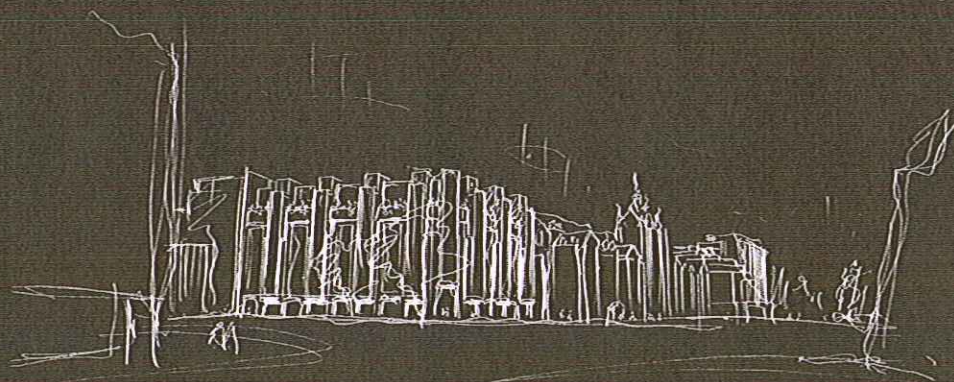


150 Holborn

London EC1

Construction management plan



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Laffly LLP
150 Holborn Camden London
Construction Management Plan
150Holborn/CMP 001

Contents

Page

Contents

1	Introduction	
2	Description of the Project	
3	Programme & Construction Methodology	
	3.1 Programme	
	3.2 The construction sequence	
	3.3 Code of Construction Practice	
	3.4 Neighbourhood liaison	
	3.5 Demolition and Enabling Works	
	3.6 Plant and Equipment	
	3.7 Potential Impacts during construction and demolition	
	3.8 Working hours	
	3.9 Welfare	
	3.10 Workforce	
	3.11 Construction Personnel travel arrangements	
	3.12 Site security	

1 Introduction

This initial Construction Management Plan seeks to address the points identified by LB Camden for the management of traffic during the construction period at and adjacent to the site at 150 Holborn.

This is an initial plan and has been prepared in advance of the appointment of a principal contractor. This plan will be adopted by the principal contractor when appointed and any amendments made to plan at this stage will be made with the agreement of LB Camden.

2 Description of the Project

The project is located at 150 Holborn and comprises a number of structures set in an approximate 'u' shape around a central service yard. The building is currently occupied at Ground floor and First floor level by a number of business's (retail, restaurant and banking) with the upper floors comprising unoccupied office space.

The proposed scheme detailed within the planning application has a limited level of demolition activity (Existing roof levels to be demolished, internal walls and the creation of a double height entrance hall).

The current design intent is to 'overclad' the existing brickwork with the new external facade, minimising demolition and associated disposal as well as providing an opportunity to make early progress with the internal fit out works. The façade system is an area that will be developed and confirmed with specialist contractor's advice during the detailed design phase of the project.

The structural works comprise new steel members with lightweight concrete floors on steel decking to extend the roof floor levels back up to their original levels plus roof extensions in addition a new level of slab will infill the existing blocks to the rear service yard area.

Internally the office areas will be fitted out to a 'category A' level of finish and the 6 residential units will be fully fitted out.

The site is constrained in terms of access; bounded to the West by Gray's Inn Road, to the South by Holborn, the East by Brooke Street and an existing building marks the Northern boundary of the rear service yard. There is a shared entrance to the rear service yard to the East of the site, accessed from Brooke Street.

The service yard currently incorporates an access ramp down to basement car parking for Fox Court, supports fire escapes, deliveries in / refuse out of the Operational business' at the Ground floor level.

It will be a primary, ongoing objective of the Project team to ensure that the impact of demolition and construction works on the day to day activities of adjacent business's, road users, residents and the general public is kept to a minimum for the duration of the works.

3 Programme & Construction Methodology

3.1 Programme

The overall build period is anticipated to be fifteen months which is preceded by a Four month demolition and enabling works phase.

We have carried out a detailed construction programming exercise to inform the level 1 summary programme attached overleaf.

3.2 The construction sequence

The demolition and construction sequence is outlined below and illustrated in the attached sequence sketches. Demolition

1. Erection of hoardings and security fencing
2. Isolation of existing services
3. Identification by surveys and controlled removal of asbestos (where still present)
4. Erect protective gantries and cantilevered protective fans over the adjacent footpaths and access routes
5. Installation of temporary support to ground and first floor level of stair core to provide temporary Barclays Bank fire escape route
6. Erect goods hoist to service yard
7. Soft strip demolition
8. Erection of demolition scaffolds to all elevations
9. Commence hard demolition by stripping out roof (works carried out with the assistance of either a mobile or tower crane, subject to later study)
10. Dismantle roof structures
11. Install temporary weather proofing at level 7
12. Prop and carefully remove the section of the 1st floor slab within the new entrance
13. Erect Tower crane

Construction

1. Bored pile foundations to new core areas
2. Insitu Reinforced Concrete walls and columns
3. New steel structures at roof levels
4. Steel decking and insitu concrete topping
5. Construction of new service yard structure
6. Installation of cladding support work
7. 1st fix Mechanical, Electrical and Plumbing services
8. Roof coverings and finishes
9. External envelope

10. Internal fit out works to the Entrance hall, Basement floor plates and Core areas
11. Mechanical, Electrical and Plumbing services installation. Offsite prefabrication and modularisation to be utilised where practicable
12. Hard and soft landscaping will follow cladding completion and subsequent scaffold dismantling operations
13. Commissioning of the Mechanical, Electrical and Plumbing services will commence as soon as commissionable zones of the various systems become available. Commissioning will progressed through until Integrated systems tests .Demonstration of the various systems will be progressively carried out until successfully completed, commissioned, demonstrated, witnessed, proven and documented.

3.3 Code of Construction Practice

The site will conform to LB Camden Code of Considerate Contractors Standards as noted within the document "Guide for contractors working in Camden" dated 2008, and be registered with the Considerate Constructors Scheme. These schemes encourage contractors to carry out their operations in safe and considerate manner, with due regard to residents, passing pedestrians and road users.

3.4 Neighbourhood liaison

A key aspect of the successful management of the project will be to establish and maintain good relationships with all site neighbours. Once a contractor has been appointed, a construction liaison group will be established with nearest neighbours and those who would be affected by the demolition and construction works.

Prior to commencement of works a single point of contact, (usually the contractors Construction or Logistics Manager) will be established for neighbouring residents. This person will be named at the site entrance, with a telephone number for queries/complaints. Outside normal working hours, site security will act as the main point of contact via a dedicated phone number. Security will alert the Construction or Logistics Manager if necessary (available 24 hours). The Construction or Logistic Manager will keep accurate records of complaints received, which will be made available to LB Camden for inspection.

The Construction or Logistics Manager will inform local residents likely to be affected by the impact of construction activities, such as erecting scaffolding/hoarding, operating mobile cranes, aerial platform operations, concrete pump lorry or any such equipment and shall advise of these planned events with suitable notice.

In the event of unusual activities or events that can be anticipated, these will be notified to LB Camden, and to relevant property owners or occupiers, wherever possible, in advance of the activity which will include:

- Commencement of construction in certain areas
- Road or footpath closures/diversions and movements of wide loads
- Actions requiring monitoring by LB Camden
- Work on or affecting land used by others; the contractor will inform LB Camden as soon as reasonably practicable, should any emergency works arise at short notice, confirmed as essential for reasons of safety, which could cause environmental disturbance.

3.5 Demolition and Enabling Works

All demolition and construction works will be carried in accordance with the LB Camden "Code of Construction Practice" and "Guide for contractors working in Camden" dated February 2008.

Additionally the contractor will be required to actively participate in the Considerate Constructors scheme.

Soft strip works to the internal floor plates will be the initial demolition activity. This will be carried out in parallel with a destructive asbestos survey to ensure that any remaining material is identified and correctly removed and disposed of in accordance with current H&SE guidelines and the specialist contractor's working method statements.

Prior to commencing demolition, the demolition contractor will ensure that all of the utilities have been disconnected in the locations to be demolished.

Protective scaffold gantries will be erected to the entire external perimeter of the site from the onset of demolition up until the completion of the external envelope works. The gantries will be constructed in line with LB Camden Highways department guidelines (i.e. timber hoardings, double boarded/ sheeted gantry roofs, adequately lit, etc).

Special attention will need to be paid to the operational incumbent businesses at Ground floor level, which will remain trading throughout the demolition and construction works.

3.6 Plant and Equipment

Consideration has been given to the type of plant that is likely to be used during the demolition and construction works. The anticipated vehicle type and use as well as the plant and equipment associated with the construction process are set out in the table below.

SUMMARY OF VEHICLE TYPE, USE AND DISTRIBUTION		
Vehicle Type	Use	Distribution
Rigid Heavy Goods Vehicle	Demolition arisings, Excavated material Removal	Strategic road network to motorway
Small Articulated Vehicle	Plant, steelwork, bricks and cladding panels	Strategic road network to motorway
Specialised Articulated HGV	Tower crane erection & dismantle, Mechanical & Cladding panels. Roofing materials	Strategic road network to motorway electrical Plant,
Specialised Equipment Low Loader	Occasional Delivery of Plant	Strategic road network to motorway
Vans	Plant service, materials, other Suppliers. Existing tenants deliveries	Distributed to local and strategic network

Cars	Occasional deliveries, couriers etc	Distributed to local and strategic road network
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ESTIMATED TYPES OF PLANT AND EQUIPMENT FOR DEMOLITION AND CONSTRUCTION					
Plant	Demolition		Substructure	Superstructure	Fit out
Excavators / with hydraulic shears	✓	✓	cutting		
Mini / Tripod piling rigs			✓		
Excavators		✓	✓		
Compressors		✓	✓	✓	✓
Muck away lorries		✓	✓		
Hoist		✓	✓	✓	✓
		Tower crane ✓	✓	✓	
Mobile concrete pump			✓	✓	
General	✓	✓	✓	✓	✓ waste skips
Power tools		✓	✓	✓	✓
Delivery Vehicles	✓	✓	✓	✓	✓
Forklifts		✓	✓	✓	✓
Scaffold access Platforms		✓	✓	✓	
Mobile towers		✓	✓	✓	✓

✓ Indicates plant will be used during that stage of the works

3.7 Potential Impacts during construction and demolition

A review has been undertaken of the potential source of adverse impacts which can be associated with carrying out demolition and construction works. The results of this are presented in the table below;

POTENTIAL IMPACTS AND HEADLINE MITIGATION MEASURES DURING DEMOLITION AND CONSTRUCTION		
Issue	Potential Impacts	Mitigation
Noise	Increased road noise levels from vehicles. Increased noise levels from during demolition, piling and general construction works (e.g. from the use of air compressors and diamond cutters).	Defined working hours, baffles to certain plant, local acoustic plant screening.
Vibration	Increased vibration levels from vehicles. Increased vibration levels from plant during demolition, piling and general construction works.	Phased deliveries to minimise numbers of vehicles attending site,
Dust / Air Quality	Windblown dust from ground surfaces, stockpiles, vehicles, work faces and grinding of materials. 'water down' demolition activities; switch off vehicle engines when Exhaust emissions from lorries and plant delivering and removing materials including dust and particulates.	Cover all open backed vehicles, cutting and parked.
Waste	Waste generation and its disposal.	Instigate Site Waste management Plan and re-cycling programme
Water	Increased sediment loadings to storm- into sewerage collection runoff.	Do not allow direct discharge of water system. water Potentially contaminated storm-water system.
Traffic	Traffic congestion caused by site traffic. Local traffic diversions will be required for tower crane erection and dismantle and mobile crane lift Increased vehicle movements mainly consisting of Heavy Goods Vehicles (HGVs). Nominal levels of transfer of mud and material from vehicles onto the public highway. Disruption from abnormal or hazardous loads. Exhaust emissions.	Phased deliveries to minimise numbers of vehicles attending site, switch off vehicle engines when parked, minimise abnormal loads.

Storage of fuels and construction	Accidental spills, discharges to drains/storm-water systems. discharge allowed into the sewerage collection system.	All fuel tanks etc to be banded, no Contamination to ground.
Pedestrian access	Restrictions on pedestrian access to walkways, footpaths and roads.	Erect protective gantries / pedestrian tunnels over footways.
Hazardous and contaminated materials	Exposure of the workforce to deleterious / hazardous materials and contaminated land, mobilisation of any COSHH assessments and careful implementation of associated pathway from source to groundwater receptor.	Site investigation reports indicate that no contaminated fill is present. source contaminants and creation of working method statements to ensure that no hazardous materials find a path to groundwater source.
Ecology	Water / mud runoff into the drains.	Do not allow direct discharge of water into sewerage collection system, utilise interceptors where necessary.
Energy	Indirect impacts associated with consumption such as CO2 implement.	Site environmental plan to Usage energy emissions, depletion of natural resources, air pollution etc.
Views	Views impacted and/ or impeded from construction equipment, particularly cranes.	Tower crane to be positioned within the service yard area and will have minimal impact upon adjacent views

3.8.1 Mitigation Measures

3.8.1.1 Demolition and Construction method statement

A contractor will be appointed to act as a Principle Contractor to develop and implement a Demolition and Construction Method Statement (DCMS).

The DCMS will be a contractual document outlining the different procedures to be undertaken to complete the various elements of the works. Individual subcontractors will incorporate requirements for environmental control, based on good working practice, careful programming, resource conservation, adhering to health and safety regulations and quality procedures.

In this way those involved with the demolition and construction phase, including subcontractors and site management will be committed to adopt the agreed best practice and environmentally sound methods.

Subcontractors will be required to demonstrate how they will meet the various targets of the DCMS and how the potential impacts will be offset, reduced or minimised.

The DCMS will include the following main items:

- The Demolition and Construction Programme
- A broad plan of the demolition and construction works highlighting the various stages and their context within the project
- Detailed site layout arrangements (including requirements for temporary works), plans for storage, accommodation, vehicular movements, and delivery access and egress routes
- Prohibited or restricted operations (locations, hours, etc)
- Details of operations that are likely to result in disturbance, with an indication of the expected duration of each phase with key dates, including a procedure for prior notification to LB Camden and relevant statutory and non- statutory (including neighbours) parties so that local arrangements can be agreed
- Responsibilities under the Council's document "Guide for Contractors working in Camden" dated February 2008. Or the Considerate Contractors Scheme and Neighbour and Public Relations Strategy
- A procedure to ensure communication is maintained via the contractor with LB Camden and local community to provide information on any operations likely to cause disturbance (through for example; meetings and newsletters)

3.8.1.2 Management of Noise, Vibration and Dust

Industry accepted good practical means of preventing; reducing and minimising noise will be adopted in agreement with LB Camden.

Appropriate procedures will be followed in order to mitigate noise, vibration and air pollution (e.g. through dust and fume generation) impacts.

Measures currently planned include:

- No works will be undertaken outside the specified working hours; except in cases of emergency, where safety is an issue, or where conditions of dispensation apply.
- The contractor will comply with the requirements of the COPA 1974, with particular reference to Part III of the Environmental Protection Act 1990, The Control of Noise at Work Regulations 2005 and the Health and Safety at Work Act 1974;
- All plant and equipment to be used for the works will be properly maintained, silenced where appropriate to prevent excessive noise and switched off when not in use and where practical;
- Hydraulic demolition and construction will be used in preference to percussive techniques where practical;
- The contractor will erect and maintain throughout the demolition and construction period, temporary hoarding around all working areas to

assist in the screening of noise and dust generation from low-level sources

- Plant will be certified to meet relevant current legislation and Noise and Vibration Control on Construction and Open Sites (BS 5228)
- All subcontractors will be made familiar with current noise legislation and the guidance in BS 5228 (Parts 1 and 2) which will form a prerequisite of their appointment
- Loading and unloading of vehicles, dismantling of equipment such as scaffolding or moving equipment or materials around the site will be conducted in such a manner as to minimise noise generation
- Noise complaints, or exceeding of agreed levels will be reported to the contractor and immediately investigated

Vehicles transporting materials, capable of generating dust, to and from site will be suitably sheeted on each journey to prevent the release of materials and particular matter

3.9 Working hours

The hours of work will be in accordance with the code of Considerate Contractor Standards as noted within the document "Guide for contractors working in Camden" dated February 2008.

The working hours will be:

8.00am -6.30pm Monday to Friday and

8.00am -1.00pm Saturday.

It will not be usual to work on Sundays or bank holidays.

Exceptional operations (Such as tower crane erection / dismantle) will be carried out outside of these hours and will be notified by the contractor's construction or logistic manager.

Site floodlighting will be switched off at night to conserve energy and to minimise potential nuisance to neighbours. General internal site access route will however remain illuminated at the appropriate levels to ensure safe passage around site for security personnel.

3.10 Welfare

Welfare facilities will be provided in line with H&SE guidelines. All areas of the building will either be subject to demolition / construction works or occupied by others, so opportunity to situate adequately sized welfare facilities within the building footprint will be very limited.

3.11 Workforce

From our experience of projects of a similar size, we would estimate that the workforce levels will peak at around 150 operatives on site.

3.12 Construction Personnel travel arrangements

In order to support efforts to minimise the effects of construction traffic on the surrounding highway network, there will be no car parking provision on site for construction workers. Construction personnel would therefore be encouraged to use other forms of transport to travel to the site. Given the site's proximity to excellent public transport services, it is envisaged that the majority of construction personnel would travel to the site by public transport.

Certain trades may require short-term parking for vehicles due to the transportation of specialist equipment/ plant requirements. Limited parking will be provided on site, but only for this purpose.

3.13 Site security

The ground floor perimeter of the building is generally secured by the operational businesses. The new entrance hall area and the site entrance to the service yard area will require a 2.4m high timber hoarding with lockable gates to secure the site boundary. When the site is closed, all doors and gates will be locked shut. A manned security check point will be positioned at the entrance to the service yard when the site is open to control deliveries. Vehicle and personnel will be verified at this point before they are allowed to access and egress the site / service yard area. There will be distinct access routes with physical barriers to separate pedestrians and vehicles.

External scaffolds will be alarmed with intruder detection devices which when activated will sound an audible intruder alarm as well as automatically alert an offsite security response unit.

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150 Holborn Camden London
Construction Management Plan

- All hazardous materials including chemicals, cleaning agents, solvents and solvent containing products will be properly sealed in containers at the end of each day prior to storage in appropriately protected and bunded storage areas
- As external envelope is progressed, the site generated rubbish will be collected in lightweight floor-based wheeled skips that can manoeuvre around the floor plates. The skips will then be taken to ground floor level by a goods hoist and if not already, will be sorted into different waste types such as timber, copper, metal, paints, plasterboard etc and either disposed of into larger skips, or if suitable, placed into a compactor to reduce the volume of the waste before it is taken offsite
- Asbestos containing materials (ACMs), if encountered, will be removed and disposed to an appropriately licensed landfill by a licensed contractor prior to the commencement of works

Prior to the removal of any asbestos, the Health and Safety Executive will be notified and the ACMs will be removed by competent persons under controlled conditions to an agreed method statement and risk assessment and disposed of in accordance with the Control of Asbestos Regulations 2006

The asbestos removal specialists will undertake air monitoring and issue an air clearance certificate once it is safe to re-enter areas from where asbestos has been removed

Areas, which were not accessible during the asbestos survey, will be surveyed prior construction work commencing.

Notwithstanding the advance surveys, should any unforeseen asbestos be subsequently exposed, disturbed or suspected to be present during the site work, the area will be immediately sealed and the specialists contacted to ensure its safe removal.

All work will be carried out in accordance with the Contractor's Construction Health and Safety Plan.

7 Conclusion

We have outlined an initial method of constructing the building and have endeavoured to identify and address the normal and understandable concerns with regards to the impact that the construction works will have on the immediate surroundings.

This document will be updated where appropriate throughout the duration of demolition and construction works by adopting a proactive approach to collaboration between the project owners and local residents, business's and the LB Camden and it is intended to be used as a working reference until Project completion.

Appendix 1 – Large vehicle deliveries histogram profile; average daily number of vehicles
