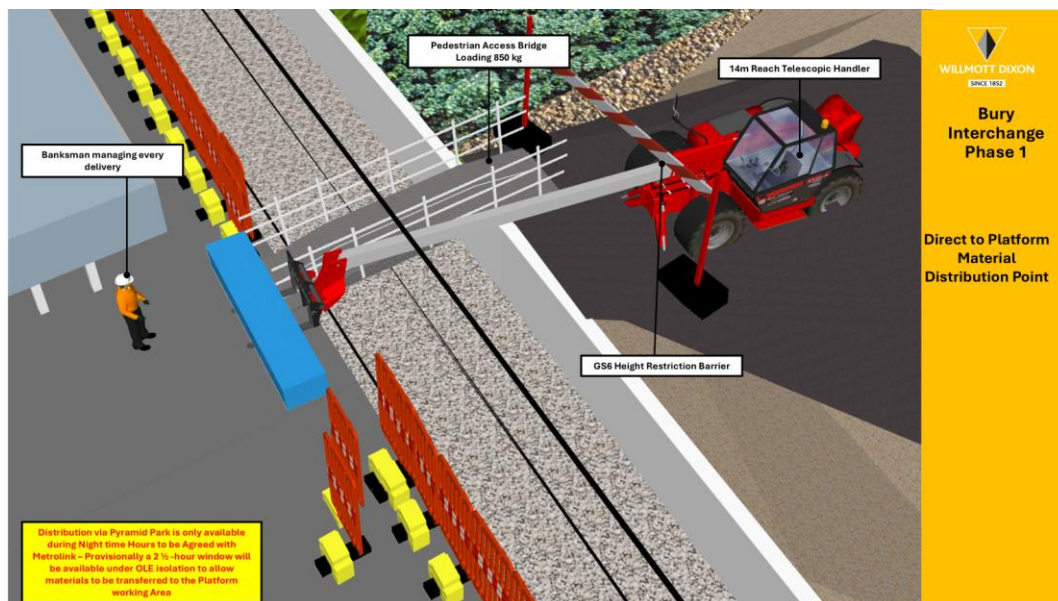
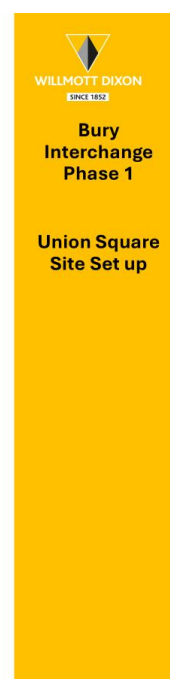
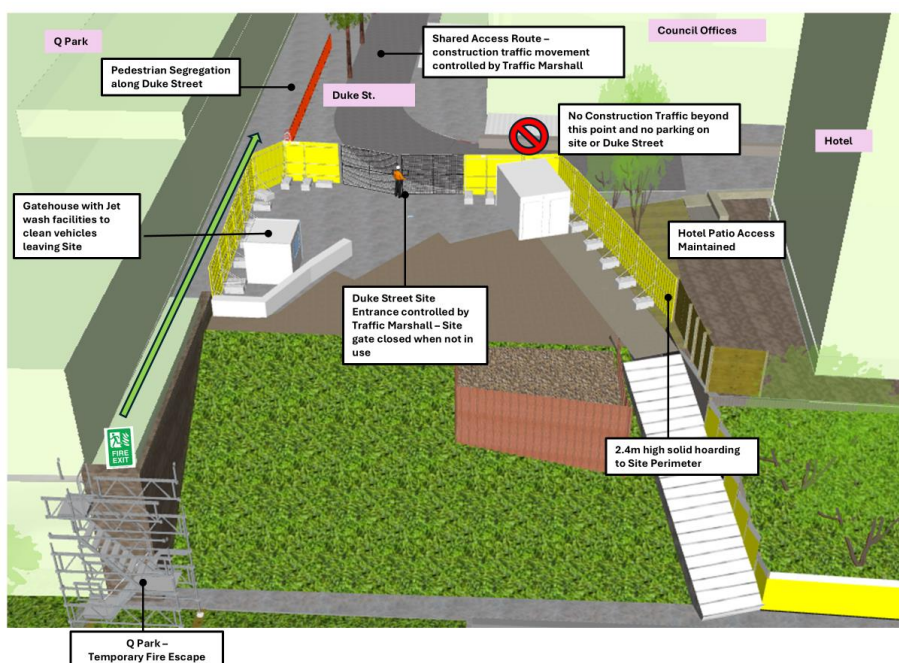




Union Square Fire Escape and Muster Points

Existing Fire Muster points to building adjacent Union Duke Street will be maintained, the existing Fire escape route for the Q Park which currently uses the steps adjacent the Premier Inn to egress on to Union Square will have to be revised. The current route would mean the planned evacuation route would enter our work area. To ensure the safety of carpark users in the event of a fire, we will provided a replacement evacuation route, this would be via a temporary Haki staircase which would be positioned outside the Q Parks low level fire door and give direct access up to the existing Q Park walkway at high level.



3 Environmental Management

3.2 Ecology

Willmott Dixon have employed TEP to provide ecological assistance with regards to surveys and ecology monitoring. These include an invasive species management plan, arboricultural assessment, and protected species surveys. If required TEP will have a watching brief during the works to ensure all works are undertaken in line with the ecology method statements. A Precautionary Working Method Statement will be completed in commencement of any works on site and approved by all relevant parties.

3.2.1 Invasive Species

No invasive species were found across site when the survey was completed although it is noted that the survey was completed out of season so this will need to be monitored. There is an advisory note that Japanese Knotweed was present on Pyramid Park although not near the site itself. This will be monitored through the project works. The report also identifies Cotoneaster on Union Square near the Duke Street entrance and around the Metrolink track so care will be taken to ensure this is not impacted or spread and further instruction will be taken from the Ecological Clerk of Works as required.

3.2.2 Arboricultural

An arboriculture impact assessment has been completed for the project. The assessment identifies the areas of site clearance required to enable the construction works and highlights an area of site which is a protected tree zone. Any on site removal works will be completed in line with the Precautionary Working Method Statement and if required an Ecological CoW will be on site. Fencing will be installed around the protected tree zone to prevent potential risk of damage during the works, the site induction will cover the presence of the tree protection zone and fencing to ensure their importance is understood.

3.2.3 Protected Species

3.2.3.1 Birds

It is intended that vegetation clearance will take place outside the bird nesting season in December and January. If there is any doubt an ecologist will be asked to survey the tree/ vegetation prior to removal. If vegetation clearance cannot be completed outside the nesting season an ecologist will undertake a survey of the area 24 hours before any works commence. If any nesting activity is found, works will stop until nesting activity is complete.

3.2.3.2 Amphibians

While there are no habitats, in the form of standing water, within the site or within 500m of the site that offer potential for breeding amphibians there is a flooded area of marshy grassland to the east of the site within Pyramid Park that has some suitability for foraging and commuting amphibians. Consideration regarding protected species such as the Great Crested Newt will also be given during vegetation clearance works. It will be arranged for an Ecological Clerk of works (ECoW) to supervise the removal of any vegetation on site. Scrub areas, woodland and grassland will undergo a staged strip in order for the ECoW to conduct a fingertip search of the ground for potential amphibians. Once the ECoW is satisfied that none are present, a full vegetation strip of the searched area will be carried out. Where trees are to be removed, the root balls will also be searched for any hibernating amphibians. Any amphibians found will be relocated to a safe area within the Pyramid Park site. In the highly unlikely event that a Great Crested Newt (GCN) is found during SI works, works will cease immediately, and an ecologist consulted.

3.2.3.3 Bats

No trees or structures present on site were found to have suitability for roosting bats. However, the grassland, scrub and woodland offer some foraging and commuting opportunities for bats so consideration will be given to these during the works and further surveys completed if required.

3.2.3.4 Badgers

During the survey, no signs or setts were recorded on site. However, the dense scrub in the north of the Pyramid Park site made it difficult to access and survey, therefore there are limitations to the survey so consideration will be given to this during the works and further surveys completed if required.

3.3 Construction Impacts

3.3.1 Air Quality

All necessary precautions will be taken to prevent the occurrence of smoke emissions or fumes from the site plant or stored fuel oils for safety reasons and to prevent such emissions or fumes drifting into residential areas.

Plant will be well maintained and shut down in the intervening periods between work or throttled down to a minimum and the the burning of materials on the site will not be permitted.

3.3.2 Waste Management

Waste will be managed in the most efficient way by encouraging re-use and re-cycling on-site and maximising segregation. Rubbish will not be allowed to accumulate and cause a fire hazard; all waste will be collected from site in skips.

The site team will include a waste champion, and there will be a visiting Environmental Manager to audit operations and ensure procedures to minimise the environmental impact of operations. They also review the site's energy and waste data.

All our waste contractors must complete a pre-qualification questionnaire to assess that they meet our standards before they can become approved and listed within our Supply Chain System. This asks that they report their performance in accordance with PAS 402 (a specification for performance reporting for waste management organisations) in accordance with our Sustainable Procurement Policy. We carry out a detailed on-site audit on their premises, so we can be sure that they have the right segregation capabilities and can meet our data return requirements. We check their documentation for duty of care compliance and view working conditions for their employees.

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All items of waste identified as hazardous will be segregated from general waste and disposed of in accordance with COSHH.

3.3.3 Drainage

Permanent surfaces will be installed as soon as possible to control the rainwater flow. A system of inspections will be set up when weather conditions are wet to ensure the water discharging from site is clean; these inspections will be recorded daily. No fuel storage will be allowed close to any drainage outfall.

Site drainage, including surface runoff, will be discharged to sewers where reasonably practicable. Site drainage will meet the requirements for effluent and flood risk standards required by the sewerage undertaker.

During construction, protection measures to control the risk of pollution to surface water will be adopted. These will include:

- Any containers of contaminating substances on site will be leak proof and kept in a safe and secure building or compound from which they cannot leak, spill or be open to vandalism. The containers will be protected by temporary Impermeable bunds with a capacity of 110% of the maximum stored volume.
- All refuelling, oiling and greasing will take place above drip trays or on an impermeable surface which provides protection to underground strata and Watercourses and away from drains as far as reasonably practicable. Vehicles will not be left unattended during refuelling.
- All wash down of vehicles and equipment will take place in designated areas and wash water will be prevented from passing untreated into watercourses and will comply with EA's Pollution Prevention Guidance.

The Pollution Prevention Measures and good construction practices will ensure that any oils, hydrocarbons or hazardous materials stored on site will not leak onto the ground surface and thereby ensure that there is no pathway for contaminants to affect the water course.

3.3.4 Noise

Vehicles and mechanical plant used for the construction works will be fitted with effective exhaust silencers, will be maintained in good and efficient working order, and operated in such a manner as to minimise noise emissions.

On site where environmental disturbance may arise, compressors will be 'sound reduced' models fitted with properly lined and sealed acoustic covers which must be kept closed whenever the machines are in use, and pneumatic percussive tools must be fitted with shrouding or silencers of the type recommended by the manufacturers.

Noisy plant or equipment will be sited as far away as is practicable from noise sensitive buildings. The use of barriers, e.g. Soil mounds, site huts, acoustic sheds or partitions to deflect noise away from noise sensitive areas will be employed wherever practicable.

Care will be taken when loading or unloading vehicles or dismantling scaffolding or moving materials, etc. to reduce impact noise.

Where the need arises to work past the standard site operating hours, Willmott Dixon will inform the relevant business and residents and the surrounding community by form of a letter drop notifying those affected in advance of the proposed works, working hours and operational dates.

Where noisy activities are planned, noise monitoring will be used to manage levels emitted from the site and measures implement to reduce levels where required.

3.3.5 Vibration

Construction activities will be carried out in such a way that vibrations arising will not cause significant disturbance to adjacent structures and minimised disturbance to local communities.

We will ensure that measures are taken to: -

- Protect the residents, users of buildings close by and passers-by from nuisance or harm and
- Protect buildings from physical damage
- Protect wildlife from disturbance.

Upon determining appropriate vibration levels, we will consider: -

- Human exposure
- Protection of structures
- Wildlife

During sensitive activities like piling, vibration monitoring equipment will be used to raise an alarm when levels exceed permissible levels so that appropriate action can be taken to lower the levels. In particular, during the piling phase of the works additional vibration and sound monitoring will take place either side of the Metrolink track.

A track monitoring procedure will be developed and agreed with Metrolink to ensure that the track is monitored when disruptive activities take place to ensure any slight movement in track rails is noted and remedial actions taken to get the rails back to agree tolerance.

3.3.6 Dust/ Mud

Good housekeeping and control of waste dusts and silt at source will prevent windblown debris accumulating and, with prevailing weather, create mud or dust carriage from site. Mud and Dust pollution risk and community nuisance will be avoided by employing the Safe Systems of Work controls but also through:

- Constructing site access roads and storage areas at the earliest opportunity.
- Locating stockpiles away from site boundaries, maintaining stockpile levels below fencing heights and seeding stockpiles to prevent lift.
- Covering dust generating loads and piles of materials, such as sand and topsoil.

- To ensure mud and loose materials are not spread onto the adjacent Highways Ewe will provide chassis and wheel washing facilities in the form of a jet wash located at the site access/ egress point on Union Square and Pyramid Park.
- Employing a road sweeper to remove mud / dust from the roads on and around site, as a supplementary measure to the egress wash down area.
- Providing facilities to 'damp down' access roads during periods of dry weather in the Pyramid Park location.
- Provide details of dust and mud control measures in the site orientation and by delivering trade specific TBTs.
- Keeping plant / vehicles to the site speed limit.
- Using dust capture / suppression equipment on tools and plant.
- Work closely with Premier Inn to notify them of our works and schedule existing concrete structures are broken out at an appropriate time of day to cause the least amount of disruption to the hotel as possible, noting heavy breaking will take place for a short period of days.
- Removing dust risk at source and maintaining robust housekeeping.
- Control of cutting or grinding of materials on site. Dust-generating machinery e.g. Disk cutters must be fitted with vacuums and water suppressions will be adopted.

3.3.7 Emergency Procedure

It is considered that given the adoption of the mitigation measures detailed above that any potential effects from dust/ mud from construction works would be minimised to such an extent as to be insignificant.

A set of standardised emergency response procedures will govern the management of environmental and emergency incidents. All WDC management will be required to adhere to and implement these procedures and ensure that site operatives are familiar with the emergency arrangements for the site. This will be generally communicated in the site induction but also at the weekly meetings and as the site progresses.

The emergency procedure will contain 24-hour emergency phone numbers and the method of notifying local authorities, statutory authorities and the emergency services should an incident occur.

Practice drills will be scheduled throughout the construction process for both environmental and emergency incidents.

3.3.8 Soil Sampling and Remediation

Tier consulting will produce a specification for soil sampling of imported material along with a scope if the ground requires a remediation strategy to follow. These will be followed and records kept and distributed as required.