

Application for lane closure (or full closures) within the PSA measurement period (0600 to 2000 hours) or other prohibition / restriction requiring NPM / ROB Acceptance.

Area:

Area 3 – EnterpriseMouchel

Scheme Designer:

Scott Wilson

Contact: [REDACTED]
[REDACTED]
[REDACTED]

Scheme Supervisor:

Enterprisemouchel

Contact: [REDACTED]
[REDACTED]
[REDACTED]

Scheme: M3 Junctions 3-4 Drainage Phase 2

HA PIN: FF91086

Project Support Framework; Task Order SE 53

Roads affected: M3 Junctions 3 to 4.

SRW Number: 561308

Road space booked January 2009 – June 2009 with Area 3 Roadspace Team.

Location: M3 London to South Motorway:

That length of motorway between Junctions 3 (Bracknell) and Junction 4 (Camberley).

Drainage replacement works along London bound verge between MP47/8 and MP 45/1.

Construction

The replacement of the combined filter and carrier drainage system in the northbound verge requires deep excavations supported by sheet piling to stabilise the difficult ground conditions.

- Sotton/Southbound: 1st cone – MP 43/3 to 'End of Works' - MP 49/4 = 6.1km
- London/Northbound: 1st cone – MP 49/0 to 'End of Works' - MP 43/1 = 5.9km

Road Standard: D3M (Dual 3 lane with hardshoulder) Rural Motorway.

Proposal

The proposed design is to replace the deep combined filter drains on a like-for-like basis. Pipe sizes are to be increased to give additional storage capacity and attenuation measures introduced to maintain outfall flow.

The existing kerb and gully surface water drainage is to be replaced by a concrete channel. No additional works to be carried out to the existing outfalls or additional interceptors or containment devices.

Prohibitions / Restrictions and duration of Works.

(i) Narrow Lanes & Hardshoulder running

To allow the safe construction (and closure) of the crossovers at Mp48/3 and Mp44/1, a Lane 3 closure would be required on both carriageways, locally to the crossover. Three running lanes would be provided for traffic in both directions by utilising hardshoulder on both carriageways. This TM arrangement would be in place for a short period (approx. 4 days per crossover) in January 2009 and again in June 2009.

(ii) Contraflow

Three lanes of traffic will remain open at all times during the works using a contraflow traffic management arrangement. The narrow lanes within the TM will require a 50mph speed limit enforced by average speed cameras. These traffic management arrangements will be in place continuously, throughout the duration of the construction works from January 2009 to end of June 2009.

- Southbound 3no traffic lanes running on hardshoulder and lanes 1&2
- Northbound 3no traffic lanes running on lanes 2&3 and in contraflow on southbound lane 3

The construction period will encompass the Easter and May Bank holidays. The proposal is for the 24 hour contra flow traffic management (TM) arrangements to stay in place over the Bank Holidays. The contractor will have a site presence during these periods but the main construction activities will not take place.

The effect of the TM on traffic flows over the Bank Holidays has been discussed at length with the relevant stakeholders and through ECI. The Contractor, CDM-Coordinator, Surrey Police & Surrey Safety Camera Partnership, all support the proposal to leave the TM in place. The following mitigation measures and supporting evidence is presented to support this case:

The removal and reinstatement of over 5.0km of contraflow traffic management (cones, signs, lane markings, safety barriers, etc) would:

- Subject the workforce to the hazard of working on a live motorway unnecessary.
- Changing from contraflow, to normal flow, and back to contraflow, over the short period of a Bank Holiday could lead to driver confusion and would create an additional hazard to the workforce.
- The overall construction period would be extended by a minimum of 2 weeks, due to the necessity to stop work well before the Bank Holiday to allow excavations and other potential hazards to be made safe, prior to lifting the TM and allowing live traffic to run adjacent to the works.
- The increase in cost to the scheme is estimated to be in the range of £300,000 to £400,000.
- Removal of road markings damages the road pavement surface and leaves 'ghost' markings that lead to driver confusion.

The following measures mitigate against potential disruption to the travelling public from the TM remaining in place over the Bank Holiday periods:

- The contra flow maintains 3 lanes in both directions with a 50mph speed limit to manage the narrower lanes. Because of these measures there is only a marginal reduction in lane capacity, as discussed in the section below on 'Effect on Traffic'.
- Enhanced vehicle recovery service will be provided over the holiday period to ensure incidents are removed from the network promptly.

(iii) Jct.3 Northbound Off-Slip

There is insufficient working space to allow construction activities to continue along side traffic on the slip road. A weekend slip road closure will be required to construct a temporary slip road. The temporary slip road will allow traffic to exit the motorway while construction continues alongside. A further weekend slip road closure will be required to remove the temporary slip road.

- 2no Weekend closures (Friday 10pm to Monday 5am).
- Traffic diversion onto county principal road network. Diversion off M3 junction 4 onto A30.

Traffic Flows

M3 Junction 4 to 3 northbound (site 3005) AADT is 60,092 – (2007)

M3 Junction 3 to 4 southbound (site 3006) AADT is 57,933– (2007)

Effect on Traffic

The expected effects on traffic are: -

- a) 3 narrow lanes in both directions using hardshoulder running with 50mph limit will be introduced locally to the crossovers and for a very limited duration. Marginal reductions in lane capacities will be similar to (b) below and limited to a few days duration.
- b) 3 narrow lane contra flow in both directions with 50mph limit. Peak traffic flows will exceed capacity of the narrow lanes by less than 6% (using TSM Chapter 8 guidance).
- c) Northbound off-slip weekend closure – clear diversion route signing and early publicity will reduce traffic disruption off network.

RIU have not been consulted to date.

Reason for not planning work outside the measurement hours:

Safety

To obtain sufficient working space to safely sheet pile and excavate the 3m deep drainage system in the northbound verge requires the closure of the adjacent hardshoulder and lane 1. Deep excavations in difficult ground conditions require heavy plant and the delivery/disposal of bulk materials. The proposed contraflow traffic management arrangements will provide sufficient working space for the contractor, while minimising traffic disruption by allowing 3 lanes of traffic in both directions. Temporary safety barriers will separate the working area from the travelling public and a 50mph speed limit will enhance the safety of both public and workforce.

Cost & Quality

Continued occupation of the hardshoulder and Lane 1 allows construction works to be programmed & undertaken in an efficient and economic manner. The continued occupation offered by the proposed contraflow TM also increases the quality of construction.

It would not be possible to construct these works using short, off-peak or night time only operations as the works duration would become uneconomically long. Temporary off-peak occupation of the carriageway would have the additional potential risk of delayed opening due to construction overruns and consequential traffic delays.

Consultation

Surrey Police, Surrey Safety Camera Partnership, and the Surrey Traffic Manager have been consulted regarding the contraflow and slip-road closure proposals and have no objections. Abnormal loads can pass the works within the traffic management in either direction, by straddling two lanes.

Other

The Early Contractor Involvement process has highlighted the risks associated with undertaking deep excavations adjacent to the carriageway and has adopted contraflow as the optimum Traffic Management arrangement in terms of safety, economy, and quality of workmanship.

Evidence submitted by Project Team (Service Provider / Project Sponsor):

Signature(s): [Redacted]

Name(s): [Redacted]

Date: 27.10. October 2008

Agreed by (HA Area Team - RPM)

Signature(s): [Redacted]

Name(s): [Redacted]

Date: 4/11/08 ~~October 2008~~

Accepted

Not Accepted

Signature(s): [Redacted]

Name(s): [Redacted]

Date:

~~October 2008~~ 5/11/08

Network Performance Manager

Accepted

Not Accepted

Signature(s): [Redacted]

Name(s): [Redacted]

Date:

~~September 2008~~

Regional Operations board (Chair)