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Roads in RAMM

A guide to Pavement and Surface tables

October 2022

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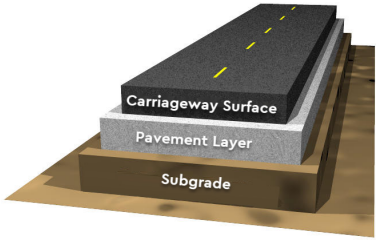
Road Asset Data

Data for road assets is held in a number of different tables in RAMM. The tables are grouped into three categories – Framework, Assets, and Views. Not all can be used when creating Road Components in Asset Valuation.

Framework

Road Name
Carriageway Section
Centrelines



Assets

Pavement Layer
Carriageway Surface

Views

Pavement Structure
Surface Structure
Treatment Length

Columns from the tables in red can be used in the creation of Road Components.
Columns from the tables in green can be used as Asset Types in Asset Valuation.

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Framework

Roads, **Carriageways**, and **Centrelines** form the framework for your network.

Road Name

The Road Name table lists the roads that form a Local Authority's network, or segments of highways for Sate Highway authorities.

Add columns from this table to your Road Component to include information such as the Road Type.

Carriageway Section

Each road is divided into Carriageways. These start and end at logical, identifiable locations.

When there are changes made to the Width, Pavement Type, or Pavement Use in Pavement Manager, the data in the Carriageway Section table needs to be updated manually.

Add columns from this table to your Road Component to include information such as Asset Owner or Urban/Rural.

Centrelines

Centrelines are not available in Asset Valuation.

They are a 2-dimensional representation of the road, broken into segments, all of which run in the same direction as the road.

The Centreline defines the shape of the road it is associated with.

Columns from the **Road Name** and **Carriageway Section** tables can be used in the creation of Road Components in Asset Valuation.

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Assets

Your road assets include the **Pavement Layer** and **Carriageway Surface**. These are maintained in the Pavement Management application. These tables hold **both** current layers and removed layers, and **are not viewable** on the map.

Pavement Layer

The Pavement is the layer(s) of compacted material (sub-base and base course) that hold the Carriageway Surface.

There can be several layers of pavement below the surface and above the base soil layer (Subgrade). The Subgrade is recorded as a Pavement Layer.

Carriageway Surface

The Carriageway Surface is the top layer that carries the road traffic.

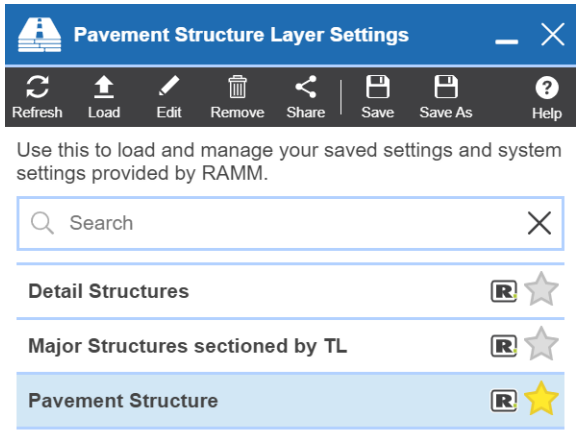
The Carriageway Surface table records the details of the surface layers. This can include construction information, seal dates, material, chip size, and binder type, to name a few.

Pavement Layer and **Carriageway Surface** are both available as standard **Asset Types** in Asset Valuation, so are not used in creating Road Components.
Note: Advanced filtering, at the Parent Criteria level in Asset Valuation, is required on these asset tables to ensure only current records, and not historical ones, are valued.

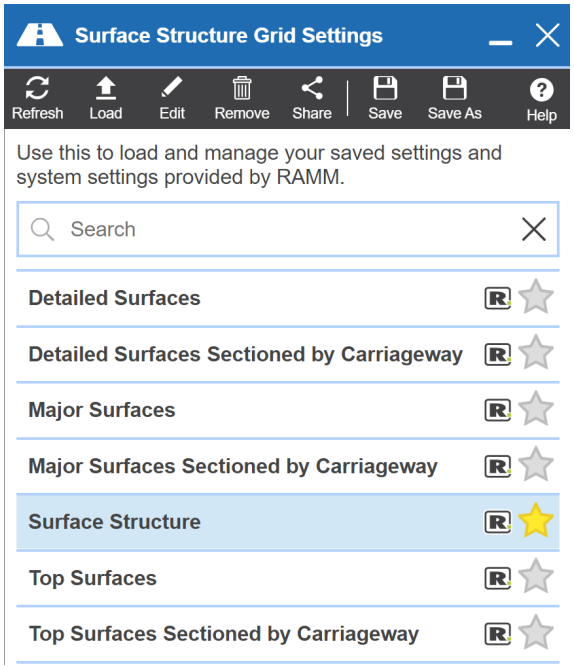
Views

You view current Pavement and Surface layers on the map using the **Pavement Structure**, **Surface Structure**, and **Treatment Length** tables. Removed layers are excluded. These tables come with the default RAMM layers as seen below.

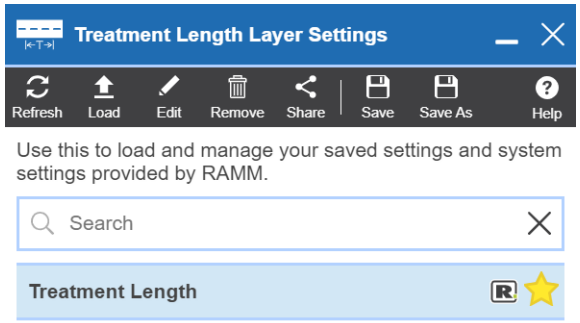
Pavement Structure



Surface Structure



Treatment Length



The favourite (yellow starred) layer is always loaded initially.

These tables summarise data from other tables and are updated in an overnight process. They are not editable in Map or Grid, however the Pavement Structure and Surface Structure records can be manually updated in **Pavement Management**.

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Pavement Structure View

The **Pavement Structure** table displays just the current **Pavement Layer** records for the network. There are two separate sets of records in the Pavement Structure table.

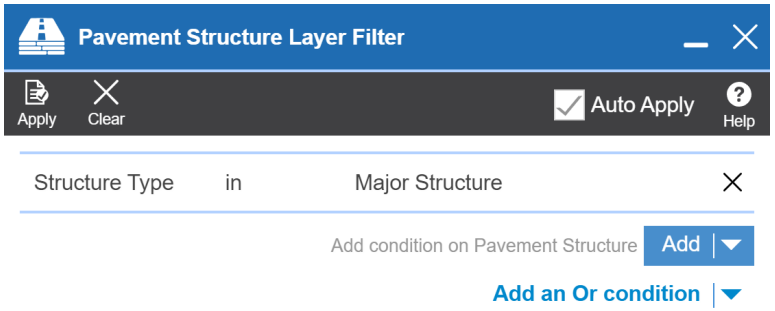
Detail Structures

Detail Structures include all current Pavement Layer records.

Major Structures

Major Structures are the current Pavement Layer records which have been sectioned by **Treatment Length**. The Pavement Layer record that covers the largest overall area of the Treatment Length is the Major Structure.

Major Structures Filter



It is the **Major Structure** records, returned from the Pavement Structure filter, that are used when referencing Pavement Structure records to create Road Components in Asset Valuation.

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Surface Structure View

The **Surface Structure** table displays just the current **Carriageway Surface** records for the network. There are two separate **Structure Sets** in the Surface Structure table, both of which have two further sets of separate records based on what they're **Sectioned By**.

Surface Structure Sets

The **Detailed Surfaces** set includes all current Carriageway Surface records.

The **Top Surface with no short lengths or narrow gaps** set excludes Detailed Surfaces less than the specified tolerances for minimum width, length, and maximum gap, for the seal length.

Sets Sectioned By

Each Structure Set contains two further sets of records – one sectioned by **Carriageway**, the other not sectioned, but based on its **physical length** (seal join to seal join).

Record Set	Sectioned By
Detailed Surface	Carriageway
Detailed Surface	Physical length
Top Surface	Carriageway
Top Surface	Physical length

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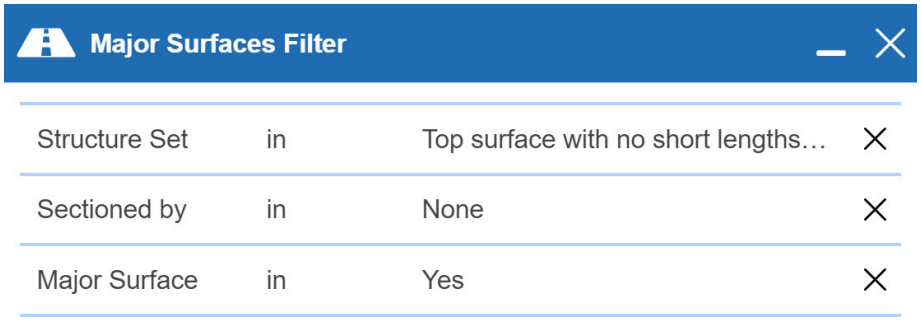
Surface Structure Major Surface

The **widest** Top Surface record at any point on the road, in both Carriageway sectioned and physical length sets, is identified as the **Major Surface**. Where there is more than one Top Surface across the width, only the widest is the **Major Surface**.

Record Set	Sectioned By	Major Surface ?
Detailed Surface	Carriageway	No
Detailed Surface	Physical length	No
Top Surface	Carriageway	No
Top Surface	Carriageway	Yes
Top Surface	Physical length	No
Top Surface	Physical length	Yes

Major Surfaces Filter
(based on physical length)



It is the records returned from the **Major Surfaces Filter (based on physical length)**, that are used when referencing Surface Structure records to create Road Components.

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Treatment Length View

Treatment Lengths are sections of road that have consistent performance, purpose, and characteristics. They differ to their adjoining sections.

Treatment Length v Carriageway Section

Originally, Treatment Lengths may have been generated from Carriageway Sections, so may still coincide with them.

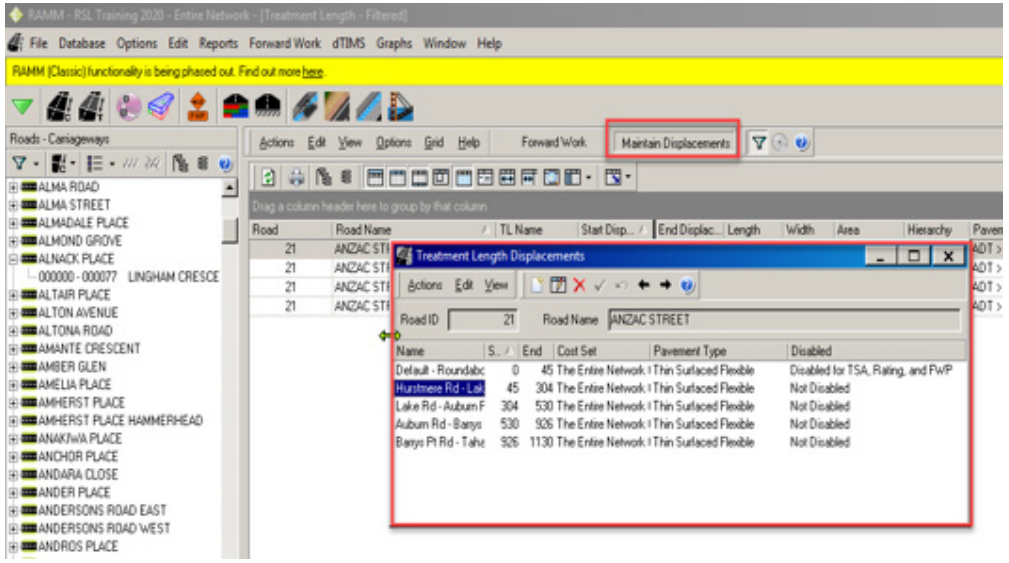
As roads are maintained their records change so Treatment Length data (excluding Start and End values) are updated in the overnight process.

Over time this can lead to Treatment Lengths and Carriageway Sections being different lengths and overlapping each other.

Data in the Treatment Length table is summarised from multiple tables in RAMM.

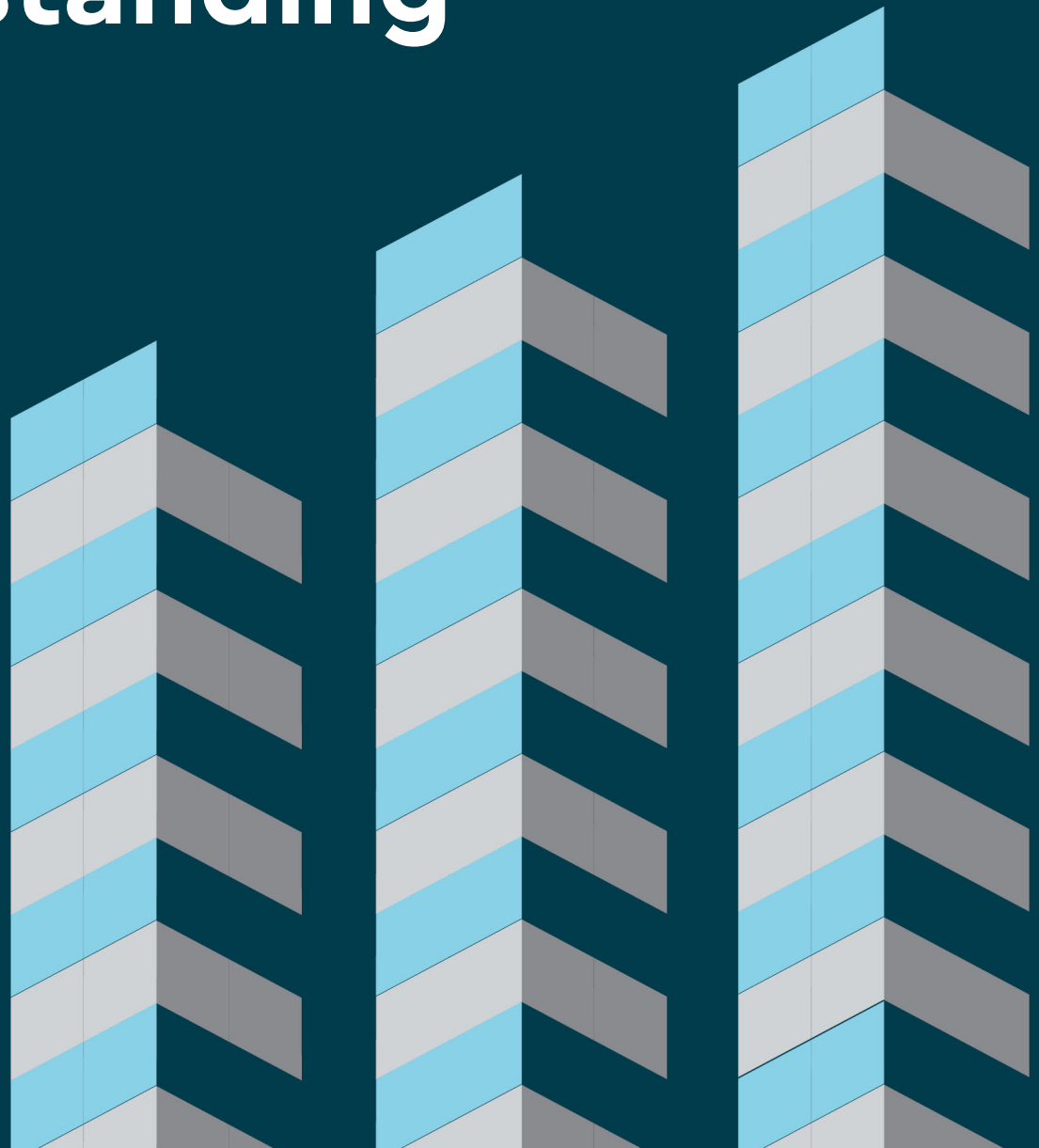
Update Treatment Length Data

Treatment Length **Start** and **End** values can be changed only in Classic RAMM by editing the displacement data.



Data for the largest **Major Structure** and **Major Surface** record for each Treatment Length is applied over the full Treatment Length.

Contact us if you need more help understanding road tables.



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