| METHOD STATEMENT |
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| **Outline Demolition Method statement**<br>**25 Parker House**<br>**London**<br>**WC2B 5PA** |

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| Company | **Keltbray** | | |
| Method statement No. | **1024-001** | Revision No. | AA Draft |
| Title | **Parker House Outline Demolition MS** | | |
| Start Date of Works | **Summer 2013** | Duration | TBC |

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| Document No. | Revision No. | Issue Date | Author | Description of Modifications |
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| This Revision | | | | |
|---|---|---|---|---|
| | Print Name | Signature | Position | Issued to: |
| Author | R Ellis | R Ellis | Project Manager | MD, |
| Checked by | | | | |

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| Date Returned to Contractor | | | |

| Sign of by Project Manager | Print Name | Signature | Date |
|---|---|---|---|
| | R Ellis | *RELLIS* | 24-01-13 |

| Table of Contents |
|---|
|  |

| Risk Assessment Index (Stored within Risk Folder) | | New for this Task Specific MS |
|---|---|---|
| **Number** | **Title** | |
| 001 | Lifting Operations | |
| 002 | Drilling concrete and masonry | |
| 003 | Breaking using electric tools | |
| 004 | Breaking using compressed air tools | |
| 005 | Working at height | |
| 006 | Cutting steel | |
| 007 | Loading wagons | |
| 008 | Wagon movements | |
| 009 | Using cut off grinders | |
| 010 | Demolition with hand tools | |
| 011 | Cutting timber using chain saws | |
| 012 | Working around holes and leading edges | |
| 013 | Supervision of work | |

| | | |
|---|---|---|
| 014 | Excavating trial holes in footways | |
| 015 | Breaking concrete/masonry using excavators c/w breaker | |
| 016 | Erection of protection scaffold & monaflex | |
| 017 | Excavator movement around site | |
| 018 | Using mechanical & electrical hand tools | |
| 019 | Breaking Concrete using Hand Held Breakers | |
| 022 | Young Person | |
| 025 | Scaffolding | |
| 026 | Work in Confined Space | |
| 027 | Working in the Sun | |
| 028 | Dismantling Fuel Lines | |
| 029 | Fire (Office) | |
| 030 | Fire (Site) | |
| 033 | Demolition Using Long Reach Excavator | |
| 034 | Using Vehicular Plant at Height | |
| 036 | Excavator Operations and Quick Hitch Operations | |
| 038 | Noise at Work | |

| **COSHH Assessment Index (Stored within COSHH Folder)** | | **New for this Task Specific MS** |
|---|---|---|
| **Number** | **Operation / Process / Substance** | |
| 001 | Diesel | |
| 002 | Oxygen | |
| 003 | Propane | |
| 004 | Grease | |
| 005 | Hydraulic Oil | |
| 006 | Hydraulic Fluid | |
| 008 | Welding | |
| 009 | Petrol | |
| 010 | Concrete | |
| 024 | Soft Wood | |
| 025 | Hard Wood | |
| 028 | Hilti HIT-HY50 | |
| 030 | ALBI Guard | |
| 031 | Linemarker Green Linemarking Aerosol | |
| 032 | Ferromaxx 7 | |
| 033 | Sun Lotions | |
| 034 | Concrete Dust | |
| 035 | Rockwool | |
| 039 | Leptospirosis | |
| 042 | Fairy Washing-up Liquid | |
| 045 | Tipp-Ex Correction Fluid | |
| 046 | Cif Oxy-Gel Liquid | |

| | | |
|---|---|---|
| 047 | Foaming Handwash | |

| Health and Safety Factors | |
|---|---|
| **Demolition Phase** | **Key Factors** |
| **Design** | ▪ Structural knowledge of the structure and site surveys or assessments<br>▪ Structural knowledge of any adjacent structure<br>▪ Demolition equipment and methods selected |
| **Planning** | ▪ Site knowledge<br>▪ Health and Safety risk assessment<br>▪ Development of safe sequences of demolition activities |
| **Execution** | ▪ Workforce Supervision<br>▪ Control of method statements implementation<br>▪ Communication of unplanned discoveries<br>▪ Safety information and training selection |

## 1. Introduction

This document describes how Keltbray will undertake the de-construction, of the block of buildings referred to as, Parker House

The site consists of the main building, comprising of three block joined together by hallways and stairs, there are two levels of external link bridges also connecting the three wings.

The three main wings consist of ground , fist second and third floors covered by a flat roof and raised sky lights

The main block also has two small pitched roof structures that project approximately 3 meters above the flat roof

The main block is flanked on rear and each side by several small single story buildings that are either attached or adjacent to adjoining neighbours boundary walls

The façade of the three main wings and the two single story buildings to the east and West of the ma n blocks on parker street will be retained

Parker Mews is situated to the west of the main block, the Mews is currently used as a outdoor recreation and utility space by the residence of Aldwych Buildings and the Aldwych workshops.

There are two small low level buildings that for Part of the buildings that form the Aldwych work shops that protrude into the mews, These low level buildings are also to be demolished and the resulting expanded footprint of the area will be utilised for site vehicle access and deliveries.

This method statement will cover: the scope of works, principles, practices & arrangement for the demolition phase, down to ground floor slab.

Keltbray will be the principle contractor for the demolition phase of the works and will manage the de-construction of the buildings.

Once demolition to ground floor has been achieved Keltbray will either hand “control of premises”, back to the client or to the principle contractor selected by the client for the construction phase of the project

Keltbray will undertake the deconstruction and facade retention works using best practical means, Keltbray will maintain the Ethos of best practices at all times, The impact to the neighbouring School, residential and business premises, will be considered at all stages during the methodology design and physical works on site.

This method statement will make reference to and should be read in conjunction with the following sections of Keltbray Management system:

- Health & Safety
- Environmental
- Quality Control
- Procedures
- Forms
- Risk Assessment
- COSHH

Reference should also be made to the following documentation

**Site documentation**

- Site specific works method statements
- COSHH assessments
- Risk assessments
- Site traffic management plan (Agreed with Camden Council) Doc Ref: 1024-TMP-001
- Site environmental management plan Doc Ref: 1024 EMP-001
- Site Waste Management Plan Doc Ref: 1024-SWMP-001
- Site logistics

The site will comply with all current legislation
Including but not limited to:

- BS 6186-200 The code of practice for Demolition
- L144 The (Construction)Design and Management regulations
- L 143 The Control of asbestos regulation
- L 5 the Control of substances Hazardous to Health Regulations
- L 20 Management of Health and Safety at work Regulations
- L 22 safe use of Work Equipment regulations
- L 24 Workplace health and safety welfare regulations
- L 113 Lifting Operation and Lifting Equipment Regulations
- L 102 Construction Head Protection Regulations
- L 108 Controlling Noise at work

**General overview**

- The existing buildings consists of a single story Ground floor level to the South East of the Property,
- Ground floor, and Levels 1-3 plus flat roof with sky light and a small structure to the south East at roof level housing plant.
- The buildings are constructed from: Traditional brick construction with concrete floor plates supported by horizontal and vertical supports, several of the vertical Local authoritiesum supports for the floor plates appear to of been formed from cast iron.
- On first inspection the buildings do not appear to of have undergone any extensive remodelling and part reconstruction throughout their life time. With the exception of the East wing which has had an additional floor constructed post fire damage
- The three main stair cases on visual inspection appear to of been toothed or cast into the existing brickwork facade
- There are a number of internal non load bearing and load bearing brick and block walls in all buildings.
- There is a residence parking lane adjacent to the building, this residents parking bay will need to be suspended for minor periods during threes works, however the methodology and

sequence of works will selected to minimise the suspension of this parking bay

- At time of writing there is no known presence of any large underground services or tunnels such as main sewers or underground train lines, The whereabouts of any such services will be investigate prior to works commencing so as not to impose any loads outside of normal traffic.

The methodology is based upon the a mixture of demolition techniques; including the use of small machines for a floor-by-floor demolition down as far as the 2nd / 1st floor being demolished utilising suitable pulveriser attachments.
1st floor to ground bearing slab will be demolished utilising small to medium sized excavators fitted with suitable pulverising attachments.
Although the use of hydraulic breakers cannot be ruled out, for the demolition of the building down to the ground floor slab, it is the intention to minimise the use of breakers as far as reasonably practicable.
The smaller low-level satellite buildings will be demolished by a mixture of hand demolition and mini excavators fitted with suitable pulverisers

- The buildings will be deconstructed in a sequence commencing in Parker Mews to allow the site to be opened up for the main demolition works, following the demolition of the low level buildings in Parker mews, the single story satellite building to the rear (north) of the building adjacent to the boundary wall of the school and adjacent buildings.
- Once the low level buildings have been removed this will allow the demolition protection scaffolding to be erected around the perimeter for the main demolition works
- The front elevation of Parker House is to remain for historical reasons .
- The Elevation will be retained using a facade retention scheme. A further Method Statement detailing the Temporary Steel Erection and façade maintenance in these areas will be under a separate MS.
- There are currently several lives services present in all buildings.
- Due to the historical use of the buildings A specialist company will be utilised to sanitise and check for sharps prior to oft strip works commencing
- Again prior to soft strip works commencing several surveys will need to undertaken, the main surveys will be for live services. Structure, Asbestos, lead paint and Bio hazards such as anthrax , pigeon guano etc
- Once sanitised and hazardous substances have been identified and removed, the building will be soft stripped ahead of demolition works commencing.
- All live services will be capped at the nearest stopcock within the foot print of the buildings
- Any permanent disconnection in the footpaths or carriageways will be undertaken by the relevant statutory services providers
- During the soft strip phase of the works the facade retention scheme will be installed, the demolition protection scaffold and the facade retention scheme will be interlinked, thus the scaffolding to the front façade will need to remain in situ, at least until the facade is tied into the floor plates of the new building
- It is envisaged that the site welfare cabins etc will be built into the facade retention scheme and associated scaffolding
- The building will be demolished on a floor by floor basis in a logical sequence commencing from the roof to the grounds floor slab
- A tower crane will be erected, to facilitate moving of machines from floor to floor and erection of the façade retention scheme
- The tower crane will also be utilised for removal of the demolition arising and other ancillary works
- For the purposes of this method statement, The small ground floor to the south east of the building will have edge protection installed to the top of the existing stairs , on handover to the construction contractor

## 2. Scope of Works

Please refer to demolition sequence drawings for clarification

- Undertake relevant surveys, Asbestos live services. Structure, lead paint and Bio hazards, remove and make safe as necessary
- Sanitise existing sinks baths WC's Etc and associated plumbing
- Sweep the building checking for sharps and narcotics paraphernalia
- Erect demolition protection scaffold and associated site hoarding(s) as per demolition sequence drawings
- Undertake slab load test to ascertain safe loading capacity of existing floor slabs..
- Back prop as deemed necessary (post slab load testing).
- Design and install facade retention scheme post structural surveys
- Demolition of small low level buildings
- Erection of tower crane
- Erection of demolition protection scaffolding and associated acoustic barriers
- Removal of roof mounted plant on all roof as per demolition sequence.
- Soft Strip works: Removal of false work, non load bearing walls all fixtures and fitting, non load bearing stairs, cladding etc.
- Segregation, separation of the above for recycling
- Floor by floor demolition utilising small to medium sized excavators ( size subject to results of the slab load tests) followed by demolition of the first by a medium sized excavator
- Fill any voids in ground floor ( if required)
- Installation of façade retaining towers and associated members (works covered in separate MS)
- Progressive processing and /or removal of demolition arising throughout the term of the works.

## 3. Enabling Works

In order to comply with our programme the following activities will be required to be provided/actioned by Keltbray/ Client or the CDMC

- Statutory Notifications and Consents.
- Section 80 Notification.
- Section 60 Agreements/Consents.
- Scaffold licences/Road closures for Mobile Craneage and initial site access installation of Tower Crane.
- Services terminations/disconnections at boundaries to the building and associated documentation.
- Approval of all relevant and submitted Method Statements, Scaffolding and Temporary Works designs.
- Provision of temporary service supplies (power, water, supplies and drainage).
- Site Traffic access/egress and pedestrian routing.
- Establishment and operation of noise, dust and vibration monitoring stations as required.
- Establishment and operation of façade movement monitoring stations as required.
- Neighbour liaison
- ASB5 Notification ( if necessary)

***Keltbray Enabling Works Activities***

Prior to the commencement of the structural demolition works the following works will have been carried out:

- Erection of hoarding/ temporary barriers/ control measures and signage to prevent unauthorised access, where required.
- Identification and protection / termination of any live services.
- Installation of temporary services.
- Erection of fully monoflexed scaffold in accordance with Wentworth House Partnership drawings and a separately issued scaffold Method Statement.
- Establishment of fire routing: fire-fighting equipment and emergency lighting in accordance with separately issued Fire and Emergency procedures.
- Structural investigations and floor load testing to determine the size of plant allowable for the floor by floor demolition, or to identify any need for back propping.
- Erection of temporary Welfare facilities that includes toilets, changing room, canteen and office.
- Method Statement briefings and tool box talks.
- Hand separation of structure to be demolished from retained structure,.
- investigations and hand separation as necessary adjacent party walls

## 4. Method of Works

**General Site Practises**

- All site operatives to be given site induction and Method Statement briefings and too of attended regular toolbox talks (at least weekly).
- CITB, CSCS, CCDO certification or equivalent as a minimum requirement for all personnel on site.
- All signal slingers, 360° excavators, skid steer loaders and crane operators to have CPSP certification. In addition, the certification for the machines will be kept in the site file and will be available for inspection.
- Access platforms, scaffolding, cranes, excavators and lifting equipments will be checked regularly in accordance with current regulations.
- All machinery, compressors, pneumatic tools etc will be fitted with silencers of approved types.
- All of the works are to be under the direct control of experienced demolition foremen and managers.
- All holes in floors and exposed edges are to be provided with suitable handrails and toe boards compliant with current legislation.
- Warning signs and notices are to be prominently displayed in and around site.
- All access/egress corridors and staircases are to be kept free from obstruction at all times.
- Debris and materials will be cleared from floors to prevent excessive build up.
- All works at height, as far as reasonable practicable will be carried out utilising either scaffolding or alloy towers in full compliance with current regulations.
- All scaffolding will be erected by trained, competent scaffolders in accordance with a separately issued Scaffold Method Statement. All alloy towers will be erected by PASMA trained operatives and scaff tagged.
- First Aiders, appointed Persons and First Aid kit(s) commensurate with the total number of site personnel will to be maintained on site. The names of First Aiders will be displayed in prominent locations.
- Fire fighting equipment (carbon dioxide and foam fire extinguishers) under the control of operatives, trained in the use of the same, will be positioned in and around the works.
- Any hot works will be carried out in accordance with a hot works permit.
- Oxy/propane cylinders will be fitted with flashback arrestors and stored in a dedicated lockable cage in the open air. A fire point will be sited adjacent, complete with fire extinguishers.

- The site will be left in a structurally stable manner at the end of each shift.
- Wherever possible the use of hydraulic pulverising attachments will be used as opposed to hydraulic breaking attachments
- Once any concrete encased steal members have been severed from the structure any remaining concrete will be removed from the member utilising the above mention hydraulic attachments
- The removal of concrete encasing steal members will only be undertaken by hydraulic breakers where no other practical means are available
- Any future changes to the Method Statement will be agreed with the Project Manager/Project Director prior to execution and the Method Statement reviewed, amended and approved accordingly.

**Soft Strip**

Removing , plaster board, Lath and plaster and non structural fixtures and fittings, removal of wood, plastic, insulation, plaster board, partitions, pipe work and sanitary wear

- Small tools such as hand or electric tools should be used for these works, hop ups of alley towers are to be used for access when required. All debris is to be dropped directly into drop zones which will be created as the works progress alternatively the arsing can be placed into a boat skips for removal by the tower crane.
- Where light wells are not initially available the arsing will be stored local in a safe and tidy manner.
- Where there is to deglazing undertaken in the working area. This is to be achieved by breaking the glass at distance using a scaffold tube, then removing any shards of glass from the frames utilising scaffold tubes or long nail bars. Upon completion the area is to be swept and the broken glass collected into neat piles, where it can be left until the building is demolished.
- During these works exclusion zones are to be created both inside and out to prevent injury from falling / flying glass.
- Partitions and non structural internal walls will be demolished/dismantled using hand tools such as mattocks bars and 7lb / 14lb hammers and progressively removed.
- Where any removal of mechanical and electrical plant is requiring ‘hot works’, this will only commence under Keltbray specific hot works permits procedures and the arising will be progressively removed or stored locally until such time as a drop zone is available.
- Where it is deemed necessary to remove any non-structural flooring, this will be carefully uplifted and progressively removed from the upper floors down. Commencing at the furthest point from, and working towards the access stairs / ladders etc.
- Any floor joist that can be removed without affecting the structure of the buildings will cut from below in a “sit cut / drop cut fashion” by operatives using mobile towers.
- Once upper floor removals have been completed any stairs or other access will be removed or block off to prevent access to areas where floor are removed.
- A final sweeping of any concrete or non removed floor will be undertaken on completion of the works at each level.

**Removal of arisings from High Level Demolition**

Before any demolition is carried out a means of removing it from the work face has to be established. On this particular contract it has been decided that an existing light well within the footprint of Parker House is the most feasible. It is in this area that we intend to transfer the arising down to a larger machine for process and or loading away.
The purpose of the light well hole “well hole” or “drop zone” is to be of sufficient size, whist maintaining a secure zone to provide an internal chute for the vertical transfer of demolition arisings to Ground Floor level. Hence the name “well hole” or “drop zone”

- Board up any windows adjacent to the “drop zone” to prevent debris bouncing through, where necessary close off local access within the building adjacent to the “drop zone”.
- Ensure all services are decommissioned that are likely to be affected by this operation.
- Soft strip locally if not already done.
- Prevent access to all areas below working level and provide the appropriate signage. Warning signs are to be displayed at the light well hole on each floor level to prevent materials being inadvertently dropped down on to the operatives working below. These signs are to remain until such times as the “well hole” is de-commissioned. Also when designated a “drop zone” a drop zone marshal will be permanently placed to police / marshal drop zone activities.
- At working level(s) the edges of the “well hole” will be protected by leaving the brickwork 1.00m high to prevent any loading machine from travelling over.
- Where this is not possible a hand rail no less than 1.00m high will be placed across any leading edges and a sufficiently sized bulk timber or steel member will be securely placed to prevent mechanical plant over shooting the desired stop points on the leading edge(s).
- A marshal will be positioned at the ground floor level of the well hole, in radio contact with the ‘top ganger’ in order to control the “drop zone”.

**Remove roof structures:**

The roof(s) and mounted structures are predominantly timber and slate and therefore require removing prior to the demolition of the structure to in order to minimise contamination of the hardcore.

- Only suitably trained operatives will undertake hot works or roof works.
- The roofs will be removed using excavator mounted grapples where the excavators’ can reach from the existing balconies below.
- Where this is not possible operatives will remove the slates by hand prior to dropping the timber work to the floor below.
- The operatives will cut from below in a “sit cut / drop cut fashion” by using mobile towers the materials will be progressively cleared of the buildings or stock pilled in an appropriate location until a well hole is available.
- All operatives working at height whist removing the roofs will have undertaken sufficient training in working at height and utilise rope fall arrest equipment.
- Where possible operatives will work from the floor below utilising mobile towers.
- Where not possible operatives will work on the exterior of the roof utilising rope access and fall arrest equipment.

**Removal of roof mounted plant**

Roof mounted plant will be cut up into manageable sizes and stored locally until a well hole or tower crane is in place to assist with removal.

- Sections will be cut utilising a mixture of electrical and petrol driven grinders, electrical precipitating saws and oxygen / propane gas axes.
- All hot works will be subject to the Keltbray permit to work system, Keltbray Procedures (Pro-006-rev00).
- Leading edges will be protected with a suitable and sufficed hand rail that will be progressively erected as soon as reasonable practicable once the roof areas are cleared.

**Repetitive Floor-by-floor demolition**

This section describes the procedure by which the building is reduced top-down one floor at a time.

This method utilises 5 – 8 tonne mini-excavators, fitted with hydraulic pulverisers, breakers or other suitable attachments, and combined with the use of wheeled bobcat skid-steer loading shovels.

- The structures will be demolished using 360° excavators fitted with hydraulic breaker or other suitable attachments such as powered pulverisers.
- The exact size of plant has been established following floor load testing and supporting calculations from Wentworth House Partnership.
- The Tower Crane will lift the mini excavators and skid-steer loaders on to the working level.
- All lifts will be carried out in accordance with a separately issued lifting plan under the control of a trained, competent slinger/signaller.
- Machines will be transferred floor to floor at the end of each respective slab breakout via the Tower Crane. Ensuring that only one 360° excavator is in any one bay at any time (a bay being a slab area between usually 4 Local authorities or 2 beams).
- The debris will be broken down onto the floor below and processed and separated to increase the efficiency of debris removal.
- Wherever possible the use of hydraulic pulverising attachments will be used as opposed to hydraulic breaking attachments
- Once any concrete encased steal members have been severed from the structure any remaining concrete will be removed from the member utilising the above mention hydraulic attachments
- The removal of concrete encasing steal members will only be undertaken by hydraulic breakers where no other practical means are available
- Resultant demolition debris will be cleared using the skid-steer and deposited throughout the appointed well hole/drop zone onto a rubble mattress at ground floor level.
- The rubble mattress will be generated by backfilling of ground floor with initial demolition arsings.
- The lower buildings in Parker Mews area is to be demolished first, from the roof down to ground floor, this is to create an access route into the main building on the ground floor to where segregation / process demolition spoil and to load Lorries.
- Steelwork will be removed from the workface by Tower Crane. These will be lowered into 35yd bins that will be parked initially in Parker Mews, which will need of had to of been closed to form part of the construction site and eventually into the loading area that is created during the first stages of demolition.
- Where possible steelwork will be processed into suitable sizes for the bins at the working level.
- Where not possible the steelwork will be transferred via the well hole to processing area at ground floor level. Once processed the steel will be loaded into bins via either the tower crane or an excavator fitted with a suitable attachment.
- Initially our demolition manager assisted by our lifting supervisor will assess any loads for their weight and size. Our engineer will also be involved should there be any doubt. Once initial weights of steels have been establishes the section supervisor / crane co-ordinator and top ganger will set a specific number and length of steel to be lifted in any one lift therefore controlling the possibility of overloading the crane.
- At ground floor level waste materials will be cleared out of the building by an a mixture of an additional skid-steer loader / medium sized excavator, and fed to a larger 360° excavator for processing and/or loading away.
- The debris will be loaded into tipper wagons using a 20- 40 tonne 360° excavator fitted with grapple and bucket attachments. Steel sections and salvageable materials will be loaded into skips.
- The cutting of any steel or concrete/rebar stanchions and beams will be carried out using oxy/propane burning equipment. And accessed from alloy tower or standard scaffold.
- Ceiling hangers, pipe work, trunking, conduit and other non-structural metalwork will be cut by operatives using oxy/propane gas axe.
- A ‘Hot Works’ permit to work system will be enforced when any works of this nature are

undertaken and fire extinguishers will be prominent. Hot works will cease one hour before the end of a working shift and the area thoroughly checked prior to leaving site.

- To prevent inhalation of toxic fumes operatives will wear 'Airstream' helmets or active charcoal Ori-Nazel masks during the burning/cutting of galvanised trunking or when fume densities persist whilst cutting other types of metal. The selection of the mask will be via the personal preference of the operator, subject to compliance with being fit for purpose.
- Only trained and competent operatives will carry out these works and segregate ferrous and non-ferrous material for subsequent recycling.
- Fire extinguishers will be provided and maintained at all areas of hot works. All hot works will be carried out in accordance with Keltbray's Hot-works permit system.
- The external brickwork/stonework panels will be demolished in sections and folded onto the floor slab using the 360° excavators. The operation will be executed in a controlled manner, ensuring the stone work being pulled over is not excessive in size and weight.
- The steel/concrete will be exposed close to the floor slab. The will be severed using oxy/propane burning equipment and folded onto the slab. The operation will be executed in a controlled manner, ensuring the being pulled over is not excessive in size and weight.
- Once the external panels have been demolished the working level slab will be broken out or pulverised from the slab below using 360° excavators fitted with hydraulic breaker/ Pulveriser attachments in a logical sequence working towards the crane down position.
- A steel platform will be fabricated and tested by Keltbray the crane will lift the platform through the light well to the floor below the floor to be demolished, the platform will be rotated 90 degrees and placed onto the floor plate below the floor to be demolished
- The excavator will be lifted onto the platform and starting from the platform will pulverise the slab working in a logical fashion around the floor plate back towards the platform/ crane down position
- The arisings will then be cleared from all floor areas to the well holes using the skid-steer loaders. Through the light well to the ground floor slab
- The building will be demolished down to the first floor level or until a larger medium sized 360° excavator with pulverising/shearing attachment can be used safely to reach up and complete the works.
- A pulverising/shearing attachment will be used to remove all structures at all levels down to the ground floor slab level. Assistance will be given to the pulverisor by excavator with hammer attachment for structures at ground level and below.
- The excavator will adopt a logical top down progression removing all walls, and slabs down to ground floor level.
- The excavator will progressively break through the ground floor slab and backfill the ground floor in front of the demolition sequence
- The demolition will be assisted and excess demolition debris progressively cleared / processed by utilising at least 1 N$^{o.}$ 20 tonne excavators.
- Careful consideration will be given to the stability of the building at all times. Any load bearing walls will be identified prior to demolition commencing to ensure that they are maintained until redundant.
- Whilst demolition is in progress, adequate provision will be provided to inspect and survey the existing structure.
- All static noise sources will be sited (as far as reasonable practicable) well away from Party Walls and neighbouring properties to prevent excessive disturbance.
- Dust emissions will be controlled at the working face, well hole, and loading away area by a fine water spray. The quantity of water emitted by the sprays will be regulated and controlled to prevent any flooding at ground/ground floor level.
- Where deemed necessary a separation cut between the building under demolition and neighbours building will be undertaken by hand to prevent vibration transfer.
- Fuel for the machines will be kept in a bunded bowser that will be kept in the compounded area. A drip tray will be maintained under the tap.
- Adequate supplies of spill kits will be kept on site in case of accidental spillage.
- Fuel will be taken to the work face by tower crane in either the bunded bowser (with lifting

certification) or in dedicated in 45 gal drums. Any drums stored in the works area will be in drip trays.
- Operatives will wear impervious gloves whilst transporting fuel and when filling the drums.
- Keltbray Ltd will take all reasonable steps to avoid the outbreak of fire, particularly during 'hot' work involving the use of naked flame or intense heat. Where work necessitates the use of such equipment, appropriate and adequate portable fire extinguishers will be readily available. It will be impressed on the workforce that no smoking is allowed on site and the accumulation of rubbish must be prevented.

- Dedicated traffic marshals will be deployed at the site entrance to control all pedestrian and traffic movements. They will be dressed in High Visibility clothing (Orange).
- The works will be supervised by a 'top-man' positioned at the working floor level, and a banksman positioned at ground level in full radio communication to control the "drop zone".
- Stringent fire precautions will be implemented and the material arisings regularly cleared to minimise floor loading.
- Operative walkway routes at the working floor will be kept clear at all times. The works will be undertaken from the highest floor downwards, strictly one floor at a time per building.
- PPE requirements for all operatives will be assessed in accordance with specific Risk and COSHH assessments, and enforced accordingly.
- Throughout the works, fine-mist water sprays will be used to control the soft-strip dust emissions at source, at ground level and the lift shaft/well hole.

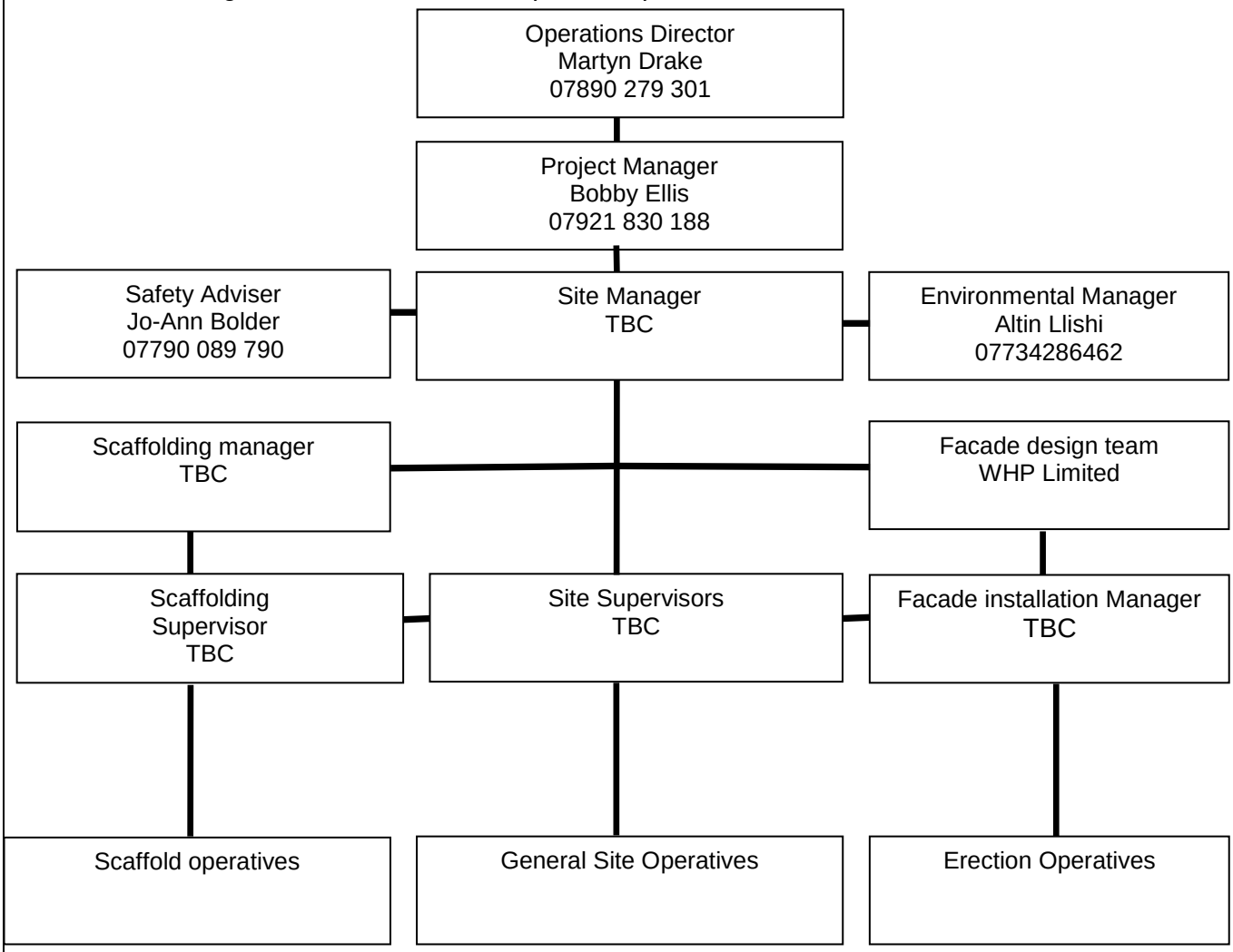
**Back Propping**

This method will be used where back propping is deemed necessary via load testing or calculations by Wentworth House Partnership.
- All wooden floors will be back propped down to a solid structure, floor or surface.
- All beam and block flooring will be back propped down to a solid structure, floor or surface.
- All Bison beam floors will be back propped down to a solid structure, floor or surface.
- A sole board will be placed at 90° across the length of the floor's support beams.
- Two Accrows will be nailed to a head tree, two operatives will be utilised the tow Accrows to offer up the head tree to run at ceiling level parallel with the sole board. A third operative will secure the head tree working form a hop up or mobile tower.
- The two Accrows will be tightened up to secure the sole board and head tree
- A string line will be placed between the two acrrows to give a line and the gap between the Accrows will be in filled with Accrows at given distances as set out by Wentworth House.
- Once a full line of Accrows have been placed a scaffold tube "lacing bar" will be attached to the line of Accrows for stability and to prevent single Accrows from slipping.

## 5. Logistics

- **Supervision Details**

A trained and competent Project Manager will control and monitor all works on site. Each section of works will be assigned to a trained and competent supervisor.




**Emergency Contact Numbers**

| | |
|---|---|
| Martyn Drake | -07890279301 |
| Bobby Ellis | -07921830188 |
| Jo-Anne Boulder | -07790089790 |
| Altin Llishi | -07734286462 |

**Access / Egress**

A full traffic management plan will be undertaken and passed onto the work force at the initial site induction and via toolbox talks. The traffic management plan will be revised on a regular basis and prior to any major changes in works activates or site logistics, the following will be the general procedures and working practices:
For further information refer to the site traffic management plan (Doc Ref: 1024-TMP-001 Rev AA)

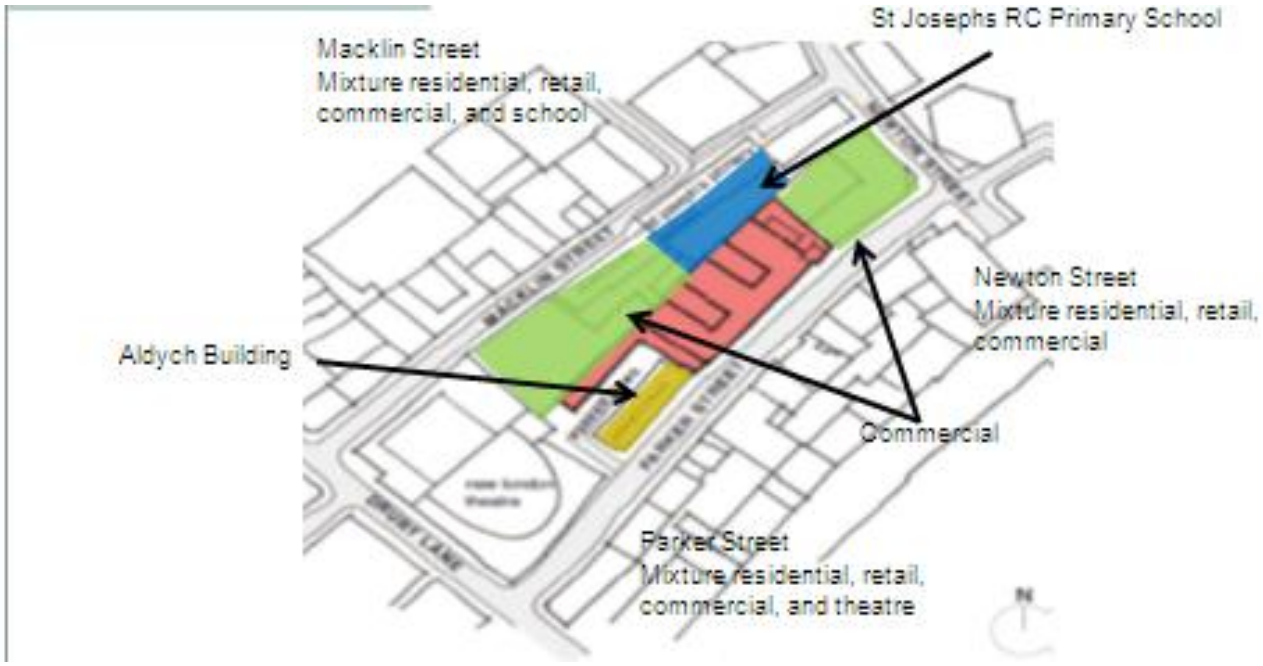
**Access to site for large vehicles and road closure logistics**
All road closures deliveries and traffic management will be subject to approval from the local authorities
Tipper lorries, articulated lorries and large plant deliveries etc will be Parker Mews
Only some articulated lorries may need to be off loaded in Parker Street with the tower crane , this will be kept to the bare minimum , the local authorities and the neighbours will be give prior warning of these deliveries
Keltbray will plan works, as far as reasonably practicable, in such a manner as to ensure constant access is maintained to road users on Parker street and the car parks adjacent to Parker Mews.
Due to the enclosed nature of the street, it has been deemed, that for the safety of the general public it will be necessary to close the gardens in Parker Mews.
The closure will be hoarded in a manner as to allow residents in the Aldych buildings to maintain pedestrian access to the rear stair cases and an area will be set up of sufficient size to facilitate storage of the residents refuse bins
Keltbray in association with the client will have discussed this with the Local authorities and affected parties.

**General Access Logistics**

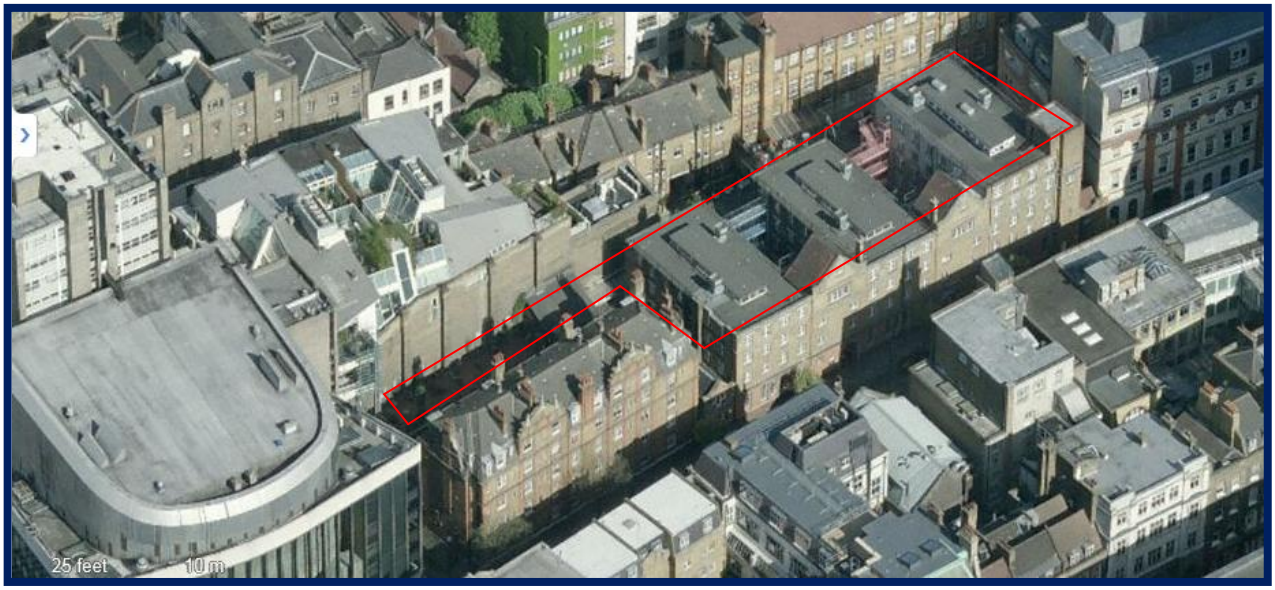
- Only authorised personnel will be permitted in the building(s) and on site in general.
- The site pedestrian access will be at the main entrance on Parker Street.
- Access to the building and the working floors will be controlled by a Keltbray Security or Gateman in radio contact with Keltbray Management and Supervisors.
- Vehicular access to the site can be gained via the gated garden area in Parker Mews
- Access/egress to the working areas will be controlled by a dedicated gateman/security guard.
- Access to high level demolition will be via 2 N$^{o.}$ ladder accesses on either scaffold elevation. Or via dedicated pedestrian rotes thought the building(s).
- These routes are anticipated to change dynamically during the demolition process; any changes to the routes will be covered in the weekly site toolbox talk.
- All plant movements around site will be controlled by a competent banksman in accordance with the site traffic plans. The traffic marshal will protect pedestrians whilst marshalling wagons on/off site and minimise mess that vehicles leaving site can cause.
- Pedestrian and vehicular movements will be segregated as much as possible bearing in mind the restrictions imposed by the existing building

**Site Welfare**
Site welfare will initially be maintained in the low level building to the West of the site currently being used as offices. There are currently three options available for the logistics of the positioning of the welfare, during the later stages of the demolition program and subsequent works.
One option is to maintain site cabins within the foot print of the site that will be moved as necessary as works progress, the second preferred option is to install permanent cabins within the facade retention scheme on Parker Street, these will need to stay in situ until the facade is tied back into the floor plates of the new building. The third option is to source office space within walking distance from site with and maintain a mobile W/C and first aid station on site
Any changes to the logistics of the welfare will be planned well in advance and passed on the work force.
Welfare on site will be at all times maintained to at least the minimum standard as laid out in the project Health and Safety plan ( Ref Doc 1024-CHSP-001-rev0)

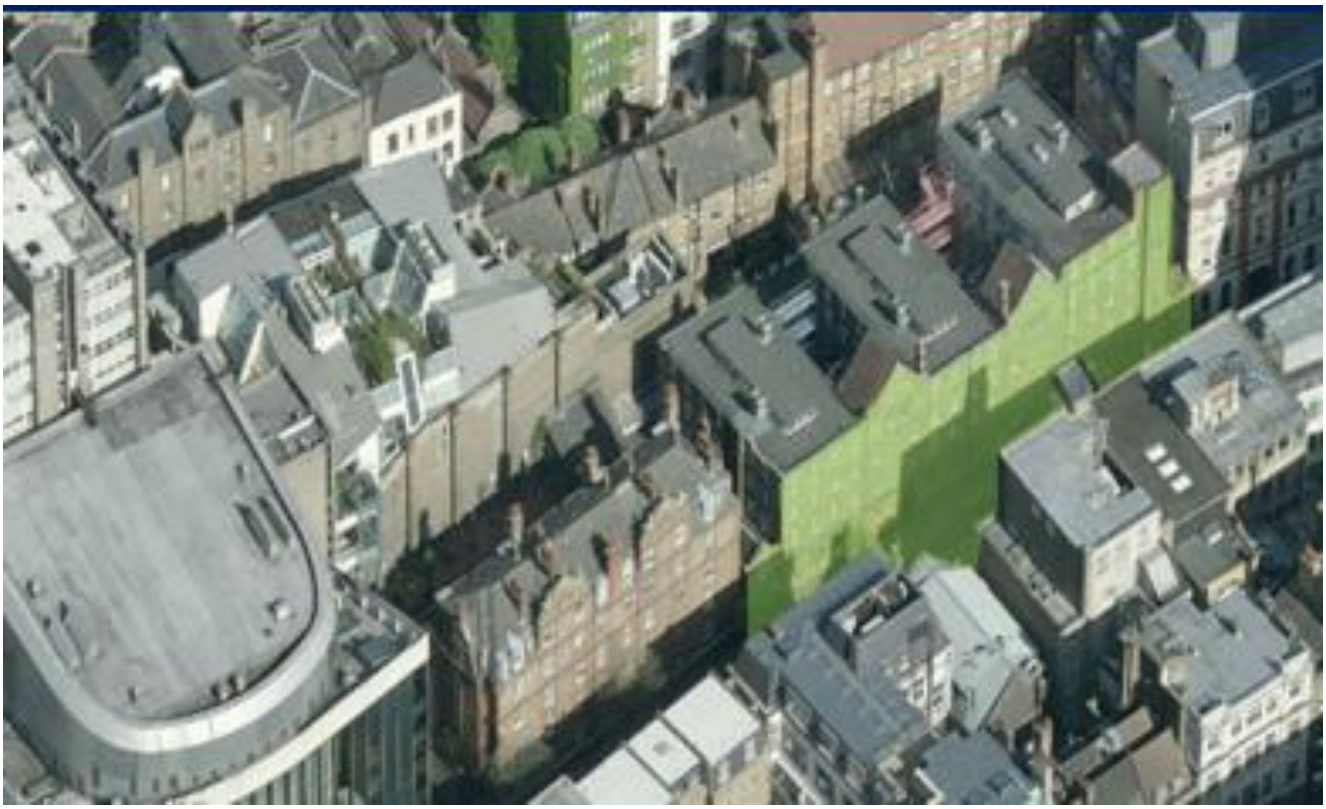
Sensitive receptors

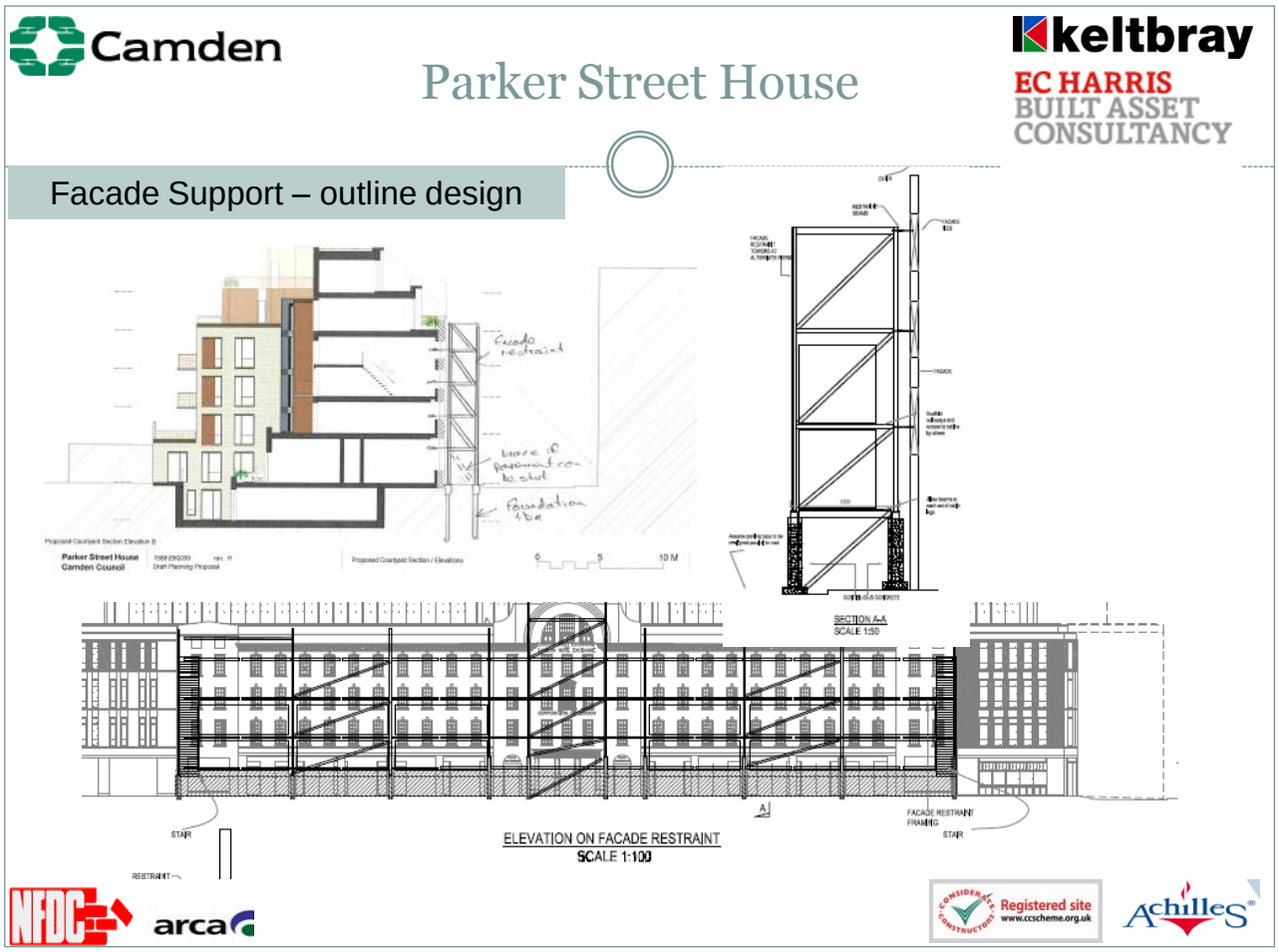



Area to be demolished



Retained facade

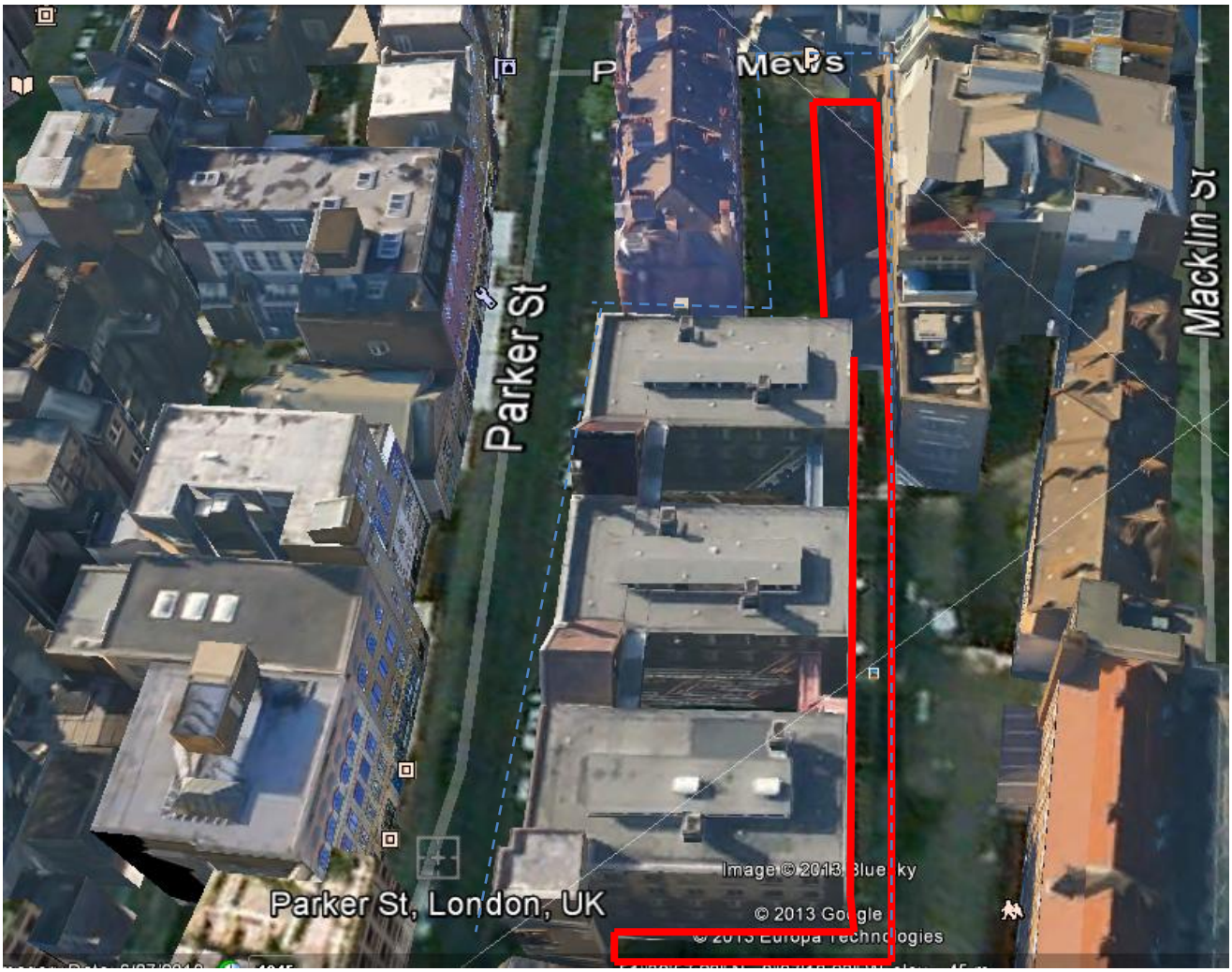





Similar ( but larger) facade retention scheme undertaken by Keltbray at Southampton Row, High Holborn

Site welfare in situ within the facade retention scheme, pedestrian tunnel formed for general public

**Basic Demolition Sequence**




= Low level buildings and party wall lines carefully demolished using micro machines and hand tools

Hoarding lines established

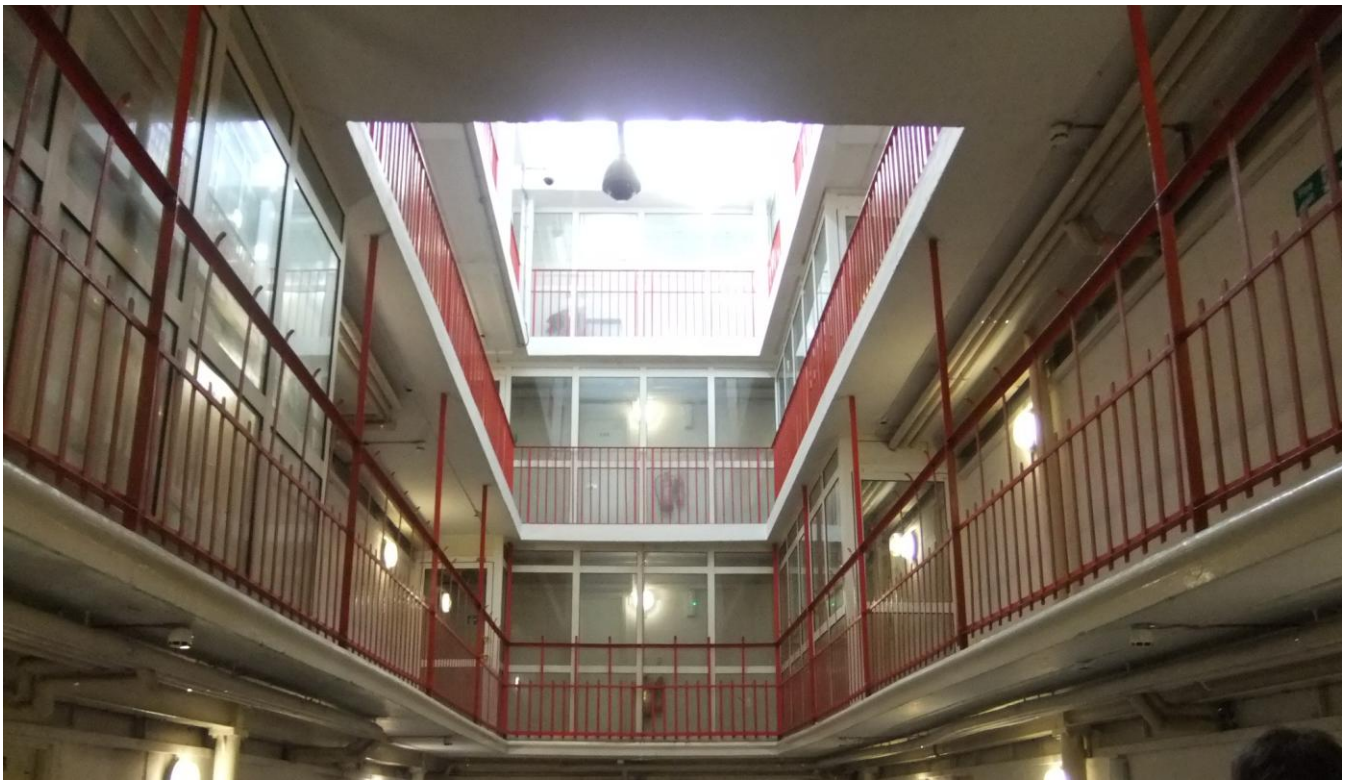

Demolition protection scaffolding with acoustic protection erected around site ( note faced system progressively installed)

+ Tower crane ( note the crane will not lift over the property line of St Josephs School)

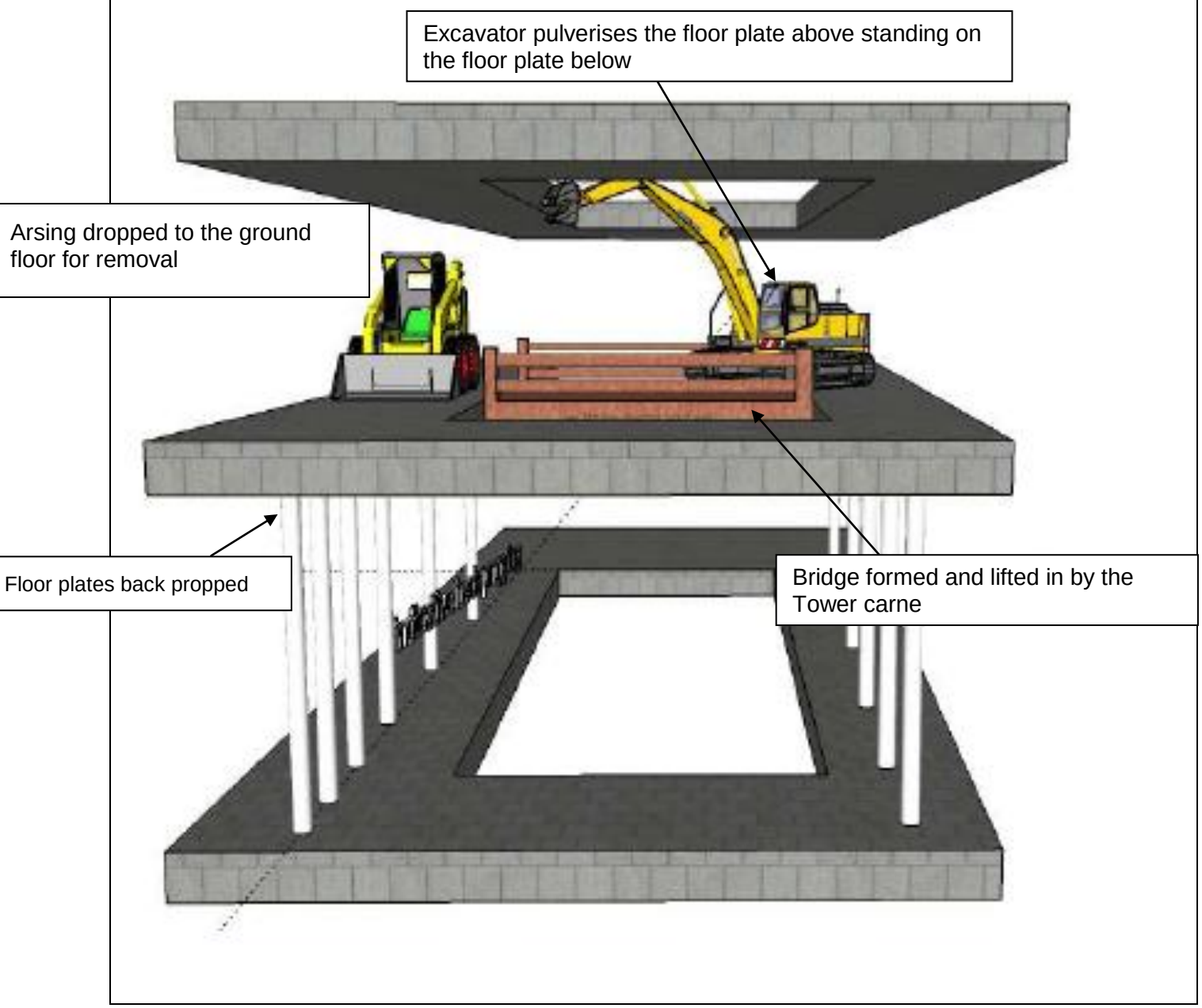

Main demotion works commence

Low level buildings to be demolished
Approximate line of Hoarding in Parker Mews

Main block demolition
Showing small floor plates with a light well making traditional floor by floor demolition difficult



Keltbray demolition Solution



## 6. Hazards / Risks

**Note** For full Risk Assessment refer to site risk assessment library.

Note for full environmental risk assessment refer to Doc 896-2010-EMP-001

**Key Environmental Issues**

The methodology of 'floor by floor' and 'remote' demolition will be utilised to best control the environmental considerations relevant to the works. Our proposals are:

| IMPACT | CONTROL MEASURES |
|---|---|
| **VISUAL** | Monarflex: encapsulated scaffold maintained 2m above working level. |
| **NOISE** | Monarflex: encapsulated scaffold with 2.4m high separation hoarding between demolition zone, St Josephs School and public/traffic areas.<br><br>Use of small machines with super silenced attachments.<br>Use of well maintained, Keltbray owned, state of the art plant less than 4 yrs old.<br>All static noise sources will be sited away from neighbouring properties to prevent excessive disturbance.<br><br>Noise monitoring carried out frequently.<br><br>There are two options for the Monarflex system to be used , this can be tradition Monarflex with acoustic blankets placed to the site side of the encapsulation scaffolding, this particular method will reduce the noise from the demolition operation by 14dba<br>The other option is to utilise **EnviroWrap®**<br>**EnviroWrap® 500AFR-T-AC Acoustic fire proof sheeting - is fully compliant to LPS1207, LPS1215 and DIN 4102-B1 codes. This product when applied correctly can reduce Db levels by up to 20 Db, withstand serious gale force winds, snow loadings and is UV protected for up to 12 months**<br>Both systems are suitable for visual impact protection |
| **VIBRATION** | Hydraulic pulverizers, shears and use of mini-excavators.<br>Vibration monitoring carried out frequently.<br>Hand separation of building to be demolished from buildings being retained, where possible. |
| **POLLUTION** | Constant water control to dampen dust emissions.<br>Monarflex: encapsulated scaffolds.<br>Adequate spill kits will be maintained on site. |

| | |
|---|---|
| **CONGESTION** | Traffic monitoring, controlled deliveries on/off site, marshalling compounds, holding areas. |
| **HEALTH & SAFETY OF PUBLIC** | Secure site perimeters, access control and signage.<br>Monarflex: encapsulated scaffolds.<br>Established safety zones.<br>Demolition methodology. |
| **Contamination of water courses** | all existing watercourses will be blocked off to prevent unintentional egress of water used on site unless this has been previously agreed with the relevant statutory utilities companies and a discharge licence is in place |

**Minor injury**

**First Aid**
First Aiders, Appointed Persons and first aid kit(s) commensurate with the total number of site personnel will to be maintained on site. The names and photographs of First Aiders/Appointed Persons will be displayed in prominent locations; First Aiders/Appointed Persons will be issued with a radio to enable immediate contact at all times. First Aider(s) name(s) will be recorded on Keltbray's notice board.

**Permits to Work**
Keltbray will issue a permit to demolish prior to the commencement of the works.
Hot works to be carried out in strict accordance with a hot works permit. Hot works will cease one hour before the end of a working shift and the area thoroughly checked prior to leaving site.
Any excavations will have a permit to dig prior to any works commencing.

**LOLER / PUWER**
Plant Details incl. hand tools and lifting equipment. Records of all plant including records of thorough inspections and weekly F91 inspection logs will be maintained in the Keltbray site office.
All electrical equipment must have current PAT test certification.

**Special Considerations**
All temporary works will be designed by Wentworth House Partnership, our "in house" structural and temporary works engineering department. All designs will be issued to Watermans Engineering Department for final approval complete with supporting drawings and calculations, and will be subject to checking and approval via Keltbray's own engineer.

It should be noted and considered that there is a possibility that further asbestos contaminated materials will be encountered during the demolition operations, following removal of the asbestos identified in any R&D asbestos survey. Should this occur, a separate method statement may be required to be prepared and submitted to the HSE together with an ASB5 notification necessitating a minimum 21 day period before removal works can be undertaken.

**Temporary Lighting and Power**
Keltbray will provide a suitable power source to enable the running of 110V task and emergency lighting and power to provide a safe working environment. The quantity and locations of these services will alter to suit the type and progress of the work. The Installation of temporary services has already been described in a separate Method Statement.

**Personal Protective Equipment**

P.P.E required to be worn for these works are:

- Hard Hat.
- Safety boots.
- High visibility vest.
- Eye protection – impact glasses for general works and movement on site; see below for tasks requiring specific eye protection.
- Gloves.

Additional P.P.E must be worn in accordance with the attached risk assessments and also where deemed necessary by the works supervisor.

- Dust Mask/ half mask.
- Ear protection.
- Goggles.
- Harnesses.

**Hot works P.P.E**

- Gauntlets.
- Half mask.
- Goggles.
- Air Stream Helmets (if necessary).
- Adequate supplies of ear defenders, eye protection, dust masks and other safety equipment will be available on site at all times. A personal protective equipment register will be completed and signed by each operative on receipt of the above.

**COSHH**

For full details of COSHH substances Refer to project COSHH register.

In accordance with the COSHH Regulations made under the Health and Safety at Work etc. Act 1974, the health of persons exposed to substances hazardous to health in the workplace will be protected. These regulations impose duties upon employers and their employees.

Substances hazardous to health in the workplace are either materials or products imported into the workplace or products produced by the processes. Keltbray Demolition Ltd will ensure that the exposure of employees to substances hazardous to health is either prevented or, where this is not reasonably practical, adequately controlled. So far as is reasonably practicable the prevention or adequate control of exposure will be secured by measures other than personal protective equipment.
Where measures taken do not prevent or provide adequate control of exposure in addition to taking those measures, Keltbray Demolition Ltd will provide employees with, and ensure proper use of, suitable protective equipment that will adequately control their exposure.

| 7. Control Measures (Permits, Exclusion Zones, PPE etc) | | | | | |
|---|---|---|---|---|---|
| Permits Required | Yes | No | Assessments (Attach If Yes) | Yes | No |
| **Hot works** | X | | **COSHH** | X | |
| Crane check list | X | | Noise | X | |
| Excavation | X | | Manual handling | X | |
| Confined space entry | | X | Electrical Isolation | X | |
| Riser shafts | X | | | | |
| **Further Control Measures / Security Requirements.** | | | | | |
| As stated above, due to the highly dangerous nature of the works being carried out on the site, no personnel are to enter the building without express permission for the site manager or the supervisor in charge of that are of works. | | | | | |
| As indicated above prior to the works being carried out an electrical isolation certificate will be required for the building. | | | | | |
| **Personal Protective Equipment** | Yes | No | | Yes | No |
| Safety Helmet | X | | Gloves | X | |
| Protective Footwear | X | | Hearing Protection | X | |
| High Visibility Clothing | X | | Overalls | X | |
| Eye protection | X | | Body Harness | X | |
| Face Respirator | X | | Other | | |
| | | | | | |
| **Equipment To Be Used** | Yes | No | **Equipment To Be Used** | Yes | No |
| Lifting | X | | Cradle | | X |
| Mechanical hoist | X | | Excavation shoring | | X |
| MEWP | X | | Ventilation Equipment | X | |
| Ladder | X | | CAT | | X |
| Hoist | | X | Mechanical tools | X | |
| Test Equipment | X | | Excavation shoring | | X |
| Task Lighting | X | | Lifting slings/chains | X | |
| Scaffolding | X | | Mechanical plant | X | |
| Mobile scaffolds | X | | | | |

## 8. Resources

Management / Supervision

Labour
Operations director (visiting)
Project surveyor (visiting)
Wentworth House Engineer (visiting)
Environmental monitoring officer (visiting)
Safety officer (visiting)
Projects manager
Site manager
Section supervisors
Up to 15 CPCS operatives, plant operators , bankmen etc
Up to 20 General operatives
Up to 20 demolition operatives
Up to 20 scaffolders
Security
Welfare
2 Admin staff

Plant & Equipment

- 1 No Tower Crane
- 20 tonne 360° excavator- hydraulic cruncher / breakers
- 5–8 tonne 360° excavators- fitted with breaker attachment (for high level demolition).
- Skid-steer
- Welding Plants
- Oxy/Propane Burning Plants
- Compressors
- Diamond Drilling Equipment
- Hand tools including, mattocks, nail bars, sledge hammers and screw drivers.
- Wheelie bins and wheel barrows.
- Electric and pneumatic hand tools including breakers fitted with vibration reduction devices, petrol saws and grinders.

All electrical equipment must have current PAT test certification.

Materials

All material deliveries to site will be advised in accordance with Keltbray's 'Delivery Access Control' procedures. A record of all materials delivered will be held on site, and these records made available for inclusion in the 'Operations and Maintenance' manual where required.

All timber will be from a FSC approved supplier or re-use from Keltbray pre owned stock.

| 9. Training & Supervision | | | | | |
|---|---|---|---|---|---|
| Training Certificates Required | | | | | |
| | Yes | No | | Yes | No |
| Scaffold | X | | Mobile Elevating Platform | | X |
| Forklift | | | Mobile Access Towers | X | |
| Dumper | | | Banksman | X | |
| Excavator | X | | Abrasive Wheels | X | |
| Others (Please state): | | | | | |
| Overall Assessment of Risk after the Implementation of Control Measures (tick one) | | | | | |
| Low | Moderate | Substantial | High | | |
| | X | | | | |

| 10. Emergency Arrangements | |
|---|---|
| First Aid Measures required | Rescue / Security Measures required |
| At least one First Aaider to every 20 operatives | Security guard at site entrance(s) during working hours |
| First aid box in site office or at defined locations | Gate(s) under control of dedicated banks persons |
| | |
| Rescue | |
| By demolition team to be trained in rope/harness recovery systems | |
| Tower crane rescue training to be undertaken | |
| Contact details for emergency services to be posted in prominent areas | |
| | |

| 11. Contractor Monitoring & Compliance | | | | |
|---|---|---|---|---|
| Who is accountable for monitoring compliance with the method statement? | The Site Manager will ensure that specialised companies Undertake planned monitoring | | | |
| Will any test / sampling requirements impose compliance standards? | **Yes** | X | **No** | |
| If yes, who will carry them out and with what equipment? | Several companies will be involved in:<br>Soil sampling, facade retention Monitoring- Dust- Noise- vibration monitoring | | | |

## 12. Appendix A

**Risk Assessments**
**(Refer to site risk register)**

## 13. Appendix B

**COSHH**
**(Refer to site COSHH register)**

## 14. Appendix C

**Designs and supporting calculations**