NO1 CATHEDRAL SQUARE
RENAISSANCE, MANCHESTER

CONSTRUCTION MANAGEMENT PLAN AND OUTLINE METHOD STATEMENT



MAIN CONSTRUCTION PHASE – CONSTRUCTION OF NEW RESIDENTIAL BUILDING

Starwood Capital Group & Property Alliance Group

Rev 01 – for No1 Cathedral Square Condition 3 discharge (December 2023)

Rev 02 – for No1 Cathedral Square Condition 3 discharge (January 2024)

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1. Introduction

This Method Statement relates to the main phase of works to the new Residential building only, which shall be a fully new build residential tower on the north section of the overall Renaissance (known as No.1 Cathedral Square) development.

This document sets out the overall method of delivery for the construction works, including logistics and environmental management processes required to be implemented on site by the appointed Principal Contractor engaged for the development of the residential building demise.

The exact measures implemented may be subject to development following further contribution by the Principal Contractor and consultation with Manchester City Council (MCC), Client team, and any other relevant stakeholders. All provisions implemented on site will achieve as a minimum legislative compliance.

2. Scheme Overview

The overall development site occupies a prominent location in the City Centre, fronting onto Deansgate, Victoria Bridge Street and the River Irwell. The site is previously occupied by a four-storey, 1960s office building, Hotel and basement car park.

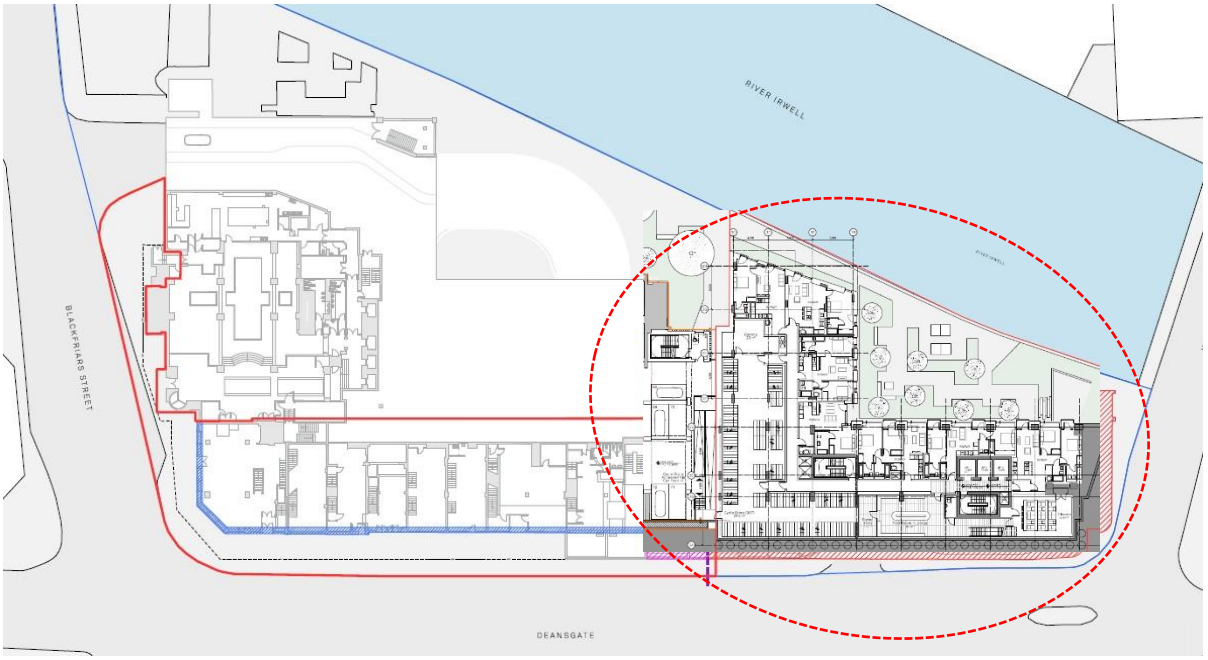
The site is within an area of the City Centre that is characterised by retail uses with ground floor shops, leisure, food and drink uses. To the North East is the arena concert venue, to the south is a large office and further detail outlets, to the East is No.1 Deansgate residential building and to the West is the River Irwell.

The site is located between Victoria Bridge Street and Deansgate.

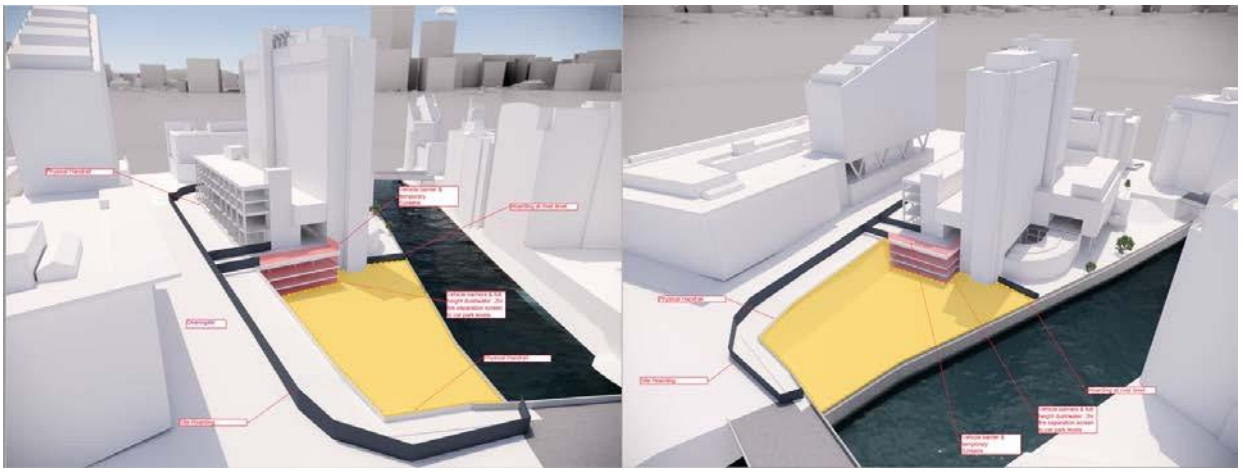


Site Location Plan

The residential building is proposed to be built on the north section of the site, as shown below:



Area of Residential Building on the North of the development site



3D visual of site after demolition with Residential Building Zone highlighted

The planning application to which this document relates is for the construction of the new residential building. The scope of works generally includes a new concrete-frame building, with 26 floors above ground of high-specification apartments and new façade. The entrance lobby to the Residential Building shall be on Victoria Bridge Street elevation and retail units and ground floor along Deansgate will complement and continue the retail offering along the length of the Deansgate elevation.

[Note: Strip-out works and full demolition of the previous concrete structure will have already been completed prior to this works commencing and windows replacement for the Hotel phase of the development will be underway under following License/Prior Applications:

- Soft Strip of Premier House; Licence # LP/JP/CVL2010/20846
- Prior Application – Replacement of windows to Hotel building; App No. 129468/FO/2021
- Prior Application – Part demolition of Premier House; App No. 130049/DEM/2021
- Prior Application – Demolition of remaining structure of Premier House; App No TBC]

This Method Statement is to be read in conjunction with the Construction Phase Health and Safety Plan (CPH&SP), the requirements of which must be strictly observed. The CPH&SP will be provided once a Principal Contractor has been procured and prior to works commencing on site.

3. Programme and Site Working Hours

Anticipated Commencement Date: June 2024
Duration: Approximately 156 weeks

Normal Site Working Hours for all demolition and construction work and ancillary operations, including deliveries to and dispatch from the site will be agreed with Mr Graeme Souter (EHO), but are likely to be confined to the following periods (subject to agreement)

- Monday to Friday – 07:30 to 18:00
- Saturday - 08:30 to 14:00
- Sunday and/or Public Holidays – No planned works.

The operation of plant/machinery/power tools and any noisy operations will be limited to the core hours stated above. Note that quiet works associated with office work may continue outside these hours.

It is recognised that there may be exceptional circumstances where the restriction on hours of work cannot be adhered to, in which case all reasonably practicable mitigation management procedures will be implemented, such as the Principal Contractor will provide advance notification and justification for any extension to the working hours to the Planning Authority and notify any affected neighbours before works start outside normal hours.

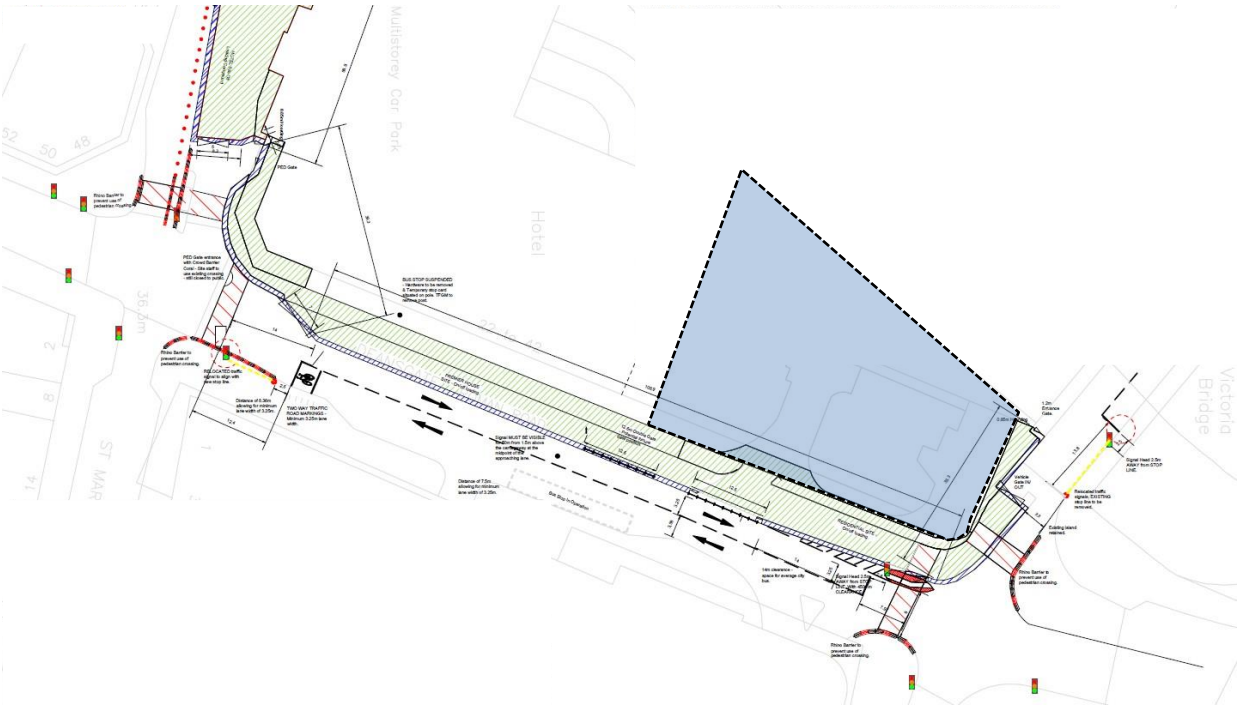
Emergency contact number out of hours will be Connor Robinson (Property Alliance Group) : 07584 356 509 / 0161 868 4300 (to be updated once Principal Contractor appointed and works commence on site)

All construction related complaints / queries received from the general public and/or EHO will be responded to within 12 working hours max.

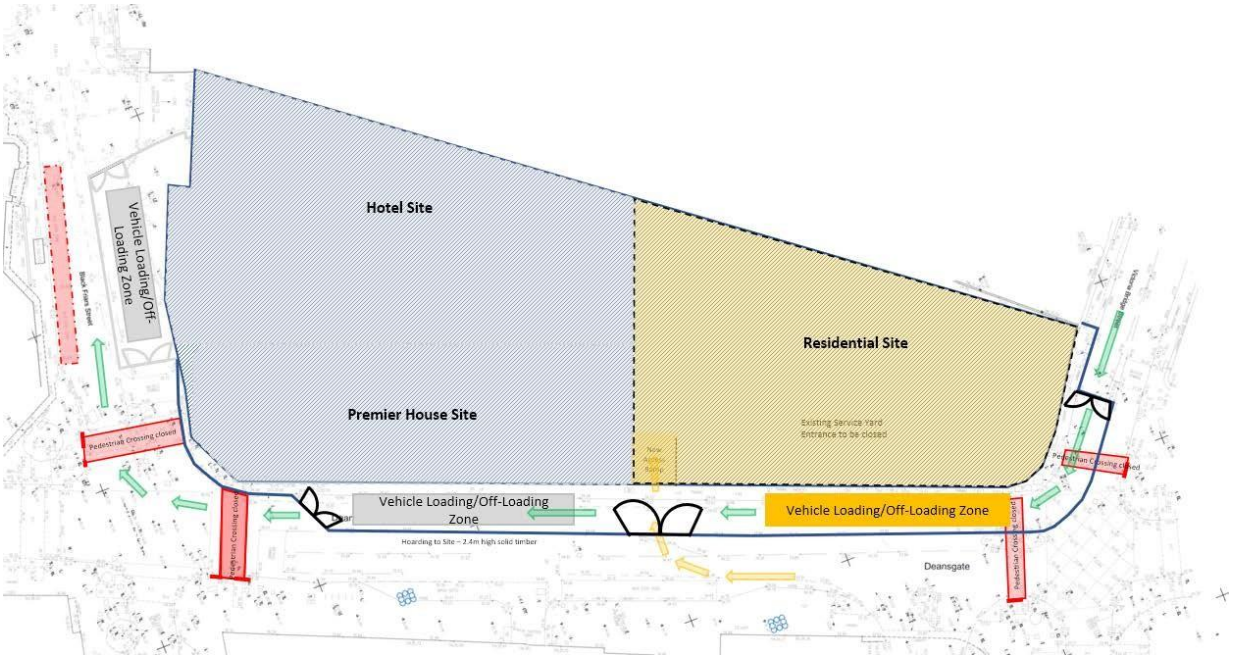
4. Site Access Strategy

Site Vehicles

The construction methodology relies on creating a logistics pit-lane along the length of Deansgate to facilitate vehicle deliveries, offloading and material movement to supply the construction works. The logistics strategy has evolved from the previous demolition phase of works, but essentially retains the same scheme of creating a one-way construction pit lane, whilst maintaining 2-way public traffic flow along Deansgate. Access into the Residential Building site will primarily be from the vehicle gate at Victoria Bridge Street onto Deansgate with an exit gate at the south end of Deansgate at the Blackfriars junction. See below site boundary and hoarding layout plan.



Site Hoarding Layout Plan with Gate Positions (combined development)



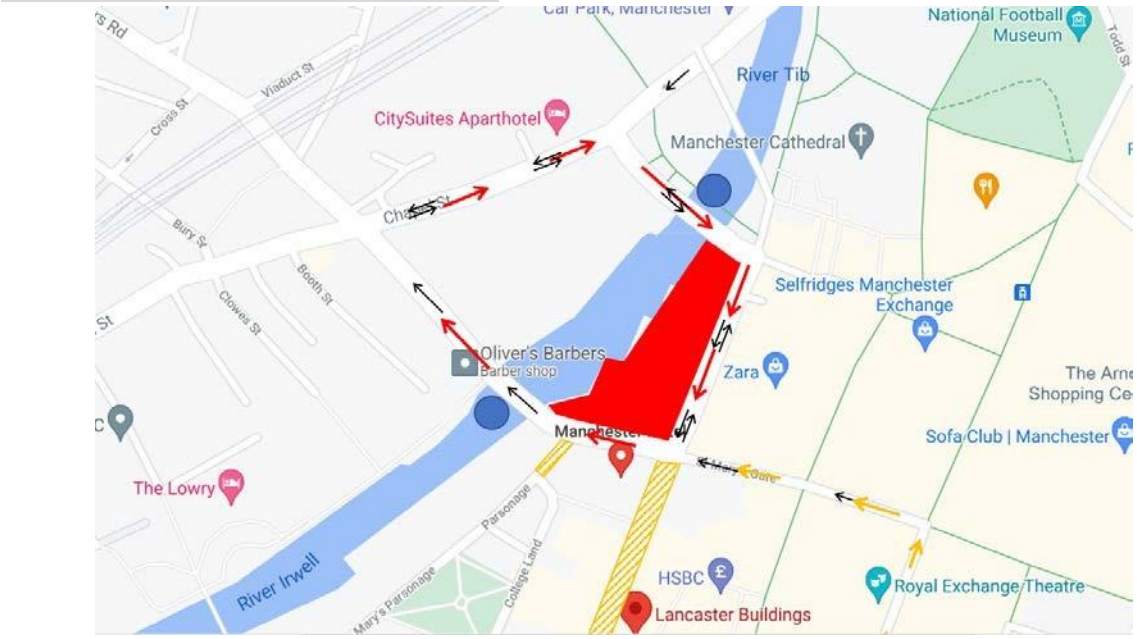
Indicative Site Hoarding and Access Gates at the commencement of works (with adjoining site hoarding interface)

The site hoarding will be adjusted to suit the phasing of the overall development and once the office site works have completed the site boundaries will be altered to facilitate the opening of the office whilst the Residential Building construction works are continued until completion.

Access to the live basement car park shall be maintained via Blackfriars Street during the works. The car park access ramp shall be kept live, with no construction site access required to the car park levels.

The primary route for site vehicles shall be via A6 Chapel Street, with vehicles arriving to site primarily

East over Victoria Bridge. On exiting, vehicles will exist onto Deansgate and turn right onto Blackfriars and leave via the one-way system over Blackfriars Bridge back to Chapel Street. The direction of the one-way route into site can be altered to suit any local restrictions. Ongoing vehicle routes to and from site will need to be reviewed and managed in accordance with Manchester City Council and to accommodate any other temporary traffic orders as required.



Construction vehicle local traffic movement

Advance planning and liaison on hoarding and vehicle movement has been entered into in order to manage the constraints of the site to best facilitate the construction of the project with minimal disruption to the local environment. Critically, the site boundary has been developed to create full site enclosure to reduce the interface with the public on all elevations. Due to the proximity of the site works to the existing footpath, and width of the existing pedestrian access along the Deansgate and Victoria Bridge elevations in particular, the footpath and part of the carriageway will be closed and pedestrian access diverted prior to arriving at the site vicinity. There is sufficient space and locations leading up the site to safely divert pedestrians away from the site, and to use the opposite sides of all three major roads for continued safe pedestrian movement.

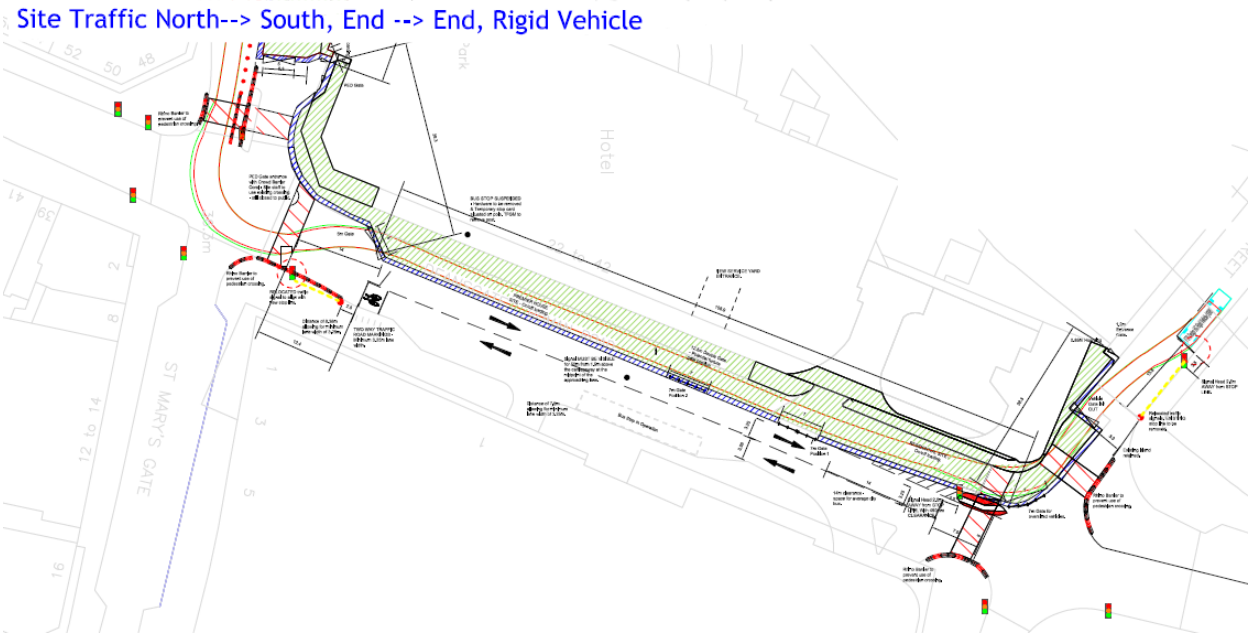
Access to other existing premises on Deansgate will not be affected with vehicle and pedestrian access maintained.

The vehicle approach and egress routing ensures that two-way traffic is maintained on Deansgate and Victoria Bridge Street, and a one-way TTRO on Blackfriars Street on the approach to Blackfriars bridge has been secured for the duration of the Hotel works. The traffic movement at the Deansgate / Victoria Bridge Street junction shall be managed with using the existing traffic lights on a 4-way control to manage traffic along a section of single-lane road at the east end of Victoria Bridge Street, whilst maintaining the current overall traffic circulation.

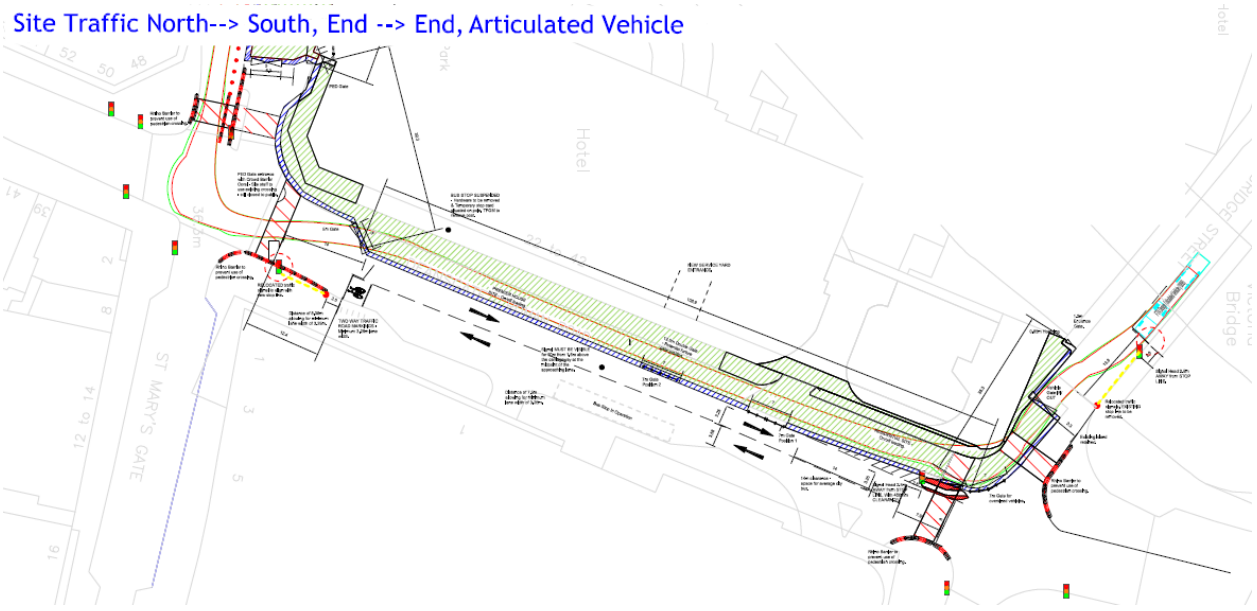
Vehicle access gates shall be installed at each end of the hoarding as shown above to allow vehicle movement off the public road into the site boundary with the least impact on the traffic circulation. The gate positions have been agreed with MCC during the earlier demolition phase consultation and it is the intention to maintain this during the period of construction works for the Residential Building. An additional wider gate shall be located at the new Service Yard entrance to allow deliveries access for Hotel operation and emergency services and to facilitate longer vehicle side-movement out of

hours into the site boundary.

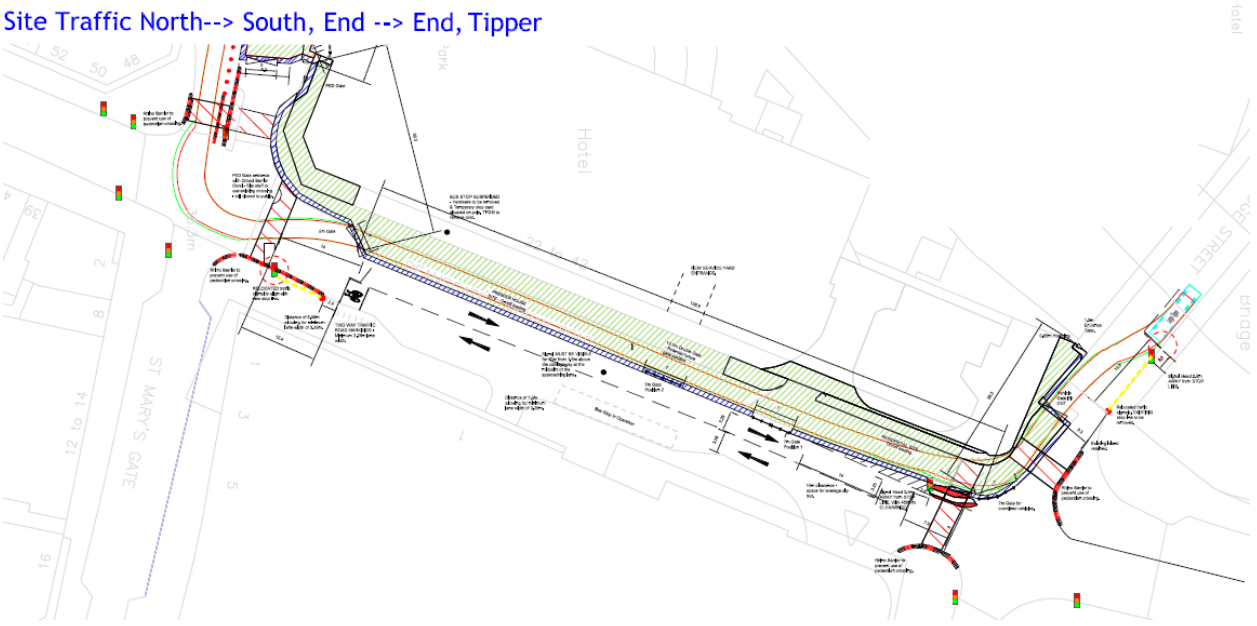
Site vehicles delivering or removing materials from site shall be stationed inside the site hoarding line along Deansgate. All vehicles arriving at the site shall be pre-informed about the access routes and vehicle management system on site and shall comply with the Delivery Management System that will be implemented by the Principal Contractor. It is anticipated that approximately 20-25 vehicles will arrive/depart site on any given day, at peak construction.



Swept path analysis showing rigid vehicle entering northern end of the site and exiting to the south



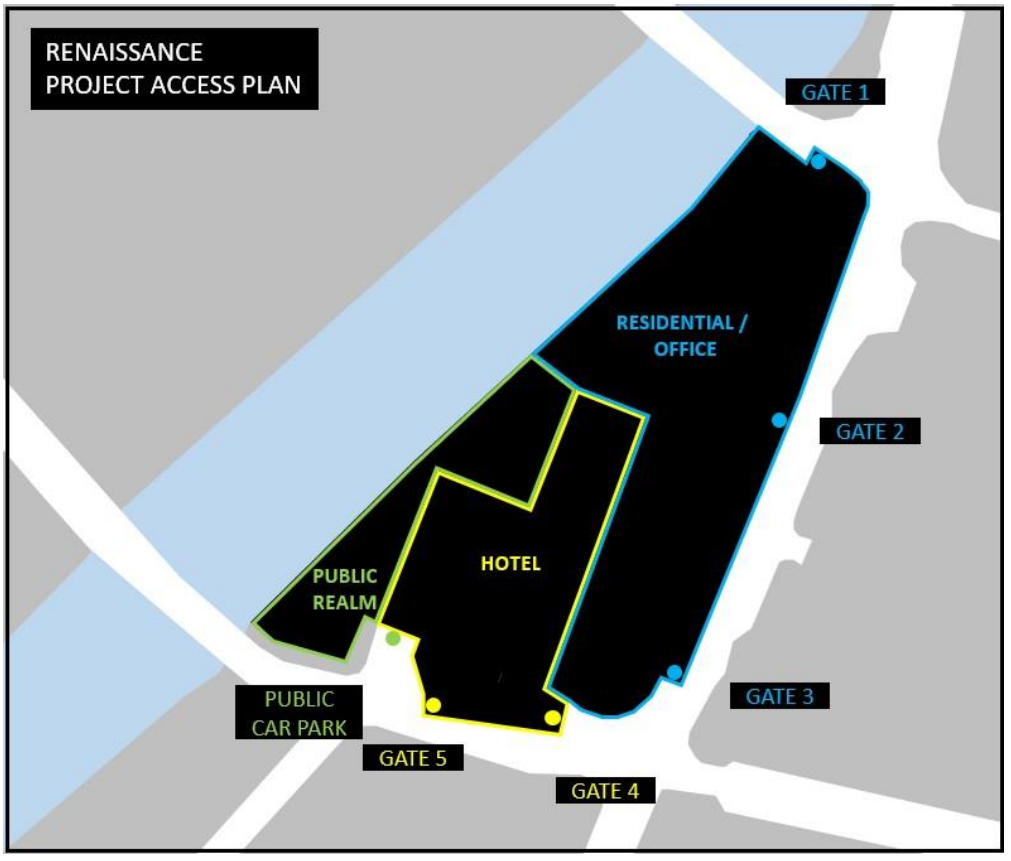
Swept path analysis showing artic vehicle entering northern end of the site and exiting to the south



Swept path analysis showing tipper entering northern end of the site and exiting to the south

No vehicles will be permitted to park / wait on the immediate access roads and vehicle holding points will be identified by the Principal Contractor in the wider area from site to allow just-in-time arrival to enable vehicles to be escorted directly to the designated area for delivery/collection.

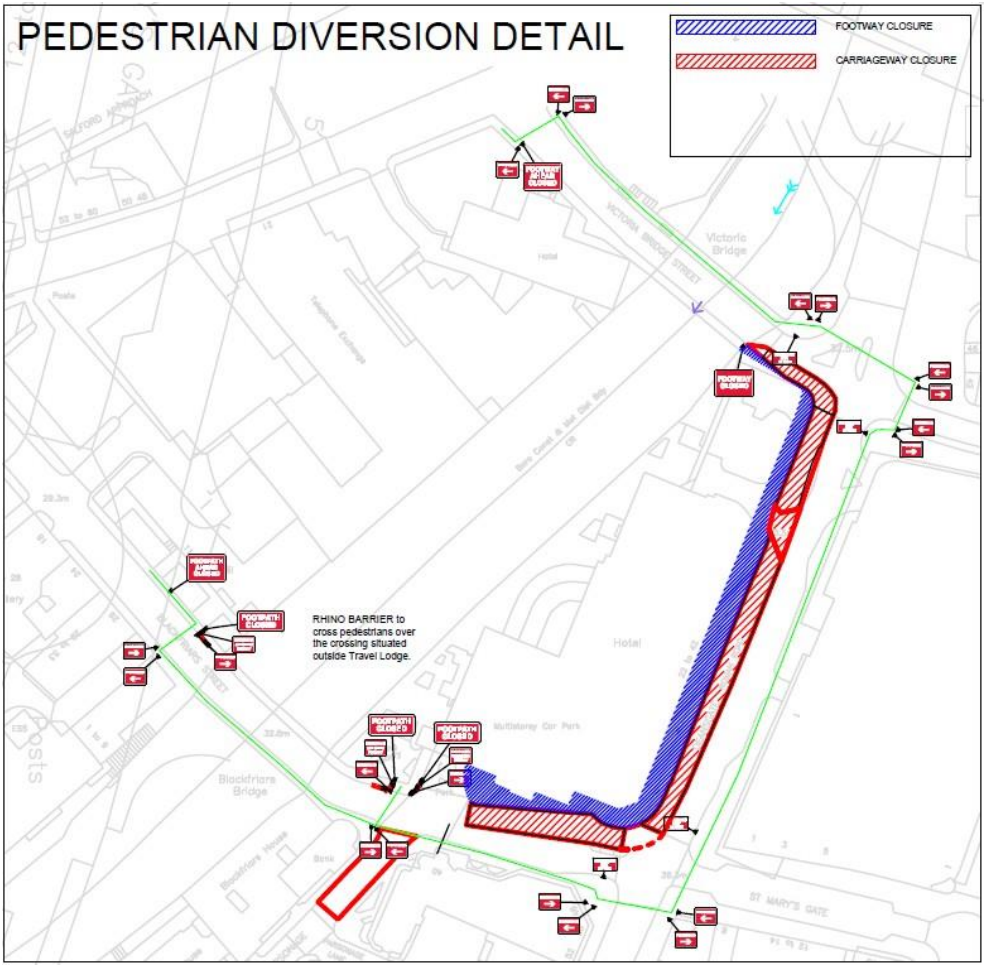
Site access signage will be placed in clear visible positions warning both vehicles and pedestrians alike of the location of the site entrance.



Overall Site Access Plan schematic

Public Pedestrians

Pedestrians shall be diverted from the site perimeter using the Traffic Management and agreed routing as implemented during the demolition phase of the project.



Pedestrian Diversion Plan

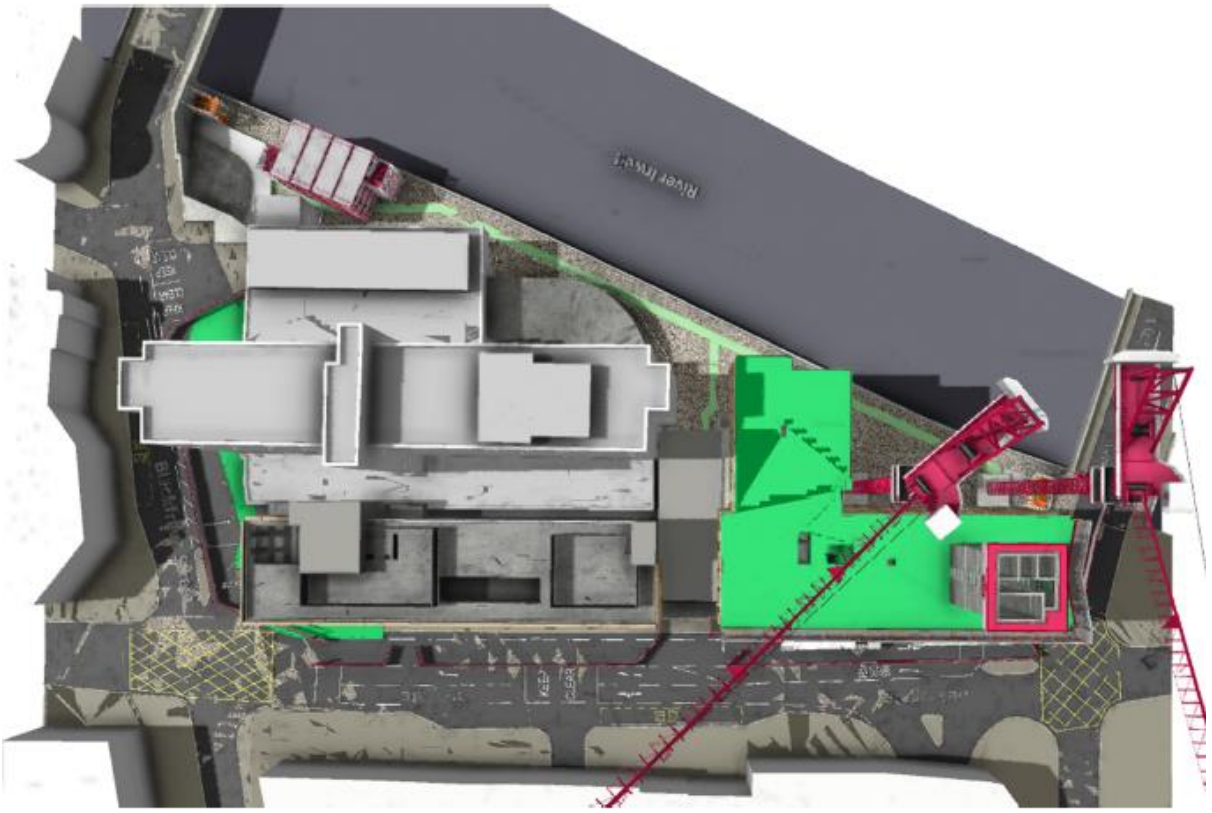
Operative Pedestrian Access

Pedestrian access to site shall be via a dedicated site entrance gate segregated from the vehicle gates, either on the corner of Deansgate/Blackfriars or at Victoria Bridge street, depending on the phasing of the works. All site operatives must at all times whilst on site comply with the site rules and requirements of the Health and Safety at Work Act 974 etc., the Construction (Design and Management) Regulations 2015 and all other relevant safety legislation codes, standard and guidance.

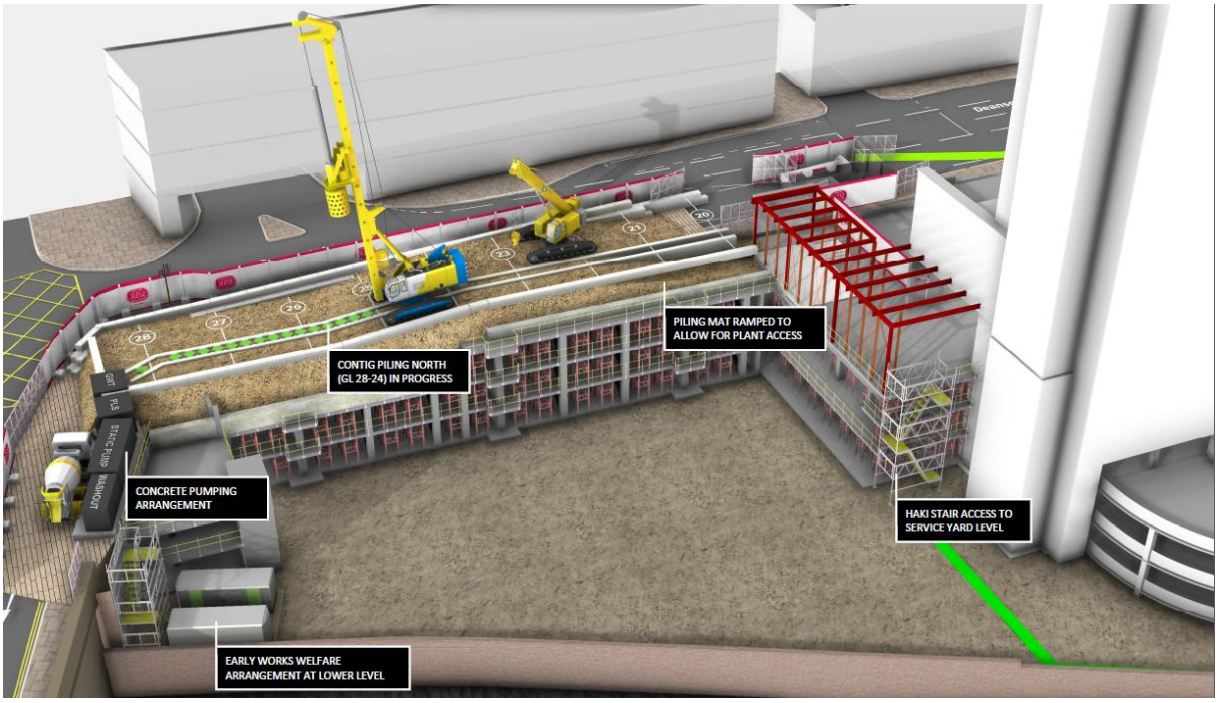
It should be noted that the works for the Residential Building and Premier House on the same site are envisaged to be under the coordinated control of one Principal Contractor to best coordinate and reduce the impact of the construction activities of both. Therefore, parts of the site logistics mentioned in this document will overlap and interface with the corresponding document submitted for the office building.

No parking on site shall be permitted and any operative vehicles may use the public car park in the basement of the development which will be kept in operation during the construction phase, or other nearby parking facilities.

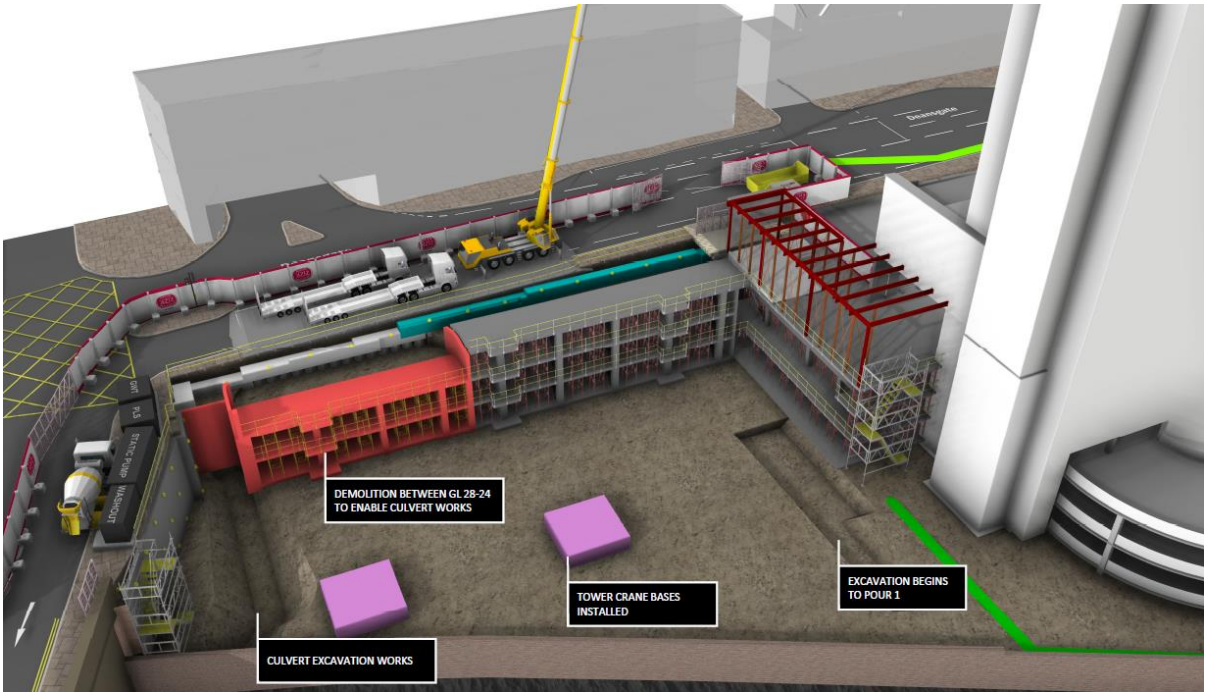
The following images provide an overview of the site-set, construction logistics, sequence and construction methodology during the 150 week build period.



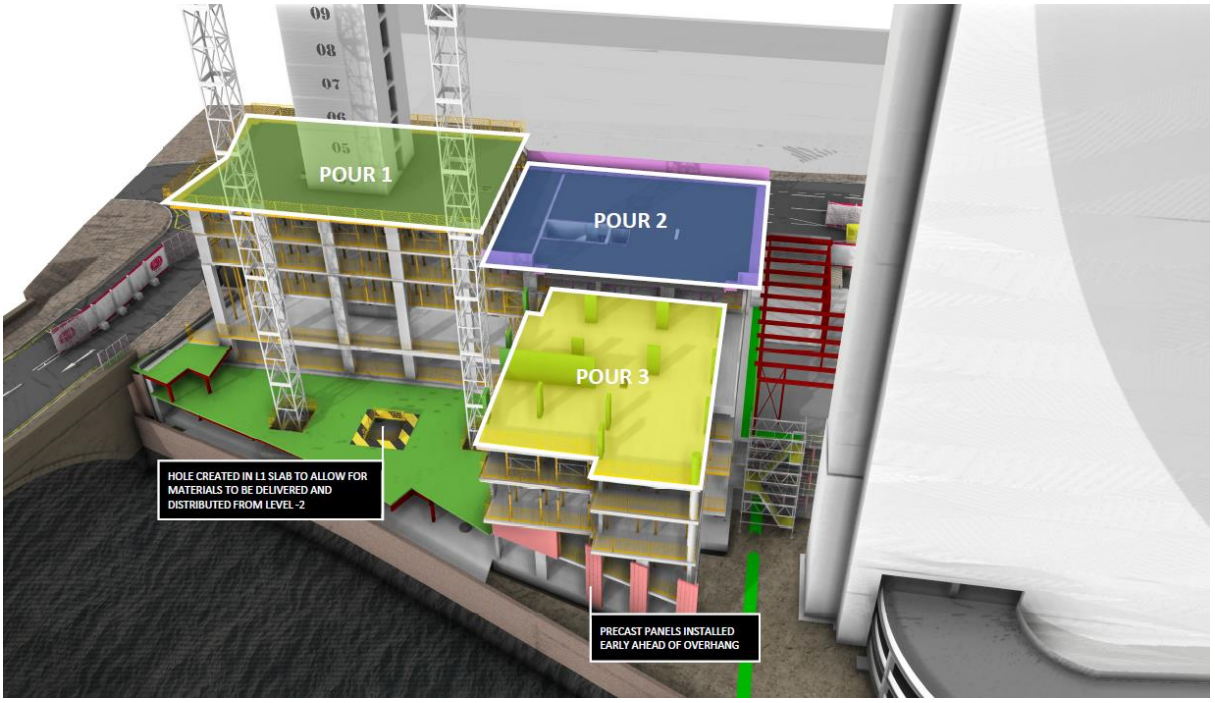
Site Plan Showing Residential site set up



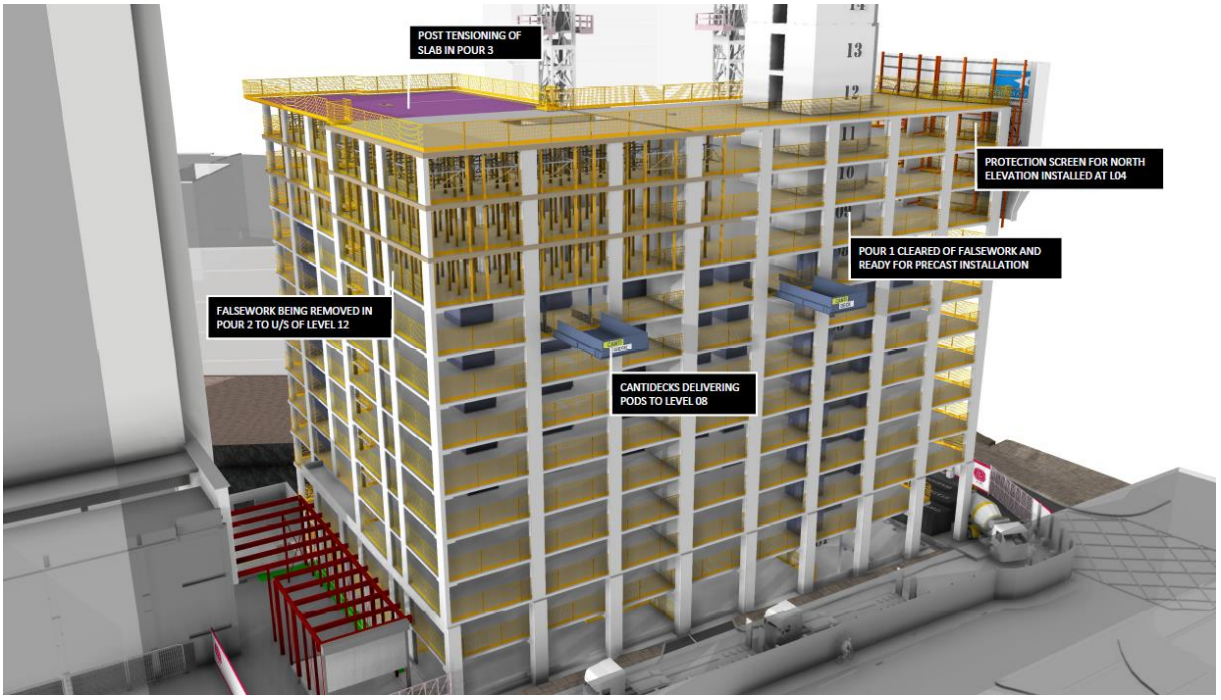
Contig Piling works underway to Deansgate elevation



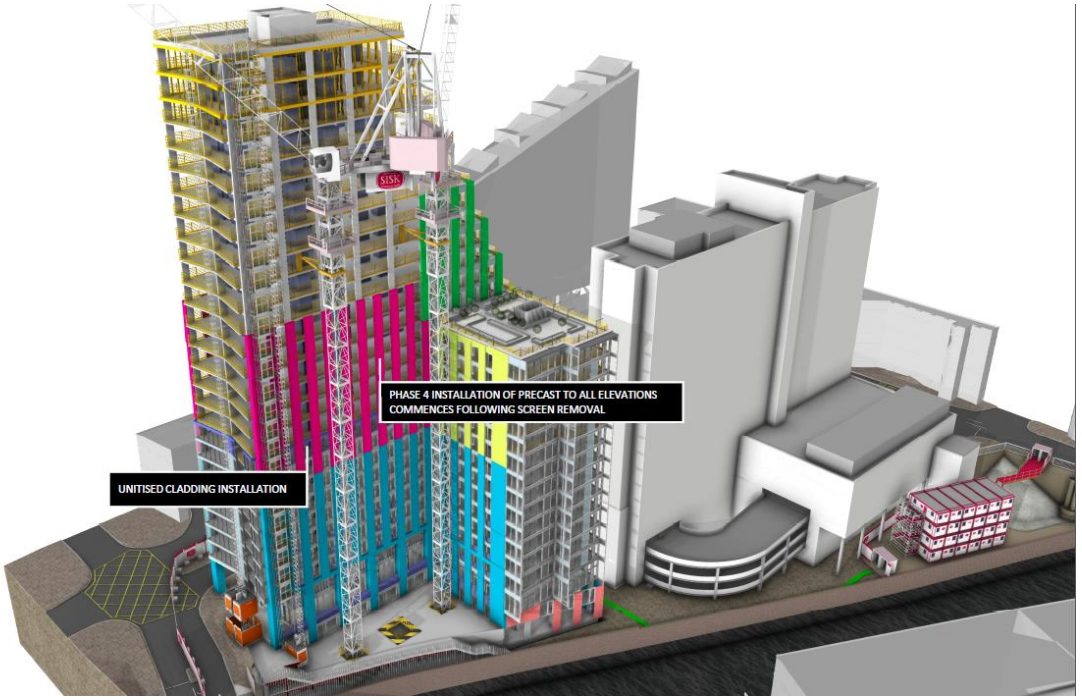
Culvert excavation works and demolition of retained car park structure



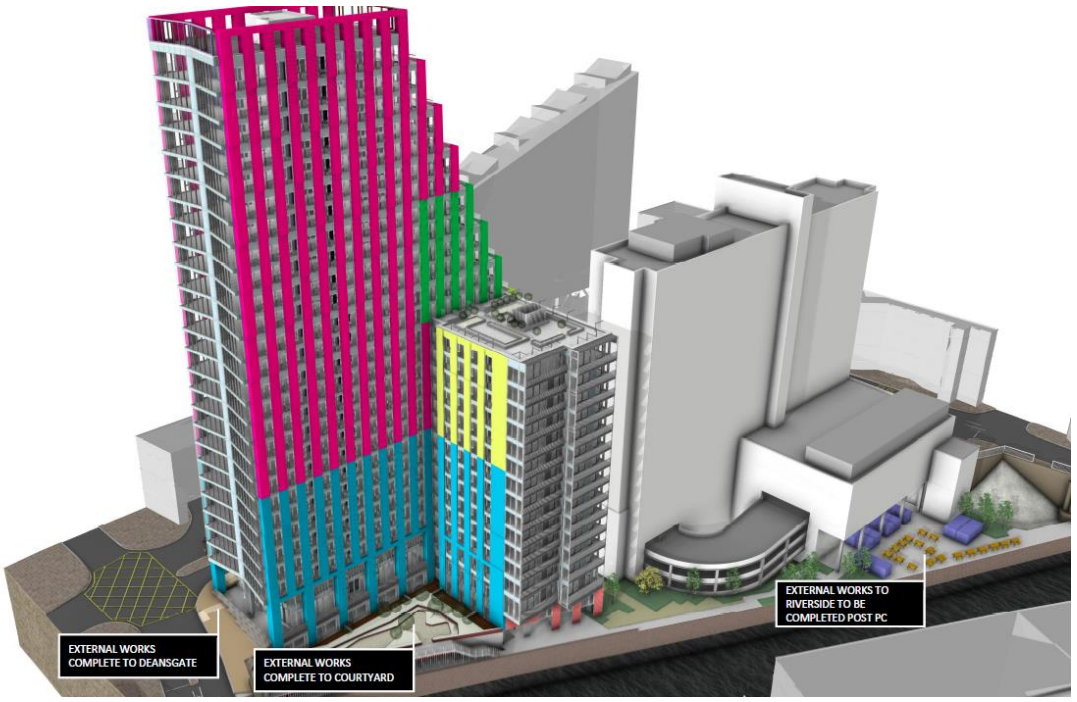
Core construction underway and upper floors



RC frame progressing



Façade construction underway



Works completed

5. Temporary Traffic Management

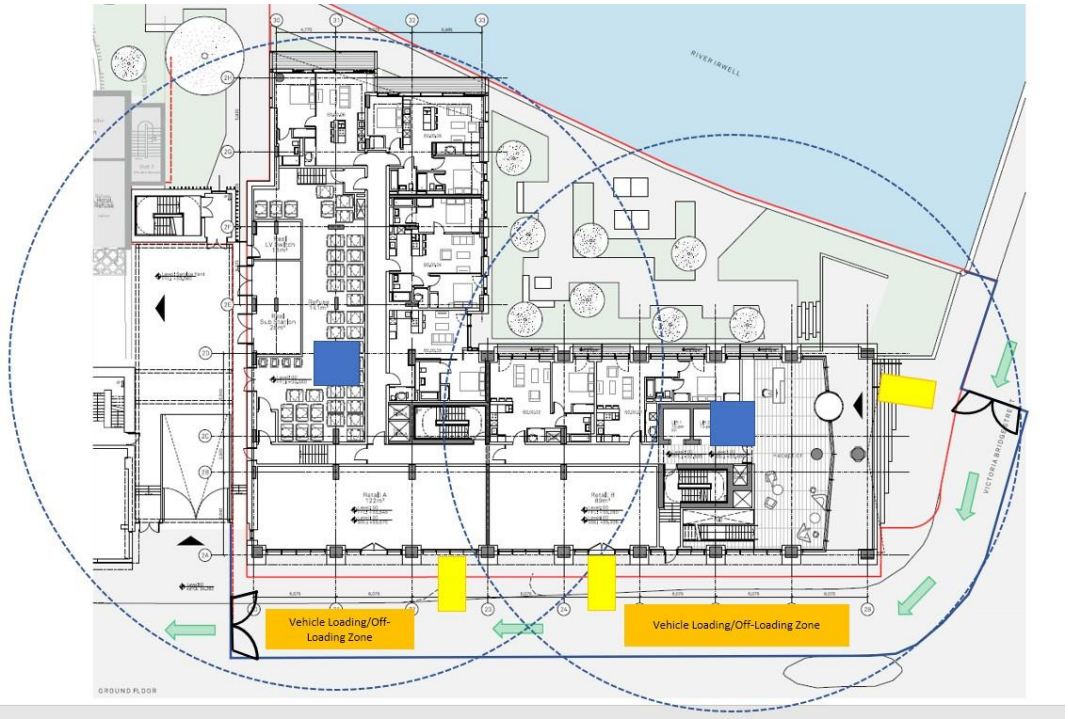
Temporary Traffic Management (TTM) shall be prepared, submitted and implemented for all works that interface with the public highway. Licenses for the perimeter hoarding shall already be in place as part of the separate Demolition Works planning application. New licenses shall be requested for this phase of the works. Any modifications to this during the course of the construction phase shall be planned and coordinated with MCC and any additional TTM shall be implemented.

The TTM for site-wide logistics includes closing the current pedestrian crossings at Deansgate/Blackfriars and at Deansgate/Victoria Bridge Street, changing the road markings, and temporarily adjusting the traffic signals at both junctions. This shall remain in place for the duration of the Residential Building works. A TTRO for the one-way traffic on Blackfriars has already been approved and implemented for the duration of the Hotel works only and at Hotel opening this section of road shall resume the two-way traffic movement.

All site entrance and exit gates shall be managed and controlled by designated gatesmen and banksmen to ensure the safe and controlled movement of vehicles into/out of the site boundary and to ensure the traffic and pedestrians are managed accordingly. Any further detailed TM can be developed further by the Principal Contractor.

6. Site Logistics

The logistics of the site will be very much within the control of the appointed Main Contractor, but it is anticipated that 2 tower cranes and external hoists will be required, as well as cantilever loading platforms, external mast climber platforms and multiple temporary mobile cranes. The below diagram shows potential locations for tower cranes and hoists, but shall be confirmed once a Mani Contractor has been appointed. For tower crane assembly, sections of full road closure will be required at weekends to carry out the erection works safely. Separate applications will be made via the Main Contractor for these works.



Indicative Logistics – tower cranes and hoists

7. Site Security

The Residential Building site shall have dedicated 24/7 security and all perimeter and adjoining interfaces with have physical hoarding or fencing separation. A new access point to the Hotel service yard area will be created as part of the works to facilitate shared access to the internal service yard area, which is part of the Hotel demise with shared access to the rear of Premier House. Access control measures will be coordinated between the Residential Principle Contractor and the Premier House and Hotel Facilities Management teams. All personnel shall enter via a Site Security control point dedicated for pedestrian access point to enter/exit site. All gates shall be controlled by a designated gateman/banksman to ensure only authorised vehicles enter the site.

Out of hours, all site access points will be locked and security present on site 24/7 to patrol and maintain security during non-working hours.

The integrity and effectiveness of site security arrangements will be subject to a daily recorded

check by the Principal Contractor with any adaptations or amendments required addressed as a matter of urgency.

Site security will also be maintained by security cameras provided by an approved SIA registered security contractor. The cameras will be monitored 24/7 for the entire duration of this project.

8. Protection to the public

In addition to the specific measures identify in sections 4-7 above, the works shall be undertaken in such a manner to minimise the impact to the public and protect vulnerable road users, with the following aspects being implemented:

- Implement and maintain adequate signage around the site to inform public and vulnerable road users of site activity and specific road closures that are in place.
- Take all reasonable steps to minimise the creation of dust, with the use of low-impact breakers, screens and enclosures and water dust suppression systems where parts of the internal building need to be demolished and removed, should this be deemed necessary;
- Curtail, suspend or re-arrange work as necessary to allow the works to proceed whilst reducing the impact on any of the adjacent building occupiers or neighbouring properties/premises;
- Ensure all plant is fit for its purpose and adequately maintained so that noise generation is within the manufacturer's stated maximum noise level;
- Given particular consideration to activity on site at the start of the day to minimise disturbance of the neighbours. Reversing manoeuvres will be avoided in the early morning to prevent reversing sirens sounding. The timing of any particularly noisy operations will be coordinated to minimise disturbance as far as reasonably practicable;
- Monitor the condition of the pubic highway when HGVs are leaving site;
- Air-quality and noise monitoring shall be in place throughout the works.
- Light pollution from the site temporary lighting shall be planned in such a way and controlled to minimise the impact on the adjacent premises.
- Where pedestrians are required to walk near to the site hoarding, particularly relating to the opening of adjacent phases of the development, additional segregation, protection measures, lighting, or signage shall be provide as required.
- Site security and logistics staff shall be courteous and respectful to the public moving around the site boundary and shall provide directions in relation to the works or the vehicle movements being carried out.
- All construction delivery vehicles shall be fully compliant and roadworthy.

9. Labour Levels

Labour levels will be managed in accordance with the different work activities and phasing of work over the construction works programme. The below table gives an indicative break-down of resources for main packages of works, as a guide.

Residential Building	
Principal Contractor	10

Site Logistics	10
Structural Works	50
Façade Works	25
MEP Works	65
Roofing	5
Interior Fit Out	50
Lifts	8
External Works	7
Sundry	20
Total	250

Maximum no of site personnel at peak times will be around 250 people for the Residential Building. Numbers will be re-assessed and verified following review of the works by the Principal Contractor.

10. Plant and Equipment

The plant and equipment will be specified and provided by the Principal Contractor for the works once appointed. The below list identifies key items that are envisaged to be used, but may be substituted for alternative items further to construction methodology development by the Principal Contractor.

- Small to Medium-sized excavators with various pneumatic arm attachments for removing existing structural floors.
- Mobile Cranes for material delivery.
- Floor-mounted mini-cranes.
- Tower Cranes
- 40m3 roll-on-off (roll on roll off) skips and lorries for general waste, timber and scrap metal
- Waste compactors and waste bins
- Scaffolding and access towers
- Mobile Elevated Access Platforms
- Mast climbers or Gondola Systems
- Concrete wagons and mobile concrete pumps
- Delivery vehicles of various sizes from small vans and pick-ups to articulated lorries
- Material and Access Hoists
- HIABS and articulated delivery lorries

The Principal Contractor shall operate a Delivery Management System to ensure all deliveries are planned, controlled and managed throughout their journey to and from site.

Note that for all applicable plant, certificates will be obtained for and copies of the certificates retained onsite. All operators will have appropriate CPCS cards and all site staff shall have a valid CSCS card.

The Principal Contractor shall operate a Delivery Management System to ensure all deliveries are planned, controlled and managed throughout their journey to and from site.

Note that for all applicable plant, certificates will be obtained for and copies of the certificates retained onsite. All operators will have appropriate CPCS cards and all site staff shall have a valid CSCS card.

11. Welfare Accommodation

Suitable welfare facilities will be established within the site boundary. This shall be in temporary cabins inside the hoarding/logistics area and/or temporary built in-place offices within the existing car park area on level -1 which is not currently part of the public car park space. The ground floor retail spaces may be used for site accommodation or material storage, depending on the detailed method of works developed by the Principal Contractor.

The site accommodation will comply with the Construction (Design & Management) Regulations 2015 and Covid guidelines and will provide the following facilities as a minimum: security, rest areas, toilets, changing rooms, drying rooms for work-wear, offices for Principal Contractor and Subcontractors, equipment stores, canteen facilities and first aid facilities.

All welfare shall be segregated from construction works and vehicles and designated PPE-free and mandatory PPE zones identified. PPE-free routes shall be provided from the site entrance points to the welfare and offices. Statutory and project information shall be displayed on Principal Contractor notice boards informing staff and visitors of the site requirements.

12. Temporary and Permanent Services Connections

Permanent services disconnections, diversions and new connections shall be coordinated by the MEP Consultant and relevant notices issued by Property Alliance Group.

All live services information will be stored on site within the Construction Phase Health & Safety file. Key service providers are as follows:

Electricity – Electricity North West
Gas – Cadent
Water – United Utilities
Telecoms – BT Openreach / Virgin Media

A full scope of service diversions shall be prepared as part of the overall development and the corresponding works will be managed with this Residential Building works in accordance with the programme.

All temporary site services shall be provided from within the development, coordinated with the supplies to the Hotel and Premier House site and shall be fed in to serve the Residential Building works.

13. Environmental Management

13.1. Dust Control and Monitoring

The main demolition works will have been completed prior to the commencement of these works, but there will also be additional structural demolition works in this phase as described in Section 14. Dust

may also be created on site during other phases of construction and this will be managed throughout in accordance to the specific works.

Generally good housekeeping should be employed to reduce the amount of dust created. The Principal Contractor in conjunction with its sub-contractors shall ensure dust generated from site activities does not become a risk to others and in doing so shall assess the dust risk for each work package, ensure adequate controls are in place and review these controls with their contractors.

Removal of demolition arisings shall be done using enclosures, water dust suppression with sprays, and netting and covering waste skips and tipper trucks. For other trades, waste shall be transported in bins via a goods hoist or internal lifts and brought to a single waste collection point for collection and removal in skips or compactors. Measures will be taken to eliminate, or at least minimise, dust generation with consideration given to material usage, type of work equipment used and work methods applied. Where dust creation is unavoidable, d ampening down techniques will beapplied.

Fugitive Dust Emission Mitigation Measures

Issue	Control Measure
Communications	• Develop and implement a stakeholder communications plan that includes community engagement before work commences on site • Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager • Display the head or regional office contact information • Develop and implement a Dust Management Plan (DMP) or similar, which may include measures to control other emissions, approved by the LA
Site management	• Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken • Make the complaints log available to the LA upon request • Record any exceptional incidents that cause dust and/or air emissions, either on- or off- site, and the action taken to resolve the situation in the log book
Monitoring	• Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the LA upon request • Increase the frequency of site inspections when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions

Issue	Control Measure
Site preparation	• Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible • Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site • Fully enclose specific operations where there is a high potential for dust production and they are active for an extensive period • Avoid site runoff of water or mud • Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used
Operating vehicle/machinery and sustainable travel	• Ensure all vehicles switch off engines when stationary - no idling vehicles • Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable
Operations	• Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques • Ensure an adequate water supply on the site for effective dust suppression, using non-potable water where possible and appropriate • Use enclosed chutes and conveyors and covered skips • Minimise drop heights and use fine water sprays wherever appropriate • Ensure equipment is available to clean any dry spillages, and clean up spillages as soon as reasonably practicable using wet cleaning methods
Waste management	• Avoid bonfires and burning of waste materials
Demolition	• Soft strip inside buildings before demolition • Ensure water suppression is used during demolition operations • Avoid explosive blasting, using appropriate manual or mechanical alternatives • Bag and remove any biological debris or damp down such material before demolition
Earthworks	• Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable • Use Hessian, mulches or trackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable
Construction	• Avoid scabbling (roughening of concrete surfaces), if possible • Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out

Issue	Control Measure
Trackout	• Use water-assisted dust sweeper on access and local roads, if required • Avoid dry sweeping of large areas • Ensure vehicles entering and leaving site are covered to prevent escape of materials • Record all inspections of haul routes and any subsequent action in a site log book • Implement a wheel washing system, if required

Dust monitoring shall be implemented around the site perimeter and data recorded and monitored by the Principal Contractor throughout the site works.

A water supply for high-pressure jet washing cleaning facilities will be available to clean down all construction vehicles and wheels prior to leaving site, to ensure mud and excess debris is not transferred from the construction site to the highways.

13.2 Noise Control and Monitoring

Noise control measures shall always be addressed in advance of the works during the planning and assessment phase of the works and specific measures shall be incorporated in the method statements. Operation with high noise levels that may impact upon construction operatives and residents/neighbours in nearby premises shall be managed with appropriate noise reduction measures locally at the works location. Construction works shall limited to the site working hours as described in Section 3.

The requirements described within The Noise at Work Regulations 2005 and the British Standard BS 5228 Noise and Vibration Control on Construction and Open Sites will be adhered to fully and as agreed with Mr Graeme Souter (EHO).

The Principal Contractor will limit as much as is practical high noise operations and where this is unavoidable measures will be taken, such as the selection of plant and equipment or work processes, which does not emit high noise levels or equipment, which is fitted with silencing/anti-vibration equipment.

13.3 Waste Management

The site shall implement a Waste Management Plan which shall provide a strategy and management plan for reducing, storage and disposal of all wastes generated during the construction works. It is also concerned with the establishment of procedures for complying with statutory and good practice requirements for waste management. The Principal Contractor is responsible for ensuring that the

relevant documentation is completed and held on site. In addition, all operatives will be responsible for adhering to the requirements of the procedure.

Relevant Legislation and Guidance:

- Environmental Protection Act 1990, Part II;
- Environmental Protection (Duty of Care) Regulations 1991;
- Hazardous Waste Regulations, 2005;
- Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991; and
- Site Waste Management Plans – Guidance for Construction Contractors and Clients, Department of Trade and Industry; July 2004.
- The National Construction Best Practice Programme advocates 'lean production' methods and the minimisation of accidental on-site material wastage.

The reuse of materials should take place wherever possible. Any remaining waste should be considered for recycling.

To assist in achieving best practice, the Principal Contractor's attention shall be drawn to the following initiatives:

Waste exchange - electronic waste board where contractors can advertise the availability of various types of waste available and companies can search for materials they need (www.wasteexchange.org);

WRAP – The Waste Resources and Action Programme set up to establish markets for buying and selling recycled materials. Includes a guide to specifying sustainable aggregates www.wrap.org.uk
Best Practical Environmental Option - Assessment by BRE of methods of demolition, construction and disposal of wastes to enable development of Best Practical Environmental Options for waste management; and

Other Building Research Establishment (BRE) and CIRIA current initiatives relating to construction.

Over-ordering of materials should be avoided, and deliveries of materials should be arranged for the appropriate stage of construction. Packaging from raw materials should only be removed immediately prior to use, to avoid damage to the materials and waste generation.

Initiatives to reduce waste streams should be incorporated where possible. These may include obtaining information on materials packaging from manufacturers and suppliers and avoiding purchase of over-packaged materials, liaison with the suppliers to enable packaging material to be sent back for reuse, use of off-cuts where possible and the recycling of off-cut material by the supplier e.g. plasterboard.

13.3.1 Recycling

Materials to be recycled will be sorted on site and stored in an appropriate container or stockpile ready for collection. The amount of waste reused, recycled or sent to landfill should be recorded by Principal Contractor and compared with the targets for waste re-use and recycling.

A detailed waste plan should be developed by the Principal Contractor to identify methods of waste minimisation and recycling. The following materials will be identified for potential recycling:

- Inert materials such as soils, clays, sand, gravel and natural stone;
- Metals such as reinforcement and steel, cables and wires;
- Packaging such as paint pots, pallets, cardboard, plastic wrapping, cable drums and wrapping

bands;
- Concrete such as kerb stones, paving slabs, rubble and solid blocks;
- Timber; and
- Chemicals and oils.

13.3.2 Waste Disposal

Waste should be segregated into recyclable, inert, non-hazardous or hazardous waste and retained in clearly labelled stockpiles, skips or drums in designated areas.

All waste removed from site (including recyclable waste) must be taken to a licensed or exempt waste disposal facility by a registered waste carrier. The Principal Contractor will ensure that all waste carriers and waste disposal facilities are licensed. Non-hazardous waste will be covered by a Waste Transfer Note.

The Transfer Note must include an accurate description of the type, quantity and containment of waste, the European Waste Catalogue Number and details of the waste carrier.

Sufficient information must be provided to ensure that the waste disposal operator is aware of any potential hazards of the substance. All documentation must be retained for a minimum of 2 years and be available for inspection.

13.3.3 Waste Storage

All waste will be stored in an appropriate container to prevent escape of material and the site must be left in a clean and tidy condition at the end of each day.

General waste materials removed as part of these works will be segregated into the various waste streams and loaded into the designated skip assigned for that material.

Waste will be segregated into the following waste streams:

- Reinforced Concrete
- Brick
- Metal
- Timber
- Plasterboard
- Hazardous Waste from paints, sealants, oils, etc
- Office Recyclables
- Waste

Waste transfer notes will be issued for all waste materials from the site and these will be kept within the construction Phase Health and Safety File.

Food waste will be collected regularly to avoid attracting vermin to the site. More frequent cleaning will be carried out around canteens and toilets.

All roads, pavements, construction equipment, temporary structures, materials and machines will be kept clean and tidy at all times with litter and rubbish removed promptly.

13.3.4 Management of Impact to River Irwell

The location of the residential construction site is immediately adjacent to the River Irwell and precautions will be taken to ensure that construction works do not impact the biodiversity of the river, including wildlife, plants and water quality.

A robust dust management plan will be implemented (as described above) and all surface water drainage systems will be protected to ensure no construction debris, materials or substances are discharged to the river during the course of the works.

Protecting the River Irwell

The development includes the re-modelling of a section of the riverbank on the eastern bank of the River Irwell, located between Victoria Bridge and Blackfriars Street Bridge (located downstream to the south).

The scheme layout includes plans to re-model this stretch of the riverbank, principally by lowering the existing bank and pedestrian footpath in the central section, which will be accessed by two new sets of steps to the north and south to allow pedestrian access to the lowered section of the riverbank. This lowered section of path with its access steps and walkway have been included together with an appropriate planting scheme and garden layout in order to enhance the aesthetic quality of the development.

As the River Irwell lies immediately adjacent to the affected reach of riverbank, this phase of the development scheme will require additional protective measures to ensure that both the river channel, the water contained within it and its associated riparian natural habitats are protected from any potentially negative effects that may arise during the demolition and construction work.

Measures will be used to protect the river from the following potential risks:

- Physical disruption / alteration of the river channel dimensions that may arise during demolition or construction work;
- Disruption / alteration of the river channel bank planform and cross-sectional profile;
- Coarse and fine sediment pollution which may be generated form demolition and construction work;
- Pollution input from spillages and leaks during demolition and construction.

Each of the above has the potential to significantly impact on the river, in terms of water quality, habitats and biodiversity. Physical changes to the river bed, river bank and channel dimensions also have the potential to change the flow characteristics of the river at this point, with potential adverse impacts in terms of flood risk.

Minimising Risks to River Function and Flooding

Physical disruption / alteration of the river channel dimensions has the potential to alter the river flow regime through the section of the river. Any significant changes in channel bed and bank form may adversely affect flood water levels and therefore add to the overall flood risk. For example, if large volumes of demolition debris (brickwork and concrete) are allowed to fall into the river channel unchecked, the bed profile of the river will change, and this can adversely impact on local water levels and conveyance, particularly during flood conditions, where the discharge rate is high and the river water level elevated.

These changes in channel dimensions can thus affect flood water levels, in both an upstream and downstream direction. As a result, measures will be taken to prevent and minimise demolition and construction debris from entering the channel along the entire section of river included within the development boundary. This will be achieved using several approaches, which may include:

- The installation of temporary watertight coffer dam structure(s), inflatable booms and shuttering to prevent debris from falling directly into the river channel. Debris needs to be contained within the construction area of the site. Any debris which falls into the river channel behind temporary structures will be removed after construction work is finished, prior to removal of temporary protective dams and structures, thus leaving the river channel in its original, unaltered configuration;

- Carefully directed and executed demolition works in order to minimise the amount of material entering the river channel. This includes, for example the careful siting and use of excavators and other heavy plant and machinery;

- Replacement of the current riverbank protection to construction design and flood specifications using appropriate building material, which may include cast concrete and/or brickwork/blockwork.

The measures outlined above will also preserve both the planform and cross-sectional integrity of the river channel along the affected reach between Victoria and Blackfriars Street bridges. Again, if the channel dimensions, configuration and roughness (coefficient) remain unaltered, then flood risk will not be adversely affected.

Minimising Risks to Water Quality

Demolition and construction work generate large quantities of dust and fine-grained particulates, which can be highly mobile both in air and in water. Dust and fine sediments easily find their way into the air and section 12.1 presents a summary of the measures taken to reduce or dampen dust during demolition and construction work.

Demolition and construction work both have the potential to adversely impact water quality in adjacent watercourses unless preventative measures are put in place to minimise the risks. Fine sediment is easily mobilised and entrained (picked up) in runoff across any natural or artificial surface and thus has to be prevented from entering rivers, streams and culverts. In this regard, the principal risks identified include the risk of coarse and fine-grained demolition sediment input to the River Irwell and the risk of liquid pollutants entering the river from spillages and leaks which may occur on site during the work.

Stringent efforts will be made to prevent or else minimise the risk of pollution to the Irwell by adopting a series of measures during the demolition and construction phases. These will include the following:

- Small, easily re-deployable inflatable booms to capture, retain or dissipate sediment-rich runoff at identified hotspots within the construction site. Once water has drained away, sediment can be removed allowing the re-use of these retention features. Inflatable booms / barriers can also be moved around the site quickly and easily in case they are required in other areas.
- Portable / re-deployable geotextile mats or rolls can also be used to trap fine sediment in particular, and can also be moved around the construction site as and when required. Here, mats may need to be pegged out / anchored to prevent them from being washed away or dislodged

during periods of heavy rainfall / runoff.

Extremely fine sediment which is held in suspension requires time to settle out. Where conditions allow, runoff will be stored for a period of time and allowed to soak away naturally. This should allow this fine sediment to settle out.

It is important to note that runoff collecting naturally on site during the construction and demolition phase will not exit the site completely free from sediment. However, efforts will be made to minimise sediment loads in runoff at all stages of the development.

Chemical leaks and spills represent another potential risk to water quality. In particular, diesel fuel and hydraulic fluid leaks and spillages from heavy plant pose a very significant risk to water quality in the adjacent River Irwell. A spillage prevention and containment protocol will be adopted for the duration of the demolition and construction work to minimise the risk of spillage and leaks, particularly during the re- fuelling or servicing of vehicles on site. Preventative measures will include:

- A designated area for vehicle refuelling/servicing, with an underlying protective membrane to ensure that fuel and chemical spills and leaks cannot enter demolition waste, material stockpiles, bare earth, watercourses and runoff retention features on site.
- A liquid management, handling, contaminant and containment/clean up protocol to prevent the above from occurring. This will include the use of sand or similar material that can be used to soak up significant quantities of spilt fluids. The containment protocol adopts the assumption that no fuel, hydraulic fluid or other chemicals will be allowed to enter the soil, surface and groundwater systems at any time during the development of the site.
- The use of runoff retention booms and sediment traps (as described above) will also serve to contain any fuel and chemical spills should they occur on site.

14. Community Engagement

During the course of the works, community engagement is an important part of our responsibility. The Principal Contractor shall appoint a single point of contact, the Community Liaison Officer, for engagement and liaison with the local community and various schemes and communications shall be implemented:

The site shall be registered with the Considerate Constructors Scheme and shall aspire to achieve a minimum of Silver rating.

Any queries or complaints shall be received, logged, reviewed and responded by the Community Liaison Officer for anyone who wishes to raise an issue. These matters shall be actioned by the appropriate team member, according to the issue raised.

Communication about the construction works shall be provided, in the following forms: generally, project information displays on the site hoarding; a communications display board mounted to the hoarding; regular progress updates displayed at the site, distributed by email and issued as letter drops as appropriate; special notification of key events or significant works that may impact beyond the day-to-day site operations.

The main contractor will manage the construction impact on their neighbours and the public to support a positive experience, by:

- Ensuring courteous and respectful language and appropriate behaviour in and around the

construction activity

- Providing a safer environment, preventing unnecessary disturbance, and reducing nuisance for the community from their activities
- Proactively maintaining effective engagement with the community to deliver meaningful positive impacts
- Actively encouraging and supporting an inclusive and diverse workplace
- Proactively supporting safe working, mental and physical wellbeing at work
- Providing workplaces that are, well maintained, clean and secure from physical and biological hazards.
- Prioritising environmental issues to protect the natural environment and minimising negative impacts
- Optimising the use of resources, including minimising carbon throughout the value chain
- Engaging with the community to improve the local environment in a meaningful way.

15. Construction Information and General Description of Works

No1. Cathedral Square is a new-build construction from foundation up, following on from the previous demolition works.

a) Handover from Previous Demolition Works and Site Set-up

Demolition Works already completed as part of separate planning application are generally as follows:

- Removal of the previous structure to the north or gridline 12
- Part retention of existing below-ground structure along the Deansgate and Victoria Bridge elevations to provide temporary restraint of the road
- Foundations removed down to existing sandstone
- Temporary water management and drainage left in place

A full handover will take place from the Demolition Contractor to the Principal Contractor to ensure all aspects of the works with any temporary conditions identified and communicated.

The Principal Contractor shall take possession of the site from the previous (Demolition) Principal Contractor and ensure the site is secured and the existing hoarding checked and any modifications or adaptations required for the next phase of works. The hoarding line will be in accordance to the general layouts show in Section 4 above.

Construction signage displayed around the perimeter of the site will be reviewed and amended as required for this phase of the works.

b) Piling Works

Part of the foundations and basement retaining wall shall be formed using piles. Piling works shall be carried out from road level and the required logistics area shall be created via a combination of pavement/road usage and retained structure and temporary works inside the site footprint. Additional logistics and enabling works shall be required to create suitable piling platforms to account for the level variance along the piling line. To facilitate the logistics area for piling works, there may be a requirement to temporarily amend the hoarding line and Traffic Management to create sufficient space to operate and move the piling rig, as well as ensuring sufficient space for reinforcement cages to be lifted and for concrete delivery and placement to be done. This would only be a temporary short-term arrangement for around 2 months in the initial stage of the works.



Indicative Logistics Layout for Piling Operations showing possible options for hoarding extensions

c) Structure

The building structure is a reinforced concrete frame, with a ground-bearing raft slab foundation and 2 concrete cores. The initial phase of the works shall require staged construction of the raft slab in order to provide bearing connections for temporary propping. The temporary propping shall be installed to provide physical restraint to the new pile wall and capping beam whilst the remainder of the retained structure and temporary works along Deansgate elevation is removed. The basement raft slab will then be completed, tying in to the piled wall and enabling vertical elements of columns, walls and cores to be built upwards. As the basement slabs are built up, the temporary props will be progressively removed in line with the temporary works design and sequencing.

The cores will be constructed using a jump-form or slip-form methodology and will proceed in advance of the building columns and slabs.

The building structure above ground floor is a reinforced concrete frame, with post-tensioned slabs. This will progressively be constructed with a traditional formwork system and perimeter protection screens. The type of system shall be determined by the appointed Main Contractor. Once the ground floor slab is constructed, this will provide additional logistics space to facilitate the follow-on fit-out works.

d) Façade and Balconies

The façade is a mix of precast concrete panels and unitised metallic and glass curtain walling system. Precast concrete panels will be double height and lifted into place by crane. The curtain wall system will be installed using mast climbers and internal manipulators.

External balconies shall be prefabricated steel frame bolt-on elements that will be lifted into place using the tower cranes.

Logistics for façade and balconies will be managed with large delivery vehicles that must be offloaded

inside the pit lane. Any oversized delivery vehicles will be managed out of hours by prior agreement and brought into the site via the appropriate gate. It is the intention to size the tower cranes to enable the lifting and installation of the balconies since they are all located on the river-facing elevation and there are limited alternative options for placing alternative mobile cranes for their erection.

e) Fit-Out – Building Services and Internal Layouts

The works shall entail full building fit-out of interior finishes, with building services, lifts, common spaces, apartments, and back of house works. Delivery of all materials shall follow the same logistics strategy as outlined above. External hoists shall provide vertical logistics to supply materials to all the floor levels and sections of the façade and localised apartments left out to be completed towards the later stages of the programme.

It is intended that bathrooms are prefabricated off-site as a 'pod' system and shall be lifted onto the floors with the tower cranes onto cantilever loading platforms prior to the façade being installed.

f) External Works

The external works are split into two main areas – street level and river level. These works shall be at the end of the programme of works once the main logistics areas are no longer required and the building works and fit-out works are predominantly finished.

Phasing of the external works shall be done in coordination of the adjacent phases of the same development, but this section shall be last to complete.

Any service connections or diversions shall be done in advance of the external finishes being installed.

g) Completion

- Testing and Commissioning
- Inspections and Quality Control
- Handover Documentation
- Defect Rectification
- Demobilisation of site set-up, including hoarding removal
- Acceptance and Practical Completion

Finishing works shall be managed alongside the construction works to ensure quality of finish is achieved and timely defect rectification ready for a smooth handover. Completion and handover shall need to be carefully planned and sequenced in relation to the adjacent phasing of the development and other adjacent works scheduled to suit.

16. Appendix A – Highways Dilapidations Survey

No.1 Cathedral Square, Renaissance, Manchester

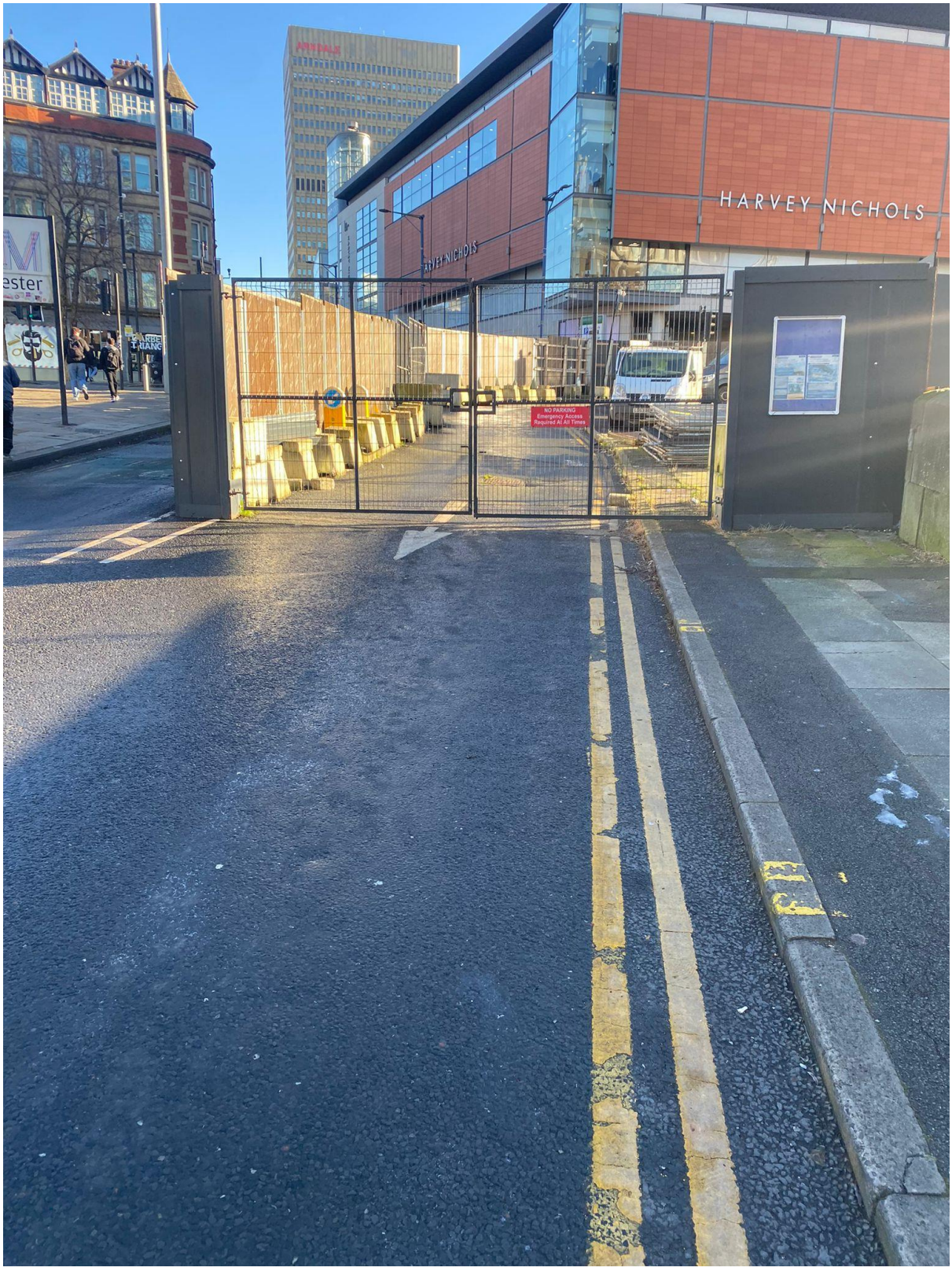


Highways Dilapidations Survey

January 2024

Rev 1

1.


HARVEY NICHOLS
NO PARKING
Emergency Access
Required At All Times

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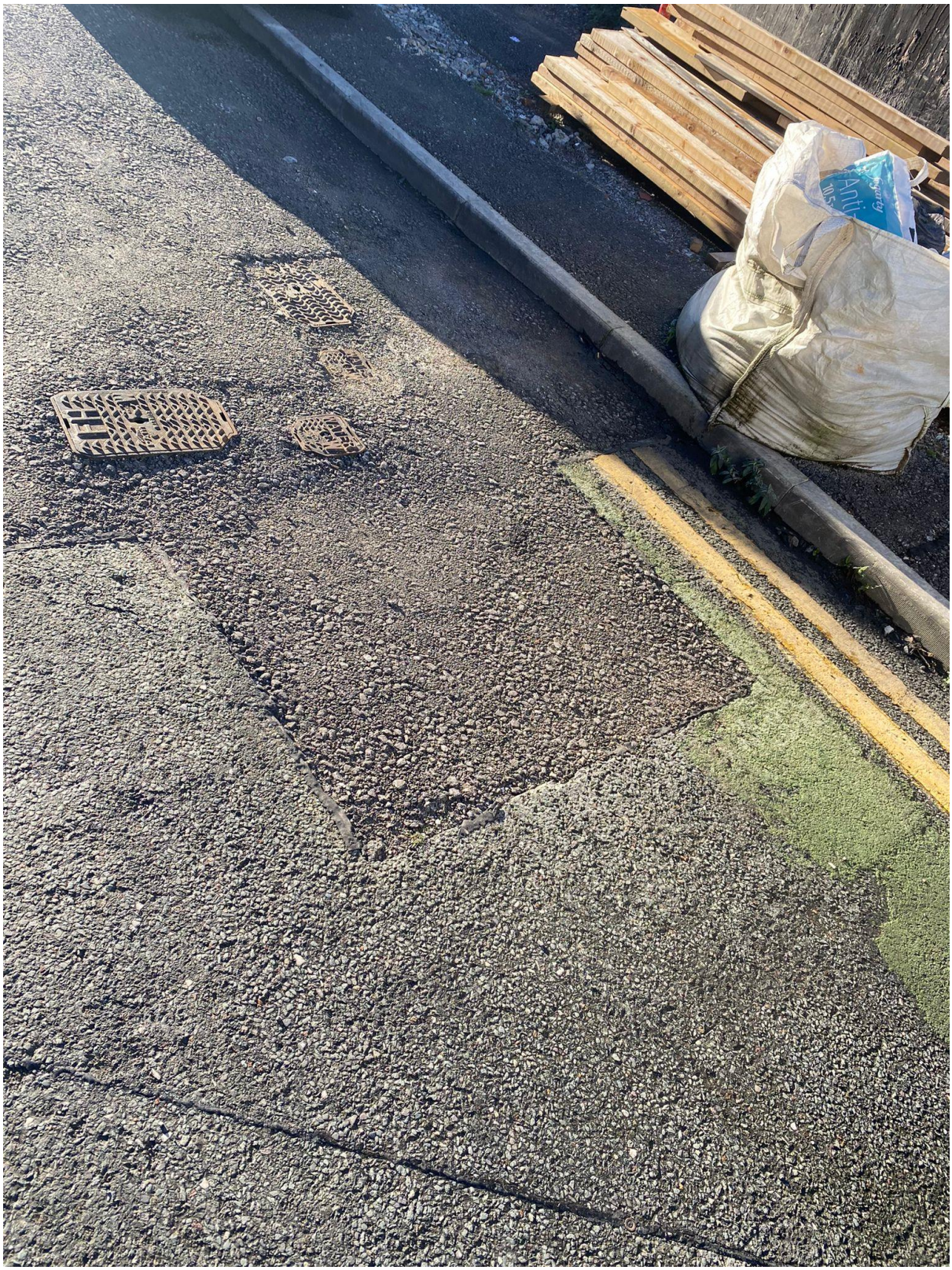
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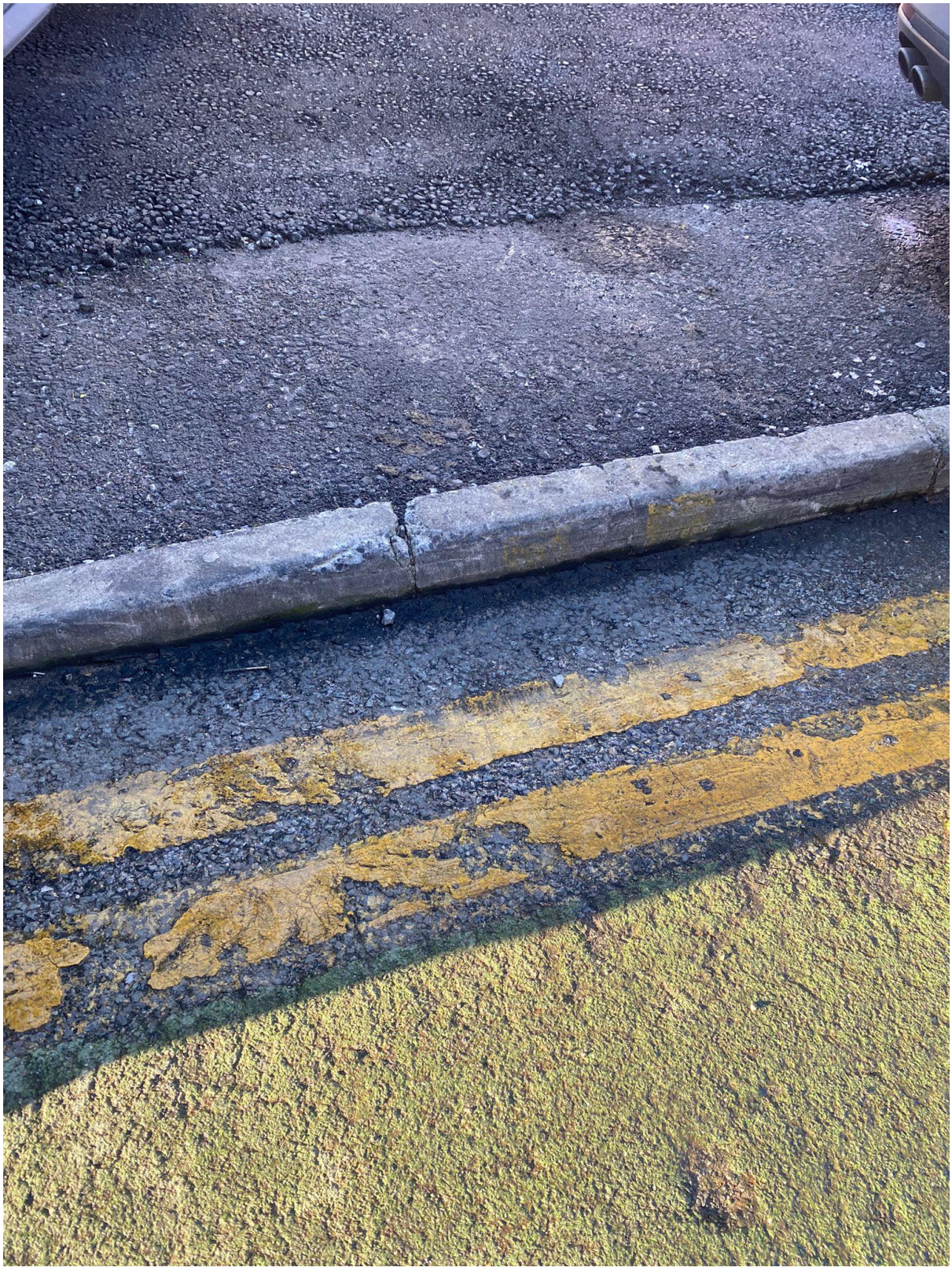
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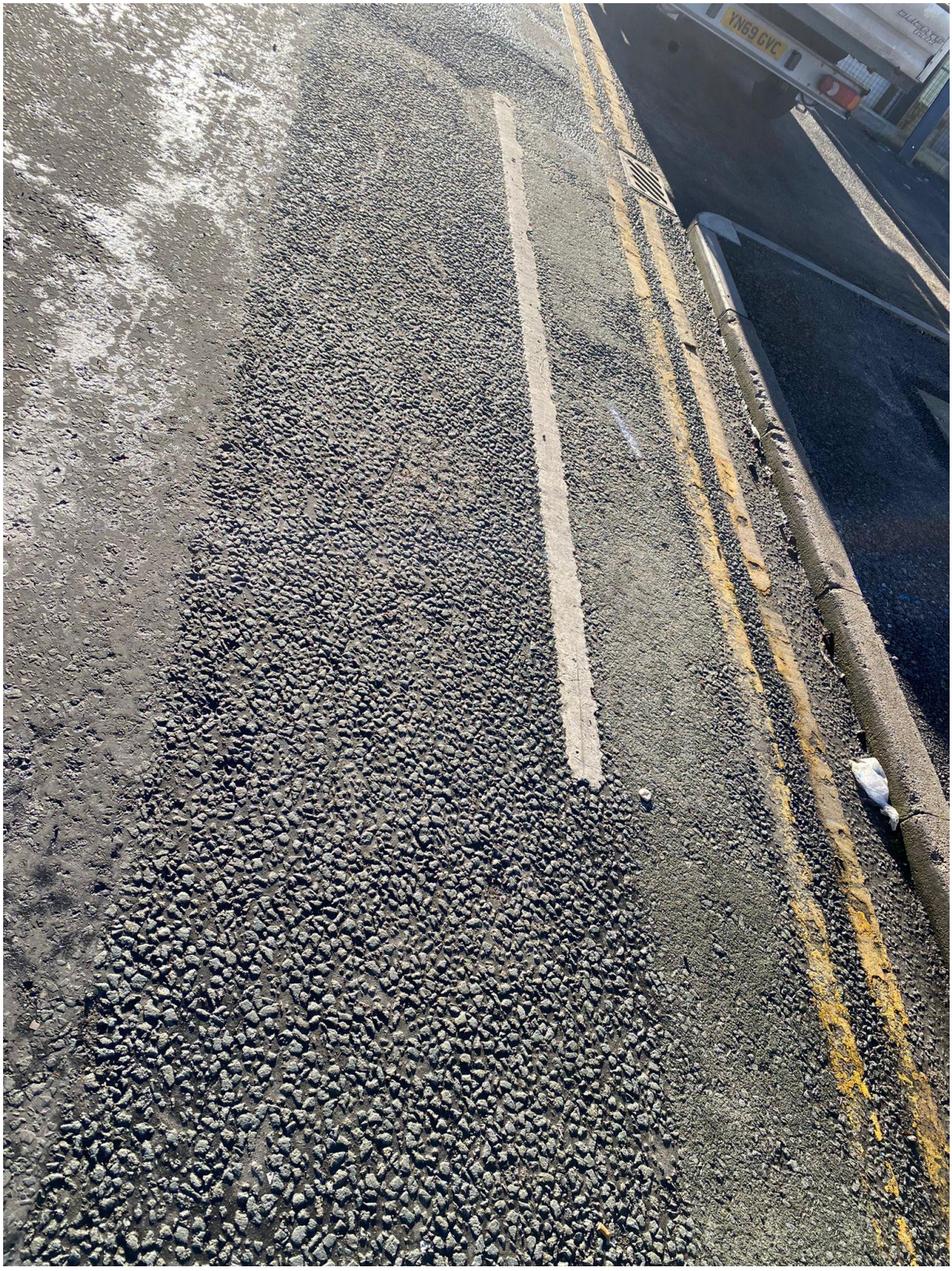
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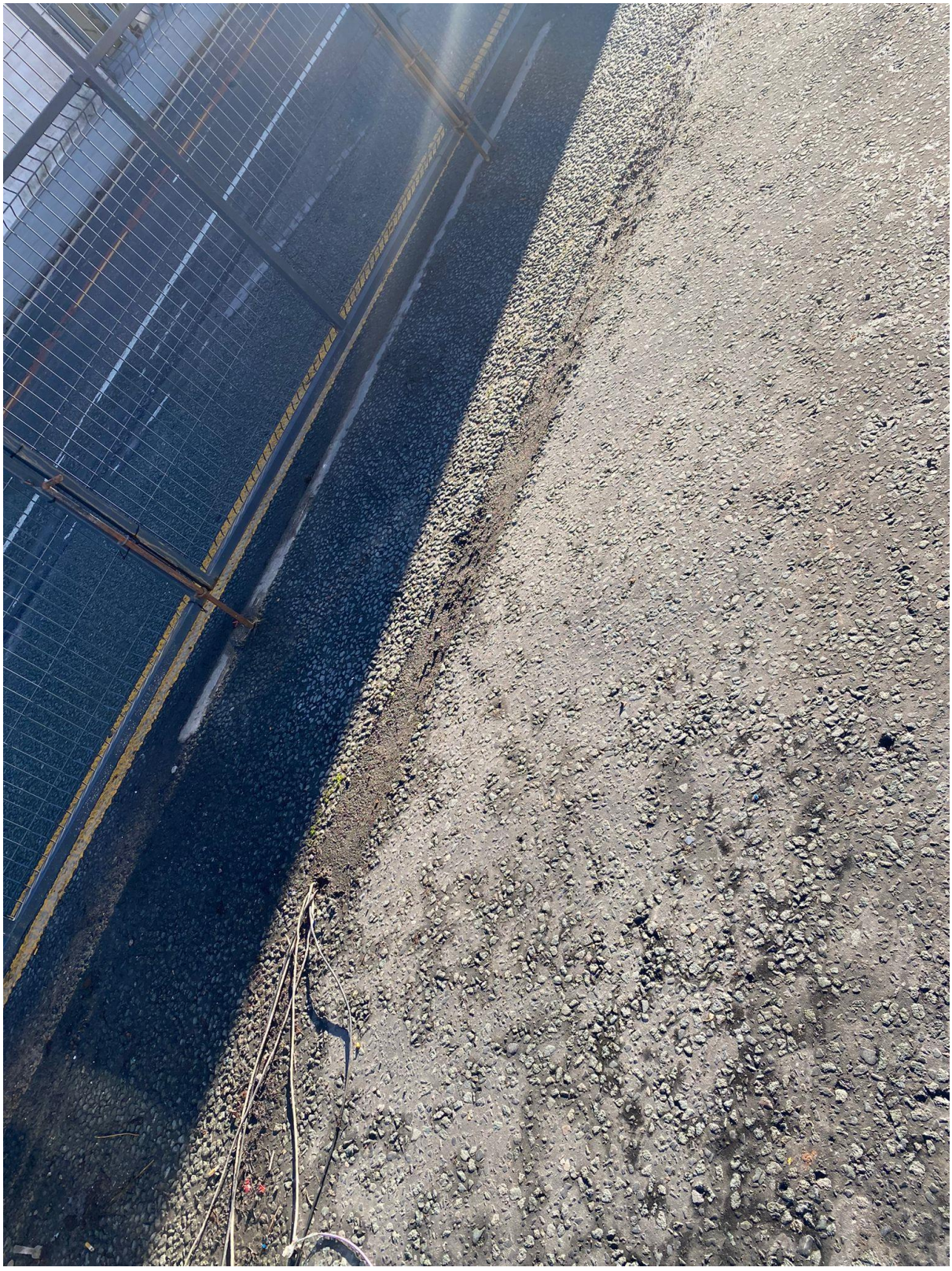
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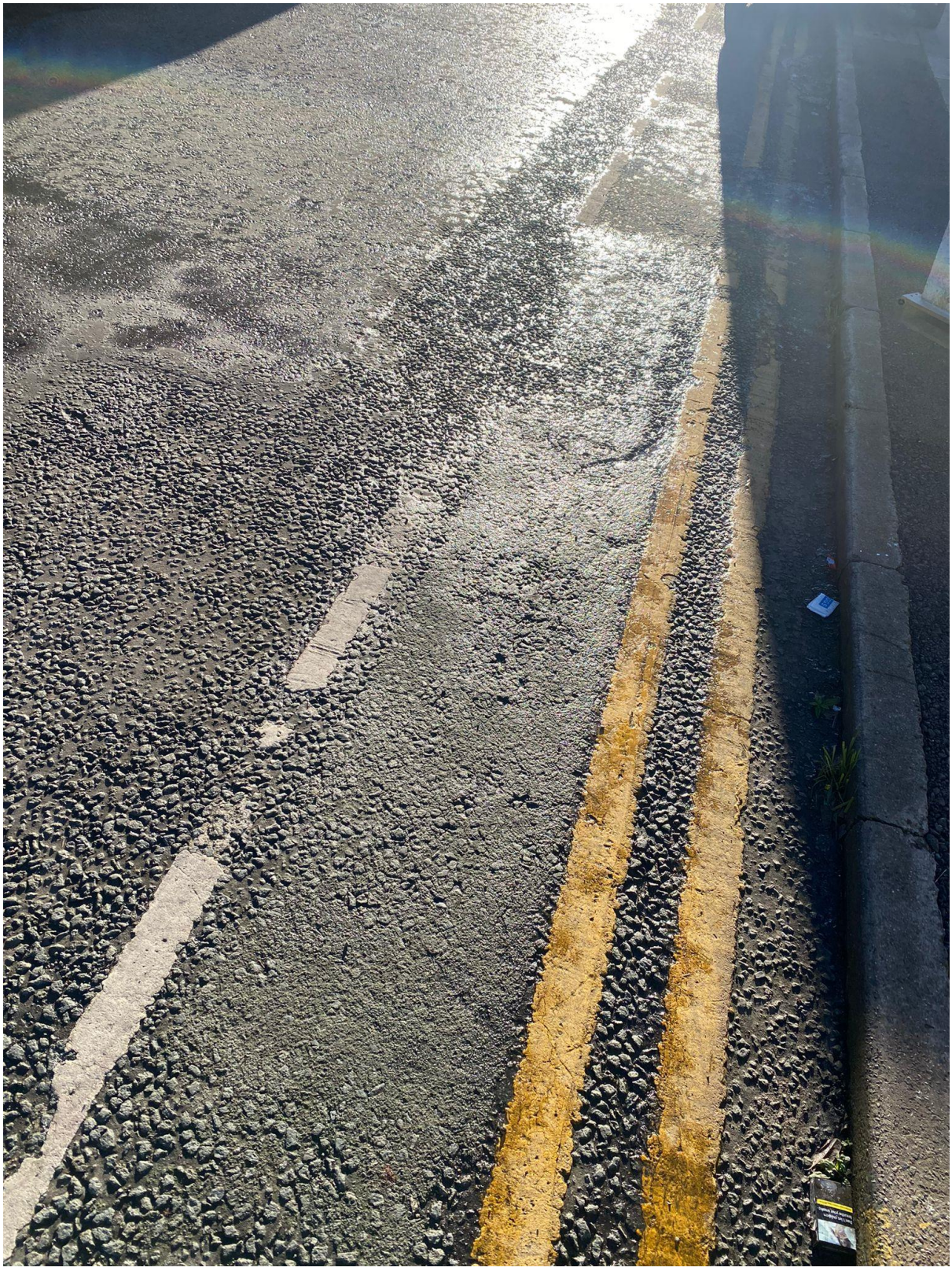
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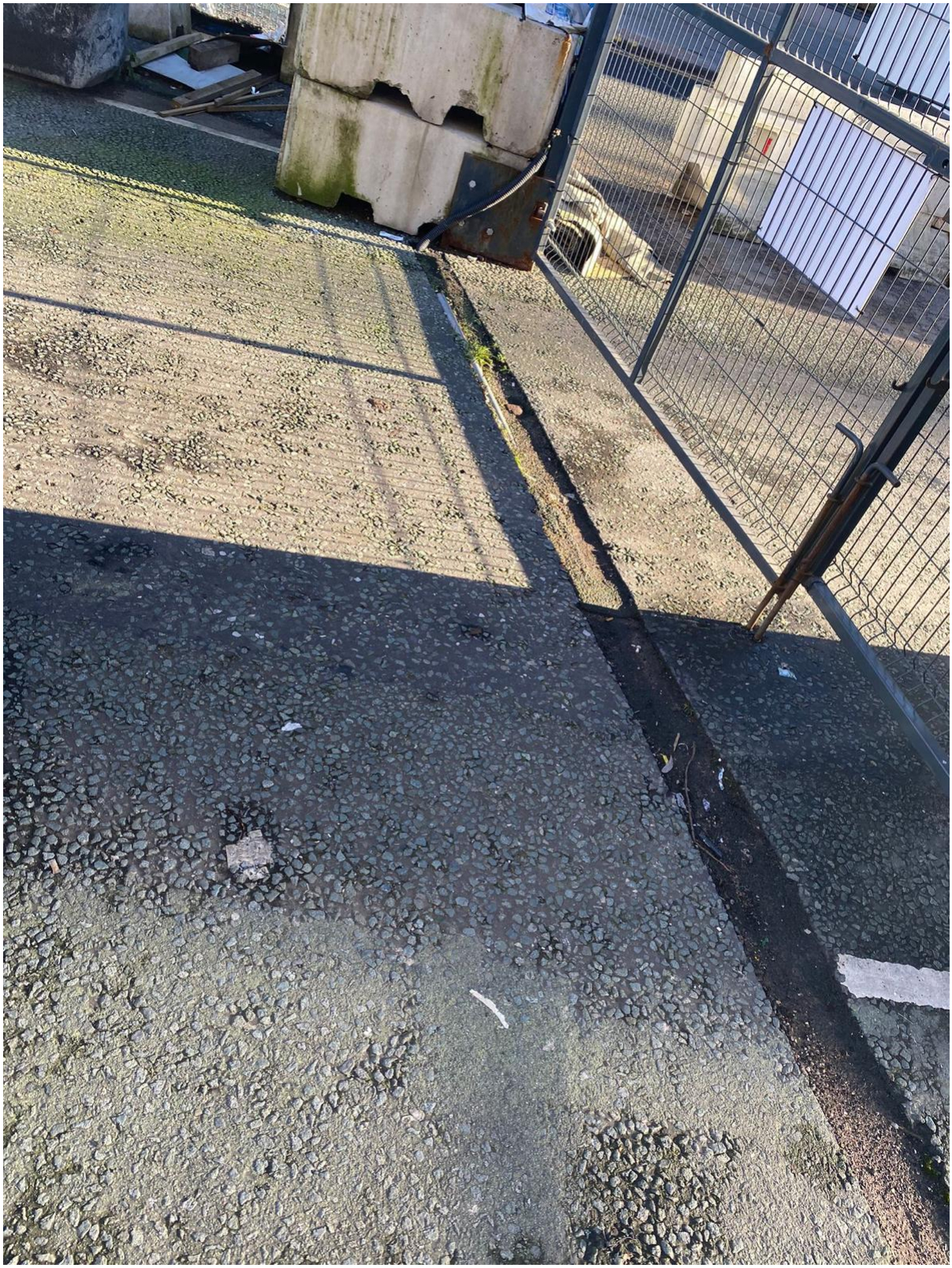
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