Berry Brow Project

This document has been produced to provide an overview of the works on site at the Berry Brow Project. The project consists of the 17-story tower blocks noted as Holme Park Court & Bishops Court.

Site Set Up

Initially, a self-contained welfare unit was installed on site to allow for the initial works to be undertaken, such as the installation of the fencing.
Once the boundary fencing has been installed to all elevations, we will install our full site set up, including the following separate cabins:

- Site office & meeting room
- Canteen & drying facility
- Combined male & female toilet block

Water is imported to provide suitable water for the toilets and washing facilities, whilst drinking water is provided in bottles.

All cabins are connected to a suitable generator on site installed by a competent electrical contractor. All installations have the appropriate supporting test certification.

Fencing

A 2.4m timber hoarding was installed around the site to secure the site. The majority of the timber hoarding has been installed on Kentledge blocks to avoid breaking ground around the tree lines. Whilst at the front elevation of the site along the main road, the hoarding posts were dug into the ground following a scan using a Cable Avoidance Tool.

Soft Strip

The soft strip works on the two blocks consist of the removal of all fixtures and fittings, including doors, kitchens, non-load-bearing partition walls, and bathroom fittings. Materials are recovered using a range of hand tools from reciprocating saws to mattock bars and large hammers. Materials are recovered generally in their waste streams to minimise segregation later. So, timber first followed by metals followed by plaster boards and plastics.

For both structures, we propose to use external drop zones to deposit the materials into for floors 1-7, proving the weather conditions are suitable. Whilst the internal lift shafts will be utilised for floors 8-16. Recovered materials will be placed directly into skips for onward recycling where practically possible. Materials associated with the soft strip works will be subject to waste transfer notes to fully licensed facilities.

Asbestos Removal

Both buildings have been subject to a number of Demolition & Refurbishment asbestos surveys. The surveys were undertaken by a competent contractor in accordance with the Health & Safety Executive's document HSG264 – Asbestos: The Survey Guide. During the course of the surveys, they identified all asbestos-containing materials. The results of the surveys have been made public and made available via the local authority's website.
The surveys identified two types of asbestos-containing materials: the first is Decorative Textured Coatings (Artex). This product was identified on concrete ceilings and concrete walls. No Artex was identified on non-load-bearing partition walls (Plasterboard).

The second material identified is Bitumen on floor slab coverings, which again is extensive throughout.

In addition, a small section of internal asbestos-containing pipework was identified.

All the above materials can be removed by operatives that hold Cat B Training. Category B asbestos training is for tradespeople and contractors who knowingly disturb non-licensed asbestos-containing materials (ACMs), such as drilling into textured coatings, removing floor tiles, or handling cement products.

The majority of asbestos-containing materials will continue to be removed prior to demolition. There may be some situations where demolition can be carried out without prior removal work (CAR 2012, Reg 3(2)). Guidance in ACoP L143 (paragraph 78) stipulates that where removal of non-licensable ACMs is time-consuming and resource-intensive and only involves a lower-risk material (such as textured decorative coatings containing asbestos), then removal prior to demolition may not be reasonably practicable.

This only applies to asbestos materials where the fibres are "firmly bonded in the matrix" (Regulation 3(2) and paragraphs 34 – 39 of ACoP L143 refer), such as textured decorative coatings (e.g. artex attached to a concrete substrate).

Such work will not require an HSE asbestos licence, but will still require adequate control measures to prevent or minimise exposure to or spread of asbestos (dust suppression from DustBoss, etc.).

3.2 When making a judgement about the reasonable practicability of ACM removal prior to demolition, you must consider the following on a project-by-project basis:
The time, cost, and effort involved with conventional methods of asbestos removal balanced against the other health and safety risks created by these activities, such as work at height, the structural integrity of the building, the manual handling of materials, exposure to noise, vibration, and dust, etc.;

The risks associated with leaving the asbestos product in situ and any associated recycling of demolition rubble. A volume calculation of the building structure relative to the quantity of asbestos should be made to ensure that residual rubble will not exceed 0.1% w/w.

Asbestos-containing artex generally contains between 3%-5% asbestos, so when mixed in with concrete arisings, will form far less than the 0.1% allowable.

The client (Kirklees Council) has, albeit, made the decision to remove all ACM as far as is reasonably practicable. Meaning small bubble pockets in concrete construction will be retained.

As each floor is cleared, our competent subcontractor will engage an independent asbestos analyst to undertake both a visual and air testing to confirm all ACMs have been removed.

Any asbestos-containing materials will be placed into a red-labelled asbestos bag and taped around the top before being placed into a further clear asbestos-labelled bag and again taped around the top. Filled bags will then be placed into a lockable asbestos-labelled skip for forward transportation. All asbestos removed from the site will be undertaken under Waste Consignment Notes and again taken to a licensed waste facility.

Copies of both waste notes for non-hazardous materials and hazardous materials will be retained and made available to the client in the form of our project Close Out Report.

Environmental Monitoring

In advance of the start of the demolition, we will position a number of monitoring stations; these will consist of a combination of noise, dust, and vibration monitors (dependent on the location and risk). Monitoring will be undertaken for circa one week prior to the start of the physical demolition to obtain ambient background levels.

We will set limits for the monitoring equipment to trigger if the following limits are exceeded:

- Noise: 75dB(A)
- Dust: 50µg/m^3 over a one-hour period
- Vibration: 4mm/s

Demolition

The demolition of each structure will be undertaken in two phases. The first phase requires the use of our 1200 excavator, which has a 65m reach. The excavator is fitted with an onboard dust suppression system at the pulveriser head and will be supported by the use of a number of dust cannons. If needed, the cannons will be repositioned to take into account weather conditions, i.e., wind direction.

During the demolition of the top 6-7 floors, including the plant rooms, when works are close to the boundary of the site, i.e., within 15m. We will utilise our demolition screen, not because we feel that demolition debris may exit the site into occupied areas , but to offer some visual comfort.

The structure will be demolished in a top-down manner, demolishing one structural bay at a time. The excavator will work across the width of the building, removing the flats

associated with the elevation facing the excavator. The excavator will then remove the two flats located either side of the lift and stair core. During the course of the demolition works, some materials will fall directly to the floor, whilst others will fall within the building onto the floor. Materials that build up on the floor will be cleared periodically to mitigate the risk of floor overload. To clear materials off the floor, the excavator will use the pulveriser attachment to sweep materials out of the building. Prior to this operation, the area will be saturated with water from the attachment for around 2-3 minutes; this is to minimise dust migration during this task.

As described, the excavator will remove the structure up to the lift core before removing the same area to the floor below. Once the same area from the floor below has been removed, the excavator will return to the top of the building and remove the plant room, lift core, top section of staircase, along with the remaining roof and external floors down to the top of the 16th floor slab.

Next, the floor slab to the 15th floor, along with the 14th floor walls, will be removed across the width of the building facing the excavator, creating the step in the building again. The above sequencing will be contained down to the 5th floor. Once at the 5th floor, the 1200 excavator will relocate to the next block and start again. To the first block, a smaller 50t excavator will be reused to continue the demolition. The sequencing will continue in the same manner until the building has been demolished down to ground slab level.

This process will be repeated for the second block.

Slab & Foundation Removal

Once sufficient materials have been cleared from the base of the structure, we will recover the slab and foundation. The removal will be undertaken using a hammer attachment to puncture through the base slab. Holes will be placed at 1.5m centres; once an opening is created in the slab, we will change to a bucket attachment to lift the slab using the mechanical strength of the excavator.
For the removal of the foundations, this generally needs the hammer full time as these are likely to be large and then further attached to piles. For our works, we only need to recover the foundations and expose the pile caps. The location of the pile caps will be plotted onto a topographical drawing for the client/onward construction contractor.

Crushing

As materials become available to allow a continuous use of the crusher, a crusher will be brought to site. Again, the location of the crusher and stockpile is not yet clear. Once identified, processed materials that have had the rebar recovered will be loaded into the crusher’s hopper. The crusher will be set up to make a 6F2 engineering standard material; as it leaves the crush belt periodically, the stockpile will be removed using a loading shovel and taken to the identified permanent stockpile location.
Every 10,000m3 of materials processed through the crusher, we will have a sample taken for grading analysis to confirm the materials are a 6F2 product.