

REGENERATION, COMMUNITY AND CULTURE OVERVIEW AND SCRUTINY COMMITTEE

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REVIEW OF NI167 – MEASUREMENT OF JOURNEY TIMES

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Summary

This report details the current method of measuring average journey times along key transport routes and details proposed enhancements.

1. Budget and Policy Framework

1.1 The Council Plan 2013-2015 and the Medway Local Transport Plan 2011–2026 (LTP) form part of the council's policy framework. Performance Indicator NI167 provides data on journey times on Medway's highway network, which feeds into monitoring these plans. A review of the way NI167 is measured for these plans is within the policy framework.

2. Background

2.1 The Council Plan 2013-2015 includes a commitment to secure a reliable and efficient local transport network to support regeneration, economic competitiveness and growth. A measure of success is the assessment of the average journey time along primary transport corridors in Medway, measured by minutes per mile, averaged over three months.

2.2 The method for measuring the average journey time is based on the process used to measure levels of congestion previously required by government as part of a set of National Indicators (NI). In 2008 government produced new guidance on NIs and as a result a new target was introduced in Medway's 2006-2011 LTP relating to journey times on the highway network. The LTP congestion target agreed with government, known as NI167, was:

- No increase in the average journey time across a combination of strategic transport routes into Chatham town centre between 8.00am and 9.00am, Monday to Friday above a baseline of 4 minutes per mile.

2.3 NIs were subsequently abandoned by government and in 2009 government issued revised guidance on replacement LTPs. As a result NI167 was not included in the 2011-2026 LTP as a performance indicator. However, the

measure was retained as part of the Council Plan and journey times continue to be measured using the measurement protocols developed for NI167.

- 2.4 Journey times are measured using data from Automatic Number Plate Recognition (ANPR) cameras owned and operated by the Police. The location of the ANPR cameras was generally defined by Police for collecting number plate data for their enforcement purposes although Medway Council funded several additional cameras to improve journey time monitoring. There are currently 11 operational ANPR camera locations used by Medway Council for journey measurement from the Police camera locations in and around the Medway area. The location of these cameras is detailed at Appendix A.
- 2.5 The system measures journey times on segments of the highway network between ANPR cameras by collecting number plate data at the beginning and end of the segment. By identifying the same vehicle at the start and end of a segment, the journey time and hence the speed of the vehicle can be determined. The journey time of all vehicles identified on a segment over a time period (60 minutes) is averaged to determine the average journey time on a segment for a set time period. Data from adjoining segments can be joined together to produce an average journey time along a longer route. The system currently measures only in bound journey times to Chatham / Rochester.
- 2.6 The routes along which journey times are measured are from the following approximate locations to A2/A229 at the top of Star Hill:
 1. A2 High Street, Rainham (via A2/A289 Will Adams Roundabout)
 2. M2 junction 4 (via A2/A289 Will Adams Roundabout)
 3. M2 junction 3 (via A229 City Way)
 4. B2097 near Stirling Centre
 5. M2 junction 1 (via A2)
 6. A226 Gravesend Road (via Rochester Bridge)
 7. A228 Main Road (via A289 Medway Tunnel and A231 Dock Road)
 8. A228 Main Road (via A289 Medway Tunnel and A2/A289 Will Adams Roundabout)
 9. A289 Wainscott (via A289 Medway Tunnel and A231 Dock Road)
 10. A289 Wainscott (via A289 Medway Tunnel, and A2/A289 Will Adams Roundabout)
- 2.7 The average journey time between 8am to 9 am Monday to Friday on all the above routes is averaged to produce data for NI167.
- 2.8 The council receives up to date information from the ANPR system, which enables real time information on network journey times along segments to be displayed in the Traffic Control Room. This alerts operators to reduced journey times on the highway network.
- 2.9 Officers have been working with the Police to introduce additional ANPR cameras to improve journey time information across the network including more journey time information in Chatham town centre. The additional camera locations are detailed at Appendix A. Whilst these cameras have been erected for some time, regrettably technical delays have prevented these cameras becoming operational. A technical meeting between officers

from the Police and the council is planned to take place on 25 September in an attempt to resolve the issues. A verbal update will be provided to the meeting.

- 2.10 At the agenda planning meeting on 27 March 2013 Members requested that the method of measurement of the indicator be reviewed by officers and be reported back to a future meeting.

3. Options

- 3.1 The measurement of average journey times on the highway network is currently based on the method of measurement previously agreed with government for NI167. This is an average journey time during the morning peak across a number of routes that have different journey time characteristics. Some Members have expressed concern that this does not accurately reflect journey times on parts of the road network. However, using the ANPR system journey times can only be measured between the fixed points of the ANPR cameras.
- 3.2 The options are to review the routes over which the performance indicator is reported. Journey time data is available for individual segments between existing ANPR cameras (in hourly time periods).
- 3.3 Historic data exists from September 2009 for all existing segments. More segment and route data will be available when the additional cameras become operational.
- 3.4 The measurement of average journey times across all routes does provide a strategic indication of trends across the whole network. Data from NI167 shows that the overall average journey time between 8am and 9pm has changed from 3.49 minutes per mile in 2009/2010 to 2.59 minutes per mile in 2012/13. This demonstrates that overall journey speeds and journey times have improved over this period. However, it does not provide information on key corridors within the urban area that are known to have significantly slower journey times during peak times.
- 3.5 Options are to report average journey times using the ANPR system:
- a) On individual key routes only.
 - b) Averaged across the network along a revised collection of routes.
 - c) On individual key routes and averaged across the network along a revised collection of routes.
- 3.6 Option a) should focus on routes that significantly contribute to the economic growth of Medway and where journey times are sensitive during peak hours, such as:
- through Chatham town centre
 - through Strood town centre
 - A2 corridor
- 3.7 Option a) requires the additional cameras to become operational for effective monitoring of journey times along some key routes.

3.8 Option b) is a rationalisation of the routes currently monitored and can be achieved with the existing operational ANPR cameras. However, with the additional cameras becoming operational more effective monitoring could take place.

3.9 Option c) is a combination of options a) and b).

4. Advice and analysis

4.1 The use of ANPR cameras is a cost effective and accurate way to continuously measure journey times in Medway. Once the additional ANPR cameras are operational then journey times along segments of the highway network will be available in more fine detail.

4.2 The current method of measuring the performance indicator by averaging journey times across a collection of routes does not provide information on key routes but does provide an overarching indication of trends.

4.3 Focusing on key routes where journey times are sensitive during peak hours would enable more local issues to be investigated and local initiatives developed to improve traffic flow.

4.4 The performance indicator is currently reported quarterly. Reducing the reporting period from quarterly to monthly for key routes may also assist with a better understanding of the operation of these routes.

5. Risk management

5.1 The risks associated with monitoring journey times in Medway using ANPR cameras are detailed below.

Risk	Description	Action to avoid or mitigate risk	Risk rating
ANPR cameras not maintained and become not operational	ANPR cameras are maintained by the Police and are not within the control of the council. ANPR cameras are an enforcement tool for the Police.	Work closely with the Police to ensure the importance of the information to the council is known	D3
Telematics systems not operational for long periods	Telematics are a combination of systems operated by the Police and Medway Council. Identifying the location of a fault can be problematic	Work closely with the Police to ensure the importance of the supply of information to the council is known. SLA with ICT.	C3

6. Consultation

6.1 Consultation with the Police was undertaken when developing locations for the new ANPR cameras.

7. Financial and legal implications

7.1 The cost of maintaining the ANPR cameras is funded by the Police. Anonymised data is provided by the Police at no cost.

7.2 There are no legal implications.

8. Recommendations

8.1 That:

- a) The Director of Regeneration, Community and Culture is recommended to alter the method of reporting journey times on Medway's highway network and that this be amended to focus on individual key routes and average journey times on the network along a revised collection of routes;
- b) The Director of Regeneration, Community and Culture, in consultation with a small group of Members (on the ratio 1:1:1 with names to be provided by Group Whips), is recommended to agree the key routes to be monitored;
- c) Officers report back on the operation of the additional cameras to enable the effective monitoring of key routes.

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Background papers

- Council Plan

Appendix A – Location of ANPR cameras

Existing operational ANPR camera locations		
Road number	Area	Location
A2	Rainham	High Street junction with Station Road
A278	Hempstead	M2 junction 4
A229	Rochester	M2 junction 3 near Holiday Inn hotel
B2097	Rochester	Near Stirling Sports Centre
A2	Strood	M2 junction 1, near Three Crutches PH
A226	Strood	Gravesend Road
A228	Chattenden	Main Road
A289	Medway Tunnel	Between Medway Tunnel and Anthonys Way
A289	Wainscott	Higham Road overbridge
A2/A289	Gillingham	Will Adams Roundabout
A2/A229	Rochester	Top of Star Hill
Additional ANPR camera locations currently not operational		
Road number	Area	Location
A228	Strood	M2 junction 2
A2	Chatham	Luton Arches (both directions)
B2004	Gillingham	Lower Rainham Road east of A289
A228	Strood	Frindsbury Hill
A2	Strood	High Street