

# Faraday Demolition & Enabling Works



Wates



**Programme, Phasing and Logistics**

**External Stakeholders Presentation**

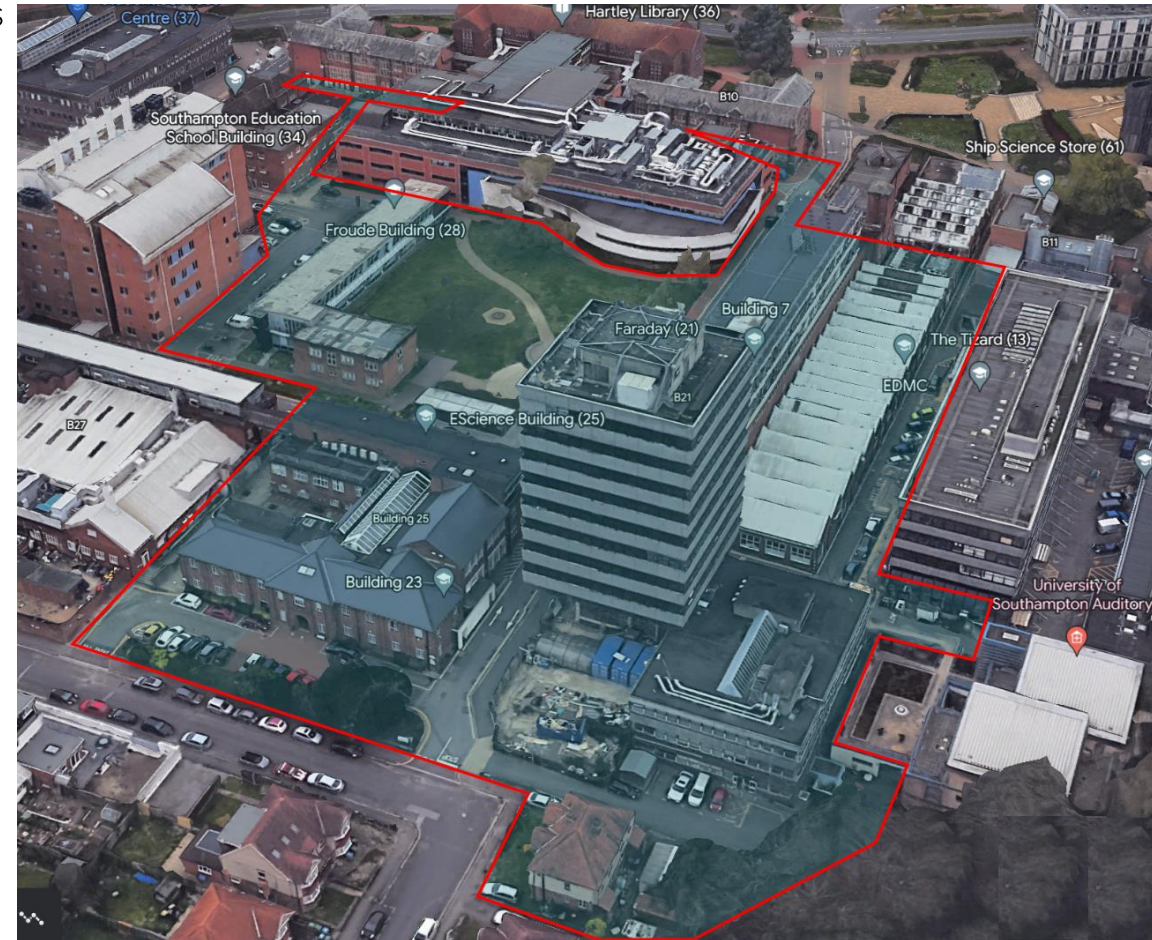
# 02.

## Phasing Strategy

---

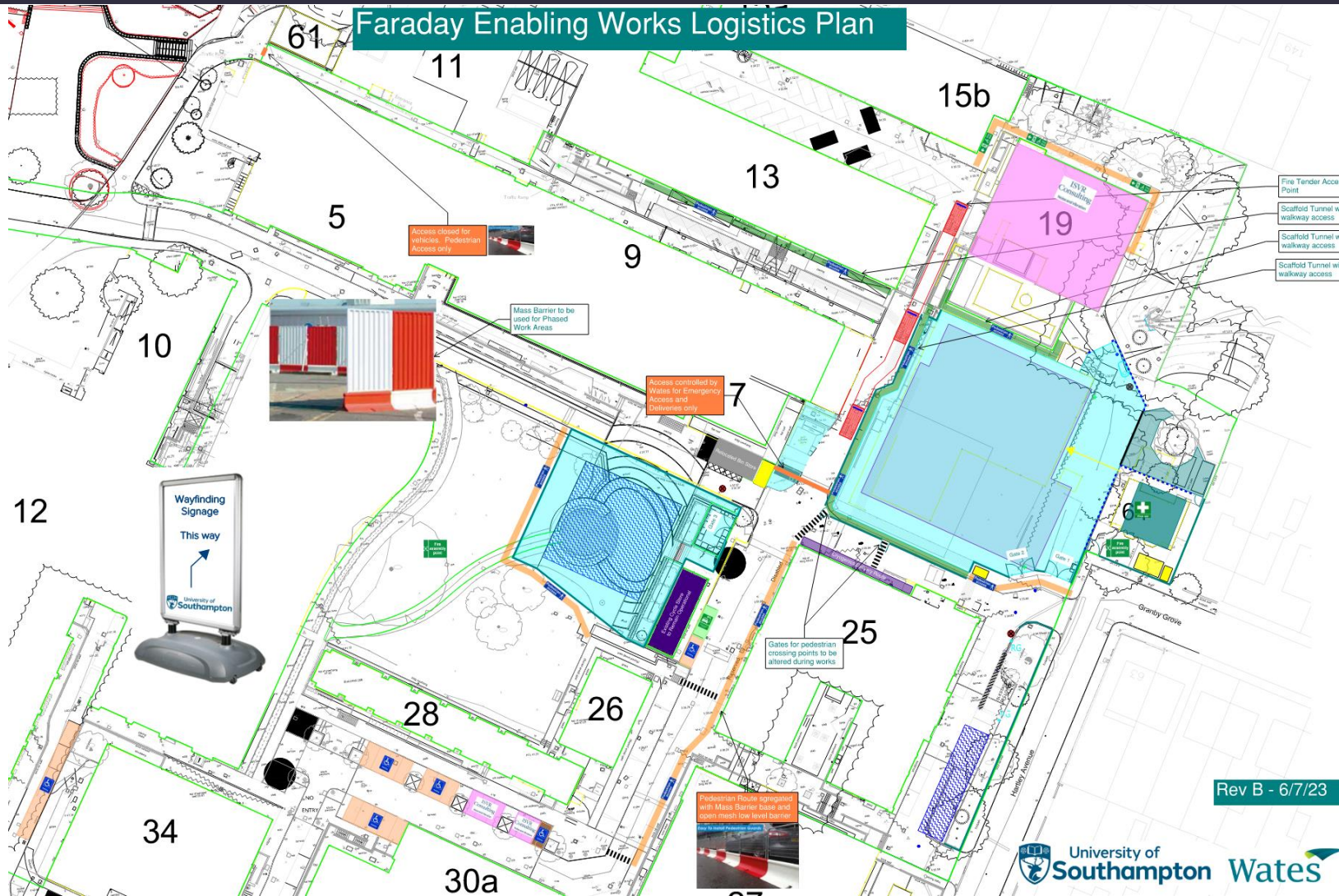
# Approach – Start Right to minimise impact on University operations and local residents

- Establish sites during summer break to minimise impact on University operations
- Enabling works carried out in phases within self contained sites
- Traffic and pedestrian management coordinated solution to suit the work phases and the University operations
- Netting of the tower and pedestrian protection scaffold walkways installed during the early works
- University parking adjusted once at the start and largely maintained for the duration
- Centralised muckaway locations to minimise construction traffic within the campus and on local roads
- Noise, vibration and dust mitigation measures implemented at source
- Communications strategy agreed with the University Comms team including fortnightly updates with key stakeholder group, weekly updates with E&F team and updates issued to the wider University via SUSSED
- 4 week look ahead slides to be issued weekly to aid with communications and coordination of Wates and University activities





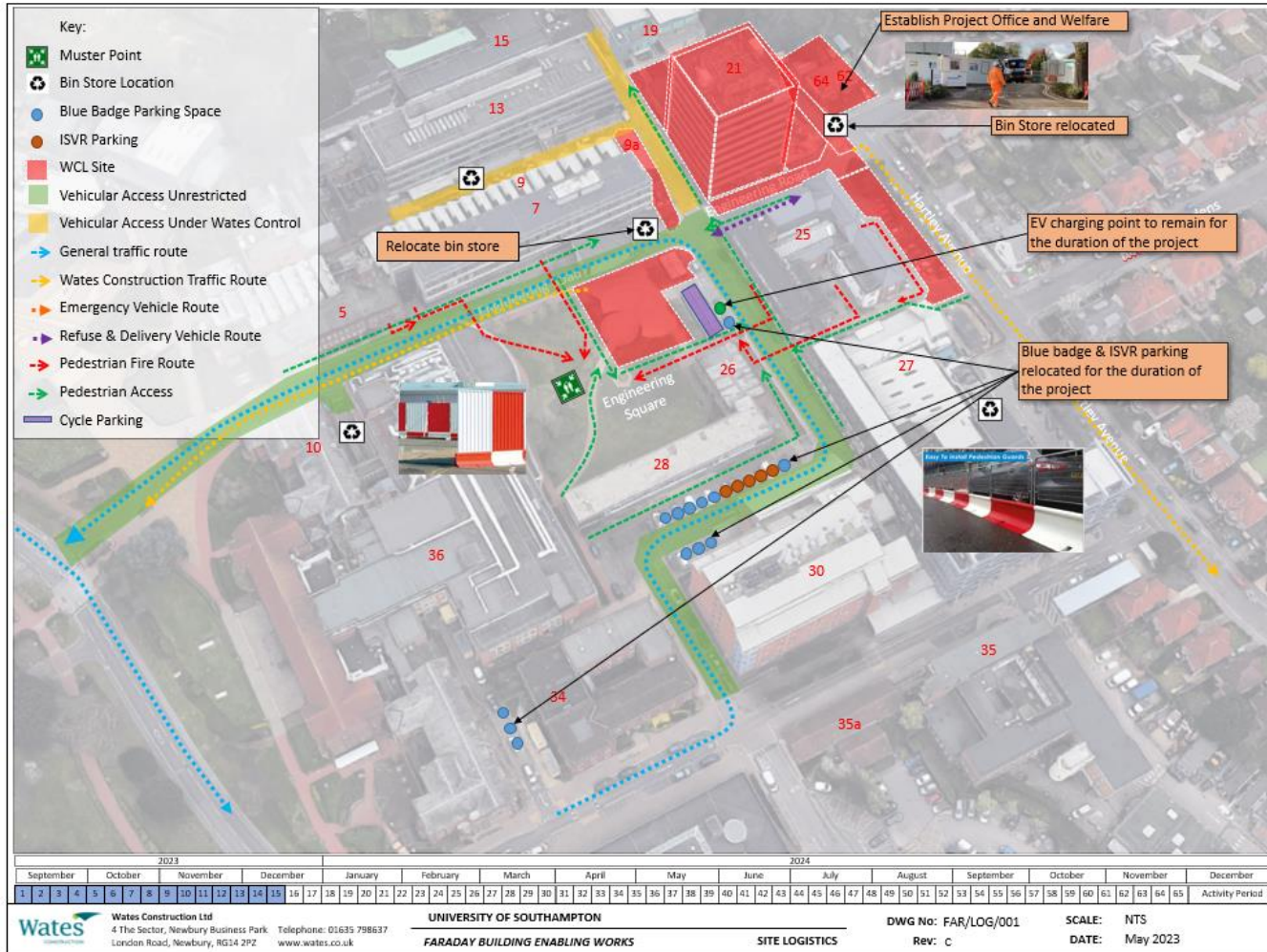
# Logistics Plan



- Pedestrian access routes formed ensuring segregation, with clear wayfinding for each phase
- Emergency escape routes to buildings and Muster Point to be maintained
- Pedestrian access to Hartley Avenue to be maintained and amended during the works
- Erection of site boundaries with robust Plastic Hoarding
- Covered walkways at the perimeter of Building 21 and in front of Building 13
- Gatehouses/Gates people sited at key crossing points
- Parking Relocated
  - ISVR at Building 28 (5no.)
  - Disabled bay numbers to remain the same (11no.)
  - Electric charging space to remain
  - All other parking suspended
- Bin Store Relocated
- All phased work areas to be secured using Mass Barrier with solid panels and acoustic panels
- Construction traffic generally via Hartley Avenue
- University one-way system to be maintained and amended during the works

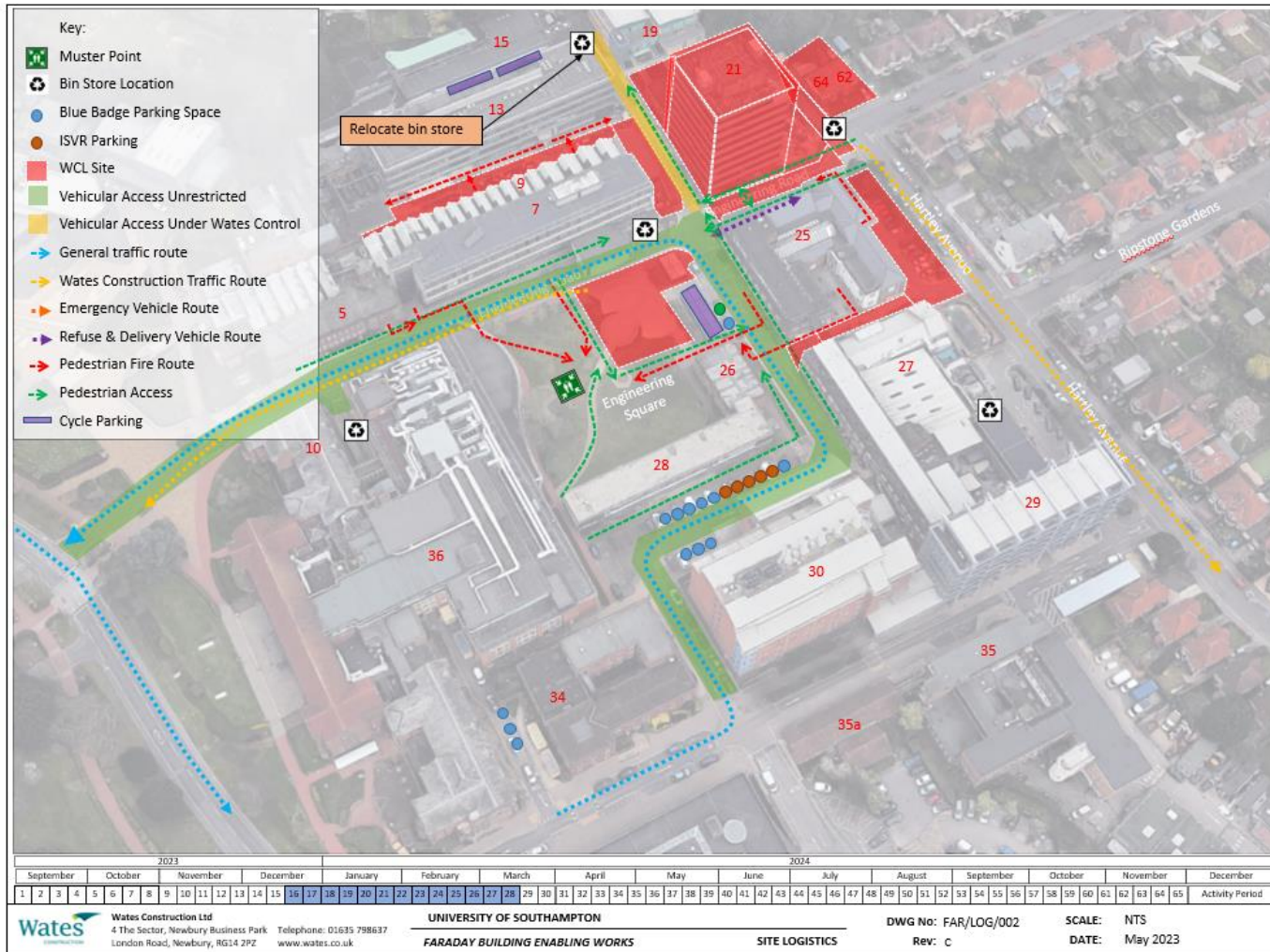


# Phase 1 (Sept – Dec 2023)



- Demolition of Granby Grove residences to provide office and welfare area
- Demolition of B9A to follow Granby Grove
- Service diversion and drainage work sites commence to the Eastern End of the campus including Engineering road between B21 and B25 (shown in red)
- One way traffic route established as (shown in green)
- Vehicular access to B9, 13, 15 & 19 under Wates control due to proximity to work sites (shown in orange)
- B19 refuse bin & deliveries managed by Wates
- Early commencement of services diversions in Engineering Square
- Access to Cryogenic lab for pedestrians and deliveries maintained
- Blue badge / ISVR car parking relocated away from work sites with all other parking suspended locally to phases
- Protected pedestrian access routes established in front of B25 & 27 and around the Faraday tower and podium
- Temporary pedestrian access established across Engineering Square

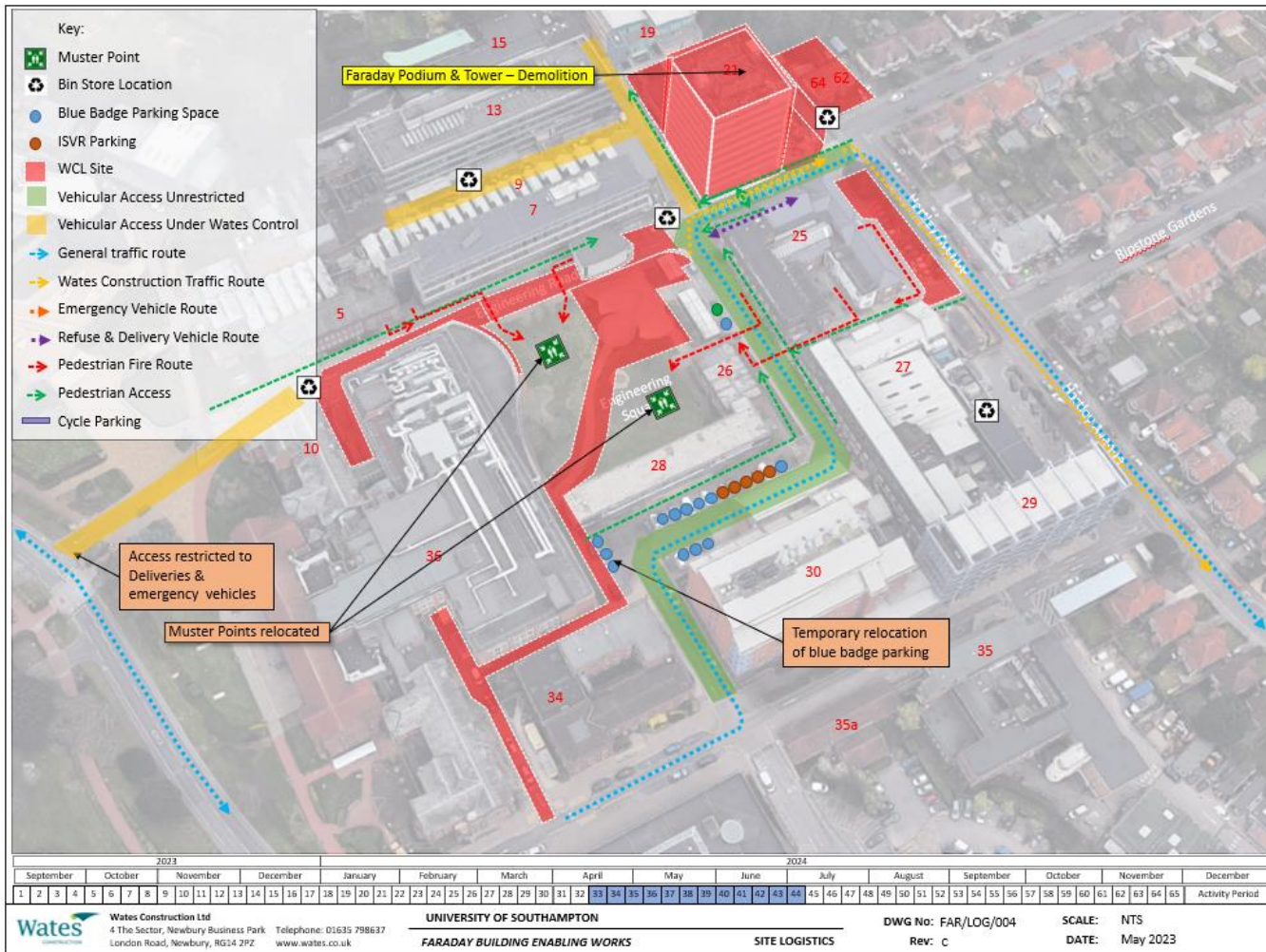
# Phase 2 (Dec 2023 – Mar 2024)



- Eastern end of campus continues to contain the main work sites with the area's between B9 & 13 and B25 & 27 added (shown in red)
- One way unrestricted traffic route remains unchanged
- Vehicular access to B9, 13, 15 & 19 continues to be under Wates control due to proximity to work sites
- Deliveries to B9, 13, 15 & 19 will be facilitated by Wates to ensure access is maintained while works are undertaken in the road between the buildings
- Wates central storage and muckaway moved to Engineering Square for the remaining zones
- B13 refuse location to be moved to the area between B13 and B15

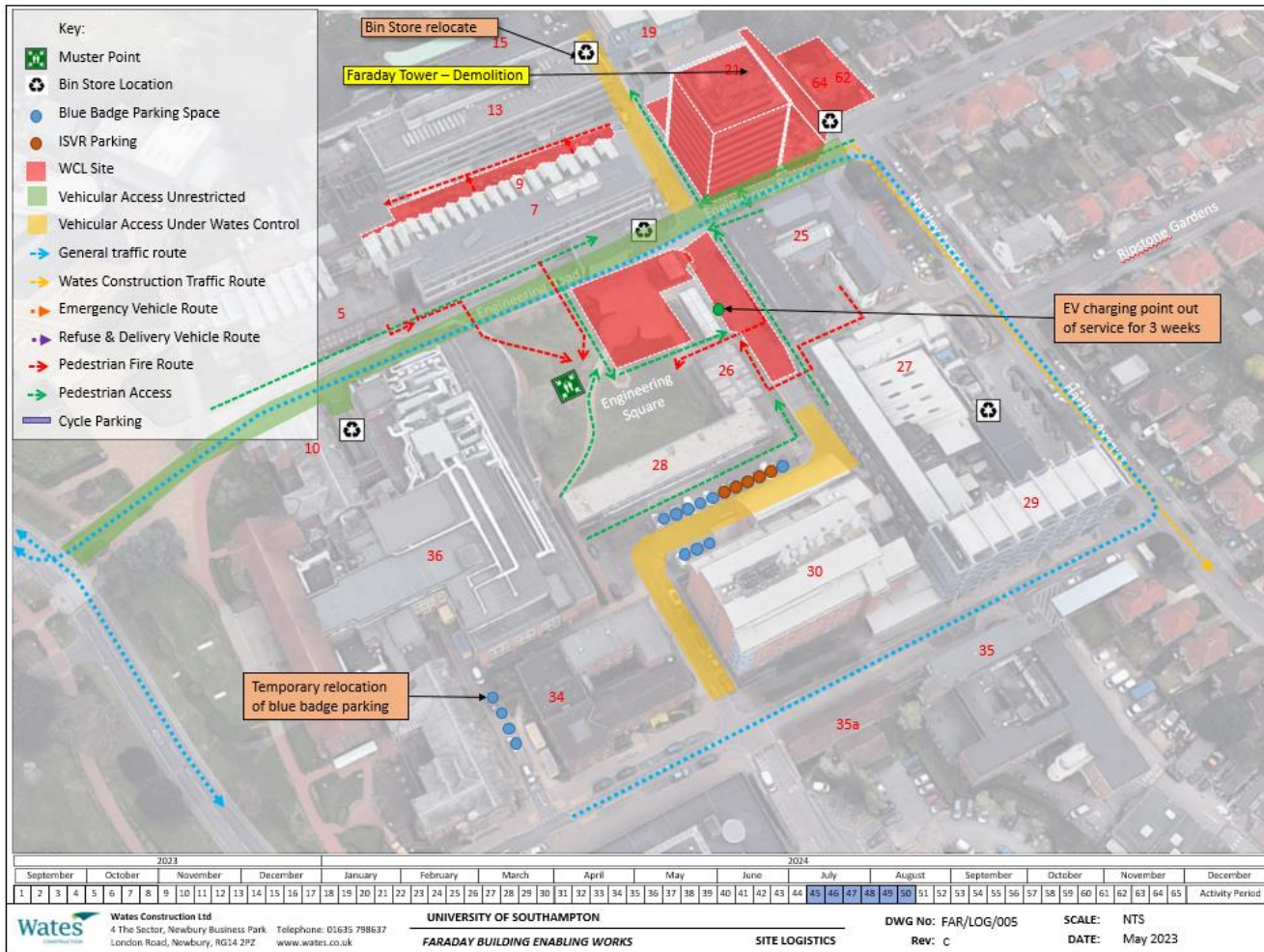


# Phase 3 (April – July 2024)



- The central area of campus becomes the main work area for service diversions and drainage with works following up Engineering Road, across Engineering Square and round to the rear of the library.
- Demolition of the Podium commences during which the scaffold to the Faraday Tower is erected.
- Demolition of the Faraday Tower commences later in the period following the Podium demolition and the isolation of the substation in the tower basement.
- The one-way unrestricted traffic route alters to accommodate the new work areas and now exits onto Hartley Avenue.
- Vehicular access to B9, 13, 15 & 19 continues to be under Wates control due to proximity to work sites.
- Vehicular access to the University Road end of Engineering Road is under Wates control, due to access being restricted for deliveries and waste collection only to the library.
- Muster point to Engineering Square is maintained but split between buildings on the South and North side of the square.
- Relocated blue badge parking (3no.) is provided whilst undertaking drainage works to the rear of the library.

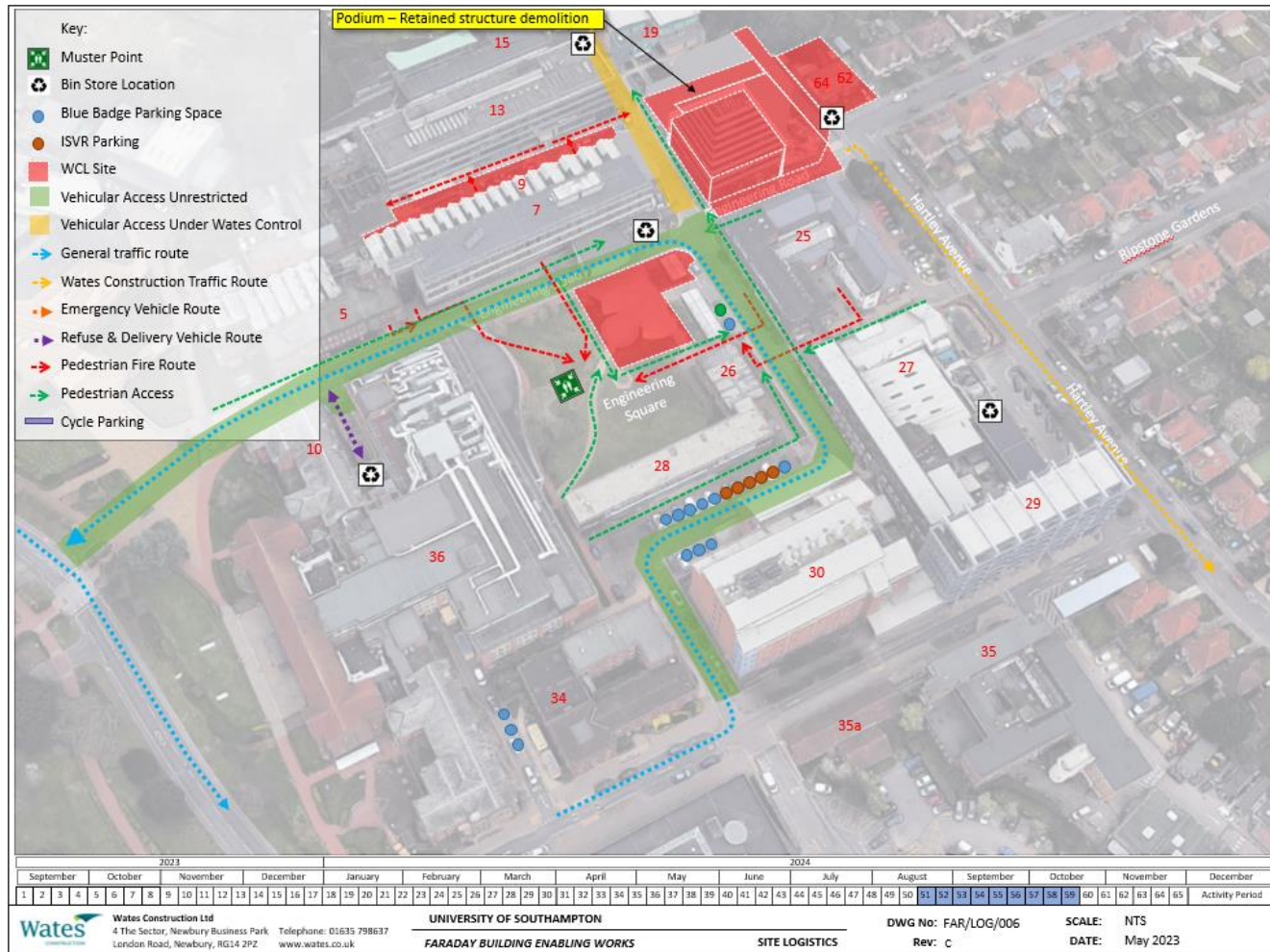
# Phase 4 (July – Aug 2024)



- Demolition of Faraday tower continues
- Central area of campus continues to be the main work area for drainage. This is focused around the University Square side of B25.
- Works return to the space between B13 and B9 to remove and backfill the existing service tunnel following decommissioning of all existing services within the tunnel.
- One way unrestricted traffic route alters to accommodate the new work areas and now runs East to West on Engineering Road.
- Vehicular access to B9, 13, 15 & 19 continues to be under Wates control due to proximity to work sites.
- Vehicular access to the Admin road end of the Engineering square is under Wates control due to access being restricted to deliveries and blue badge and ISRV parking only.

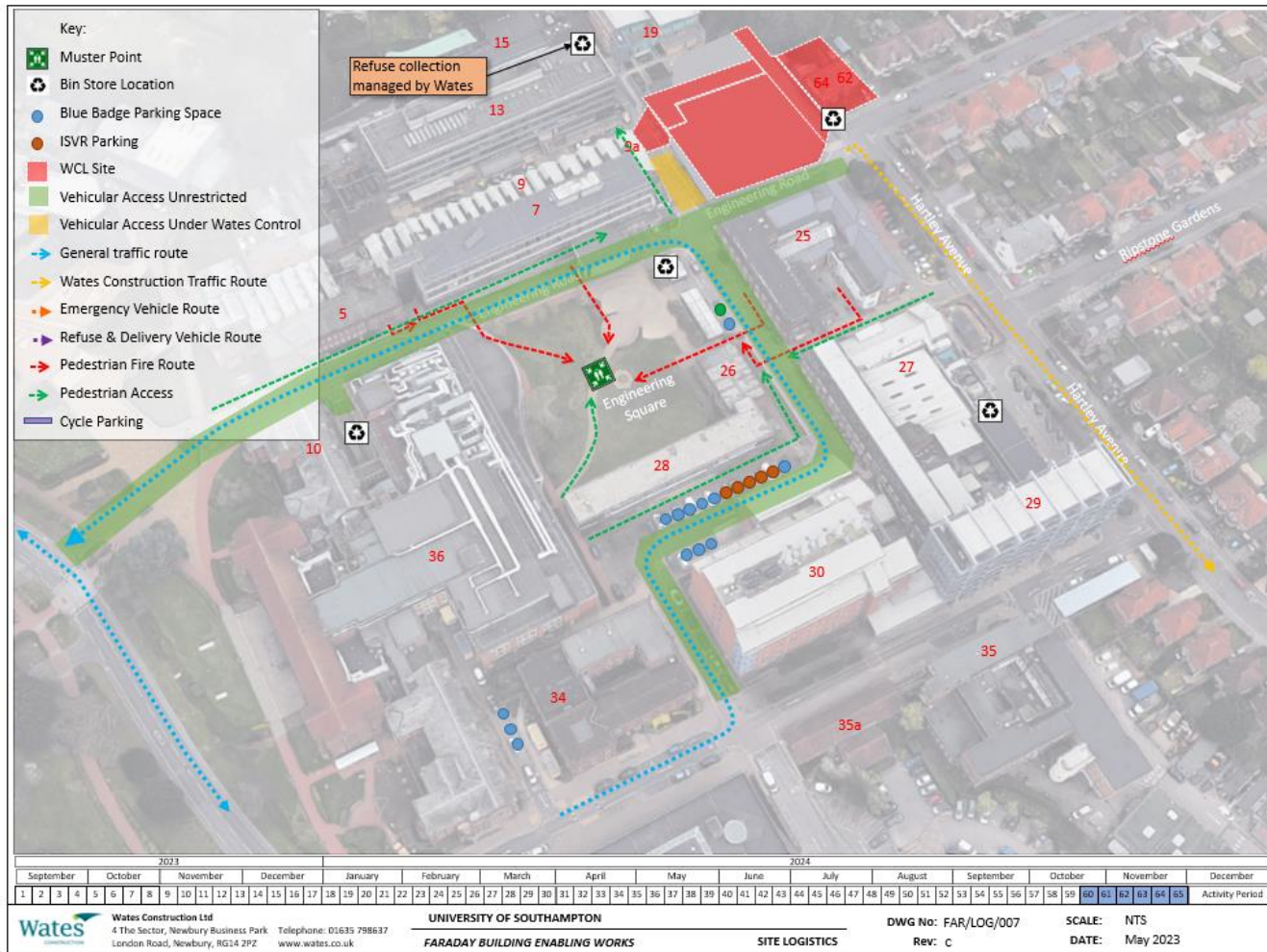


# Phase 5 (Aug – Oct 2024)



- Demolition of Faraday tower continues at low level
- The retained Podium L shape is demolished following completion of the Faraday Tower Demolition
- Engineering Square is landscaped and handed back to the University
- Works continue in the space between B13 and B9 to remove and backfill the existing service tunnel following decommissioning of all existing services within the tunnel.
- Eastern end of Engineering Road is closed again for the removal of the decommissioned service tunnel under the road.
- One way unrestricted traffic route returns to the Phase 1 layout as shown in green.
- Vehicular access to B9, 13, 15 & 19 continues to be under Wates control due to proximity to work sites.

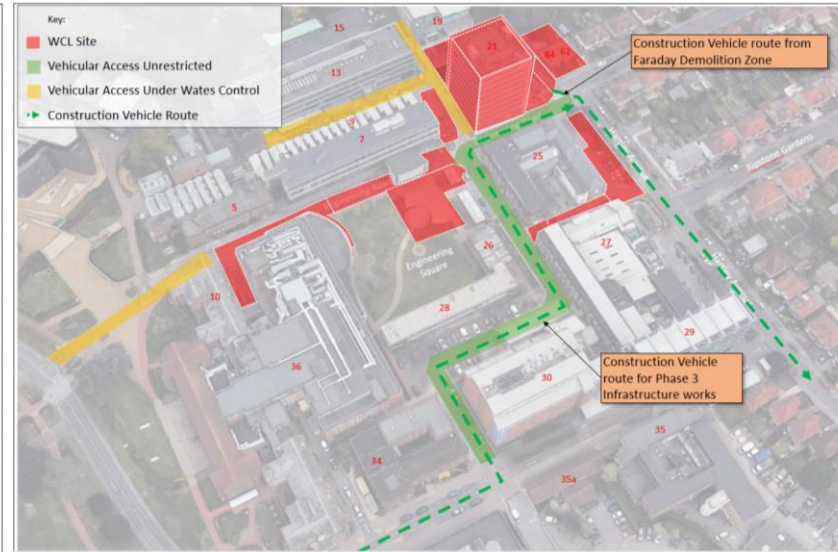
# Phase 6 (Oct – Nov 2024)



- Demolition of Faraday tower and B21 Podium is now concluded
- Unrestricted traffic routes around Engineering Square and Engineering Road return to existing layout
- The road between B9 and the podium is closed for the removal of the final stretch of decommissioned service tunnel.
- Vehicular access to B9, 13, 15 & 19 continues to be under Wates control due to proximity to work sites.



# Construction Traffic Management Plan



- All construction vehicles will leave the University campus and surrounding roads via University Road and Burgess Road.
- During Demolition of Granby Grove and Faraday Podium and Tower vehicle movements from our demolition sites will leave via Hartley Avenue and then onto University Road.
- During Phases 1, 2, 5 & 6 of the infrastructure works construction vehicles will access the campus via Admin Road pass through Engineering Square and leave the campus via University Road.

- During Phase 3 of the infrastructure works construction vehicles will access the campus via Admin Road pass through Engineering Square and leave the campus via Hartley Avenue and then onto University Road.

- During Phase 4 of the infrastructure works construction vehicles will access the campus via Hartley Avenue pass through Engineering Square and leave the campus via University Road.

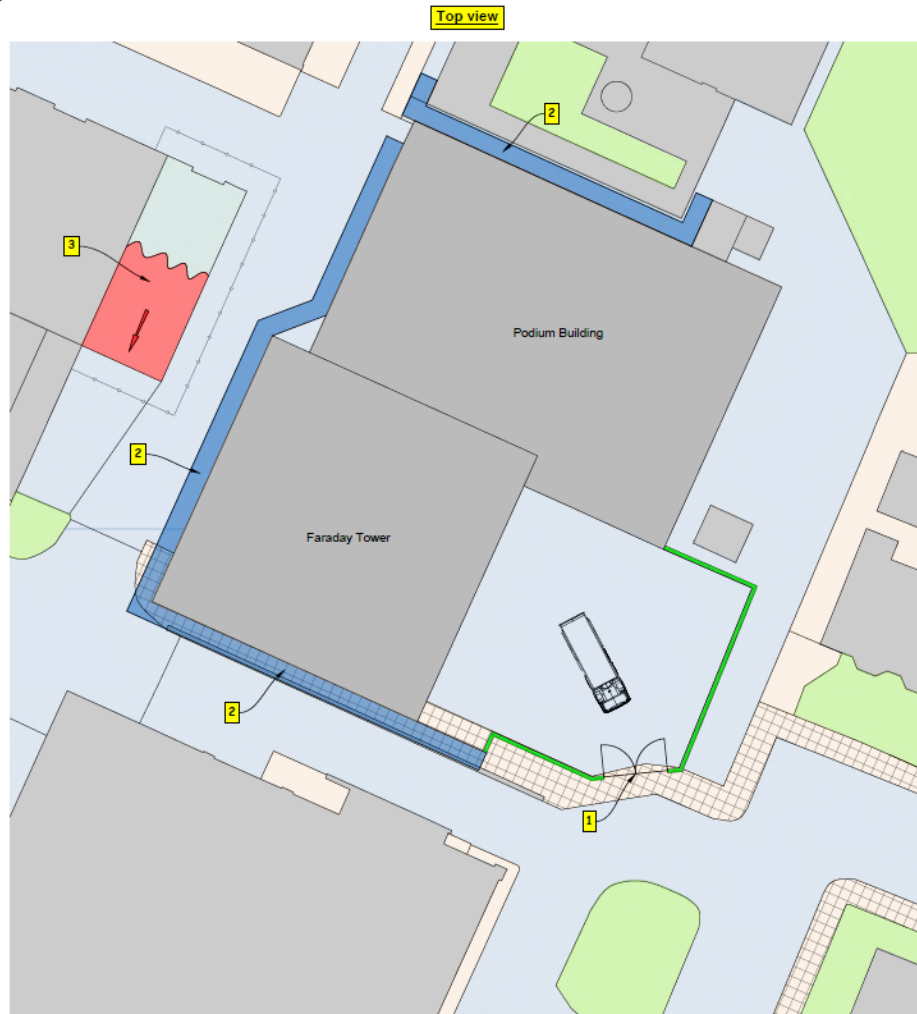
# 03.

## Methodology Review

---



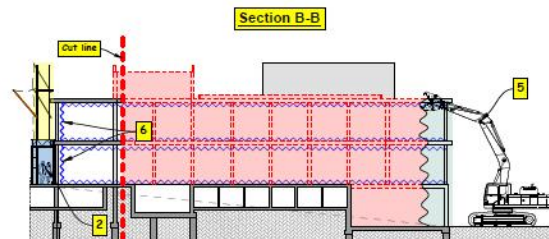
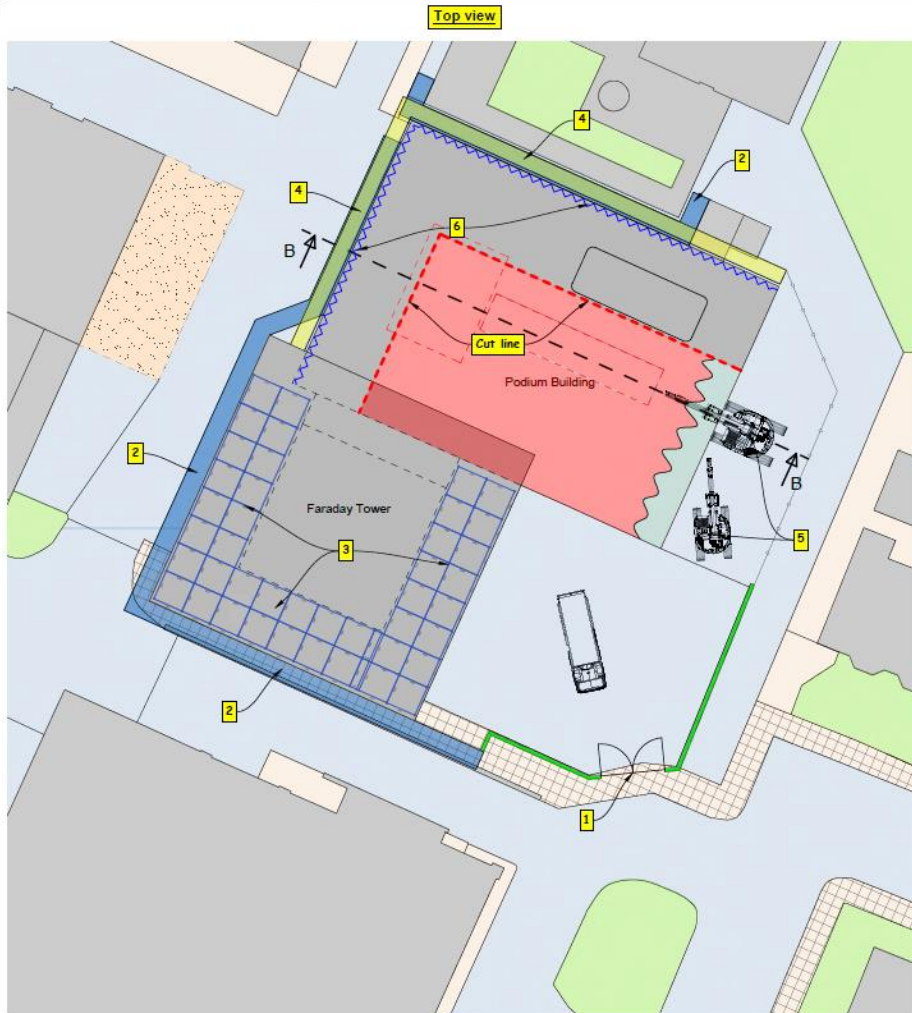
# Demolition Methodology Granby Grove and Building 9A



Demolition of the last bay of Building 9:

- Remove roof via Mobile Elevated Working Platform
- Cut roof trusses down
- Reduce walls by hand
- Load out arisings and clean the area

# Demolition Methodology Faraday Podium



Demolition of Podium Building down to ground/basement slab (see cut line):

- 50t machine with concrete crushers/metal shears attachment demolishing Podium Building
- 25t machine processing and loading out material

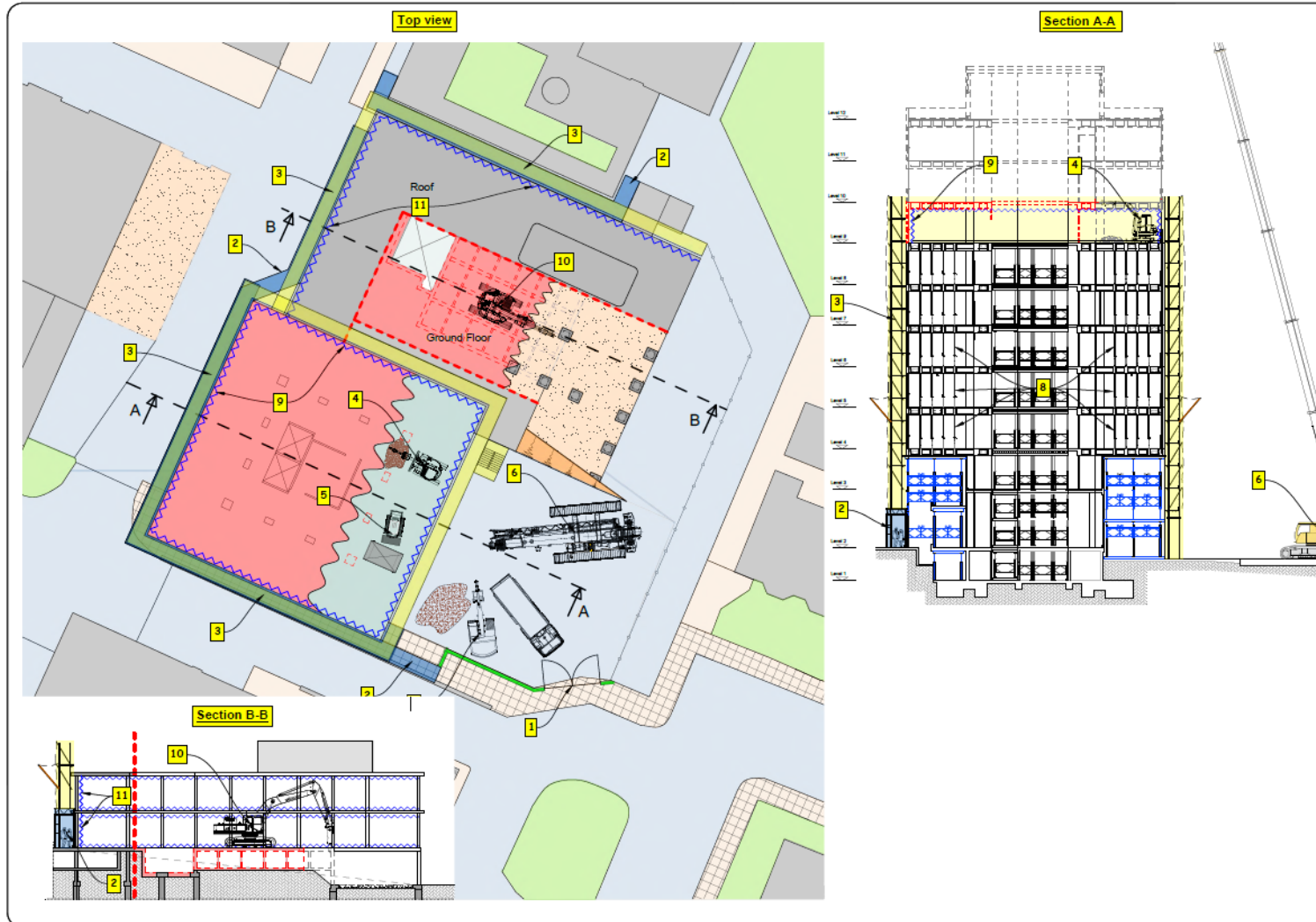
Acoustic screen to N-E and N-W elevation of Podium Building (fixed to internal side of the external wall)

Note:

- Asbestos removal, decontamination and soft strip works complete prior to commencing demolition of Podium Building
- Commence installation of back propping and scaffold protection to the Faraday Tower, level 1 to roof



# Demolition Methodology Faraday Tower Demolition



5t machine with crusher attachment demolishes the building floor by floor to Level 3

Material is removed from the floors by loading a boat skip which is lifted to the ground by the crane

All floors of the tower are back propped for structural stability

Acoustic screens are installed around internal perimeter of the demolition area and sheeted scaffold around the external façade of the tower

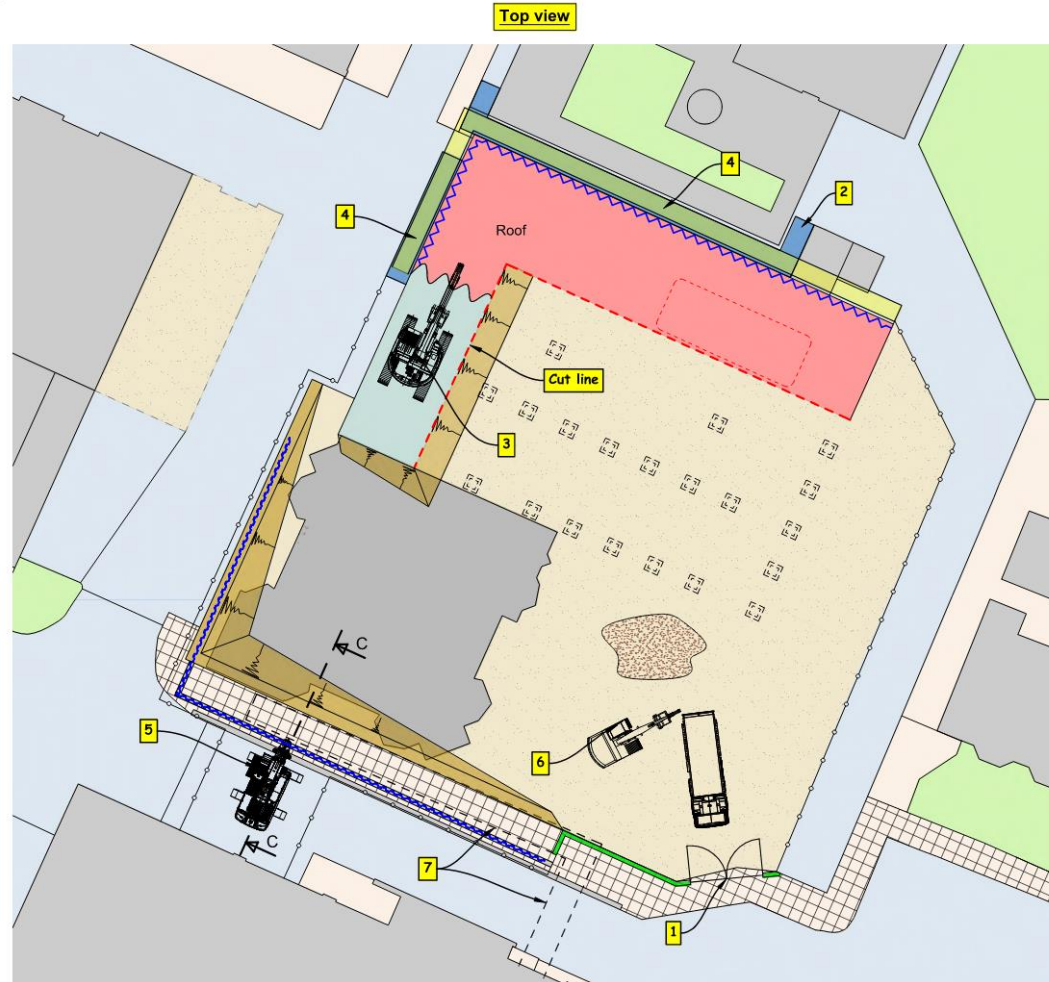
35t machine with crusher attachment breaks out Podium ground floor slab

Acoustic screens to N-E and N-W elevation of Podium Building (fixed to internal side of the external wall)

Note:

- Asbestos removal, decontamination and soft strip works complete prior to commencing demolition of the Faraday Tower

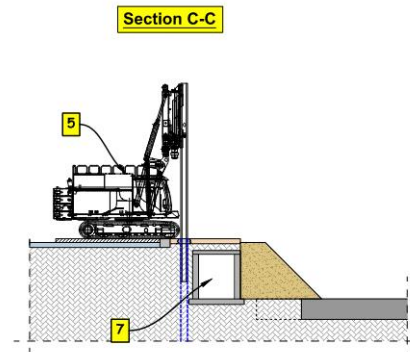
# Demolition Methodology Lower Floors and Basements



35t machine with concrete crushers/metal shears attachment demolishing the remaining Faraday Tower down to pile cap (Level 4-1)

25t machine with crusher attachment breaking out remaining Podium ground slab

Sheet piling installed in the South-West corner of the site to facilitate removal of the service tunnel and to ensure that stability of the adjacent road is not affected.





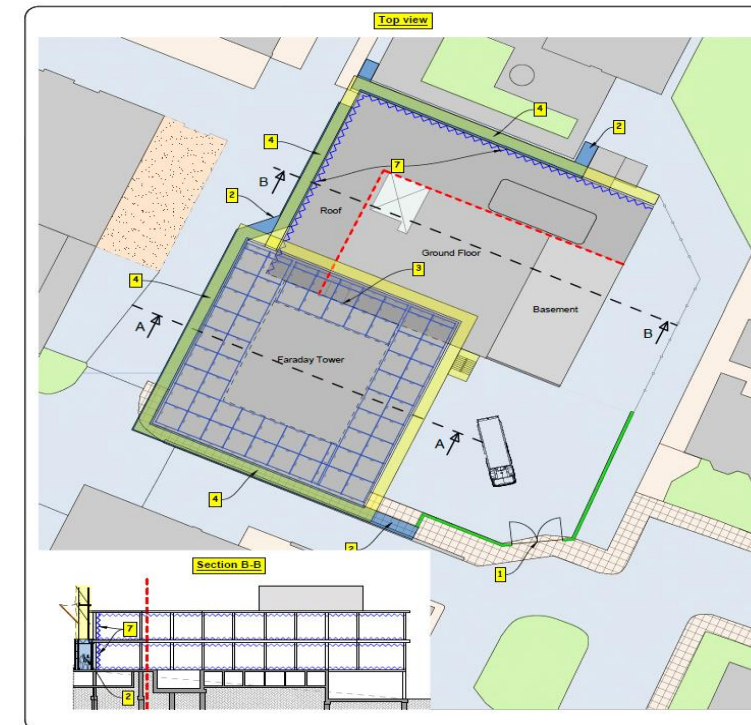
# Noise, Vibration and Dust Mitigation Strategy

## Strategy to date:

- 24 Acoustics appointed by the University to advise on noise and vibration
- Noise mapping exercise undertaken using noise data specific to the works being undertaken
- Best Practicable Means mitigations proposed by Wates and added to the noise mapping
- Additional noise mitigation measures specified in our methodology include:
  - Solid 2.4m high hoarding to all infrastructure work areas lined with acoustic panels
  - Demolition scaffold wrapped with monoflex
  - Acoustic barriers installed internally of the façade to the Faraday tower and Podium
  - Acoustic barriers used locally around saw cutting
  - Retained podium structure to shield buildings 19 and 13
- Dust & vibration mitigation measures specified in our methodology include:
  - Hoardings and scaffold wrapped in monoflex as described above
  - Where possible, we will use planing & saw cutting, rather than breaking techniques applying dust suppression at source
  - During demolition a fine mist is sprayed via atomisers ensuring the activity is always undertaken in a damp condition
  - Water bowsers will be present in the work areas to assist with local damping down, with particular attention to any stockpile of material
  - We will adopt silent piling techniques which use hydraulics to minimise noise and vibration

## Next Steps / Ongoing Activity:

- Set up noise, dust and vibration monitoring
- Implement mitigation measures at the start of the works and as they progress



**Thank You**

**A.O.B /  
Questions**

