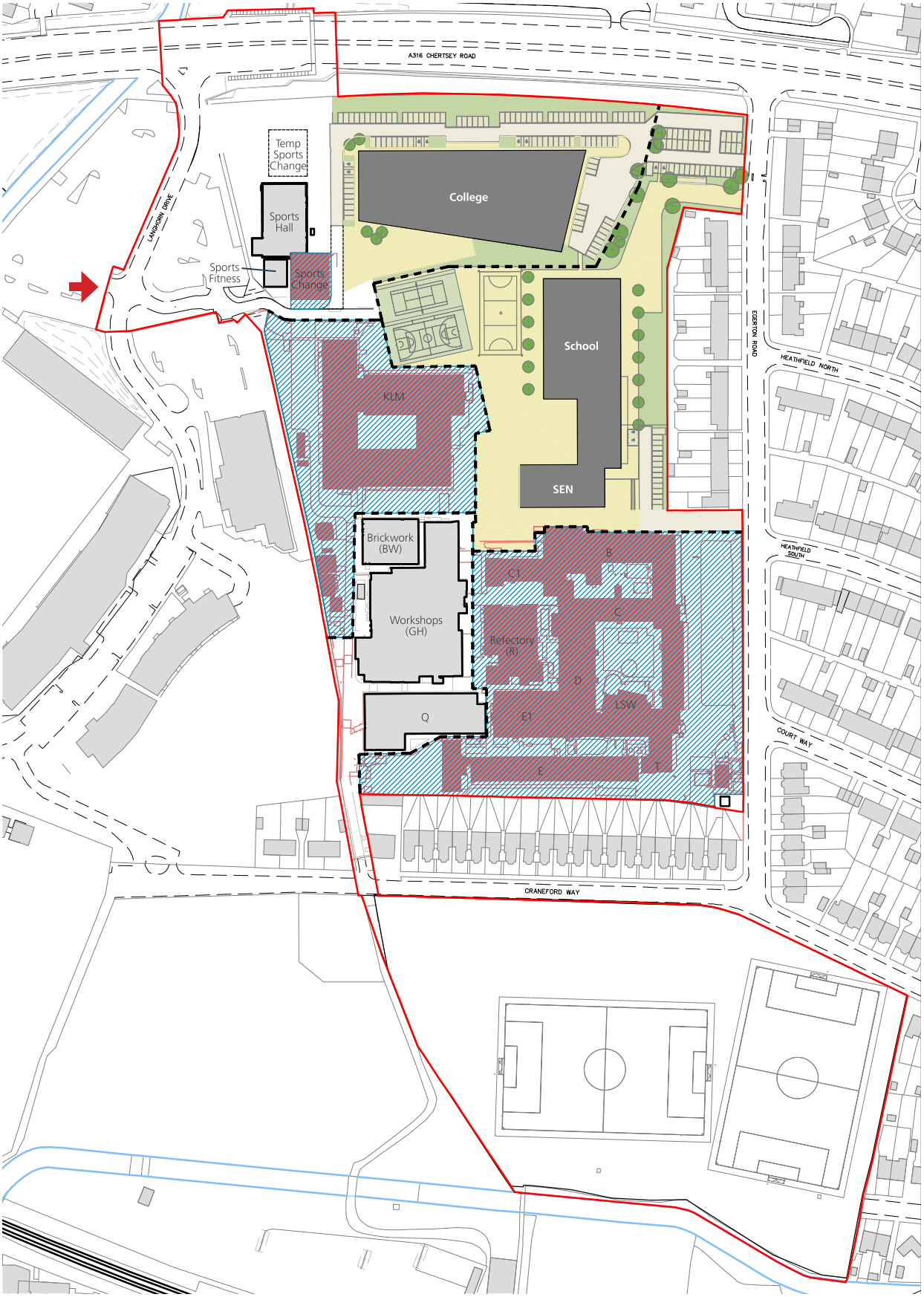


PHASE 1d

Phased move of KLM, remaining A block, refectory and E block into new College building

Construct Temporary Changing facilities for Sports Hall

Schools open

PHASE 1e

Demolition of KLM

Demolition of remaining A block, refectory and E block (B, C, C1, D, E, E1, R, T, LSW)

Demolition of out buildings and pumping station

Demolition of Changing facilities for Sports Hall

- Existing Buildings
- Buildings to be Demolished
- Buildings under Construction
- New Buildings
- Construction Area
- Construction Hoarding
- Construction Vehicle Access

PHASE 2a

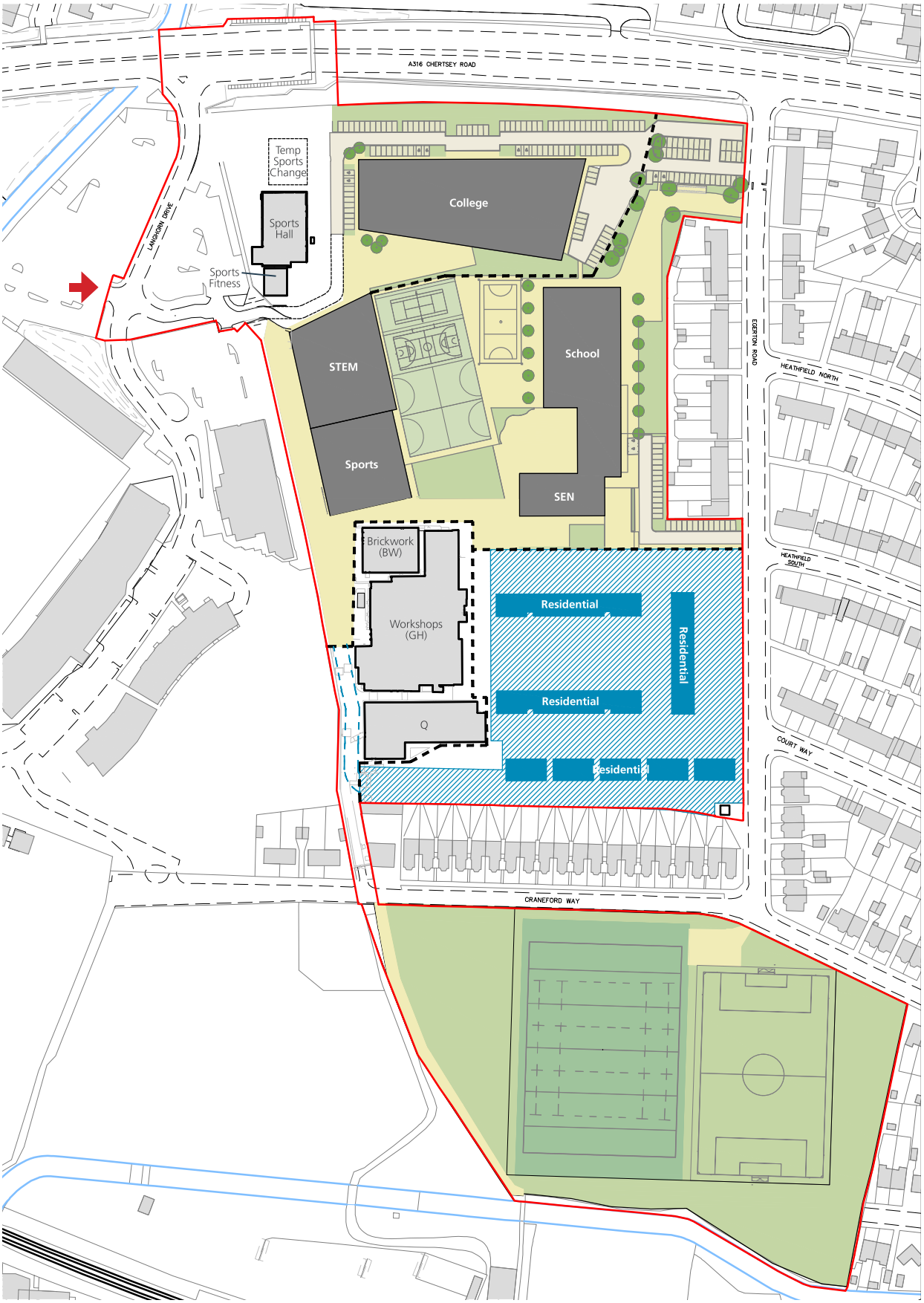
Construction of Sports and STEM buildings & vehicle movement temporarily altered

Completion of Schools external area (except works shown in Phase 3b)

Creation of 3G pitch and grass pitch during summer holidays

Marsh Farm Lane upgrade up to cross over point

- Existing Buildings
- Buildings to be Demolished
- Buildings under Construction
- New Buildings
- Construction Area
- Construction Hoarding
- Construction Vehicle Access



PHASE 2b

Phase 1 of the residential starts on site.

Access to Phase 1 residential site controlled and managed by contractor.

- Existing Buildings
- Buildings to be Demolished
- Buildings under Construction
- New Buildings
- Construction Area
- Construction Hoarding
- Construction Vehicle Access

Phase 2c

Decant into Sports and STEM building

Phase 2d

Demolition of Sports building and temporary changing building

Demolition of Brick, Conc, Engine, E Block and Q Block

Temporary route for residential site established and controlled by contractor

- Existing Buildings
- Buildings to be Demolished
- Buildings under Construction
- New Buildings
- Construction Area
- Construction Hoarding
- Construction Vehicle Access

Phase 3a

Construction of Haymarket

Upgraded junction on to A316

Langhorn Drive road widening and realignment & Marsh Farm Lane from STEM to Sports, including SEN MUGA and Sports car park

- Existing Buildings
- Buildings to be Demolished
- Buildings under Construction
- New Buildings
- Construction Area
- Construction Hoarding
- Construction Vehicle Access

Phase 3b

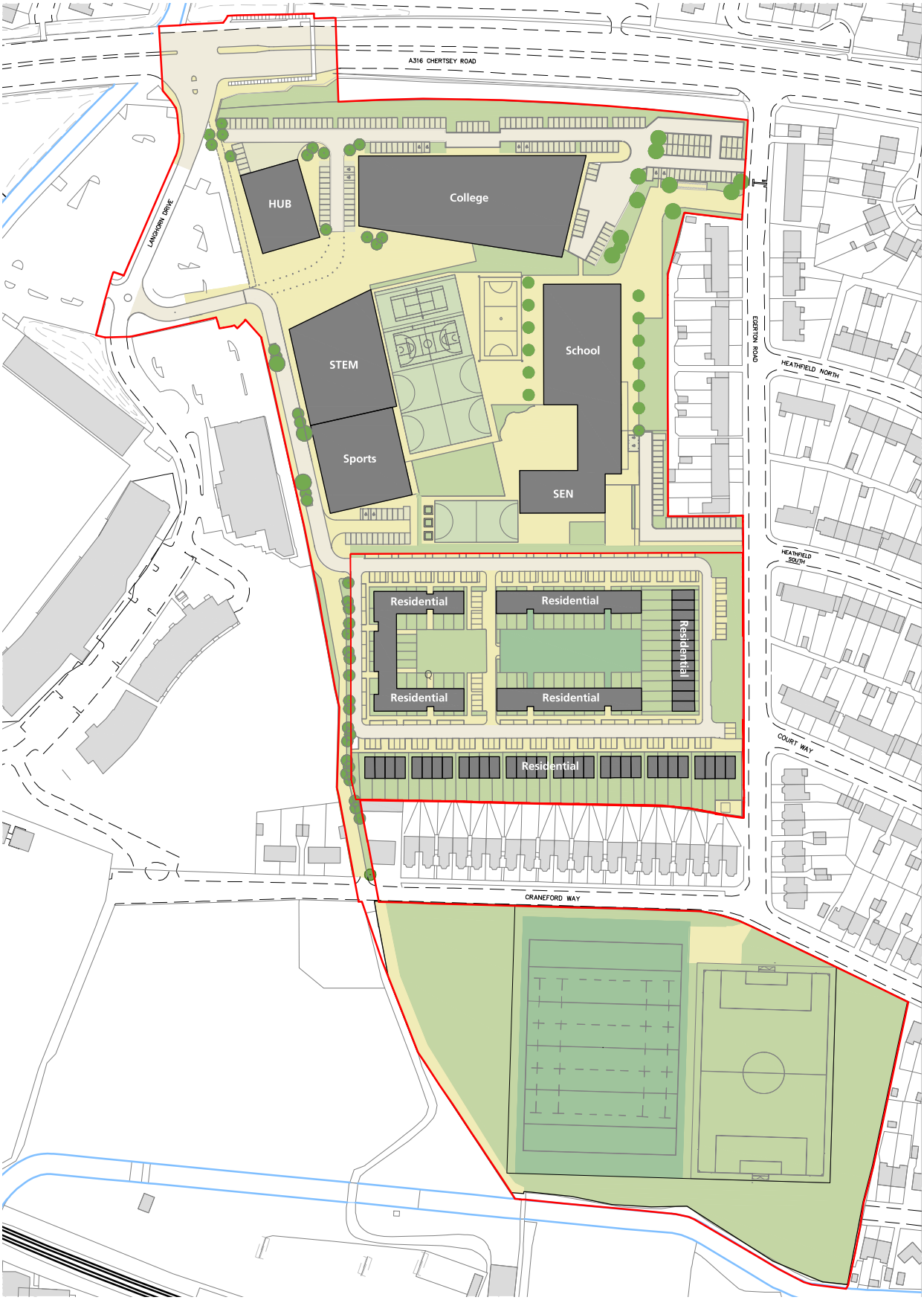
Construction of Phase 2 residential.

Permanent residential access established.

Phase 3c

Marsh Farm Lane (playing fields to sports centre)

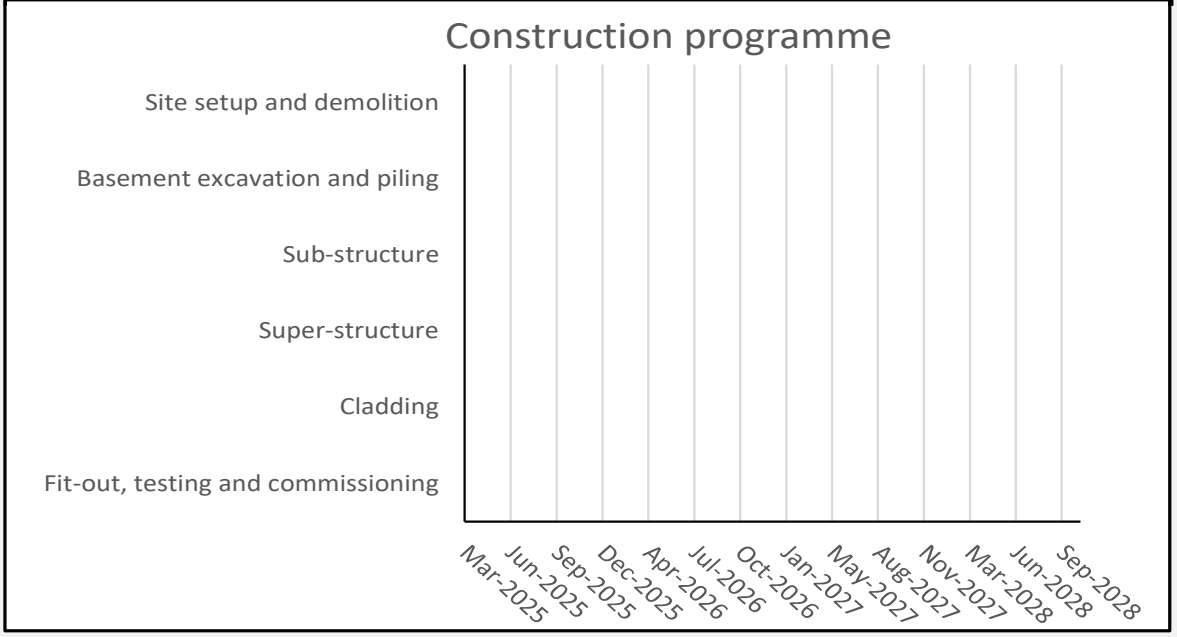
- Existing Buildings
- Buildings to be Demolished
- Buildings under Construction
- New Buildings
- Construction Area
- Construction Hoarding
- Construction Vehicle Access


A316 CHERTSEY ROAD
HUB
College
LANGHORN DRIVE
STEM
School
Sports
SEN
EGERTON ROAD
HEATHFIELD NORTH
HEATHFIELD SOUTH
Residential
Residential
Residential
Residential
Residential
Residential
COURT WAY
CRANEFORD WAY

APPENDIX C

CONSTRUCTION PROGRAMME OVERVIEW

Construction phase	Start	End
Site setup and demolition	Sep-2021	Nov-2021
Basement excavation and piling	Dec-2021	Feb-2022
Sub-structure	Mar-2022	Jun-2022
Super-structure	Jul-2022	Nov-2022
Cladding	Dec-2022	Apr-2023
Fit-out, testing and commissioning	May-2023	Sep-2023



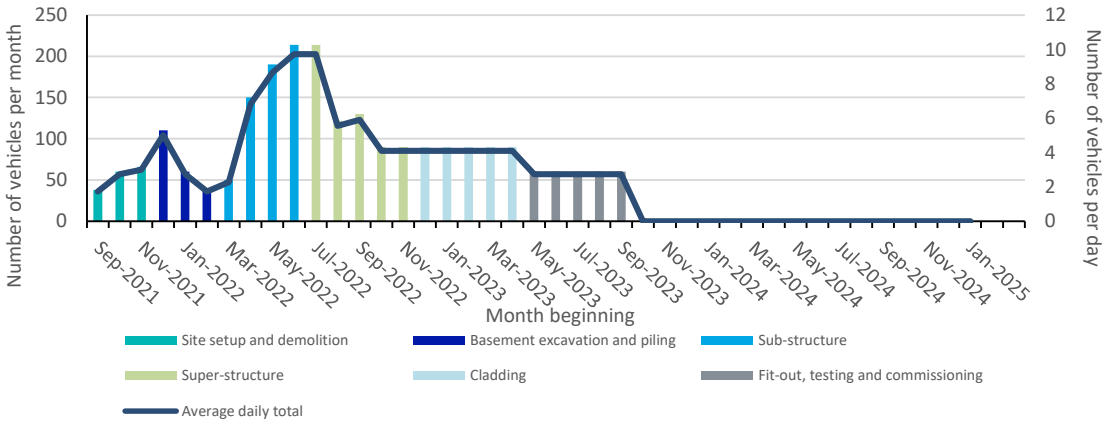
NO. OF VEHICLES IN PEAK PHASE (EX. OTHER PHASES)

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q3 2021 - Q4 2021	66	3
Basement excavation and piling	Q4 2021 - Q1 2022	110	5
Sub-structure	Q1 2022 - Q2 2022	214	10
Super-structure	Q3 2022 - Q4 2022	214	10
Cladding	Q4 2022 - Q2 2023	90	4
Fit-out, testing and commissioning	Q2 2023 - Q3 2023	60	3
Peak period of construction	Q2 2022 - Q3 2022	214	10

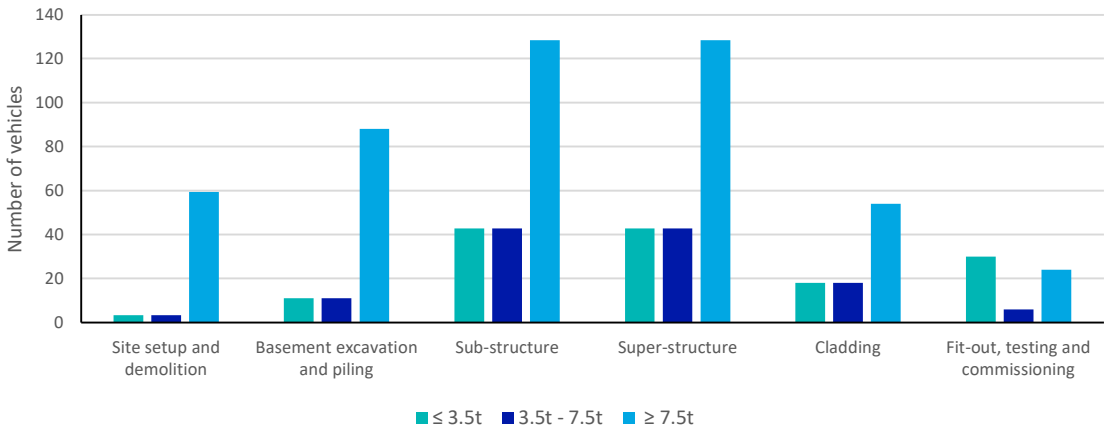
NO. OF VEHICLES IN PEAK PHASE (INC. POSSIBLE OVERLAP OF SUBSEQUENT PHASES)

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q3 2021 - Q4 2021	66	3
Basement excavation and piling	Q4 2021 - Q1 2022	110	5
Sub-structure	Q1 2022 - Q2 2022	214	10
Super-structure	Q3 2022 - Q4 2022	214	10
Cladding	Q4 2022 - Q2 2023	90	4
Fit-out, testing and commissioning	Q2 2023 - Q3 2023	60	3

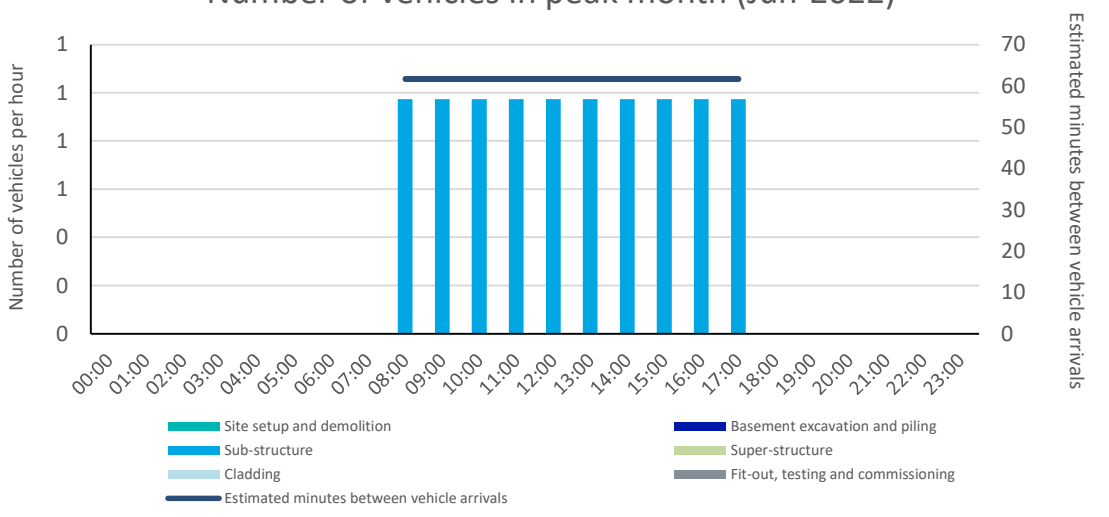
Total number of vehicles through construction programme



Number of vehicles by types during peak of phase



Number of vehicles in peak month (Jun-2022)



APPENDIX D

NOT FOR CONSTRUCTION

TECH HUB DEVELOPMENT ZONE

COLLEGE

COLLEGE PHASE 2

SCHOOL DEVELOPMENT ZONE

PARKING

RESIDENTIAL DEVELOPMENT ZONE

Shared cycle/footway widened to 3.0m width

A DET 623

A PLN 003

A PLN 004

B DET 623

C DET 623

Native tree and shrub planting in build outs. Detailed planting scheme for Marsh Farm Lane to be agreed as part of the Phase 2 Reserved Matters submission for the College Development Zone.

Short-stay cycle parking for college students

Shared cycle/footway widened to 3.0m width

Access to Sports Building Car Park to be agreed as part of the Phase 2 Reserved Matters submission for the College Development Zone.

Connection to residential development

Detailed planting scheme for Marsh Farm Lane to be agreed as part of the Phase 2 Reserved Matters submission for the College Development Zone.

Shared cycle/footway widened to min 5.0m to southern end enabling emergency access

Detailed planting scheme for Marsh Farm Lane to be agreed as part of the Phase 2 Reserved Matters submission for the College Development Zone.

Emergency vehicle gate. Refer to 6377-LD-DET-623

General Notes

- Do not scale from this drawing, use only written dimensions.
- All dimensions are drawn in mm unless otherwise noted.
- All dimensions must be checked on site and any discrepancies verified with landscape architect.
- Landscape drawing only - to be read in conjunction with architect and engineers drawings.
- All materials/items used to be as specified or alternatives to be approved by landscape architect.

Impermeable Pavings

Hot rolled asphalt. Cat III loading BS7533/2, with thermoplastic markings for shared use cycle way and 150x150 PCC edgings

80mm thick block paving as Formpave 'Cornish' or similar to BS7533/2, cat II loading, mix of sizes. Ref drawing 5137894-ATK-00-XX-DR-C-0152 Detail 3.

Permeable Pavings

60mm thick block paving as Formpave 'Cornish' or similar to BS7533/2, cat II loading, mix of sizes. Ref drawing 5137894-ATK-00-XX-DR-C-0152 Detail 2.

80mm thick block paving as Formpave 'Cornish' or similar to BS7533/2, cat II loading, mix of sizes. Ref drawing 5137894-ATK-00-XX-DR-C-0152 Detail 1.

Phase one site boundary

Development zone boundary

Iss	Date	Issue Notes	Drn	Chk	Apv
B	23.01.17	Planning	ML	ML	EP
A	20.07.16	Planning	ML	JB	EP

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Project
Richmond Upon Thames College
Phase 1

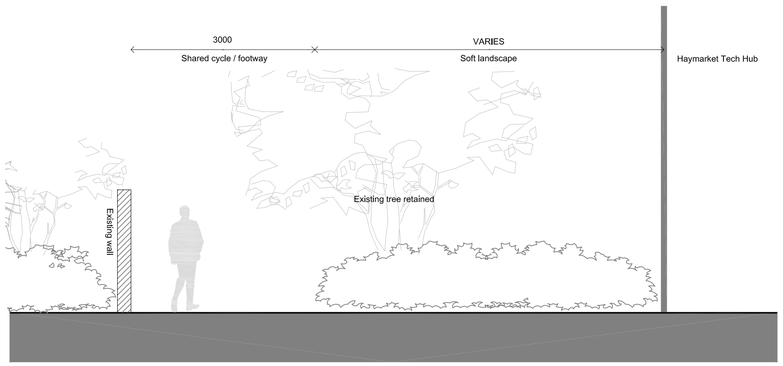
Client
Atkins

Title
General Arrangement
Marsh Farm Lane Arrangement

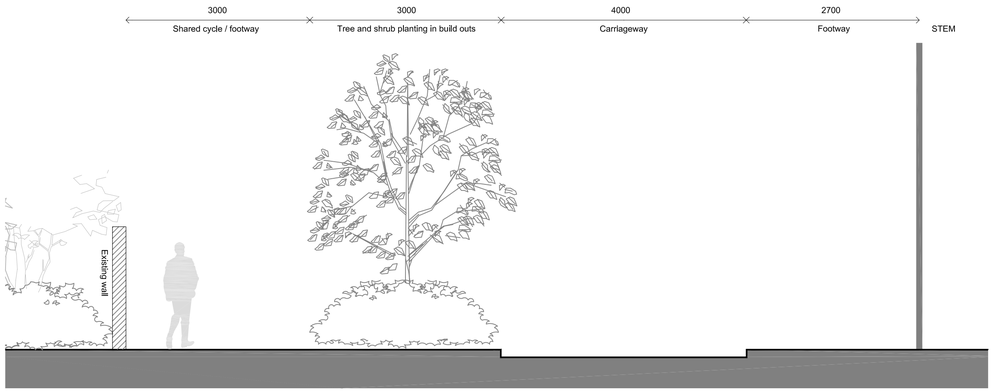
Scale	Status
1:500 @ A1	for Planning

Job No.	Drawing No.	Issue
6377	LD PLN 005	B

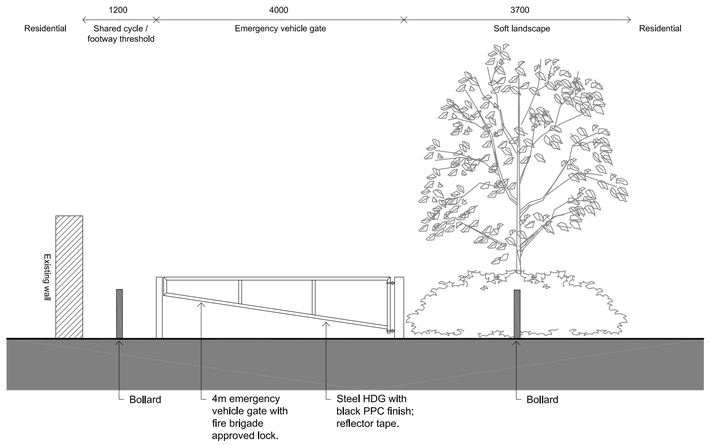
NOT FOR CONSTRUCTION



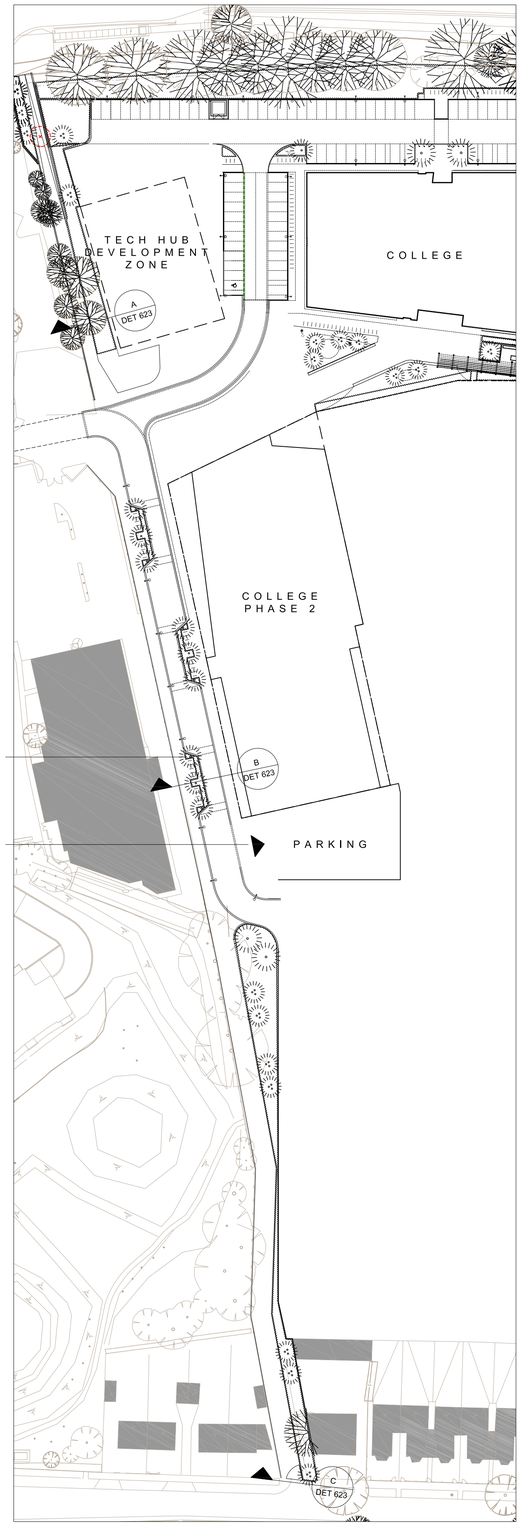
A Marsh Farm Lane to Haymarket
Scale 1:50@A1



B Marsh Farm Lane to STEM
Scale 1:50@A1



C Marsh Farm Lane to Craneford Way Treatment
Scale 1:50@A1



Detailed planting scheme for Marsh Farm Lane to be agreed as part of the Phase 2 Reserved Matters submission for the College Development Zone.

Access to Sports Building Car Park to be agreed as part of the Phase 2 Reserved Matters submission for the College Development Zone.

D Location Plan
Scale 1:750@A1

Notes

- Do not scale from this drawing, use only written dimensions.
- All dimensions are drawn in mm unless otherwise noted.
- All dimensions must be checked on site and any discrepancies verified with landscape architect.
- Landscape drawing only - to be read in conjunction with architect and engineers drawings.
- All materials/items used to be as specified or alternatives to be approved by landscape architect.

N

Iss	Date	Issue Notes	Drn	Chk	Apv
A	23.01.17	Planning	ML	ML	EP

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www.landuse.co.uk

Project
Richmond Upon Thames College
Phase 1

Client
Atkins

Title
Sections
Marsh Farm Lane

Scale	Status
VARIES @ A1	for Planning

Job No.	Drawing No.	Issue
6377	LD DET 623	A

APPENDIX E

Outline Construction Logistics Plan Rev O2 June 2015
REEC
Richmond College Twickenham TW2 7SJ

1.0 Introduction:

1.1 This CLP will form the basis of agreeing the construction arrangements with all relevant parties. The logistics will be dependent on the suppliers, working methodology and programme to be co-ordinated by the principal contractor.

1.2 It is envisaged that this Construction Logistics Plan will be conditioned as part of any forthcoming planning consent.

1.3 This CLP provides a framework to better manage all types of freight vehicle movement to and from the proposed REEC site where Richmond College is located.

1.4 This document is set out as follows:
Chapter 2 presents the proposed construction and servicing provision on the site including details of construction site management.
Chapter 3 identifies the objectives of the Construction Logistics Plan;
Chapter 4 presents the measures and initiatives to be employed to increase construction servicing efficiency for the REEC Site; and
Chapter 5 presents the proposed methodology for monitoring and review.

2.0 Construction Proposals

2.1 This provides an overview of the preliminary construction strategies for the REEC Site. This chapter provides an overview, with the details to be expanded and finalised for the final version of the CLP.
2.2 Due to the nature of redevelopment, the development proposals have been divided into a number of phases.
.
2.3 Planning for enabling works, demolition and construction is broad at this stage and may be subject to modification during the detailed enabling planning. This initial assessment is based on reasonable assumptions at this early stage and experience on similar projects.

2.4 Forming the site access and demolition of the existing buildings and infrastructure and construction of the Schools, College and Residential is divided into a number of phases which form part of the master programme.

2.5 The timing of each Phase is shown in the appended programme.

2.6 The Phases are as follows (see also appended logistics sketches)

Phasing 1a + 1b: Enabling Works
This consists of creation of a haul road and preparation of access off Langhorn Drive and Egerton Road, internal refurbishment and demolition of a number of existing buildings, and also carry out pitch markings located on playing field.

Phase 1c:
This represents a larger phase of the overall project and includes the construction of the main college building, Secondary and Special School.

Phase 1d + 1e:
Phased move of college departments and facilities into the new college building including provision of temporary changing rooms. This is followed by the demolition of the remaining elements of Blk A, Refectory, and E Blk together with outbuildings and pumping station.

Phase 2a:
Construction of Sports and Stem building and completion of schools external area. Construction of 3G Pitched during summer holiday and upgrade of Marsh Lane Crossing point.

Phase 2b:
Phase 1 of residential development.

Phase 2c + 2d:
Decant into completed Sports and Stem Building followed by the demolition of the existing sports building and removal of temporary changing rooms. Demolition of remaining college workshops / teaching buildings.

Phase 3a:
Construction of Tech Hub, amendments to the A316 junction, realignment of Langhorn Drive and Marsh Farm Lane access to Stem and Sports Building. Provision of MUGA and Sports Car Park.

Phase 3b + 3c:
Construction of the 2nd Phase of residential development.

2.7 Site access gates will be established as shown on the logistics sketches generally from Langhorn Drive.
These will be relocated when as the projects proceeds and particularly for the later phases. Separate pedestrian access and a gatehouse will also be established at these locations in order to maintain full control of vehicles entering and leaving site together with segregated pedestrians.

2.8 In order to minimise impact wheel washing facilities for all construction vehicles will be implemented at the site entrance locations and site management will monitor and manage construction traffic to ensure that vehicles do not block the highway on entry and exiting.

2.9 On-site parking for construction workers will be restricted to an absolute minimum as there will be a general policy of not providing any car parking on the site. The construction workers will be encouraged to use the highly accessible public transport services available at Twickenham, St. Mary's and Whitton stations and bus services provided locally. Provisions will be made within the site for essential on-site parking if required for emergencies etc. and a minibus set down point.

2.10 With the Mayor's and Tfl's emphasis on cycling to work and the development's sustainability commitments the use of bicycles as a form of transport will be encouraged with bicycle storage and shower facilities made available on site.

2.11 These aspects will also be considered in the Construction Environmental Management Plan for the site. Through these measures no impact on residential roads

will result from construction workers parking their vehicles.

2.12 To minimise the likelihood of congestion during the demolition and construction period, strict monitoring and control of vehicles entering and egressing and travelling across the REEC Site will be implemented.
All on-site construction deliveries will be pre-arranged and pre-booked as part of the efficient operation of construction work. The use of a booking system and having the delivery times agreed with each contractor means that vehicles are not caused to wait prior to entering the site.

2.13 Delivery schedules will be produced in order to look at the profiles of up and incoming deliveries and to regulate deliveries and eliminate bottle necks. A holding area has been identified close to Sunbury Cross on the A316 which may be used to control the number of construction deliveries coming into the area. Contractors will be issued with a project route map to pass on to their delivery drivers. A delivery vehicle could be held in the offsite holding area until the site is ready to receive the delivery. The Traffic Marshal can communicate by text or mobile phone calling vehicles into the site area on a controlled basis. Specific time slots will be allocated to contractors for the use of cranes and hoists, to ensure that the main plant will be utilised efficiently.
An on-line delivery booking system will be operated whereby suppliers can book delivery slots well in advance.

2.14 The proposed construction vehicle access routes avoid using the minor roads as far as possible, and have specifically avoided residential roads adjoining the site. These measures will ensure that delivery vehicles have minimal impact on surrounding residential roads to the site. In addition, waiting vehicles will be avoided through strict management of delivery times (use of regulated on-line booking system controlled by the Principle Contractor)

2.15 The form of delivery management of vehicles will be set out at the tender stage and reinforced onsite. The success of the proposals will be monitored through the Construction Environmental Management Plan for the scheme.

2.16 The anticipated construction vehicle movements throughout the development will in the order of 24no delivery per day almost via Langhorn Drive.

3.0 Construction and Logistics Plan

Objectives

3.1 Construction and Logistics Plan (CLP) has been developed through the planning to support sustainable development.

3.2 This CLP will therefore seek to achieve the following objectives:
Demonstrate that construction materials can be delivered, and waste removed, in a safe, efficient and environmentally-friendly way;
Identify deliveries that could be reduced, re-timed or even consolidated, particularly during peak periods;
Help cut congestion on local roads and ease pressure on the environment;
Improve the reliability of deliveries to the site; and reduce freight operators' fuel costs.

4 Delivery and Servicing Management Measures

4.1 This Chapter outlines the overarching measures and initiatives included within the CLP.

4.2 This CLP will specifically aim to ensure that construction and servicing of the site can be carried out efficiently, minimising negative impacts upon the local highway network, residents and commercial occupiers within and surrounding the site, and the environment. In order to ensure impact is minimised the contractor will commit to the 'considerate contractor' code of practice.

4.3 The proposed management measures and initiatives have been grouped into the following areas:
Design;
Procurement Strategy;
Operational Efficiency;
Waste Management;
Traffic Management and Diversions;
Pedestrian Routing; and
Construction Sustainability.

4.4 The final CLP will:
Illustrate the on-site delivery and collection points off street; complete a swept path analysis showing how freight vehicles will access the site (this will need to be carried out using the appropriate software)
Conduct a risk assessment of the loading points.

4.5 The following initiative will be considered:
Secure drop off facilities to reduce the number of failed trips and encourage out-of hours deliveries.

4.6 The procurement process should demonstrate an awareness of all vehicles activity associated with the site, its impacts and appropriate measures to reduce it. This will be undertaken by site management.

4.7 The strategy should demonstrate a commitment to safer, more efficient and more environmentally friendly distribution by contracting operators registered with a best practice scheme, such as FORS.

4.8 It is also encouraged that contractors source items locally, or from the same supplier, to reduce the number of deliveries required.

4.9 FORS members, or those who can demonstrate that they meet FORS membership standards, will where possible be the contracted suppliers.

4.10 The anticipated core hours of construction for demolition and construction will be:
08:00 – 18:00, Monday to Friday excluding Bank Holidays and weekends; and
08:00 – 13:00, Saturdays.

4.11 In order to maintain the above working hours, the Principal Contractor may require at certain times a period of up to one hour before and after normal working hours to start and close down activities (this will not include works that are likely to exceed agreed maximum construction works noise levels). Specialist construction operations and deliveries may also be required to be carried outside these core hours in agreement

with Richmond, Police and other relevant parties.
4.12 In general and in accordance with the principles of the UK Government's Waste reduction requirements during demolition and construction, will be to reduce the amount of waste generated and exported from the site. This approach complies with the waste hierarchy whereby the intention is first to minimise, then to treat at source or compact and, finally, to dispose of off-site as necessary.

4.13 The Principal and Trade contractors will be required to produce a construction Site Waste Management Plan (SWMP) on a phase by phase basis which will contain:

- Classification of all wastes;
- Performance measures and target setting against estimated waste forecasts;
- Measures to minimise waste generation;
- Opportunities for re-use and recycling;
- Provision for the segregation of waste streams on site that are clearly labelled;
- Recording of proposed carriers and licences for disposals sites;
- An audit trail encompassing waste disposal activities and waste consignment notes;
- Measures to avoid fly tipping by others on land being used for construction;
- Measures to provide adequate training and awareness through toolbox talks; and
- Considerable alternative means of removing waste other than by road, however these appear unlikely at this time.

4.14 All relevant contractors will be required to investigate opportunities to minimise and reduce waste generation by:

- Agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme;
- Implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste;
- Use standard size components in design detailing to eliminate risk at source where
- possible to do so;
- Attention to material quantity requirements to avoid over-ordering and generation of
- waste materials;
- Re-use of materials wherever feasible, e.g. re-use of crushed concrete from demolition process for fill (crushed using an off-site concrete crusher); re-use of excavated soil for landscaping. Concrete will be taken off site for crushing and reuse.

- The Government has set broad targets of the use of reclaimed aggregate, and in keeping with best practice, contractors will be required to maximise the proportion of materials recycled;
- Segregation of waste at source where practical;

Re-use and recycling of materials off-site where re-use on-site is not practical (e.g. through use of an off-site waste segregation facility and re-sale for direct re-use or reprocessing);
Skips will be colour coded and signposted to reduce the risk of cross examination and covered to prevent dust and debris blowing around the site, these will be cleared on a regular basis; and
Burning of wastes or unwanted materials will not be permitted on site.

4.15 As previously mentioned, the A316 will be used as the main approach for all construction delivery vehicles. The main site access will be from Langhorn Drive and a limited amount from the top of Egerton Road (note: full access is prevented by the existing set of gates)

4.16 Effective wheel cleaning facilities will be provided at the main entrance gate locations together with concrete or tarmac hard standing. Recycled water will be used wherever possible and supplementary cleaning will be provided as necessary using suitable means to keep the surrounding highway clean. Collected debris will be disposed of as controlled waste at a licensed waste disposal facility.

4.17 Notices and details of traffic management proposals associated with works to the highway and footpaths will be given under the Highway Acts 1980 and Road Traffic Act 1998, and will be discussed in advance with the Highways Dept.

4.18 Pedestrians, the general public and any on site operatives, local residents and employees associated with other existing uses across the site will be kept separate from the demolition and construction activities at all times.

4.19 It is envisaged that pedestrian routes will be maintained for public use around the perimeter of the site including Langhorn Drive. Where temporary closures may be required for the erection of scaffolds and incoming services connections, permissions and licences will be obtained for the rerouting of pedestrian thoroughfares.

4.20 During construction works, existing pedestrian routes and footpaths crossing will be maintained at all times.

4.21 A CEMP(Construction Environmental Management Plan) will be developed for the construction phases and will include a strategy for minimising carbon emissions. The CEMPs will detail the approach for a range of resource efficiency principles including locally sourcing materials and services, auditing materials to demonstrate environmental performance and options for the re-use of supplies. The CEMPs will be carried out alongside a carbon foot printing procedure that will minimise carbon demands of the development, identify the use of renewable resources of energy and incorporate efficient energy supply and low carbon technologies such as Photo Voltaic Cells and Solar Thermal Units where feasible.

4.22 The potential for sustainable construction and transport practices to be shared with local community groups is one of the proactive approaches that will be explored in the Community Strategy.

4.23 The Community Strategy will detail how full and fair employment opportunities, training, education and procurement opportunities for local residents and businesses are made available and how these are monitored. The community strategy has successfully been implemented on previous projects through the following proactive approaches: Established links with local schools and businesses to offer training and employment opportunities via work experience and apprentice schemes.

4.24 A member of the Principle Contractor’s team will be responsible for developing Community Strategy and acting as community liaison officer and will be appointed to maintain an active dialogue with residents; ensure that the neighbourhood is not detrimentally affected by the construction works and to maintain the proactive approaches outlined in the Community Strategy.

5.0 Monitoring and Review

5.1 A programme of monitoring and review will be implemented to generate information by which the success of the CLP can be evaluated against the objectives set out within Chapter 3.

5.2 Monitoring and review of construction activity to the site will be the responsibility of the principal contractor.

5.1.3 This process will provide the opportunity for construction operations and procedures on the site to be reviewed and new management measures to be implemented (if necessary) to achieve the objectives set out within Section 3. Monitoring will be documented and available to Richmond Borough upon request.

Appendix

Indicative Phasing Programme

Atkins REEC Phasing Sketches