



## Boherboy SHD

### Outline Construction Traffic Management Plan

January 2022

Prepared for:

Kelland Homes Ltd.

Durkan Group



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Number	By	Date	Context
1	Ronan Kearns	09/06/21	Draft
2	Ronan Kearns	20/01/22	Issued for planning

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# **1 INTRODUCTION**

## **1.1 Introduction**

This Outline Construction Traffic Management Plan (CTMP) has been prepared in consultation with Applicants and their contractors. It is as a key construction contract document, the implementation of which aims to reduce possible impacts which may occur during the construction of the proposed development.

The applicant is responsible for ensuring construction activities are managed in accordance with the final CTMP. This Outline CTMP will shape the final plan but is subject to change/revision.

Objectives and measures are also included for the management, design and construction of the project to control the traffic impacts of construction insofar as it may affect the environment, local residents and the public in the vicinity of the construction works.

## **1.2 Implementation**

Key to the implementation of this CTMP is the dedication of the on-site construction manager who will regularly liaise with and update the Client's resident representative and associated team on all environmental and construction programming issues relating to the site. All site personnel are charged with following good practice and encouraged to provide feedback and suggestions for improvements. All site personnel are also required to ensure compliance with the requirements of the site's CTMP.

## **1.3 Scope**

The objective of this CTMP is to ensure that the residual impacts to the public road network during the construction phase of the project which have been identified in the application documentation are minimised and that transport related activities are carried out as safely as possible and with minimum disruption to other road users.

The CTMP has also been prepared for the purpose of identifying appropriate and safe methods of access for construction traffic to the proposed development. This CTMP describes the traffic management for the transportation of construction materials, equipment and personnel along the public road network to facilitate the construction of the proposed development. Light vehicles, such as cars and vans, will be used by site operatives travelling to and from the site. Heavy Construction Vehicles (HCV) will be required to deliver general construction materials, such as concrete, to the site.

This CTMP remains a live document that will be reviewed by the contractor and expanded upon, where necessary, throughout the construction phase of the project. However, this version is considered to be wholly relevant for the expected works.

## **1.4 Consultation**

The Applicant, and their connected companies, has a number of active construction sites. It has engaged in detail consultation with their incumbent contractors to review and sense check the measures contained in this outline CTMP.

While the measures contained in this CTMP are subject to detailed design and the appointment of a main contractor, all the pertinent issues have been reviewed by a number of contractors to ensure holistic approach has been taken with regard to the proposed CTMP measures.

## 2 PROJECT DESCRIPTION

### 2.1 General

The proposed development will consist of the development of for the development of Kelland Homes Ltd and Durkan Estates Ireland Ltd are applying to An Bord Pleanála for permission for a strategic housing development at a site at Boherboy, Saggart, County Dublin. To the immediate north of the site is the Carrigmore residential estate, to the west are agricultural lands and a single dwelling, to the east is the Corbally residential estate while to the south is the Boherboy Road. The proposed application represents the development of the entire Boherboy Neighbourhood as identified in the Fortunestown Local Area Plan (2012).

The development will consist of 655 no. dwellings, comprised of 257 no. 2, 3 & 4 bed, 2 & 3 storey detached, semi-detached & terraced houses, 152 no. 1, 2 & 3 bed duplex units in 17 no. 2-3, 3-4 & 4 storey blocks, and 246 no. 1, 2 & 3 bed apartments in 9 no. buildings ranging in height from 2, 2-5, 4-5 & 5 storeys, and a 2 storey crèche (693m<sup>2</sup>).

Access to the development will by via one no. vehicular access point from the Boherboy Road, along with proposed upgrade works to Boherboy Road to include the provision of a roadside footpath along the front of the site at the Boherboy Road, continuing eastwards to the junction with the N81 Blessington Road (for an overall distance of c.370m). The proposed development also provides for pedestrian and cyclist connectivity to the adjoining Carrigmore Park to the north-east, and vehicular, pedestrian and cyclist connections to adjoining developments at Corbally Heath to the east and Carrigmore Green to the north.

The proposed development provides for (i) all associated site development works above and below ground, including surface water attenuation & an underground foul sewerage pumping station at the northern end of the site, (ii) public open spaces, including alongside the Corbally Stream, which will accommodate the provision of pedestrian / cyclist links to Carrigmore Park to the north-east, (iii) hard and soft landscaping and boundary treatments, (iv) undercroft, basement & surface car parking (914 no. spaces including EV parking), (v) bicycle parking (797 no. bicycle parking spaces), (vi) bin storage, (vii) public lighting, and (viii) 5 no. ESB sub-stations, all on an overall application site area of 18.3ha. In accordance with the Fortunestown Local Area Plan (2012) an area of approx. 1.42ha within the site is reserved as a future school site.

The site has an area of 18.26Ha. It is proposed to develop this site based on the following schedule of accommodation:

Proposed Land Uses	
Land Use	Size
Houses	268
Duplex	152
Apartments	246
<b>Total</b>	<b>655</b>

**Table 1 Proposed Land Uses**

### 2.1 Site Access

The proposed site access points are illustrated in Figure 1 below.



Pedestrians and vehicles can be kept apart by management of the following:

- **Entrances and exits** - provide separate entry and exit gateways for pedestrians and vehicles;
- **Walkways** - provide firm, level, well-drained pedestrian walkways that take a direct route where possible;
- **Crossings** - where walkways cross roadways, provide a clearly signed and lit crossing point where drivers and pedestrians can see each other clearly;
- **Visibility** - make sure drivers driving out onto public roads can see both ways along the footway before they move on to it; the existing entrance has a visibility splay to enable this
- **Obstructions** – do not block walkways so that pedestrians have to step onto the vehicle route; and
- **Barriers** - Where needed, a barrier between the road and walkway.

Vehicle movement will need to be minimised on site due to the restricted areas in which the contractor will have to work. This can be minimised by management of the following:

- Provide car and van parking for the workforce and visitors away from the work area;
- Control entry to the work area;
- Plan storage areas so that delivery vehicles do not have to cross the site;
- People who direct vehicle movements (banksmen) must be trained and authorised to do so;
- Make sure that all drivers and pedestrians know and understand the routes and traffic rules on site;
- Use standard road signs where appropriate;
- Provide induction training for drivers, workers and visitors and send instructions out to visitors before their visit.

This management will be greatly assisted by utilising the following:

- **Banksmen** - who can be appointed to control manoeuvres and who are trained in the task;
- **Clothing** - pedestrians on site should wear high-visibility clothing as well as other relevant P.P.E.
- **Gatekeeper**- The site compound will be self-contained, and it is unlikely that a gate keeper be required. A site operative will be appointed to direct/summon banksmen should one be required.
- **Speed limits**- speed limits to be restricted on site for all vehicles.

### **3 ENVISAGED CONSTRUCTION TRAFFIC GENERATION**

#### **3.1 Introduction**

There are multiple factors that influence the traffic generation as a result of construction activities. These factors include, but are not limited to:

- Market conditions
- Detailed design/final cut and fill models
- Program
- Availability of materials
- Availability of staff
- Improvements in construction methodologies i.e., the use of soil stabilisation rather than the importation of suitable material.

An estimate of the construction traffic generation is outlined in Section 3.10 of this report. In the final CTMP, the traffic generation will be calculated based upon final scheme design and construction program. Staffing levels, material deliveries and envisaged plant requirements, and the associated access and traffic and transport impacts, will be calculated based on similar project activities.

Automatic Traffic Counts were carried out to ascertain the typical existing traffic volumes currently using the roads which will be potentially impacted by the construction of the proposed development. Refer to Appendix A for details of the Automatic Traffic Counts are detailed in Traffic & Transport Assessment.

#### **3.2 Days and Hours of Construction/Delivers**

All deliveries will be notified to the Contractor's Project Manager/Traffic Management Co-ordinator in advance with specific times identified. These will be collated and held in a diary by the Co-ordinator who will manage the deliveries daily. The Co-ordinator will highlight any clashes and anticipated busy periods to streamline the processing of deliveries.

On arrival at the agreed locations, drivers must wait and ring for attention in accordance with the relevant site signage. They will then be escorted to the appropriate location for unloading by the contractor's Banksmen. No waiting will be permitted on the public road network.

Unloading will be carried out at one of the material storage areas. All deliveries will be unloaded by forklift or mechanical means.

Deliveries of materials to site will generally be between the hours of 07:00 and 19:00 Monday to Friday, and 09:00 to 13:00 on Saturdays. No deliveries will be scheduled for Sundays or Bank Holidays.

There may be occasions where it is necessary to make certain deliveries outside these times, for example, where large loads are limited to road usage outside peak times. This will only be undertaken in exceptional circumstances.

All access roads used by contractors will be monitored for mud and any construction materials and cleared using a shovel/broom and if required a mechanical road sweeper.

#### **3.3 Traffic Counts**

It is proposed that the subject site will be accessed directly from the Boherboy Road with 3 No. vehicular access points and a pedestrian access on the southern end of the site.

In order to quantify the volumes of traffic movements at key points on the road network adjacent to the site, a set of classified turning movement traffic counts were commissioned. The location of these counts was agreed in consultation with the senior executive engineer of South Dublin Council's Transportation Department.

Accordingly, classified counts were carried out on the 3<sup>rd</sup> of March 2020 at the following junction locations:

- Site 1 – Site Access
- Site 2 – Boherboy Road/N81

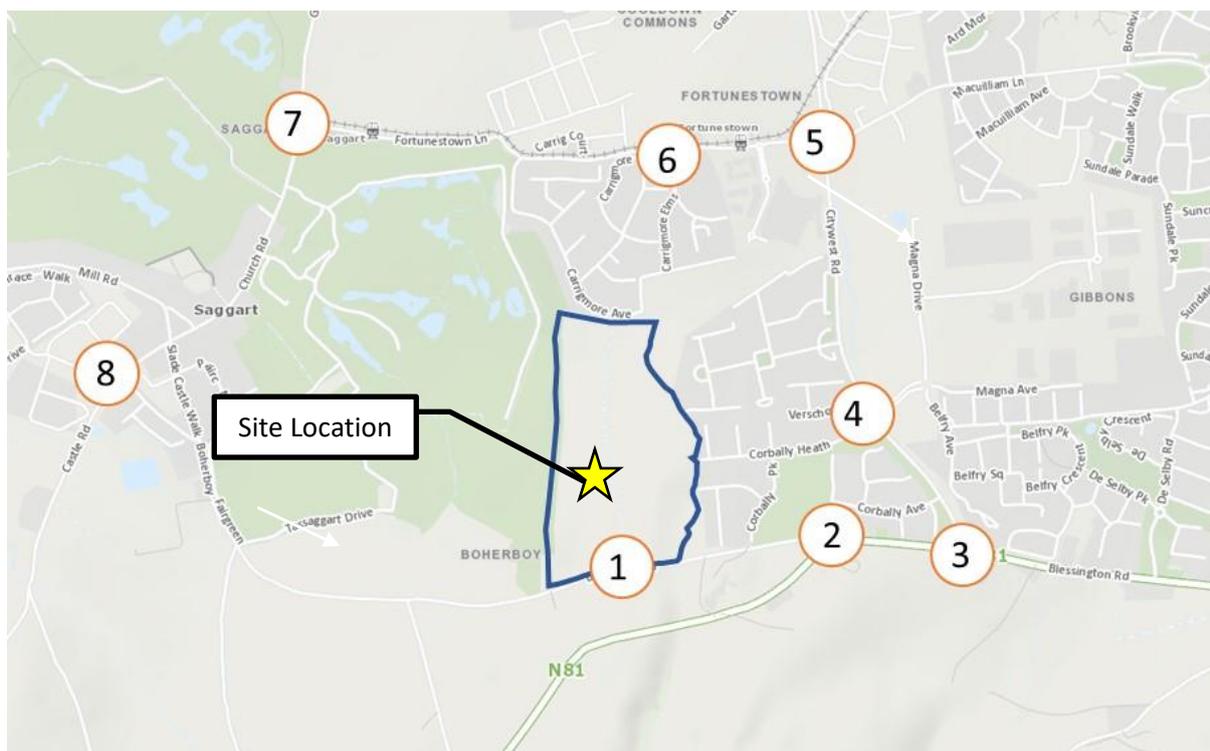
- Site 3 – N81/N82 Signal Controlled Junction
- Site 4 – N82/Corbally Heath Roundabout
- Site 5 – N82/ Fortunestown Lane Signal Controlled Junction
- Site 6 – Carrigmore Estate/Fortunestown Lane Priority Controlled Junction.
- Site 7 – Church Road/Fortunestown Signal Controlled Junction.
- Site 8 – Boherboy Road/Saggart Signal Controlled Junction.

The surveys were carried out on the dates identified above to ensure that flows were representative of normal term time and hence not affected by school holidays or other public holidays or events. As such they provide an appropriate and robust representation of a neutral month during a period of normal school and employment activity. The surveys are designed to provide representative values encompassing AM and PM peak periods during normal traffic conditions.

The results of the traffic surveys are also set out in Appendix A of the Traffic and Transport Assessment. These traffic counts were undertaken by Trafficconmics.

The locations of the surveys are each pertinent to the proposal in terms of being at key nodes in the road network that would be affected by traffic assignment and distribution of flows associated with the development site.

The location of the survey points is depicted below at Figure 2.

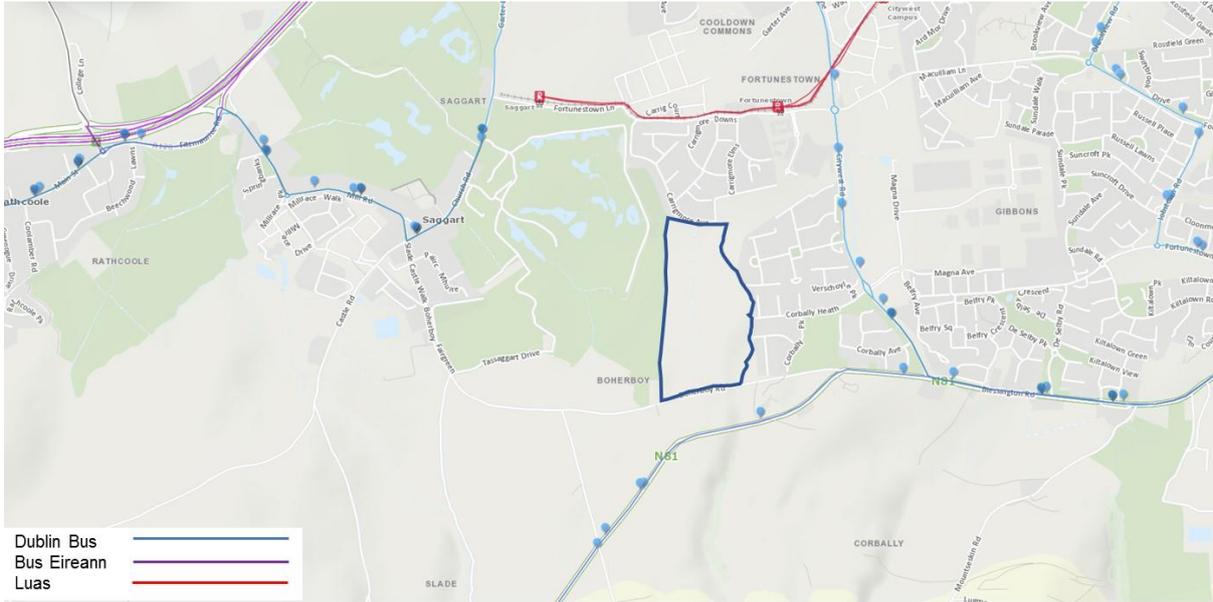


**Figure 2 Survey Location**

### 3.4 Public Transport

#### 2.1.1 Background

Local public transport infrastructure is illustrated in Figure 3 below.



**Figure 3 Local Public Transport Infrastructure**

**2.1.2 Bus**

There are numerous bus operators providing a bus service locally and within walking distance to the site, with further details shown in Table 2 below.

No.	Route	Service	Mon-Fri	Sat	Sun	
65	Poolbeg Street - Valleymount Road	Poolbeg Street	First	05:30	05:40	08:00
			Last	23:0	23:15	23:15
		Valleymount Road	First	06:30	07:10	09:30
			Last	00:15	00:20	00:20
		Frequency	Up to 15/day	Up to 112/day	Up to 10/day	
65b	Poolbeg Street -Citywest	Poolbeg Street	First	05:50	05:50	09:00
			Last	23:30	23:30	23:30
		Citywest	First	06:50	07:00	08:30
			Last	23:30	23:30	23:30
		Frequency	Up to 18/day	Up to 17/day	Up to 15/day	
77a	Ringsend Rd. - Citywest	Ringsend Rd	First	05:40	05:55	07:00
			Last	23:25	23:25	23:30
		Citywest	First	06:00	06:20	08:00
			Last	23:30	23:20	23:30

		Frequency		Up to 14/day	Up to 17/day	Up to 3/day
77x	Citywest - UCD Belfield	Citywest	First	07.20	-	-
			Last			
		UCD Belfield	First	-	-	-
			Last			
Frequency		1 per day		-	-	
69	Hawkins St. - Rathcoole	Hawkins St.	First	06:15	06:20	10:00
			Last	23:15	23:15	23:15
		Rathcoole	First	06:00	06:15	11:15
			Last	00:05	00:05	00:10
		Frequency		Up to 20/day	Up to 21/day	Up to 12/day
		175	UCD - Kingswood Avenue	Kingswood Avenue	First	06:00
Last	23:20				22:15	22:15
UCD	First			06:15	08:15	09:15
	Last			22:15	23:20	20:05
Frequency				Up to 19/day	Up to 17/day	Up to 16/day

**Table 2 Local Bus Services**

Measured from the centre of the site, the nearest stop is located approximately 670m (Route A /c. 9 mins walk time) and 1.46km (Route B / c. 19 mins walk time) from the site which equates to 8 minutes walking time. This is illustrated in Figure 4.

Route A and Route B provide access to the services outlined in Table 2.



**Figure 4 Walk Routes (Source: Google Maps)**

**2.1.3 Luas**

The Luas Red Line (Saggart/Tallaght to Conolly/The Point) calls at the Fortunestown which is located approximately 950m north of the subject site.

Luas Red Line					
Monday – Friday (05:30-00:00)		Saturday (06:30-00:00)		Sunday (07:00-23:00)	
Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
3-6	6-15	7-8	10-15	11-12	-

**Table 3 Luas Green Line Frequency (minutes) – (source www.luas.ie)**

The Luas has a major terminus at the Square, Tallaght which is also a major terminus for Dublin Bus. The Square is served by Dublin Bus with several local routes. Currently timetabled bus services adjacent to the site include the 27 (which has approximately 80 services per day in each direction from Clarehall to Jobstown), the 49 (which has approximately 37 services per day in each direction from Pearse Street to Tallaght), the 54a (which has approximately 30 services per day in each direction from Pearse St. towards Ellensborough / Kiltipper Way), the 65 (which has approximately 14 services per day in each direction from Hawkins Street to Blessington/Ballymore), the 75 (which has approximately 38 services per day in each direction from the Square to Dun Laoghaire), the 76 (which has approximately 40 services per day in each direction from Tallaght to Chapelizod), the 76a (which has approximately 3 services per day in each direction from Tallaght to Blanchardstown Centre) and 77a (which has approximately 56 services per day in each direction from Ringsend to Citywest).



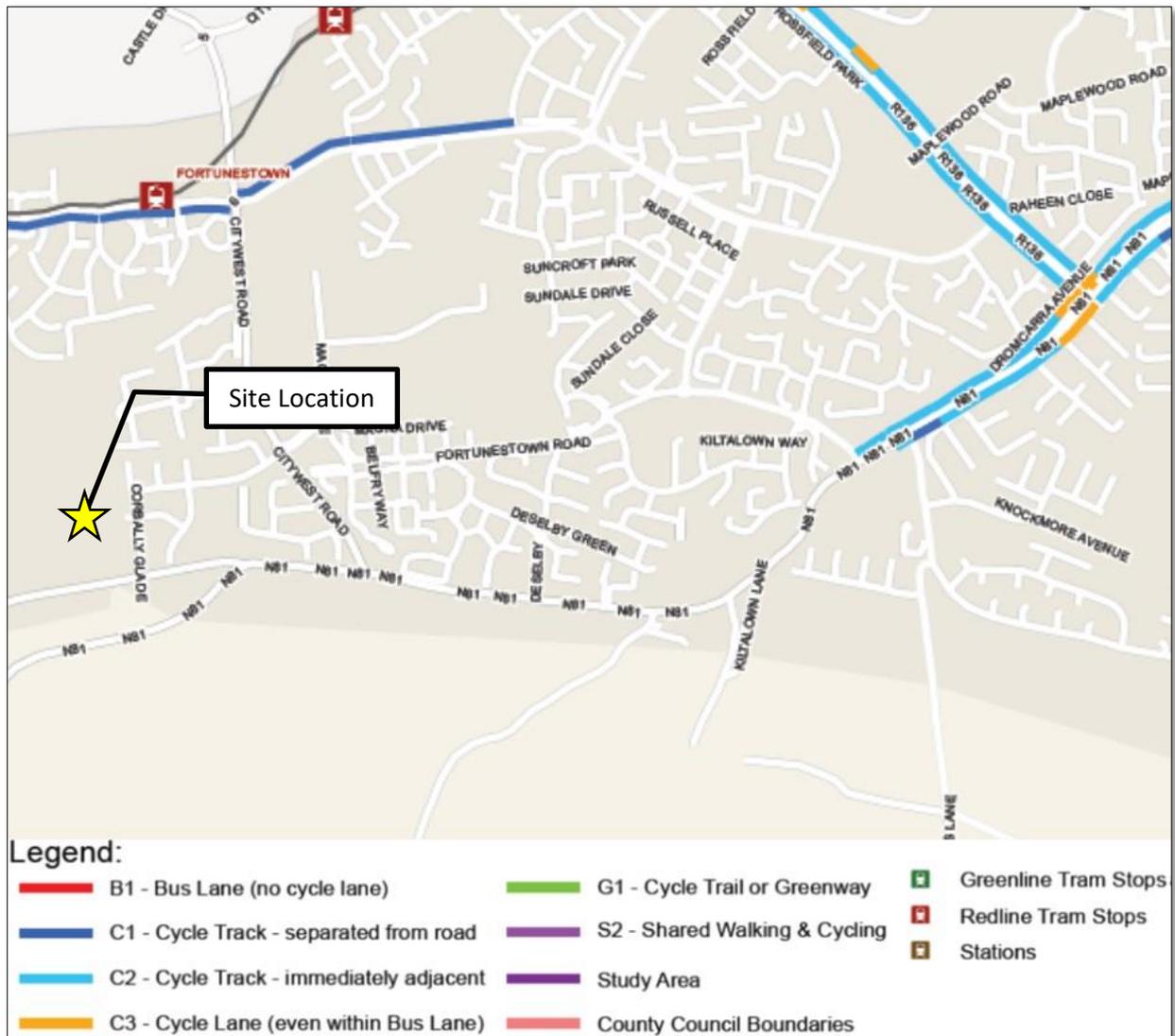
**Figure 5 Luas Walk Times**

Measured from the centre of the site, the nearest stop is located approximately 950m (c. 10 mins walk time) from the site. This is illustrated in Figure 5.

### 3.4.1 Walking and Cycling

There is no footpath located along the site frontage. The public footpath terminates at the junction between the N81/Boherboy Road.

There is no cycle network located along the site frontage. Existing cycle routes identified by the National Transport Authority (NTA) in the vicinity of the site are indicated in Figure 6 below.



**Figure 6 Existing Cycle Routes (Source: NTA)**

### 3.4.2 Summary

It is reasonable to conclude that with such direct pedestrian linkage to public transport surrounding the development, there is the opportunity to cultivate increased bus, and train patronage by those travelling to/from the site.

### 3.5 Car pooling

It is well recognised that construction workers tend to make greater use of carpooling than traditional '9-5' workers, possibly due to shared accommodation and travelling from further afield/lower levels of car ownership, which results in a greater level of sharing journeys.

Notwithstanding this, it is proposed that within the site offices or on the staff welfare notice board there will be information on car sharing and a contact number for the main contractor welfare officer who will have a list of site operatives and their willingness to share journeys so that opportunities for car sharing can be maximised. In the event that a lift to work or home becomes unavailable a registered member of the scheme will be offered an alternative lift home or failing that a taxi/public transport ticket will be provided.

For staff that chooses to travel to site using cars or other motorised vehicle a vehicle a pooling system will be put in operation by the contractor. Such measures shall be adopted in order to reduce traffic levels on the local road networks.

Car-pooling will only be encouraged/advised where it is in line with Government guidance and/or where all public health measures are adhered.

### **3.6 Construction Parking**

Parking of construction staff vehicles on the public road network will not be permitted.

All construction traffic will access the site via the proposed access on the Boherboy Road. Car parking will be provided for all workers who travel to site using a car in or adjacent to the site compounds, as determined by the construction program.

This car park will be temporary in nature and will be created by laying of a temporary surface for vehicles.

This number of construction vehicle movements is considered to be relatively low compared to the wider road network and operational traffic.

### **3.7 Walking**

The contractor will ensure construction staff are provided access from the footpath on the Boherboy Road via the proposed access on Boherboy Road.

### **3.8 Cycling**

Cycle parking spaces will be provided on the site for construction staff, in addition lockers will be provided to allow cyclists store their cycling clothes.

### **3.9 Haul Route**

#### **3.9.1 Background**

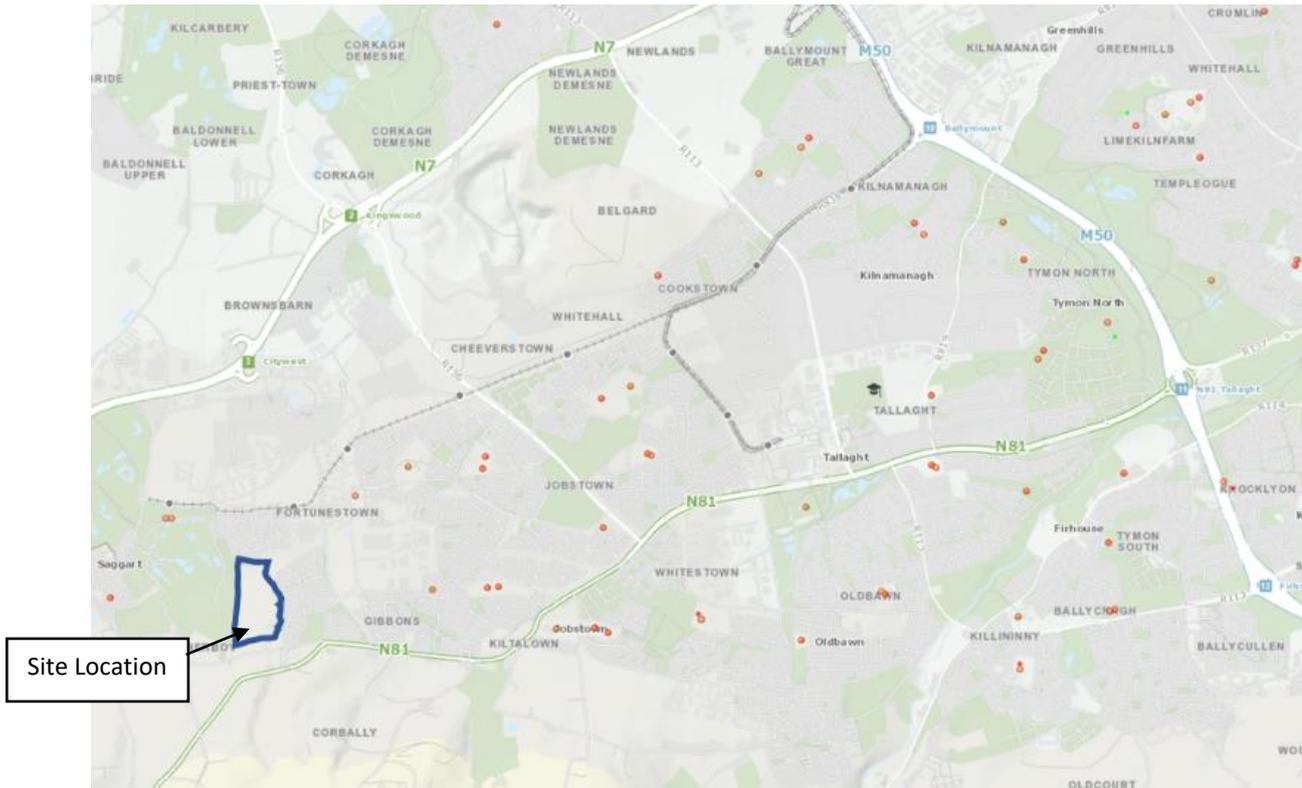
Materials such as steel and concrete required in the construction of the proposed development are likely to be sourced from manufacturers that are not situated within the immediate vicinity of the proposed development.

The total number of vehicular traffic movements between site location will be determined by the contractor based on the phasing of the proposed development. The use of local roads will be minimised as much as possible, particularly to avoid / minimise the encountering of narrow road widths, poor visibility and unsuitable bearing capacities.

#### **3.9.2 Route Selection**

The proposed development is located on The Boherboy Road. The haul route will be designed to ensure demolition waste, construction materials and construction waste is brought to the M50 in the shortest route. Routes that include schools will not be considered. The final haul route will be agreed with South Dublin County Council.

This will ensure that HGVs and other larger construction and delivery vehicles will spend a minimum amount of time on regional roads and local streets whilst avoiding schools.



**Figure 7 School Locations**

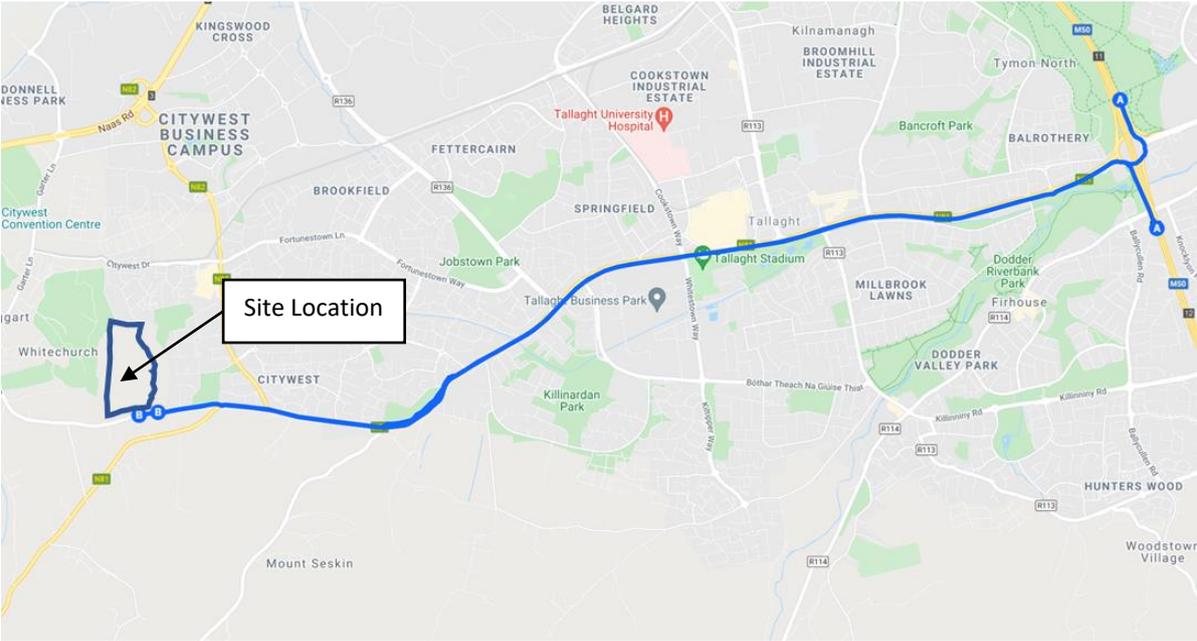
Based on the most direct route to the M50 the haul route will use the N81. This route will avoid schools.

### 3.9.3 Haul Routes

A description of the haulage routes are offered below:

#### From M50 to Development ~ 7 km, 11 minutes

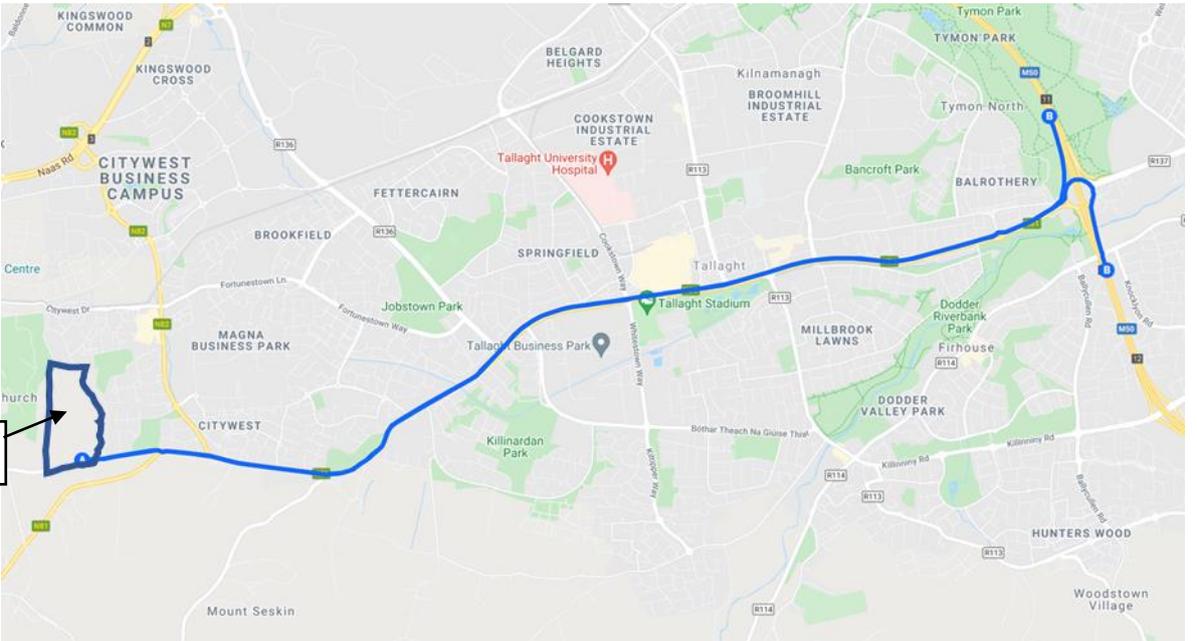
Take Exit 11 of M50, Redcow -> Head southeast -> Keep right at the fork, follow signs for N81/Tallaght/Blessington -> At the roundabout, take the 3rd exit onto Tallaght Rd/N81 -> Slight right -> Turn right onto Blessington Rd/N81 Continue to follow N81 -> Turn right and enter site.



**Figure 8 Haul Route to Site**

**From Development to M50 ~ 8 km, 11 minutes**

Starting on Boherboy Road -> Slight left onto N81 -> Keep right to continue on Tallaght Rd/N81 -> At the roundabout, take the 3rd exit onto the M50 ramp to Southbound -> Merge onto M50



**Figure 9 Haul Route from Site**

Arrivals and departures to the site compound are to be carried out in as few vehicle movements as possible in order to minimise potential impacts on the road network.

**3.10 Traffic Generation**

**3.10.1 General**

It should be noted that the majority of such vehicle movements would be undertaken outside of the traditional peak hours between 08:00-09:00 and 17:00-18:00, and it is not considered this level of traffic would result in any operational problems on the local road network.

Care will be taken to ensure existing pedestrian and cycling routes are suitably maintained or appropriately diverted as necessary during the construction period, and temporary car parking is provided within the site for contractor's vehicles. Based on the estimated number of construction related trips, the construction traffic will have a negligible impact on pedestrian and cycle infrastructure.

The envisaged traffic generated during the construction period will depend on the phasing of the construction which will be determined by the Client. Based on the estimated number of construction related trips, the construction phase will not have a significant effect on the local road network as a result of the construction of the development when compared to the operational traffic volumes.

The majority of traffic generated by delivering materials during the project are envisaged to occur during the following construction elements:

- Site clearance
- Laying of internal road
- Concrete, steel, and other material deliveries to site during the construction of structures

For the construction of the proposed development, it will be necessary to transport the construction materials, equipment, and personnel to and from the work sites.

This includes (but is not limited to):

- Establishing the construction site compounds.
- The removal of surplus soil material, suitable surplus excavated material for reuse and unsuitable excavated material, which will be taken offsite to a site permitted for deposition.
- The importation of suitable soil material where required;
- The importation of relevant construction materials and equipment;
- The exportation of C&D Waste and C&D Waste Demolition;
- Transportation of workers to and from the site;

The estimated start date on site is outlined in Section 3.2.

Several construction traffic movements will be undertaken by heavy goods vehicles, though there will also be vehicle movements associated with the appointed contractors and their staff.

### **3.10.2 Site Excavation**

It is expected that the site will generate c. 101,000 cu. m of topsoil that, subject to the suitability for it to be used elsewhere, will be used in the construction of berms on site and other landscaping features.

In addition to the removal of topsoil, a 3d terrain model has been generated to optimise the site levels. Where possible, the model seeks to balance the amount of cut and fill required on site to create a plateau. It is anticipated in the worst-case scenario that up to 60,000 cu. m of soil will be exported off site.

This would be done over a phased basis. For the purpose of this application, it is assumed that on average, 5 soil removal related trips per day/10 two-way trips.

This spoil will be mounded to create a berm and in turn will allow for the material to be deposited onto the HGVs by excavator. The HGVs will only reverse onto site to a hard standing area, receive the load and leave site. This negates the need for vehicles to drive into site to the dig site and receive the load from the point of excavation and in turn reduce unnecessary spoil being brought onto the public road. The haulage contractor will be required to organise the HGVs in an efficient manner to prevent the build-up of vehicles waiting outside the curtilage of the site.

The road marshal appointed will be responsible to ensure that there is no disruption to traffic or pedestrians and that roadways and paths are kept clean and free of debris.

Whilst it is not possible at this stage to accurately identify the day-to-day traffic movements associated with the construction activities, based on experience of similar sites it is considered that the number of construction related heavy goods vehicle movements to and from the application site will be

approximately 10 arrivals and departures during the first 2-3 months of works and decreasing to 3 to 5 thereafter.

### **3.10.3 Demolition & Construction Waste**

It is anticipated that the development will create c. 200 cu. m of demolition and construction waste.

A large builder's skip has an estimated capacity of eight cubic yards/8tonnes. Therefore, over the lifetime of the development there will be c. 25 trips related to the removal of demolition waste.

Whilst it is not possible at this stage to accurately identify the day-to-day traffic movements associated with the construction waste, based on experience of similar sites it is considered that the number of construction related heavy goods vehicle movements to and from the application site will be on average 2 arrivals/departures per day over a 5-year construction period.

### **3.10.4 Construction Workers**

At the peak of construction, it is anticipated that there will be a requirement for approximately c.100-120 construction workers, which with an allowance for shared journeys could equate to a maximum of around 60-80 arrivals and departures per day. This will vary over the lifetime of the project.

### **3.10.5 Material handling**

The development will be served by cranes, given the construction method and site confines. Lifting capacities will be predicated on the maximum loading requirements. A material and plant loading schedule will be undertaken to evaluate these needs.

All material scheduling and ordering will be communicated to the necessary personnel on site at the end of every day for the following day. It is imperative that deliveries are timely and executed efficiently to avoid unnecessary waiting.

### **3.10.6 Development Impact**

The likely impact of the construction works will be short-term in nature and less the operational phase impact.

### **3.10.7 Summary**

Arrivals and departures to the sites are to be carried out in as few vehicle movements as possible to minimise parking requirements and potential impacts on the local road network.

The proposed development will have a dedicated loading and unloading area within the curtilage of the proposed development. This will be accessed via the proposed access on Boherboy Road. Construction traffic will not be permitted to use estate roads to access the site.

Construction traffic will be restricted to the primary routes and will not be permitted to use residential routes. Material scheduling will dictate the timely delivery of supplies to site during off peak periods when traffic flow has eased, and pedestrian numbers are lower.

All offloading of deliveries to site will occur within the curtilage of the site boundaries and no roadside offloading will be permitted.

All scheduled deliveries will be supplied with the appropriate site location details in advance to prevent wandering in the locality. A dedicated site marshal will be appointed to ensure that delivery vehicles securely access and vacate the site. The site marshal shall also be responsible to ensure that clean road and pathway conditions are maintained for the public users.

## **4 CONSTRUCTION TRAFFIC MANAGEMENT PLAN**

### **4.1 Introduction**

This section outlines the content of the final Construction Traffic Management Plan (CTMP) which shall be prepared prior to construction of the proposed development. It shall be a requirement of the contract that, prior to construction, the appointed contractor shall liaise with the relevant authorities including the Transport Infrastructure Ireland (TII), Local Authorities and Emergency Services for the purpose of finalising the CTMP, which will encompass all aspects of this outline Construction Traffic Management Plan.

The CTMP shall be termed a 'Live Document', such that any changes to construction programme or operations can be incorporated into the CTMP.

The contractor will be contractually required to ensure that the elements of this outline CTMP shall be incorporated into the final CTMP. The contractor shall also agree and implement monitoring measures to confirm the effectiveness of the mitigation measures outlined in the CTMP. On finalisation of the CTMP, the contractor shall adopt the plan and associated monitoring measures. The final CTMP shall address the following issues (including all aspects identified in this outline CTMP):

- Site Access & Egress;
- Traffic Management Signage;
- Routing of Construction Traffic / Road Closures;
- Timings of Material Deliveries to Site;
- Traffic Management Speed Limits;
- Road Cleaning;
- Road Condition;
- Road Closures;
- Enforcement of Construction Traffic Management Plan
- Details of Working Hours and Days;
- Details of Emergency plan;
- Communication;
- Construction Methodologies; and
- Particular Construction Impacts

These items are explained in detail in the remainder of this section of the report.

### **4.2 Site Access and Egress**

Access to the site will be via a newly formed access off the Boherboy Road. This will coincide with the finished development access.

Access to the site will be gated. The gate will be set back off the external road network to ensure that vehicles entering the site can do so without causing an obstruction on the main carriageway.

The contractor shall provide advanced warning signs, in accordance with Chapter 8 of the Department of the Environment's Traffic Signs Manual 2019, on the approach to proposed site access locations a minimum of one week prior to construction works commencing at the site.

There will be heras fencing secured to a minimum height of 2 metres surrounding the construction site or solid panel hoarding in areas with high/low viewing panels to help reduce unauthorised access to the construction compound.

This fence will be checked daily and maintained as necessary, and it will be the responsibility of the Site Manager to open and lock the gates each working day to ensure the site is not left open and unattended at any time.

Access to the construction site will only be to authorised persons. During afterhours, security will be employed by the main contractors to ensure no unauthorised access.

Where possible, construction traffic and non-construction traffic will be separated for all modes of transport. Where the construction programme requires mixing of traffic, additional temporary traffic management measures will be put in place.

#### **4.2.1 National Road Network**

Access to the site along the National Road Network will be via the M50/N81. It is anticipated that the majority of construction related traffic will travel along the M50/N81 at which point construction traffic will enter the regional/local road network i.e., Boherboy Road.

#### **4.2.2 Regional & Local Road Network**

The majority of access / egress to proposed sites shall be facilitated from the local road networks. To mitigate against possible restrictions in visibility requirements, it is proposed that the contractor shall use a safe system of permanent flag men for the control of traffic during all access / egress operations at each site location, if required.

The proposed access from Boherboy Road will be used for works traveling via public transport.

### **4.3 Traffic Management**

#### **4.3.1 Signage**

The contractor shall undertake consultation with the relevant authorities for the purpose of identifying and agreeing signage requirements. Such signage shall be installed prior to works commencing on site.

Proposed signage may include warning signs to provide warning to road users of the works access / egress locations and the presence of construction traffic. All signage shall be provided in accordance with the Department of Transport's Traffic Signs Manual, Chapter 8 – Temporary Traffic Measures and Signs for Roadworks.

In summary, the contractor will be required to ensure that the following elements are implemented:

- Consultation with the relevant authorities for the purpose of identifying and agreeing signage requirements.
- Provision of temporary signage indicating site access route and locations for contractors and associated suppliers; and
- Provision of general information signage to inform road users and local communities of the nature and locations of the works, including project contact details.

#### **4.3.2 Traffic management for road works.**

In accordance with plans and drawings submitted to the planning authority, and subject to the necessary approval of Irish Water and in agreement with the Roads and Transport Department of the Local Authority (SDCC), road works are required to facilitate the proposed development.

A specific Traffic Management Plan (TMP) will be required by the Local authority in conjunction with the application for a road opening licence, in advance of carrying out these road works. The TMP design and service will be provided by an independent specialist and will deal with the efficient management of traffic and pedestrians, mitigating all potential safety risks to users, whilst maintaining effective operation of the carriage way.

### **4.4 Programming**

In order to reduce impacts on local communities and residents adjacent to the proposed sites, it is proposed that:

- The contractor will be required to liaise with the management of other construction projects and the Local Authorities to co-ordinate deliveries.
- The contractor will be required to schedule deliveries in such a way that construction activities and deliveries activities do not run concurrently e.g., avoiding pouring of concrete on the same day as material deliveries in order to reduce the possibility of numbers of construction delivery vehicles arriving on site simultaneously, resulting in build-up of traffic on road network.

- The contractor will be required to schedule deliveries to and from the proposed materials storage yard such that traffic volumes on the surrounding road network are kept to a minimum.
- HGV deliveries to the development site will be suspended on the days of any major event in the area that have the potential to cause larger than normal traffic volumes.
- The contractor will be required to interact with members of the local community to ensure that deliveries will not conflict with sensitive events such as funerals.
- HGV deliveries will avoid passing schools at opening and closing times where it is reasonably practicable.
- Deliveries of materials to site will generally be between the hours of 07:00 and 19:00 Monday to Friday, and 09:00 to 13:00 on Saturdays. No deliveries will be scheduled for Sundays or Bank Holidays. There may be occasions where it is necessary to make certain deliveries outside these times, for example, where large loads are limited to road usage outside peak times.

The construction period for the proposed development is anticipated to be approximately 5 years from the commencement of the site works. This is subject to change and dependent on market conditions.

#### **4.5 Recommended Traffic Management Speed Limits**

Adherence to posted / legal speed limits will be emphasised to all staff / suppliers and contractors during induction training.

Drivers of construction vehicles / HGVs will be advised that vehicular movements in locations, such as local community areas, shall be restricted to 50 km/h. Special speed limits of 30 km/h shall be implemented for construction traffic in sensitive areas such as school locations. Such recommended speed limits will only apply to construction traffic and shall not apply to general traffic. It is not proposed to signpost such speed limits in the interest of clarity for local road users.

#### **4.6 Road Cleaning**

It shall be a requirement of the works contract that the contractor will be required to carry out road sweeping operations to remove any project related dirt and material deposited on the road network by construction / delivery vehicles. All material collected will be disposed to a licensed waste facility.

#### **4.7 Road Condition**

The extent of the heavy vehicle traffic movements and the nature of the payload may create problems of:

- Fugitive losses from wheels, trailers or tailgates; and
- Localised areas of subgrade and wearing surface failure.

The contractors shall ensure that:

- Loads of materials leaving each site will be evaluated and covered if considered necessary to minimise potential dust impacts during transportation.
- The transportation contractor shall take all reasonable measures while transporting waste or any other materials likely to cause fugitive losses from a vehicle during transportation to and from site, including but not limited to:
  - Covering of all waste or material with suitably secured tarpaulin/ covers to prevent loss; and
  - Utilisation of enclosed units to prevent loss.
- The roads forming part of the haul routes will be monitored visually throughout the construction period and a truck mounted vacuum mechanical sweeper will be assigned to roads along the haul route as required.

In addition, the contractor shall, in conjunction with the local authority:

- Undertake additional inspections and reviews of the roads forming the haul routes one month prior to the construction phase to record the condition of these roads at that particular time.

- Such surveys shall comprise, as a minimum, a review of video footage taken at that time, which shall confirm the condition of the road corridor immediately prior to commencement of construction. This shall include video footage of the road wearing course, the appearance and condition of boundary treatments and the condition of any overhead services that will be crossed. Visual inspections and photographic surveys will be undertaken of bridges and culverts that are along the haul roads.
- Where requested by the local authority prior to the commencement of construction operations, pavement condition surveys will also be carried along roads forming part of the haul route. These will record the baseline structural condition of the road being surveyed immediately prior to construction.
- Throughout the course of the construction of the proposed development, on-going visual inspections and monitoring of the haul roads will be undertaken to ensure any damage caused by construction traffic is recorded and that the relevant local authority is notified. Arrangements will be made to repair any such damage to an appropriate standard in a timely manner such that any disruption is minimised.
- Upon completion of the construction of the proposed development, the surveys carried out at preconstruction phase shall be repeated and a comparison of the pre and post construction surveys carried out.

#### **4.8 Road Closures**

During the course of the works, it is not envisaged that road closures will be required for any extended period of time. Temporary or partial road closures may be required to facilitate utility connections such as watermain, foul water, surface water etc.

Should works be required on the external road network, road opening licences will be sought from the Local Authority via the Road Management Office.

In areas where existing carriageways are narrow, it is envisaged that Traffic Management measures such as temporary traffic lights will be utilised to facilitate traffic.

#### **4.9 Enforcement of Construction Traffic Management Plan**

All project staff and material suppliers will be required to adhere to the final CTMP. As outlined above, the contractor shall agree and implement monitoring measures to confirm the effectiveness of the CTMP.

#### **4.10 Details of Working Hours and Days**

Deliveries of materials to site will generally be between the hours of 07:00 and 19:00 Monday to Friday, and 08:00 to 13:00 on Saturdays. No deliveries will be scheduled for Sundays or Bank Holidays.

There may be occasions where it is necessary to make certain deliveries outside these times, for example, where large loads are limited to road usage outside peak times.

All access roads used by contractors will be monitored for mud and any construction materials and cleared using a shovel and broom and if required a mechanical road sweeper.

#### **4.11 Emergency Procedures During Construction**

The contractor shall ensure that unobstructed access is provided to all emergency vehicles along all routes and site accesses. The contractor shall provide to the local authorities and emergency services, contact details of the contractor's personnel responsible for construction traffic management. In the case of an emergency the following procedure shall be followed:

- Emergency Services will be contacted immediately by dialling 112;
- Exact details of the emergency / incident will be given by the caller to the emergency line operator to allow them to assess the situation and respond in an adequate manner;
- The emergency will then be reported to the Site Team Supervisors and the Safety Officer;
- All construction traffic shall be notified of the incident (where such occurs off site);
- Where required, appointed site first aiders will attend the emergency immediately; and
- The Safety Officer will ensure that the emergency services are en-route.

#### **4.12 Communication**

The contractor shall ensure that close communication with the relevant local authorities and the emergency services shall be maintained throughout the construction phase. Such communications shall include:

- Submissions of proposed traffic management measures for comment and approval;
- On-going reporting relating to the condition of the road network and updates to construction programming; and
- Information relating to local and community events that could conflict with proposed traffic management measures and construction traffic in order to implement alternative measures to avoid such conflicts.

The contractor shall also ensure that the local community is informed of proposed traffic management measures in advance of their implementation. Such information shall be disseminated by posting advertisements in local newspapers and delivering leaflets to houses in the affected areas. Such information shall contain contact information for members of the public to obtain additional information and to provide additional knowledge such as local events, sports fixtures etc. which may conflict with proposed traffic management measures.

#### **4.13 Particular Construction Impacts**

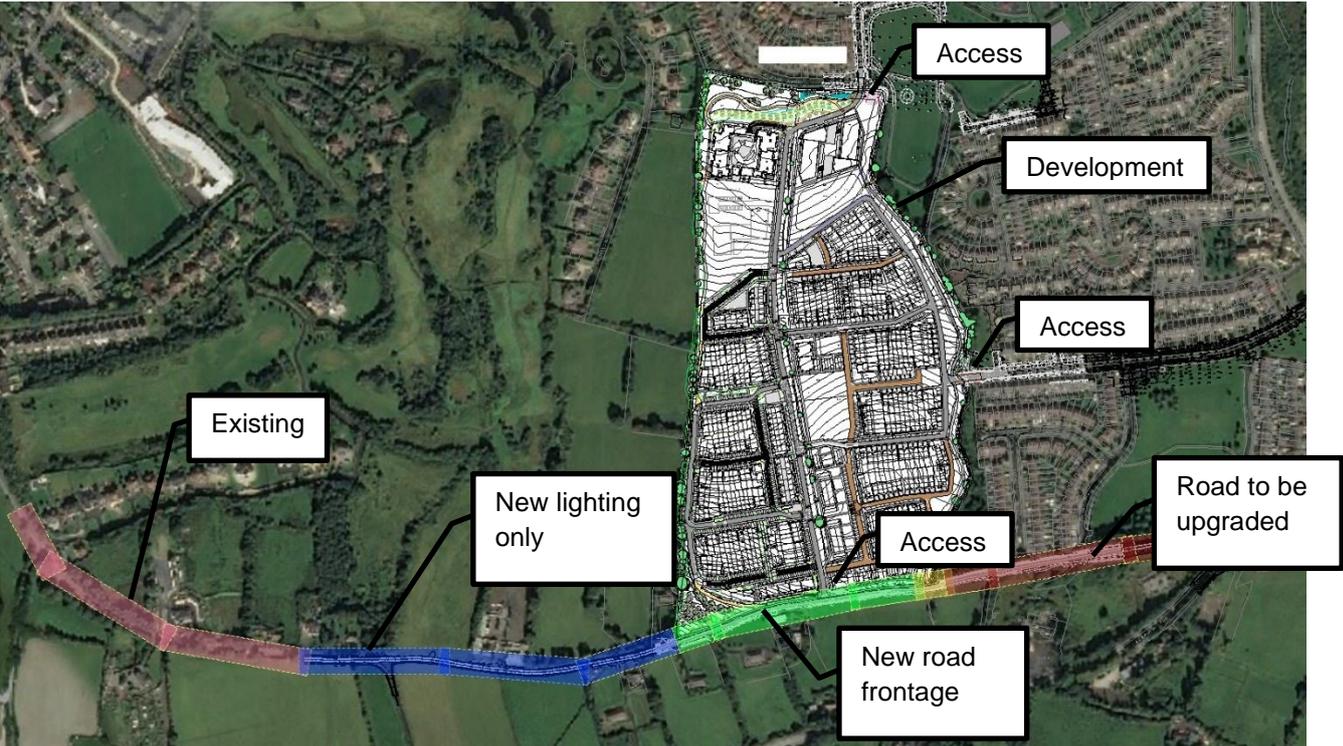
##### **4.13.1 Boherboy Road Upgrade**

The following is the agreed proposals for the Boherboy Road Upgrade:

- 6m carriageway is to be provided from N81 to a point c. 400m west of site
- Public lighting is to be installed on existing ESB poles from Chainage 445 to Chainage 0 and to continue further along the road to Saggart until linking with the existing public lighting. First light will be installed at a point to be determined (located within 35m of an existing light ideally). Detailed design will be provided before commencement of the development.
- No footpath, public lighting or drainage will be installed between Chainage 0 and Chainage 445. Streetlamps will be installed on existing ESB poles as mentioned above.
- Refer to P200107-PIN-XX-DR-D-SK011-S3 & P200107-PIN-XX-DR-D-SK012-S3 which shows the site permeability and walking routes.
- Public lighting, drainage and kerb to be installed from Chainage 445 to Chainage 750. Public footpath will be built inside the site along these chainages.
- From Chainage 750 to Chainage 1120, drainage will be installed in the public highway and not under the footpath. The road will be reinstated as required.
- Public lighting, drainage and a 1.8m footpath will be installed from Chainage 750 to Chainage 1120
- The northern tree line from Chainage 445 to Chainage 1120 will have to be removed to facilitate these works
- The southern tree line will remain insitu

These proposals are illustrated in the following drawings:

- P200107-PIN-XX-DR-D-0001-S1
- P200107-PIN-XX-DR-D-0010-S1
- P200107-PIN-XX-DR-D-0011-S1
- P200107-PIN-XX-DR-D-0012-S1
- P200107-PIN-XX-DR-D-0013-S1
- P200107-PIN-XX-DR-D-0013-S1
- P200107-PIN-XX-DR-D-0014-S1



**Figure 10 External Works**

The above works will require a specific Traffic Management Plan throughout the duration of the works. This plan will be agreed with South Dublin County Council in advance of the works commencing. The goal of the Traffic Management Plan will be to keep Boherboy Road open to traffic during the construction phase but there may be instances where road maybe required to close on a temporary basis.

## 5 KEY CONSIDERATIONS

### 1. Please describe the proposed supply route to and from the site, showing details of links to the strategic road network.

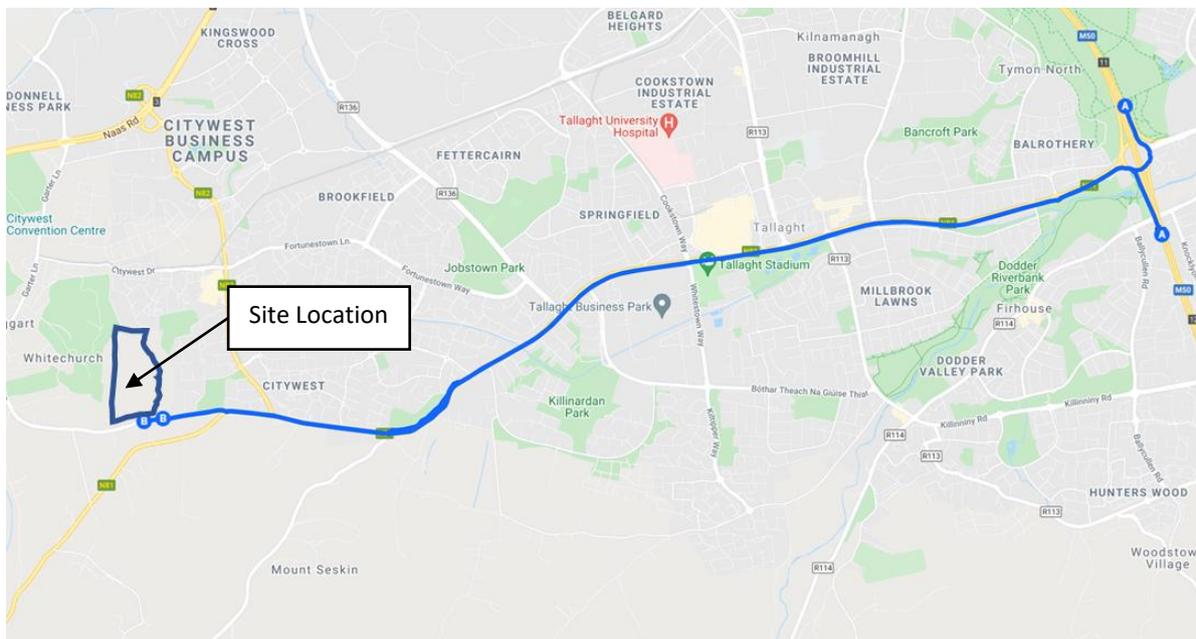
The proposed development is located on Boherboy Road. The haul route will be designed to ensure demolition waste, construction materials and construction waste is brought to the M50 in the shortest route possible while avoiding as many schools as possible (primary, secondary and Third Level).

This will ensure that HGVs and other larger construction and delivery vehicles will spend a minimum amount of time on regional roads and local streets whilst avoiding schools.

A description of the haulage routes are offered below:

#### From M50 to Development ~ 7 km, 11 minutes

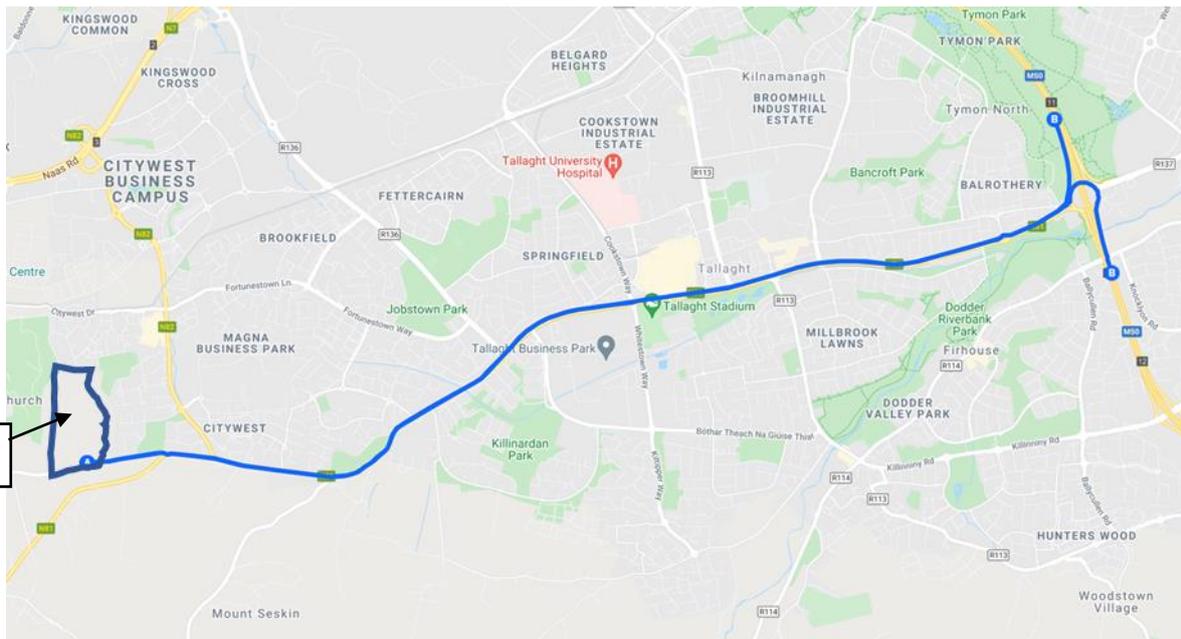
Take Exit 11 of M50, Redcow -> Head southeast -> Keep right at the fork, follow signs for N81/Tallaght/Blessington -> At the roundabout, take the 3rd exit onto Tallaght Rd/N81 -> Slight right -> Turn right onto Blessington Rd/N81 Continue to follow N81 -> Turn right and enter site.



**Figure 11 Haul Route to Site**

#### From Development to M50 ~ 8 km, 11 minutes

Starting on Boherboy Road -> Slight left onto N81 -> Keep right to continue on Tallaght Rd/N81 -> At the roundabout, take the 3rd exit onto the M50 ramp to Southbound -> Merge onto M50



**Figure 12 Haul Route from Site**

Arrivals and departures to the site compound are to be carried out in as few vehicle movements as possible in order to minimise potential impacts on the road network.

**2. How will contractors, delivery companies and visitors be made aware of the route (to and from the site) and of on-site restrictions, prior to undertaking the journey?**

The details of the CTMP will be contained within the suppliers and contractors' terms and conditions of the contract. Details will be reinforced at pre-start meetings and the Main Contractor will ensure that contractors' method statements contain the relative information.

During the excavations there will be a single contractor on site. They will be charged with managing their own deliveries and ensuring that the details of the site are passed on to their team.

After the excavation phase a logistics contractor will be employed to manage access to site. They will set up a delivery management system that will require 48-hour advanced notice of vehicles to site. The logistics company will be responsible for communicating delivery times, points and any changes to the site that may restrict access.

**3. Please supply an accurate (to scale) site plan showing all points of access and where materials, skips and plant will be stored, and how vehicles will access the site.**

The proposed site access points are illustrated in Figure 13 below.



**Figure 13 Proposed Access (Source: Davey Smith Architecture)**

Primary vehicular access to the development will be via Boherboy Road (Access No. 1), via Corbally Estate (Access No. 2) and via Carrickmore (Access No. 3).

Construction access will coincide with Access No. 1.

#### **4. How will vehicles enter and leave the site?**

At all times during the construction phase, it is planned to drive in and out of the site with no reversing on the carriageway required.

The interface between the vehicles and the pedestrians will be managed by way of suitably qualified traffic marshals who will prevent vehicles pulling out into the path of pedestrians.

#### **5. If delivery vehicles cannot access the site, where will they wait to load/unload?**

There is sufficient room within the site to ensure that there is no off-site waiting required. The delivery management system that will be implemented which will limit the number of vehicles permitted to access the site therefore negating off site waiting requirements.

For large concrete pours, a large staging area internal to the development will be set up. This will allow up to 4 trucks waiting. Additional trucks will be on standby at the batching plant and will be called to site to allow for 'just in time delivery'.

**6. Provide a breakdown of the number, type, size and weight of vehicles accessing the site.**

The following is a non-exhaustive list of possible vehicles that will be used:

- HGV
- Rigid Truck
- Box Van
- Panel Van
- Concrete Truck
- Concrete Pump Truck
- Mobile Crane (various sizes)
- JCB (various sizes)
- Excavators (various sizes)
- Dump Truck

Specialist vehicles maybe required on occasion.

Details of size and weights of vehicles will be confirmed on appointment of a Main Contractor.

**7. Will vehicle wheel wash facilities be provided?**

The Main Contactor will be using a power washer to clean the wheels of delivery vehicles prior to leaving site to avoid the risk of mud / detritus being deposited on the Public Highway.

The Main Contractor will mitigate the risk as much as possible by providing hard standing surfaces on haul roads and vehicle offloading areas.

The wheel wash area will be hard surfaced, drained to a catchment area. The runoff water will be treated prior to discharging into the sewer. Depending on the conditions, the Main Contractor may provide a silt buster or similar item of plant.

The operatives carrying out the wheel wash activities will be provided with the appropriate PPE including rain suit, goggles, long rubber gloves, rubber boots and dust masks.

A power washer will also be stationed at the main exit gate on Boherboy Road. This will be a backup just in case the wheel washing was not carried out correctly in the first instance. The gateman will be given strict instructions to manage this procedure and to stop any vehicle entering the public highway if it is not clean.

The Main Contractor will not employ the services of a full-time road sweeping company to sweep local roads. However, the Main Contractor will appoint an emergency call out service with a local road sweeping company if the need arises.

The power washers will be checked before every shift to ensure they are in good working order. If the equipment is faulty in any way, the Main Contractor will hire a replacement washer.

**8. Please describe how you will protect the public highway from damage arising from construction related activity and prevent concrete and other detritus form being washed into the public highway drainage system.**

All drains will be identified before starting works on site and plotted on a location plan. Each drain gully etc will be given a reference number. The details of all drains will be entered onto an inspection tracker document. The drains will be inspected on a daily basis by a dedicated person. We will protect any live drains with wire mesh and debris netting placed under the open gate.

We will also clean out the drains on a regular basis (once a month) to ensure that the drains are clear and clean. We will station a spill kit close to the drains on the inside of the hoarding in case of emergency measures to ensure no chemical spills, oil spills etc end up in the drain.

This information will be included in the pollution prevention plan and the contractors will be given a copy prior to arriving on site. Protection of drains will also be discussed in the induction training. Contractors will have to plan their works with the drain positions in mind, so that the risk of any unwanted substances including mud / detritus entering the drains is mitigated.

The Main Contractor also inspect the roads and footpaths on a daily basis to make sure they are clean and clear at all times. The Main Contractor will coordinate with the utility companies to ensure their materials are kept well away from the drains and that the drains are adequately protected prior to and during the works. The utility companies must take ownership; however, the Main Contractor will closely manage the process.

#### **9. What are the arrangements for co-ordinating and controlling delivery vehicles?**

The Main Contractor will establish a holding area on the onsite that could accommodate up to 4 concrete trucks, the Main Contractor will also provide a traffic marshal at the site. The holding area will be utilised to prevent congestion of Boherboy Road from construction traffic.

All vehicles will be tracked by the traffic marshals who will report back to the logistics manager. The logistics manager will control the deliveries with help from the traffic marshals and the gateman. Unscheduled vehicles will be turned away. If deliveries are taking longer to offload, then the following deliveries will be notified of any timing issues.

A copy of the delivery schedule will be issued to the traffic marshals, gateman and contractors' supervisors every morning so everyone is aware and can make provision for when their delivery arrives.

The traffic marshals will be trained and competent and they will undergo ongoing assessments by the logistics manager to ensure they are carrying out their duties with due care diligence.

#### **10. Who has responsibility for supervising, controlling and monitoring vehicle movements to/from the site?**

The Project Manager will appoint a logistics manager to supervise, control and monitor vehicle movements to and from the site. The logistics manager will have traffic marshals and gateman in his/her team to perform the duties in the field. They will assess their competence prior to starting work and during the day. If they are deemed competent, then they will continue in their role. The traffic marshals and gateman will be assessed on a regular basis.

The logistics manager will forward reports to the Project Manager as required to ensure everyone is compliant with the traffic management plan and to ensure that the company are meeting their sustainability targets.

There will be sufficient traffic marshals to cover for tea, lunch and toilet breaks. This will be managed by the logistics manager. Replacement traffic marshals will be brought in from the labour agency to provide holiday cover if required.

Contact details will be made available to every contractor and the logistics manager will be the main point of contact for any deliveries.

The logistics manager will liaise closely with the contractor slinger / signallers and contractor's supervisor to ensure the offloading process is as per the delivery and offloading instructions.

#### **11. What are the arrangements to ensure that the loading/collection area is clear of vehicles and materials before the next lorry arrives?**

The offloading areas will be managed by the Logistics Manager. Every delivery that enters the site will have previously issued an offloading procedure for each load. The loads will have been assigned an offloading area.

The Main Contractor will conduct regular toolbox talks with the contractors to ensure they are fully aware of the requirements. The offloading procedures will be highlighted in the induction training.

Disciplinary action will be taken with any contractor who does not comply with the procedures. This may result in a yellow card being issued and possibly a red card depending on the severity of the offence.

The delivery drivers will be given strict instructions by the logistics manager prior to offloading.

The offloading area will be a no-go area for pedestrians and the area will be fenced off to segregate the vehicle access and the pedestrian access.

The offloading zone will be inspected regularly throughout the day to ensure the area is clean and clear at all times.

No persons will access the back of a lorry unless the full edge protection is in place or fall prevention measures are in place. The detail will be issued with delivery and offloading instructions.

The vehicles must switch off their engines whilst offloading area, unless the vehicle assists in the offloading process, i.e., concrete ready-mix lorries etc.

## **12. Where will the contractors' own vehicles park?**

There will be onsite parking for contractors' vehicles in the construction compound, but this will be kept to a minimum. All staff will be encouraged to use public transport, walking or cycling to/from the site.

There will be certain situations where contractors will be required to park their vehicles on site for working procedures.

The details will be discussed with the Project Manager who will then issue a permit allowing the vehicle to access site. The area where the vehicle will be park on site must be planned and the relevant information discussed with other contractors so that they are fully aware.

These works are likely to be plant and equipment servicing, air tightness testing etc.

The contractors will be advised at the tender stage, and this will be reiterated at the pre-start meeting and in the induction training.

The Main Contractor will actively encourage operatives to walk, cycle or use public transport to get to and from work.

No staff will be permitted to park on local streets outside the site. Disciplinary action will be taken against staff report for doing the same.

## **13. How will you protect pedestrians from the construction works, particularly vulnerable users?**

Hoarding will be checked on a daily basis with a weekly thorough inspection. Any defects will be attended to immediately.

The Main Contractor will ensure that there is adequate protection in place to prevent concrete splashing beyond the site boundary when the concrete slabs are being poured. The Main Contractor will carry out a task specific briefing prior to every pour above ground level.

The gateman and traffic marshals will ensure the public are safe at all times when vehicles are entering and exiting the site. The public will not be allowed to access site unless they follow the dedicated pedestrian access route on to site. They will be fully protected until they reach the security cabin. There is no unauthorised access beyond this point.

## **14. What is your proposed method of spoil removal (wait & load, conveyor, grab, skip swap, etc.) and what is the anticipated dwell time of spoil removal vehicles?**

Spoil will be removed from site using 8-wheeler muck away lorries. The lorries will arrive at site and will be marshalled onto the site by the traffic marshals. The lorries will be loaded with an excavator. The lorry will be covered prior to leaving site. The traffic marshal will escort the vehicle off site and once the vehicle is on its way, the next vehicle will be called in.

**15. How will concrete be supplied to the site, where will the delivery lorries be located and for how long?**

All concrete used on this project will be supplied by Ready Mix Concrete lorries.

The deliveries will be booked in with the logistics manager, but the frequency of deliveries will be controlled by the supervisor of the RC frame contractor. The concrete batch plant will be notified when the current load is almost completely discharged and then the following delivery will be loaded and sent to site.

The same applies for pump pours when frequency is quicker. The flow of concrete lorries will be managed to avoid any queuing.

**16. Will you be applying to install new or modified utility services to the site that involve work to the public highway? If so, which companies are involved?**

The Applicants are currently reviewing the positions for incoming services with the relevant service providers.

If work has to be done in the Public Highway the Main Contractor will ensure that the Main Contractor request the necessary licences and permits in time for the works to proceed on time.

We will procure street works accredited and approved contractors to carry out the utility works.

**17. The Construction Traffic Management Plan should be periodically monitored and reviewed. Any significant changes to the CTMP should be reported to the Department of Planning and Borough Development. Who will be responsible for this?**

The Project Manager will review the Construction Traffic Management Plan on a regular basis and at least once a month to ensure that the plan is up to date.

The logistics Manager will also advise the Project Manager if anything changes on the construction traffic management plan. The logistics manager must agree any changes with the Project Manager prior to the changes being implemented. The logistics manager can make the changes to the document, but the Project Manager must sign and enter the changes in the log.

The Local Authority will be advised of any significant changes that affects the Public Highway. The Project Manager will be responsible for this action.

**18. You must coordinate traffic arrangements with other developments in the area. Who will be responsible for this?**

The Project Manager will arrange monthly meetings with the project leads for all local developments. The relevant logistics managers or persons responsible for managing the logistics on their respective sites will attend the meeting.

**19. Who will deal with any complaints from local residents and businesses, etc.?**

The Project Manager will deal with complaints on this project. A deputy will be appointed for holiday cover etc.

The basic procedure is as follows: -

- Complaint received and logged in a complaints register.
- Project Manager makes a call to the person who issued the complaint and agrees a plan of action necessary to close out the complaint.

- Project Manager investigates and implements an action to close out the complaint.
- Project Manager informs the person making the complaint of the actions taken.
- Plan will be monitored to ensure the complaint is closed out.
- Project Manager informs the person
- Project logs the actions and calls and updates the complaints register.
- Project Manager keeps the company informed at all times.

## **6 CONCLUSION**

### **6.1 Conclusion**

This Construction Traffic Management Plan will form part of the construction contract and is designed to reduce possible impacts which may occur during the construction of the proposed development.

The outline Construction Traffic Management Plan shall be used by the appointed contractor as a basis for the preparation of a final Construction Traffic Management Plan and shall detail, at a minimum, the items detailed in this outline Construction Traffic Management Plan and any subsequent requirements of the local authorities.

The Client shall be responsible for ensuring that the contractor manages the construction activities in accordance with this outline Construction Traffic Management Plan and shall ensure that any conditions of planning are incorporated into the final Construction Traffic Management Plan prepared by the appointed works contractor.

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