

Proposed Residential Apartment Redevelopment of Millwood Court, Woodbine Road, Dublin 5
Outline Construction Traffic Management Plan

Client: Fold Ireland Housing Association Ltd



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Rev	Date	Purpose of Issue	Checked	Approved
0	09.06.2021	Draft for Submission to DCC	SR	SR
1	16.06.2021	Final Draft	SR	SR

Note for reader: This outline Construction Traffic Management Plan is for a Planning Submission to Dublin City Council on the basis that the development is for the intended user (Fold) and is based on the current design drawings and information supplied to SRC by Cantrell & Crowley Architects on 20.04.2021 and 08.06.2021

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1 Introduction

1.1 BACKGROUND

Stephen Reid Consulting Traffic and Transportation (SRC) has been retained by Fold Ireland Housing Association Ltd (Fold) to provide consulting traffic engineering services for a planning application to Dublin City Council (DCC) for a residential apartment redevelopment of a site at Millwood Court, Woodbine Road, Dublin 5.

The proposed development encompasses a site of 0.356Ha, located between the Tonlegee Road and the rear of housing on Woodbine Road.

In summary, the development comprises the demolition of the existing 42 units (in three blocks of two-storey terraced units) within Millwood Court and construction of 52 sheltered apartment units, with associated communal space, landscaping, servicing, and parking.

The development vehicular and pedestrian access to Millwood Court from Woodbine Road is to be retained, with the addition of a controlled access for pedestrians, mobility scooters, wheelchairs and cycles through the northern boundary wall onto the southern footpath of Tonlegee Road.

The site location in the context of the surrounding area is indicated in Figure 1.1.

This Report has been prepared to provide an outline plan for the management of the traffic and transportation impacts during the Construction Phase of the proposed development.

The document reviews the method of construction/resultant impact on the road network with regard to:

- Haulage access routes (for demolition/excavation material removed from the site and deliveries);
- Management of traffic and parking in the vicinity of the site access and approach routes;
- Proposed hours for construction deliveries to remove possible conflict with nearby school
 activities and minimise impact on existing road users and residents within the Millwood Villas
 and Woodbine Road area;
- Short–term temporary management of traffic during works on the public road, if applicable, including road crossings/excavations, and reinstatement/resurfacing;
- Temporary signage and mitigation measures during construction.

Having regard for the demolition and construction required, it is considered that in the main the programme will be dictated by permitted working hours, with material removal and deliveries undertaken at times that avoid conflict with school run periods when children are likely to be walking/cycling past the site access(es) or frontages on Woodbine Road or Tonlegee Road, and any other conditions imposed by DCC with regard to a planning grant and requirements for hoarding and road opening licences.

The proposed routeing of construction traffic to/from the site has been developed following a review of the local routes and road widths which provide vehicular access to/from the strategic road network, having regard to feedback from DCC and local residents, and the specific banned right turn from Tonlegee Road to Millwood Villas during the 7-10AM period.



It is noted that the proposed start date would be subject to the planning process, and an outline construction period of between 12 and 18 months is allowed for (i.e. a median of approximately 15 months).

The permanent access to the development is to retain the existing Millwood Court cul-de-sac access from Woodbine Road.

It is proposed to utilise this access during the construction and there is also a proposed exit from the site onto Tonlegee Road for the demolition and any excavated spoil removal/imported fill to form the new foundation levels (which would be a left turn out towards Tonlegee Road west only and would be controlled by a gateperson, to manage vehicles crossing the footpath and joining the road to the west of the bus stop.

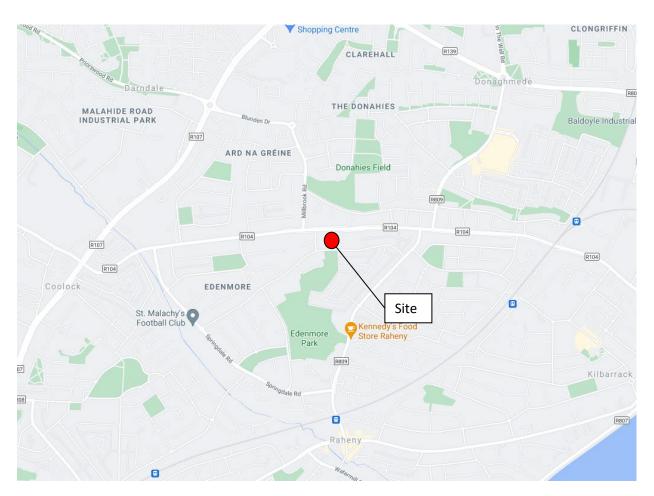


Figure 1.1: Development Site -Millwood Court, Woodbine Road, Dublin 5 (source: www.google.ie/maps)



2 SITE LOCATION & EXISTING CONDITIONS

2.1 GENERAL

The site is located between the R104 Tonlegee Road (northern boundary), the rear gardens of existing terraced housing on Woodbine Road (southern boundary), the rear gardens of existing terraced housing on Millwood Villas (western boundary) and the recently constructed Tonlegee Primary Care Centre, and the Edenmore Early Education Centre (eastern boundary).

The Tonlegee Road forms part of the R104 Regional Route which extends east-west across north Dublin from Charlestown at the N2 interchange to the Coast Road at Bayside, via Ballymun, Santry, Coolock, and Kilbarrack.

Woodbine Road extends generally northeast-southwest from Raheny Road at Kilbarrack to Springdale Road at Edenmore.

The site is a cul-de-sac serviced by a 7m wide roadway, with large corner radii to accommodate bin and fire truck access. There is a footpath behind a grass verge on the western side of the access roadway, and a grass verge to the eastern side which is formed by a high boundary wall to the rear of the Primary Care Centre

The existing former Corporation sheltered units are vacant and the site was closed off at time of site visit in May 2021.

Woodbine Road is a single carriageway road, of 7.3m width, with a concrete surface. Traffic calming ramps have been installed along Woodbine Road (with the nearest 25m to the east of the access junction to Millwood Court). There are footpaths behind grass verges on both sides and public lighting. There is a pedestrian access into Edenmore Park opposite the Millwood Court access junction.

The existing site and the surrounding roads are illustrated in Figure 2.1.

2.2 Access and Existing Sightlines

The Millwood area is subject to a 30kph residential zone speed limit after turning in from Tonlegee Road, and there is a 3.5T weight restriction on Millwood Road and Millwood Villas.

There is a 7AM-10AM peak period right turn ban from Tonlegee Rd to Millwood Villas to address issues of morning rat-running from the Malahide Road to the Raheny Road (i.e. drivers who were attempting to avoid the southbound queue on Malahide Road which starts after the Priorswood/Blunden Drive roundabout and extends down to Tonlegee Road and onto Artane roundabout).

As the westbound right turn lane from the Millbrook Road traffic signals junction extends back to just before the Millwood Villas junction, the back-to-back right turn storage into Millwood Villas from Tonlegee Road is limited to one car/van at a time, so even outside of the AM peak period (when the movement is prohibited) there is limited capacity to accommodate that movement without overlapping/blocking into the right turn lane to Millbrook Road.

The required exit sightline standards for an access on a 30kph section of road are 23m to the nearside road edge from a 2.4m setback position, as set out in the Design Manual for Urban Roads and Streets (DMURS). This would be applicable for the Millwood Court access junction onto Woodbine Road.

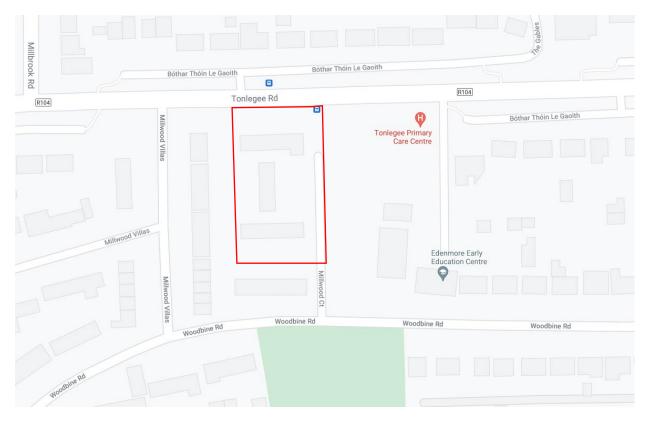


Figure 2.1: Millwood Court and Surrounding Land Uses (source: www.google.ie/maps)

2.3 PEDESTRIAN AND CYCLE ENVIRONMENT

The area is generally well provided for in terms of pedestrian access with footpaths on both sides of most roads and dished kerbs at junctions. Footpaths are of reasonable width and condition.

There is a bus stop and shelter on the Tonlegee Road to the north of the existing site boundary wall and a wide footpath area.



3 CONSTRUCTION TRAFFIC AND DELIVERY/HAUL ROUTES

3.1 Access Routes to Strategic Road Network

Access to existing residents within the Millwood/Woodbine area and access to local businesses has to be maintained at all times. Also access for car parking, emergency services, general servicing and refuse collection, and maintaining safe pedestrian access along the footpaths in the vicinity of the site is a key aspect of this plan.

Following demolition of the existing buildings and site clearance there will be some spoil removal and excavation for foundations, and some import of suitable fill material.

SRC have reviewed the surrounding road network and the various restrictions (there is no right turn from Tonlegee Road to Millwood Villas from 7-10AM, and in any event the right turn storage is not suitable to accommodate an HGV waiting to turn right without impacting on the back-to-back right turn lane from Tonlegee Road to Millbrook Road). Therefore, it is considered that the most suitable haul routes to/from the site would be as follows (note journey times shown are based on google maps averages for 08.30-09.00 (i.e. during the AM commuter/school run peak).

Inbound Route

From M50/M1 Turnapin junction, via R139 to Northern Cross (Clare Hall) then following R139 to the Grange Abbey roundabout at Donaghmede, and southbound on Grange Road to the Kilbarrack/Raheny Road staggered crossroads, turning right to Tonlegee Road westbound, and then left turn onto Millwood Villas, left turn onto Woodbine Road and left turn into the site at Millwood Court.

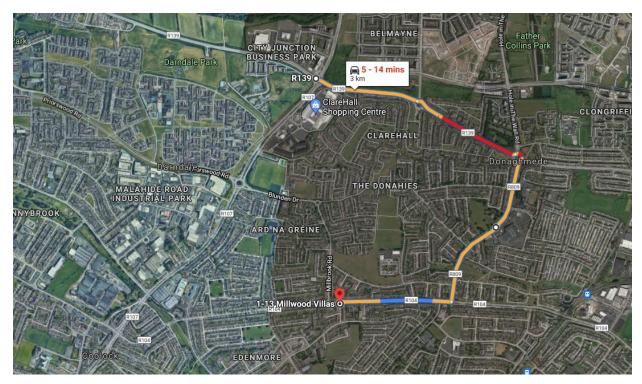


Figure 3.1: Inbound Route for HGVs to Millwood Court site from M50 (source: www.google.ie/maps)



SRC checked this inbound route against the route via Malahide Road and Tonlegee Road and note that it is typically quicker and slightly shorter (3km from Northern Cross to Millwood Villas junction) and avoids issues with the restricted right turn from Tonlegee Road to Millwood Villas.

Outbound Route

It is proposed that during the early stages of construction when there are HGV haul trucks related to demolition/site clearance and suitable fill material import, there would be a left turn exit from the site boundary onto Tonlegee Road, with and as the site is built out, the HGV exit could revert to the Millwood Court access cul-de-sac onto Woodbine Road, turning right to Millwood Villas, and left onto Tonlegee Road.

From the Tonlegee Road/Millwood Villas junction, there are two options which are quite similar in distance and time.

<u>Option 1 – Outbound to M50 southbound</u> – Tonlegee Road westbound and turn right onto Malahide Road, northbound on Malahide Road and left turn onto R139 to M50 Turnapin interchange.

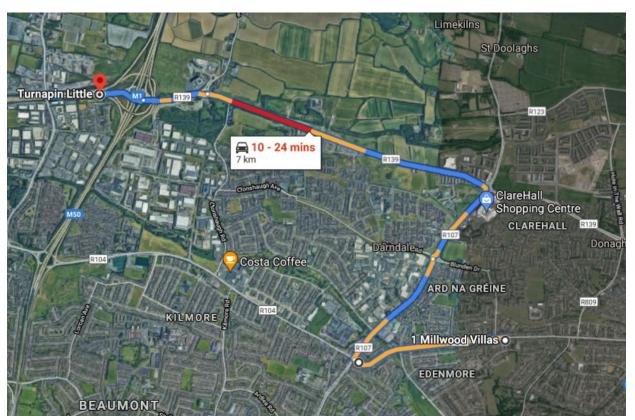


Figure 3.2: Outbound Route for HGVs from Millwood Court site to M50 Option 1 via Malahide Road
(source: www.google.ie/maps)

<u>Option 2 – Outbound to M50 southbound – Tonlegee Road westbound and continue west on R104 Oscar Traynor Road to M50 Coolock Interchange and then northbound to M50 Turnapin interchange.</u>

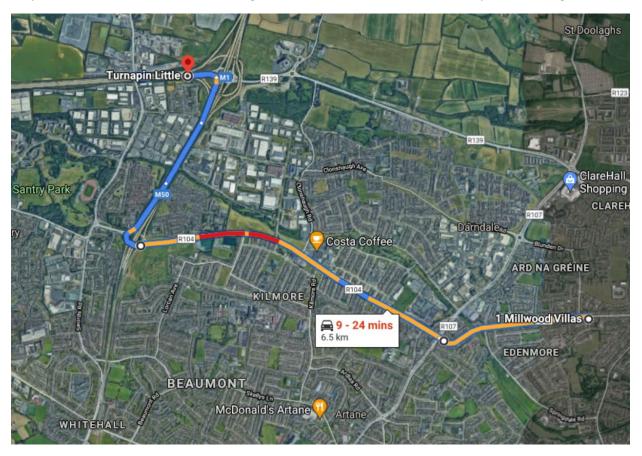


Figure 3.3: Outbound Route for HGVs from Millwood Court site to M50 –

Option 2 via Oscar Traynor Road

(source: www.google.ie/maps)

SRC note that while both options are available, the outbound route via Malahide Road avoids a number of areas where there would typically be higher levels of pedestrian and cyclist activity crossing the route (at the Northside Shopping Centre), and SRC notes that progression through junctions can be affected by turning lanes and bus lanes stopping/starting along the Oscar Traynor Road requiring traffic to change lanes at several points.

Truck drivers operating to/from the site will have to follow the proposed routing and adhere to the strategy for moving materials into/out of the site and operate within any restrictions set by planning condition for delivery hours.

It is proposed to monitor the routes periodically to confirm that there is no use of alternative/inappropriate haul routes through the approach streets (unless the contractor has been otherwise instructed by DCC or An Garda Síochána due to any temporary or permanent changes in traffic management on the public road network which occur during the construction period).



3.2 Construction Traffic Volumes

Typically, proposed working hours for construction sites are 08.00-18.00 (Monday-Friday) and 08.00-14.00 (Saturday). However, it may be necessary to carry out some limited works such as larger vehicle/time sensitive deliveries, utility connections/road crossings and footpath reinstatement before outside of these times or on Sundays to minimise disruption to other road users (subject to prior agreement with DCC RCU).

It is assumed that the construction period would not be less than 12 months and no longer than 18 months.

Site clearance and excavation of spoil to be removed for the site/suitable fill import will take place in the first 6-8 weeks. The estimated volumes are to be confirmed.

During the construction period, there will be a mix of loads delivered across the construction period comprising:

- Initially concrete deliveries for foundations, precast floor slabs, blocks/bricks and concrete elements such as lintels, steel mesh, timber, main pipework and ducting;
- Followed by roofing and insulation materials and external doors and windows as the buildings are made watertight;
- Followed by deliveries of internal finishing materials such as plasterboard, doors, windows, flooring, fixtures, fittings, and appliances;
- Finishing, surfacing of car parking and access roadway and landscaping materials will all be delivered towards the end of the construction period.

The most intensive of these type of material deliveries usually occurs when an area of in-situ concrete slab is being cast, where delivery rates have to be constant to avoid cold joints.

For the scale of site and having regard to the limited access routes and marshalling space, it is expected that this would not be greater than 3 or 4 deliveries per hour during one early morning or evening period to cast a section of ground floor slab.

On a build of this scale, concrete pours requiring a number of deliveries in a short period of several hours will only occur infrequently, over the entire build period.

Having regard for the constraints on access and for marshalling and waiting, scheduling and co-ordinating with suppliers and/or haulage operators will be undertaken by the site management to ensure that no other significant deliveries to the site would occur during the short period when access is required to the set down area for a concrete pour.

Furthermore, the contractor will liaise with DCC Traffic and RCU and An Garda Síochána and the neighbouring businesses in advance of any pre-programmed/scheduled large deliveries.

Smaller deliveries by van/truck can be made across the day (i.e. items that can be brought into the site by hand truck/pallet truck) during daytime hours, subject to suppliers confirming these with the Contractor in advance.



3.3 Management of Traffic During Construction

Trucks will not be permitted to drive in /out of the site or across the footpath on Tonlegee Road without supervision of a trained gateperson/banksperson, to control access and egress to the site by delivery drivers so they do not stop blocking the footpath.

No construction traffic including subcontractors and staff/visitors will be permitted to wait on the operational sections of public roads and the banksperson will actively monitor this. The Contractor will liaise with the existing residents and neighbours to ensure no conflict between movements and activities and/or look to manage or limit this where practical.

All orders being filled will note the site delivery hours, specify maximum vehicle size, and include the Contractors contact site phone number so delivery drivers can confirm arrival to the site. At time of preparing this version of the Plan in June 2021 it is noted that the delivery driver/site visitor information is also typically required for Covid-19 contact tracing protocols.

When there are infrequent larger vehicle deliveries, such as concrete, precast slabs and blocks these will be planned in advance. The Contractor will maintain liaison with DCC, AGS and local businesses throughout the works.

3.4 Travel/Parking for Site Staff and Visitors During Construction

The daytime working shift usually results in site staff arriving between 07.00 and 08.00 and departing between 16.00 and 19.00.

The site would initially have 5-10 staff, rising to a peak of approximately 30 staff at the height of construction activities, with additional visitors (specialist subcontractors, design team/project management).

There will be parking within the site compound for construction staff, although it is noted that the site is well located for walking distance to public transport, to allow them to access the area by bus, or by walking or cycling.

Visitors (for site meetings and inspections) will be advised that there is no parking on site and be encouraged to use non-car modes to access the site where practical (i.e. public transport, taxi, walk or cycle).

3.5 Works Carried Out On The Public Road

It will be the responsibility of the Contractor to obtain all Road Opening Licences including approval for any temporary closures and diversions during the works.

Any temporary signage for roadworks should comply with Chapter 8 of the Traffic Signs Manual August 2019 (DTTAS).

For any works being undertaken on the public road and footpaths, it should be noted that detailed requirements are set out in the Temporary Traffic Management Design Guidance 3rd Edition August 2019 (DTTAS), with particular reference to Sections 1.2 'Urban Temporary Traffic Management Design' and Section 1.7 'Management of Works in Urban Areas', which covers hoarding, scaffolding, construction



skips, traffic management and sets out a risk assessment process for this, which should be carried out by a competent Contractor with TTM approval, and in accordance with the associated 'Temporary Traffic Management Operations Guidance' August 2019 DTTAS).

It is noted that any road crossings of the public roads (where public traffic access is maintained) will be undertaken in two halves, so that half of the carriageway is always available to allow shuttle working traffic access to/from the site and maintain access.

It is noted that the Tonlegee Road is in the 50kph zone, while the Millwood Court access is in the 30kph zone, and it is recommended that the static signage should include a 'cautionary speed' limit of 25km/h through any works sections on the public road/passing the site access.

When carrying out any external works, it may be necessary to limit pedestrians to certain footpaths for a short period and is it recommended that signs WK080 and WK081 will be temporarily located to direct any pedestrians to cross and use the appropriate footpath at that time, with advance notice by the Contractor liaison manager.

3.6 SITE LAYOUT AND ACCOMMODATION

The 'primary' site for the Contractor will be fully secured by hoarding and/or Heras fencing panels. This site will be accessible to inducted persons only and fully subject to PPE requirements (hard hat, hivisibility jacket/vest and protective boots).

Construction site signage will be provided at the access point frontage to highlight the access and potential conflict for road and footpath users.

Site Accommodation, located in the primary site, will comprise of the following typical units (tbc by Contractor):

- 2 x office unit;
- 2 x staff welfare -drying room/canteen;
- 2 x WC unit;
- 2 x lockable storage unit.

The temporary utilities will be a generator on site and WC's which will be emptied twice a week. Existing water supply will be tapped into and metered, to service the site and the welfare facilities.

3.7 Maintenance and Mitigation During Construction

The Contractor will provide measures to ensure that there will be construction debris on the wheels and undercarriage areas of trucks prior to leaving the site.

Notwithstanding this, sweeping equipment will be stored on site near to the site exit gate(s), and regular checks will be carried out on the access lane and road frontage on Woodbine Road and Tonlegee Road, with sweeping carried out by site staff if required.



The existing road signage, road pavement, kerbs, footpaths, utility covers and boundary walls within the public road area frontage of the site will be photographed and conditions noted prior to commencement and issued to DCC for agreement.

All loads leaving the site during clearance of demolition material and export of spoil will have a tarpaulin/netting secured across the open top, covering the exported material and the surface of the loads will be damped down during prolonged dry weather to prevent dust.

3.8 POTENTIAL ISSUES DURING CONSTRUCTION

It is noted that there are ongoing considerations of traffic management proposals by DCC and the NTA (such as Bus Connects) which could result in revisions to roads on the haul routes serving the site, or changes in available turning movements on the access haul routes to/from the site, and this could occur during the contract period.

The Contractor will liaise with DCC and have regard for any proposed roadworks or revised traffic management in area which could impact on access to/from the site for delivery vehicles.

Stephen Reid Consulting Traffic and Transportation 16.06.2021