



Certificate of Temporary Non-compliance with a Railway Group Standard

(in accordance with part 6 of the Railway Group Standards Code)

1. Type of deviation

Temporary non-compliance

Deviation Number: **13/072/TNC**

2. Details of applicant:

Network Rail (Thameslink K02, Railway System),
Furztown, Floor 3, Desk 054, Elder Gate, Milton Keynes, MK9 1EN

The Quadrant: MK,

3. Your reference number:

Tracker No. 13109

4. Status of applicant:

Infrastructure Manager, RSSB Member

5. Title of certificate:

L498 signal overlap length, London Bridge.

6a. Details of Railway Group Standard (RGS):

RGS Number:	Issue No:	Issue Date:	Title:
GK/RT0064	One	December 2000	Provision of Overlaps- Flank Protection and Trapping

6b. RGS clause(s):

4.3.2

6c. RGS clause requirements:

“4.3.2

The maximum speed shown in table 2 represents the permissible speed on the approach to the signal that is located at the start of the overlap under consideration.

In the case of main class routes, the permissible speed shall apply for at least the distance from the signal itself back to the point on the approach at which the train can brake from the permissible speed to a stand at the signal.

This distance shall be calculated using the same method as was used to determine the signal spacings on the line (ie using the relevant Appendix in GK/RT0034, or using the alternative method of calculation permitted by that Railway Group Standard). However, this distance shall not be less than 400m.

Where differential speeds already exist on the approach to a signal, the distance shall be calculated using the highest of the speeds.”

Maximum Permissible/Attainable Speed not Exceeding	Minimum Overlap Distance
15 mile/h	45m
20 mile/h	55m
25 mile/h	60m
30 mile/h	70m
35 mile/h	75m
40 mile/h	80m
45 mile/h	90m
50 mile/h	105m
55 mile/h	125m
60 mile/h	135m

Table 2: Reduced Overlap Lengths for Colour Light Signals in TCB Areas

7. Scope of deviation:

L498 signal only. Line 10 London Bridge Low Level.

8. Impacts of complying with the current RGS requirement:

L498 signal is an existing signal that has an existing overlap of 37 m with 25 mph speed on approach.

At 400 m on approach to L498 signal, the line speed is 60 mph; however, currently all routes on the approach to L498 require the driver to slow down to 25 mph to traverse over existing crossover(s), therefore regulating the train speed down to 25 mph.

To comply with the 400 m requirement would require a 135 m overlap or reduction in speed extended by 183 m.

The extending of overlap distance or speed restriction would reduce the existing operational capability and require a new timetable to be put in place which would reduce the train service. A reduction in train service is not acceptable to the operational Train Operating Companies (TOCs).

9. Proposed alternative actions:

At Stage LL01/02, the existing signalling is being altered to enable existing infrastructure to be removed to enable new platforms to be built in the London Bridge Station Low Level area. Alterations to routes are being provided to L498 signal as part of recovery works.

L498 overlap will be increased to a 60 m Phantom Overlap (POL), and at 217 m on approach up to the signal a reduced line speed to 20 mph will be applied. Work will also clip 755B points reverse and maintain L498 MAR release at 108 m on approach to the signal prior to 764B points and at 95 m to 765B points.

10. Impacts of the alternative actions:

Permissible speed is low (20 mph) and begins 217 m on approach to the signal and hence is only 173 m short of the requirement. GK/RT0075 states that braking from 20 mph on a 1 in 926 (therefore level) gradient is 80 m, thus the 400 m approach distance is significantly more than that required to actually stop at L498.

755B points have been clipped and padlocked reverse during normal running due to the requirement to prevent an overrun accessing the hoarded off area. 775B points would have been plain lined if the access requirements for track plant during possession working were not needed. This is to enable the new Station Platforms and track to be installed for Stage LL04. Space constraints meant that no buffer stops could be applied to 755B and C&P Reverse was applied in agreement with the TOCs to protect the work site.

It is proposed, due to the 20 mph of approach to L498, to provide a 60 m POL supported by provision of TPWS that will be fully effective for trains with up to 9%g effective brakes.

Risk assessment for the reduced overlap has been conducted as per requirements of section 4.9 of GK/RT0064 and considered the overlap risk to be ALARP (see attached SORA report Appendix F).

11. What other options have been considered?

Options to comply with the requirement were considered:

- Full O/L, but this will impact on the Timetable operations.
- Full compliant speed approach, however this will impact on the existing timetable so it was rejected by the TOCs / Network Rail Operations.
- Provision of 755B points free to move with Buffer stops installed. However, due to site constraints and re-build of station platforms, this option is not feasible.
- Provision of 755B points free to move without buffer stops installed was rejected by as does not give protection of trains from the hoarded off area.

12. Consultation with affected parties

Southern, Southeastern, First Capital Connect and DBS as part of the Layout Risk assessments and option selection of Scheme Plan to be run through the DA.

13. Additional actions/observations:

Upon receipt, the applicant is required to identify affected, interfacing parties and copy this certificate, together with supporting information, to those parties.

Attachments:

- Southern's support email to ATOC dated 20/05/2013.
- Southeastern's support email to ATOC dated 21/05/2013
- First Capital Connect's support email to ATOC dated 22/05/2013
- Scheme plan extract 12-SO-122 Va
- The Thameslink Programme – KO2 Signalling and Track LL01/02 stage design option selection: minutes of meeting held on 20/03/2013
- SORA report Ref. SDG/SORA/122384/LL01 Issue 3 of May 2013.

14. Method of elimination:

Installation of Stage LL04 target date 29/03/2014.

15. Start and end date:

From 28/05/2013 to 27/05/2014

16. Signature of applicant:

(Signals), Head of Signal Engineering

Date of application:

17/05/2013

17. Lead Standards Committee details:**Name of Committee:**

Control Command and Signalling

Date of meeting

N/A

Minute reference:

Agreed by the Principal Control Command and Signalling Engineer outside of Standards Committee, to be noted at the next Standards Committee meeting.

Authorised by:

Signed by Tom Lee on 23/05/2013

Date of Authorisation:

23/05/2013

Tom Lee
Head of New Systems
Head of Delivery, Control Command & Signalling, and Energy