

Data Entry Items In PHD

(**Bold** = required PHD entry)

Create Screen

- **Is MAP Job?**
 - Select Yes for MAP job and No for Non MAP job
- **Job ID**
 - MAP job number or Non-MAP ID created by user

MAP Jobs

- The following items must be supplied to create a MAP job:
 - *Simplified CPM?*
 - User can select this format for CPM projects with work type code (WTC) from 400 to 499. This format is intended to simplify CPM data entry and requires less information for submittal. This selection is made once, and is set for the duration of data entry and submittal.
 - Cannot use *Simplified CPM* format if the following applies to the job:
 - All lanes do not share the same work, (so work must be the same for all lanes),
 - Has HMA paving, which include 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 or
 - Does not have WTC 400 to 499.
 - Special project type
 - User can select if the project was CPM Emerging Technology Project, Demonstration Project, etc. Nothing selected if not a special project.
 - **Open to traffic date**

Non MAP Jobs

- The following items must be supplied to create a Non MAP job (project that is not in the MAP database):
 - **Work type code**
 - *Simplified CPM?* (See notes in 'MAP Jobs' section above for further details)
 - Special project type (See notes in 'MAP Jobs' section above for further details)
 - **Non-MAP job type**
 - Maintenance "M" Funded, Historic, Permit, TWA (Transportation Work Authorization), Mark Obsolete, Warranty, Direct Forces Work
 - **Open to traffic date**
 - Fix life

Road Segment List screen

- Segments are represented and entered by **PR numbers** and **PR milepoints**.
- In MAP jobs,
 - Initial segments will be shown corresponding to the MAP database. The user can split these segments by using the Sub Segments function to further segment the project based on varying pavement geometry, cross-section, materials usage, etc.
- In Non MAP jobs,
 - No segments will be shown. The user must manually enter all segments. New segments can be added using the Create function.
- For ease of data entry, the user can copy the details of a segment over to another segment using the Copy function.
- Project Comments Box
 - Optionally used to enter unique project information.
- Project Summary
 - Use this function for report type output on all currently entered segments and their associated information.
- 'Segment Details' screens are accessed from here.

Segment Details screen

- 'Shoulder, Curb & Gutter Details' screen is accessed from here.
- 'Lane details' screen is accessed from here.
- Median Overview Box
 - **Median Type**
 - Undivided, Concrete Barrier, Guardrail, Cable Guardrail, Raised Island with Curb, Thick impenetrable Vegetation, Graded with ditch, Flat (paved and unpaved), N/A, Other
 - **Median Width**
- Segment Comments Box
 - Optionally used to enter unique segment information of the current segment.
- Segment Summary
 - Use this function for report type output on the current segment.
- If using the *Simplified CPM* format:
 - **Layers and Layer Attributes**
 - **Year paved/placed**

Lane Details screen

- The number of lanes is entered here, including lanes that did not have work completed on them.
- For each lane, the following are entered:
 - **Surface type**
 - HMA full depth, HMA over existing HMA*, HMA over existing Jointed Concrete, HMA over existing CRCP, HMA over existing Brick, JPCP, JRCP, CRCP, Unbonded Concrete Overlay on Existing Concrete, Whitetopping, Brick, Other
 - **HMA over existing HMA: do not use if overlay material is less than 0.5". If overlay material is less than 0.5", then use 'HMA full depth'.*
 - *Examples Less than 0.5": micro-surface, chip seal, fibermat, etc.*
 - **Lane width**
 - Use the width between pavement markings.
 - **Lane Type**
 - Buffer Space, Center Left Turn, Left & Right Turn, Left Turn, Mainline, Median Turnaround, Merge, Off-Ramp, On-Ramp, Passing Flare, Passing Relief, Right Turn, Truck Climbing, Weave
 - **Year paved/placed**
 - **Partial Width Paving?** (yes/no)
 - **Paving Width** (only shown if Partial Width Paving is Yes)
 - **Layers and Layer Attributes**
- For ease of data entry, the user can copy the details of a lane over to another lane using the Copy function.

Shoulder/Curb & Gutter Details screen

- When work is done on the shoulders, select 'Yes' for the **Work Done** question.
- For each shoulder, the following are entered:
 - **Has Corrugations** (Yes/No)
 - **Is Parking Lane** (Yes/No)
 - **Paved Width**
 - This is the paved width of the shoulder (always \leq Total Width).
 - **Total Width**
 - This is the total width of the shoulder to the hinge point. Typically, aggregate will be placed next to the paved shoulder to add 1' width (to the hinge point).
 - **Paved Surface Type**
 - Same types as for lanes, but adds: Gravel, Earth
 - **Layers and Layer Attributes**
- When curb & gutter is placed, select 'Yes' for the **Work Done** question.
 - **Curb Type** (Asphalt or Concrete or Valley)

Layers and Layer Attributes

(**Bold** = minimum required for that layer)

- Agg. Base Course – Cement Stab.
 - Cement content
 - Fly ash content
 - GGBFS
 - Portland Cement supplier
 - Portland Cement type
 - **Thickness**
 - **Aggregate class**
 - **Source (pit number)**
- Aggregate Base Course
 - **Thickness**
 - **Aggregate class**
 - **Source (pit number)**
- Brick Pavers
 - Thickness
- Brick Seal
 - **Brick Seal (yes/no)**
- Chip Seal
 - Emulsified asphalt supplier
 - Emulsion
 - Number of courses
 - **Aggregate class**
 - **Source (pit number)**
- Cobblestone
 - **Thickness**
- Cold In Place Recycled Asphalt
 - **Emulsion**
 - **Thickness**
- Cold Milling
 - **Cold Milling Depth**
 - **Cold Milling Equipment**
 - Cold Milling Type
 - *Curb Line – Milling to match curb.*
 - *Profile – Milling depth variable per slope correction/adjustment (typ. for 1.5% to 2%).*
 - *Uniform Depth – Milling depth held at a constant depth.*
- Concrete Pavement Crack/Joint Sealing
 - **Crack sealing (yes/no)**
 - **Resealing longitudinal joints (yes/no)**
 - **Resealing transverse joints (yes/no)**

- Concrete Pavement Repairs (Detail 7's & 8's)
 - **Detail 7's placed (yes/no)**
 - Detail 7 mix type
 - **Detail 8's placed (yes/no)**
 - Detail 8 mix type
- Concrete Pavement Repairs (Full Depth)
 - **Cement content**
 - **Concrete grade**
 - **Portland Cement supplier**
 - **Portland Cement type**
 - **Reinforcement steel (yes/no)**
 - **Thickness**
 - **Aggregate class**
 - **Source (pit number)**
- Concrete Pavement Repairs (Partial Depth)
 - **Cementitious Repair? (yes/no)**
 - *If Yes (used for cement type material):*
 - **Prepackaged Mortar? (yes/no)**
 - *If Yes (used for prepackaged materials, incl. hydraulic fast set):*
 - **Prepackaged Mortar Product**
 - *If No (used for standard concrete mix design):*
 - **Cement supplier**
 - **Cement type**
 - *If No (used for non-cement proprietary material):*
 - **Non-cementitious Product**
 - **Aggregate class**
 - *If prepackaged or non-cementitious is using a proprietary aggregate and does not have an MDOT specified aggregate, then select 'Unknown' & click 'Add Aggregate'*
 - **Source (pit number)**
 - Concrete Penetrating Sealer
 - **Silane Material**
 - Corduroy
 - Thickness
 - Crack Relief Interlayer/DRM
 - **Thickness**
 - Cracked and Seated Concrete
 - **Thickness**
 - Crushed and Shaped HMA
 - **Thickness**
 - Diamond Grinding
 - **Diamond Grinding (yes/no)**
 - **Longitudinal Grooving? (yes/no)**

- Dowel Bar Retrofit
 - **Dowel Bar Retrofit (yes/no)**
- FiberMat
 - **Emulsified Asphalt Supplier**
 - **Emulsion**
 - **FiberMat type**
 - **Aggregate class**
 - **Source (pit number)**
- Fog Seal
 - **Fog Seal (yes/no)**
- Geotextile Fabric
 - Geotextile type
- High Friction Surface
 - **High Friction Surface placed (yes/no)**
- HMA Base Course
 - **Application rate**
 - **Asphalt binder**
 - **Asphalt binder certified supplier**
 - **Mix design number (case sensitive)**
 - **Mix type**
 - **Shingles used in mix (yes/no)**
 - **Warm Mix (yes/no)**
 - *If Yes:*
 - If Warm Mix, Water Foaming? (yes/no)
 - If Warm Mix, select the Additive
 - **Aggregate class**
 - **Source (pit number)**
- HMA Crack Treatment
 - Cut and seal method
 - **HMA Crack Seal Manufacturer**
 - **HMA Crack Seal Product Name**
 - Lot and Lab Number? (yes/no)
 - *If Yes:*
 - Lab #
 - Lot #
 - **Was Overband also used? (yes/no)**
 - *If Yes:*
 - Overband Crack Fill Product

- HMA Leveling Course
 - **Application rate**
 - **Asphalt binder**
 - **Asphalt binder certified supplier**
 - **Mix design number (case sensitive)**
 - **Mix type**
 - **Shingles used in mix (yes/no)**
 - **Warm Mix (yes/no)**
 - *If Yes:*
 - If Warm Mix, Water Foaming? (yes/no)
 - If Warm Mix, select the Additive
 - **Aggregate class**
 - **Source (pit number)**
- HMA Separator Course
 - **Application rate**
 - **Asphalt binder**
 - **Asphalt binder certified supplier**
 - **Mix design number (case sensitive)**
 - **Separator course mix type**
 - **Shingles used in mix (yes/no)**
 - **Warm Mix (yes/no)**
 - *If Yes:*
 - If Warm Mix, Water Foaming? (yes/no)
 - If Warm Mix, select the Additive
 - **Aggregate class**
 - **Source (pit number)**
- HMA Top Course
 - **AWI (Actual)**
 - **Application rate**
 - **Asphalt binder**
 - **Asphalt binder certified supplier**
 - **Mix type**
 - **Mix design number (case sensitive)**
 - **Shingles used in mix (yes/no)**
 - **Warm Mix (yes/no)**
 - *If Yes:*
 - If Warm Mix, Water Foaming? (yes/no)
 - If Warm Mix, select the Additive
 - **Aggregate class**
 - **Source (pit number)**

- HMA Ultra-Thin Overlay
 - **AWI (Actual)**
 - **Application rate**
 - **Asphalt binder**
 - **Asphalt binder certified supplier**
 - **HMA ultra thin mix type**
 - **Mix design number (case sensitive)**
 - **Shingles used in mix (yes/no)**
 - **Warm Mix (yes/no)**
 - *If Yes:*
 - If Warm Mix, Water Foaming? (yes/no)
 - If Warm Mix, select the Additive
 - **Aggregate class**
 - **Source (pit number)**
- HMA Wedge Course
 - **Application rate**
 - **Asphalt binder**
 - **Asphalt binder certified supplier**
 - **Mix design number (case sensitive)**
 - **Shingles used in mix (yes/no)**
 - **Variable thickness (yes/no)**
 - **Warm Mix (yes/no)**
 - *If Yes:*
 - If Warm Mix, Water Foaming? (yes/no)
 - If Warm Mix, select the Additive
 - **Wedge course mix type**
 - **Aggregate class**
 - **Source (pit number)**
- Hot In Place Recycled Asphalt
 - **AWI (Actual)**
 - **Asphalt binder**
 - **Asphalt binder certified supplier**
 - **Mix design number**
 - **Thickness**
 - **Aggregate class**
 - **Source (pit number)**
- Joint/Crack Repair Mastic
 - **Asphalt Repair Mastic Product**

- Micro-surface
 - Emulsified asphalt supplier
 - Emulsion
 - Number of courses
 - **Aggregate class**
 - **Source (pit number)**
- Micro-surface (Rut Fill Layer)
 - Emulsified asphalt supplier
 - Emulsion
 - **Aggregate class**
 - **Source (pit number)**
- Overband Crackfill Pre-Treatment
 - **Overband Crack Fill Product**
- Overband Crackfill Stand Alone
 - **Overband Crack Fill Product**
- Pavement Jacking
 - **Poly Pavement Jacking (yes/no)**
- Paver Placed Surface Seal
 - **AWI (Actual)**
 - **Application Rate**
 - **Asphalt binder**
 - **Asphalt certified supplier**
 - **PPSS mix type**
- PCC Pavement
 - **Cement content**
 - **Concrete pavement type**
 - **Fly ash content**
 - **GGBFS**
 - **Portland Cement supplier**
 - **Portland Cement type**
 - **Thickness**
 - **Transverse joint spacing**
 - **Transverse joints sealed (yes/no)**
 - **Aggregate class**
 - **Source (pit number)**

- Precast Concrete Pavement
 - **Cement Content**
 - **Fly Ash Content**
 - **GGBFS**
 - **Portland Cement supplier**
 - **Portland Cement type**
 - **Post-Tensioned? (yes/no)**
 - **Precast System**
 - **Pre-Stressed? (yes/no)**
 - **Reinf Bar Steel, longitudinal**
 - **Reinf Bar Steel, transverse**
 - **Reinforcement Steel Mesh? (yes/no)**
 - **Repair (work <50' & non-cont.)? (yes/no)**
 - **Slab Length (typ joint spacing)**
 - **Thickness**
 - **Transverse joints sealed (yes/no)**
 - **Aggregate class**
 - **Source (pit number)**
- Roadway Embankment
 - **Embankment placed below pavement? (yes/no)**
- Rubblized Concrete Pavement
 - **Thickness**
- Slurry Seal
 - Emulsified asphalt supplier
 - Emulsion
 - **Aggregate class**
 - **Source (pit number)**
- Subbase
 - **Thickness**
 - **Aggregate class**
 - **Source (pit number)**
- Subgrade Stabilization
 - **Application Rate**
 - **Thickness**
 - **Stabilization Material**
 - **Stabilization Material Type**
- Subgrade Undercut
 - **Thickness**