

Chapter 5: Demolition and Construction

INTRODUCTION

- 5.1 This chapter of the ES describes the proposed programme of demolition and construction works, specifically the key activities that will be undertaken prior to the completion and operation of the Proposed Development. This chapter of the ES provides a description of the demolition and construction works for the purposes of identifying and assessing the potential demolition and construction related environmental impacts and resultant environmental effects of the Proposed Development. The assessment of these impacts and effects is reported within each technical topic chapter of this ES (**ES Volume 1, Chapters 6-14** and **ES Volume 2, Townscape Visual Impact and Heritage Assessment**).
- 5.2 Planning for construction is broad at this stage in the planning process and may be subject to modification during the detailed planning of these works, particularly following appointment of a contractor and throughout preparation of various management plans including a Demolition Method Statement (DMS) and Construction Method Statements (CMS). The information presented within this ES Chapter is therefore based on reasonable assumptions made by The Aberfeldy New Village LLP (the 'Applicant') and the wider planning and design teams, specifically for projects which have involved consideration and management of complex issues such as working near to existing commercial and residential property, to busy main roads and in proximity to underground constraints and surface utilities and other infrastructure. The information presented within this ES Chapter is therefore suited to this stage of planning. It is also considered robust for the purposes of the Environmental Impact Assessment (EIA) in defining a reasonable worst-case scenario for the purposes of assessment and any non-material changes to the timings of works is not considered likely to affect the findings and conclusions of the technical assessments.
- 5.3 Various environmental management controls will form the basis of a Construction Environmental Management Plan (CEMP) that will be implemented over the duration of construction works. An outline CEMP is presented in **ES Volume 3, Appendix Demolition and Construction – Annex 1**. Demolition and construction related management, mitigation and monitoring measures on a topic-by-topic basis are described within the relevant technical chapters of this ES, as well as summarised in **ES Volume 1, Chapter 14: Mitigation & Monitoring Schedule**. The CEMP will define, amongst other things, the hours of operation, dust control measures and vehicle emission control. In addition to the environmental management measures and procedures (such as noise control and dust suppression (etc.)), consideration shall also be given to construction materials quantities and best practice environmental standards for construction sites.
- 5.4 In addition to the outline CEMP, other supporting management plans have been drafted and submitted in support of the Planning Application.
- 5.5 It is anticipated that the implementation of the CEMP as well as required management plans (e.g. Dust Management Plan) will be secured through appropriately worded planning conditions. The CEMP and this Chapter are based on the London Borough of Tower Hamlets (LBTH) Code of Construction Practice and established good management principles. It is intended that the CEMP (and other plans, as relevant) will be 'live working' documents, and that the Principal Contractor's appointed representative will update the documents according with any amended construction environmental management measures as the scheme progresses.
- 5.6 In addition, the Site will be registered with the UK's Considerate Constructors Scheme.

Anticipated Works and Programme

Summary of Anticipated Works

- 5.7 The anticipated works comprise phased residential and commercial development and associated demolition and public realm improvements. Phase A forms the Detailed Proposals and Phases B- D form the Outline Proposals (refer to **Figure 5.1** for The Indicative Demolition Plan and **Figure 5.2** for the Indicative Construction Phasing Plan). The works are summarised as:
 - Phase A – Buildings F, H1 to H3, I, J and improvements to Braithwaite Park and Leven Road Open Space ;
 - Phase B – Buildings A1 to A3, B1 to B5, and extensive highways and public realm alterations;
 - Phase C – Buildings C1 to C4 and E1 to E3;
 - Phase D – Buildings D1 to D4; and
 - Public realm works to be delivered in each phase.

Programme of Works

- 5.8 The current expectation is that the demolition and construction works would take approximately 128 months (10 years 8 months).
- 5.9 **Table 5.1** and **Figure 5.4** show the indicative demolition and construction programme. The programme has been defined solely for the purposes of the EIA specifically, the assessment of the likely significant effects of the Proposed Development over the build programme and on completion and operation and for no other purposes.
- 5.10 The indicative programme has been produced by an experienced construction manager and is representative of a programme that is reasonable and achievable. The programme presents the likely sequence of activities and is based on reasonable assumptions in terms of the sequencing of works and site logistics. If the construction programme does not commence or end by the period specified in this ES Chapter, and instead commences or ends at a later date, the timings for when environmental effects are realised will adjust to reflect any programme adjustment. **Figure 5.3** through to **Figure 5.12** which illustrates the sequence of construction identified on the programme of works.

Table 5.1 Indicative Construction Timetable

| Construction Task / Activity | Duration | Start Date (Quarter and Year) | Completion Date (Quarter and Year) |
|---|--|-------------------------------|------------------------------------|
| Phase A Site Establishment/ Demolition | 5 months | Q3 Year 1 | Q1 Year 2 |
| Phase A: Building Plot J | 19 months | Q3 Year 1 | Q1 Year 3 |
| Phase A: Building Plot F1 | 22 months | Q3 Year 1 | Q3 Year 3 |
| Phase A: Building Plots H1-H3 | 21 months | Q3 Year 1 | Q3 Year 3 |
| Phase A: Building Plot I1 | 23 months | Q4 Year 1 | Q4 Year 3 |
| Phase B Site Establishment/ Demolition | 5 months | Q3 Year 3 | Q4 Year 3 |
| Phase B: Building Plot B3 | 33 months | Q1 Year 4 | Q3 Year 6 |
| Phase B: Building Plots A1-2 | 22 months | Q2 Year 4 | Q1 Year 6 |
| Phase B: Building Plots B1-2 | 26 months | Q3 Year 4 | Q3 Year 6 |
| Highways: A12/B125 Junction | 15 months | Q4 Year 3 | Q4 Year 4 |
| Highways: Road Construction | 12 months | Q1 Year 5 | Q4 Year 5 |
| Highways: Underpass Pedestrianisation | 12 months | Q1 Year 6 | Q4 Year 6 |
| Phase C/D Site Establishment/ Demolition | 7 months | Q2 Year 6 | Q4 Year 6 |
| Phase C: Building Plots C1-4 | 30 months | Q1 Year 7 | Q3 Year 9 |
| Phase C: Building Plots E1-3 | 21 months | Q2 Year 8 | Q4 Year 9 |
| Phase D: Construction Site set-up | 1 month | Q3 Year 10 | Q3 Year 10 |
| Phase D: Building | 22 months | Q3 Year 10 | Q2 Year 12 |
| Public Realm, Landscape and Green space improvements (improvements to Braithwaite Park, Leven Road Open Space be undertaken in Phase A) | Completed in phases to suit building completions | | |

Figure 5.1 Indicative Demolition Phasing

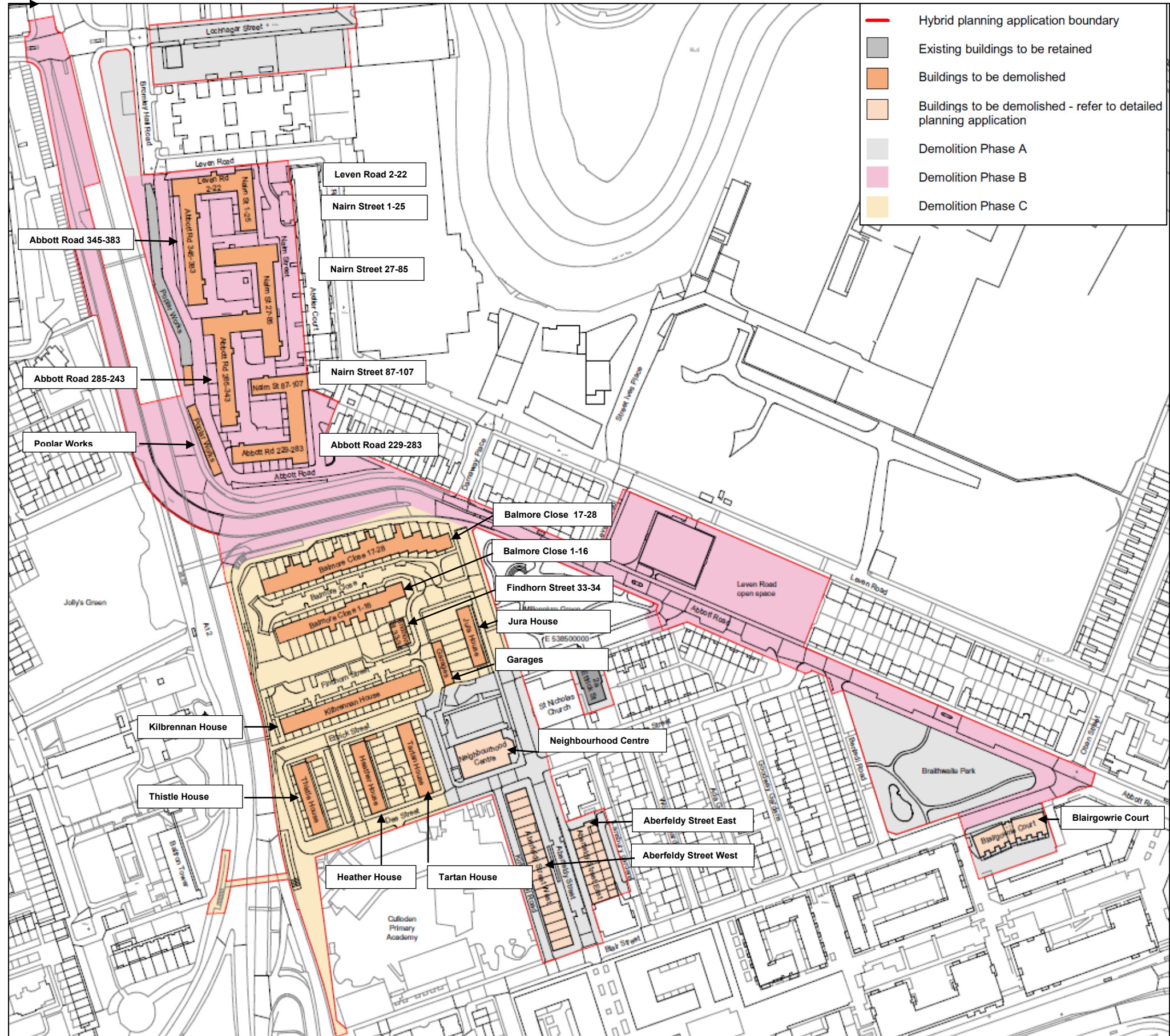


Figure 5.2 Indicative Construction Phasing

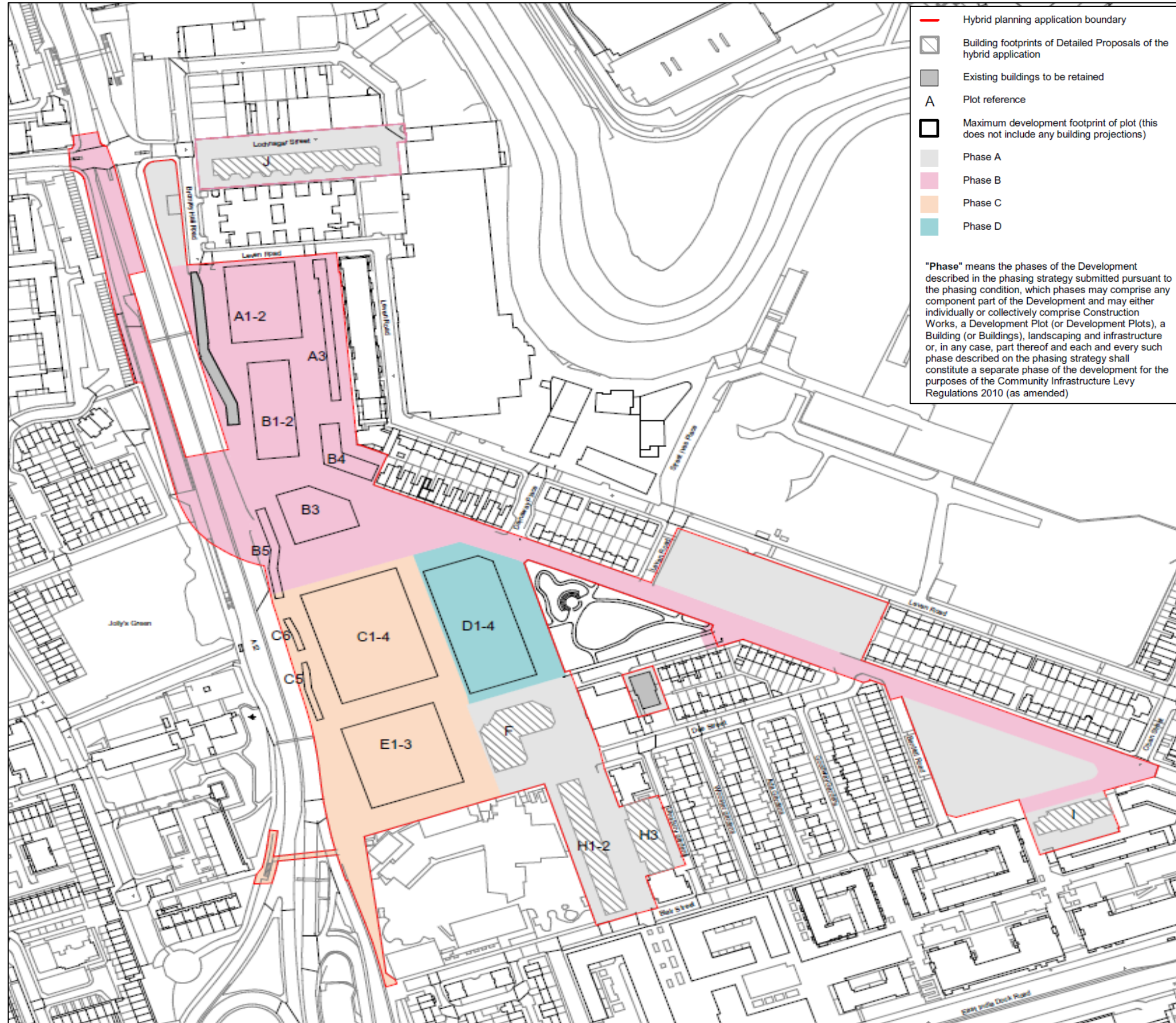


Figure 5.4 Phase A Building J Construction. Year 1 Q3 To Year 3 Q1

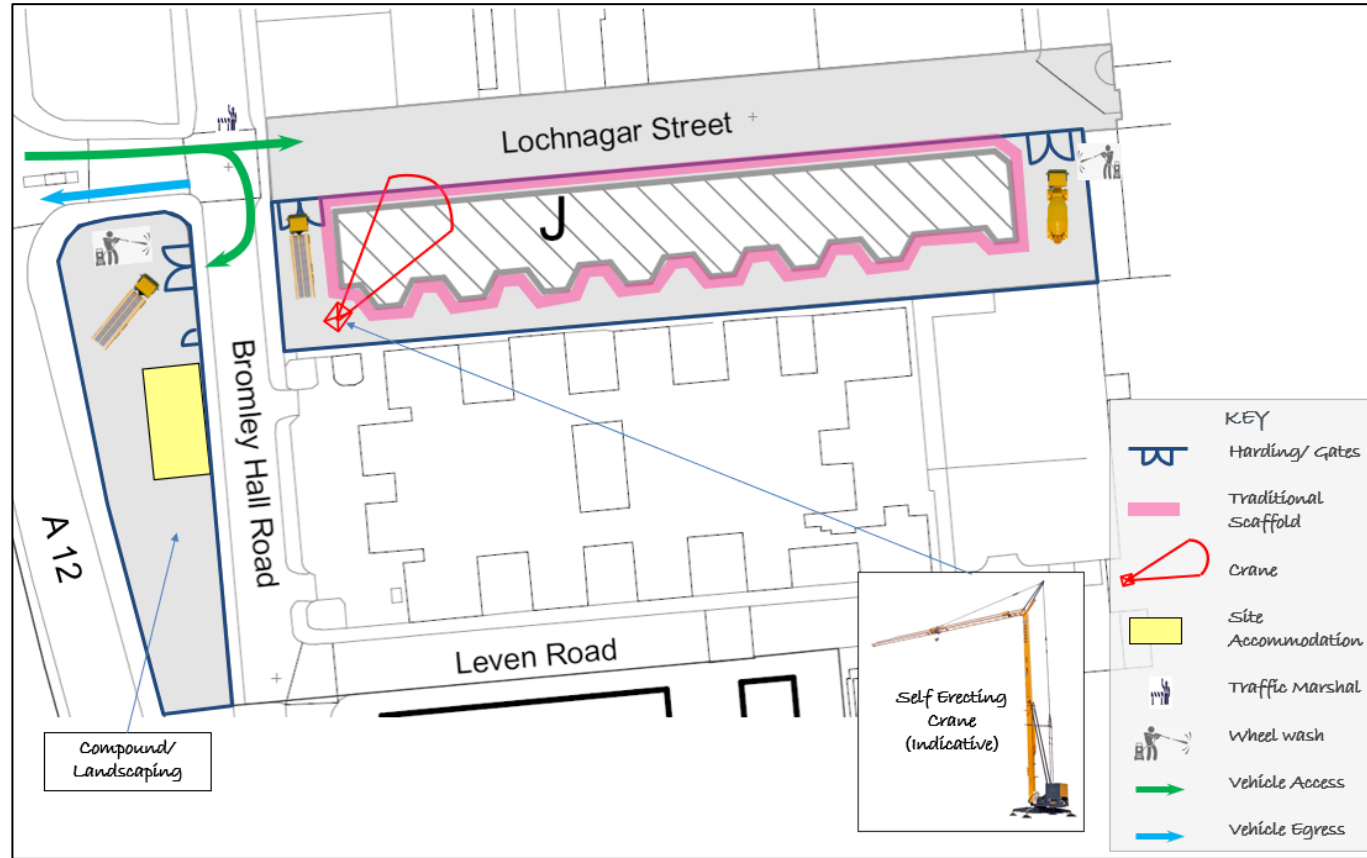


Figure 5.6 Phase A Buildings H1-H3 And F Construction. Year 2 Q1 To Y3 Q4

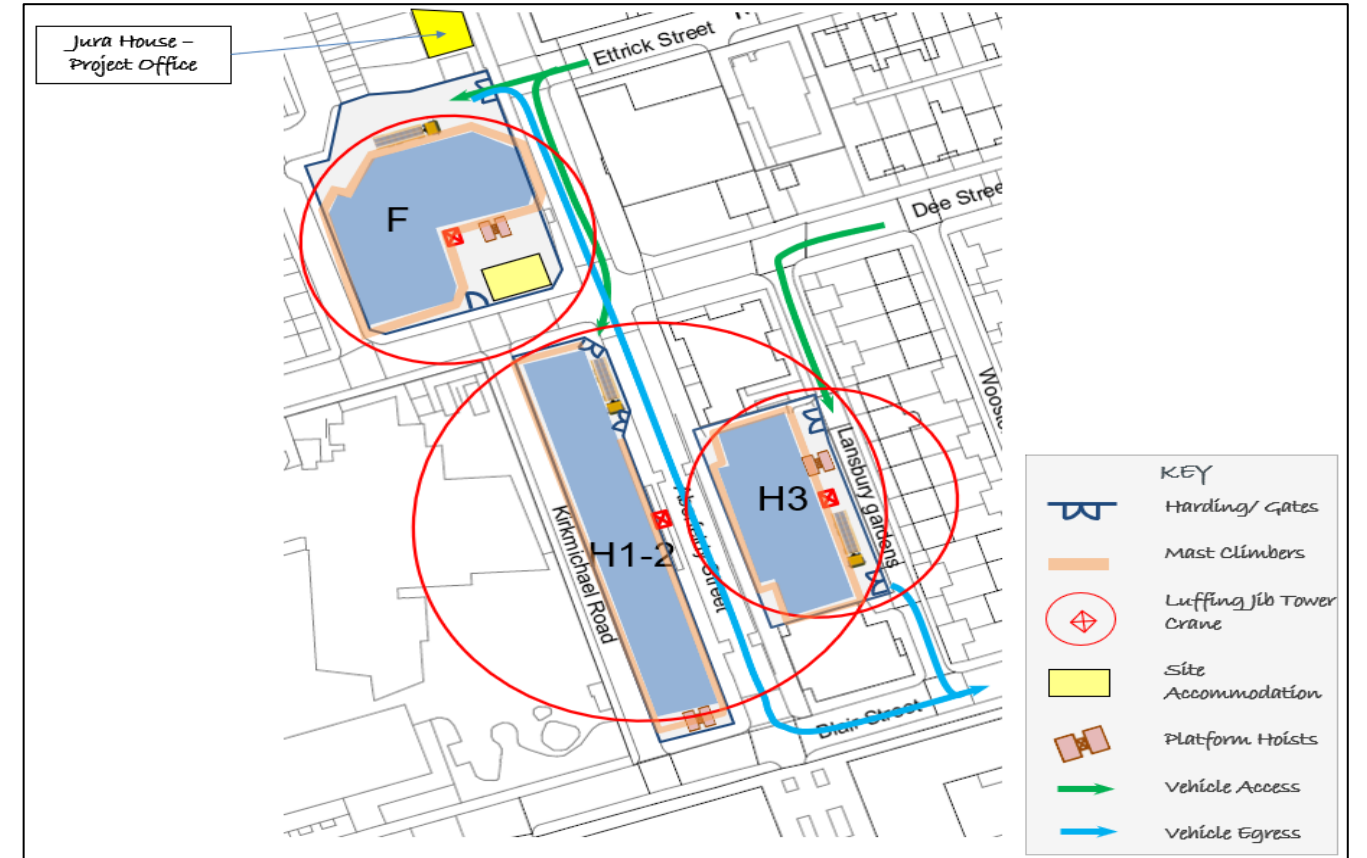


Figure 5.5 Phase A Demolition For Buildings H1-H3 And F. Year 1 Q4

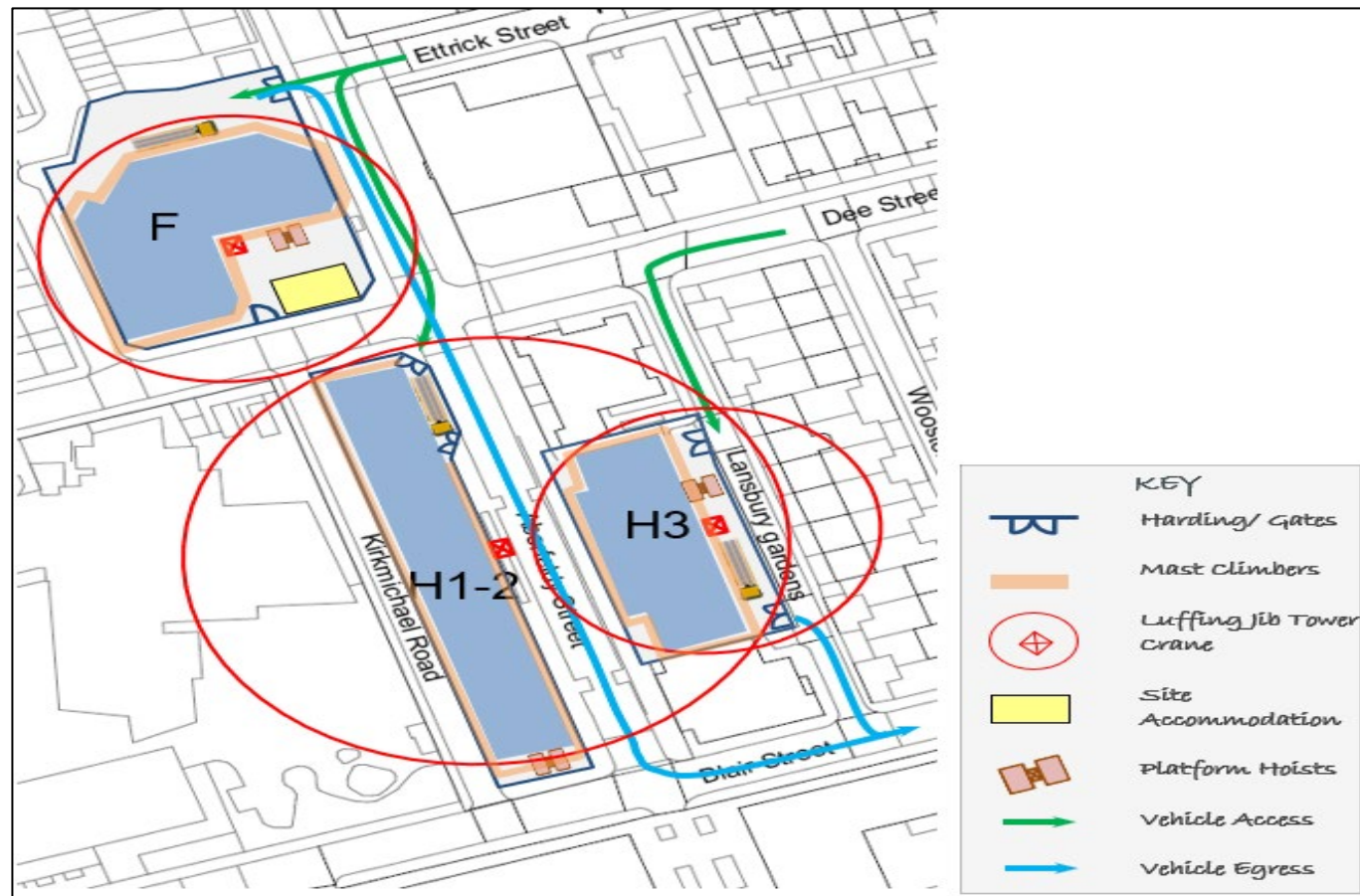


Figure 5.7 Phase A. Demolition For Building I. Year 1 Q4/ Year 2 Q1

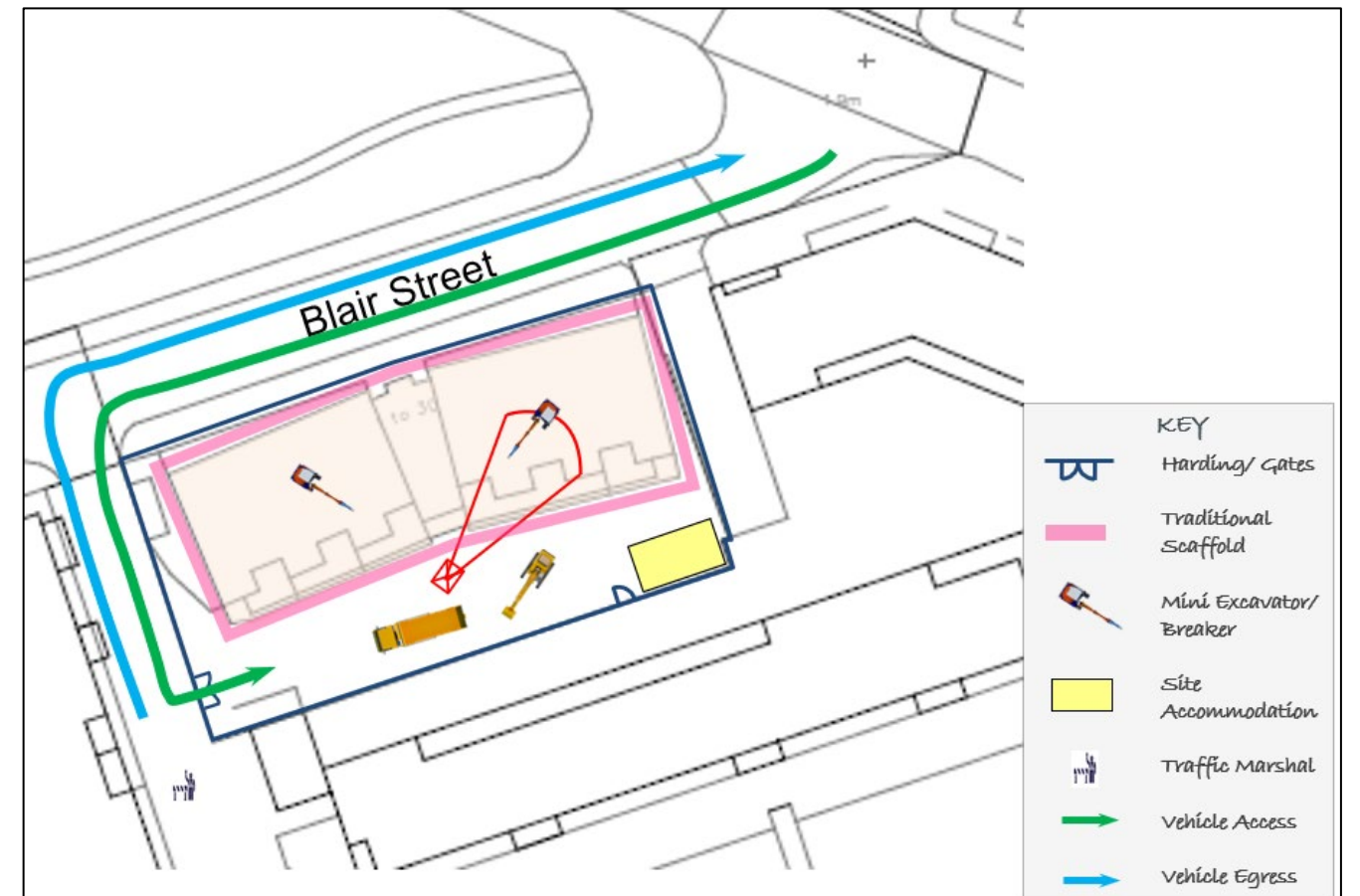


Figure 5.8 Phase A Building I Construction. Year 2 Q1 To Year 3 Q4.

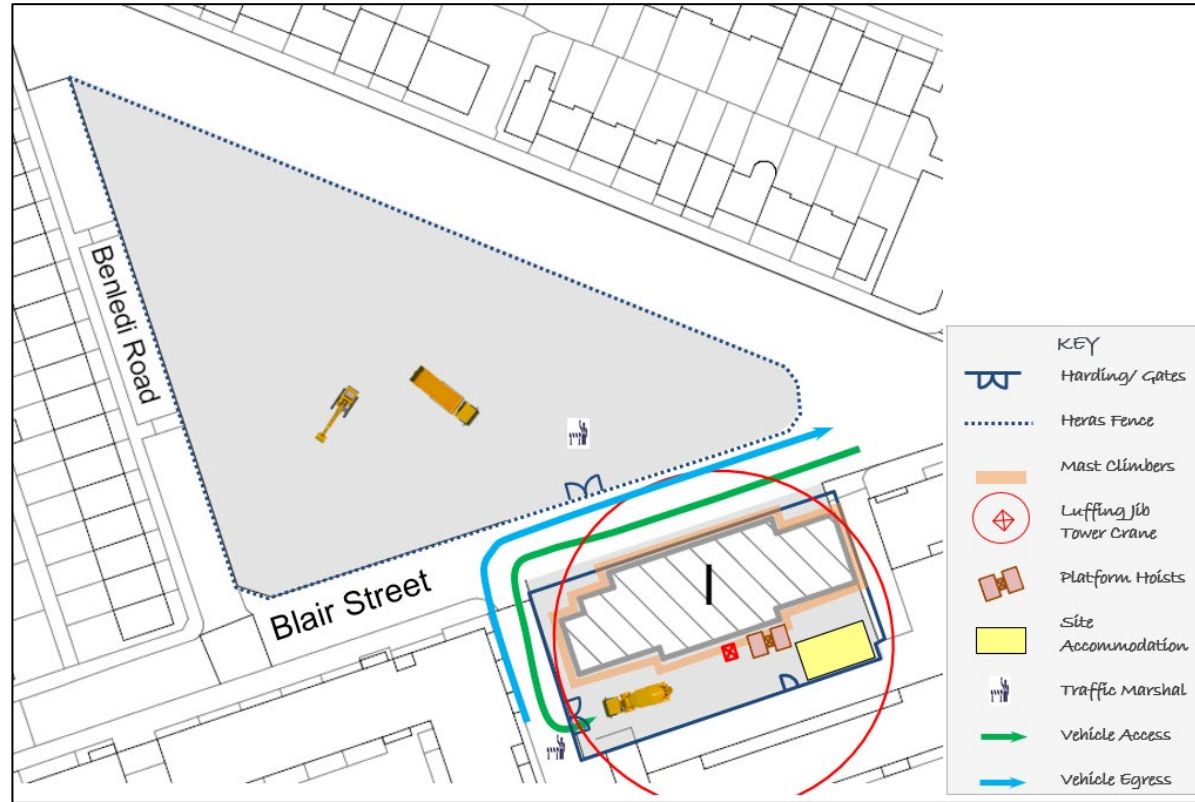


Figure 5.9 Phase B. Demolition For Buildings A1-A3, B1-B5. Year 3 Q3 To Q4

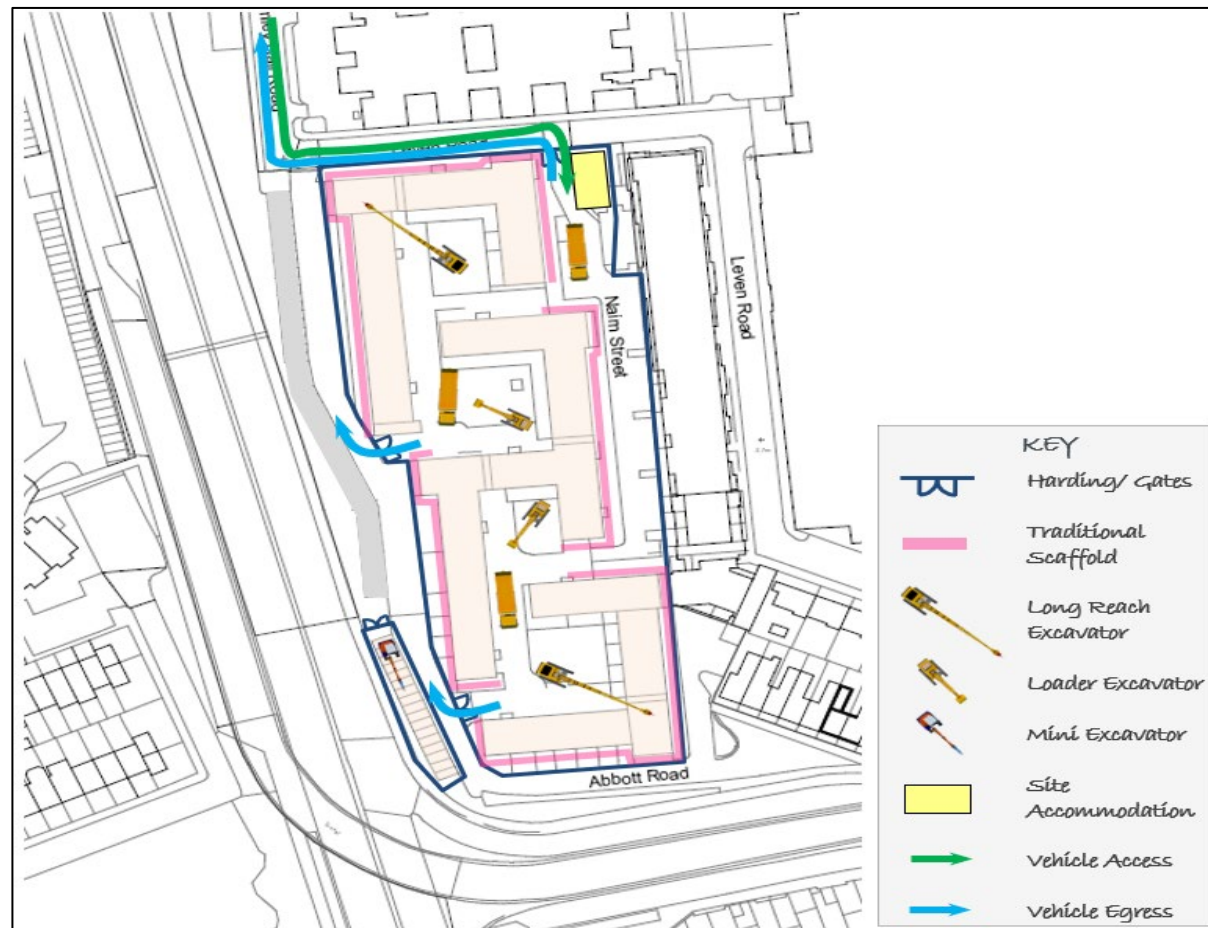


Figure 5.10 Phase B. Buildings A1-A3, B1-B5 Construction. Year 4 Q1 To Year 6 Q3

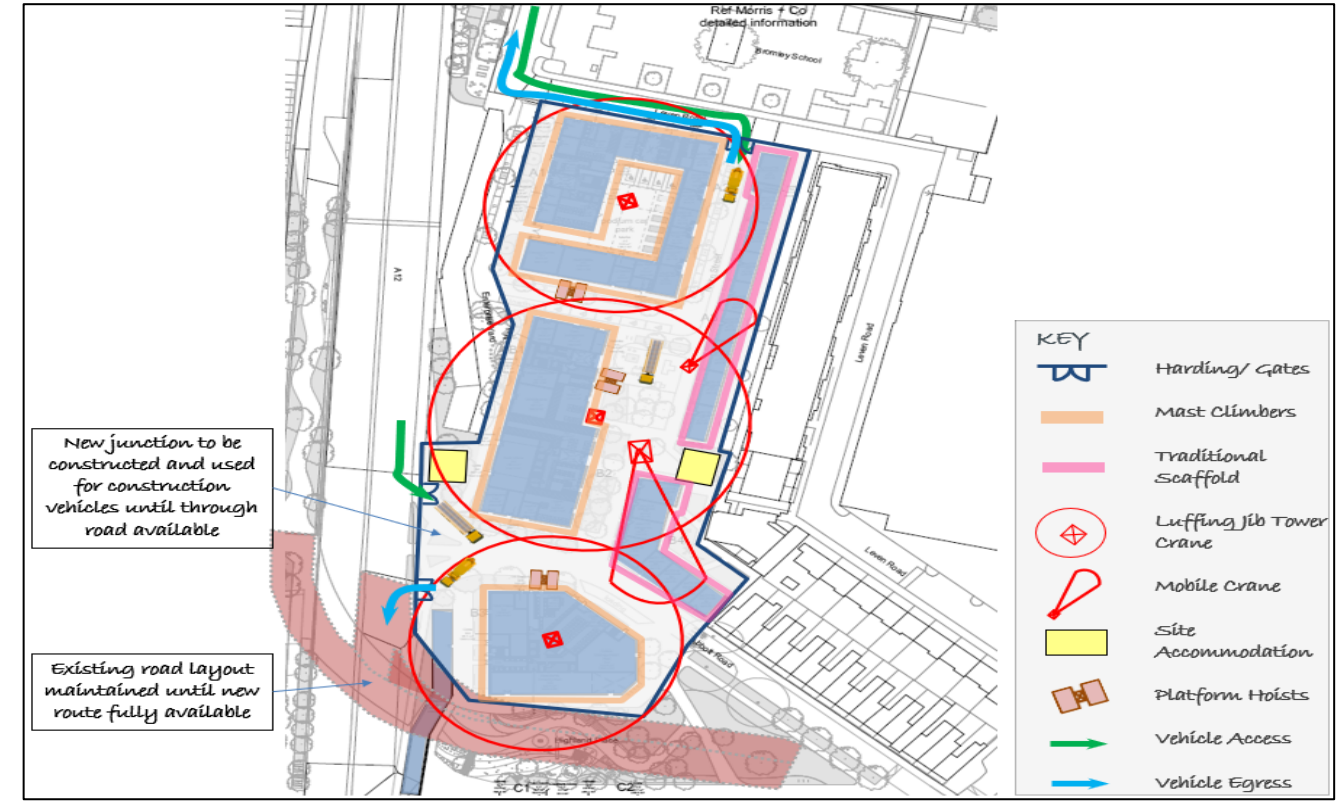


Figure 5.11 Phase C And D Demolition For Buildings C1-C4, D1-D4 And E1-E3. Year 6 Q2-Q4

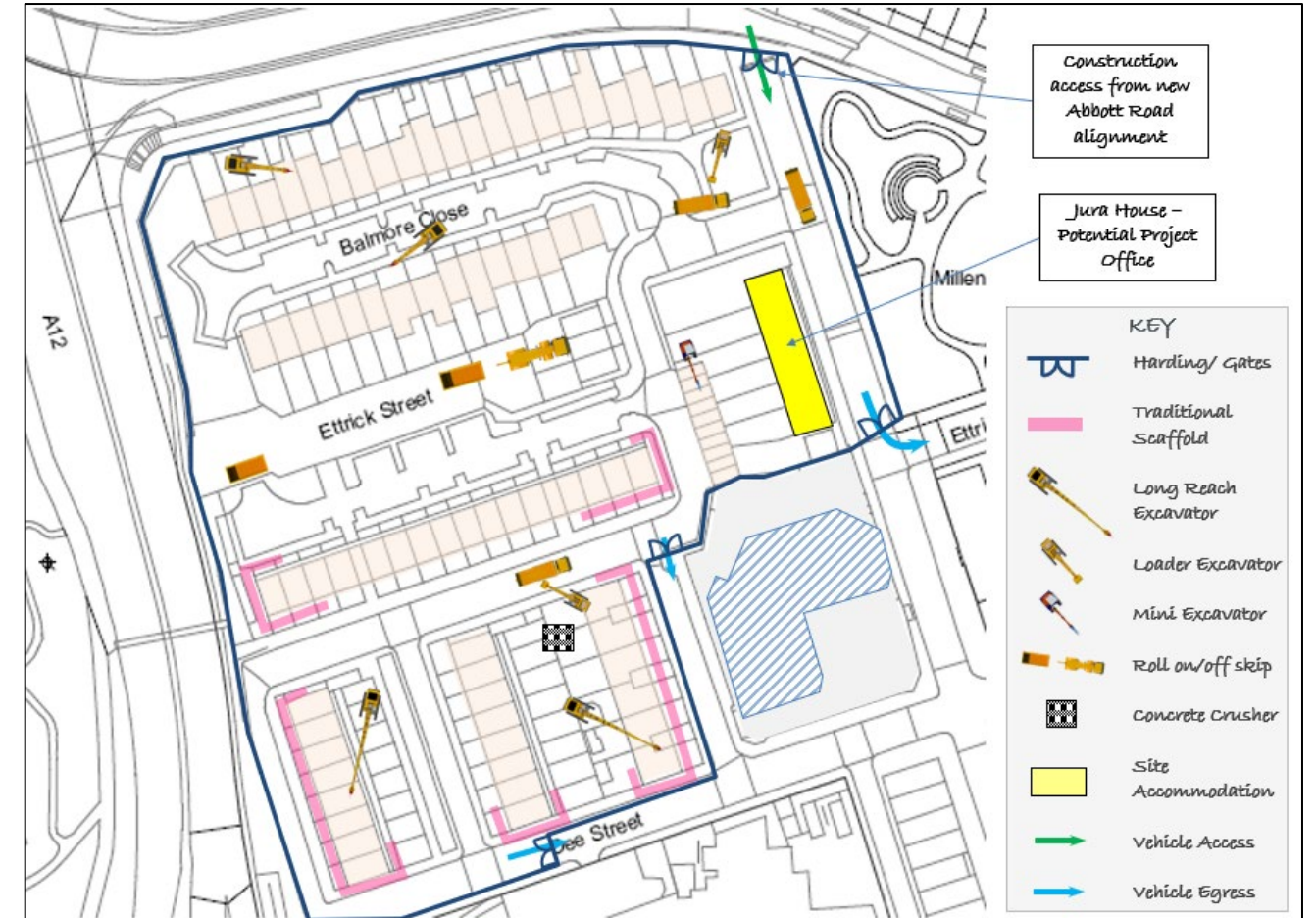


Figure 5.12 Phase C. Buildings C1-C4 And E1-E3 Construction. Year 7 Q1 Year 9 Q4

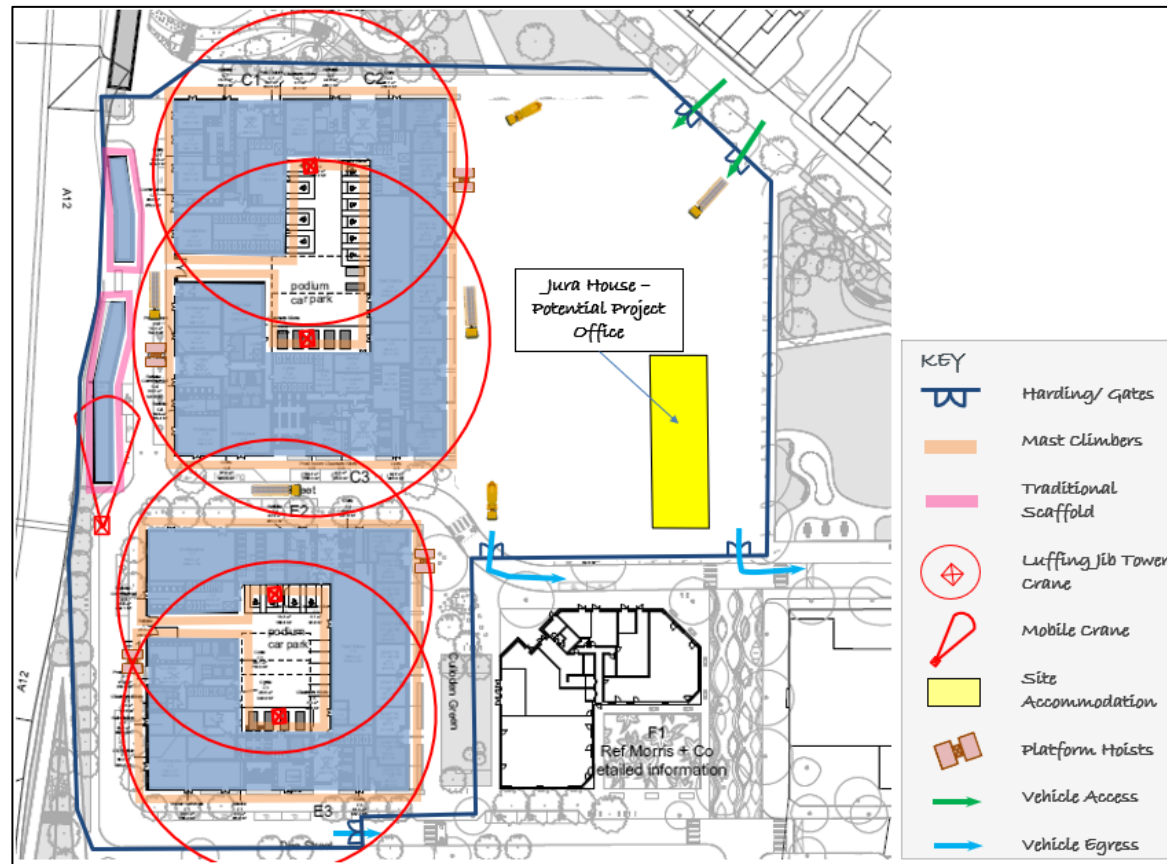
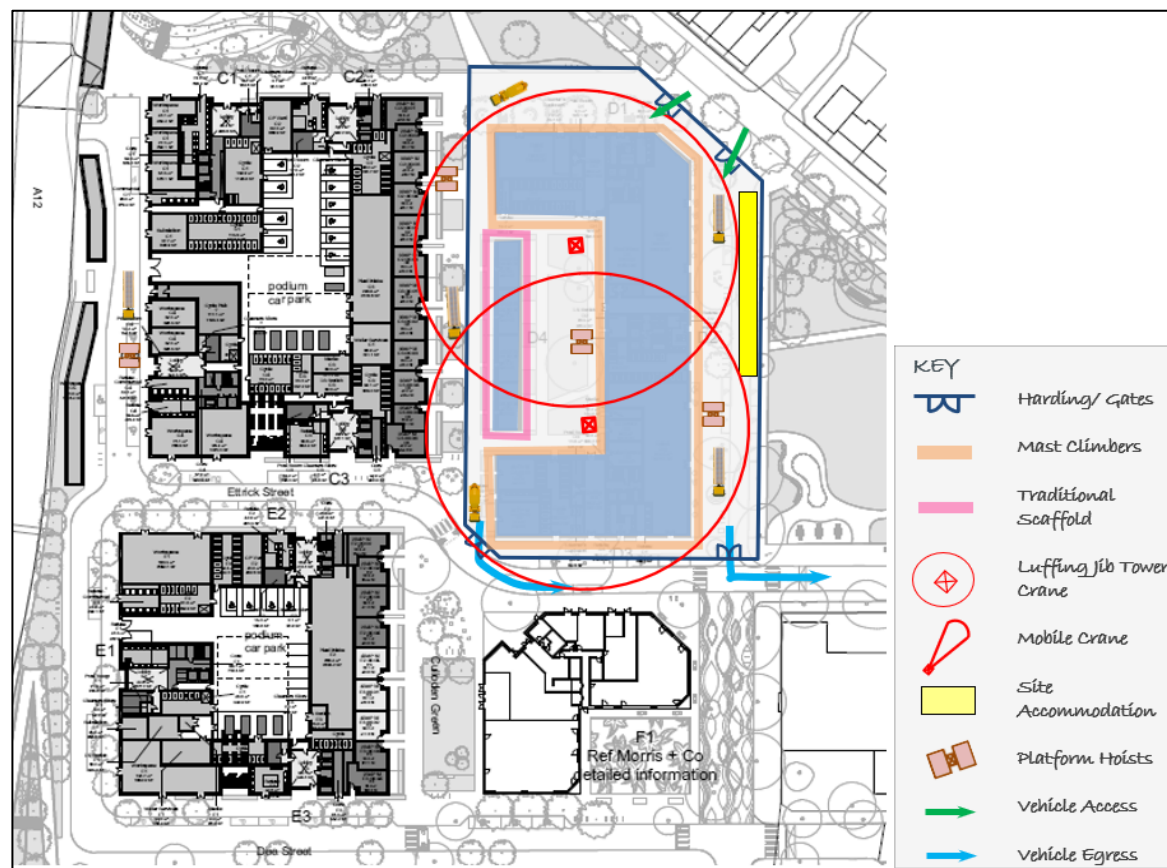


Figure 5.13 Phase D. Buildings D1-D4 Construction. Year 10 Q3 To Year 12 Q2



DESCRIPTION OF WORKS

Site Establishment and Demolition Strategy

5.11 The principal function of site establishment is to prepare the Site area to allow demolition and construction to start whilst maintaining existing facilities and amenities. Site establishment and demolition will be undertaken in phases to suit the construction sequence. These works will include, but will not be limited to:

- Jura House, a residential block located on the Site of the final phase will be retained after vacant possession as a temporary Project Office (subject to future planning permission) for the works;
- The remainder of the Plots will be secured once vacated, and close boarded timber hoardings will be erected to the entire perimeter, with access gates for demolition and construction traffic in key locations;
- Live services to the Plots will be identified and terminated as required, with services to live buildings maintained or reconnected;
- Local alterations to utility supplies will be undertaken to allow temporary builders connections and to prepare for future permanent installations;
- Associated minor highway works to facilitate construction access will be undertaken; and
- Works to form the revised alignment of the B125 Abbott Road will be undertaken in Phase B. Early construction of the new junction with the A12 will allow construction traffic to access the Phase B Plots with reduced disruption of local streets.

5.12 A number of surveys and investigations will need to be undertaken prior to the commencement of works on across the Site, as identified below, although it should be noted that it is likely that some of the surveys and investigations will need to be undertaken once the construction Plots are fully established to facilitate ease of access to the Site for exploratory purposes. The following surveys and investigations are envisaged:

- Condition survey of boundary walls and fences;
- Condition survey of roads and pavements;
- Condition survey of adjoining buildings;
- Existing utilities tracing;
- CCTV drain surveys;
- Party Wall surveys;
- Geotechnical and environmental surveys and remediation;
- Unexploded ordnance; and
- Asbestos surveys of the buildings to be demolished (after full vacant possession).

5.13 All statutory, Local Planning Authority (LPA) consents and licences required to commence any on site activity will also be obtained ahead of the works commencing and give the appropriate notice period. These will include but not necessarily be limited to:

- Notices for works on the highway in accordance with the Highways Act 1980 and Road Traffic Act 1998;
- Hoarding, scaffold and crane licences for works on the perimeter boundary;
- Construction Phase Plan under Construction Design and Management (CDM) Regulations;
- Health and Safety Executive (HSE) F10 Notification;
- Demolition Method Statements (DMS) and Risk Assessments;
- Construction Method Statement (CMS) and Risk Assessments;

- Section 80 (Demolition Notice) Application;
- Section 61 (Noise Control) Application;
- Construction notices;
- Connections to existing statutory services and main sewers;
- Licence for discharge of water from the Site into the public sewer;
- Party wall act notices and agreements; and
- Approval of relevant demolition and construction related environmental management plans and other supporting documents).

Site Establishment & Welfare Facilities

- 5.14** Construction site areas will be made safe and secure prior to works commencing and the general public will be separated from the works, with the use of solid and well maintained, 2.4m high hoardings. Secure access points with wheel cleaning facilities will be established at all site access and egress locations. Pedestrian access points for operatives will generally be located close to the main vehicular access gates with separate pedestrian gates and footpaths provided. Public access to neighbouring buildings will be safeguarded and will be entirely separate from construction areas.
- 5.15** In addition to the use of Jura House as the main Project Office (subject to planning permission), site offices and associated welfare facilities for the workforce will be provided for each Plot. Contractors offices and welfare facilities will be established in temporary cabins as works progress. The locations will be identified in advance and agreed with the LBTH as part of the detailed construction and demolition logistics programming and approval of the DMS, CMS and CEMP. It is anticipated that further information and details on this will be submitted, pursuant to planning conditions in relation to construction and demolition management.
- 5.16** Perimeter scaffolding with Monarflex sheeting will be designed to ensure that safe access for both pedestrians and vehicles accessing the retained neighbouring buildings and surrounding streets.

Demolition

- 5.17** Two methods of demolition will be adopted and will be refined following further risk assessment of the individual sites and surrounding areas. Taller buildings that lie alongside congested areas and public highways will be demolished using a "Top Down" method. 'Top-Down' demolition offers more control and accuracy over standard mechanical demolition methods. The Blair Street Plot where Building I is proposed in Phase one is an example where "Top Down" would be appropriate. The majority of buildings, where a safe buffer zone exists within the Site boundary, will be demolished by "High Reach" machines. This dual approach to demolition will ensure that high reach plant operated at a considerable distance from the public and is contained within the central areas of the Site. Further details of the methods to be applied follow below.
- 5.18** The first areas of demolition will focus on both the Phase A construction areas. The area for Building Plot J has been previously demolished and once secured will be investigated and cleared of vegetation and below ground obstructions. Building Plots F, H and I will be secured, hoarded and prepared for demolition by top down or high reach methods.
- 5.19** A "Soft Strip" will entail the removal of all internal furnishings, windows and roof plant, and will include the safe removal of asbestos within the existing buildings by a specialist contractor. Advanced building surveys will be carried out as part of the pre-demolition process following vacant possession of each building, including a full Refurbishment & Demolition (R&D) survey of materials containing asbestos. Waste arising from the soft strip will be separated on site into recyclable waste streams for processing off site.
- 5.20** Top-Down demolition is undertaken by encapsulating the building with scaffolding and Monarflex, back propping the floors where required (subject to engineer's report) and lifting smaller machines into the building by crane. The building is then reduced a floor at a time. The arisings from the demolition shall either be loaded down stripped out lift shafts or lifted down in bins using a crane.
- 5.21** For High Reach demolition of the central areas of the Site, buildings are demolished in a step like manner working through the structural bays on each floor using excavators fitted with long reach arms. Arisings on the floors will be scraped off periodically to keep the weight on the slabs to a minimum. Independent scaffolding and Monarflex will be used on key elevations and water hoses fed up through the machine arm assists dust suppression. Arisings on the ground will be processed for crushing using standard height machines.

- 5.22** The buildings will primarily be dismantled using a combination of machine mounted pulverisers, crushers and shears. Water dousing will be carried out using recycled water where possible, to control dust. Noise levels will be controlled using best practice controls and management including the provision of screening where required. It is anticipated that the concrete materials recovered from the demolition process will be crushed, graded and stockpiled on site, and then ultimately reused on site. In the event of contaminated material being identified, the contaminated material will be segregated and removed from site to a suitable landfill.

Infrastructure Services

- 5.23** The Utilities and Foul Sewage Assessment prepared in support of this application identifies works required and connections to existing utilities. A strategy of new and temporary provision will be agreed as the design is further developed, notably for electrical substations where phase provision of proposed new substations will be planned, ensuring existing services are maintained.
- 5.24** Various utilities and services exist on the Site. To eliminate the risks associated with live services, existing services will be identified and terminated prior to demolition commencing. Temporary services will be installed in advance of these terminations as necessary. All new cables and services will be clearly marked, located and identified.

Earthworks, Piling and Foundations

- 5.25** All of the proposed buildings are founded at ground level with the exception of Building Plot B3 in Phase B of the Outline Proposals which has a single level basement.
- 5.26** New piled foundations will be required to support the new construction. Design is at an early stage and remains subject to further site investigations, but current expectation is that piles for Phase A Buildings will be Continuous Flight Auger (CFA), 600mm diameter and up to 20m deep. Phases B to D remain subject to future design development.

Substructure Construction Methodology

- 5.27** When demolition is complete at each building, a piling platform will be constructed using compacted crushed demolition arisings that will have been stockpiled for this purpose. Pile probing for below ground obstructions will be undertaken prior to forming the piling platform.
- 5.28** Piling will be undertaken from a piling platform at the existing ground level. Excavation for below ground drainage, ground beams and pile caps will follow piling operations. Basement and ground level slabs will then be cast.
- 5.29** A single piling rig is likely to be on site for each of the buildings in Phase A, although multiple rigs may operate on the larger phases in the future. Piling will be serviced by small crawler cranes and 360° excavators. Concrete will be delivered by ready mix trucks and placed directly from the vehicle's placement chute where possible.
- 5.30** Fixed tower cranes, needed for building each superstructure, will be erected during the piling works and will be used to service the remaining substructure construction. Cranes will generally be positioned within the footprint of each of the taller buildings. Low rise structure will be constructed using smaller mobile cranes.

Superstructure

- 5.31** The superstructures to the residential buildings will be reinforced concrete framed with ribbon columns and flat slab floors. The concrete cores may be constructed ahead of the main frame by slip-forming or jump-forming. Consideration will be given in the detailed construction planning to utilising prefabricated elements, such as columns and staircases. Balconies will need to be carefully considered as the final detailing can dictate method and sequencing of the superstructure frames. It is envisaged that the final balconies design will allow a 'clip-on' approach, fixed to the external cladding.
- 5.32** Fixed tower cranes will be used to assist with construction of the superstructures in a conventional manner on a floor by floor basis. Concrete will be placed by concrete pumps and placing booms.
- 5.33** Access and edge protection will be incorporated in the design of the falsework system which could include climbing screens to contain construction operations for the taller buildings.
- 5.34** The lifting equipment (e.g. mobile cranes, tower cranes, other lifting equipment such as elevated working platforms or forklifts etc) that will be required throughout the construction works is yet to be determined in detail. However, as part of the DMS and CMS, a lifting strategy will be developed and prepared in accordance with the detailed design and statutory obligations. The LBTH will be consulted throughout preparation of the lifting strategy to ensure an appropriate proposal is put forward for consent. All necessary permits and licenses (e.g. permits and over sailing licenses (where applicable) for tower cranes) will be secured, and risk assessments

and safe working instructions prepared and approved, ready for implementation by the contractor prior to the use of this type of equipment on site.

Envelope / Cladding

- 5.35 The new cladding will be a mixture of components for which specific methodologies will be developed once the design has been further developed. For the purposes of construction planning at this stage, it has been assumed that the inner skin of the perimeter walls to residential blocks would ideally be a Metsec, or similar SFS (Steel Framing System) which will allow earliest creation of a watertight environment for fit out works to commence.
- 5.36 For the low rise buildings traditional scaffolding would be erected as concrete frames near completion for the construction of SFS, windows and membranes; followed by hand laid brickwork, or rendered rainscreen panels. For the taller buildings mast climber platforms may be used for access rather than scaffolding.
- 5.37 Materials will be transported vertically by platform hoists. Mortar would be delivered as dry ready mix and stored on site in silos for daily preparation and use.
- 5.38 The final operations for tower cranes will be to deliver roof materials, plant and equipment, after which they will be dismantled and removed. External hoists will remain in position throughout the envelope construction and to move fit out materials. Hoists will remain in position until permanent lifts are operational.

Fit-Out and External Works

- 5.39 Finishes and services fit out will commence once a level of temporary or permanent water tightness has been achieved, working from the lower floors upwards. The fit-out works will comprise the complete installation of finishes and services to the residential units, common areas and cores.
- 5.40 As each building nears completion the construction site area will be reduced, and the local hard and soft landscaping areas released. Finally, the temporary site facilities and hoardings will be cleared and the final landscaping completed for the public realm.

Highways Works

- 5.41 The proposed project includes the realignment of the junction of the B125 (Abbott Road) and A12 including the pedestrianisation and landscaping of the current northbound underpass. The highways alterations will mostly be undertaken in Phase B. The junction and underpass will remain open throughout the demolition and construction to help mitigate the additional traffic flows. Early construction of the new junction (in year 4) will provide a direct construction access to Phase B from the A12.
- 5.42 The new alignment of Abbott Road will be constructed through the Phase B Plot in parallel to construction of the buildings in year 5 and the underpass would be closed around the end of that year. The pedestrianisation and landscaping of the underpass would then be concluded in year 6, the final year of Phase B works.

Temporary Road, Footpath or Cycleway Closures over the Demolition and Construction Period.

- 5.43 Whilst construction planning is at an early stage it is recognised that there will be permanent and temporary closures and alterations to roads and footpaths to facilitate the works and public realm improvements. No designated cycle ways are currently anticipated to be affected. In addition to the realignment of the B125 previously described the following roads and footpaths are likely to be affected and may be the subject of future Temporary Traffic Regulation Orders and/ or Hoarding & Scaffold Licence Applications within the Construction & Demolition areas indicated in **Figure 5.3** to **Figure 5.13**:

- Phase A. No road closures. Hoardings and scaffolds potentially required on footpaths to:
 - Aberfeldy Street
 - Kirkmichael Street
 - Blair Street
 - Dee Street

- Phase B. Phased alterations to the B125 as previously described including the new junction with the A12, plus road closures to:
 - Nairn Street
 - Abbott Road (South)
 - Oakes Mews (West) (pedestrian way)
- Phase C/D. Road closures to:
 - Balmore Close
 - Findhorn Street
 - Ettrick Street (West)
 - Culloden Street
 - Dee Street

EMBEDDED CONSTRUCTION RELATED MITIGATION FOR EIA

- 5.44 For the purposes of the technical assessments provided as part of this ES, the following construction related mitigation measures are taken as 'embedded' and so factored into the technical assessments to define the potential for likely significant effects. All other construction related mitigation that has been identified as being required to reduce the scale and so significance of residual effects or render residual effects insignificant is 'additional mitigation' and is presented in **ES Volume 1, Chapter 17: Mitigation and Monitoring Schedule**:

- Use of 2.4m high solid timber construction hoardings;
- Implementation of wheel cleaning facilities at all site access and egress locations;
- Use of Continuous Flight Auger piling techniques; and
- Re-use and re-cycling of demolition materials.

- 5.45 Additionally, this also includes measures set out within the:

- The Control of Pollution Act (COPA) 1974¹ with particular reference to part III;
- The Environmental Protection Act 1990²;
- The Control of Noise at Work Regulations 2005³; and
- The Health and Safety at Work Act 1974⁴.

ESTIMATED DEMOLITION QUANTITIES

- 5.46 **Table 5.2** provides an estimate of the quantities of material likely to be generated as a result of the demolition works.

Table 5.2 Demolition Quantities

| Demolition Material | Demolition Quantities (Tonnes) |
|---------------------|--------------------------------|
| Crushed Concrete | 5,791 |
| Mixed Metals | 1,277 |
| Mixed Hard Waste | 872 |
| Masonry | 4,218 |
| Asphalt | 298 |
| Bituminous Felt | 230 |
| Glass | 185 |

¹ UK Government, The Control of Pollution Act 1974
² UK Government, Environmental Protection Act 1990

³ UK Government, Control of Noise at Work Regulations 2005
⁴ UK Government, Health and Safety at Work etc. Act 1974

| | |
|-----------------------|---------------|
| Plasterboard/ Plaster | 338 |
| Ceilings/ Insulation | 599 |
| Carpets/ Flooring | 126 |
| Cables | 39 |
| Timber | 394 |
| Plastics | 85 |
| Asbestos | 12 |
| Total | 14,482 |

5.47 It is anticipated that the concrete materials recovered from the demolition process will be crushed, graded and stockpiled on site, and then ultimately reused on site. In the event of contaminated material being identified, the contaminated material will be segregated and removed from site to a suitable landfill.

5.48 We currently estimate that all of the crushed concrete (5,791 tonnes) will be used on site in the construction of the piling platforms.

ESTIMATED CONSTRUCTION QUANTITIES

5.49 Table 5.3 presents estimated of key construction materials associated with the construction of the Proposed Development.

Table 5.3 Estimates Of Key Construction Quantities

| Materials Delivered | Quantities |
|---|-----------------------|
| Concrete in Piles | 17,259m ³ |
| Concrete to foundations and substructures | 5,800m ³ |
| Concrete in Superstructures | 74,100m ³ |
| Substructure Rebar | 6,300T |
| Superstructure rebar | 8,800T |
| Structural Steel | 1,020T |
| Façade Cladding and Glazing | 88,500m ² |
| Roof finishes | 9,545m ² |
| Blockwork Walls | 126,100m ² |
| Internal Walls | 201,990m ² |
| Ceilings | 11,590m ² |
| Wall Finishes | 264,500m ² |
| Floor Finishes | 62,000m ² |
| Hard and Soft Landscaping | 5,300m ² |

CONSTRUCTION WASTE

Excavated Material

5.50 Arisings from excavations of basements, foundations and groundworks are estimated to be in the order of 21,300m³. All arisings will be removed from site and re-used as fill on suitable projects (subject to satisfactory testing of condition).

Waste

5.51 Construction waste volumes have been estimated using Building Research Establishment (BRE) Waste Benchmarking data, which outlines likely construction waste arisings in tonnes for new build construction projects, based on real-life data. The BRE Benchmark data identified the average volume of construction waste per 100m² of floor area (GEA) for residential projects is 18.1 m³/100m² or 16.8 tonnes/m²

5.52 Based on this information, the Proposed Development is likely to generate approximately 31,500m³ construction waste, which equates to a total of approximately 29300 tonnes over the whole development. Construction waste will be separated into recyclable waste streams before removal from site for disposal.

SITE ACCESS AND EGRESS

Access and Egress

5.53 The main site access gate locations will vary as the phases develop as shown in **Figure 5.4** to **Figure 5.13**. Construction traffic access will mostly be from the A12 and B125 (Abbott Road).

Main Access Routes

5.54 From the south, vehicles will access the Site via the A2 Blackwall Tunnel, joining the B125 from the A13 Newham Way.

5.55 From the east, vehicles will approach on the A13 entering the Sites via the B125 Abbott Road.

5.56 From the north, vehicles will approach on the A12, entering sites directly or via the B125.

5.57 Works to construct the new junction of the B125 and A12 will be phased as previously described to limit the impact of construction traffic as far as possible. **Figure 5.14** below identifies this construction vehicle routing.

5.58 As the demolition and construction programme progresses, construction haul roads within the site boundary will be relocated around the site to serve efficiently the parts of the sites “under construction” and to minimise disturbance to existing surrounding sensitive receptors.

5.59 Secure access points with wheel cleaning facilities will be established at each site when excavation and groundworks are taking place. Pedestrian access points for construction workers will generally be located close to the main vehicular access gates with separate pedestrian gates and footpaths provided.

5.60 To minimise the likelihood of congestion during the demolition and construction period, strict monitoring and control of vehicles entering and egressing the sites will be implemented. Construction deliveries will be carefully planned with delivery times agreed with each contractor using a booking system. Delivery schedules will be produced in order to look at the profiles of up and coming deliveries, and to regulate deliveries and eliminate bottle necks.

5.61 Specific time slots will be allocated to the sub-contractors and suppliers for the use of cranes and hoists, to ensure that the main plant will be utilised efficiently, and that deliveries are not queued.

Road Vehicle Numbers

5.62 The anticipated number of demolition and construction vehicles serving the site has been reviewed over the duration of the demolition and construction programme. **Figure 5.15** identifies the anticipated average number of vehicles per month over the duration of the demolition and construction programme. **Figure 5.15** shows that the anticipated average monthly number of vehicles is expected to peak during months 44 and 45 of the construction period. This peak equates to 64 HGVs per day, or 98 vehicle movements. This corresponds with when most construction activity will be occurring on site.

Figure 5.14 Construction Vehicle Routing (Preferred)

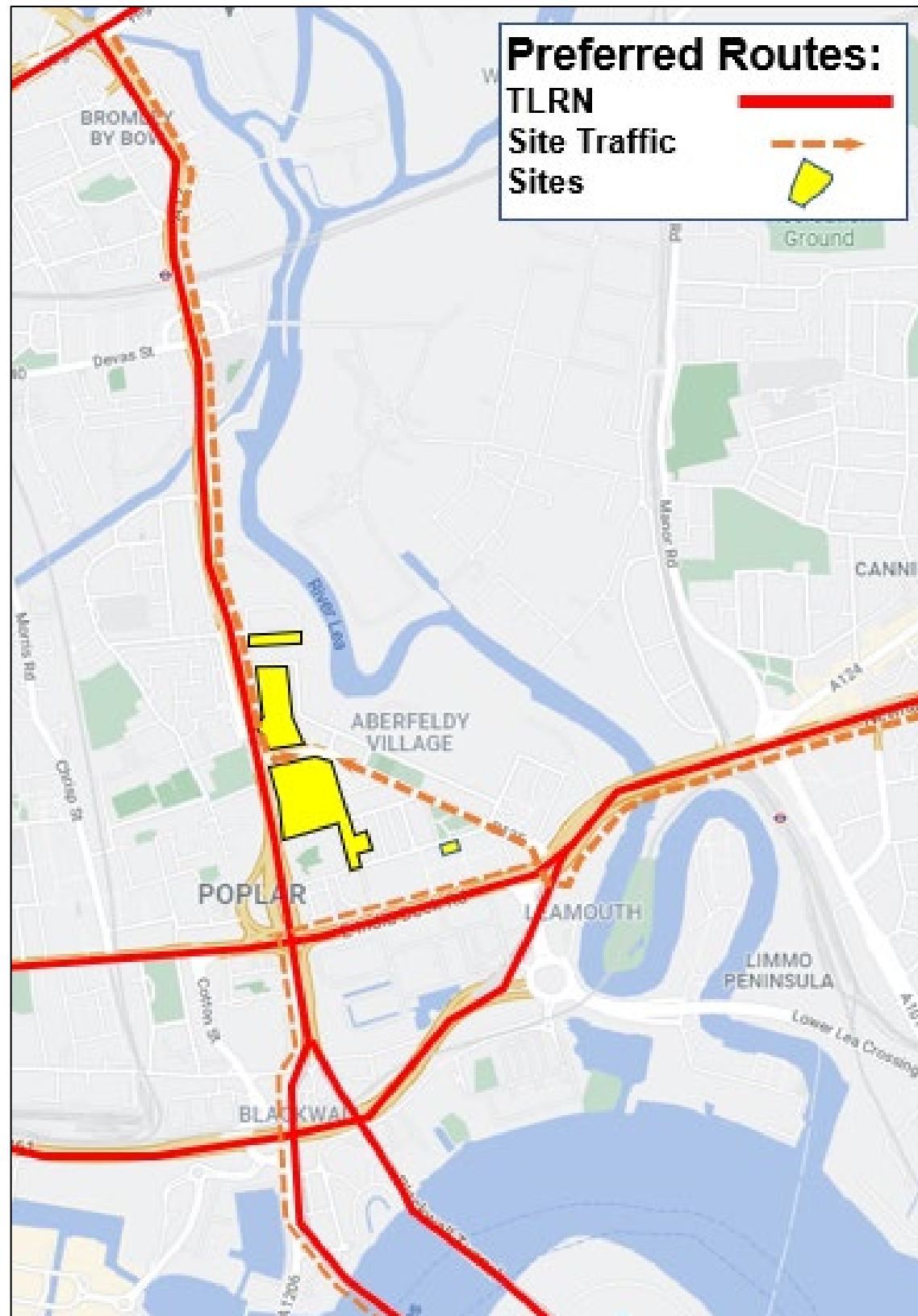
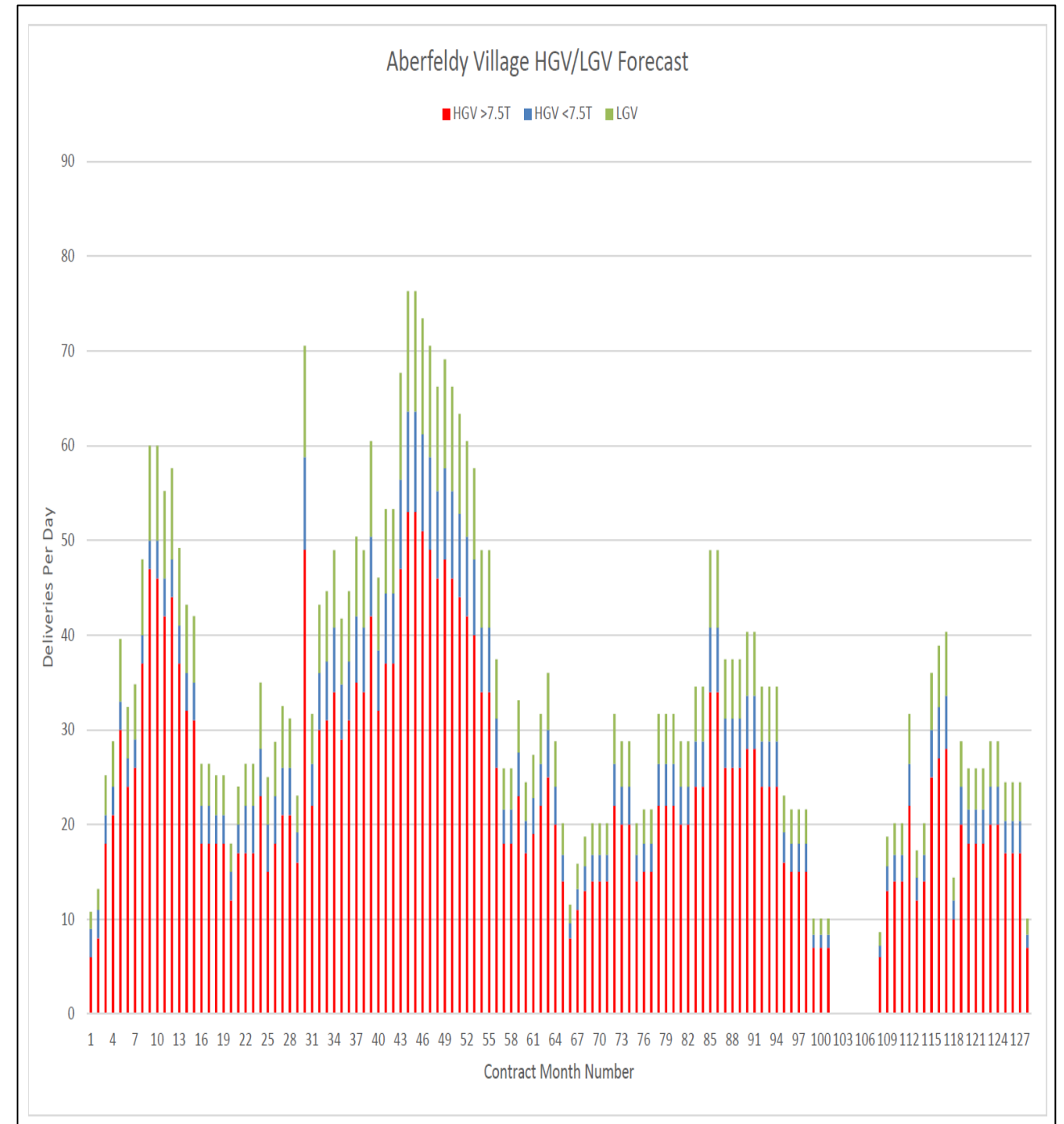


Figure 5.15 Construction Vehicle Forecast (HGV and LGV) – Average Vehicles Per Day



PLANT AND EQUIPMENT

5.63 Consideration has been given to the types of plant that are likely to be used during the enabling, demolition and construction works. The plant and equipment associated with the enabling and demolition works, and construction process is set out in **Table 5.4**

Table 5.4 Plant and Equipment Associated with the Work

| Plant | Demolition Works | Excavation | Substructure | Superstructure | Fit Out | Landscaping |
|---|------------------|------------|--------------|----------------|---------|-------------|
| Bulldozers | | ✓ | ✓ | | | ✓ |
| Dumpers/ Spoil Trucks | ✓ | ✓ | ✓ | ✓ | | |
| Crawler & Mobile Cranes | ✓ | ✓ | ✓ | ✓ | | |
| Tower Cranes | | | ✓ | ✓ | ✓ | |
| Platform Hoists | ✓ | | ✓ | ✓ | ✓ | |
| Cutters, drills and small tools | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Crushers | ✓ | ✓ | ✓ | | | |
| 360° excavators | ✓ | ✓ | ✓ | | | ✓ |
| Floodlights | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Forklift truck | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Generators | ✓ | ✓ | ✓ | ✓ | | |
| Compressors | ✓ | ✓ | ✓ | ✓ | | |
| Hydraulic benders and cutters | | ✓ | ✓ | ✓ | ✓ | |
| HGVs/lorries/vans | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Piling rigs | | | ✓ | | | |
| Scaffolding and mobile hydraulic access platforms | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Ready-mix concrete lorry | | | ✓ | ✓ | ✓ | ✓ |
| Concrete pump | | | ✓ | ✓ | | |
| Mortar batching plant | | | | ✓ | ✓ | |
| Water Pump | ✓ | ✓ | ✓ | ✓ | | ✓ |
| Temporary Supports | ✓ | ✓ | ✓ | ✓ | | |
| Power Tools | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Hand Tools | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

HOURS OF WORKS

5.64 The anticipated core working hours for construction will be in accordance with the CoCP as follows:

- 08:00 – 18:00 hours on weekdays;
- 08:00 – 13:00 hours on Saturdays; and
- No working on Sundays, Bank or Public Holidays, unless otherwise agreed with the LBTH.

5.65 In order to maintain the above core working hours, the Principal Contractor may require at certain times a period of up to one hour before and after core working hours to start and close down activities (this will not include works that are likely to exceed any pre 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 the LBTH and other relevant parties.

Community Liaison

5.66 In advance of the works commencing on site, a public briefing / information session for the local community on the works that will be undertaken will be held at a local venue. These drop-in briefing / information sessions will be held periodically (particularly in advance of key milestones in the construction programme) over the duration of the 128-month construction period and will provide an opportunity not only for the contractor and the Applicant to disseminate information but also for local residents, businesses and stakeholders to ask questions of the contractor and the Applicant and raise any particular concerns. The public briefings / information sessions will be publicised via a variety of channels and be open on specified days so those with differing commitments can attend.

5.67 In advance of and during the construction works, the contractor / Applicant will maintain a number of other methods to communicate with the local community to keep them informed of progress on the scheme and enable concerns to be voiced and listened to. These methods will also be used as appropriate to inform local residents and neighbours of any emergency work required on site. These methods will likely include newsletters, drop in sessions, updates via a dedicated website and email address, a dedicated hotline and text alerts for targeted communications (including in the event of emergency works).

Complaints Procedure

5.68 A staffed hotline will be available 24/7. This will provide local residents with the ability to communicate directly with the appropriate personnel allowing escalation procedures to be instigated, ensuring all enquiries are handled promptly.

5.69 The hotline will allow any complaints to be logged and fully investigated, and responded to quickly, advising what action has been taken. If necessary, complaints will be reported to the relevant department of the LBTH.

5.70 The hotline will be operational 24/7, so will be available during normal operational hours and outside of normal working hours. The requirements for the hotline will be set out within the CEMP.

MITIGATION AND MONITORING CONTROLS

5.71 **ES Volume 1, Chapter 17: Mitigation & Monitoring Schedule** presents the environmental management and mitigation measures that the Applicant is committed to implementing throughout the demolition and construction works to, either eliminate, or reduce the significance of any likely environmental effects.

5.72 The Outline CEMP aims to provide an overarching and strategic framework for the management of environmental effects and the implementation of measures prior to, and during, the construction phase of the Proposed Development. It is based on the London Borough of Tower Hamlets (LBTH) Code of Construction Practice and established good management principles. It includes the following information:

- Information pertaining to data management, roles and responsibilities, structure, mitigation and monitoring, auditing, and non-compliance and corrective actions;
- Information pertaining to staff training, health and safety, community liaison;
- Information relating to the Site and the Proposed Development;
- Outline of the construction works, timing and duration;
- Environmental management measures, for the following elements:
 - Transport;
 - Noise and Vibration;
 - Air Quality;
 - Waste;
 - Ground Conditions;
 - Ecology;
 - Surface Water Management; and
 - Schedule of Environmental Legislation.