Audley Square House
Public Exhibition

Careys Civil Engineering

7th & 8th July 2020

CAREYS
Civil Engineering
A Carey Group Company

Contents

1. Introduction

Welcome to our Audley Square House Public Presentation.

We hope that the following presentation will give you an overview of the project and how we will endeavour to minimise impact to our surrounding community.

We would have preferred to meet face to face to introduce ourselves today but due to the unprecedented circumstances, have been unable to do so. We look forward to meeting you in person as soon as Government guidance allows, to talk you through future delivery.

We are committed to working with you and becoming a trusted neighbour over the duration of our works.

Thank you.

2. Project Overview

Careys Civil Engineering have been appointed by Caudwell Properties (109) Ltd to deliver the Groundworks and Reinforced Concrete elements of the Audley Square Development.

Our works on site are scheduled to commence in July 2020, with completion scheduled for February 2023 (Structure Timeline in Section 11 of this presentation).

Scheme Overview:

a) Pile installation
b) Ground Source Heat Pump scheme installation
c) Bulk Excavation for 5 levels of basement (Top Down and Blue Sky zones)
d) Waterproofing system installation to basement
e) Drainage installation
f) Construction of Reinforced Concrete basement elements
g) Construction of Reinforced Concrete and Post-tensioned Concrete Superstructure elements

3. Audley Square House Project Team

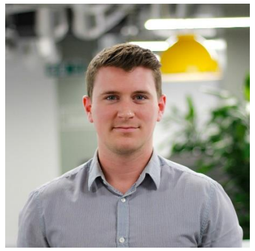
Marc Daly
Head of Delivery

John McInerney
Contracts Manager

Michael Bassett
Project Manager

Alahna Dunbar
Neighbour Liaison Manager

Daniel Botma
HSE Manager



Jack Hughes
Senior Engineer

Mark Ruane
Project Engineer

Steve Payne
Project Engineer

Praba Perayeravar
Project Engineer

4. Best Practicable Means – Commitment To Community

The controlling of noise, dust and vibration levels during constriction at the Audley Square project is of upmost importance to us in order to minimise impact on the surrounding community. We will endeavor to undertake all activities in a manner which demonstrates that Best Practicable Means (BPM), as defined in Section 72 of the Control of Pollution Act 1974, is being adopted at all times.

All reasonable and practicable steps will be taken to minimise noise, dust and vibration considering the site itself, the neighbouring properties, their sensitivity, engineering requirements and safety, as well as demonstrating that best practicable means has been adopted.

All BPM analysis carried out by the project team will be recorded on a tracker spreadsheet and a live BPM register will be maintained throughout the project and used to demonstrate compliance with our BPM duties as a competent contractor.

We are also working very closely with Westminster City Council and strictly following their Code of Construction Practice (CoCP) which sets out high standards and procedures for managing and minimising the environmental impacts of construction projects within the City of Westminster.

4 Pillars of BPM

1. Concept
2. Design
3. Implementation of the Method
4. Review

4. Hybrid Basement Construction

What is it ?

It is a construction technique whereby the basement levels and the upper floor levels are constructed at the same time in order to reduce the overall project duration as well as providing stability to surrounding properties.

The two leading factors influencing the decision to implement the Hybrid construction methodology were:

To control movements to surrounding properties within acceptable movement criteria

To minimise disruption to the surrounding properties and extended local area

4. Hybrid Basement Construction - Benefits

Reduce Disruption to Community

The scheme provides a large area logistics slab and route through site

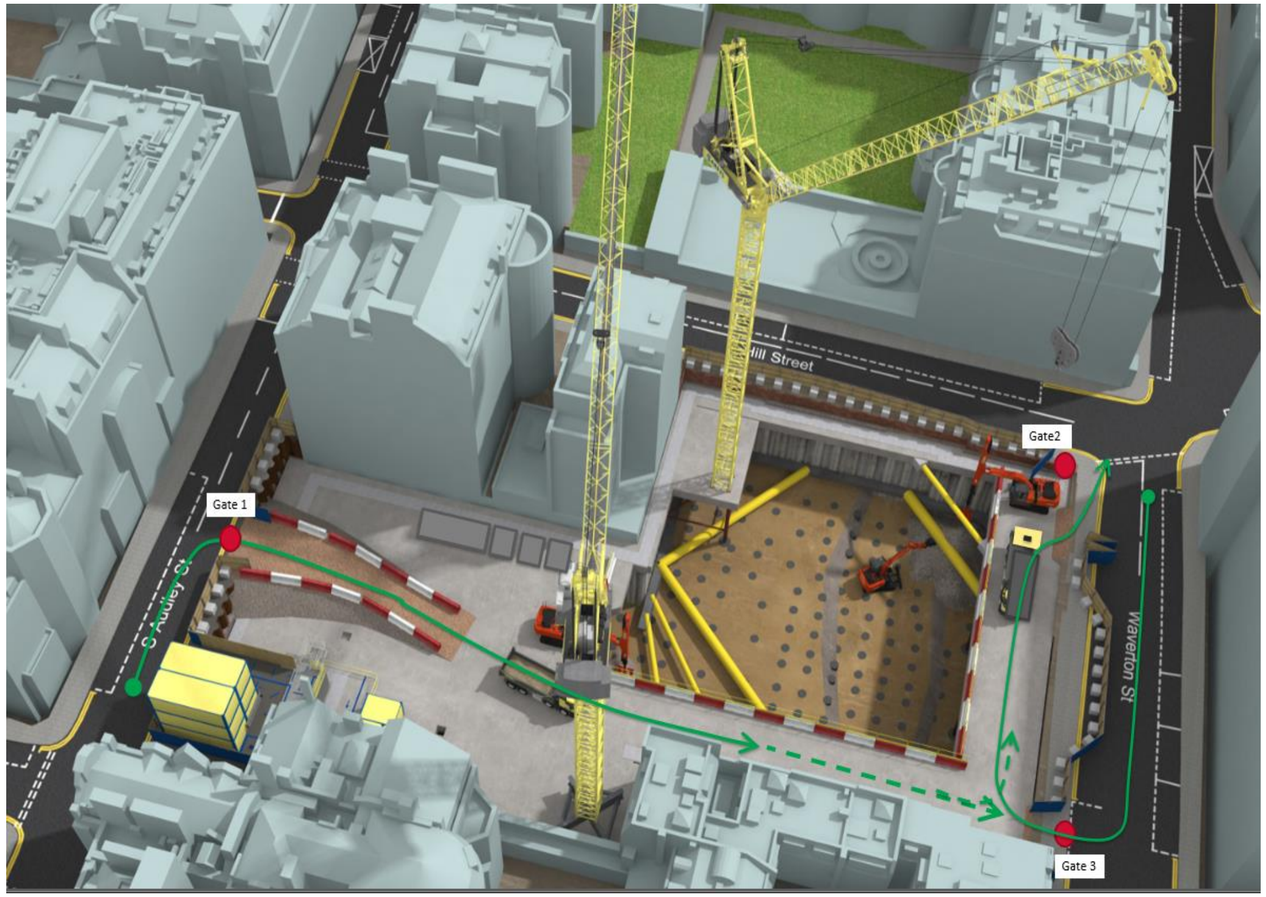
This allows us to keep more construction vehicles on site and off the surrounding roads

A full top-down would require large, noisy ventilation units running full time

The open-faced top-down zone reduces this disturbance by providing natural ventilation to the work area.

The top-down zone conceals the breaking of most of the existing basement slab and suppresses overall noise impact.

The hybrid solution provides the quickest overall programme to minimise the period of inconvenience



4. Hybrid Basement Construction - Benefits

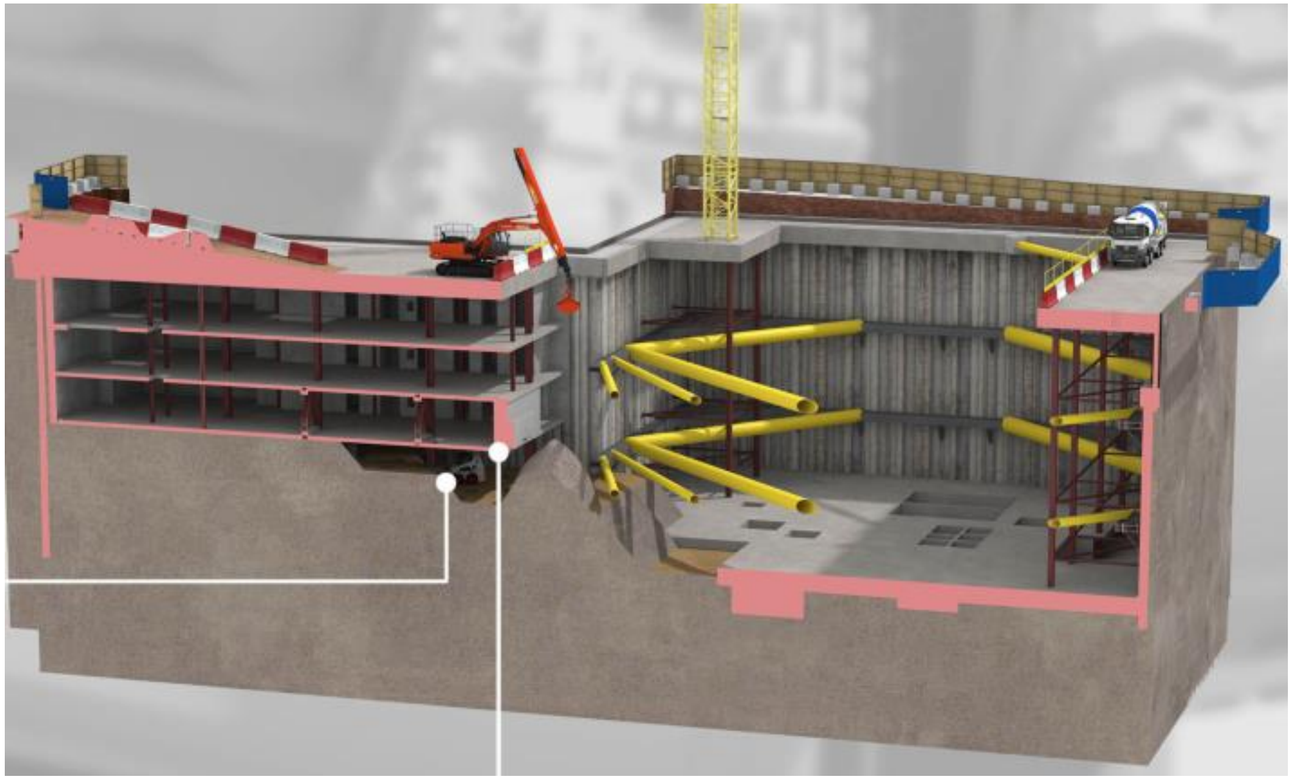
Movement Control

Hybrid system balances the lateral and vertical (heave) movements to provide the most efficient solution

The Top-down zone incorporates stiff garden slab and progressive slab construction to prop the properties most sensitive to lateral movement

The Open-cut zone provides the shortest excavation period before raft slab construction, reducing long term heave and providing lateral restraint with 3 level propping scheme

Logistics slab around the open-cut also benefits the propping scheme by providing stiff propping against lateral movement at GF



4. Environmental Control Strategy

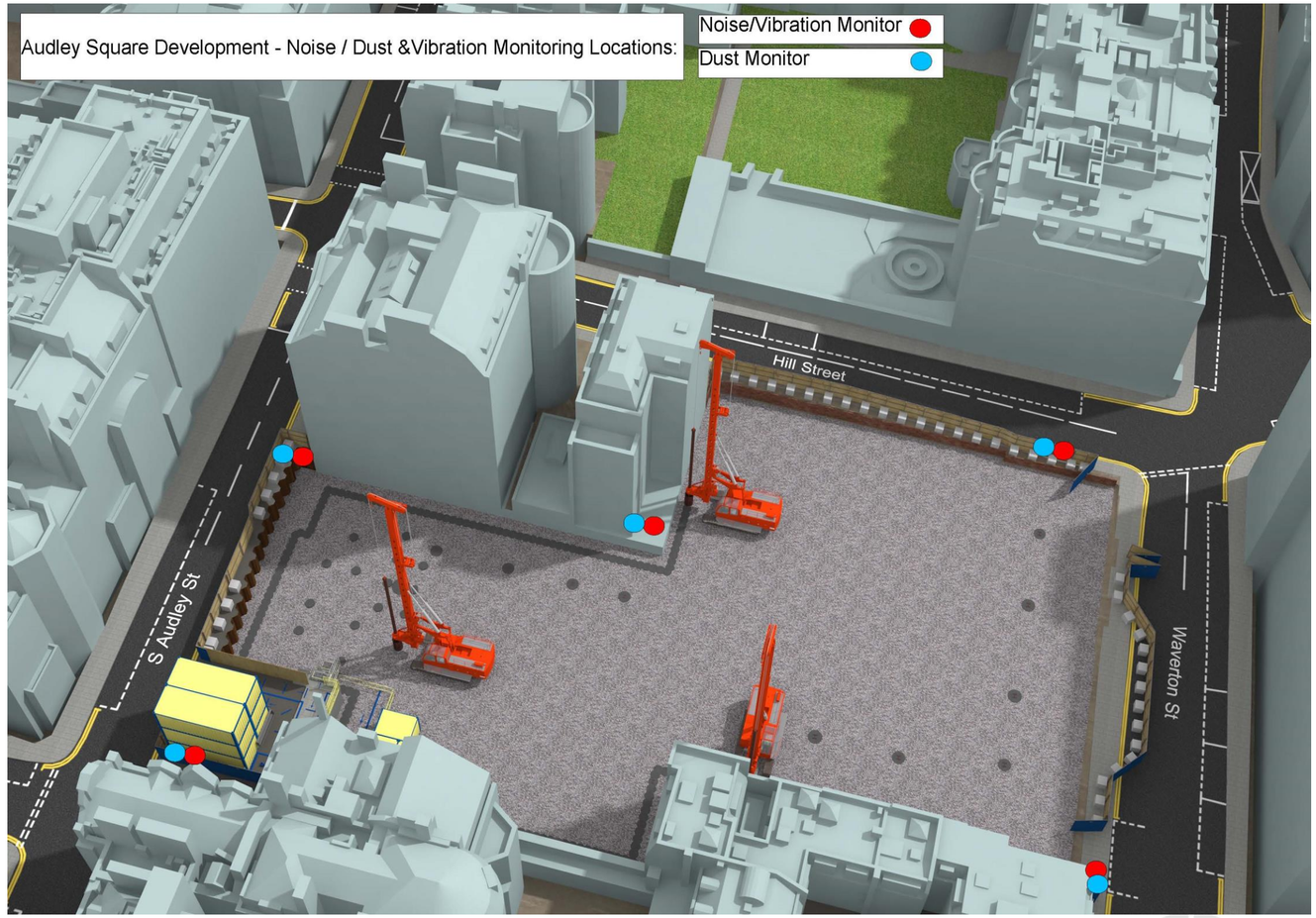
Noise, Dust and Vibration

Plant Selection – We will endeavour to use electrically powered fixed items of construction plant rather than diesel- or petrol-driven plant as a way of minimising noise. Vehicle and mechanical plant used for the purpose of the works will be maintained in good and efficient working order and operated in such a manner as to minimise noise emissions.

Noise acoustic barriers will be utilised throughout the site to minimise noise outputs.

CadnaA Noise Prediction Software will be utilised to understand noise outputs and allow development of alternative/mitigation measures

Realtime Noise, Dust and Vibration monitoring equipment will be installed as indicated to help manage and control the works.



5. Neighbourhood Liaison

To enhance our communications with our neighbours, we have appointed a dedicated Neighbour Liaison Manager, Alahna Dunbar, to be a first point of contact for any construction-related queries. Alahna will be regularly based on site once permitted by government guidelines concerning COVID-19 and will be dedicated to addressing any questions and concerns from our neighbours.

Alahna can be reached Monday to Friday from 8:30am to 5:30pm on 07738 621992, or by email at audleysquareneighbourliaison@careysplc.co.uk.

Once we have taken full possession of the site, we will establish 24/7 security with an out-of-hours and emergency phone number, which will be shared with all stakeholders.

For general enquiries about the development please contact Kanda Consulting at AudleySquareHouse@kandaconsulting.co.uk

Development Website

We will manage the construction website for the Audley Square Development: www.audleysquareredevelopmentmayfair.com

Important site and contact information, newsletters, annual public exhibition materials and other project updates will be uploaded to the site.

Newsletters

We will also produce a quarterly newsletter to keep all project neighbours and stakeholders informed of current and impending activities. All newsletters will be uploaded to the project construction website. To opt-in to receive a posted copy of these newsletters, please email our Neighbour Liaison Officer.

5. Neighbourhood Liaison

Public Exhibitions

Each year, prior to the commencement of annual works, we shall undertake a Public Exhibition in order to familiarise and engage all neighbours and stakeholders with the project's activities for the upcoming year of works.

We intend to hold these exhibitions over two days at a local venue. However, should government guidelines around COVID-19 social distancing continue, these exhibitions and all public meetings will be held virtually.

Details of all in-person or virtual meetings will be communicated in advance via our newsletters posted on the project website and posted to those who opt-in to hardcopy newsletters.

Neighbour Liaison Meetings

Each month following the yearly Public Exhibitions, we will host monthly Neighbour Liaison Meetings in order to maintain regular engagement with neighbours and other project stakeholders.

The first Neighbourly Liaison Meeting will be held at 6:30pm 11th August 2020. These monthly meetings will go forward virtually until further notice. In order to attend the meeting and receive call-in details, please RSVP by emailing Alahna Dunbar at audleysquareneighbourliaison@careysplc.co.uk

6. Site Operational Information

Standard Site Working Hours:

Monday to Friday:	08:00hrs – 18:00hrs
Saturdays:	08:00hrs – 13:00hrs – (There will quieter works taking place on Saturday)
Sundays:	No works

In exceptional circumstances it may be necessary to work outside these hours (for example, tower crane erection and piling rig delivery). In such instances we will ensure that Westminster City Council are informed and that you are informed.

Any queries or concerns to be directed to our Neighbour Liaison Manager, Alahna Dunbar:

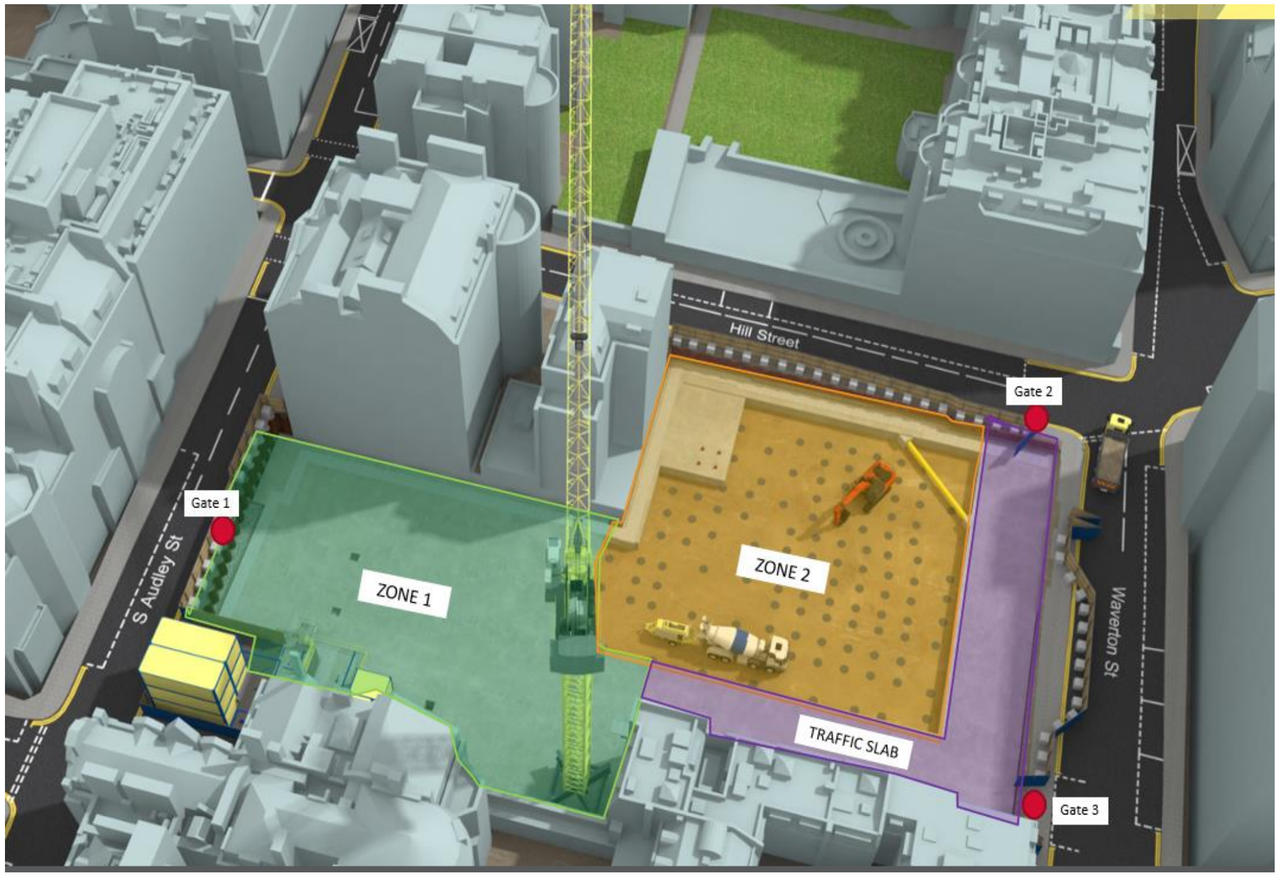
Alahna can be reached Monday to Friday from 8:30am to 5:30pm on 07738 621992, or by email at audleysquareneighbourliaison@careysplc.co.uk

7. Logistics and Traffic Management

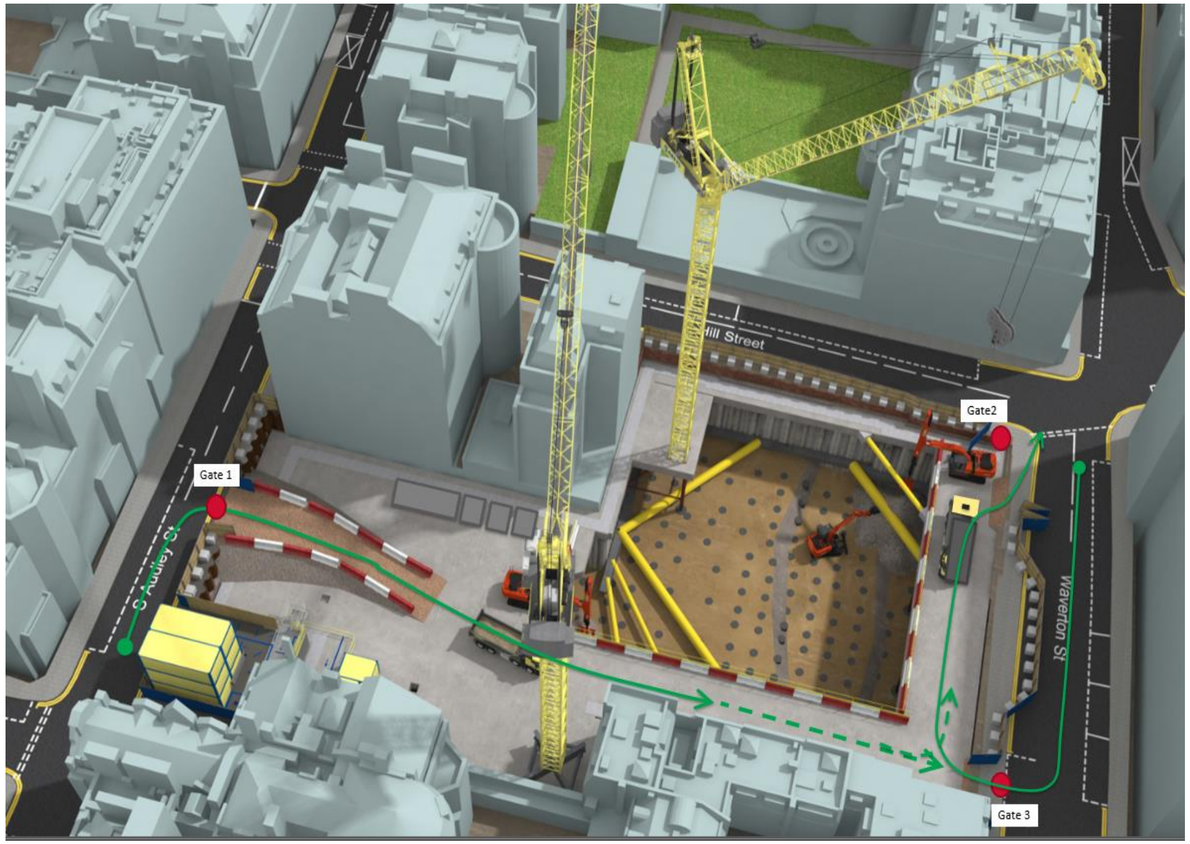
The main criteria we set out to satisfy when considering site logistics was to keep more construction vehicles on site and off the surrounding roads and highways.

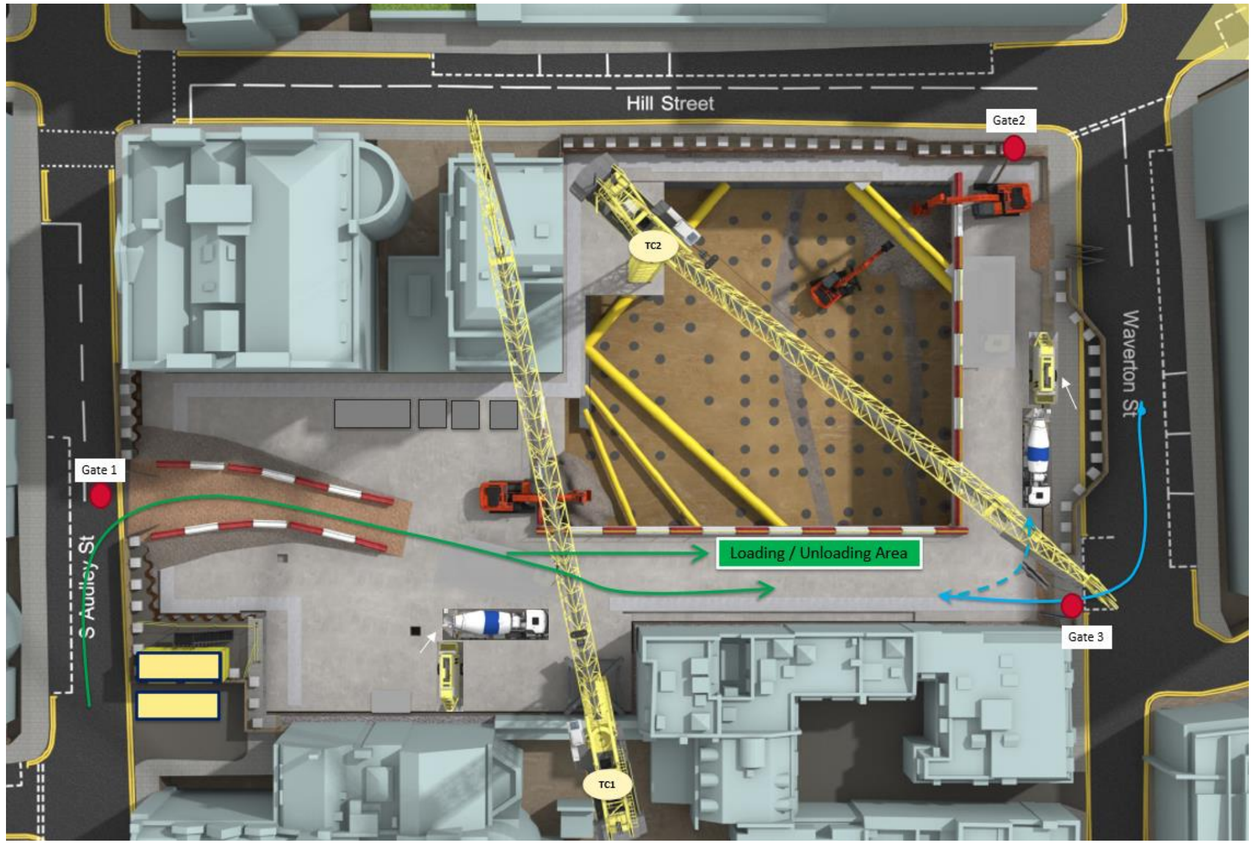
Our hybrid scheme allows us to cast the Zone 1 Garden slab and Zone 2 traffic route as early as possible to provide on site capacity to hold wagons for loading/off-loading.

The next slides show on-site and off-site routes.

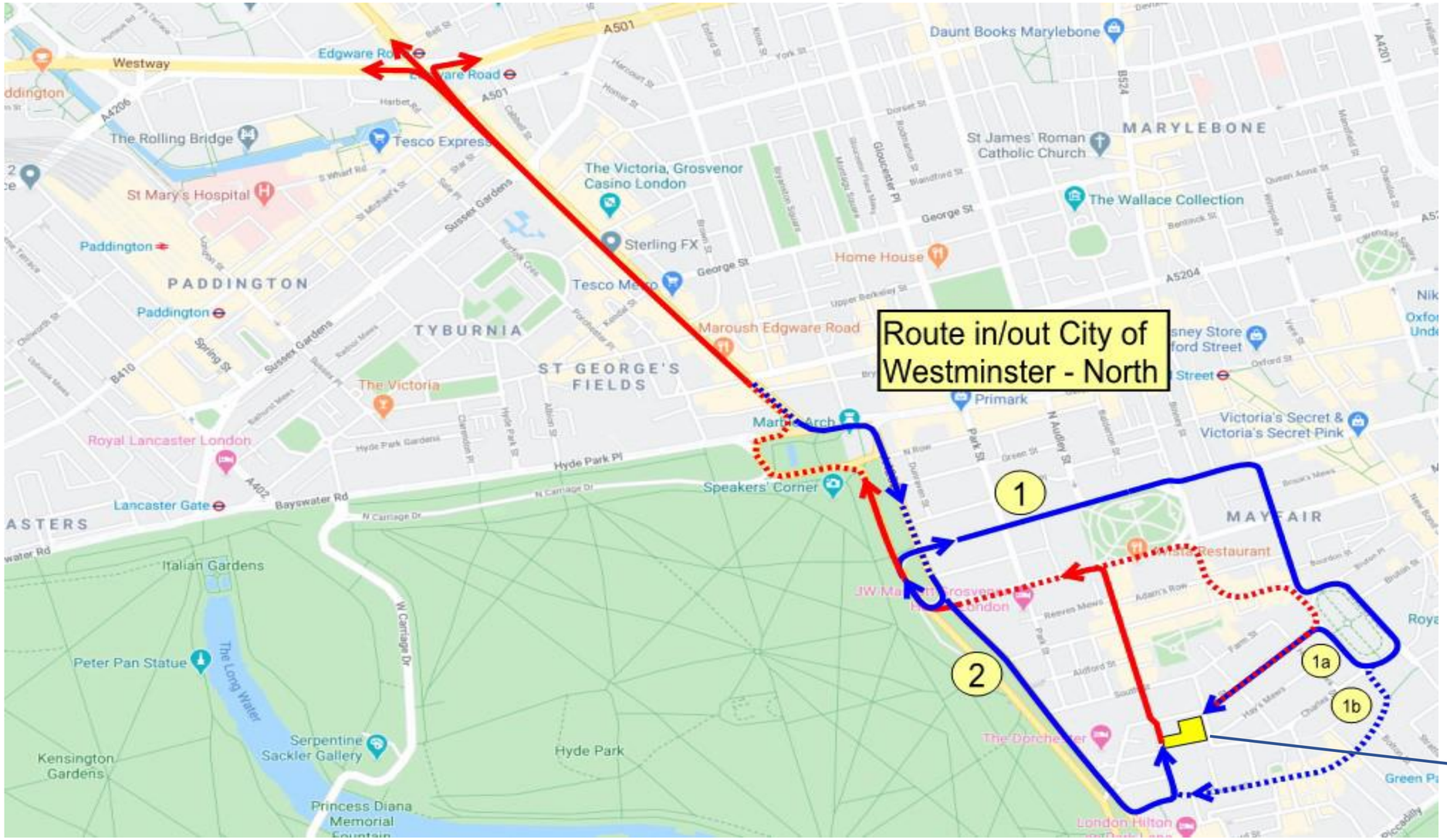


7. Traffic Routes – Vehicle Access and Egress

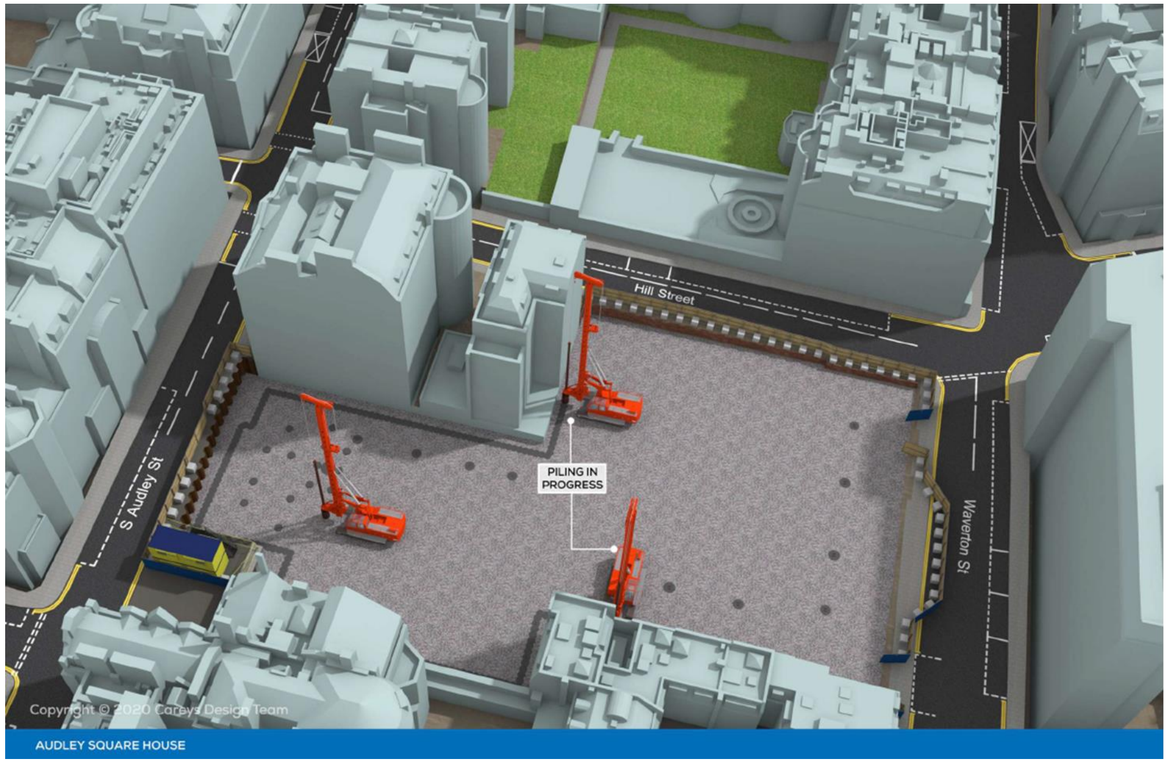




7. Traffic Route – In/Out City of Westminster

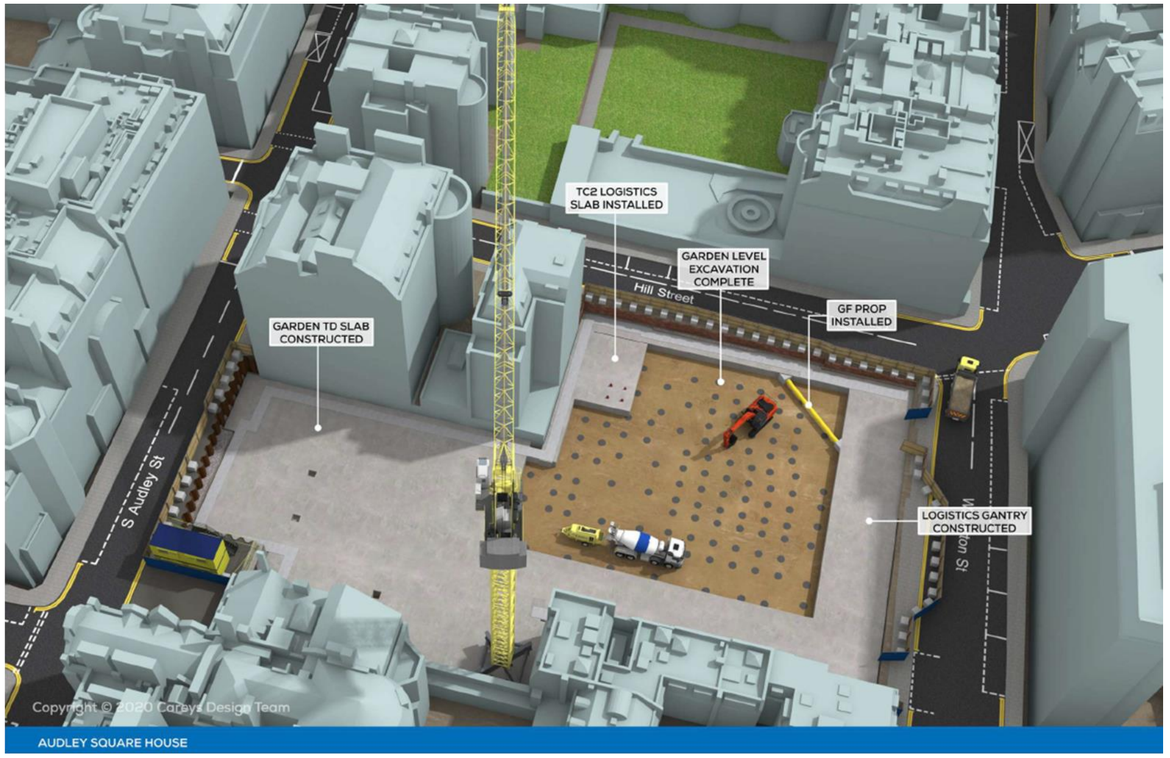


8. Structure Timeline



Q3 2020 – Q1 2021

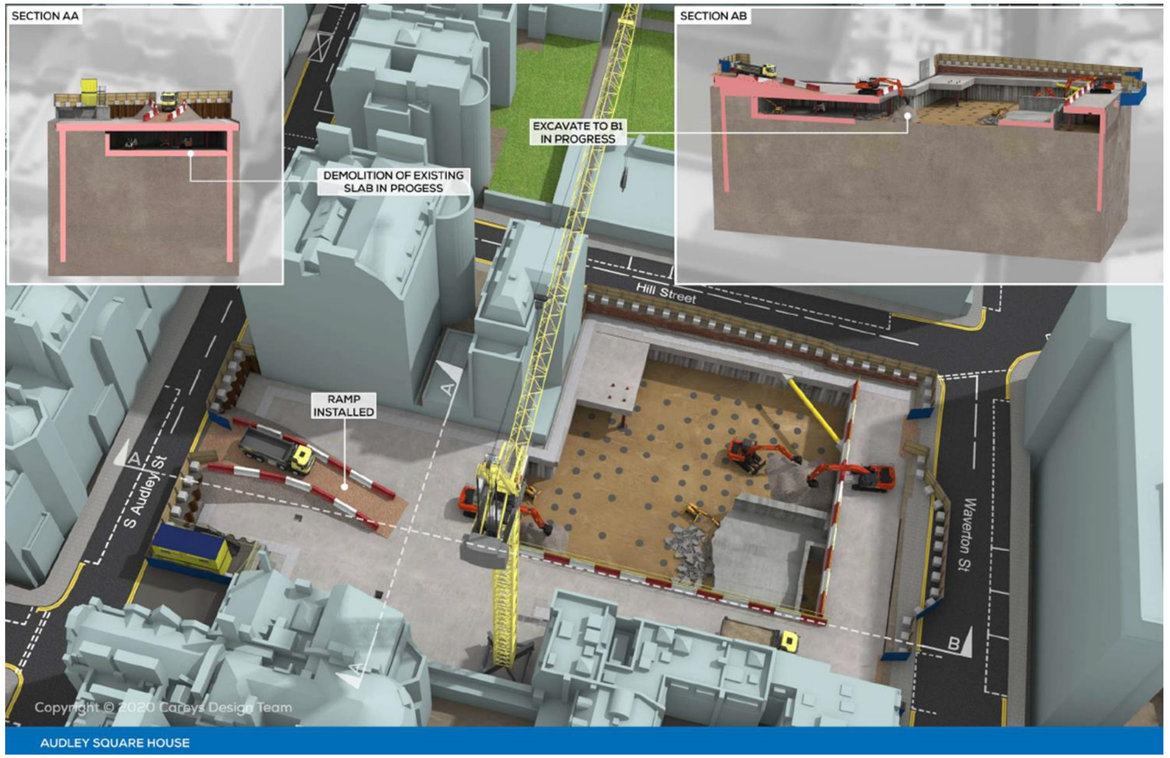
- Commence works on site
- Pile installation
- Ground Source Heat Pump works



Q1 2021 – Q2 2021

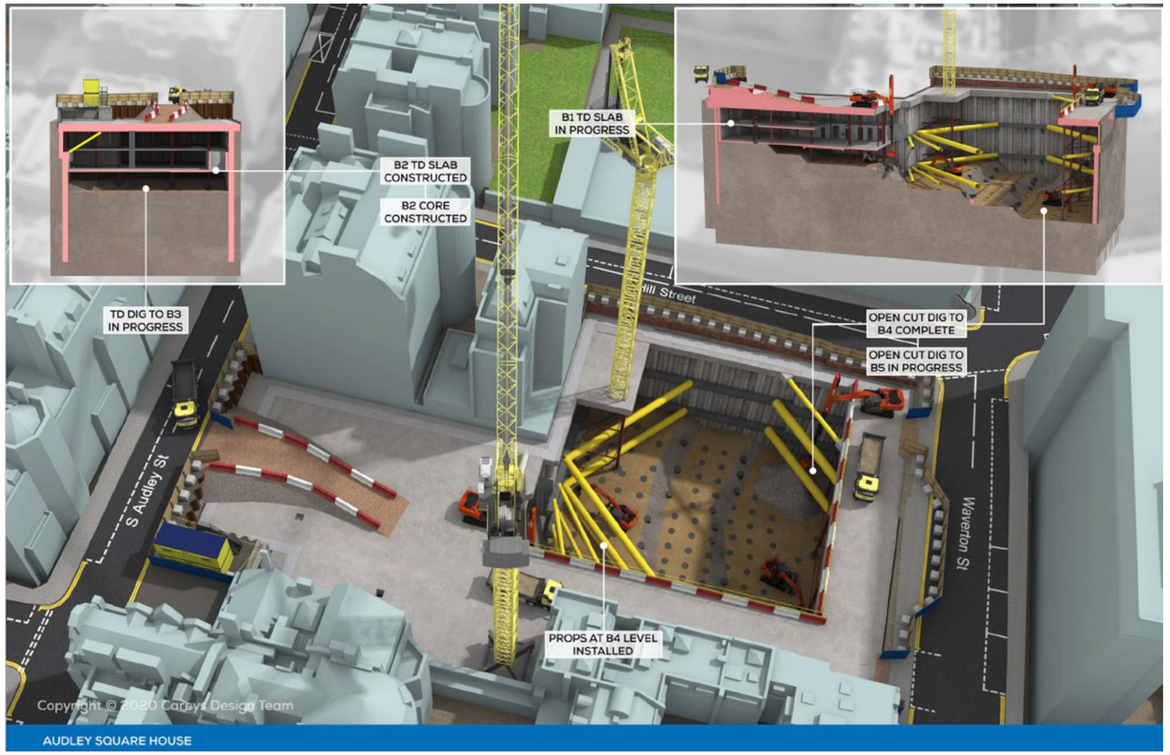
- Commence excavation works
- Form logistics slabs
- Form Garden Slab to Zone 1

8. Structure Timeline



Q2 2021 – Q3 2021

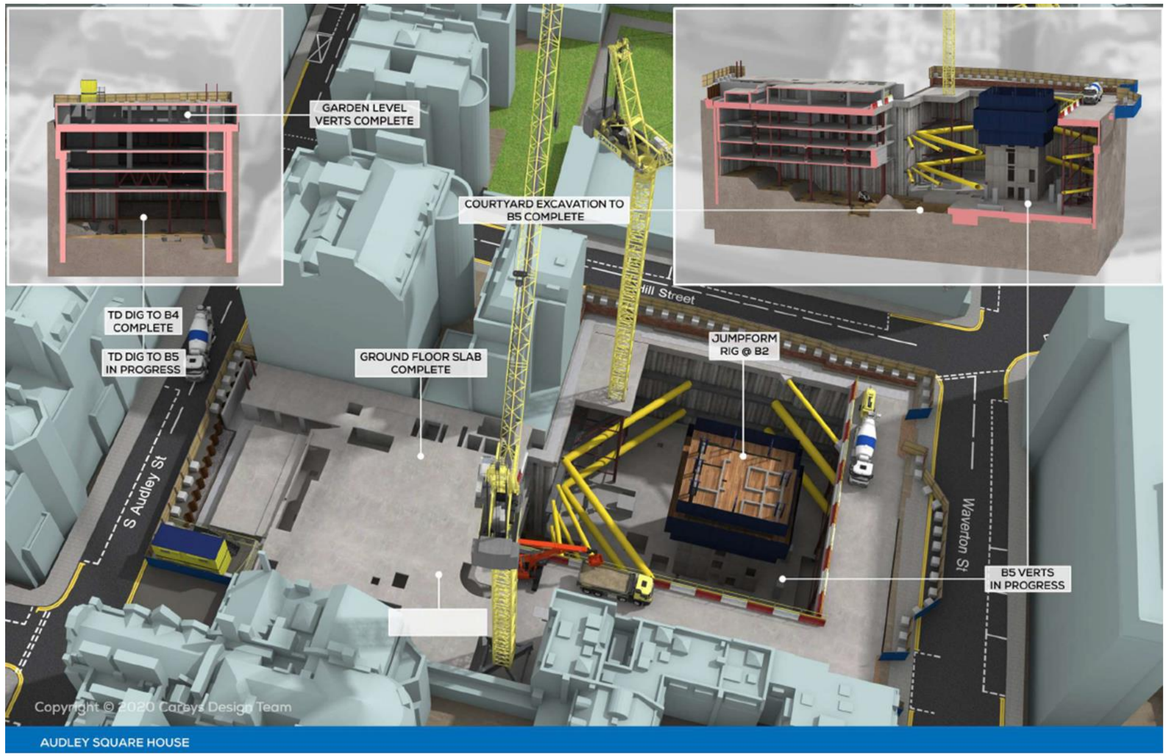
- Excavation ongoing to Zone 1 and Zone 2
- Removal of existing basement slab



Q3 2021 – Q4 2021

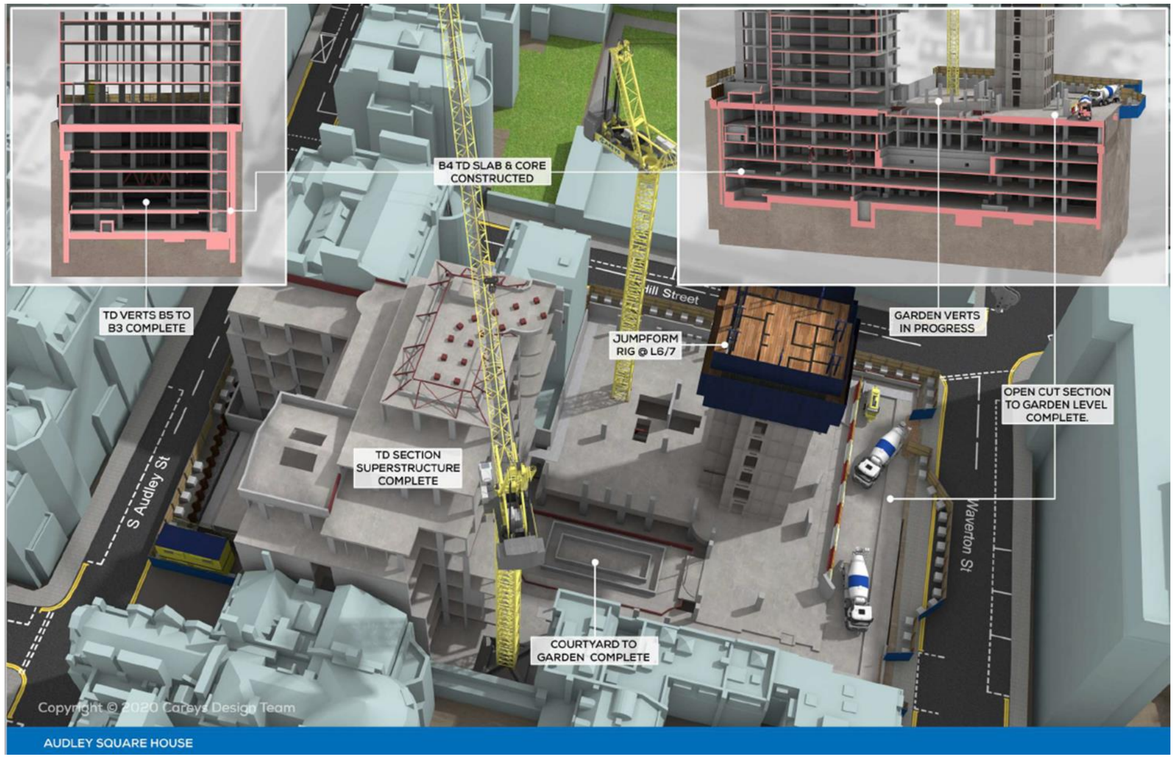
- Excavation ongoing to Zone 1 and Zone 2
- Construction of intermediate slabs to Zone 1

8. Structure Timeline



Q4 2021 – Q2 2022

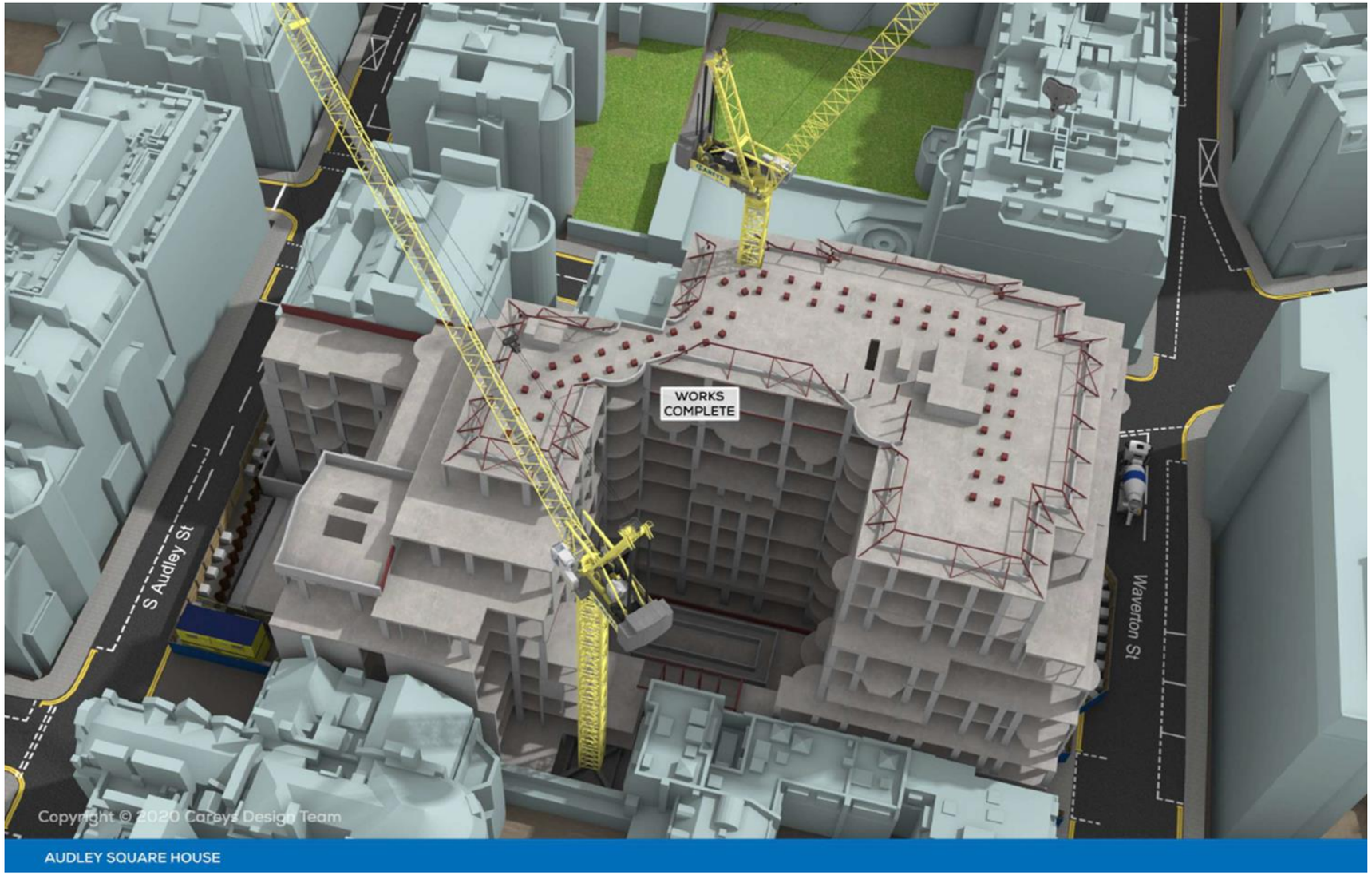
- B5 slab in Zone 2 complete
- Jumpform core construction commenced
- Ongoing excavation works to B5 in Zone 1
- Superstructure works commenced



Q2 2022 – Q1 2023

- Zone 1 works complete
- Jumpform progressing to completion in Zone 2
- Superstructure works ongoing to Zone 2

8. Structure Timeline



Q1 2023

Works complete

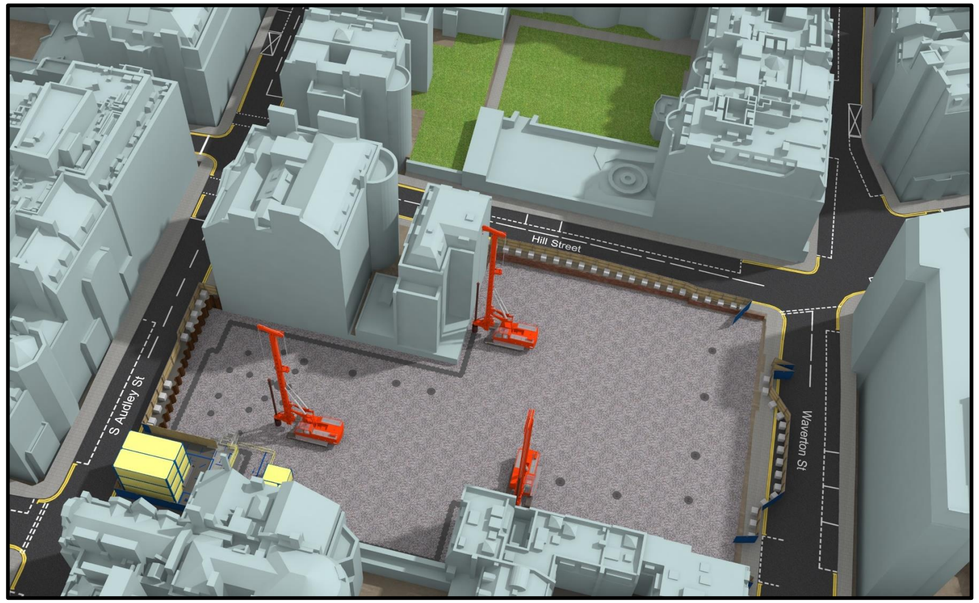
9. Piling Works

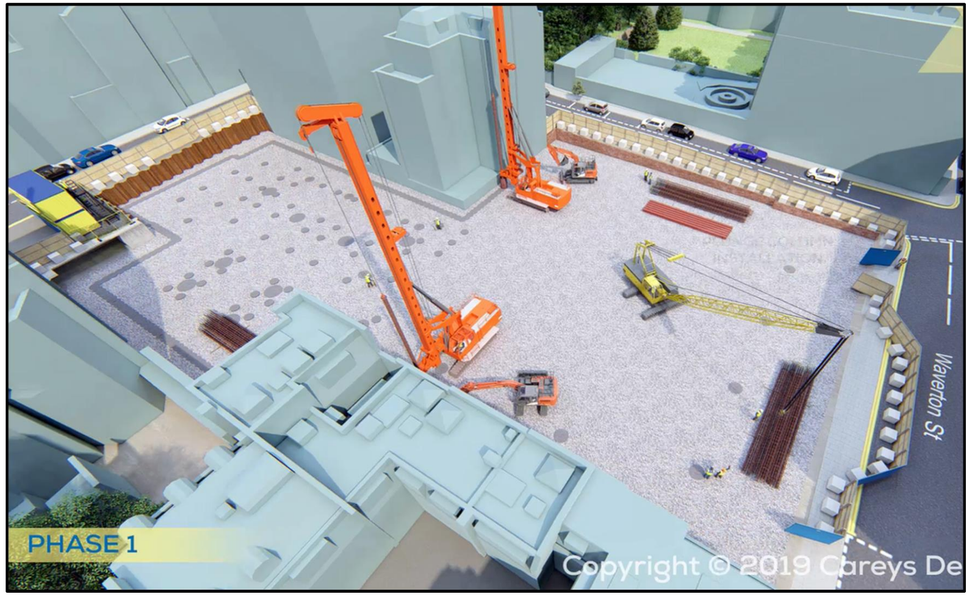
Piling Phase Duration: 27th July 2020 to March 2021 (8 months)

- Careys recognise that Piling operations by their nature can create noise and vibration, however the impact on those living and working in the vicinity must be minimised as far as is reasonably practicable.

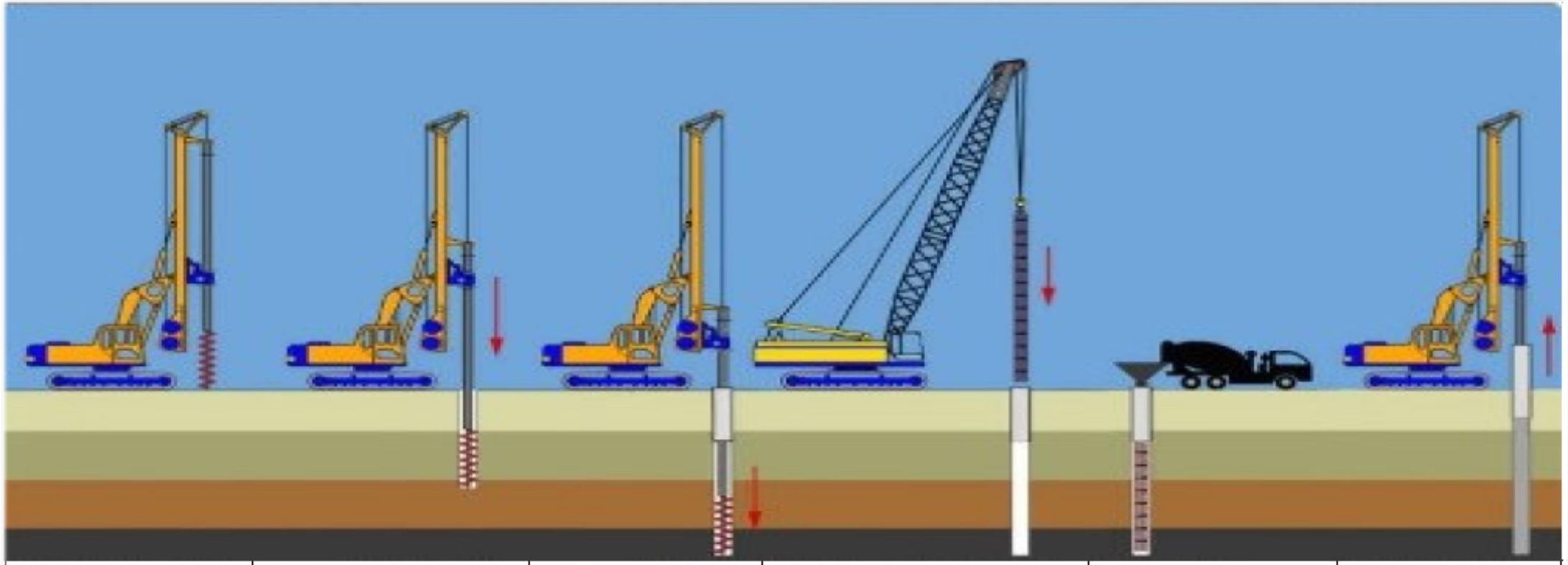
- Careys will implement and demonstrate that we have introduced numerous BPM control measures in order to reduce the impact of noise during the Piling phase.

- The following slide shows the typical installation of a Pile over the working day.





Piling Construction Methodology
Rotary Bored Piling Technique



Set up at pile position	Drill with rotatory tools. The upper section of the pile is stabilized by the casing.	* Progress pile to toe and clean the base.	Install reinforcement cage to required level within bore using the service crane.	* Pour concrete through the tremie into the bore. Check and record concrete level	Extract casing with rotary drive during concreting top-up as required.

- The above image illustrates the typical installation of a Pile from start to finish.
- The activity itself will start and stop throughout the day as each sequence is complete.
- The full working day will be required to complete the pile installation with a typical duration of 8 hours per pile.

Piling Works – Best Practical Control Measures (To Reduce Noise & Vibration)

- Ultra Modern & Efficient Equipment : Increasing productivity and reducing overall working durations.
- Well maintained and serviced plant and equipment to reduce operational noise.
- Piling Rigs manufactured for low noise emission.
- Use of dampened Kelly Bar. This system reduces high-frequency sound emissions.
- Use of slow speed spoil discharge method which reduces noise outputs.
- Local acoustic screens around smaller plant.
- Machines will be turned off when not in use and there will be designated access routes to minimise vehicle noise.
- Noise Prediction Software utilised to understand noise outputs and allow development of mitigation measures.
- Highly skilled and trained rig operators will be used.
- The Rotatory method of Piling chosen causes the least noise & vibration compared to any other method available.
- Real Time Noise & Vibration monitoring will be carried out during construction phase.

10. Frequently Asked Questions

Q. What is being developed at Audley Square House?

R. In 2016 Caudwell Properties received planning permission from Westminster City Council to redevelop the former Audley Square car park, Ascott hotel and 4 Red Lion yard to introduce a world-class new residential scheme in Mayfair. The redevelopment will create a legacy building that is both respectful of its surroundings and makes its own positive statement, reinforcing the historic character of this important area.

Q. What has been happening at the site over the past year?

R. Demolition of the previous buildings completed with the initial phase of work undertaken by Cantillon. Over the past year, Caudwell have been appointing a contractor to undertake the next phase of the redevelopment. Careys have now been appointed to undertake the piling, excavation, install ground source heat pumps, make the new basement watertight and build the new superstructure of the building at above ground.

Q. What else have Careys done?

R. We have accumulated vast experience in delivering some of the country's most complex and challenging basements and structures, delivering bespoke solutions for our clients and overcoming numerous challenges. Some of our flagship projects include; Battersea Power Station, Principal Place Tower London, 22 Bishopsgate London. Within the area of Mayfair, we are currently constructing a luxury hotel at 30 Grosvenor Square, the former US Embassy.

10. Frequently Asked Questions

Q. What are ground source heat pumps and why do you need them?

R. Ground source heat pumps absorb the energy from the sun warming the ground. They comprise a series of pipes buried underground which extract this solar energy. This energy is then converted into heat for use in the home. They are a more efficient way and environmentally-friendly way of heating homes.

Q. Will the piling be noisy and how long will it go on for?

R. We recognise that any development can be disruptive. We are doing everything we can to minimise disruption for our neighbours, this includes adopting a methodology whereby we will be screwing the piles into the ground (as opposed to hammering them). The Rotatory Method of Piling chosen causes the least noise & vibration compared to any other method available. We will be commencing piling in July 2020 and expect to have completed the piling of the site by February 2021.

Q. Why are you seeking to dig out the basement and build the structure above ground at the same time?

R. This is the quickest and least disruptive way to undertake the redevelopment. After undertaking the piling, we will build a concrete slab over much of the site and start digging out the basement beneath this whilst also building the structure above ground. It also means we can accommodate more trucks onto the site itself whilst works are underway.

10. Frequently Asked Questions

Q. What are you doing to monitor noise and vibrations? How did you choose the locations for the noise and vibration sensors?

R. The locations were chosen following a technical analysis of neighbouring properties and consultation with Westminster City Council. The locations chosen cover all the sensitive receptors capturing an accurate noise and vibration output for the site.

Q. If I have concerns, who should I contact?

R. Please contact Alahna Dunbar, Careys Neighbour Liaison Manager. Alahna can be reached Monday to Friday from 8:30am to 5:30pm on 07738 621992, or by email at audleysquareneighbourliaison@careysplc.co.uk. We will also be setting up an out of hours number once we commence works on site.

Q. Will you be hosting a Community Liaison Group?

R. We are hosting a virtual public exhibition and webinar on 7th and 8th July 2020 to introduce the Careys team and present the methodology for the redevelopment. We will then be looking to host a monthly Neighbour Liaison Meeting as well as providing quarterly newsletters, updating on progress, to our neighbours. Our first scheduled monthly meeting is on 11 th August 2020. For further details and to RSVP for a webinar or monthly meeting, please email Alahna.

Q. When is the development due to conclude?

R. Carey's phase of work is expected to complete in Q1 2023. After this a contractor will be introducing the façade and roof and internal works will commence. This is with a view to the Audley Square House opening in 2025.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THANK YOU FOR YOUR TIME AND WE LOOK FORWARD TO WORKING WITH YOU