



22 LANCASTER GROVE



CONSTRUCTION MANAGEMENT PLAN





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1.00 INTRODUCTION



The following “*Construction Management Plan*” deals with the conditions that need to be satisfied by management of the construction process during the Demolition and Construction stages of the proposed redevelopment of property at 22 Lancaster Grove :-

Planning Condition

It is understood that no development would take place, including any works of demolition, until a Construction Method Statement has been submitted to, and approved in writing by, the local planning authority. The approved statement shall be adhered to throughout the construction period. Typically the planning conditions would cover the following issues:

- (i) Traffic Management Plan*
- (ii) Site Accommodation, Storage of Plant & Materials throughout construction.*
- (iii) Construction Sequence- Inc. Demolition Basement & Structure*
- (iv) Tree Protection Measures and work adjacent to Protected Trees*

This document seeks to satisfy these issues and provides all the required information for these conditions to be discharged to enable the works to commence.

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2.00 TRAFFIC MANAGEMENT PLAN



The proposed development is the demolition of number 22 Lancaster Grove and replacement with a single Property divided into 4 town houses, two storey in height with basements. The property currently benefits from a front drive & turning circle for vehicles and two double entrance gates served off Lancaster Grove which are to be temporarily widened for construction traffic turning and reinstated after completion.



Lancaster Grove is a tree lined avenue with residents parking bays on both sides of the road and a 20 mph speed limit.

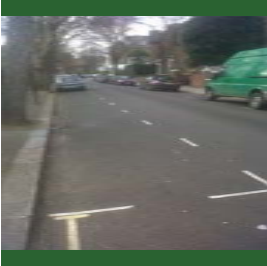


Outside the property between the two entrance gates is a motor cycle parking bay which will be moved further along the avenue to a location to be agreed with Camden Council's traffic department and the bay will be suspended during the construction period.



Construction traffic vehicles will be instructed to make the approach for deliveries in a Easterly direction along Lancaster Gove and enter the site through the first gate (Gate 1).

The entrance gates will be used for entrance to the site (Gate 1) and exit form the site (Gate 2) with all possible construction lorry and plant movements undertaken from within the site so that vehicles exit from the site forward facing turning left back into the flow of traffic in Lancaster Grove.



There is a disused fire station at the Eastern end of Lancaster Grove which will not, therefore Impact on traffic movements during the construction works.



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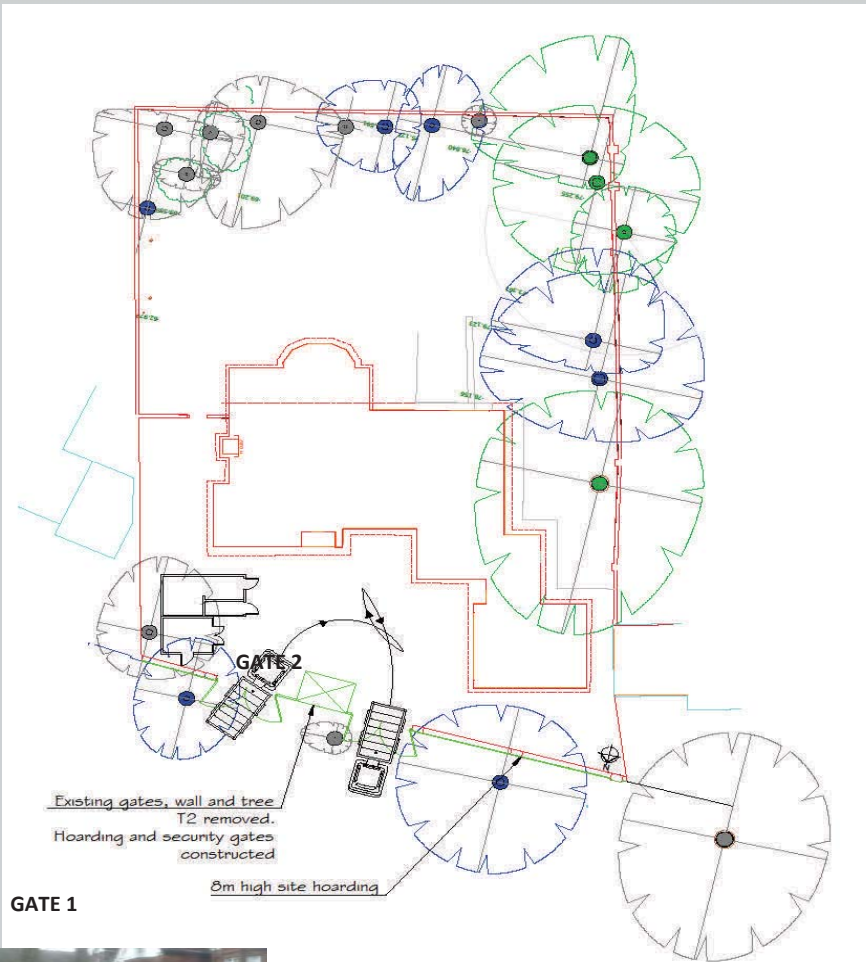
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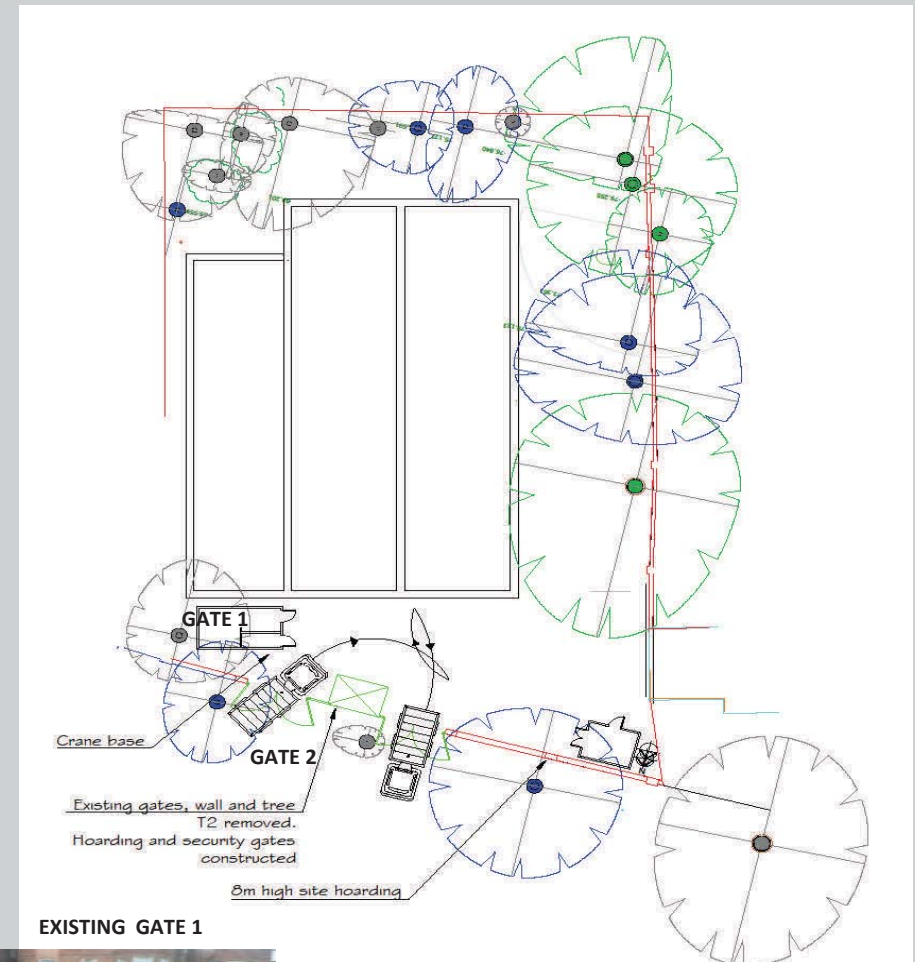
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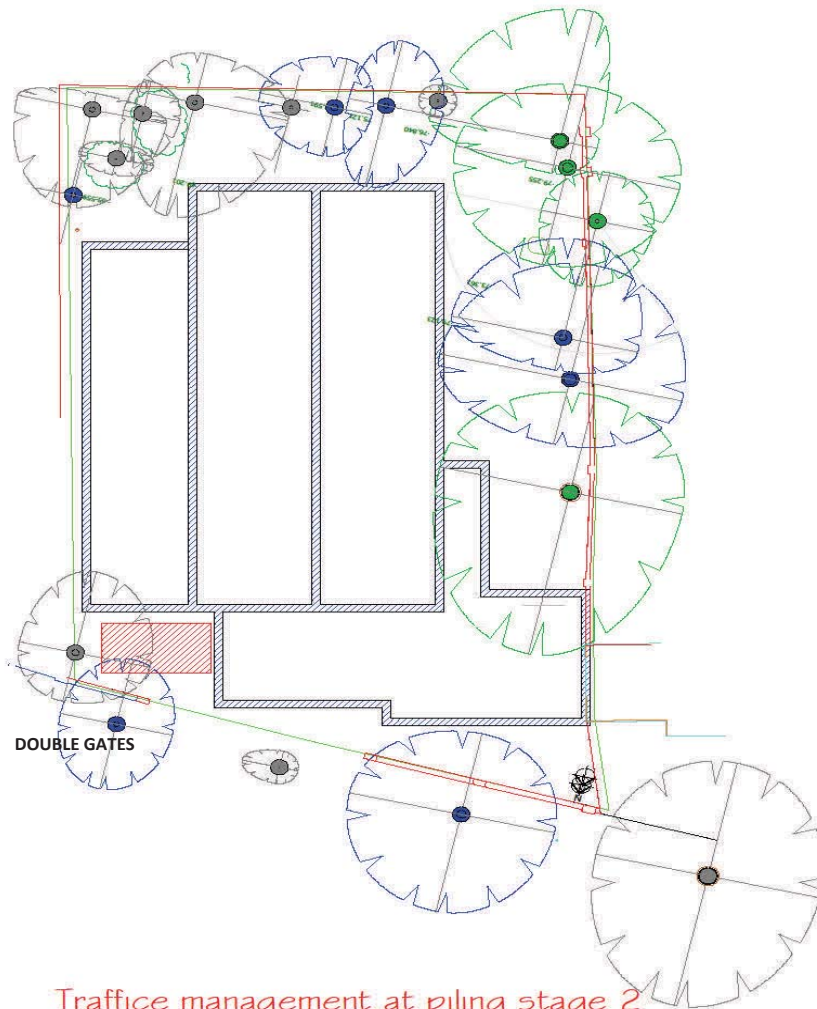
Site set-up Phase 1 piling & basements



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2.00 TRAFFIC MANAGEMENT PLAN

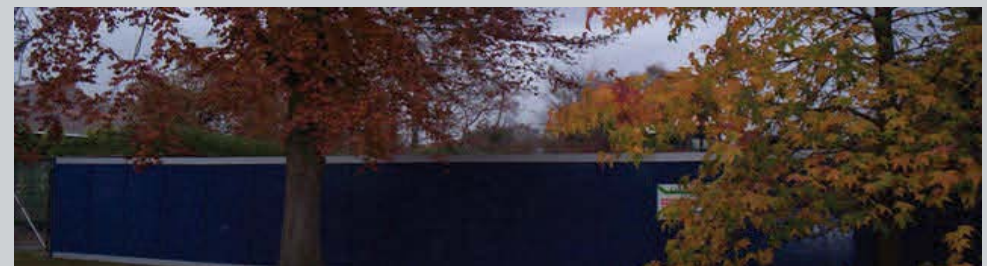


Traffic management at piling stage 2



Entrance Gates

The entrance gates will be removed, widened and incorporated into a 1.8m high protective hoarding during construction . New in and out gates will be provided upon completion





3.00 SITE ACCOMMODATION & STORAGE

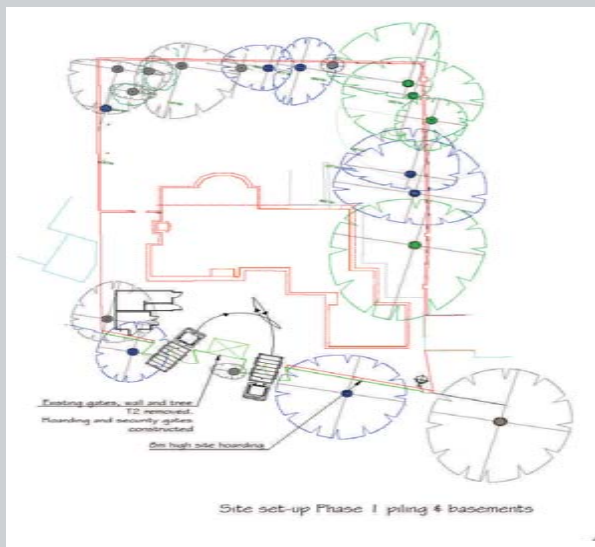
Due to the constraints of the site the site accommodation and welfare will need to be moved during construction

PHASE 1—SITE SET-UP

The site set-up will comprise office and welfare stacked within the boundary at the left hand side of the site on the land which is not being piled or excavated for the duration of Phase 1 (piling, excavation, basement formation and concreting the ground floor slab).

At this stage the toilets will be located on the right hand side of the site connecting into the existing drainage system and using the water and power from the existing supplies currently at the rear of the existing garages.

Storage of materials at this stage will be within the confines of the site boundary, at basement and ground level, utilising the rear garden area for steel fabrication and pumping concrete directly into place with concrete pumps.



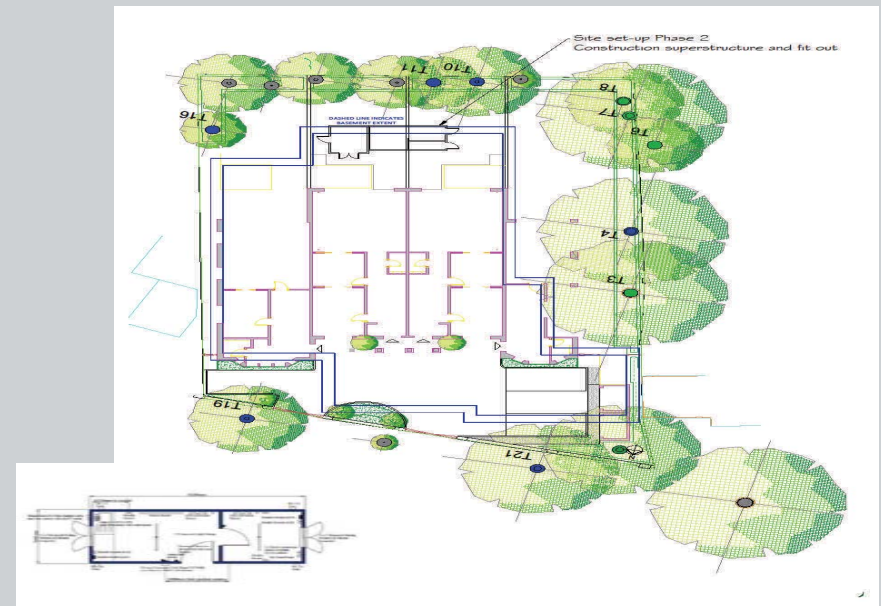
PHASE 2—SITE SET UP



The phase 2 site set-up will be established on the reinforced concrete slabs at the rear of the houses, constructed of flat pack modular elements on a preformed base lifted into position over the building by the crane. When the project is completed they will be dismantled and carried down the side of the new properties and removed from site.

There will be a lock-up store within the site set-up and materials will be loaded into the building from the front hoists and gantry to avoid double handling.

The crane will service the envelope and roof constructions utilising the scaffold gantries' for loading out and during this phase so that the front courtyard is kept free for deliveries and skip movements.





4.00 CONSTRUCTION MANAGEMENT & PHASING



Construction Methodology and Phasing

The phasing programming and timing of the works.

The works will commence following the approval of planning and detailed design.

PRE-CONSTRUCTION PHASE

Tree protection measures

The trees are to be fenced off before commence in accordance with the tree protection plan .

Disconnect live services and Removal of Asbestos

After services have been disconnected and the building surveyed for asbestos and any asbestos discovered being removed, demolition will commence .



CONSTRUCTION PHASE

PHASE 1 - DEMOLITION

Site Offices, welfare and compound

The Phase 1 site set up will be positioned for the demolition and piling phases utilising as much of the screened materials from the existing house to form the site compound and piling mats.

Demolition of existing dwelling

The project involves the demolition of the existing dwelling currently sited at the front of the property serviced through the existing pair of gates (which are to be removed and widened to give access to plant and equipment) from the road and utilising the turning area at the front of the property which will be used for turning of lorries and vehicles which will be front facing when they are driven out onto the road with the minimum of reversing . A banks man will assist with deliveries, lorry positions for demolition, piling, excavations, concrete pump and crane positions thus containing vehicle movements and material delivery for the construction process.



Soft Strip and removal of roof tiles

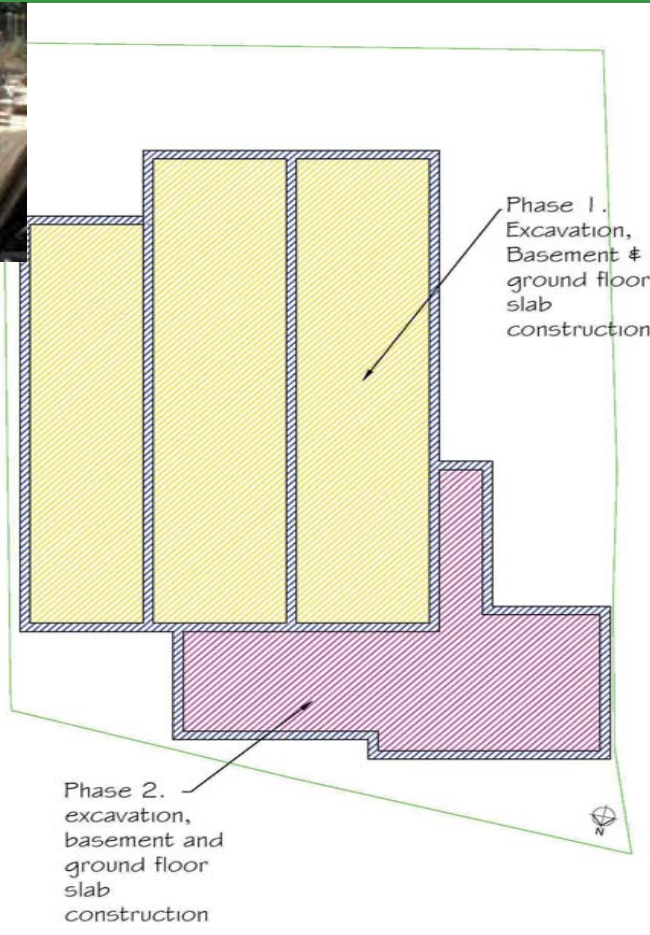
First the internal contents will be stripped and the roof tiles removed roof tiles and bricks will be stacked and loaded onto pallets for salvage/recycle.

Existing Foundations

The Existing foundations will be broken down and be grubbed up and together with the rubble walls and concrete structure used initially to back fill any voids and then to form a piling mat and any surplus will be removed to a screening depot off site for recycling.

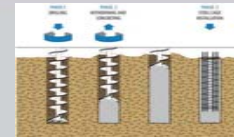
Drainage

The old drainage system will be isolated during the construction phases and incorporated into the new drainage design.



Excavated Materials

Basement excavation will utilise conveyors and compact excavation plant to excavate and bring spoil to the surface, Spoil is loaded via a hopper into waiting lorries to remove from site

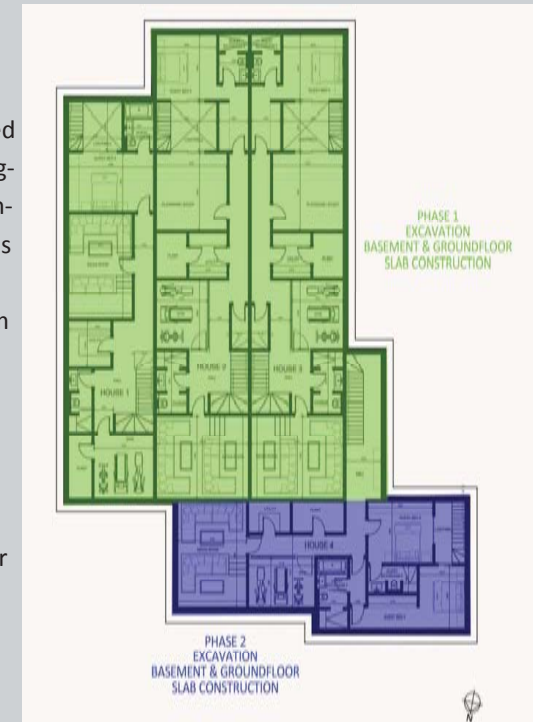


PHASE 2 – PILING

The basements under the houses will be formed with Piling Rigs to the outer edges to reduce significant temporary works and speed up the construction process forming the substructure. This will be formed using contiguous flight auger (CFA) piling rigs running on the piling mats from within the centre of each plot and facing internally away from the adjacent dwellings/ boundary walls .

Piling to House 4 which runs parallel to the trees TP 3 and TP 4 will be dug by hand with Air spades to avoid entanglement and damage to the tree ball.

The piling will commence from the rear follow towards the front House 4 basement.





4.00 CONSTRUCTION MANAGEMENT CONTINUED

PHASE 3 – BASEMENT EXCAVATIONS AND SUBSTRUCTURE

Reinforced concrete Pile caps will be formed around the perimeter of the building to contain to provide temporary support to the basement and provide a foundation for the formation of the frame and superstructure.

The excavation of the basements will commence with House 1, 2 and 3 using excavation plant and conveyors and House 1 basement will be used for a loading platform for the lorries .

Once the basements have been completed and the reinforced concrete ground floor slabs cast and cured to Houses 1, 2 and 3 then excavations and construction of the basement slab for House 4 will be completed.

Reinforcement will be delivered with Hiab assisted low loader Lorries using the delivery zones and concrete will be pumped to assist with the placement process.

Concrete pumps

To enable placement of concrete to the basements and rear of the site including internal columns, staircase walls and the ground floor slabs, concrete pumps will be used to place concrete directly into the works . The upper floors and columns will also make use of concrete pumps which will be brought in for the concrete pours and placed in the front courtyard.



PHASE 4 – CONCRETE FRAME, CONCRETE FLOORS AND ROOF

A luffing jib 20 tonne crane will be used to erect formwork and place concrete, positioned as shown on the left hand side of the entrance courtyard adjacent to House 1.

The 4 Houses will be erected as one structure from the ground to roof level Each house will staircases positioned and the floor and roof lifted into position directly.

Cranes will be set with restrictors to ensure they do not over sail adjacent properties on each side of the building plot or sail into the protected trees along the right hand border and booms will be raised at night and in windy conditions.

Reinforce Concrete Super-structure and staircases

Concrete will be delivered in the allocated unloading positions in the courtyard the frame will be constructed on a floor by floor basis across the 4 houses with a cranked steels and timber rafters to form the roofs

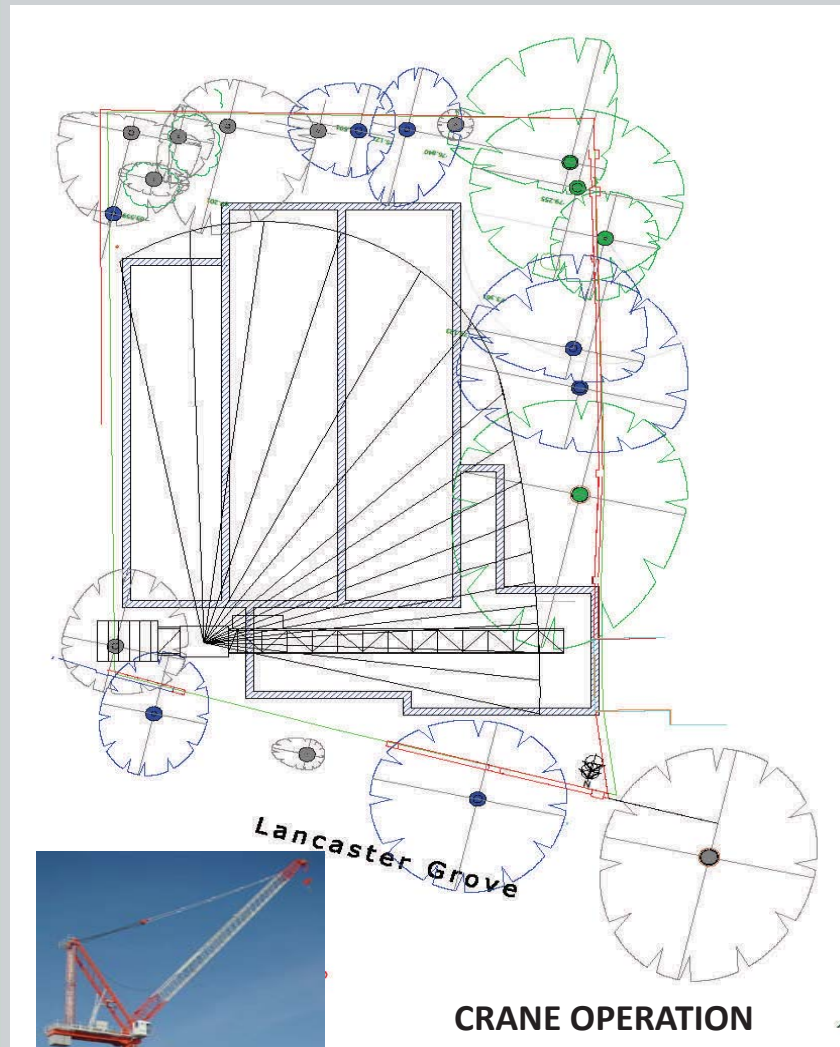
Staircases will be craned into position with the concrete superstructure to allow access internally as the structure is erected.

Lorries will positioned in the courtyard as shown allowing the reinforcement, formwork decking and staircases to be craned directly into position from the waiting trailers, careful planning will ensure the with the erection design concrete pours are co-ordinated programme.





4.00 CONSTRUCTION MANAGEMENT CONTINUED



CRANE OPERATION

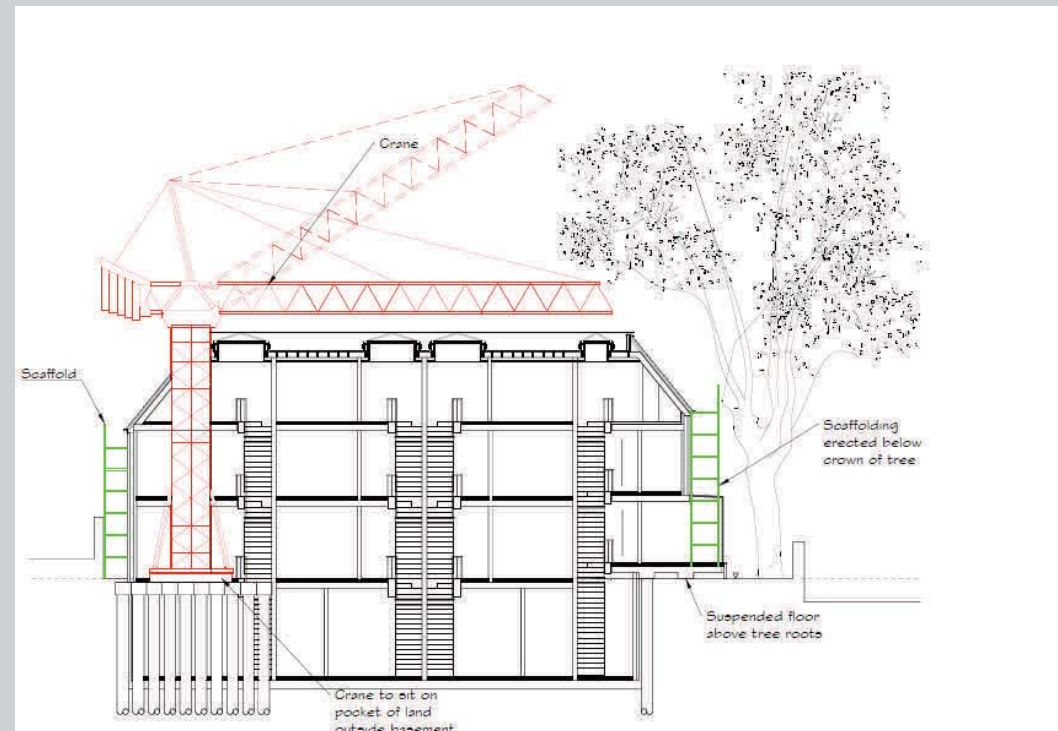
CRANE OPERATION

The crane will sit in the front western corner of the site to allow unloading directly from waiting lorries in the courtyard within the site.

A luffing Jib crane will be used so that the jib can be used to the maximum span .

Restrictors will be programmed to ensure the Crowns of the trees along the Western boundary are fully protected.

The cranes jib will be winched up in poor weather conditions are





4.00 CONSTRUCTION MANAGEMENT CONTINUED



Scaffolding Edge protection

Edge protection and brick guards will be fitted to the internal face the steel frame at this stage to avoid the need for significant scaffolding around.

Concrete Floors

The floors will be back propped and concrete pumped into mesh reinforcement within the metal deck floor plates which will enable the floors to be installed quickly and provide rapid access to all the levels.

Drainage

Temporary Elephant trunk drainage will be provided at this stage once the roof deck is fixed in position to provide roof shelter to the structure.



NEW SITE SET UP

The site set-up will be re-established on the reinforced concrete slabs at the rear of the houses , constructed of flat pack wall modular elements lifted into position over the roofs by the crane. When the project is completed they will be dismantled and carried down the side of the new properties and removed from site.



PHASE 5 – ENVELOPE & ROOF

The external brick and blockwork envelope, windows ,dormers , chimney's and other components will be constructed from the scaffolding with M & E plant & Equipment craned into position and fitted into the structure and on the plant roof deck.

Commencing from the ground floor following the completion of Phase 4 the crane will be used for lifting and positioning the wall components, bricks blocks etc. directly onto the scaffold gantries to fix around the superstructure .

External windows and doors will be pre-fabricated off site and come on flat-bed low loaders and craned into position from the front courtyard.





4.00 CONSTRUCTION MANAGEMENT CONTINUED



The target is to provide a watertight shell complete with windows and external walls to the both dwellings as the target programme dates below:-

Basement – 26 weeks

Superstructure—20 weeks

Envelope and roof —20 weeks but overlapping 10 weeks with the superstructure and fit out -

Internal fit out— 26 weeks

The balcony and completion of the external fenestration will be undertaken from the external scaffolding to complete the outside of the buildings.

PHASE 6 – FIT OUT

It is anticipated that the fit out phase will take approximately 26 weeks. Materials will be off-loaded by Hiab directly from lorries and vans and incorporated into the New Houses.

Cranes Removed

At this stage the crane will be removed from site.

Scaffolding

External Scaffolding with two hoist towers at the front and gantries front and rear with floor run offs will be provided for the roof finish and loading out material inside each floor of both of the buildings together with a chute for rubbish removal which will deposit waste material into covered bins for wheeling across to the site skip.

Drive and paths

The drive will be reinstated in accordance with the approved designs, new paths will be formed with edgings around the New houses.

PHASE 6 – PLANTING & LANDSCAPING -

With completion of the fit out stages the scaffolding will be removed and hard landscaping and external drainage/services will be connected.

Whilst the houses are being commissioned and snagged the site set up, hoardings and compound will be completely removed from the grounds and all temporary roads, paths, laydowns will be reinstated in accordance with the landscaping scheme. Wheel washing facility and any hutting will be removed.

As this stage vehicle movements will reduce and will mainly relate to the external works and delivery of fixtures fittings and furnishings for the houses.





5.00 TREE PROTECTION MEASURES



Rear—Southern Boundary

Before Commencing the works a tree protection scheme will be submitted and agreed with the Camden Councils' tree officer.

The new building are located in the centre of the site and over 4 meters from the rear tree line.

These trees will be protected with fencing during the construction programme set at the base of the current bund protecting the exposed tree roots & North along the North Eastern boundary to protect T10, T11 & T16.



Eastern Boundary

There are not any trees on the Eastern boundary adjacent to House 1 apart from T16 which is on the rear boundary of the site and therefore will not be affected by the project as they will be fenced off in the rear tree protection scheme.

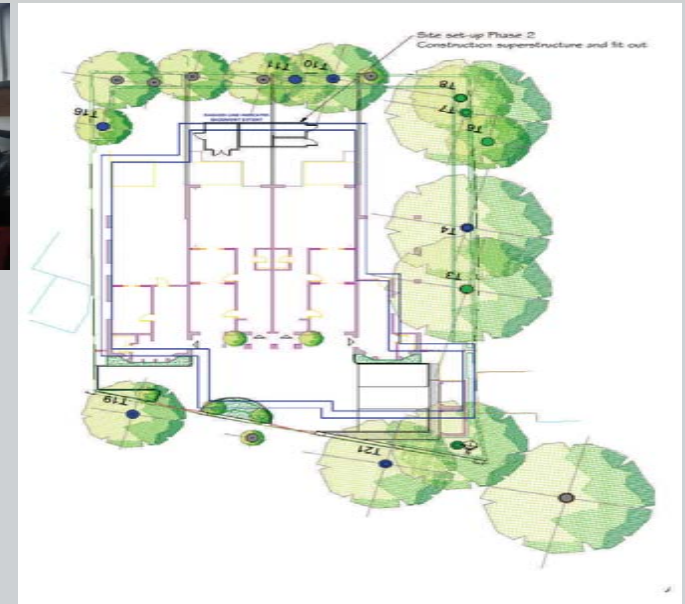


Northern Boundary

Trees T19 , T20 and T21 are outside the site perimeter in Lancaster Grove and to avoid damage , banks man will guide lorries into and out from the site .

Western Boundary

Trees T03 and T04 require protection and special procedures with respect to the excavation of the piles and construction of the adjacent boundary



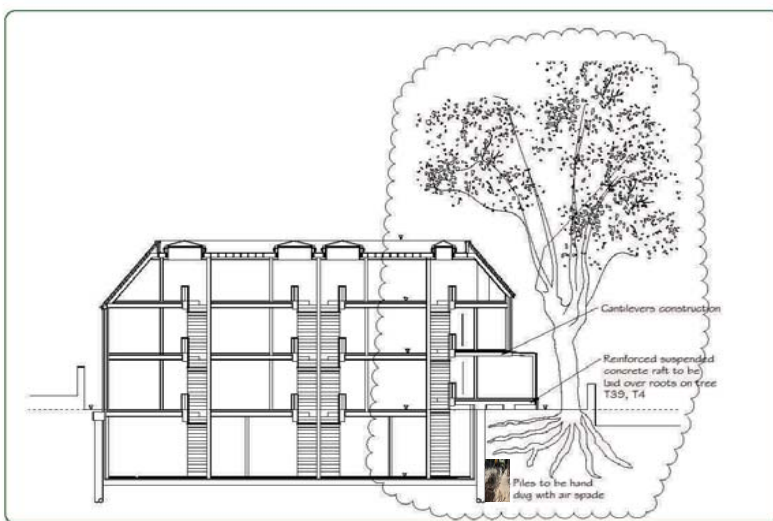


5.00 TREE PROTECTION MEASURES

Western Boundary

Foundations Works will be undertaken using hand dug air spades to construct the foundations along the gridline adjacent to Trees T03 and T04 (North Western Boundary) .

Care will be taken not to damage roots and a concrete raft foundation will be constructed over the root balls on the ground floor with the first floor construction being cantilevered to support the loads of the upper floor and the roof structure in this area



Air Spades are increasingly requested for use in areas demanding a very special approach to root investigation, excavation and de-compaction within the root systems of trees.

The Air Spade is a remarkable and effective tool. It fires a stream of pressurised air into the soil at 1500 mph, the air jet displaces soil without damage to roots or services. As an added safety feature a brass nozzle avoids the potential hazard of sparks.

Air Spades will be used around the roots by fully trained, highly experienced Arborists who will undertake removal of excavated spoil for the foundation areas. Operatives are CSCS accredited and the foreman will be CiTB SSSTS qualified.





CONSTRUCTION MANAGEMENT PLAN



Construction Management Plan for 22 Lancaster Grove issued by

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