Highways England – Data.gov.uk – Journey Time and Traffic Flow Data April 2015 onwards – User Guide

Introduction

This document gives guidance for navigation and download of Journey Time and Traffic Flow data through http://tris.highwaysengland.co.uk/ .

There are three navigational routes from Highways England data.gov.uk web page which will present the user with data for the categories, Monthly Summary, Journey Time and Traffic Flow Data. The remainder of this document will describe how to navigate and access files within each category. Please direct any queries about this document or the data described to ITInternalServiceDelivery@highwaysengland.co.uk.

Monthly Summary Data

Monthly journey times for the NTIS model and traffic flow count sites are generated for each calendar month. One file is generated per count site per year and updated monthly.

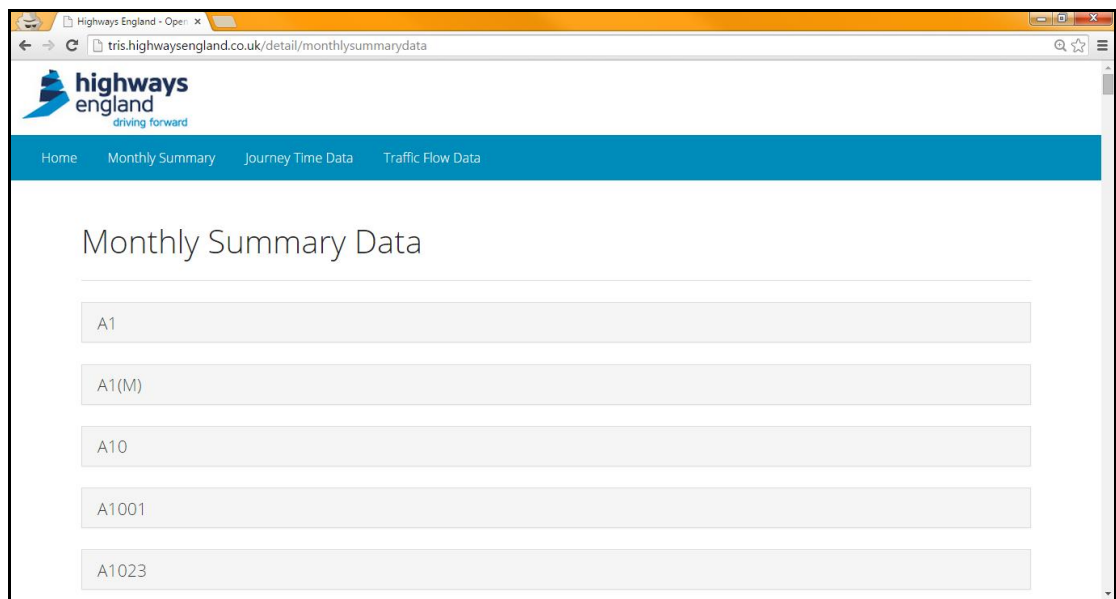These files can be accessed following the relevant link from data.gov.uk or by clicking on the "Monthly Summary" tab (refer to Figure 1) at http://tris.highwaysengland.co.uk/.

Figure 1 Screenshot showing "Monthly Summary Data"

Data is available by road and can be accessed by clicking on the relevant road name (refer to Figure 2).
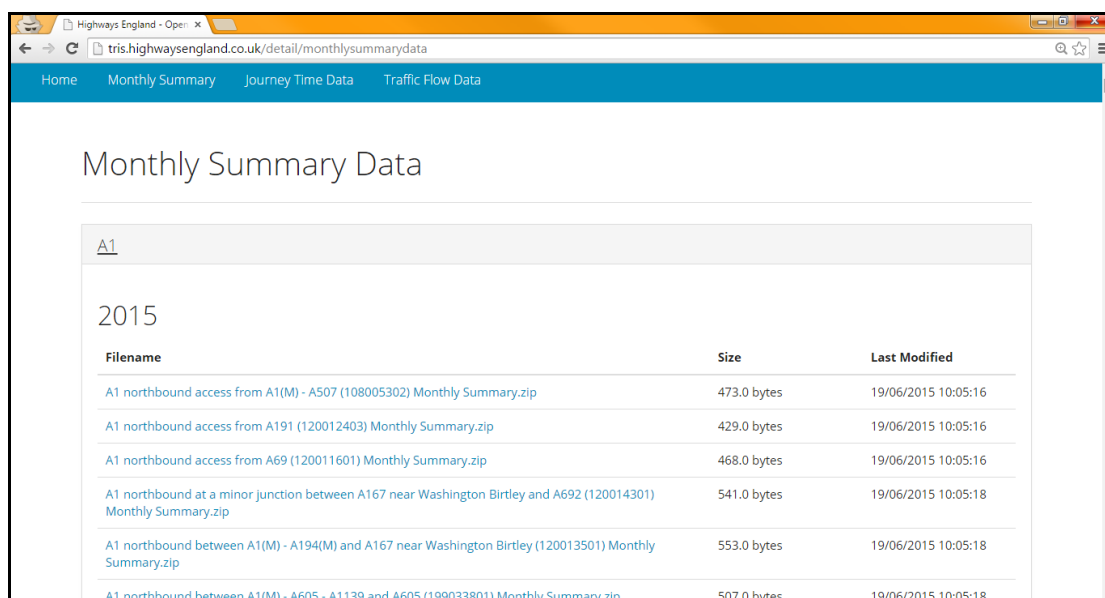
Figure 2 - Screenshot showing Monthly Summary Data files available for A1– "04" indicates the calendar month April

From here files can be downloaded by clicking on the relevant link. Each file is compressed to a zip format and once downloaded will need to be uncompressed.

File Content

Each monthly summary file consists of 1 row for each calendar month. Each row contains aggregated data.

Data Item	Description
Month	Month name.
ADT- 24h	The Average Daily Traffic is calculated as a simple average for all traffic flows for all days of the week within the month. Any days where incomplete data or the quality index is zero in one or more 15 minute time slots is excluded. 24h indicates calculations based on time period 00:00-23:59
% of vehicles>6.6m – 24h	The percentage of vehicles longer than 6.6m as a proportion of total flow in that timeslot.
AWT- 24h	The Average Weekday traffic – Average of flows for all weekdays (Monday-Friday) within the month is calculated as a simple average for all traffic flows for 5 days of the week within the month. Any days where incomplete data or the quality index is zero in one or more 15 minute time slots is excluded. 24h indicates calculations based on time period 00:00-23:59

% of vehicles>6.6m – 24h	The percentage of vehicles longer than 6.6m as a proportion of total flow in that timeslot.
ADT- 18h	The Average Daily Traffic is calculated as a simple average for all traffic flows for all days of the week within the month. Any days where incomplete data or the quality index is zero in one or more 15 minute time slots is excluded. 18h indicates calculations based on time period 06:00-23:59
% of vehicles>6.6m – 18h	The Percentage of vehicles longer than 6.6m as a proportion of total flow in that timeslot.
AWT- 18h	The Average Weekday traffic – Average of flows for all weekdays (Monday-Friday) within the month is calculated as a simple average for all traffic flows for 5 days of the week within the month. Any days where incomplete data or the quality index is zero in one or more 15 minute time slots is excluded. 18h indicates calculations based on time period 06:00-23:59
% of vehicles>6.6m – 18h	The percentage of vehicles longer than 6.6m as a proportion of total flow in that timeslot.
ADT- 16h	The Average Daily Traffic is calculated as a simple average for all traffic flows for all days of the week within the month. Any days where incomplete data or the quality index is zero in one or more 15 minute time slots is excluded. 16h indicates calculations based on time period 06:00-21:59
% of vehicles>6.6m – 16h	The percentage of vehicles longer than 6.6m as a proportion of total flow in that timeslot.
AWT- 16h	The Average Weekday traffic – Average of flows for all weekdays (Monday-Friday) within the month is calculated as a simple average for all traffic flows for 5 days of the week within the month. Any days where incomplete data or the quality index is zero in one or more 15 minute time slots is excluded. 16h indicates calculations based on time period 06:00-21:59
% of vehicles>6.6m – 16h	The Percentage of vehicles longer than 6.6m as a proportion of total flow in that timeslot.
ADT- 12h	The Average Daily Traffic is calculated as a simple average for all traffic flows for all days of the week within the month. Any days where incomplete data or the quality index is zero in one or more 15 minute time slots is excluded. 12h indicates calculations based on time period 07:00-18:59
% of vehicles>6.6m – 12h	The percentage of vehicles longer than 6.6m as a proportion of total flow in that timeslot.

AWT- 12	The Average Weekday traffic – Average of flows for all weekdays (Monday-Friday) within the month is calculated as a simple average for all traffic flows for 5 days of the week within the month. Any days where incomplete data or the quality index is zero in one or more 15 minute time slots is excluded. 12h indicates calculations based on time period 07:00-18:59
% of vehicles>6.6m – 12h	The percentage of vehicles longer than 6.6m as a proportion of total flow in that timeslot.
Number of days	The number of days in the month that had a full day of data and therefore used in ADT calculations.

Journey Time Data

Journey time files are generated each month for each NTIS model site. Each file contains journey time data per 15 minute time slice for all NTIS links for each road as defined in the NTIS model.

These files can be accessed following the relevant link from data.gov.uk or by clicking on the "Journey Time Data" tab at http://tris.highwaysengland.co.uk/ (refer to Figure 3).
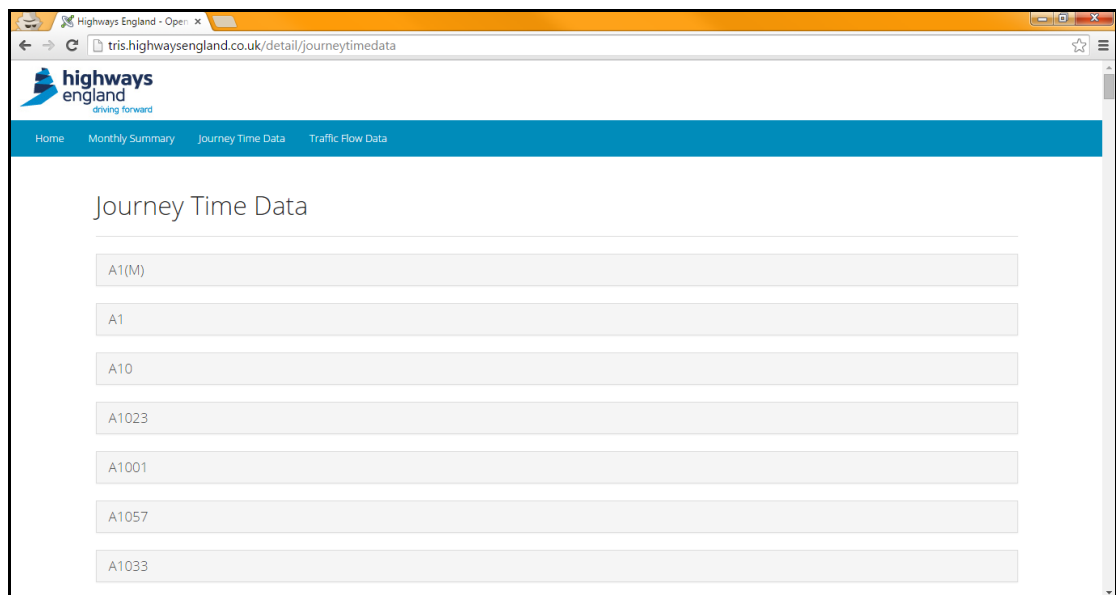

Figure 3 - Screenshot showing Journey Time Data

Data is available by road and can be accessed by clicking on the relevant road name (refer to Figure 4).
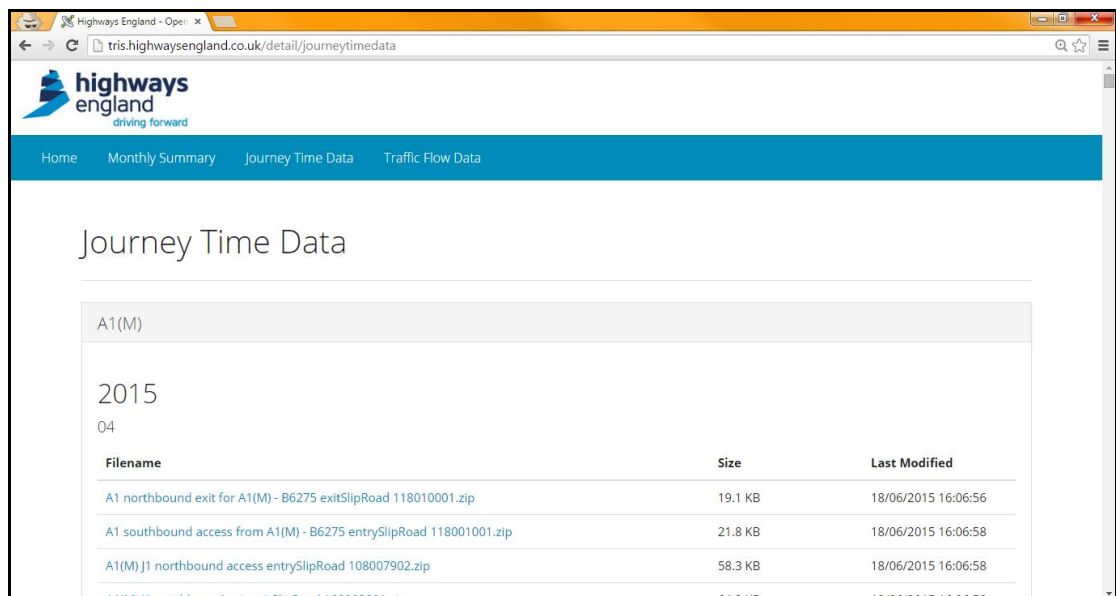
Figure 4 - Screenshot showing Journey Time Data for A1 – "04" indicates the calendar month April

From here files can be downloaded simply by clicking on the relevant link. Each file is compressed to a zip format and once downloaded will need to be uncompressed.

File Content

Each journey time data file will contain the following data as show in Table 1.

Field Name	Field Description
Local Date	Date local to BST.
Local TimeSlot	15 minute time intervals local to BST.

Day Type Id	The values are the following:
	• 0 - First working day of normal week;
	• 1 - Normal working Tuesday;
	• 2 - Normal working Wednesday;
	• 3 - Normal working Thursday;
	• 4 - Last working day of normal week;
	• 5 - Saturday, but excluding days falling within type 14;
	• 6 - Sunday, but excluding days falling within type 14;
	• 7 - First day of school holidays;
	• 9 - Middle of week - school holidays, but excluding days falling within type 12, 13 or 14;
	• 11 - Last day of week - school holidays, but excluding days falling within type 12,13 or 14;
	• 12 - Bank Holidays, including Good Friday, but excluding days falling within type 14;
	• 13 - Christmas period holidays between Christmas day and New Year's Day;
	• 14 - Christmas Day/New Year's Day.
NTIS Link Number	An identifier unique to the NTIS link.
Road	The name of the road.
Carriageway	The name of the carriageway.
NTIS Link Description	A description of the link.
NTIS Model Version	Version of the published NTIS Model against which this message is published. Format: <major version>.<minor version>, e.g. "17.0".

Link Length	The length of the link specified.
Start Node OSGR	The longitude coordinates.
End Node OSGR	The latitude coordinates
Total Traffic Flow	The average number of vehicles detected on the NTIS link within the 15 minute time slice.
Profile Traffic Flow	The number of vehicles expected to be detected on the NTIS Link within the 15 minute time slice and day type.
Traffic Flow %value1	The percentage of traffic flow for vehicle length category.
Traffic Flow %value2	The percentage of traffic flow for vehicle length category.
Traffic Flow %value3	The percentage of traffic flow for vehicle length category.
Flow Quality	The indication of the quality of the flow data provided. The number of valid one minute flow records reported in the fused data, used to generate the Total Traffic Flow. A quality index of 0 indicates no valid records were reported.
Fused Travel Time	The average travel time in seconds vehicles have taken to traverse the entire length of the NTIS Link over the 15 minute time slice.
Profile Travel Time	The average time a vehicle is expected to take to traverse the entire length of the link for the 15 minute time slice and day type.
Fused Average Speed	The average speed of vehicles on the NTIS Link for the 15 minute time slice measured in km/h.
Quality Index	The indication of the quality of the data provided. The number of valid one minute records reported and used to generate the Total Traffic Flow and speed. A quality index of 0 indicates no valid records.

Table 1 - The Journey Time data file description

Traffic Flow Data

Traffic flow files are generated monthly per count site. A file for each active count site will be generated that will comprise traffic data in 15 minute time slots for each day of the month.

These files can be accessed following the relevant link from data.gov.uk or by clicking on the "Traffic Flow Data" tab at http://tris.highwaysengland.co.uk/ (refer to Figure 5 - Screenshot showing Traffic Flow Data).
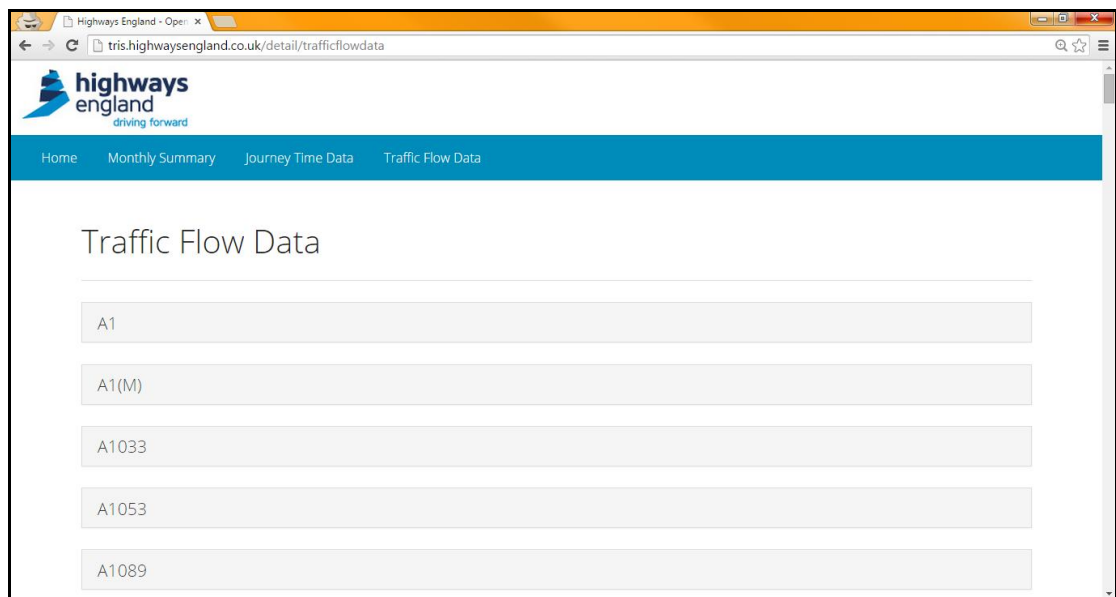

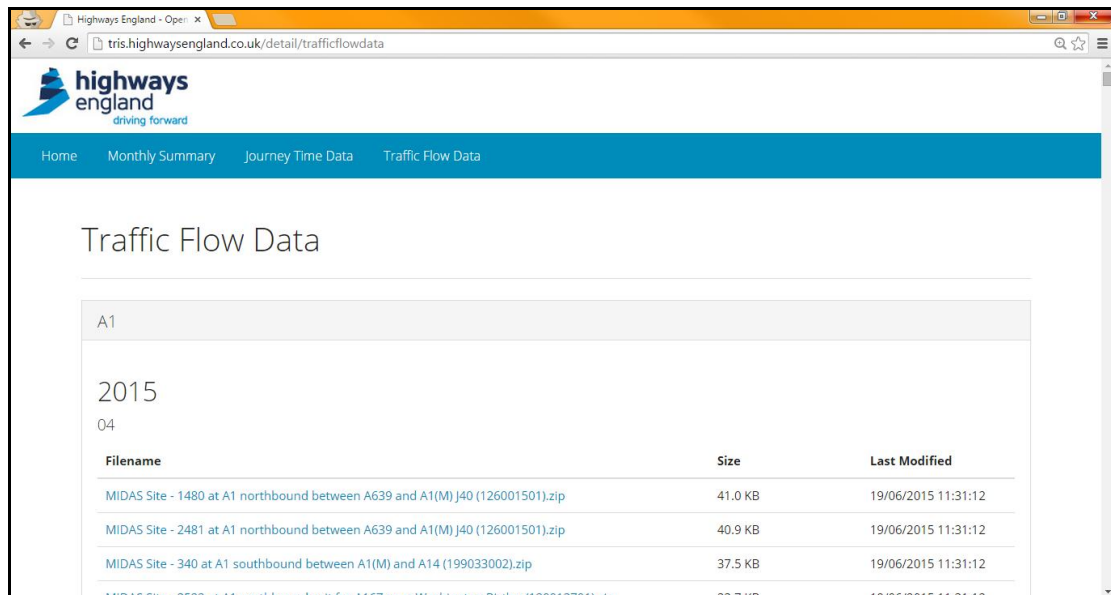**Figure 5 - Screenshot showing Traffic Flow Data**

Figure 6 - Screenshot showing Traffic Flow Data for A1 – "04" indicates the calendar month April

From here files can be downloaded simply by clicking on the relevant link. Each file is compressed to a zip format and once downloaded will need to be uncompressed.

File Content

Each Traffic Flow file will contain a header row shown in Table 2.

TMU/MIDAS/TAME/DBFO ID	An identifier unique to the NTIS link.
Legacy TMU/MIDAS/TAME/DBFO ID	An identifier unique to the NTIS link.
Site Name	A description of the site.

Table 2 Traffic Flow Header

Each Traffic Flow file will contain the following.

Local Date	Date local to BST.
Local Time	15 minute time intervals local to BST.

Day Type	The following are valid:
	• 0 - First working day of normal week;
	• 1 - Normal working Tuesday;
	• 2 - Normal working Wednesday;
	• 3 - Normal working Thursday;
	• 4 - Last working day of normal week;
	• 5 - Saturday, but excluding days falling within type 14;
	• 6 - Sunday, but excluding days falling within type 14;
	• 7 - First day of school holidays;
	• 9 - Middle of week - school holidays, but excluding days falling within type 12, 13 or 14;
	• 11 - Last day of week - school holidays, but excluding days falling within type 12,13 or 14;
	• 12 - Bank Holidays, including Good Friday, but excluding days falling within type 14;
	• 13 - Christmas period holidays between Christmas day and New Year's Day;
	• 14 - Christmas Day/New Year's Day.
Total Carriageway Flow	The number of vehicles detected on any lane within the 15 minute time slice.
Total Flow vehicles less than 5.2m	The number of vehicles less than 5.2m detected on any lane within the 15 minute time slice.
Total Flow vehicles 5.21m - 6.6m	Number of vehicles between 5.21m - 6.6m detected on any lane within the 15 minute time slice.

Total Flow vehicles 6.61m - 11.6m	The number of vehicles between 6.61m - 11.6mn detected on any lane within the 15 minute time slice.
Total Flow vehicles above 11.6m	The Number of vehicles above 11.6m detected on any lane within the 15 minute time slice.
Speed Value	The average speed in km/h. of all vehicles for all lanes measured by the site over the 15 minute period.
Quality Index	The Indication of the quality of the data provided. The number of valid one minute records reported and used to generate the Total Traffic Flow and speed. A quality index of 0 indicates no valid records.
Network Link Id	An identifier unique to the NTIS link.
NTIS Model Version	The version of the NTIS model that the data relates to.

Table 3 - Traffic Flow body field names and descriptons

In addition to the above TAME files will contain the following additional columns shown in Table 4 .

Average Speed in MPH	The average speed of vehicles per NTIS link for the 15 minute time slices.
Cat 1 Speed Count	The average count of vehicles detected by the TAME site with a speed less than 10 mph in the 15 minutes time period for all lanes.
Cat 2 Speed Count	The average count of vehicles detected by the TAME site with a speed between 10 to 15 mph in the 15 minute time period for all lanes.
Cat 3 Speed Count	The average count of vehicles detected by the TAME site with a speed between 15 to 20 mph in the 15 minute time period for all lanes.

Cat 4 Speed Count	The average count of vehicles detected by the TAME site with a speed between 20 to 25 mph in the 15 minute time period for all lanes.
Cat 5 Speed Count	The average count of vehicles detected by the TAME site with a speed between 25 to 30 mph in the 15 minute time period for all lanes.
Cat 6 Speed Count	The average count of vehicles detected by the TAME site with a speed between 30 to 35 mph in the 15 minute time period for all lanes
Cat 7 Speed Count	The average count of vehicles detected by the TAME site with a speed between 35 to 40 mph in the 15 minute time period for all lanes.
Cat 8 Speed Count	The average count of vehicles detected by the TAME site with a speed between 40 to 45 mph in the 15 minute time period for all lanes.
Cat 9 Speed Count	The average count of vehicles detected by the TAME site with a speed between 45 to 50 mph in the 15 minute time period for all lanes.
Cat 10 Speed Count	The average count of vehicles detected by the TAME site with a speed between 50 to 55 mph in the 15 minute time period for all lanes.
Cat 11 Speed Count	The average count of vehicles detected by the TAME site with a speed between 55 to 60 mph in the 15 minute time period for all lanes.
Cat 12 Speed Count	The average count of vehicles detected by the TAME site with a speed between 60 to 70 mph in the 15 minute time period for all lanes.

Cat 13 Speed Count	The average count of vehicles detected by the TAME site with a speed between 70 to 80 mph in the 15 minute time period for all lanes.
Cat 14 Speed Count	The average count of vehicles detected by the TAME site with a speed greater than 80 mph in the 15 minute time period for all lanes.
Cat speed counts included flag	This denotes whether or not there are speed bin values present. Possible values are: • 0 - Not Present; • 1 - Present.

Table 4 - TAME field names and descriptions

Conversion Table

The conversion table file contains data to map the current measurement site ids to the legacy measurement site ids. The data represents a mapping table to allow the road names to be cross referenced with the new measurement site id against an existing legacy site id.

By clicking on the "Conversion Table" tab (as highlighted in Figure 7) a file is downloaded which, once extracted, contains a CSV file comprising of the following data.
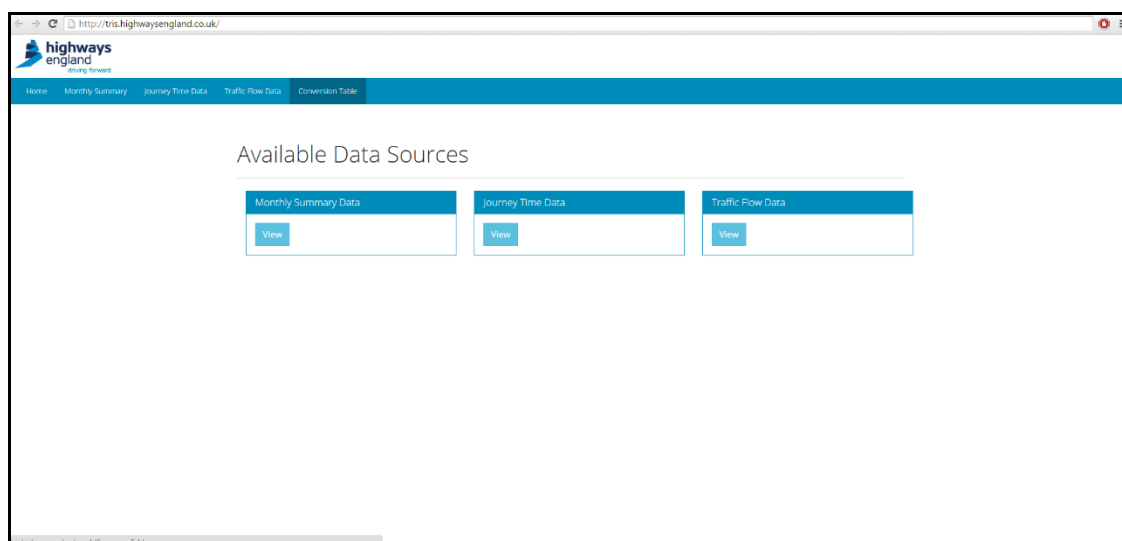

Figure 7 - Screenshot showing the Conversion Table tab

File Content

MeasurementSiteName	The measurement site name. The site name is also present within the file name found in files available for download via the TRIS site.
MeasurementSiteID	The current site id.
LegacyMeasurementSiteID	The legacy site id.

Table 5 - TAME field names and descriptions