

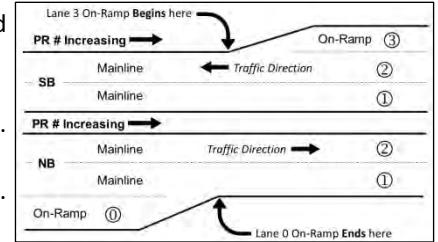
# Pavement Historical Database (PHD)

## QUICK REFERENCE GUIDE – Data Entry & Review

### GENERAL

- This document assumes that data to be entered has been gathered and that segmentation (PR #'s, BMP's, EMP's) has been worked out.
- Items in PHD with a \* are required to be entered. Layers, lanes, segments cannot be saved if these items are missing data.
- Projects can be saved as draft and returned to at a later time.
- Lanes are numbered right to left when looking in the direction of increasing milepoints. Note that this may be the opposite of the direction of traffic. (see example)
- Right most mainline through lane is always #1. Lanes to the right are numbered 0, -1, etc. Lanes to the left are numbered 2, 3, etc. (see example)
- Layers need to be entered top to bottom as they appear in the cross-section. Repairs and other pre-overlay work to the existing pavement should be entered as the bottom layers.
- Only the work completed under the project is to be entered – existing pavement details, layers, etc. are not entered. The one exception to this is the entire cross-section must be taken into account when selecting Surface Type for lanes and shoulders.
- Only work on MDOT roadways is entered in PHD.
- The PHD User Guide can be opened by clicking on PHD Help near the top of the PHD window.

**Example:**

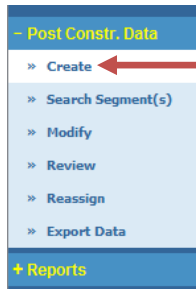


### Definitions

- MAP project** – A project within an MDOT Job Number (e.g. 23456) and with information stored in the MDOT Architectural Project (MAP) database. M-funded projects (e.g. M100234) are not MAP projects.
- Non-MAP project** – A project that does not have information stored in the MAP database. These include work by maintenance forces (MDOT or county), Transportation Work Authorizations (TWA), warranty work, M-funded projects, historic (older let projects not in MAP), and Permit work.
- Segment** – Length of roadbed identified by a Physical Road (PR) number, beginning mile point (BMP), and ending mile point (EMP) that has the same geometry, cross-section, and materials. Changes in layers, layer attributes, # of lanes, lane details (type, width), shoulders/curb & gutter details, or PR, requires a new segment to be created.
- Layer** – A layer of material placed as part of the project. Also include repairs and pre-overlay work.
- Attribute** – A physical characteristic of or material used in a layer. For example layer thickness, mix type, aggregate, etc.

### CREATE A JOB

Select **Create** from Post Constr. Data menu



#### MAP Project

**Is MAP Job:** Yes  
**MAP Job ID:** Enter the MDOT Job Number without the 'A'  
**Measurement System:** Select English or Metric to match project units  
 ➤ Click Next Step  
**Special Project Type:** Select the appropriate Special Project Type, (if applicable). A study number will be needed for National and State Pavement Studies

#### Non-MAP Project

**Is MAP Job:** No  
**Non-MAP Job ID:** Create a Job ID using the conventions outlined in the table  
**Measurement System:** Select English or Metric to match project units  
 ➤ Click Next Step  
**Work Type Code:** Choose a work-type code  
**Use SIMPLIFIED CPM format?:** Select 'Yes' or 'No' (Appears if Work Type code is 400-499, see page 5)  
**Special Project Type:** Select the appropriate Special Project Type, (if applicable). A study number will be needed for National and State Pavement Studies  
**Non MAP Job Type:** Choose a non-MAP job type  
**Open to Traffic Date:** Enter the open to traffic date for the project  
**Fix Life:** Enter the fix life  
 ➤ Click Save & Next

**Use SIMPLIFIED CPM format?:** Select 'Yes' or 'No' (Appears if Work Type code is 400-499, see page 5)

**Open to Traffic Date:** Enter the open to traffic date for the project  
 ➤ Click Save & Next

**Job is ready for data entry and is available in the Modify area for later entry.**

**Job is ready for data entry and is available in the Modify area for later entry.**

Project Type	Resource for Job ID
M-Funds	Use the "M" job number. If one has not been assigned ask the TSC Transportation Maintenance Coordinator to assign an "M" job number using the Anderson Method.
TWA	Use the TWA number. Your region financial analyst can tell you the number, or assign a number if needed.
Warranty	Use the prefix "W" followed by the original 5 or 6 digit job number
Direct Forces Work	Create a direct forces work reference number for PHD use only. Use the following conventions: DYYYYCnrouteBMP 1. The prefix "D" followed by four digits representing the year. 2. The two digit county number. 3. The route. Use an alpha numeric with a hyphen as separator; for example, "US-31" or "US-31BR". 4. The beginning mile point (including decimal point). (There is a twenty character limit.)
Historic	Use either the project number from the title sheet of the historic plans or the records used for the data entry.
Permit	Use the prefix "P" followed by the last 10 digits of the permit number. The TSC permit agent will be able to provide this information.

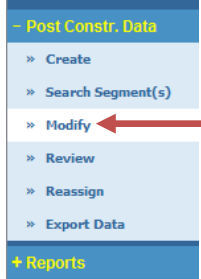
# Pavement Historical Database (PHD)

## QUICK REFERENCE GUIDE – Data Entry & Review

### ENTERING DATA – PR SEGMENTS LIST

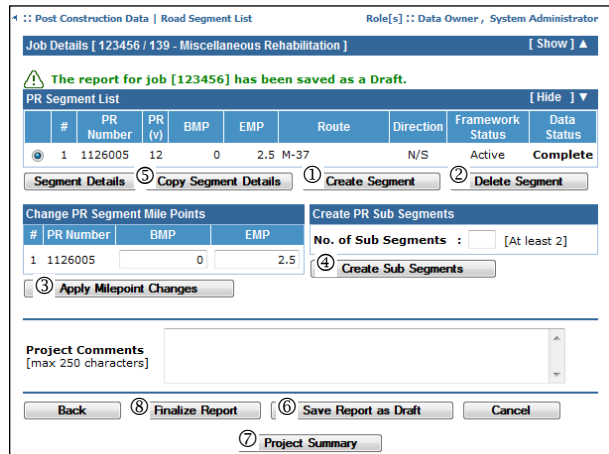
Projects previously created and currently saved as Draft will appear in the Modify area, (only projects assigned to the user will appear)

Select **Modify** from Post Constr. Data menu



- Click the Job ID of the saved project for editing
  - Note there are 2 sections: Search Filter and Job list
  - The Search Filter can make searches for a particular job(s) by Job Type, Work Type, and/or ID.
  - The '%' symbol is a wild card and can be used for searches if only partial ID is known
- Click Next Step
- Click Save & Next

Following 'Save & Next', PR Segments List is displayed:



- This screen lists the current segmentation of the project
- Segments can be created, deleted, copied and split
- Milepoints can be adjusted/changed

#### 1 Create Segment

- Click Create Segment
- PR Number/BMP/EMP: Enter this info accordingly
- Click Create
- OR**
- Click Create and Add One more, (if additional segments are to be created)

#### 2 Delete Segment

- Click the circle next to the segment to be deleted
- Click Delete Segment
- Click Confirm

#### 3 Change Milepoints

- Click the circle next to the segment to be changed
- Change PR Segment Mile Points BMP/EMP: Enter the new milepoints
- Click Apply Milepoint Changes

#### 4 Split Segment (Create PR Sub Segments)

- Click the circle next to the segment to be split
- No. of Sub Segments: Enter number of segments it will be split into
- Click Create Sub Segments
- PR Sub Segment Summary BMP/EMP: Enter info accordingly
- Click Create SubSegments
  - Gaps can be created by splitting a segment and leaving out the milepoints to be gapped OR by deleting one of the sub segments being split (requires at least 3 sub segments)
  - In the Create Sub Segments display, more sub segments can be added by entering the milepoints and clicking Add under Add an additional PR Sub Segment

#### 5 Copy Segments

- Click Copy Segment Details
- Click the circle next to the segment to be copied from
- Click the box(es) next to the segment(s) to be copied to
- Click Copy Details
  - Segment being copied must be listed as Complete (under Data Status column)
  - Segment(s) being copied to, must be listed as Draft
    - **Any existing data will be overwritten**

#### 6 Saving the Project

- Click Save Report as Draft
  - The project will continue to be available for data entry in the Modify area

#### 7 Project Summary (Pop-up Window)

- Click Project Summary
  - Provides the user with a PDF pop-up window that displays all current project information

#### 8 Data Entry Completed

- Click Finalize Report
  - It is strongly suggested that all entered data be reviewed for completeness and accuracy prior to finalizing
  - Data Entry User access level: The project will be sent to the Review area to be checked by a Data Owner
  - Data Owner User access level: The project will be sent to the database

# Pavement Historical Database (PHD)

## QUICK REFERENCE GUIDE – Data Entry & Review

### ENTERING DATA – SEGMENT DETAILS

From the previous PR Segments List Screen

- Click the circle next to the segment of interest
- Click Segment Details

Following 'Segment Details', this screen is displayed:

- This screen displays current segment shoulder, curb & gutter, and lane overviews, which can be accessed for editing
- **Segment Summary**, **Median Overview**, & **Lane Details** on current pg.
- See next page (pg. 4) for **Shoulder, Curb & Gutter Details**

### **i** Median Overview (ENTERING DATA – SEGMENT DETAILS)

- Select the predominant Median Type
  - Use 'N/A' for segments that would not have a median (ie. ramps)
  - Use 'Other' to enter a type not shown in the list
- If applicable, enter the predominant Median Width

### **ii** Segment Summary (Pop-up Window)

- Click Segment Summary
  - Provides a PDF pop-up window that displays only current segment information

### **1** To add more lanes:

- Click Add Left or Right Lane to add lanes left or right of created lanes; (Adds a lane to the left of the highest # or a lane to the right of the lowest #, lanes are auto assigned #)

### **2** To copy lane details (lanes can be further edited for changes):

- Click Copy Lane Details
- Click the circle next to the lane to be copied
- Click the box(es) next to the lane(s) to be copied to
- Click Copy Details
  - Lane being copied must be listed as Complete (under Data Status column on the Segment Details screen)
  - Lane(s) being copied to, must be listed as Draft (**any existing data will be overwritten**)

### **iii** Entering Lane Details (ENTERING DATA – SEGMENT DETAILS)

- Click Lane Details
- Click Add Lane

Following 'Lane Details' and/or 'Add Lane', this screen is displayed:

- Lane #:** Is automatically filled with currently selected lane
- Surface Type:** Select lane pavement surface type (accounting for entire pavement cross section)
- Width:** Select lane width
- Lane Type:** Select lane type (mainline, turn lane, ramp, etc)
- Year:** Enter year lane paved/placed
- Partial Width Paving?:** Select Yes if lane was partially paved
- IF YES**
- Partial Width:** Select the partial paving width

**Layer:** Select first layer of the lane that was constructed (following layers can be added or deleted, and order can be rearranged (Add Layer, Remove, Move Up, and Move Down). Layers are to be shown in order, thus the final layer of construction is on top

- Click Add Layer
- Click and/or enter layer attributes in new page
- Click Complete Layer

### **3** No Work Done (Optional):

- To add lanes without work
- Work Done:** Select No, (automatically set to Yes at top of page)

### **4** To save lane details as Draft:

- Click Save Lane as Draft
  - Selected lane will be saved and shown as draft.

### **5** To save lane details as Complete:

- Click Save Lane
  - Selected lane will be saved and shown as complete if all required details are entered and at least one layer has been added, (but all appropriate layers should be added).
  - If data is not complete, a red error message will appear, listing incomplete data

# Pavement Historical Database (PHD)

## QUICK REFERENCE GUIDE – Data Entry & Review

### iv Entering Shoulder, Curb & Gutter Details (ENTERING DATA - SEGMENT DETAILS)

➤ Click Shoulder, Curb & Gutter Details

Following 'Shoulder, Curb & Gutter Details', this screen is displayed, (only the Work Done item is displayed initially):

- Note that there are left and right side tabs
- Left or right is determined by looking in the direction of increasing milepoints

#### 1 Shoulder Details:

Work Done: Select Yes or No

IF YES

Has Corrugations(Rumble Strip): Select Yes or No

Is Parking Lane: Select Yes or No

Paved Width: Select shoulder paved width

Total Width: Select shoulder total width (includes aggregate width)

Paved Surface Type: Select pavement surface type

#### 2 Select New Layer (Shoulder Sections):

Layer: Select appropriate layer (layers are to be shown in order)

- Click Add Layer
- Enter layer attributes in new page
- Click Complete Layer

#### 3 Curb & Gutter Details:

Work Done: Select Yes or No

IF YES

Curb Type: Select curb type

#### 4 To copy Shoulder details:

- Click Copy Shoulder, Curb & Gutter Details

#### 5 To save current Shoulder side as Draft:

- Click Save Shoulder As Draft

#### 6 To save current Shoulder side as Complete:

- Click Save Shoulder, Curb & Gutter

### REVIEW

Projects can only be reviewed by **Data Owners**

Select **Review** from Post Constr. Data menu

Following 'Review', this screen is displayed:

MAP Job ID	Non MAP Job ID	Non MAP Job Type	Work Type	Owner
40000	-	-	140-Simultaneous Resurfacing	admin1
70000	-	-	164-Bi-Directional Reconstruction	admin2
70000	-	-	142-Resurf, Mill & Pulver	admin2
80000	-	-	167-Crush & Shape & Resurf	admin3
80000	-	-	170-Major Rehabilitation	admin3

- Note there are 2 sections: Search Filter and Job list
- The Search Filter can make searches for a particular job(s) by Job Type, Work Type, and/or ID
- The '%' symbol is a wild card and can be used for searches if only partial ID is known
- The Review screen lists the projects within Data Owner assignment ready for review
- Selecting a job will allow the Data Owner to review and make edits to the job; **If saved as Draft while making edits, the job will no longer be shown in the Review area and will be found in the Modify area**
- Edits and entering further data is explained previously in this document
- The Data Owner can Reassign the job to a Data Entry person to edit. **Job must be saved as Draft to Reassign;** (For further details, see Data and Job Reassignment)

### DATA AND JOB

#### REASSIGNMENT

Allows **Data Owners** to reassign jobs to another person

Select **Reassign** from Post Constr. Data menu

Following 'Reassign', this screen is displayed:

MAP Job ID	Non MAP Job ID	Non MAP Job Type	Work Type	Current User	Assign To
000	-	-	200-Relocation of Existing Source	-	Select User
9999	-	-	199-General Intersectaneous Road	Stan	Select User
00000	-	-	212-Reconstruct and Add Lane (2) Over 6.5 Mile Long	-	Select User
99991	-	-	203-New	Stan	Select User

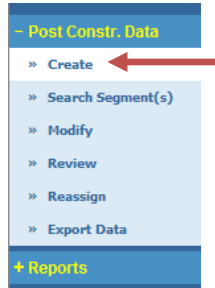
- Note there are 2 sections: Search Filter and Job list
- The Search Filter can make searches for a particular job(s) by Job Type, Work Type, and/or ID.
- The '%' symbol is a wild card and can be used for searches if only partial ID is known
- Assign To: Select the user within jurisdiction to assign the job to
- Click Update
- If successful, a message will appear, 'Jobs were assigned to the selected user successfully.'
- Multiple jobs can be reassigned at one time

# Pavement Historical Database (PHD)

## QUICK REFERENCE GUIDE – Data Entry & Review

### SIMPLIFIED CPM

Select **Create** from Post Constr. Data menu



Following 'Create' and Enter Job Information screen, this screen is displayed:

A screenshot of the 'Job Details' form. The form contains the following fields and options:

- Non MAP Job ID**: 000000
- Work Type Code**: 405 - Overband Crack Fill
- Use SIMPLIFIED CPM format for data entry?**: Yes (selected), No
- Special Project Type**: CPM Emerging Technology Funded, Demonstration Project, National Pavement Studies, State Pavement Studies
- Non MAP Job Type**: Select Non MAP Job Type
- Open to Traffic Date**: [mm/dd/yyyy]
- Fix Life**: 0 Year(s)

Buttons: Back, Save & Next, Cancel

- Simplified CPM format question will only appear when Work Type Code is 400-499
- The user can select 'Yes' or 'No' for Simplified CPM format if the job is a CPM project
  - The selection can only be made once
  - Selecting 'No' will allow the user to enter the job in the traditional format
- Simplified CPM format reduces the amount of information required for entry
  - Lanes are not entered separately
- Simplified CPM format only requires layer information

For Simplified CPM projects, the Segment Overview screen will look like this:

A screenshot of the 'Segment Overview' screen. The screen displays the following information:

- Segment Details**: PR # - 630001 / MP : 3.546 ... 4.53
- Segment Shoulder Overview**: Table with columns Left, Right, Work Done, Status. Values: No, No, No, No.
- Segment Curb & Gutter Overview**: Table with columns Left, Right, Work Done, Status. Values: No, No, No, No.
- Shoulder, Curb & Gutter Details**: Year [Paved/Placed] : [yyyy]
- Segment Sections**: Table with columns #, Layer Name, Data Entry Status. Buttons: Move Up, Move Down, Remove.
- Select New Layer**: Layer : Select a Layer. Button: Add Layer.
- Segment Comments**: [max 250 characters]

Buttons: Back, Save Segment, Save Segment As Draft, Cancel, Segment Summary

- Note, the 'Lane Details' button is removed, and segment layer information is added in the 'Segment Overview' screen
- Year [Paved/Placed] is added in the Segment Overview screen