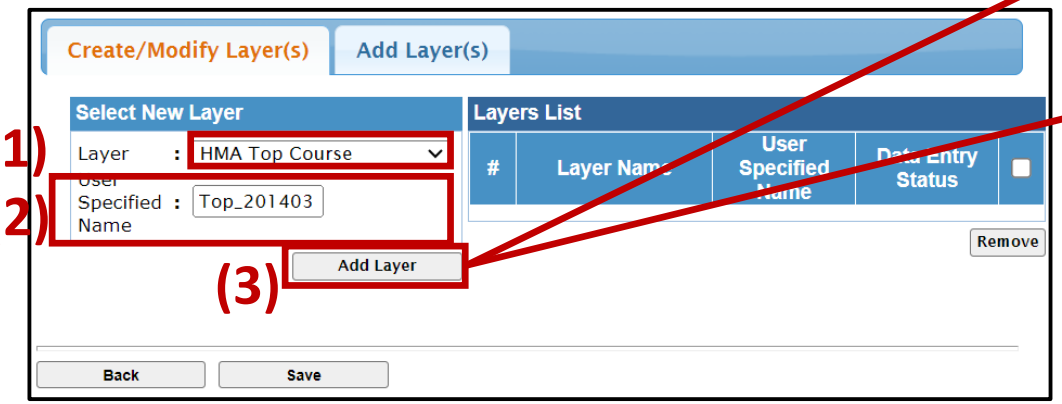
- Function/Purpose:
  - Create/add 'Layers' to segments' lanes/shoulders within a single screen
  - Makes adding/editing layers faster and easier to do
  - This works the same for *Simplified CPM* (adds layers to segments, not lanes)
- Click *Layers Library Overview*
  - The Layers Library Overview screen will appear

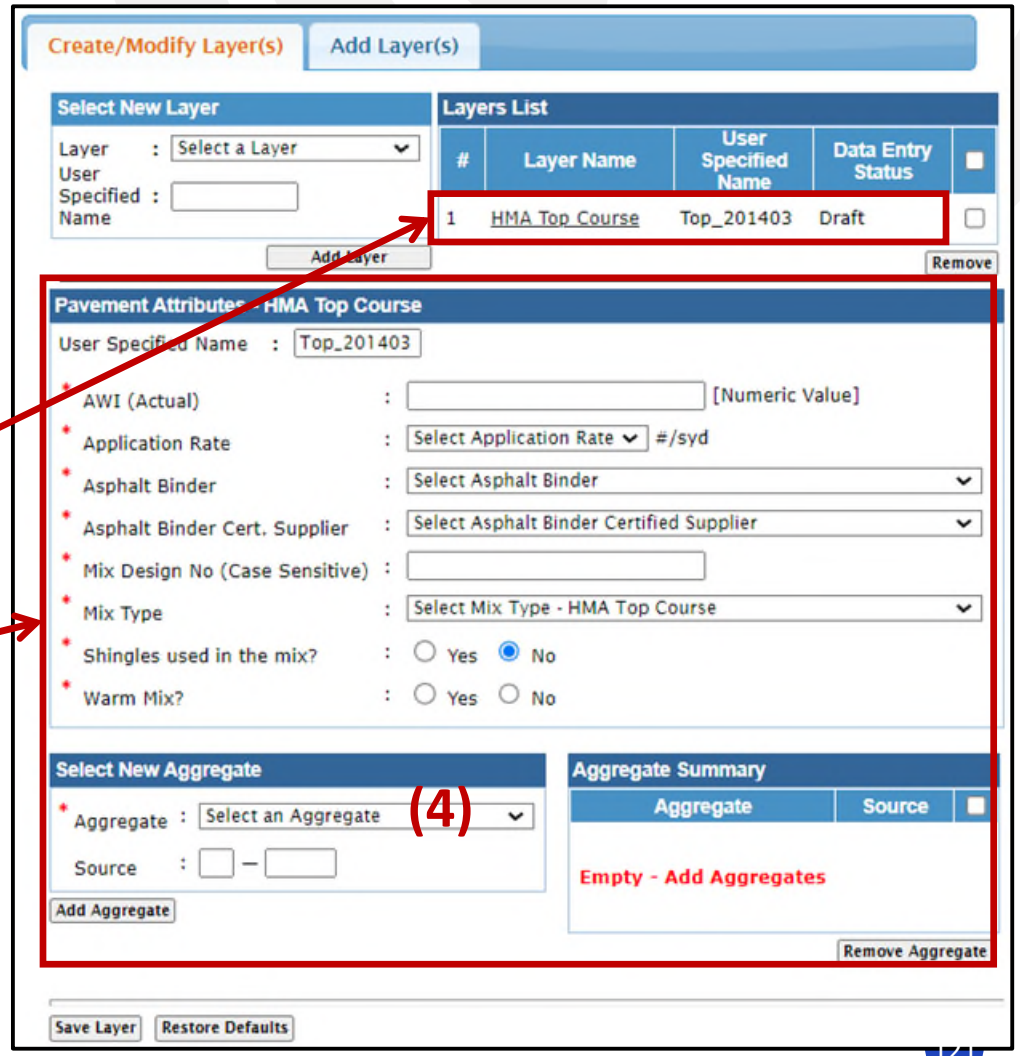




LAYERS LIBRARY OVERVIEW: CREATE/MODIFY

- To **add** a 'Layer', in the Select New Layer pane:
  - Select a Layer from the drop-down list **(1)**
  - Enter a unique name in the text box **(2)**
  - Click '*Add Layer*' **(3)**
- **Edit/complete** the layer & aggregate details **(4)**
  - ***NOTE:*** *Each 'Layer' must have a unique name*

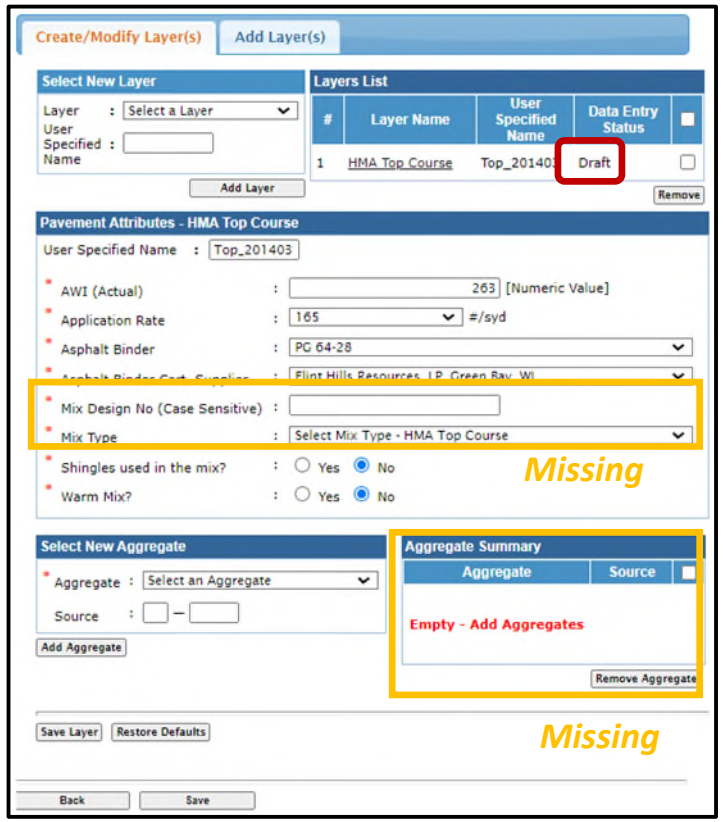




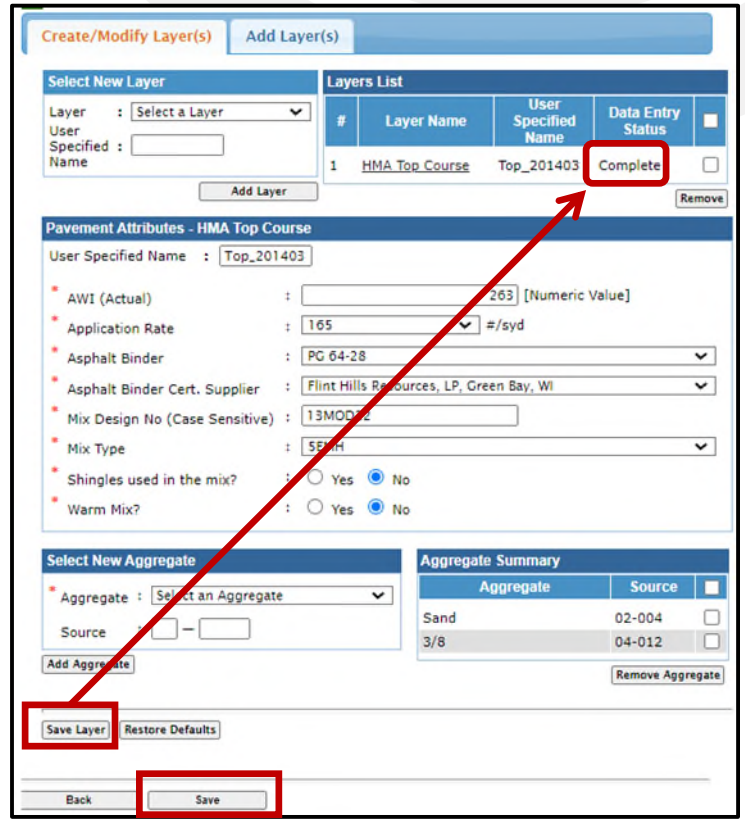
LAYERS LIBRARY OVERVIEW: CREATE/MODIFY

- To **save a 'Layer'**, click '***Save Layer***'
  - ***NOTE:*** *If attributes are missing, the Data Entry Status is saved as* ***Draft****. If all attributes are entered, it is* ***Complete****.*
  - ***WARNING:*** *Clicking Save, is* ***not*** *the same as Save Layer. Click Save Layer* ***before*** *clicking Save.*

Draft

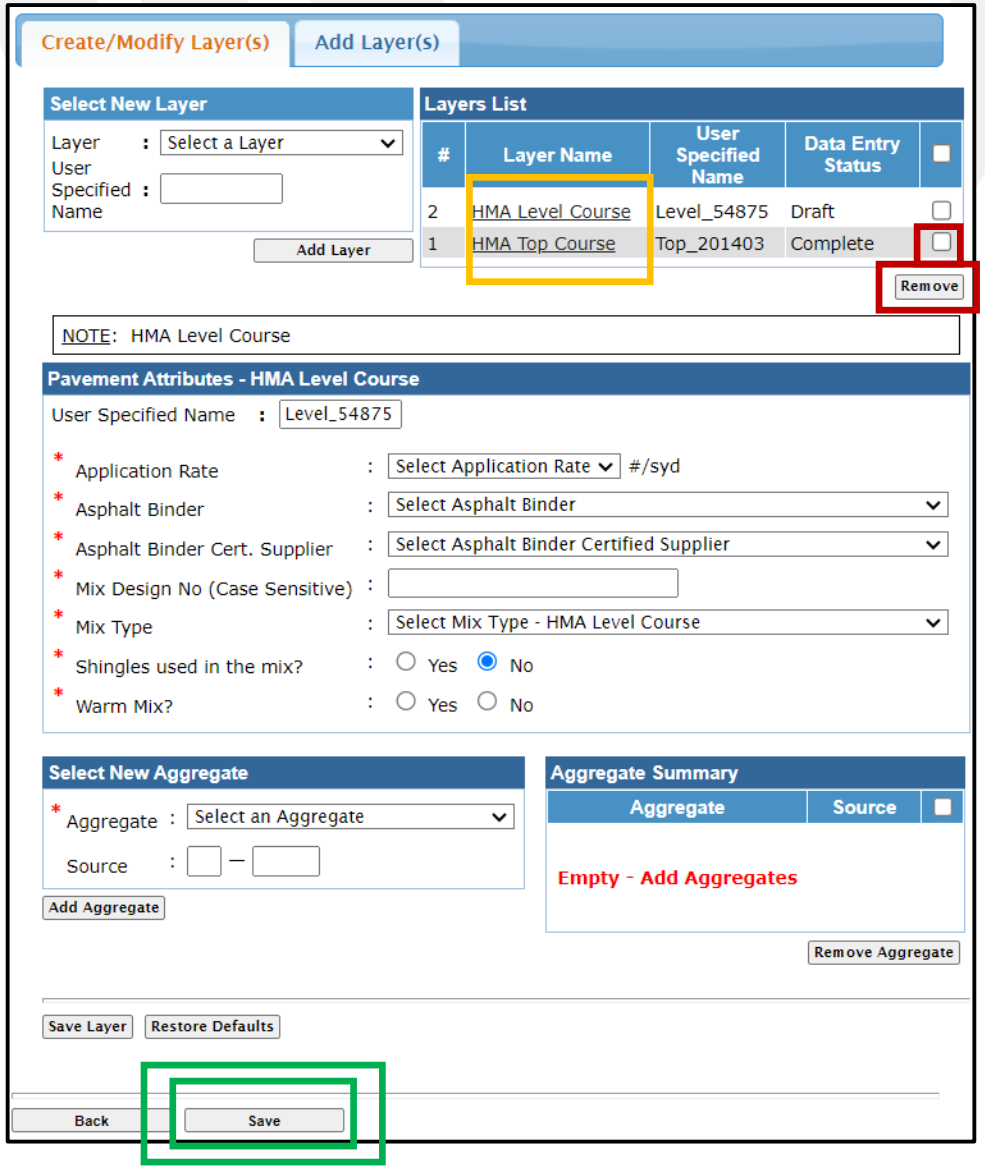


Complete



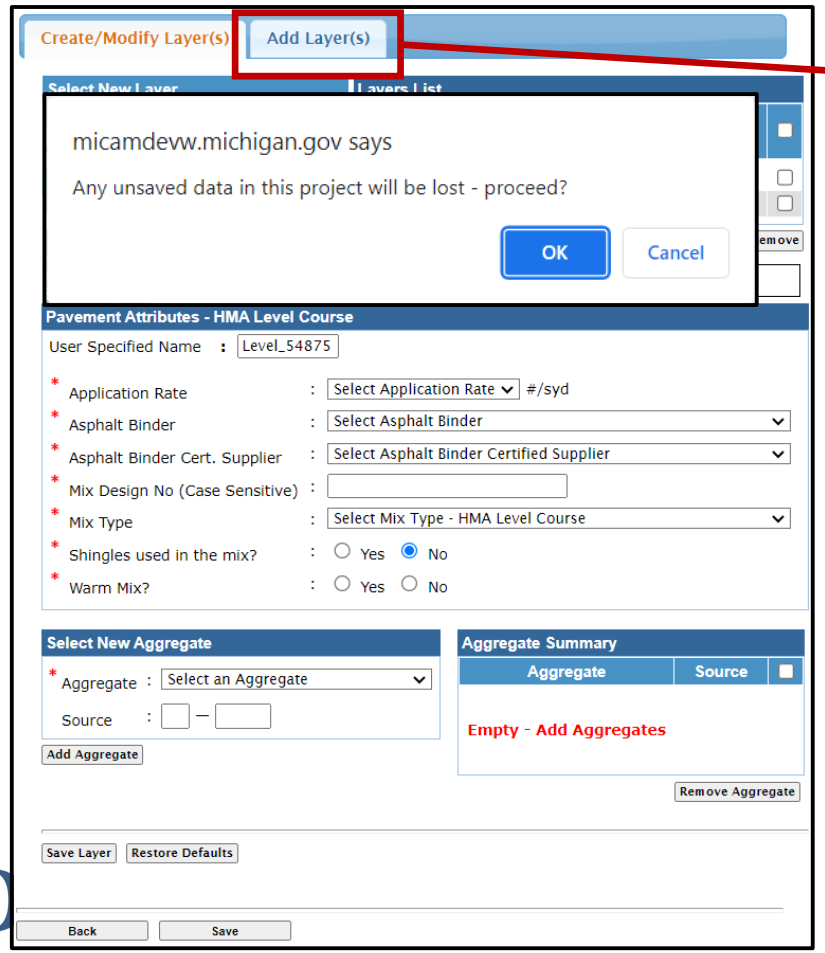
LAYERS LIBRARY OVERVIEW: CREATE/MODIFY

- To **change** the active 'Layer', click the layer name in the Layers List pane
- To **remove** a 'Layer', select the layer checkbox and click '*Remove*'
- Click '***Save***' at bottom of screen (After all layers are complete and layer saved)
  - **WARNING:** **Always** click Save **before** clicking Back or Add Layers tab. Otherwise, all added layers or changes will be lost

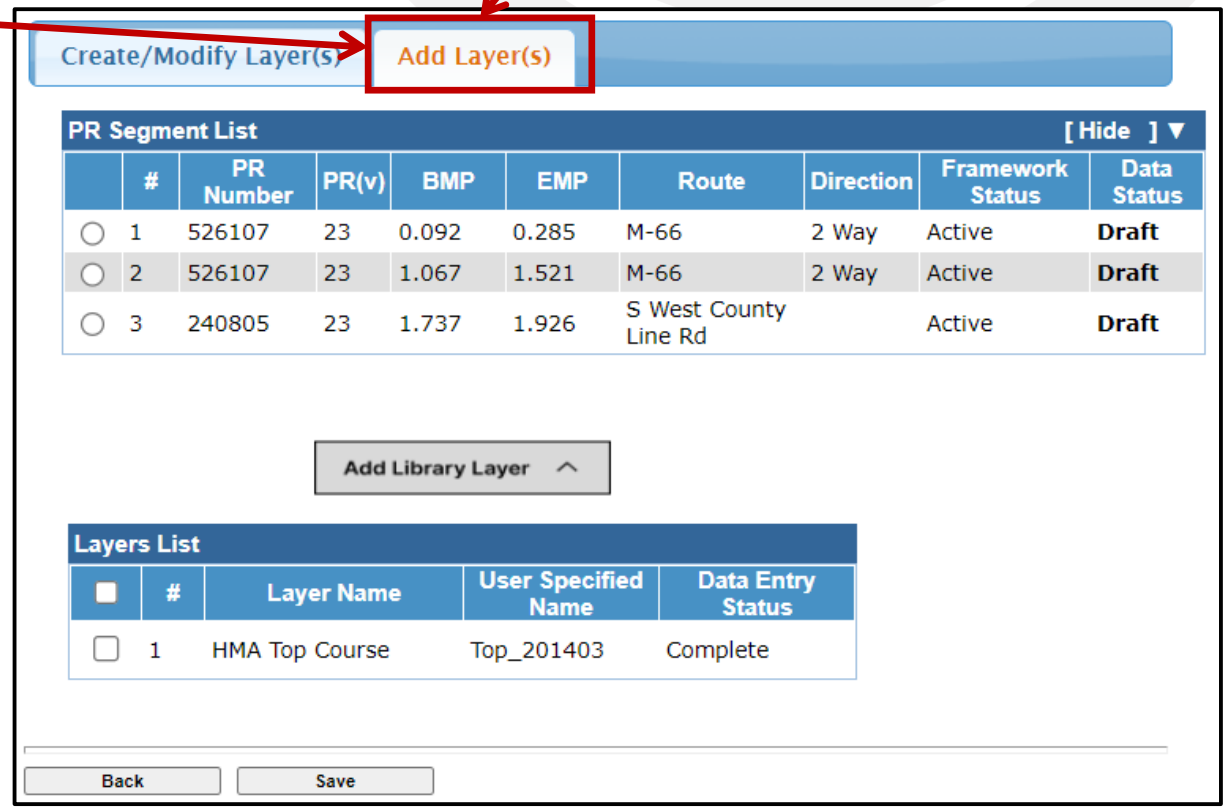


LAYERS LIBRARY OVERVIEW: ADD LAYERS

- After all layers are complete, layers saved, and screen saved:
  - Click ***'Add Layers'*** tab
    - Unsaved data warning will always appear (even if you did save)

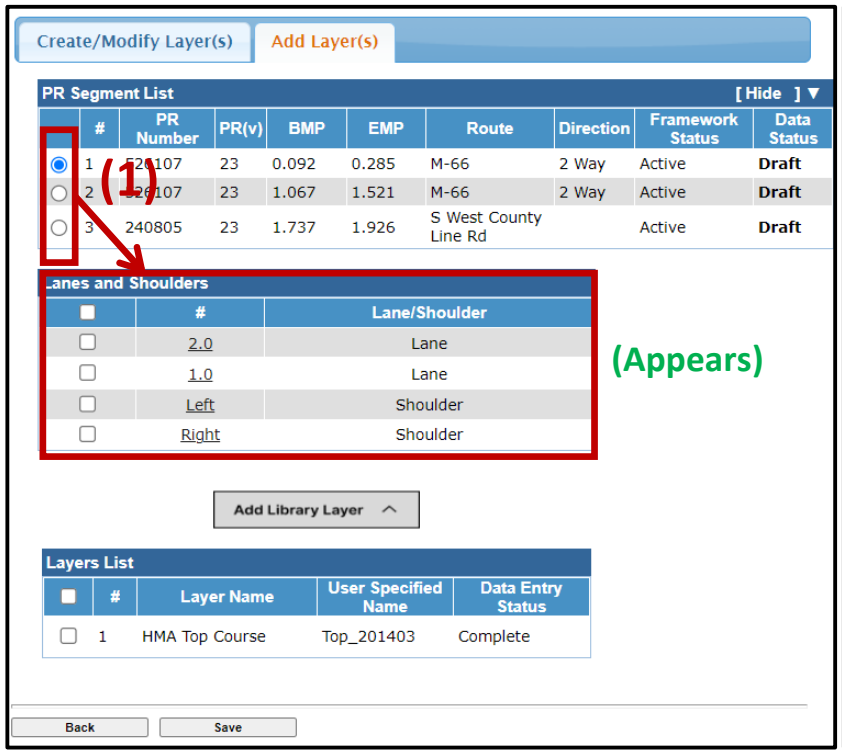


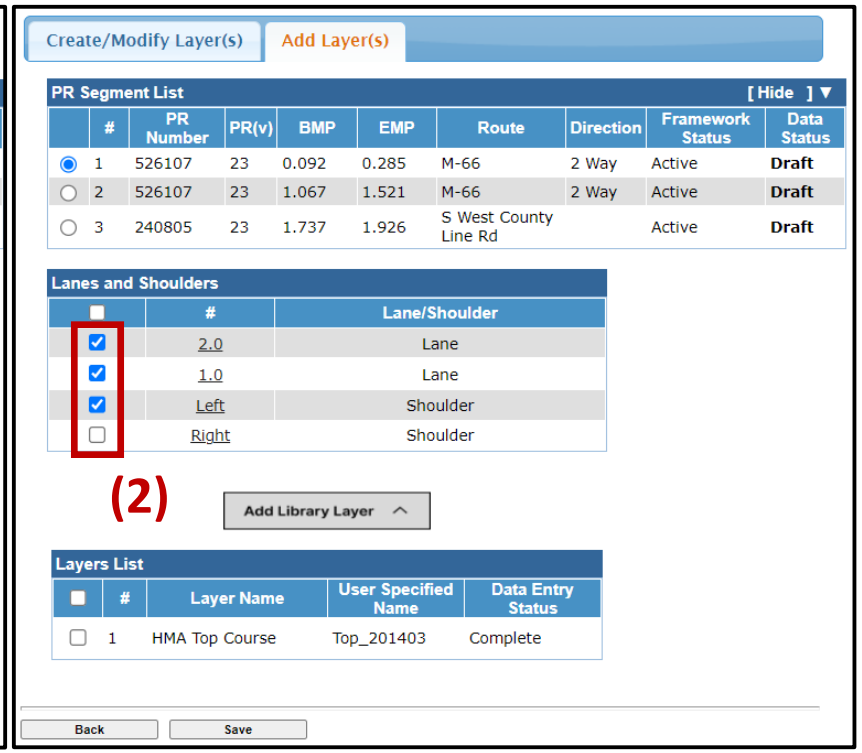
Note: This is now the active tab (shown in orange)

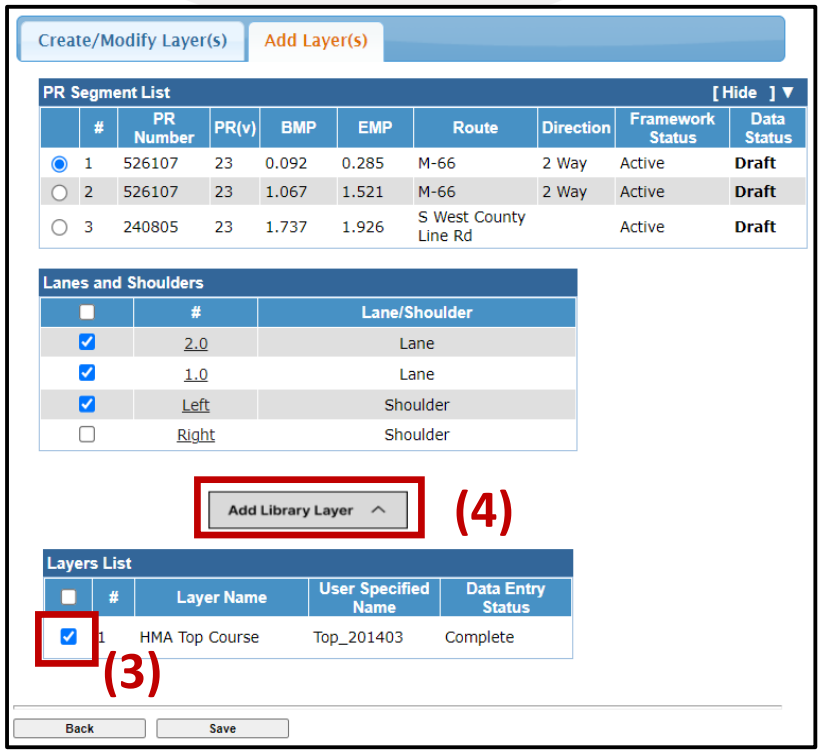


LAYERS LIBRARY OVERVIEW: ADD LAYERS

- To **add** a 'Layer':
  - **(1)** Select a segment's radio button - Lanes and Shoulders pane appears below
  - **(2)** Select lane(s) or shoulder(s) radio button (to copy to)
  - **(3)** Select a layer from the Layers List
  - **(4)** Click *Add Library Layer (above)* - the layer is added to the Lane/Shoulder Section pane

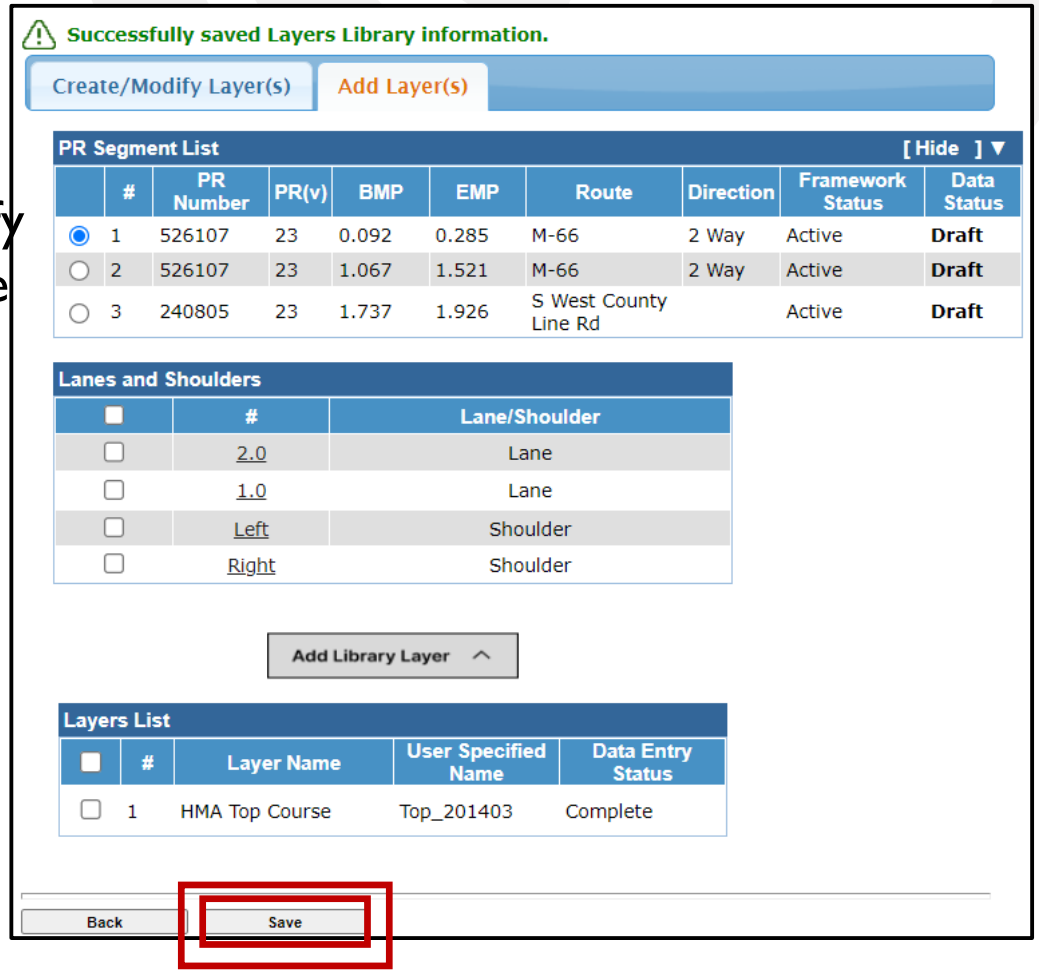






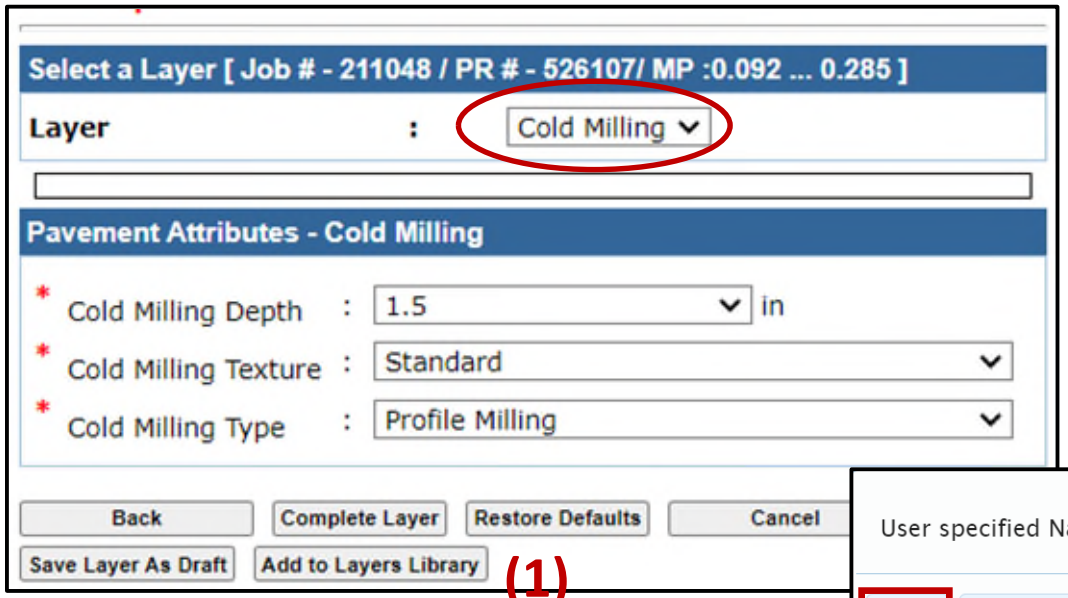
LAYERS LIBRARY OVERVIEW: ADD LAYERS

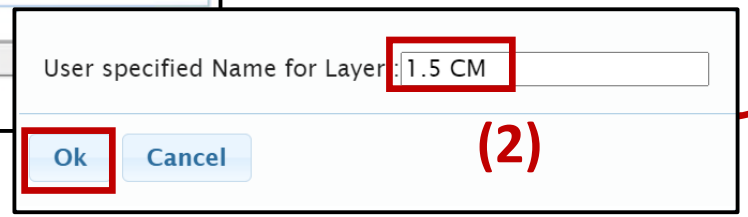
- After all layers are added to the current lane or shoulder:
  - Click ***'Save'*** (at bottom of screen)
  - **WARNING:** **Always** click Save **before** selecting a new segment/lane/shoulder radio button, Back, or Create/Modify Layer(s) tab. Otherwise, all added layers or changes will be lost

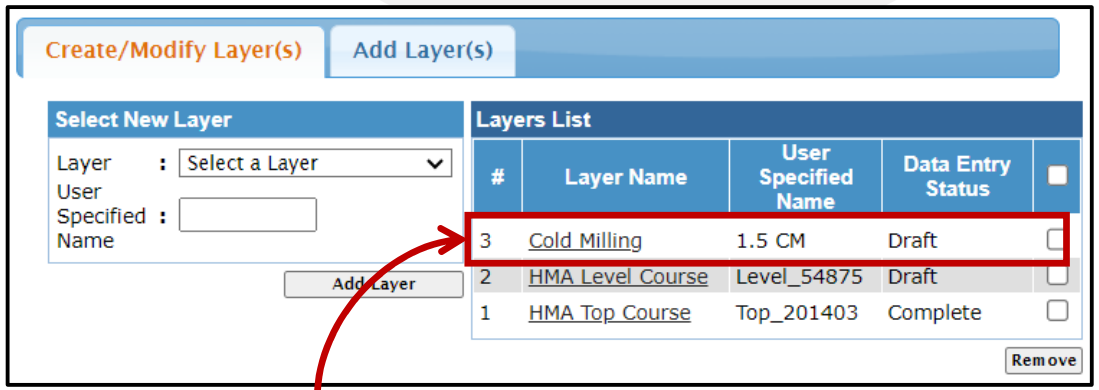


ADD A LAYER FROM LAYER DETAILS

- **Add** to the list of 'Layers Library' **"on the fly"** while working within the Layer Details screen:
  - Click '*Add to Layers Library*' **(1)**
  - Enter the name in the pop-up window **(2)**
  - Click 'Ok' **(3)**



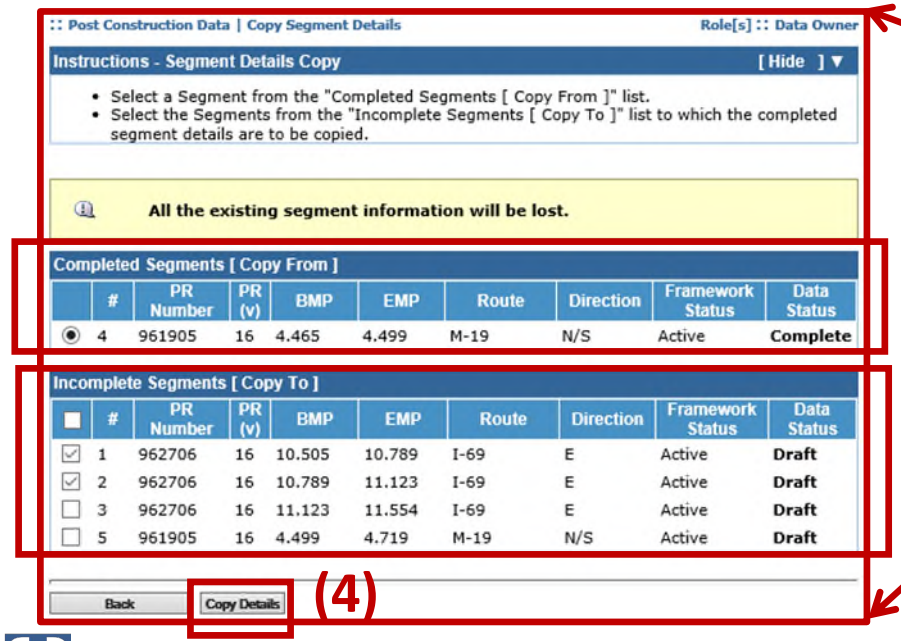




Result in the Layers Library Overview Screen

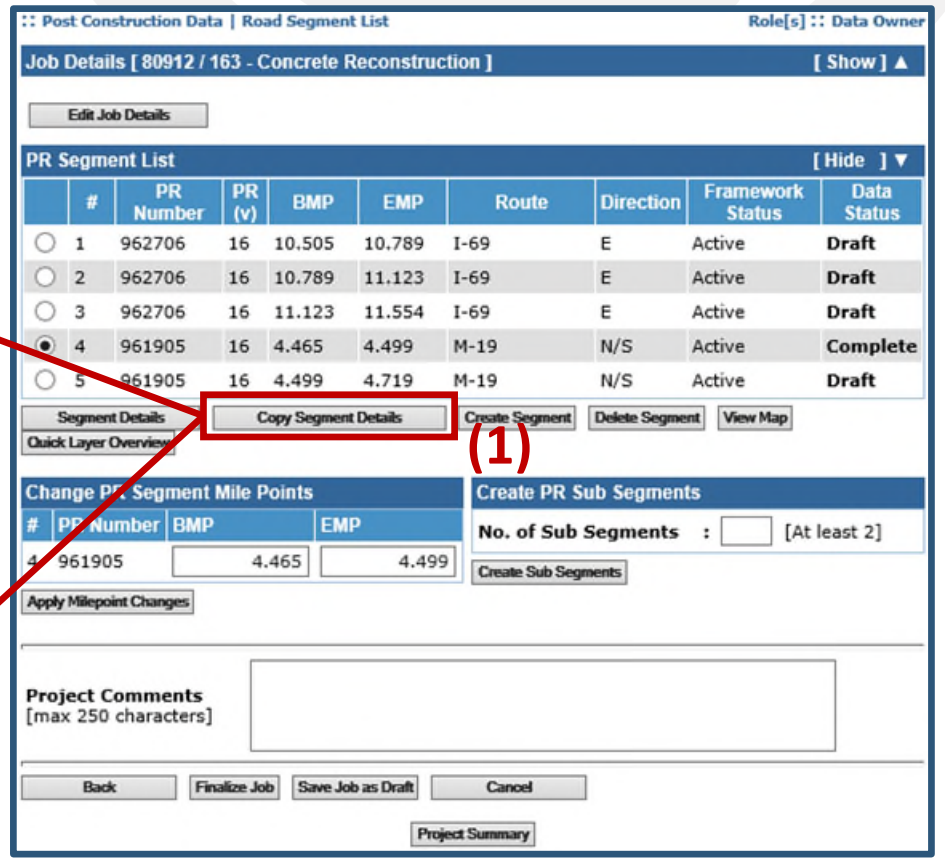
COPY SEGMENT DETAILS

- Click '*Copy Segment Details*' **(1)**
- In the Copy Segment Details screen, select:
  - The **Completed** segment to **copy from** (select only one) and, **(2)**
  - The **Draft** segment to **copy to** (can select multiple) **(3)**
- Click '*Copy Details*' **(4)**
  - ❖ WARNING: All segment details (lanes, shoulders/curb & gutter) will be overwritten



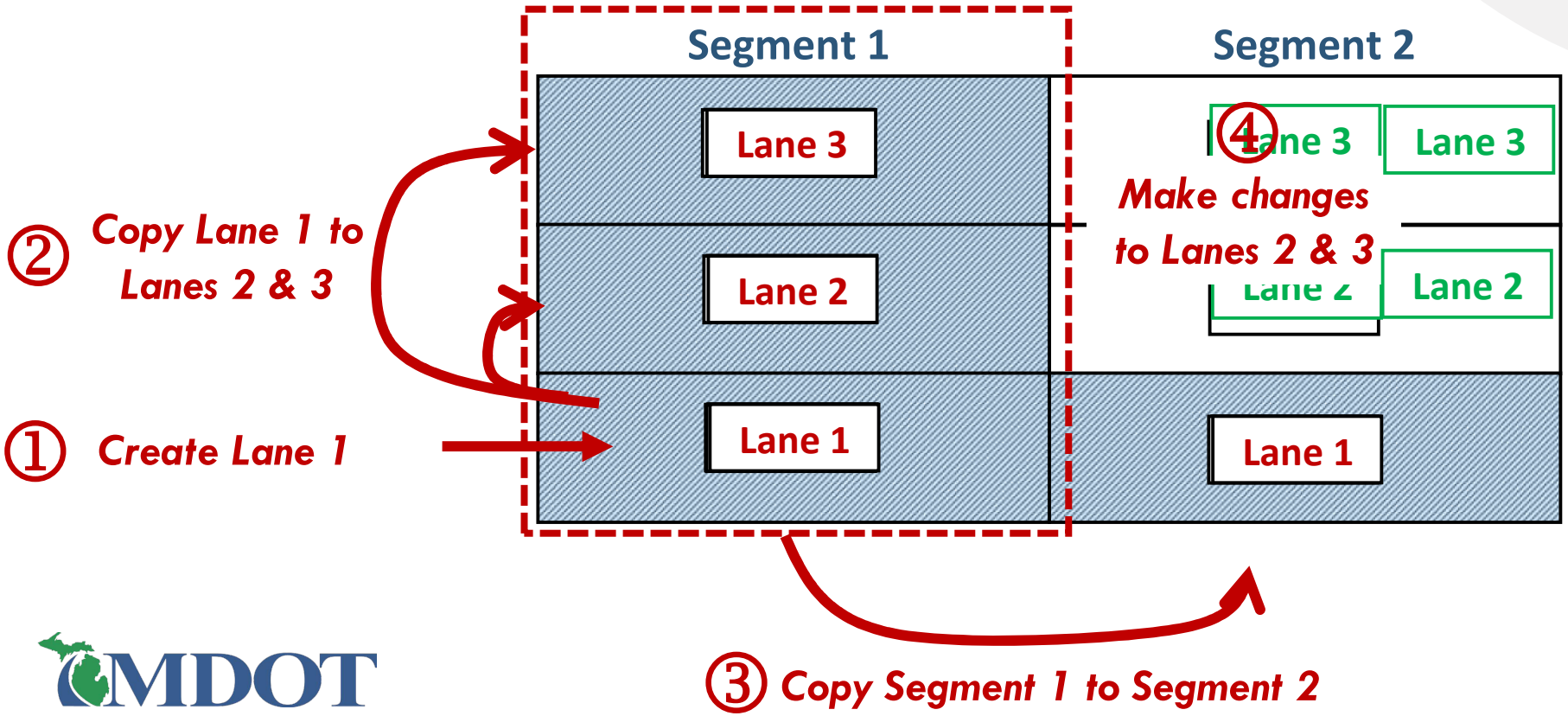
Copy From Complete Segment

Copy To Draft Segments



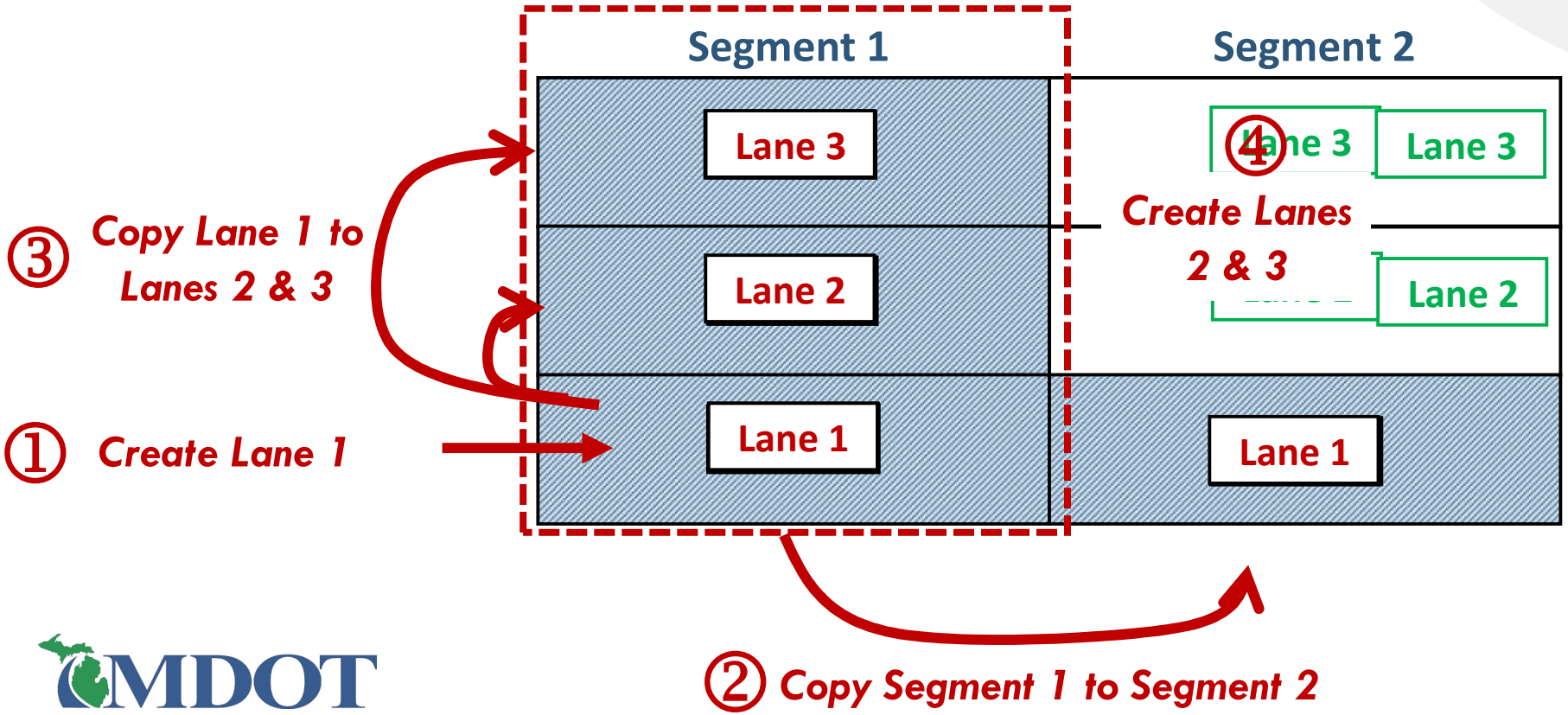
COPYING EXAMPLE (1)

- Using ***Copy Lane*** or ***Copy Segment*** *Details* can reduce data entry time and errors
- For Example:
  - Segment 1 has three lanes with identical info
  - Segment 2 has three lanes with different info, but Lane 1 is identical to Lane 1 of Segment 1



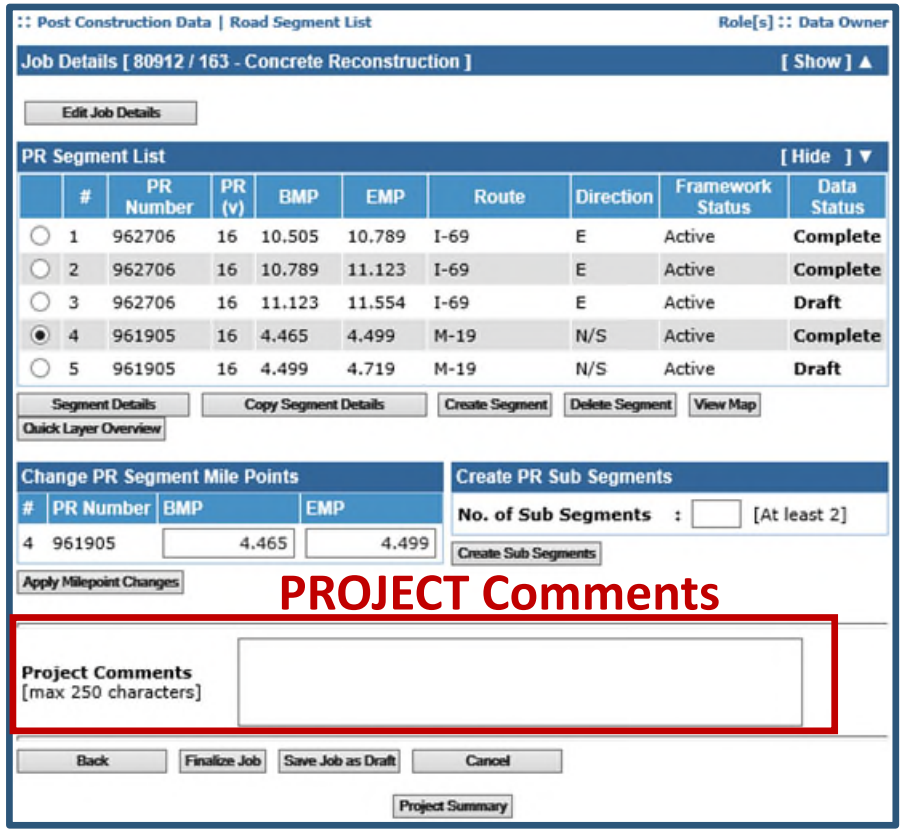
COPYING EXAMPLE (2)

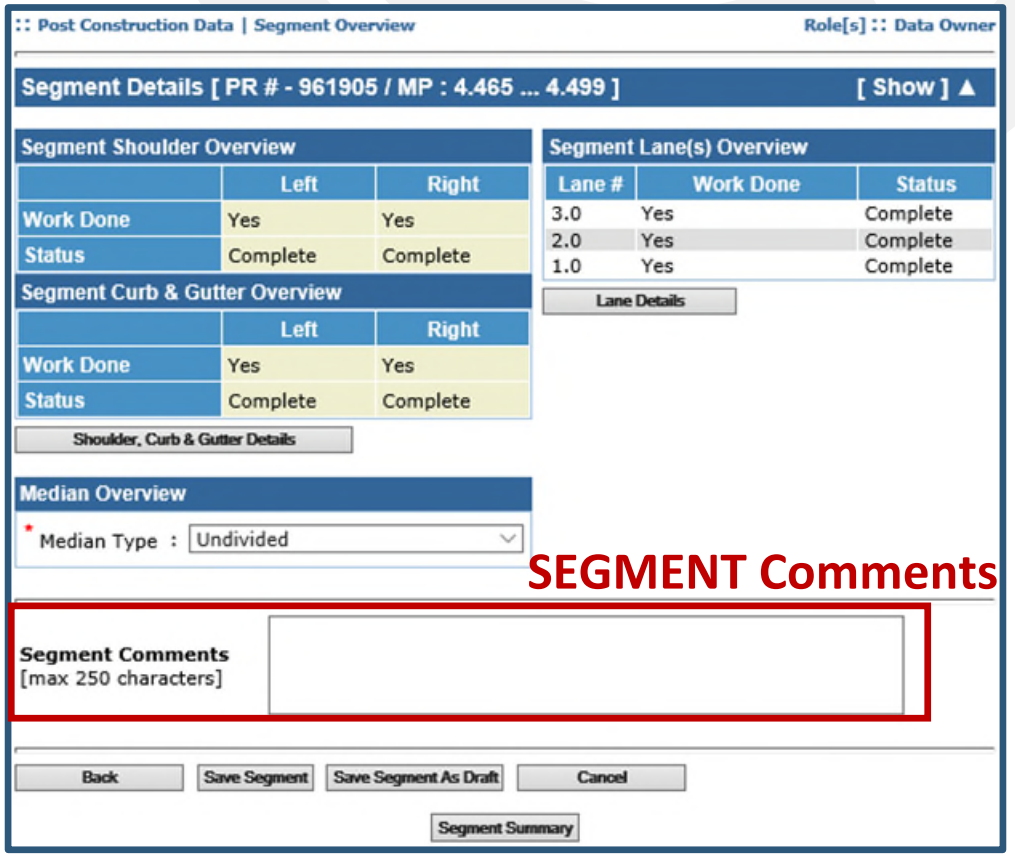
- Using ***Copy Lane*** or ***Copy Segment*** *Details* can reduce data entry time and errors
- For Example:
  - Segment 1 has three lanes with identical info
  - Segment 2 has three lanes with different info, but Lane 1 is identical to Lane 1 of Segment 1



COMMENT BOXES

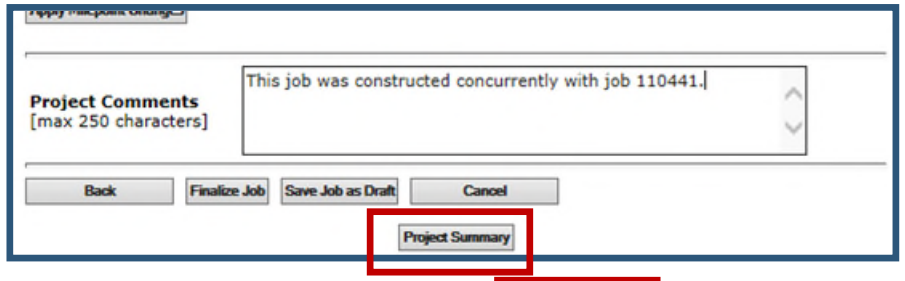
- Comment boxes are used to enter project specific details or additional information relating to the project or a particular segment
- Users can enter **up to 250 characters** of text

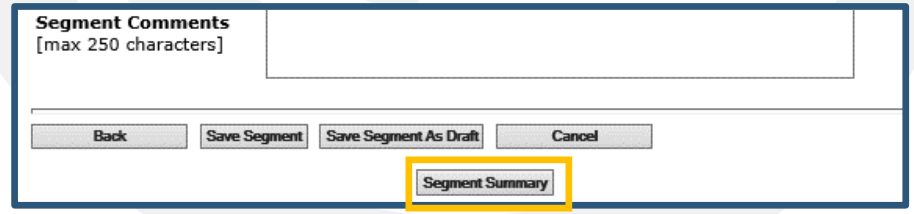




PROJECT/SEGMENT SUMMARY

- Click ***Project Summary*** in the Road Segment List screen, or
- Click ***Segment Summary*** in the Segment Overview screen
  - A PDF format pop-up summary will appear
  - The summary is an excellent resource for QA/review of entered data





Project Summary

Job Summary

Job Number	Work Type	Fix Life (Yrs)	Cost[1] / Lane Mile ($)	Date	Lanes	Special Project Type	Pavement Study Number
80912	163 - Concrete Reconstruction	26		09/20/2016[a]	0	N/A	N/A

[1] - Construction Cost or A Phase CTD from MPINS / [a] - Open to Traffic Date / [b] - Let Date / [c] - A Phase start date / [d] - Sufficiency Year_Imp

Segment Details

Region	TSC	County	Route	PR Number	PR BMP	PR EMP
Bay	Huron	St. Clair	I-69	962706	10.505	10.789

Median Type: Undivided / Median Width: 0 ft

Lane [1.0], Lane Type [Mainline], Sectional Details [Surface Type:HMA full depth / Width: 12.00 ft / Partial Width Paving: No / Paving Width: N/A]

Year Constructed	Pavement	Attribute	Value	Aggregate	Pit / Source
		AWI (Actual)	283	2NS	72-006
		Application Rate	165 Pounds Per Square Yard	21A	13-078
		Asphalt Binder	PG 70-28P		

Segment Summary

Job Summary

Job Number	Work Type	Fix Life (Yrs)	Cost[1] / Lane Mile ($)	Date	Lanes	Special Project Type	Pavement Study Number
80912	163 - Concrete Reconstruction	26		09/20/2016[a]	0	N/A	N/A

[1] - Construction Cost or A Phase CTD from MPINS / [a] - Open to Traffic Date / [b] - Let Date / [c] - A Phase start date / [d] - Sufficiency Year_Imp

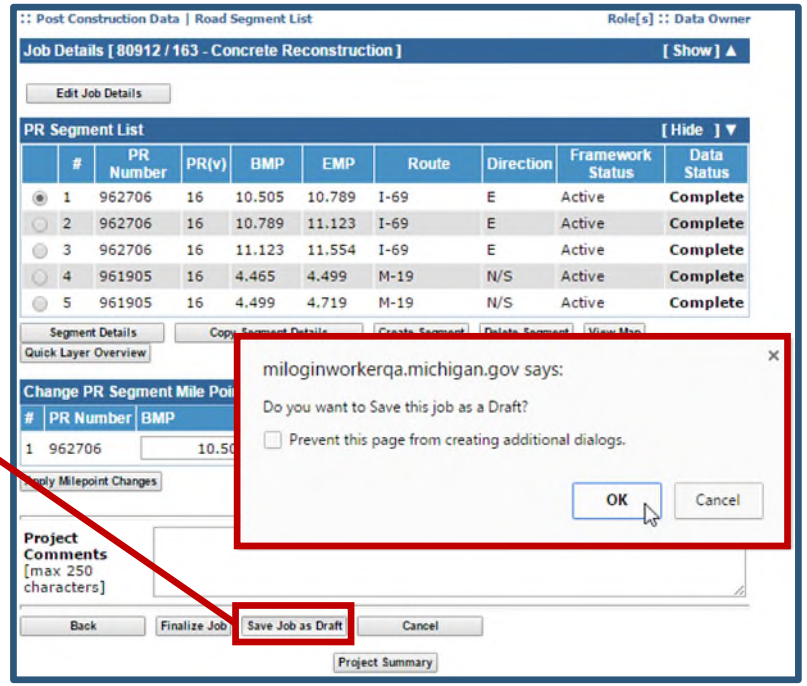
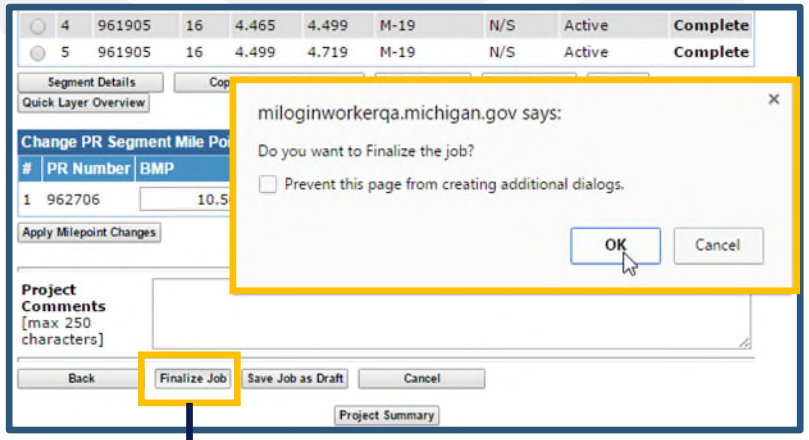
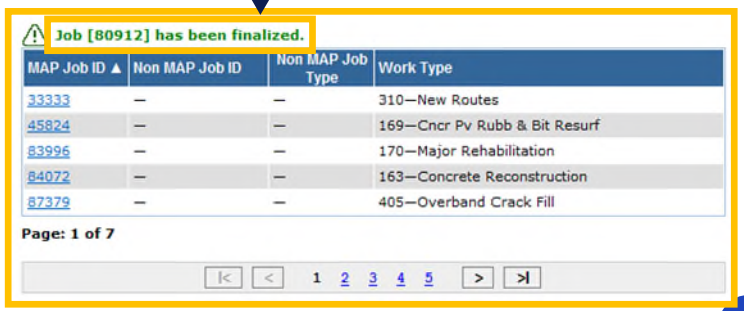
Segment Details

Region	TSC	County	Route	PR Number	PR BMP	PR EMP
Bay	Huron	St. Clair	M-19	961905	4.465	4.499

Median Type: Undivided / Median Width: 0 ft

Lane [1.0], Lane Type [Mainline], Sectional Details [Surface Type:HMA full depth / Width: 12.00 ft / Partial Width Paving: No / Paving Width: N/A]

Year Constructed	Pavement	Attribute	Value	Aggregate	Pit / Source
		AWI (Actual)	283	2NS	72-006
		Application Rate	165 Pounds Per Square Yard	21A	13-078
		Asphalt Binder	PG 70-28P		
		Asphalt Binder Certified Supplier	Ajax Asphalt Terminal, Detroit, MI		
	HMA Top Course	Mix Design No. (Case Sensitive)	13MD299		
		Mix Type - HMA Top Course	5E3		
		Shingles Used	N		
		Warm Mix	N		
		Application Rate	220 Pounds Per Square Yard	22A	13-003
		Asphalt Binder	PG 70-28P	2NS	72-006
		Asphalt Binder Certified Supplier	Ajax Asphalt Terminal, Detroit, MI		
	HMA Level Course	Mix Design No. (Case Sensitive)	13MD297		

SAVE JOB AS DRAFT OR FINALIZE JOB

- ***Save Job as Draft***:
  - **Data Entry user:** Saves and keeps the job in the Modify area
  - **Data Owner user:** Saves and moves the job from the Review area back to the Data Owner's Modify area
- ***Finalize Job***:
  - **Data Entry user:** Saves and moves the job to the Data Owner's Review area
  - **Data Owner user:** Finalizes and sends the job to the PHD database