PROTOCOL FOR WORKS ADJACENT NETWORK RAIL VICTORIA RIVERSIDE

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Protecting the Network Rail Asset – Enabling Works – Victoria Riverside

Contents

1.0 Introduction 3
2.0 Scope of Enabling Works 4
3.0 Logisitical Considerations 4
4.0 Managing Risk 4
5.0 Henry Construction Approach to Key Elements 5
6.0 Other Considerations 5
7.0 Considerations for the Client/Developer 6
8.0 Conclusion 6

Protecting the Network Rail Asset – Enabling Works – Victoria Riverside

1.0 Introduction

Henry Construction should be working close to the Network Rail Assets which run along the South Elevation of the site. Whilst the site does not sit within juxtaposition along the whole length of the elevation there are tow main pinch points where the site boundary is close to the railway bridge structure.

This document is set out a protocol for working close to the Network Rail Asset, outline the works associated with the enabling works package and summarise what steps should be taken to ensure the asset remains protected throughout the enabling works phase of approximately 10 weeks. Far East Consortium who are the developer for the scheme have entered into a basic Asset Protection Agreement with Network Rail, thereby committing to engage with Network Rail parties and consider the implications of working in proximity to the asset are captured in the enabling work scope.

See Site Plan (with Boundary shown in Red) below for Context



The site has risks associated with the existing buildings to the East End of the site, the railway viaduct to the entire South Elevation, the potential for contaminants within the existing soil to be removed from site, the viability of re-using the material as a suitable fill material and deep excavations for the drainage diversions. The site is left in a profiled condition, the basis of the profiling being the Structural Slab Levels for the ground works phase, post piling operations. We will discuss this further within the VE options in Section 6 of this summary.

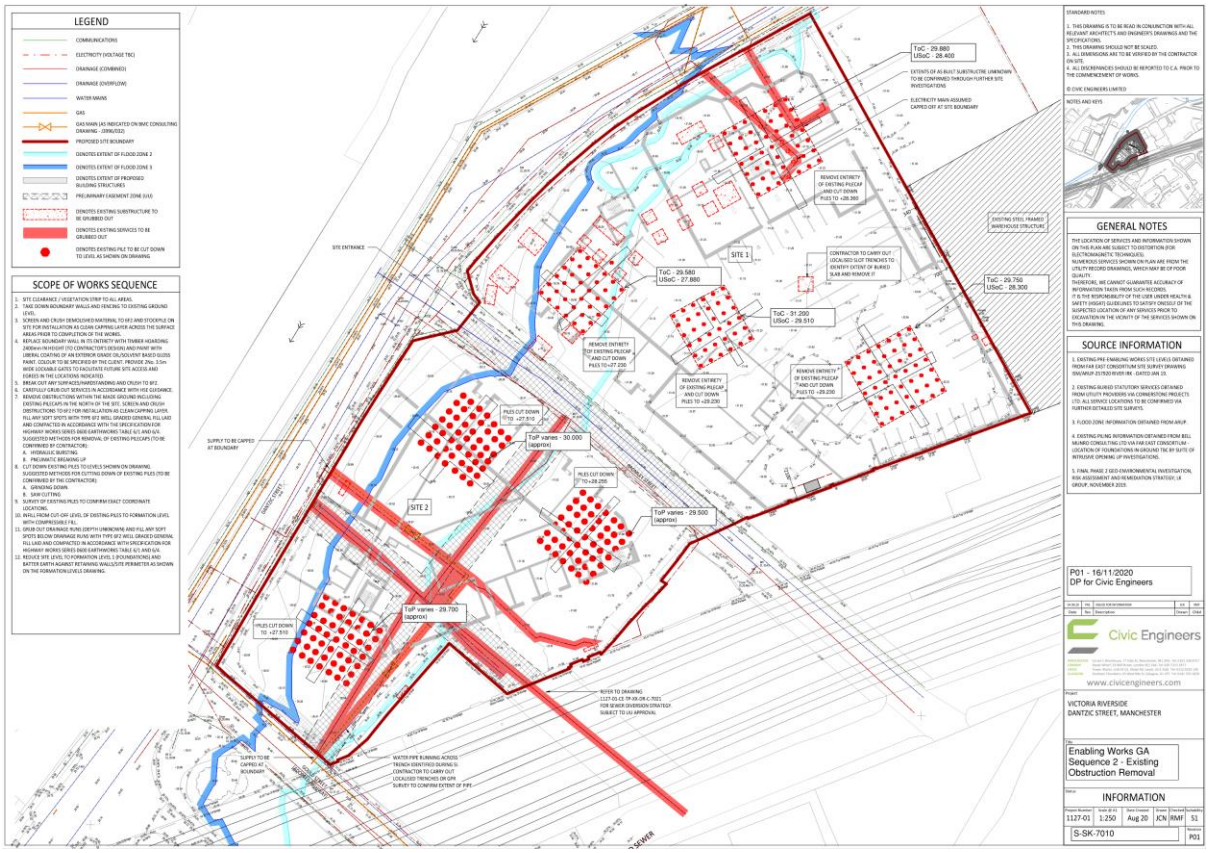
The enabling works scope requires the removal of the existing below ground structures and plotting the position of any piles to avoid clashing with the future design. Consideration for dust control during the exposure of the obstructions and the breaking of the RC structures will need to be diligent managed to not impact on the Network Rail asset. We recognise the need to continue the good relationship with Network Rail which has been established to date.

Protecting the Network Rail Asset – Enabling Works – Victoria Riverside

We aim to uphold the client's reputation via planned, diligent methods of working, mitigating noise, reducing dust, planning for safety and maintain quality in our delivery.

2.0 Scope of Enabling Works

The broad scope for the enabling works package is to carry out reduced level dig, cut to fill to formation level of future piling mat, remove existing foundations as shown on the Civic Engineers Drawing S-SK-7010 as shown below. There is 34m of drainage diversion works which is carried out close to Dantzic street and on the opposite boundary to the Network Rail asset.



Items which we will consider as part of our delivery are dedicated wheel cleaning to prevent site spoil entering the carriageway, dust mitigation measure to the boundary, noise reduction measures including acoustic barriers where practical and establishing a new, well-constructed hoarding early in the programme will ensure we uphold FEC's reputation for being considerate developers.

We recognise the need for a safe execution of the project. We will have a visiting Safety Manager and we will consider the roles to be distinct from the productivity team so as not to compromise the effectiveness of the role. Key risks such as close proximity of machinery/personnel, deep excavations, construction dust and noise are the high-risk items during the enabling phase. We will address these with specific Risk Assessment and Methodology and Daily Briefings highlighting these risks will be mandatory of course. We will also hold worker forums, encourage hazard reporting ahead of near miss reporting to encourage a proactive safety culture.

Be neighbourly; we will plan, engage, and encourage dialogue with neighbours and stakeholders.

3.0 Logistical Considerations

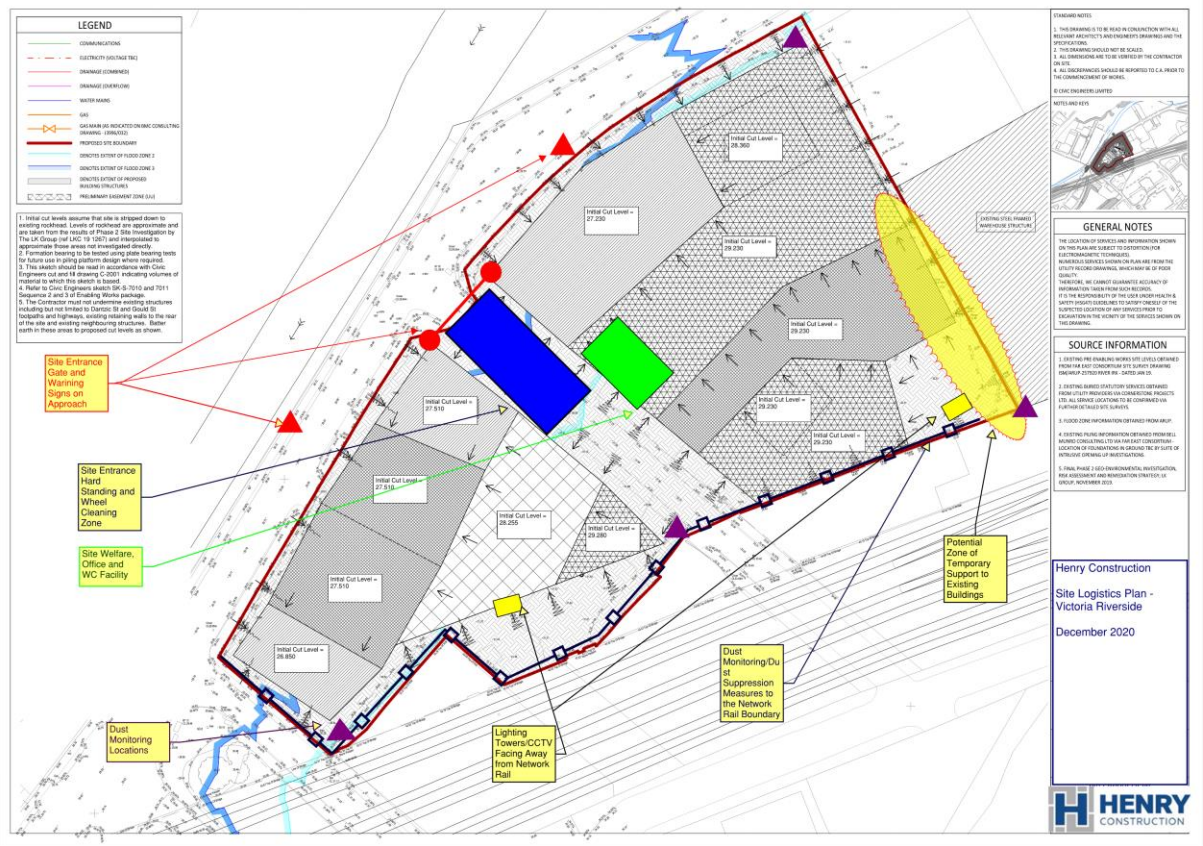
Henry Construction have considered the access to site being close to the existing entrance to site off Dantzic Street. We believe the access at this point would be the most advantageous for the future build works and will establish the security and wheel cleaning facility close to the gate on Bromley Street.

We will establish gate, secure hoarding, welfare early in the project and establish a temporary water connection to control dust on site. The access to the site off Dantzic Street is quite narrow, so we will employ a full-time traffic marshal to manage the traffic on/off site. Vehicles reach quite high speed on Dantzic Street, so we will produce a lay down area on site including wheel cleaning facilities to enable vehicle to pull straight into site rather than blocking the road as they turn in. We will provide visible signage to demark the entrance to site. Please refer to Substructure Logistics Plan below for details.

We will make provision for a tractor and bowser to spray mist over the work area whilst excavating/breaking and will employ dust suppressing water cannons/screens if we encounter dry conditions on site in specific areas.

We have sought to locate the office and welfare set up away from deep excavations and batters. We would therefore not envisage moving the set up for the enabling works phase. We would only single stack the oasis style units and establish PPE safe routes from gate to compound, therefore no lifting with mobile cranes will be necessary, the HIAB or excavator can perform these lifts in accordance with the lifting plan.

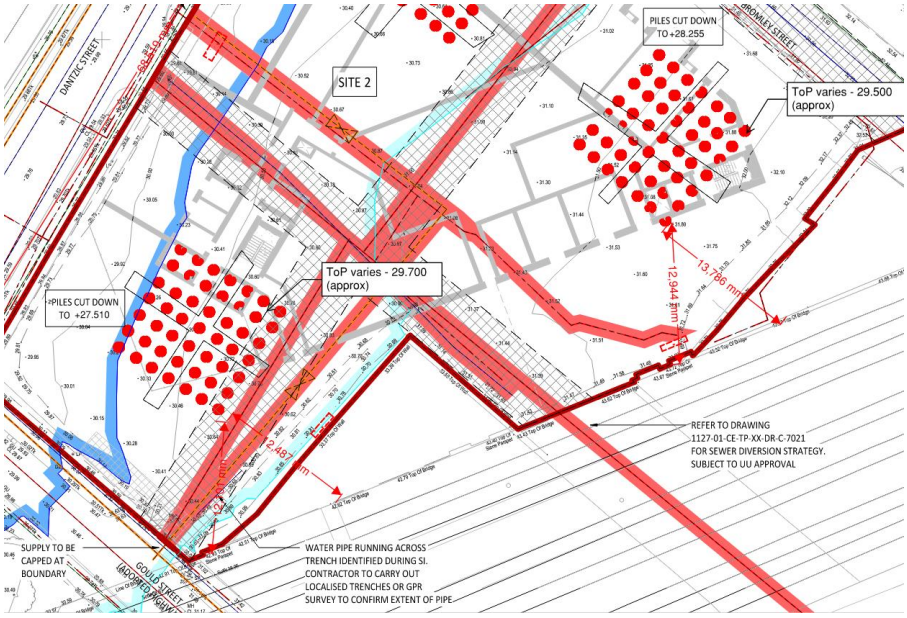
Enabling Works Logistics/Site Set Up



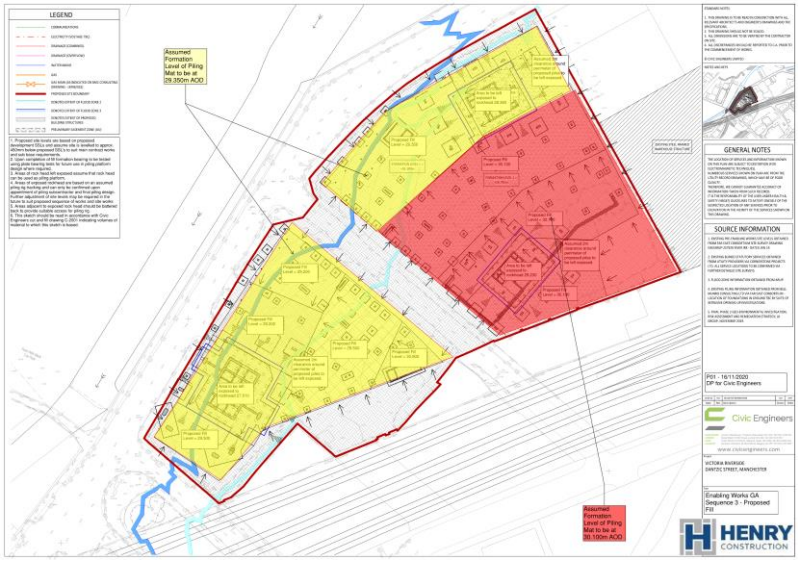
4.0 Managing Risk

The Key Project Risks we have sought to mitigate when working alongside the Network Rail Asset include:

- **Temporary Excavation to Remove Foundations.** The location of the existing foundations as shown on Civic Engineers drawing S-SK-7010 is a sufficient distance away from the asset to be battered at 1V:3H. The level of excavation is to be 28.255m AOD and 27.510m AOD The existing ground level adjacent the Network Rail Structure is at 31.000m AOD to 31.500m AOD at the two nearest points of excavation to the structure. The dimension of the existing foundation to edge of railway structure is greater than 12m, allowing an excavation to be battered at a safe profile of 1V:3H without risk of undermining neither the existing ground level nor the foundation which depth is unknown at this stage. See details below.

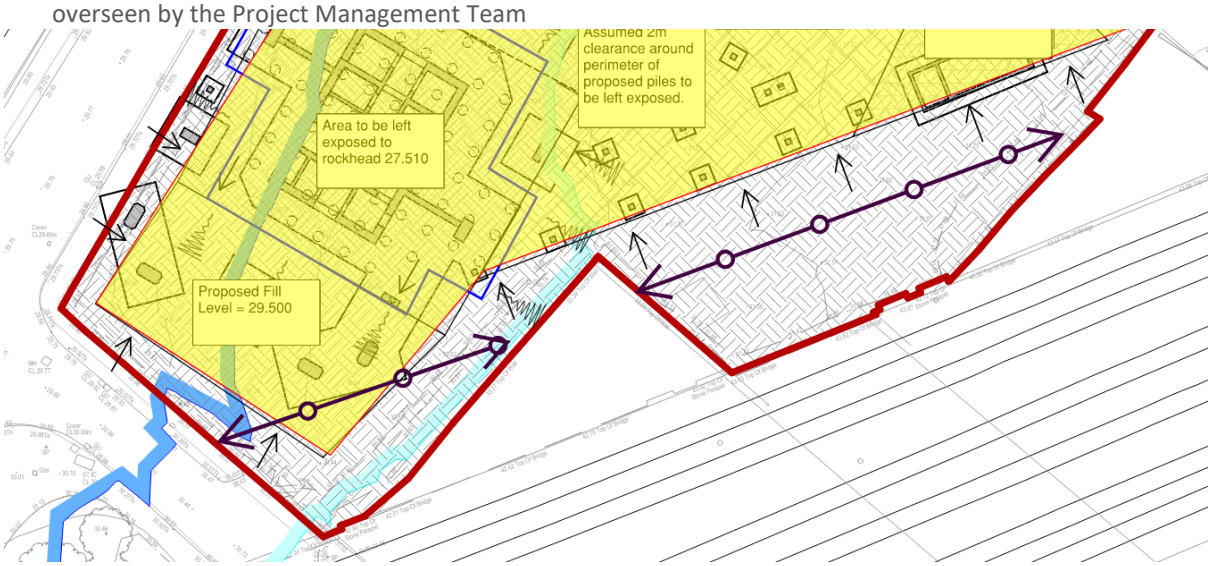


- **Re-use of existing material for Fill** – The Civic Engineers Drawings have been amended in the pre-construction discussions. Therefore, the final profile levels of the site are a more consistent and generally higher than originally proposed. The final fill level for the site does not undermine the ground or foundation of the Network Rail Asset. See details below:



Protecting the Network Rail Asset – Enabling Works – Victoria Riverside

- **Setting up a Cordon to the Network Rail Asset at Pinch Points** – As described above and as shown below, we have no requirement to excavate or take heavy plant, lifting equipment or mobile machinery into a 6m zone to the Network Rail asset as part of our enabling works. We will therefore cordon the area (shown with a purple line) and instigate a permit system to enter the area to be overseen by the Project Management Team



- **Noise/Dust and Nuisance** from the Enabling Works – early setting up of monitoring stations and establishing baseline readings is key. We will then regularly monitor against this baseline. Key risk areas remain crushing/screening activities, and movement of made ground above natural soils. We will set up dust monitoring points as shown on the logistics plan. We will also have a tractor/bowser unit to spray mist across the site, adjacent Network Rail Boundary and to work areas generally. Dust mitigation plans will be produced and briefed to the workforce. We will set up noise reduction screens around areas of percussive breaking where appropriate and carry out noise assessments at the boundary.
- **Clean Boundaries** – as the works will entail multiple vehicles accessing/egressing site we will form a hardstanding at the entrance gate for wheel cleaning and have a traffic marshal to ensure vehicles are clean on entering site.
- **Environmental Impact Locally** – we have obviously sought to get as many vehicles on site as possible rather than stacking on nearby roads. Under the VE section we discuss trying to reduce the environmental impact via screening the made ground and soil stabilisation.
- **Deep Excavation and Heavy Plant** - we will continually batter to expose the pile and pile caps that need to be broken. We will commence reducing the ground as soon as practical to reduce the battered height of excavation. Generally, with made ground we will aim to strike a batter at 33 degrees. Crushing or screening will take place in a signposted, cordoned zone at least 30m from the Southern Boundary.
- **Vehicle/Operative interface** – we believe that putting vehicle banksman with large items of plant is inherently unsafe. We will therefore set up pedestrian walkways around the site and maintain these, this separating personnel/vehicles on main thoroughfares on what is predominantly an earthworks project.
- **Lifting Operations -** we will only require localised lifting with HIAB or excavators. We have no lifting requirement for cranes to be on site during the enabling phase and therefore pose no risk to the Network rail asset or operation.
- **Contaminated Land –** We will brief the workforce on the likely risk on the ground and will introduce a discovery strategy of cordoning off areas of contaminants visually may contain asbestos or similar fragments, olfactory recognition of VOC's and PAH's which will mean temporarily stopping works to test and verify material before continuing. We will undertake appropriate classification testing o of the made ground to be removed as soon as access can be gained to site.

- **General Safety Risks –** We will consider Risk Assessment for tasks, implement daily briefings and introduce our HCPL Covid 19 Procedures once site works commences. We will forward our Health and Safety Policy and Covid Procedures under separate cover.

5.0 Henry Approach to Key Elements of Delivery

Henry Construction have considered the following approaches to the critical elements of the project delivery including:

- Enhance Network Rail relationship via dialogue and informing them of our works and any impact our works may have on the operating of the railway. We do not foresee any disruption, but we are mindful of the need to manage this relationship.
- Utilising Henry Plant fleet to undertake the majority of the works means we will plan to work on multiple faces concurrently. To facilitate the programme, we will need to be breaking several pile caps and moving spoil at the same time.
- Set up site security, CCTV is appropriate and establish the new hoarding line as quickly as possible to manage and set up a secure site from trespass and errant entry.
- Assist with buildability options for the main contract works and assist the design where possible.
- Establish Relationships with Key stakeholders via pro-active, collaborative and thoughtful execution during pre-construction and construction works.
- De-risk the Project Programme via early engagement with design team, temporary works design and asset stakeholders via a dedicated project manager early in the piling/enabling package.

6.0 Other Considerations

Whilst the enabling works has limited impact on the Network Rail Asset we have considered further indirect considerations and mitigation measures:

1. **Site Security** – to avoid trespass and entering the site and compromising the site and surrounding structures we will establish site security 24 hours to prevent breaching the site and causing a trespass.
2. **Site Levels** – we have considered a lesser depth of excavations to minimise risk of failure of localised excavations.
3. **Support to Adjacent Structures** - We have considered a hand excavation to determine the foundation level of the existing adjacent structures to industrial building and concrete retaining wall. We have no requirement to determine the existing level of foundation for the network rail structure. We have minimised the risk of undermining or strengthening the adjacent building's foundations via no longer requiring deep open excavations to the rock level. Identifying the depth of existing foundations via hand excavation to verify their depth minimises risk to the Network Rail asset.

7.0 Considerations for Client

The following items are for the client and design team to consider, which we could then establish cost savings for if agreeable.

1) In order to sign off planning conditions we have produced this document to further define our methodology for the enabling works
2) Early instruction to commence a dilapidation/condition survey ahead of construction works would be beneficial to all parties.
3) Communication with Network Rail representative upon contract award would be beneficial if details can be provided HPCL will commence this process.

8.0 Conclusion

Henry Construction have considered mitigating risk for the project as a whole, and in doing so any offered a reduced risk to the Network Rail Asset. To protect all parties, it would be advantageous to commence a dilapidation/condition survey of the railway asset as soon as practical. This should not mean accessing the Network Rail property, rather inspecting the structures from pavement level with video/photographic evidence of any existing defect would be more comprehensive.

During the works, HCPL will cordon the area to further reduce risk of plant collision and as has been demonstrated, excavation risk has also been minimised. Dust will be proactively managed, and we have contingency for dust suppression and monitoring against the Southern Boundary of the site.