

GCRE: Global Centre for Rail Excellence

Protection to Sewers - Planning Condition 25

Global Centre for Rail Excellence (GCRE)

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Executive Summary

The present document represents the proposed protection measures to the existing combined sewer as required as a pre-commencement planning Condition under condition 25 of the GCRE outline planning consents (references P2021/0327 Neath Port Talbot CBC and 21/0559/OUT Powys CC respectively).

These proposals have been discussed with DCWW as a way forward whilst the design of the combined sewer develops.

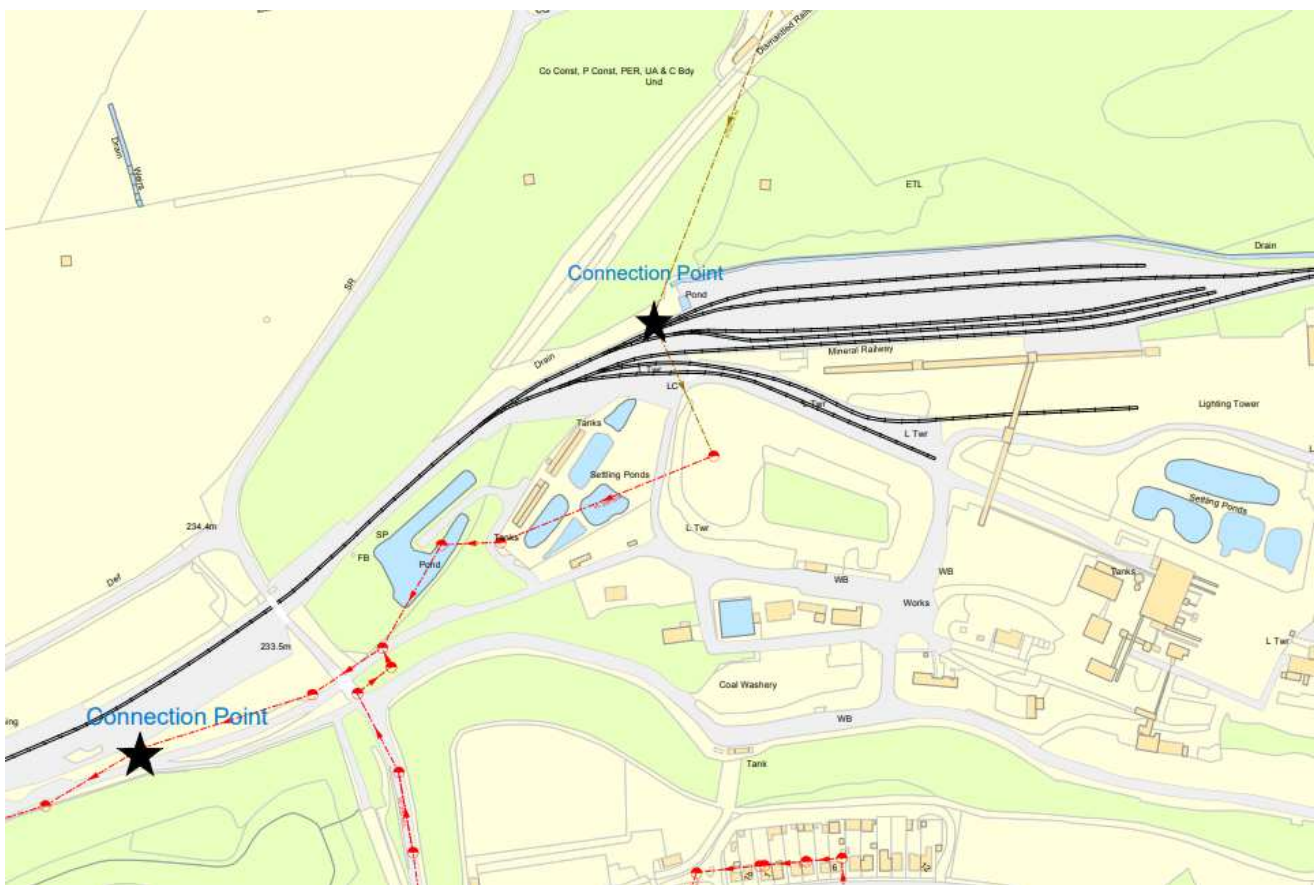
1. Protection to existing Combined Sewer within Phase 1A works

1.1.1. Introduction

The GCRE Phase 1A works consist of new railway tracks to create a new sidings for the storage of rail rolling stock. This is the first phase of the proposed GCRE development.

Crossing the proposed Phase 1A works is an existing 150mm combined sewer running from the North in a South Westerly direction becoming a combined sewer as shown in Figure 1 below.

Figure 1 – Existing DCWW sewer requiring diverting



Not all the manholes shown on the current DCWW information can be found as they are buried within the washery site. The manholes at the overbridge have been located and the covers removed, this has established the invert to the sewer is approximately 4m below ground level.

DCWW have been provided with an order to trace the sewer and buried manholes to positively establish the line and level.

2. Proposed 150mm Combined Sewer Diversion

The combined sewer will require diverting to a new alignment to be clear and provide the required DCWW easement for the Phase 2 works and the proposed replacement overbridge. At this point in time the Phase 2 works and bridge have not been designed, so the final sewer route cannot be finalised.

In order to construct the Phase 1A works it is proposed to build the new works over the existing sewer as it is at 4m depth, divert the sewer at a later date during Phase 2 when detail design has been completed and grout up the existing sewer located under the Phase 1 A tracks.

This proposed methodology has been discussed with the DCWW representative.

3. Protection Methodology

DCWW have been provided an order to locate the existing sewer, and once located the sewer will be surveyed for line and level. This will inform both the proposed design and the site as-built service records.

A condition camera survey will be undertaken of the sewer line to establish any failures within the pipework. A trial hole to positively identify the location of the sewer will not be undertaken if it is proven the sewer is at the suspected depth of approximately 4m.

As the new track involves raising the levels of the earthworks plateau by approximately 1.2m no excavation works are envisaged within the vicinity of the sewer as the ground is being raised, however, the site team will raise a permit to advise operatives working in the vicinity of the sewer's presence. The presence of the sewer will be reinforced with warning showing 'Buried Service' being erected along the line of the sewer.

On completion of the earthworks over the top of the sewer, a camera survey will be undertaken to prove the sewer has not deteriorated in condition. This survey will be undertaken before any follow-on track works are undertaken; this will give an opportunity to undertake a repair should in the unlikely event any damage occur.

On completion of the track works, and sewer diversion within the Phase 2 of the works, the sewer under the railway sidings will be grouted and left in place.

The sewer diversion methodology will be covered under a different document once phase 2 design and the sewer design has been completed and approved.

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