

STRATEGIC
CONSTRUCTION MANAGEMENT PLAN
for
REDEVELOPMENT
of
MANSFIELD BOWLING CLUB
CROFTDOWN ROAD
LONDON NW5 1EP

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1. INTRODUCTION

This Construction Management Plan, CMP, has been prepared in support of the planning application for the redevelopment of the Mansfield Bowling Club site at Croftdown Road, NW5. The application is for a tennis club, a residential scheme of 21 units and publicly accessible open space..

This Construction Management Plan outlines how the construction work will be carried out and the logistics in undertaking this work, with the objective of minimising traffic disruption, avoiding dangerous situations and minimising the impact on the local amenity and road users. Construction work is defined for the whole project including demolition and should cover deliveries of materials, set down and waste disposal including collection of skips

Site Photographs are included in Appendix 1. Construction Tracked Vehicle Movements in Appendix 3

Cognisance is taken on the Transport Statement and Travel Plan prepared for this application

1.1 Construction Plan Development

This CMP is a preconstruction plan; it sets out the strategic issues and it will be for the contractor to develop these with the particular construction plant, assemblies and techniques that he or she intends to adopt.

The appointed contractor must comply with this CMP unless otherwise agreed with the LB of Camden Planning Department. If variations arise in the proposed construction, these are to be submitted and agreed with LB of Camden Highways Department as a revision to the CMP in advance of the particular aspect of the works being constructed.

2. EXISTING SITE AND ENVIRONS

For the purposes of this assessment, Croftdown Road is taken to the north and York Rise to the west. This means that Dartmouth Park Avenue and Laurier Road are to the east and south respectively.

2.1 Existing Site

The Mansfield Bowling Club site is a backland development, surrounded by the rear gardens to the houses on the neighbouring streets, namely Croftdown Road, York Rise, Laurier Road and Dartmouth Park Avenue.

On the southern half of the site are the bowling club clubhouse and the indoor bowling green with a defunct outdoor bowling green and a clay tennis court to the northern half. The tennis club has a pavilion along the eastern boundary.

Externally to the west and south of the Bowling Club buildings is a car park for some 70 spaces with access to the western end of the site from Croftdown Road. The access is 6m, wide comprising a 4.7m carriageway and 1.3m pavement, between the town houses along Croftdown Road. Photo 1.

The natural gradient is from north to south. The site is 100m across with northern boundary at +53.5m OD and the southern boundary at +51.5m OD. This means that with a level difference of 2m on a distance of 100m, gives an average gradient of 1 in 50. This has been terraced in forming the outdoor bowling green.

Trees

An arboricultural assessment was completed by JBA in December 2014. As shown on the tree protection plan, JBA Drawing 11/103-TS02, there are 18 individual trees and 2 groups that are on or around the site and the root protection areas, RPAs, are shown for all of these. Particular trees, such as T3, also have protective fencing and a Construction Exclusion Zones, CEZ, for the demolition and construction works.

2.2 Existing Buildings and Site Features

The Bowling Club clubhouse is a two/three storey steel framed building with precast slabs and a combination of brickwork and metal cladding to the external elevations. The indoor bowling green is a large enclosure framed with steel trusses and corrugated roofing and external brick walls. It is understood that the clubhouse and indoor bowling green enclosure were constructed some 40 years ago. The tennis club has a small timber pavilion.

The Bowling Club closed early in 2014. The tennis club is still operational.

Public Sewer

There is a main Victorian brick sewer that snakes across the site. It commences in Dartmouth Park to the east, entering the site from the rear garden to No 48 Laurier Road before clipping the corner of the indoor bowling green and looping around beneath the outdoor bowling green and western car park to discharge down between Nos 40 and 42 York Rise to the west. The brick sewer is 1.1m x 0.8m. The depth varies between approximately 3m and 4.5m. The main sewer has a feed draining down the rear of the gardens to the houses on Dartmouth Park Avenue and this enters the site to the south of the current tennis courts to join the main run.

The brick sewer is to be maintained.

2.3 Surrounding Area

The site is surrounded by the rear gardens to the residential properties on the neighbouring streets. There is a nursery school on York Rise.

2.4 Local Road Network

All the surrounding roads are part of the Dartmouth Park local road network. Dartmouth Park is primarily residential. La Sainte Union School is a secondary school further to the west on Croftdown Road and the York Rise Nursery is on York Rise.

At the current access, Croftdown Road is 6.8m wide. The current bowling club access is between town houses with integral garages and pavement crossovers; this means that there are no parking bays along Croftdown Road on the bowling club access side, but there are parking bays opposite the access. Photo 2. It should be noted that the paving slabs to the western radius are damaged but the eastern radius are protected by the vehicle bollard. Photos 1 & 3.

To the west of York Rise, Croftdown Road has parking both sides with limited passing places.

2.5 On Street Parking

There are parking bays on both sides of the local roads with crossovers to the driveways of the detached and semi detached houses.

2.6 Major Road Network

The nearest A road is the A400 which is 0.5km to the east, connecting to the A1 at Archway and to A503 at Camden Town.

With the La Sainte Union School and limited passing spaces to the western half of Croftdown Road, Highgate Road is not considered suitable as a route for site traffic.

3. PROPOSED DEVELOPMENT

It is proposed to create:

- a new part three storey, part two storey residential block of 21 units (Class C3) with associated access, parking and landscaping which will require demolition of the existing bowling club buildings.
- a new publicly accessible open space;
- enhanced tennis facilities including the reconfiguration and extension of the courts to provide an additional court and increased playing area to accord with LTA requirements; the provision of a new ancillary pavilion (Class D2) to replace existing ancillary buildings;
- a new community garden;

3.1. Residential Units

The residential development will be located on the footprint of the current bowling club buildings and will comprise 11 flats to the east side and 10 houses to the west; the four houses along the south side of the development will have basements. The residential development has a footprint of 55m x 35m.

The residential units will have rendered ground floor with exposed brickwork to the upper floors.

Given that the basements are all to the southern side of the block, they are remote from the Victorian public sewer.

The houses and flats will have sedum roofs.

Access will use the existing entrance off Croftdown Road.

Basements and Foundations

As two and three storey construction, the foundations will be shallow pads and strip footings

The basements to the four houses will be constructed as a single concrete box, approximately 10m wide by 417m long overall. The basement storey will be 3.1m deep meaning that the excavation will be just less than 4m deep.

Apart from the southeast corner, the excavation for the basements will be in open cut, battered back to ground level with the footing being stepped down locally. Because of the proximity of the southeast corner of the basement to the eastern boundary sheet trenching will be required at this location.

Superstructure

Generally the ground floor will be ground bearing concrete slab; the exceptions will be over the basements and possibly where trees T1 and T2 are removed.

The upper floors to the houses will be traditional masonry and timber. The flats will have precast floors.

3.2. Tennis Facilities

The new pavilion for the tennis club in the northern half of the site will be a single storey with facilities to support the three courts. The pavilion will require a drainage connection.

3.3. Parking and Generated Traffic

The existing access will be maintained with the number of parking spaces reduced to 20 with the provision for 62 secure bicycle stands.

A transport statement, dated December 2014, has been prepared by Ardent Consulting Engineers in support of the planning application. This concludes that the development would not have any adverse impact on the performance of the local highway network.

3.4. Highway Works

Tracked construction vehicle movements at the site access are presented in Appendix 3. These show that the parking bays opposite the site access will need to be suspended for the duration of the works in order that large articulated lorries can enter and leave the site. A licence to suspend these bays will need to be sought from LB Camden Highways Network Management Team.

Slewing of trailer rear axle will cut across the existing pavement to the sides of the town houses on Croftdown Road. This is already damaged [see Photo 1] and the paving should be replaced at the end of the works.

4. ENVIRONMENTAL CONSIDERATIONS

4.1 Contamination

A desk top survey has established that the site remained as a fallow backland as the houses were developed on the surrounding roads and the first development was the bowling club in the 1920's. Consequently there is no evidence of any contamination.

This will need to be verified with the further site investigations.

4.2 Dust and Pollution

The clubhouse and the indoor bowling green enclosure are framed in steel and their demolition will comprise disassembly of these elements using cranes and cutting equipment with operatives in cherry pickers. The precast slabs will be broken up and the masonry walls will be taken down using traditional techniques. The demolition will generate some dust and will be damped down with a hose. Demolition lorries will have their loads covered before they exit the site.

The ground works will be in the London Clay and this will not generate excessive dust. Again any dust generated by the ground excavations will be damped down with a hose.

Delivery lorries and any wagons waiting on site will have their engines switched off to reduce both noise and pollution.

4.3 Noise, Vibration

The clubhouse is in the centre of the site, surrounded by either car park or the outdoor courts and green. All the surrounding houses have back gardens which increases the clear distance. The demolition will be for a finite period at the start of the construction and it is not anticipated that the noise from the demolition will be excessive.

There will be normal noise from the plant use in the construction, and the recommendations of BS5228:2009 relating to noise and vibration control on construction and open sites will be adopted. This will include:

- Plant being switched off when not used.
- Mufflers fitted to any pneumatic drills that are found to be required.
- Restrictions on the use of radios on site

5. CONSTRUCTION OPERATIONS

5.1 Construction Route Plan

Major roads will be used for all construction traffic. All vehicles will be directed to use the A400 and the use of Highgate Road will be discouraged.

Access to the site will be from the A400 at the Tufnell Park traffic lights, north along Dartmouth Park Hill and left onto Dartmouth Park Road. This links with Laurier Road, and then right at the traffic lights to York Rise and right onto Croftdown Road.

All site traffic will enter the site, turning around within the site to egress in a forward direction, retracing the route back to Tufnell Park and the A400.

There is no need for any traffic diversions.

5.2 Construction Programme and Working Hours

It is envisaged that the works will take approximately 60 weeks of construction. With 5 weeks allowance for two Christmas and banks holidays, this will give 65 calendar weeks for the duration of the project on site.

Access for the construction of the tennis club pavilion will be around the western side of the site and consequently it will be constructed after the demolition is completed being concurrent with the excavation of the basement box to the four houses and the groundworks to the residential units. This means the pavilion will be completed as the foundations to the residential units are being completed and prior to the scaffolding for the residential superstructure.

<u>Residential Blocks</u>		<u>Tennis Club Pavilion</u>	
Site Set up and tree protection	2 weeks		
Demolition of bowling club buildings	5 weeks		
Groundworks including basement box	13 weeks	Groundworks	4 weeks
		Pavilion superstructure	6 weeks
		Pavilion Fit out	3 weeks
Superstructure and weatherseal	20 weeks		
Finishes including external areas & landscaping	20 weeks		
Construction Total	60 weeks		
Holidays	5 weeks		
Project Duration		65 weeks	

The site working hours will be:

Monday to Friday: 0800hours to 1800hours
 : Saturday: 0800hours to 1300hours

The tennis club will close temporarily whilst the pavilion is constructed.

5.3 Considerate Contractors Scheme

As part of the preliminaries, the contractor will be required to sign up to the Considerate Contractors Scheme.

5.4 Pedestrian Safety and Segregation

Building sites, particularly with deep excavations, are dangerous. There will be children in the adjoining rear gardens and in York Rise Nursery School, and consequently the whole of the site will be hoarded using Harras fencing. Such open fencing will allow visual surveillance of the site out of site hours.

The pavement along the access road will be maintained for pedestrian access to the site. Public access will be segregated from the construction works.

5.5 Logistics, Deliveries and Cranage

The tracked movement of 15.4m long articulated lorries both on and off the site are presented in Appendix 3 as 12014/SK3 to 4. These show that the parking bays opposite the access will need to be suspended for the duration of the works in order that large articulated lorries can enter the site.

A banksman will assist articulated and other large lorries to enter and leave the site and all vehicles will complete a three point turn within the site to exit in a forward direction.

As shown on Sk03 and 04, at the entrance to the Bowling Club, the trailer to articulated lorries will cut across the pavement. The pavement is already damaged on the western side of the access [see Photo 1] and the paving should be replaced at the end of the works.

Deliveries will be coordinated and times will be staggered. With the school on Croftdown Road, all deliveries would be before 0800 hours and after 0930 hours in the morning and before 1500 or after 1600 hours to miss the start and finish of the school day. During term time, articulated vehicles will be restricted to the school day between 0930 hours and 1500 hours.

Street Cleaning

Street cleaning will be undertaken for all the operations at the start of the construction from demolition through to the completion of the groundworks and ground floor slabs.

Wheel washing within the site will be installed for the excavation of the basement .

Lifting Plans

Two lifting plans are being considered:

- i. Given the traditional masonry construction, a hoist will be provided to the flats and both north and south side of the houses for pallets of bricks and blocks with a mobile crane used to lift precast slabs and any other objects that cannot be accommodated on the hoists.
- ii. Alternatively, a small luffing crane will be installed in the middle of the block. The crane would be positioned so that it does not over sail the rear garden to Dartmouth Park Avenue.

5.6 Parking Bay Suspension and Temporary Traffic Management Orders

With deliveries using articulated lorries, it will be necessary to suspend the parking bays on the north side of Croftdown Road opposite the site entrance. This will need to be agreed with LB Camden Highway Network Management Team.

5.7 Site Set Up, and Demolition

Duration: 7 weeks

Deliveries & Vehicular Movements: Plant, skips and removal of demolition materials

Hoardings and gates would be erected at the site entrance and the trees will be protected before the demolition works commence.

A crane will be used to dismantle the steel frames.

It is envisaged that there will be 50 demolition lorry movements.

5.8 Tennis Pavilion

Duration: 13 weeks [Concurrent with Residential Basement and Groundworks]
 Deliveries & Vehicular Movements: General building materials

The tennis pavilion will need to be completed at the same time as the residential groundworks.

5.9 Residential Groundworks including Basement Box

Duration: 13 weeks
 Deliveries & Vehicular Movements: 360° excavator, muck away lorries and concrete wagons

The 360° excavator will be delivered on a low loader. A wheel wash would be installed on the site to keep mud off Croftdown Road

The excavation of the basements will generate some 400 muck away wagon movements.

5.10 Residential Superstructure

Duration: 20 weeks
 Deliveries & Vehicular Movements: Building materials

Deliveries will be into the body of the site with wagons turning around within the site to exit in a forward direction.

5.11 Residential Finishes and External Areas

Duration: 20 weeks
 Deliveries & Vehicular Movements: Building materials and appliances

Deliveries will follow the traffic management adopted for the superstructure.

5.12 Summary of Construction Traffic Movements

As set out in the headings to the various construction stages above, the construction traffic will vary. Higher lorry movements will be generated by:

	Estimated Peak Daily Lorry Movements
• Demolition of Bowling Club Buildings:	10
• Excavation of the residential foundations, drainage and basement box:	15
• Concreting of the foundations, basement and ground floor slab:	8
• Delivery of bricks and materials for superstructure	5

5.13 Other Construction Sites

In December 2014 there were no other construction sites along Croftdown Road.

6. CONSULTATION

There has been significant community engagement during the pre-planning application process. Consultation from a previous scheme in 2012 has been used to inform the development of the current scheme.

6.1 Public Exhibitions

As set out in the Icen Projects Statement of Community Engagement, there have been three public exhibitions and contact with local Councillors

6.2 Engagement with Local Organisations

Contact has been made with the local schools offering a briefing meeting, but to date none of the schools have taken up this up.

The scheme was presented to LB Camden Development Management Forum on 01.10.14, which was attended by local residents and representatives of local organisations.

6.3 Community Feedback

Community engagement has heavily influenced the final scheme proposals.

6.4 Consultation on CMP

Given the size of the project, a formal consultation on a draft CMP was not considered appropriate nor was the formation of a formal Construction Working Group. There was no interest in any either of the three public exhibitions or at the Development Management Forum for such a Construction Working Group

Appendix 1: Site Photographs



Photo 1 Existing 4.7m access road and 1.3m pavement between town houses on Croftdown Road
Note 1 Cracked paving with vehicles cutting corner to western channel [right hand side]



Photo 2 Parking bays on other side of Croftdown Road opposite Bowling Club access
Note 1 Vehicle bollard to eastern kerb [right hand side]



Photo 3 Visibility looking east with junction to Brookfield Park
Note 1 No cracked paving slabs to eastern splay



Photo 4 Croftdown Road looking west with site entrance between terrace of town houses and junction to York Rise before red brick house

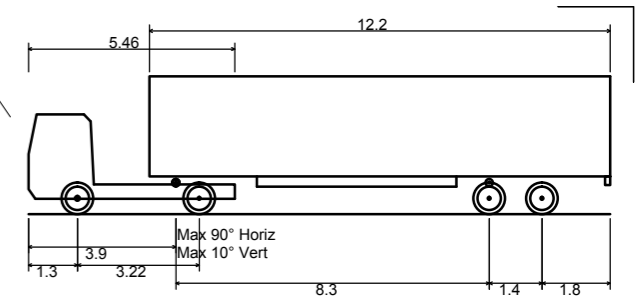
Appendix 2: CMP Contents Comparison with CPG6 Requirements

CMP Contents Comparison with CPG6 Requirements

	CMP Section
Environment Impact to CPG6 Clause 8.12	
1. Dust, noise and vibration on site and off site;	4.2 & 4.3
2. Traffic management highways safety and highways congestion;	2.5, 5.3 & 5.4
3. Protection of listed buildings (if relevant);	Not relevant
4. Stability of adjacent properties;	3.1
5. Protection of any off-site features that may be damaged due to works;	3.3
6. Protection of biodiversity and trees;	3.1
7. Preserve the amenity of surrounding residential and other sensitive uses.	5.4
Construction Work to CPG6 Clause 8.18	
1. Start and end dates for each phase of construction;	5.1
2. The proposed working hours;	5.1
3. The access arrangements for vehicles;	5.4
4. Proposed routes for vehicles between the site and the Transport for London Road Network (TLRN). Consideration should also be given to weight restrictions, low bridges and cumulative effects of construction on the highway;	2.5
5. Sizes of all vehicles and the frequency and times of day when they will need access to the site, for each phase of construction;	5.6 to 5.12
6. Swept path drawings for any tight manoeuvres on vehicle routes to the site;	Appendix 3
7. Details (including accurate scaled drawings) of any highway works necessary to enable construction to take place;	Appendix 3
8. Parking and loading arrangements of vehicles and delivery of materials and plant to the site;	5.4 & Appendix 3
9. Details of proposed parking bays suspensions and temporary traffic management orders;	5.5
10. Proposed overhang (if any) of the public highway (scaffolding, cranes etc);	5.10 & Appendix 3
11. Details of any temporary buildings outside the site boundary, or overhanging the highway;	Not Applicable
12. Details of hoardings required or any other occupation of the public highway;	5.10
13. Details of how pedestrian and cyclist safety will be maintained, including any proposed alternative routes (if necessary), and any banksman arrangements;	5.3, 5.4 & 5.10
14. Details of how traffic associated with the development will be managed in order to reduce congestion;	5.4
15. Arrangements for controlling the movements of large/heavy goods vehicles on and in the immediate vicinity of the site, including arrangements for waiting, turning and reversing and the provision of banksmen, and measures to avoid obstruction of adjoining premises.	5.4
16. Details of any other measures designed to reduce the impact of associated traffic (such as the use of construction material consolidation centres);	5.6
17. Details of how any significant amounts of dirt or dust that may be spread onto the public highway will be cleaned or prevented;	4.2 & 5.8
18. Details of any Construction Working Group that may be required, addressing the concerns of surrounding residents, as well as contact details for the person responsible for community liaison on behalf of the developer, and how these contact details will be advertised to the community;	6.2 & 6.5
19. A statement confirming registration of the site with the Considerate Constructors Scheme;	5.2
20. How the servicing approach takes into consideration the cumulative effects of other local developments with regard to traffic and	5.4 & 5.13

Mansfield Bowling Club	Construction Management Plan
transport;	
21. Provision for monitoring of the implementation of the CMP and review by the council during the course of construction works;	1.1
22. Any other relevant information with regard to traffic and transport;	2.5
Air Quality to CPG6 Clause 8.18	
1. A method statement to minimise gaseous and particulate matter emissions generated.	4.2

Appendix 3: Tracked Articulated Lorry Movement at Site Access
12014 SK3 Articulated Lorry entering existing Access
SK4 Articulated Lorry leaving existing Access



LARGE ARTICULATED VEHICLE	
OVERALL LENGTH	15.400m
OVERALL WIDTH	2.500m
OVERALL BODY HEIGHT	3.652m
MIN BODY GROUND CLEARANCE	0.406m
TRACK WIDTH	2.376m
LOCK TO LOCK TIME	6.00S
KERB TO KERB TURNING RADIUS	6.610m

PROPOSED ARTICULATED TRUCK MOVEMENT ON TO SITE AT LOCATION OF EXISTING CLUB ACCESS

Rev.	Description	By	Chkd.	Date
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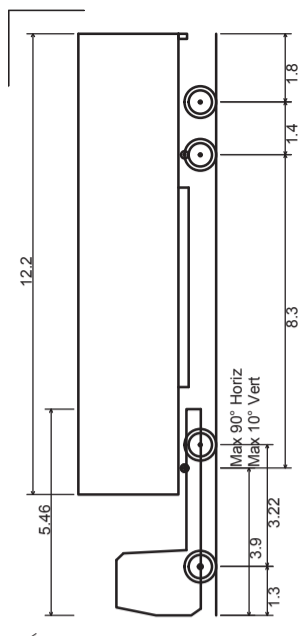
Client: **MANSFIELD BOWLING CLUB**

Project: **MANSFIELD BOWLING CLUB**

Title: **PROPOSED ACCESS & SWEEP PATH ANALYSIS - SHT 3 of 4**

Drawing Status: **PRELIMINARY**

Date: Nov'12	Drawing No. 12014/SK-03	Rev.
Scale: 1:100		
Drawn: NPM		
Chkd: NCT		



LARGE ARTICULATED VEHICLE

- OVERALL LENGTH 15.400m
- OVERALL WIDTH 2.500m
- OVERALL BODY HEIGHT 3.652m
- MIN BODY GROUND CLEARANCE 0.406m
- TRACK WIDTH 2.376m
- LOCK TO LOCK TIME 6.00S
- KERB TO KERB TURNING RADIUS 6.610m



Rev.	Description	By	Chkd.	Date

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Project: **MANSFIELD BOWLING CLUB**

Title: **PROPOSED ACCESS & SWEEP
PATH ANALYSIS - SHT 4 of 4**

Drawing Status: **PRELIMINARY**

Date:	Nov'12	Drawing No.	12014/SK-04	Rev.
Scale:	1:100			
Drawn:	NPM			
Chkd:	NCT			

**PROPOSED ARTICULATED TRUCK MOVEMENT OFF
SITE AT LOCATION OF EXISTING CLUB ACCESS**