

MetroWest Phase 1b

| 18 April 2024

Temporary Lighting pursuant to Requirement 15 for Stages 1A, 1B, 4, and 6

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1. Introduction

1.1 This document

1.1.1 This document comprises details of temporary lighting for Stages 1, 1A, 1B, 1C, 2, 3, 4, 4A, 4B, 5 and 6 of the of the MetroWest Project as required by Schedule 2 Requirement 15 of the Portishead Branch Line (MetroWest Phase 1) Order 2022 (the Development Consent Order which will be referred to as “DCO” in this document).

1.1.2 Requirement 15 of the DCO is as follows:

“External lighting and control of artificial light emissions during construction

15.—(1) A stage of the works (or such part of that stage as may be agreed with the relevant planning authority) must not commence until written details of any temporary external lighting to be installed in connection with the construction of that stage, including measures to prevent light spillage, have been submitted to and approved by the relevant planning authority; and any approved means of lighting must be installed in accordance with the approved details and retained for the duration of the construction period.

(2) Any means of construction lighting approved under sub-paragraph (1) must be removed on completion of the relevant stage.”

This document has been submitted for approval to North Somerset Council as the relevant planning authority to discharge Requirement 15 for Stages 1A, 1B, 4 and 6.

1.2 Overview of the project

1.2.1 The MetroWest Phase 1 project aims to reconnect Bristol and Portishead by rail, providing the capability to introduce an hourly or hourly plus passenger service from Bristol Temple Meads to Pill and Portishead. The project consists of the following key components:

- The re-opening of a passenger service between a new Portishead station and Bristol Temple Meads, including reopening a freight line to passenger traffic and 5.5km of new railway to be constructed on disused line between Pill and Portishead.
- New Stations at Pill and Portishead and twin tracking through the Pill area.
- Improvement works to the existing freight line between Portbury Junction and Parson Street Junction.
- Highway works in the Portishead and Winterstoke Road, Bristol areas.
- Access improvements, new highway accesses, new or altered bridleways, and new or altered pedestrian and cycle routes.
- Construction of permanent rail maintenance compounds.
- Temporary works are also proposed in the form of construction compounds and creation of haul roads.

- 1.2.2 Development Consent was granted for the above works by the Department for Transport on 14/11/2022 following consideration by the Secretary of State for Transport and the Planning Inspectorate. The commission includes the discharge of Requirements related to the implementation of the Development Consent Order (the DCO).
- 1.2.3 The ‘made’ version of the DCO includes a total of 37 Requirements that those parties implementing the DCO must comply with. Of these Requirements, 31 require the submission and approval of information to the relevant planning authority and/or statutory consultees. This document seeks to ‘discharge’ one or more of these Requirements for a relevant Stage.

1.3 Relevant stages of the authorised development

- 1.3.1 The wording for Stages 1, 1A, 1B, 1C, 2, 3, 4, 4A, 4B, 5 and 6 is set out in full below.

“Stage 1A comprises Work Nos. 7D, 8, 10, 10A, 12A, 13A, 15, 16, 16A, 17 and 17A being haul roads south of Work No. 1, cycle path diversions and compounds at Sheepway together with any use of neighbouring Order land as a temporary compound, a temporary construction compound north of the A369 at Portbury; construction haul roads; a permanent access from A369 at Portbury, temporary vehicle turning circle east of The Drove and north of the A369 Portbury Hundred, a temporary construction compound under the M5 Special Road Avonmouth Bridge; a temporary construction compound and haul road at Lodway.

Stage 1B comprises Work Nos. 20, 20B, 23 and 24A and being demolition of garages at Avon Road, Pill, temporary diversion of bridleway to the west of Avon Road, Pill, temporary compound beneath Pill Viaduct, and a temporary construction compound at Chapel Pill Lane, Ham Green together with any use of neighbouring Order land as a temporary compound.

Stage 4 comprises Work Nos. 1B, 1C, 19, 20A, 21, 21A and 22 being works to the existing railway and to construct a railway between Portbury Junction and Pill Junction, installation of signalling equipment on the Bristol Port Company’s railway, works to replace an underbridge to the north of Avon Road, Pill; Pill Station; car park at Pill Station and permanent maintenance compound and road rail access point.

Stage 6 comprises Work No. 25 being the reconstruction of Quarry Bridge No. 2 and the associated temporary compound in the Avon Gorge, together with the minor works to the railway between Pill Tunnel and Clifton Overbridge.”

1.4 Relevant Work Nos.

- 1.4.1 The wording for Work Nos. 7D, 10A, 12A, 17, 20B and 25 is set out in full below.
“Work No. 7D – temporary construction compound, of 2,876 square metres in area, shown on sheet 1 of the works plans, to the south of Tansy Lane, Portishead and to the north of Work No. 1;

Work No. 10A – temporary construction compound of 2,179 square metres in area shown on sheet 2 of the works plans, to the north-west of the highway of Sheepway opposite Shipway Gate Farm, Portbury;

Work No. 12A – temporary construction compound of 113,467 square metres in area, shown on sheets 2, 2B and 3 of the works plans, to the north of the A369 classified road known as Portbury Hundred and to the south of the disused Portishead Branch Line railway;

Work No. 17 – temporary construction compound of 89,293 square metres in area shown on sheets 5 and 6 of the works plans, at Lodway Farm, Pill, together with access to the highway of the Breaches, Easton in Gordano;

Work No. 20B – demolition of existing garages and temporary construction compound of 1,990square metres in area, as shown on sheet 6 of the works plans, at Avon Road, Pill;

Work No. 25 – reconstruction of accommodation bridge known as Quarry Bridge No. 2, temporary construction compound and temporary ramp for construction access to the Parson Street to Royal Portbury Dock railway, shown on sheet 12 of the works plans.”

Schedule 1 Part 1 other authorised works

The wording for other authorised works part (c) is set out in full below.

“embankments, aprons, abutments, shafts, foundations, retaining walls and structures, drainage, wing walls, fences, acoustic fences, catch fences, paths, access steps and culverts;”

1.5 Requirement context

1.5.1 Measures to be included within this document are contained within existing DCO documents, which have been certified by Article 44 of the DCO.

1.5.2 The Master Construction Environmental Management Plan (CEMP) from the DCO (Reference TR040011) sets out general provisions and mitigation relating to temporary lighting at Section 3.4.2 is as follows:

“Lighting will be designed, positioned and directed so as not to intrude unnecessarily on adjacent buildings, sensitive ecological receptors, structures used by protected species and other land uses to prevent unnecessary disturbance to local residents, light-sensitive species such as bats, railway operations, and passing motorists (such as in Portishead and at Pill). This provision applies to temporary mobile lighting at construction sites where night working will be required and temporary fixed lighting at construction compounds.”

2. Details of any temporary external lighting

2.1 Purpose of the document

- 2.1.1 The purpose of this document is to describe the details of temporary external lighting arrangements to be taken by contractors to ensure the works for the above stages of the development are carried out in a considerate way to avoid impact on people, landscape and ecology and meet legal requirements. The details for lighting relate only to temporary lighting associated with construction work.
- 2.1.2 Artificial light is included on the list of Statutory Nuisances in England, Wales and Scotland. Further to being classified as a potential nuisance, light pollution may cause or contribute to physiological problems. Sky glow can have a significant impact on the visibility of the night sky and consequently may reduce enjoyment of the night time environment. Additionally, any light emitted beyond the target area, either as sky glow or light intrusion, represents a waste of energy and consequently higher running costs and carbon emissions.
- 2.1.3 Artificial lighting can also impact protected species, for example bats are sensitive to the presence of artificial light. In accordance with the Wildlife and Countryside Act, 1981, and The Conservation and Habitats Species Regulations (2017), all species of bat are protected. Consequently, lighting that causes a disturbance to a bat roost, for example, could constitute a criminal offence. In addition, light spill onto habitats including watercourses, hedgerows and trees adjacent to works areas shall be avoided and minimised to ensure there will be no adverse effects on or disturbance to species such as bats, otters, water vole and barn owl.
- 2.1.4 The Design and Build Contractor VolkerFitzpatrick has provided the following information for discharge of Requirements 15.

2.2 Proposed Temporary Lighting

General temporary lighting requirements

- 2.2.1 Site lighting will be required to provide sufficient levels of light for safe working and security. To prevent unnecessary disturbance, lighting will be designed, positioned and directed so as not to intrude unnecessarily on adjacent buildings, sensitive ecological receptors, structures used by protected species and other land uses.
- 2.2.2 This provision applies to temporary mobile lighting at locations where night working will be required and temporary fixed lighting at construction compounds.
- 2.2.3 Lighting will be implemented in line with the BS5489, Code of Practice for the Design of Right Lighting and the Guidance Notes for the Reduction of Lighting Pollution (Institute of Lighting Engineers, 2000). Lighting type, quantity, direction and positioning shall be such to minimise the impacts on housing and adjacent habitats.
- 2.2.4 Lighting will be placed in such a way as to not cause significant nuisance or disturbance to surrounding properties, dwellings and habitats. Construction lighting will be directed away from roads and residential areas, to reduce light pollution.
- 2.2.5 Lighting will be switched off when not specifically required for construction, security or health and safety.

- 2.2.6 PIR lighting shall be used in offices so unused areas will switch off automatically.
- 2.2.7 Restrict high-level floodlighting installations to areas of major construction and the main site compounds.
- 2.2.8 Sky glow will be minimised through the use of low spill lights.

Main compounds

2.2.9 Lighting will be provided at each of the main construction Compounds:

- Portishead Compound
- Portbury Hundred Compound
- Lodway Farm Compound
- Monmouth Road Compound

2.2.10 Lighting at each of the main compounds and main construction sites will consist of:

- General lighting attached to office/welfare units at a level to allow general lighting for safe access and working;
- Mobile LED tower lights which would be positioned adjacent to works areas and light focused as required;
- Lights attached to operated plant such as excavators/dumpers/dozers; and
- Mobile Tower Lights will be used to illuminate highways areas under construction and in use whilst the permanent lighting is installed and operational – this lighting will be used during periods of darkness when street lighting would normally be operational.

2.2.11 Lighting at the main compounds and main construction sites will consist of:

- General lighting attached to office/welfare units at a level to allow general lighting for safe access and working;
- Mobile LED tower lights which can be positioned adjacent to works areas and light focused as required. (see Appendix A Mobile LED Tower Lights); and
- Lights attached to operated plant such as excavators/dumpers/dozers (see Appendix B Lighting on excavators/dumpers/dozers).

2.2.12 Mobile Tower Lights will be used to illuminate highways areas under construction and in use whilst the permanent lighting is installed and operational – this lighting will be used during periods of darkness when street lighting would normally be operational.

Satellite compounds

2.2.13 Smaller satellite compounds will also require temporary lighting. The Satellite Compounds would be located at:

- Sheepway Compound; and.
- Pill Viaduct Compound.

2.2.14 Lighting at smaller compounds and smaller construction sites will consist of:

- Mobile LED tower lights which can be positioned adjacent to works areas and light focused as required. (see Appendix A Mobile LED Tower Lights); and
- Lights attached to operated plant such as excavators/dumpers/dozers (see Appendix B Lighting on excavators/dumpers/dozers).

Temporary lighting of remote areas

2.2.15 For works in remote areas such as along the disused railway line and through the Avon Gorge lighting will consist of:

- Mobile LED tower lights which can be positioned adjacent to works areas and light focused as required. (see Appendix A Mobile LED Tower Lights); and
- Lights attached to operated plant such as excavators/dumpers/dozers (see Appendix B Lighting on excavators/dumpers/dozers).

2.3 Temporary Construction Compound Drawings

The drawings included with this application show the layouts of the temporary construction compounds which would have temporary lighting. The following compounds are:

- Portishead Compound (document ref. 140569-VLF-WST-POD-DRG-ESE-001006)
- Portbury Hundred Compound (document ref. 140569-VLF-WST-POD-DRG-ESE-001001)
- Lodway Farm Compound (document ref. 140569-VLF-WST-POD-DRG-ESE-001002)
- Monmouth Road Compound (document ref. 140569-VLF-WST-POD-DRG-ESE-001004)
- Quarry underbridge compound. (document ref. 140569-VLF-WST-POD-DRG-ESE-001008)
- Sheepway (document ref. 140569-VLF-WST-POD-DRG-ESE-001009)
- Avon Road Underbridge (document ref. 140569-VLF-WST-POD-DRG-ESE-001003 and 140569-VLF-WST-POD-DRG-ESE-001010)

Appendix A Mobile LED Tower Lights



Appendix B Lighting on excavators/dumpers/dozers

