

6033 - Steel Museum

Constraints

Ace Capital Projects Ltd

28th February 2024

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Contents

Chapter	Page
1. Introduction	4
2. Relocation of existing church services/equipment and market/fair	4
3. Demolition works	4
4. UXO survey	4
5. Contaminated Land	5
6. Methane survey & Radon Survey	5
7. Condition surveys & Ecology Survey	6
8. Service diversions/upgrades.	6
9. Low risk flood zone – introduce raised foundations/ drainage etc.	6
10. Structural survey on riverbank - gabion wall	7
11. Infrastructure works / TM design	7

Figures

Figure 1- Radon levels over intended site
(UKHealthSecurityAgency,2023)

Figure 2 – Service upgrades (Blueprint,2024)

1. Introduction

There are several constraints that were identified. These following constraints need to be taken into consideration for the duration of the project, please see below each point for the recommendations to counteract these constraints:

2. Relocation of existing church services/equipment and market/fair

Blueprint Construction LTD will aim to relocate these church goers to a nearby facility of either a church on forge road called St Agnes church, St Theodore on Talbot Road in Port Talbot, St Mary in Aberavon or St Michael in Cwmavon. This provides the church users multiple choices on which church they would be happy to relocate to. Arrangements can be made to continue use of the market/fair and church services required. Blueprint Construction LTD have committed to a goodwill gesture to provide a move and relocate service to remove semimetal equipment or pieces from the current church to the church/s of the user's choice.

3. Demolition works

The following demolition works are required as part of completion for the new project. The demolition works are as follows:

- Breaking up Existing Road
- Existing (Northern) Church
- Existing (Southern) Church
- Bethany Centre Existing Buildings
- Levelling and Compaction of Existing Car Park

These can be achieved within the current set timescale if no delays arise.

4. UXO survey

Present data shows that there is a moderate risk from German UXB's & HAA shells therefore blueprint advise that we appoint an external team as a precautionary measure, allow 15 working days delay if any UXO is found. This timeframe should be enough to allow a team to survey and safely detonate any UXO if found.

5. Contaminated Land

As result from the gas monitoring survey, the intended site has concluded as a 'Moderate Risk' and for this a gas protection membrane and underfloor ventilation void will need to be included in the construction.

Moderate Risk due to previous activities on site—

Include control measures for operating on contaminated land

- Adequate PPE provided
- Toolbox talks and further training
- Suitable building fabrics
- Wheel wash down points on site exit

6. Methane survey & Radon Survey

Following data surveys, radon measures from the site are mapped below, currently known as the car park of the site has less than 1% radon levels see figure 1.1.

Towards the site for construction of the building, shows 10-30% of maximum radon levels see figure 1.1, therefore, we require approved radon protection measures installed such as sumps.

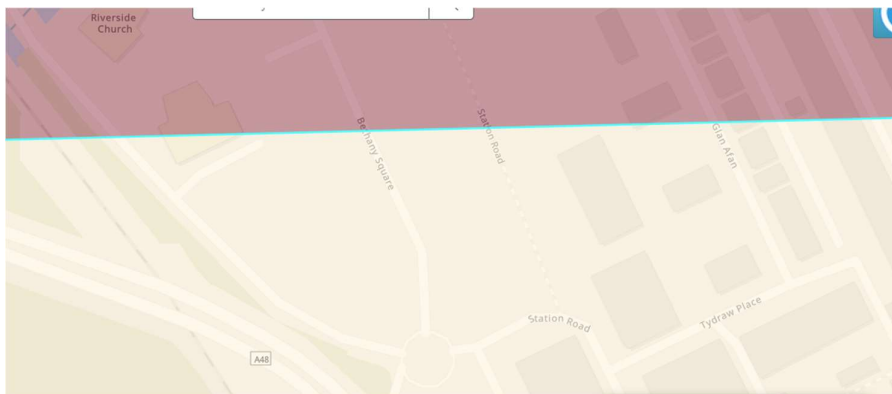


Figure 1. - Radon levels over intended site - (UKHealthSecurityAgency,2023)

7. Condition surveys & Ecology Survey

Blueprint have identified the following for the Condition Survey and Ecology study.

The condition survey has identified the factors such as asbestos onsite, blueprint will source a specialist to remove these hazardous materials before the building is

dismantled and demolished. Consulting a specialist to carry out this survey ahead of time will ensure the project is running on schedule for future works. Asbestos within the building is likely due to the time and age of the building was constructed.

8. Service diversions/upgrades.

The following services have been identified as affected by the construction of this project and therefore the following services will need to be diverted to enable successful completion.

National Grid	Low Voltage (LV)	Underground	Affected (Divert)
National Grid	Service	Underground	Affected (Divert)
Wales & West Utilities	Low Pressure Gas Pipe	Underground	Affected (Divert)
Welsh Water	Combined Sewer (600mm)	Underground	Affected (Divert)
Welsh Water	Distribution Main (250mm)	Underground	Affected (Divert)
Welsh Water	Foul Sewer (150mm)	Underground	Affected (Divert)

Figure 2 – Service upgrades (Blueprint,2024)

Blueprint have raised significant costs for both an additional investigation and the costs of altering the current services and diverting them. Costs came in as a total of £20,600 with a delay of 25 days (approx. 3 and a half weeks).

9. Low risk flood zone – introduce raised foundations/ drainage etc.

Blueprint advise to mitigate the surface water flooding Blueprint, introduce a Filter drains or Sump and integrate into the Civils design ensuring adequate water storage volumes and infiltration rates are calculated, so ground conditions and soil quality are not affected. This will follow the national Standards for Sustainable Urban Drainage Systems (SUDS), introducing such drainage.

We suggest allowing for raising the foundation to ensure no surface water flooding around the site once construction is finished.

10. Structural survey on riverbank - gabion wall

Southeast river deference, may need vegetation removed to establish the condition of the wall.

11. Infrastructure works / TM design

The following infrastructure work and traffic management considerations will need to be addressed for this project. Blueprint suggests that the moving of roundabout to increase the traffic management around the site, introduce another form of traffic management which will a traffic calming zebra crossing and finally blueprint suggest increasing the width of the junction on entry into the site to provide an ease of access for larger construction vehicles.