

CONSTRUCTION METHOD STATEMENT

**Former Richmond Royal Hospital
Kew Foot Road
Richmond
TW9 2TD**

Date: 21st November 2018



Document Type:	Construction Method Statement
Client:	UKI Richmond Ltd
Project:	Richmond Royal Hospital
Ref:	CMS
Revision:	Rev 9
Date:	21 st November 2018
Prepared by:	R. Rivers
Checked by:	M Simms

CONTENTS

1.0 Introduction	2
2.0 Description of the Site	3
2.1 Programme	3
2.2 Site Set Up / Logistics	4
2.3 Demolition	5
2.4 Sub-Structure Works	5
2.5 Superstructure Works	6
2.6 Apartments and NHS Building Fit Out	6
2.7 Fit out testing and commissioning:-Completion and Handover Process	7
2.8 General	7
2.9 Vehicles	8
2.10 Loading / Unloading	8
2.11 Hoardings	10
2.12 Wheel Washing Facilities / Control of Dust and Dirt	10
2.13 Waste Management	11
2.14 Office, Welfare and Canteen Wastes	11
2.15 General Construction Waste	11

Appendices

Appendix A	·Site Plan
Appendix B	·Location Plan
Appendix C	·Draft Construction Programme
Appendix D	·Loading and unloading area Plan

1.0 Introduction

Royal Haskoning DHV (RH) and RER London Ltd (RER) have been appointed by UKI Richmond Ltd (UKI) as Transport Planners and Project Managers. As part of our appointment UKI have asked us to formulate a Construction Method Statement for the redevelopment of the Former Richmond Royal Hospital site. RH and RER have drawn on their experiences and the experiences of the full consultant team on similar size projects to prepare this document.

This document is submitted as part of the planning application documentation for the site as required by London Borough of Richmond.

The purpose of this document is to set out the Construction Method Statement for the development of the Former Richmond Royal Hospital site at Kew Foot Road Richmond. This Construction Method Statement has been prepared on the basis of the plans contained within the planning application and gives an indication of the general approach to the construction and management of this project.

The plan shall provide the following details:

- A draft construction programme;
- Parking of vehicles of site operatives and visitors (including measures taken to ensure satisfactory access and movement for existing occupiers of neighbouring properties during construction);
- Locations for loading/unloading and storage of plan and materials used in constructing the development;
- Erection and maintenance of security hoardings (including decorative displays and facilities for public viewing, when appropriate);
- Wheel washing facilities and measures to control the emission of dust and dirt during construction; and
- A scheme for recycling/disposing of waste resulting from demolition and construction works.

The existing property contains a Grade II listed building fronting Kew Foot Road named as Shaftesbury House. The buildings along Kew Foot Road and Shaftesbury Road are Buildings of Townscape Merit (BTM). The buildings fronting Evelyn Road are modern buildings and neither listed or BTM's and do not enhance the Conservation area.

Minimal works will be carried out to the front facades of the Grade II listed building and the BTM's in Shaftesbury This includes works to repair, improvements and enhancements as agreed with the council's conservation and planning officers.

The existing buildings are currently in use as a health related use. It is proposed to convert the Northern building fronting onto Evelyn Road to part health use on the ground floor with

Residential use above, and to refurbish the buildings generally for residential use. (C3). A new section of buildings on the southern part of the square linking Shaftesbury Road with Evelyn Road will be built for residential use and that will complete the square of buildings. The existing above ground car parking arrangements will be re-located underground and a landscaped amenity area with a play area for the new residents will be constructed.

The existing building is well suited for conversion to the proposed residential use and is of brick and block construction. The rear facades of the buildings fronting Evelyn and Shaftesbury road will be removed completely and replaced with a new brick façade and regularised fenestration.

This report describes the construction methodology for the works. It also describes the activities that will be completed as part of the works and outlines the mitigation measures that will be put in place to ensure that the effect on the surrounding area will be minimised. It is intended that this document will be included within the main tender documents, and the Contractor will be required to adopt these principles in their tender return.

2.0 Description of the Site

The site is approximately 0.38 ha / 0.94 acres in size and is located to the east of Kew Foot Road Richmond. See Site Plan at **Appendix A**. It is approximately 0.5km to the North of Richmond Town centre and is also bound by Evelyn Road to the north and Shaftesbury Road to the south. Richmond Athletic Ground lies to the west and beyond that Old Deer Park. Kew Foot Road connects at its southern end with the main A316 trunk road. See Location Plan at **Appendix B**.

The site lies within the Kew Foot Road Conservation Area and the site includes a Grade II listed Building (Shaftesbury House) as well of Buildings of Townscape Merit (BTM). It was initially built as a hospital but has not operated as a general hospital for the last 40 years.

2.1 Programme

The on-site timescale that we consider appropriate to complete the project for the conversion of the existing building into approximately 68 new residential apartments and 500 m² of new Health use space at Richmond would be circa 76 working weeks.

We anticipate a start date for the construction works in autumn / winter 2019 with completion around spring/ summer 2021.

Please refer to **Appendix C** for a copy of our Draft construction programme.

It is our intention to provide this outline programme to the contractors tendering for the construction contract and any alteration to the period of on-site works will be advised to LB Richmond Council and the residents.

The construction will be undertaken in six distinct phases. These will be:

- Site set up / logistics
- Demolition
- Substructure works
- Superstructure works
- Apartments and NHS Building Fit out
- Fit out –Testing and Commissioning-Handover Process

2.2 Site Set Up / Logistics

Access to the site will be from Kew Foot Road.

The nature of the works (demolition and facade works) means that access scaffolding will be provided to all elevations, Site accommodation will be required to provide welfare facilities to the construction workers and office space for the management staff. The Contractor will be required to ensure that the office and welfare facilities are provided within the Building. It is anticipated that initially the contractor will use part of the ground floor of Shaftesbury Road buildings until such time as the basement car park has been constructed. Careful protection will be provided to those parts of the fabric of the building that is to be retained. As soon as that area has been constructed, the main offices, welfare facilities and storage areas would be deployed below ground to allow the main building works above to proceed.

As part of the Employers Requirements the Contractor shall be requested to provide Emergency contact numbers, contactable during both 'working hours' and 'out-of-hours' who will have the authority to receive and act upon any situation. Emergency contact numbers will be provided to LB Richmond upon appointment of the Main Contractor. Information boards will be clearly displayed on the site hoarding detailing a 24 hour emergency contact number.

The Contractor shall also allow for monthly newsletters to be issued to the immediate neighbours to keep them informed of the following month's activities. The Contractor shall issue a sample document for the Employers approval and shall include the works per day and split between morning and afternoon work. The Contractor must inform the neighbours of any significant changes of intended working activity at least 24 hours prior to the change.

2.3 Demolition

The major elements of demolition consist of:

- Parts of the rear façade of the buildings in Evelyn Road and Shaftesbury Road;
- The southern part of the building in Evelyn Road;
- The existing concrete car park area will be removed and an underground car park excavated within much the same footprint (See demolition plans attached);
- The existing basement floors to the rear of the buildings facing Kew Foot Road will be lowered by approximately one meter to provide the desired floor to ceiling heights of the Lower Ground apartments.

Demolition will be undertaken generally using small plant and hand held power tools where appropriate which will allow for a more controlled deconstruction of the elements to be removed. Demolition will be completed sequentially from roof level downwards, including the relevant floor level of front and rear facade as works to each level are complete.

An application to suspend the parking bays on the southern side of Evelyn Road at the junction with Kew Foot Road, down to our eastern site boundary will be applied for. This will allow Tipper trucks direct access to the site. The suspension would be only for the period of the demolition and excavation of the basement car park and plant room areas.

Demolition waste will be segregated wherever possible for sustainability purposes (i.e. Brick hard-core separated out from general timber and waste) .Materials will be loaded for removal directly in to a waiting tipper type vehicle to take to the nearest recycling centre.

During the demolition works the Contractor recognises that the potential for impact upon neighbouring tenants / properties will be an important issue. To minimise this they would use attenuated tools and low impact methods of de-construction.

The Contractor will also ensure that dust is suppressed with regular water spraying and that all dust and debris are contained behind full “Monaflex” type sheeting to the front and rear facade scaffolding.

2.4 Sub-Structure Works

Structural alterations will again be undertaken using largely manual methods of construction due to the restricted access.

The principal areas are the introduction of strip footings for the rear extension, removal of the roof finishes, new floors to the rear of the Kew Foot Road façade buildings and associated underpinning, and formation of service riser openings through the floor plates.

Excavation and construction of the basement car park and lightwell terraces will take place in the early part of the project. Excavated material will be loaded onto lorries or onto a conveyor located within the Kew foot road Buildings and that will discharge materials into waiting lorries in the loading and unloading area as shown on the plan at **Appendix D**

The existing electrical substation will be relocated from the Evelyn Road Building to within the new buildings on the eastern side of the site at Ground Floor level.

2.5 Superstructure Works

Superstructure works consist of the following:

- New facade to the rear of Evelyn Road and Shaftesbury Road incorporating stock brickwork, slate roofs, zinc roofs on the new build units and double glazed windows. The emphasis for the programme will be to ensure the building envelope is completed as soon as possible to release the internal fit out,
- A new three storey building is proposed to be constructed on the eastern side of the site between Shaftesbury Road and Evelyn Road.

2.6 Apartments and NHS Building Fit Out

The fit out will commence with high level installations initially, including ductwork and other mechanical and electrical services. The setting out and co-ordination of these activities will be critical to ensure that co-ordination within the limited available space and retained listed finishes is effectively achieved without compromise to the subsequent finishes.

Any internal block work will be installed from full length bricklayer's scaffolding. The blocks will be loaded out to the workface via scaffold mounted mini hoists located to suit the works.

Mortar will be delivered to site in ready mixed "bins". These will also be delivered to accessible locations within the site using pallet trucks for further distribution by hand.

Following substantial completion of the first fix mechanical and electrical installation, plasterboard linings and partitions will progress. Materials will be loaded out from the loading gantry by hand. Materials will be loaded out to central points on each floor plate for distribution to the workforce.

As the wet trades and 1st fix services installations become advanced, items such as kitchens, bathroom installations and joinery will progress. As the mechanical and electrical services become complete in zones or defined system sections, they will be subject to a regime of pre-commissioning and final commissioning.

The fit out process will be subject to a rigorous regime of quality control including pre-defined hold point inspections for key stages of the works. This will include hold points for void closures to certify that concealed installations (such as the mechanical and electrical services) are complete prior to following trades being allowed to progress. This will help to eliminate the need for re-work and the risk of specified levels of quality not being achieved due to finished areas being opened up following completion.

2.7 Fit out testing and commissioning:-Completion and Handover Process

The completion programme will identify all milestones and activities that are required in order to achieve a smooth and successful handover at project completion.

This will typically include (but is not limited to) items such as:

- Completion of utilities for power / water / gas / telecommunication on;
- Completion of building control certification;
- Witnessed commissioning tests for all new M & E services;
- Completion of information for any outstanding planning conditions;
- Completion and commissioning of new lift(s);
- Completion of Premier Guarantee or similar authority;
- Breeam Domestic Refurbishment; and
- Snagging inspection and de-snag prior to offering to client representatives.

2.8 General

The hours of work will be 0800 - 1800 Mon - Fri and 0800 - 1300 Saturday in accordance with the standard planning working hours.

The Contractor will ensure that a key member of the on-site management team will be available at all times to deal with queries or complaints from members of the public or other local residents.

There will be an alternative Head Office contact number provided to the occupiers to ensure that contact with site can be made at all times. There will be provision of contact details at RER London Ltd to allow for a direct route to the client should such access be required.

The occupiers will be provided with the relevant contact details of the officer at LB Richmond - all changes will be notified. All comments will be logged and where relevant reported to LB Richmond Council as required. The site notice board will display the name and contact number of the designated liaison officer.

2.9 Vehicles

No car parking will be provided on site for site operatives and visitors and we expect that, the majority of construction operatives and management staff will travel to and from the site using public transport, on foot or cycle.

The site benefits from having excellent accessibility to public transport services. It is within a 500m (5-6 min) walk of Richmond overground rail and Underground Station which is served by the Circle and District lines.

Within a 5-6 minute walk from the site there are also numerous bus services which serve many destinations around London.

Given the wide range of public transport services available, the site achieves a PTAL level of 6a. As such the site is considered to have excellent access to public transport services.

In conclusion, no car parking will be provided on site for site operatives.

2.10 Loading / Unloading

The main loading and unloading of materials will all take place in the designated loading bay in Kew Foot Road within the site hoarding. The Lorries will then be under the control of the banksman; they will leave the loading area and then turn the vehicles on the junction of Evelyn Road and Evelyn Close.

Tracking diagrams for 10.2m long tipper trucks and 16m articulated Lorries have been carried out to demonstrate it is possible for these manoeuvres to be made safely.

In order to ensure deliveries and the removal of waste materials is achieved safely, efficiently and taking into considerations the requirements of the neighbouring residential properties in Shaftesbury, Kew Foot Road and Evelyn Road. These will be made by lorry (as opposed to van) and will not take place prior to 8.00am. Due to the central location of the site, the timing of deliveries will be critical, to avoid unnecessary disruption, a plan will be agreed with the Contractor. Delivery drivers will be asked to wait in holding areas outside the central area and make contact with the site before proceeding.

The main access routes for deliveries will be via Kew Foot Road and the contractor will write to all suppliers and specifically state that no delivery vehicles will be allowed to use Shaftesbury Road or Evelyn Road. Banksmen will be employed with radios in Kew foot Road to ensure a free flow of traffic is maintained. This will alleviate any traffic congestion that may otherwise occur.

The Contractor may erect a crane within the courtyard of the scheme as shown on Plan number SK05 attached at **Appendix D**. This will permit deliveries to be craned from flatbed vehicles over the building and lowered onto the deck of the underground car park within the site for onward distribution whilst also allowing waste materials to be discharged directly in to waiting skips from gantry level or from conveyors.

In order to distribute materials to the various levels of the site, the Contractor may use a capacity passenger / goods hoist which will serve all levels including the roof.

All scaffolding will be fully “Monaflex” sheeted to prevent dust and debris escaping in to the public realm.

The Contractor is to ensure deliveries involving heavy goods vehicles / skip Lorries do not deliver before 08:00am. At no time will the Developer or its contractors provide any obstruction to the neighbouring occupiers in the street in their day to day operations and activities. If such temporary obstruction is required (save for emergency) then advanced notice will be given in the weekly newsletter or to the residents directly affected.

Due to the restricted access to the site the timing of deliveries will be critical, to avoid unnecessary disruption, a plan will be agreed with the Contractor. Delivery drivers will be asked to wait in holding areas outside the central area and make contact with the site before proceeding. This will alleviate any traffic congestion that may otherwise occur

Deliveries will be made during the working week and within the permitted working hours. If required, there may be a need for abnormal loads, such as major plant, to be brought to site outside of normal working hours. These will be discussed and agreed with Richmond Borough Council’s Highways Department and if affecting normal working hours the adjoining occupiers will be notified at least 48 hours in advance of such movement.

To facilitate the loading and unloading, parking bay suspensions on Kew Foot Road and Evelyn Road will be required to aid the contractor with his site set up and deliveries. On appointment of a main contractor any suspensions of parking bays that are deemed necessary, would be discussed and requested in advance from LB Richmond Highways Department.

Weekend road closures may be required to allow erection and dismantling of the Crane, and large plant and equipment deliveries. There is also a very small amount of work to be carried out in the pavement immediately adjacent to the site boundary, however it is not envisaged that a road closure will be required for this work. If lane or road closures are required, consent would be obtained in advance from Richmond Borough Council’s Highways Department.

48 hours’ notice will be provided to the neighbouring occupiers of any such closure

2.11 Hoardings

To ensure that the public is kept safe during the construction work, clear demarcation and a 1.8m high hoarding of the site areas will be required. This will include the provision of working space for plant and deliveries and the diversion of pedestrians, cyclists and vehicles as required. The hoarding line will run the extent of the back of the public footpath along Kew Foot Road, Shaftesbury Road and Evelyn Road. A hoarding will also be erected on the eastern boundary of the site between Evelyn and Shaftesbury Road. All as shown on plan SK05 attached at **Appendix D**. An emergency plan will be in place to deal with any incidents that may occur in or around the site.

2.12 Wheel Washing Facilities / Control of Dust and Dirt

The Contractor shall maintain all public and private roads, footpaths, kerbs and landscaping within and adjacent to the site will be kept clear of mud and debris. During the demolition and excavation works the contractor shall arrange for lorry wheels to be washed free of loose material before exiting the environs of the site, preventing mud being deposited on the highway.

Construction operations can lead to noise and dust, but by adhering to simple rules we intend to reduce the impact of this and ensure that each of our staff and sub-contractors are made fully aware of their obligations.

We propose to implement measures identified within task method statements and risk assessments to manage/control and reduce exposure at source. Once the risk of dust and air pollution has been assessed the risk will be managed and appropriate mitigation measures will be put into place.

We propose implementing the following to minimise the impact of dust and dirt;

- Maintain a comprehensive duty of care when removing dusty material from site;
- Keep Dust to a minimum by;
- Managing stockpiles on site;
- Using conveyor belts to load Tipper trucks parked on the hardstanding adjacent Kew Foot Road.
- Spraying Dusty parts on site with a limited amount of water;
- Cover skips and wagon leaving site that contain dusty materials; and
- All scaffolding will be fully “Mona Flex” sheeted to prevent dust and debris escaping into the public realm

2.13 Waste Management

The contractor will be required to develop a Site Waste Management Plan. Wherever possible the contractor will follow the principles of re-use or recycling waste materials in line with the waste hierarchy. Disposal of waste to landfill will be a last resort.

The Site Waste Management Plan will be a live document, updated throughout the works, accounting for where waste has been re-used, recovered or recycled and detailing weight/volume for each stream. A named individual will be responsible for its implementation and all site staff will be trained to understand the requirements of the document. All waste will be stored at the site in accordance with current legislation prior to disposal by a licensed contractor.

2.14 Office, Welfare and Canteen Wastes

The offices, canteen and welfare facilities will generate waste streams including food waste, paper and card board, plastics and cans. Food waste will be segregated from other waste streams. The other waste streams will be managed in such a manner as to maximise opportunities for recycling and recovery in line with the waste hierarchy. Foul water will be discharged into the sewer through the existing sewer network in place on the site.

2.15 General Construction Waste

As this project is primarily the redevelopment of an existing building, the primary demolition waste will arise from the soft strip works. Asbestos has not been identified as being present within these buildings. However, UKI Richmond Ltd will carry out a demolition survey in advance of the demolition works to ensure no unidentified asbestos is present in the building. All materials identified as containing or possibly containing asbestos will be removed in advance of the soft strip demolition by a licensed contractor in accordance with current legislation.

It is unlikely that any of the demolition waste will be suitable for reuse on the site other than the brick and rubble hard-core. However any materials that could be re-used or recycled off-site, the contractor will be obliged to identify and send them to the appropriate recycling centres.

Waste that could not be reused or recycled would be disposed of in accordance with the requirements of the Environment Agency and current legislation. Loads will only be disposed of at authorised waste treatment and disposal sites and transported by licensed carriers.

Waste will be separated on site using a system of colour coded bins and then recycled wherever possible off site. Waste that cannot be recycled will be disposed of in

accordance with current legislation.

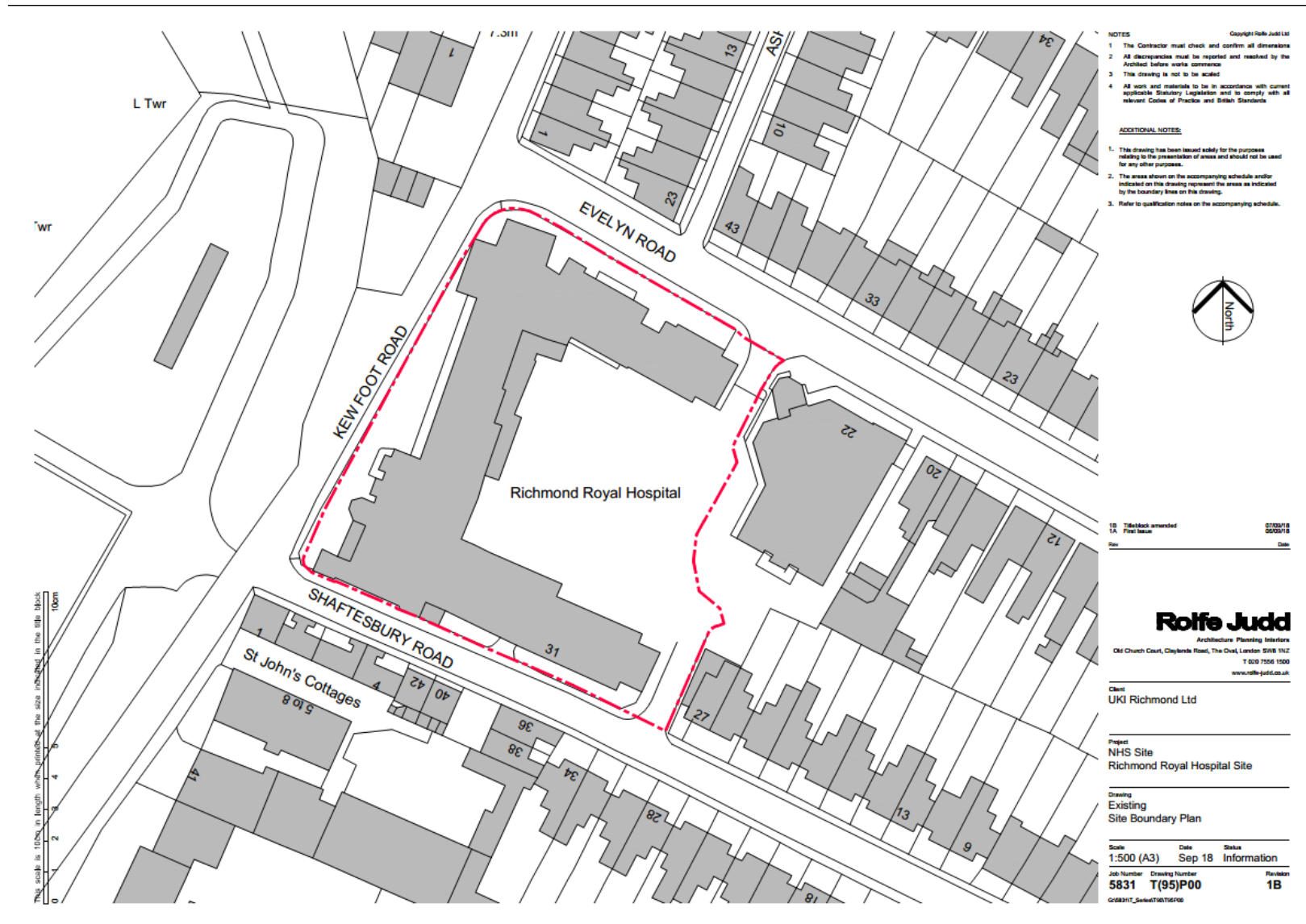
Minimisation of Waste

As part of the Site Waste Management Plan the contractor will be obliged to reduce waste wherever practicable. This strategy would work alongside the strategy of just-in-time deliveries to reduce storage on site. This would include the following:

- Ordering materials cut-to-size or pre-fabricated;
- Minimisation of on-site storage reducing the potential for damage;
- Pre-fabrication of components; and
- Specifying minimum packaging.

APPENDIX A—Site Plan

Construction Method Statement: Richmond Royal Hospital, Kew Foot Road, Richmond



APPENDIX B—Location Plan

APPENDIX C—Draft Construction Programme

Construction Method Statement: Richmond Royal Hospital, Kew Foot Road, Richmond

Outline Construction Programme

Year	2019				2020												2021		
Quarter	4				1			2			3			4			1		
Month	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Construction Stage																			
Site setup and demolition																			
Basement excavation and piling																			
Sub-structure																			
Superstructure																			
Apartments and NHS Building Fit-out																			
Fit-out testing and commissioning																			
Average daily vehicle arrivals	7	7	15	22	22	22	22	15	15	15	15	15	15	7	7	7	15	15	7

APPENDIX D---Loading and Unloading Plan

Construction Method Statement: Richmond Royal Hospital, Kew Foot Road, Richmond



