

Subject:

FW: PoW Bridge Resurfacing TM options and impact

From: [REDACTED] <[REDACTED]@nationalhighways.co.uk>

Sent: Thursday, January 4, 2024 2:38 PM

To: [REDACTED] <[REDACTED]@nationalhighways.co.uk>

Subject: FW: PoW Bridge Resurfacing TM options and impact

From: [REDACTED] <[REDACTED]@nationalhighways.co.uk>

Sent: Tuesday, December 19, 2023 8:59 AM

To: [REDACTED] <[REDACTED]@nationalhighways.co.uk>; [REDACTED] <[REDACTED]@nationalhighways.co.uk>;

[REDACTED] <[REDACTED]@nationalhighways.co.uk>

Subject: RE: PoW Bridge Resurfacing TM options and impact

[REDACTED]

Regarding delay, we must accept that the success of the traffic management is significantly dictated by how well the traffic is 'balanced' through the use of dynamic signing.

Taking an optimistic perspective, namely assuming the 'balancing' is done very well, with the M4 kept at capacity and any excess flow diverted via the M48, then the likely delays for each option are as follows:

Option 1 Weekdays (12 weeks)

Weekday Eastbound Journeys – likely up to 5 minutes of delay during the morning peak (plus additional travel time for those utilising the M48)

Weekday Westbound Journeys – likely up to 5 minutes of delay during the evening peak (plus additional travel time for those utilising the M48)

Option 2 Weekdays (9 weeks)

Weekday Eastbound Journeys – likely 20-40 minutes of delay during the morning peak (plus additional travel time for those utilising the M48)

Weekday Westbound Journeys – likely 20-60 minutes of delay during the evening peak (plus additional travel time for those utilising the M48)

Option 1 & 2

Weekend Eastbound Journeys – zero delay (plus additional travel time for those utilising the M48)

Weekend Westbound Journeys – zero delay (plus additional travel time for those utilising the M48)

In Option 2 (weekdays) we will be diverting many more journeys, so the number of customers having to undertake the additional travel time (via the M48) will be higher.

My concern throughout this work is reducing the number of available lanes across both bridges from 5 to 4 (Weekdays) can just about work, if done well through the busy/peak periods. However, reducing it to 3 lanes, undoubtably brings significant delay, more diverted journeys and perhaps most importantly less scope to manage incidents and live lane breakdowns.

Just to reconfirm, the numbers above assume the 'balancing' is done well...if done less well then the figures in Option 1 could likely jump to 15-20 minutes...however the figures in Option 2 could likely jump to 60-120 minutes. Essentially, Option 2 is a very fragile thing from a resilience perspective.

I trust this is useful.

Regards,

[Redacted]

Senior Data & Intelligence Analyst

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From [Redacted] <[Redacted]@nationalhighways.co.uk>

Sent: Wednesday, December 13, 2023 2:58 PM

To: [Redacted] <[Redacted]@nationalhighways.co.uk>; [Redacted] <[Redacted]@nationalhighways.co.uk>; [Redacted] <[Redacted]@nationalhighways.co.uk>

Subject: FW: PoW Bridge Resurfacing TM options and impact

Hi all,

I'll put something in the diaries for w/c 2nd Jan, in the meantime I think the SLT will want to know the differences between Options 1 and 2 in terms of:

- i) Estimated cost
- ii) Scheme duration
- iii) Delay (average + worst-case?) – whatever you think best supports our recommendation
- iv) Safety – road user and road worker

If you could forward me anything which would help by 20th Dec, I'll pull it all into a paper for presentation to the SLT. The paper will be a recommendation from the CWG independent of SBIM so it's best that it comes from me on behalf of the CWG, if that makes sense.

Any questions, just shout.

Kind regards,

[Redacted]

[Redacted]

Route Manager - Gloucestershire

National Highways | Brunel House | 930 Aztec West | Bristol | BS32 4SR

Tel: [Redacted]

Mob: [Redacted]

Web: <http://www.nationalhighways.co.uk>

From: [Redacted] <[Redacted]@nationalhighways.co.uk>

Sent: Wednesday, December 13, 2023 10:37 AM

To: [redacted] <[redacted]@nationalhighways.co.uk>; [redacted]
<[redacted]@nationalhighways.co.uk>; [redacted] <[redacted]@nationalhighways.co.uk>
Subject: FW: PoW Bridge Resurfacing TM options and impact

[redacted],
Some background detail on the impacts of the proposed TM options prior to the CWG meeting this afternoon.

Option 2 has been discounted, so we will only be looking at the impacts of Option 1, and how we can minimise/manage these impacts.

Regards,

[redacted]
Senior Data & Intelligence Analyst

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From: [redacted]
Sent: Tuesday, December 5, 2023 2:00 PM
To: [redacted] <[redacted]@amey.co.uk>; [redacted] <[redacted]@nationalhighways.co.uk>;
[redacted] <[redacted]@nationalhighways.co.uk>
Cc: [redacted] <[redacted]@nationalhighways.co.uk>
Subject: RE: PoW Bridge Resurfacing TM options and impact

All,

Further to the below, we will also need to facilitate additional capacity at M4 J21 WB Exit, as 2 continuous lanes will be required, particularly during the weekend closures.

It is probably worthwhile for us to have ongoing meetings around the TM and signing, to ensure it provides sufficient capacity/flexibility during construction.

Regards,

[redacted]
Senior Data & Intelligence Analyst

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From: [redacted] <[redacted]@nationalhighways.co.uk>
Sent: Tuesday, December 5, 2023 1:49 PM
To: [redacted] <[redacted]@amey.co.uk>; [redacted] <[redacted]@nationalhighways.co.uk>;
[redacted] <[redacted]@nationalhighways.co.uk>
Cc: [redacted] <[redacted]@nationalhighways.co.uk>
Subject: RE: PoW Bridge Resurfacing TM options and impact

All,

I've had a look at both options, and as we concluded in the last meeting, I do not think Option 2 (detailed below) would be feasible.

Option 2: Continuous carriageway closure in one direction, with 2 + 1 lanes of traffic maintained in contraflow on the other carriageway.

This would require 4 to 5 weeks of carriageway closure in each direction.

This is largely due to the high volumes of traffic which would need to be displaced, which would result in high levels of delay at other locations (e.g. M48) but also at other locations where traffic will be 'pinched' (e.g. Almondsbury Interchange, M4 J20 to J21 WB, Chepstow traffic at M48 J2 EB).

Aside the fact that these delays are significant (30-60 minutes delay likely during busy times...not including any additional diversion travel time), it would also place significant risk on reduced capacity locations (e.g. incidents/live lane breakdowns) and would carry more risk during any M48 wind events (accepted, less likely during summer months).

Regarding Option 1 (detailed below), I think this can be delivered successfully, with some additional Traffic Management strategies, as we previously discussed.

Option 1: Weekend carriageway closure, and weekday lane restrictions.

This requires 8 weekend carriageway closures (4 westbound closures, and 4 eastbound closures). During these closures 2 + 1 lanes can be maintained in contraflow on the other carriageway.

It also requires 8 weeks of lane restrictions, with 2 + 2 lanes of traffic maintained on the M4, utilising contraflow for one lane.

Option 1, if there was good uptake of all open lanes, both on the M4 and M48, could potentially be delivered with only minimal delay (0-5 minutes during busy times...not including any additional diversion travel time)...but for the majority of the time (including Summer Weekends during the directional closures) it should not result in any delay aside the additional diversion travel time.

The realisation and success of this would require a dedicated daytime resource within the SWROC, and ideally also within the SWTRA Control Centre, monitoring CCTV and amending/'balancing' VMS and mobile VMS messages accordingly to promote the use of the less busy route (either M48 or M4).

Good daytime utilisation of the M4 contraflow lane will also be key, and as such, appropriate signing (e.g. for M49/Avonmouth) and a wide-reaching communications strategy will be key.

I'm happy to discuss the detail at CWG, but ultimately if we get the TM strategy and comms right, I think Option 1 can be delivered successfully, with acceptable levels of delay.

Regards,

Senior Data & Intelligence Analyst

National Highways | Brunel House | 930 Hempton Court | Aztec West | Almondsbury | BS32 4SR

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From: [REDACTED] <[REDACTED]@amey.co.uk>

Sent: Friday, December 1, 2023 1:07 PM

To: [REDACTED] <[REDACTED]@nationalhighways.co.uk>; [REDACTED] <[REDACTED]@nationalhighways.co.uk>; [REDACTED] <[REDACTED]@highwaysengland.co.uk>

Cc: [REDACTED] <[REDACTED]@nationalhighways.co.uk>

Subject: RE: PoW Bridge Resurfacing TM options and impact

Hi [REDACTED]

The indicative dates for construction are 01/07/2024 to 31/10/2024

Kind Regards,

[REDACTED]
Civil Engineer | Consulting



[REDACTED]@amey.co.uk
6 Redheughs Rigg, South Gyle, Edinburgh, EH12 9DQ
amey.co.uk

Planned Leave Notification:

From: [REDACTED] <[REDACTED]@nationalhighways.co.uk>
Sent: Friday, December 1, 2023 10:19 AM
To: [REDACTED] <[REDACTED]@amey.co.uk>; [REDACTED] <[REDACTED]@nationalhighways.co.uk>;
[REDACTED] <[REDACTED]@highwaysengland.co.uk>
Cc: [REDACTED] <[REDACTED]@nationalhighways.co.uk>
Subject: RE: PoW Bridge Resurfacing TM options and impact

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Hi [REDACTED],

The detail provided is great.

I've had a very busy week, but I've dedicated Monday 4th December to this task, so I will have a reply for you on Tuesday at the latest.

Can you remind me of the proposed start and end date/month?

Kind Regards,

[REDACTED]
Senior Data & Intelligence Analyst

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From: [REDACTED] <[REDACTED]@amey.co.uk>
Sent: Thursday, November 23, 2023 5:05 PM
To: [REDACTED] <[REDACTED]@nationalhighways.co.uk>; [REDACTED]
<[REDACTED]@nationalhighways.co.uk>; [REDACTED] <[REDACTED]@highwaysengland.co.uk>

Cc: [REDACTED] <[REDACTED]@nationalhighways.co.uk>
Subject: RE: PoW Bridge Resurfacing TM options and impact

Hi [REDACTED]

As requested the following is a text summary of the two options discussed, (summarised in file attached).

Option 1: Weekend carriageway closure, and weekday lane restrictions.

This requires 8 weekend carriageway closures (4 westbound closures, and 4 eastbound closures). During these closures 2 + 1 lanes can be maintained in contraflow on the other carriageway.

It also requires 8 weeks of lane restrictions, with 2 + 2 lanes of traffic maintained on the M4, utilising contraflow for one lane.

Option 2: Continuous carriageway closure in one direction, with 2 + 1 lanes of traffic maintained in contraflow on the other carriageway.

This would require 4 to 5 weeks of carriageway closure in each direction.

I have also attached the TM sectional drawing that we were discussing, please note that "Phase 1" in that drawing is no longer proposed, so all the phases move up one.

Does that cover what you require?

Kind Regards,

[REDACTED]
Civil Engineer | Consulting



[REDACTED]@amey.co.uk
6 Redheughs Rigg, South Gyle, Edinburgh, EH12 9DQ
amey.co.uk

Planned Leave Notification: 15th to 19th November inclusive

From: [REDACTED] <[REDACTED]@nationalhighways.co.uk>
Sent: Thursday, November 23, 2023 5:01 PM
To: [REDACTED] <[REDACTED]@nationalhighways.co.uk>; [REDACTED] <[REDACTED]@highwaysengland.co.uk>;
[REDACTED] <[REDACTED]@amey.co.uk>
Cc: [REDACTED] <[REDACTED]@nationalhighways.co.uk>
Subject: PoW Bridge Resurfacing TM options and impact

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Hi all,

Many thanks for the useful meeting earlier today! Just to recap and capture what we've discussed and actions as a result, a small summary below:

- We've looked at 2 TM options for the construction stages of this project

- Option 1 would be looking at the TM approach we currently have in plan, and this is to do 8 weekend closures, resulting in 4 closures in each direction. This would include cross over point off the bridge, keeping 2 lanes of traffic from both directions.
- Option 2 would be close traffic in one direction and keep contraflow running in 2:1 configuration.
- The days of completion between the two options would differ from around 80 days for option 1, to 60 days in option 2.
- Option 2 was ruled out as feasible due to having too much impact on the traffic build up, and carrying too much risk.
- [REDACTED] will forward the initial TM programme to [REDACTED] outlining the TM phases, COP 24th Nov.
- [REDACTED] will run a traffic impact assessment on Option 1 by 4th Dec.
- Customer Working Group will be planned to take place w/c 11th Dec – [REDACTED] to contact [REDACTED] to arrange.
- There has been concerns raised over the events taking place in Principality Stadium which need to be checked, including planned rail disruptions – [REDACTED] to contact [REDACTED] to see what he could find out.

Kind regards

[REDACTED]

[REDACTED] **Project Manager**
Specialist Bridges Inspection and Maintenance (SBIM)
South West Operations Division

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<https://nationalhighways.co.uk> | info@nationalhighways.co.uk

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