

LRD at Castlelands, Mallow, Co. Cork

Outline Construction Traffic Management Plan 224209-PUNCH-XX-XX-RP-XX-0008

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Table of Contents

υ	ocum	ent Control 1
T	able o	f Contentsii
1		Introduction1
	1.1	Purpose and Scope2
2		Indicative Construction Program3
3		Site Access4
4		Site Set-Up and Security6
	5.1	Overview
	5.2	Staff Type and Transportation Options7
	5.3	Haul Routes and Deliveries7
6		Management of Construction Traffic Requirements9
	6.1	Legislation & Guidelines9
	6.2	Site Access and Egress9
	6.3	Traffic Management Signage
7		Other Measures To be Employed
	7.1	Emergency Access
	7.2	Temporary Road Surfaces
	7.4	Potential Interface with Other Projects
	7.5	Lighting11
	7.6	Road Cleaning
	7.8	Traffic Management Speed Limits
	7.9	Asset Protection
	7.10	Outline Construction Approach
	7.11	Communications with Local Stakeholder Management
0		Conclusion 12



1 Introduction

PUNCH Consulting Engineers were appointed by Reside (Castlepark) Ltd. to provide traffic engineering services for the proposed development located at Castlepark, Castlelands, Mallow, Co. Cork.

The subject site is located within lands at St. Joseph's Road, Mallow, Co. Cork. The proposed development consists of 469 no. residential units, 1 no. crèche on site and an upgrade of the existing Gate House. The LRD comprises of 5no. development phases namely 1a, 1b, 1c, 2 and phase 3. Phase 1a and 1b of this LRD are also being assessed under a different planning application **24/04519**.

The subject site is mostly greenfield apart from some existing building footings which were constructed as part of a previously planned development. The is located approximately 800m east of Mallow town centre and the site area is 17.50ha (gross) and 12.9ha (net). The site is bordered by existing residential developments to the west and north and green fields to the south and east. Mallow GAA complex is located approximately 1.2km north east of the site. The land use in the area is generally a mix between residential and agricultural.

The site slopes at an average gradient of approximately 3% from north to south.

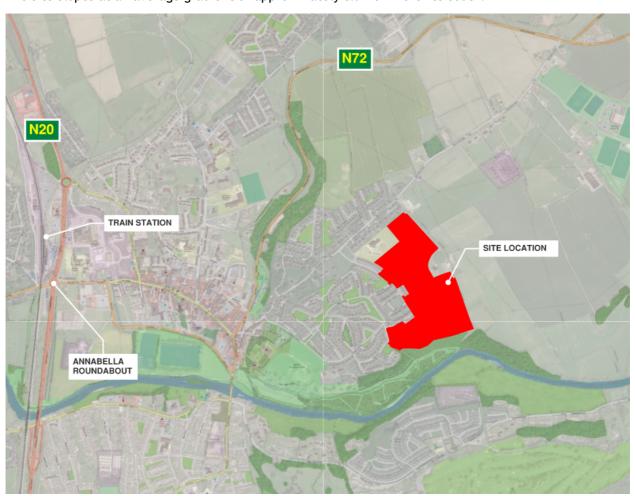


Figure 3-1: Site Location Plan

The proposed works are outlined in a series of architectural drawings prepared by Deady Gahan Architects, and engineering drawings prepared by DOSA Engineers that are supplied as part of the planning documentation.

This OCTMP sets out guidelines on traffic management during the construction phase of the development. It has been prepared prior to the appointment of a contractor. It will be the responsibility of the



appointed contractor to prepare and submit a full detailed Construction Traffic Management Plan (CTMP) to Cork County Council and An Garda Síochána for agreement and approval, prior to commencement of construction. The CTMP will be a live document that will be updated throughout the project lifecycle by the Appointed Contractor if required.

1.1 Purpose and Scope

This OCTMP is a critical construction contract document, aiming to minimize potential impacts during the proposed scheme's construction. Its objectives include:

- 1. Outlining minimum traffic management measures for site access/egress points and their approaches during the works,
- 2. Demonstrating to the Developer, Contractor and Suppliers the need to adhere to the relevant guidance documentation for such works,
- 3. Providing a basis for the Contractor to develop the OCTMP into a comprehensive CTMP.

The Developer will be responsible for ensuring that the Contractor develops this OCTMP into a CTMP and manages the construction activities in accordance with the CTMP.

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

The goal of this OCTMP is to minimize residual impacts on the public road network during the construction phase of the proposed development, ensuring transport-related activities are conducted with maximum safety and minimal disruption to other road users.

The OCTMP has also been prepared to identify safe and suitable methods of access for construction traffic to the proposed development. It outlines traffic management strategies for transporting construction materials, equipment, and personnel along the public road network to facilitate the development's construction. Site operatives will primarily use light vehicles, while Heavy Goods Vehicles (HGVs) will transport general construction materials like fill material, concrete, bricks to the site and remove excavated material for off-site disposal.



2 Indicative Construction Program

It is estimated that the construction programme for the proposed works will last in the order of 96 months from the date of commencement. This estimation is based on typical construction programmes for other similar developments that are currently underway. It is proposed to phase the delivery of the units as follows:

Phase 1A: 12 months
Phase 1B: 12 months
Phase 1C: 18 months
Phase 2: 30 months
Phase 3: 24 months

The phasing plan is outlined in Figure 2.1 below.

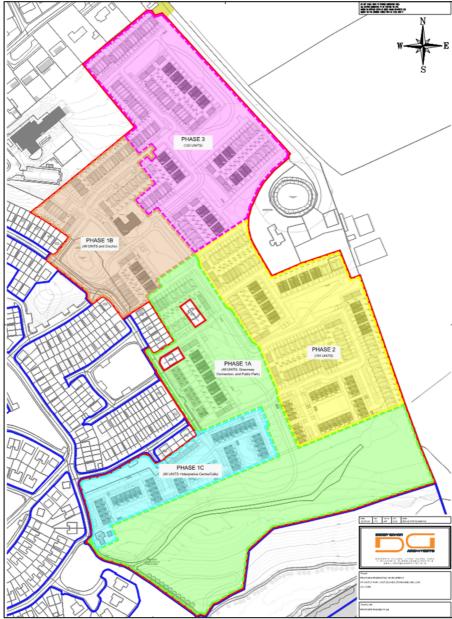


Figure 2.1 LRD Phasing Plan



3 Site Access

The Main Contractor will be responsible for site access/works activity and depending on construction sequencing must ensure the continued safe operation the existing housing estate roads in the vicinity. It is proposed that construction vehicles will access the site from the N72 at Oliver's Cross and enter via the laneway from St Joseph's Road to Castlelands House, for which the Applicant has a right of way permitting access to the development site. Construction Traffic will exit the development at the same point. Construction Traffic will use this route in order to minimise construction traffic at the junctions of St. Joseph's Road/N72/Infirmary Lane/Bridewell Lane. The proposed route will also ensure that there is no conflict between construction traffic and existing residents in the area, especially the nearby primary school. Site access is outlined in Figure 3.1 prepared by the Engineer. Its management is addressed in detail in subsequent sections.



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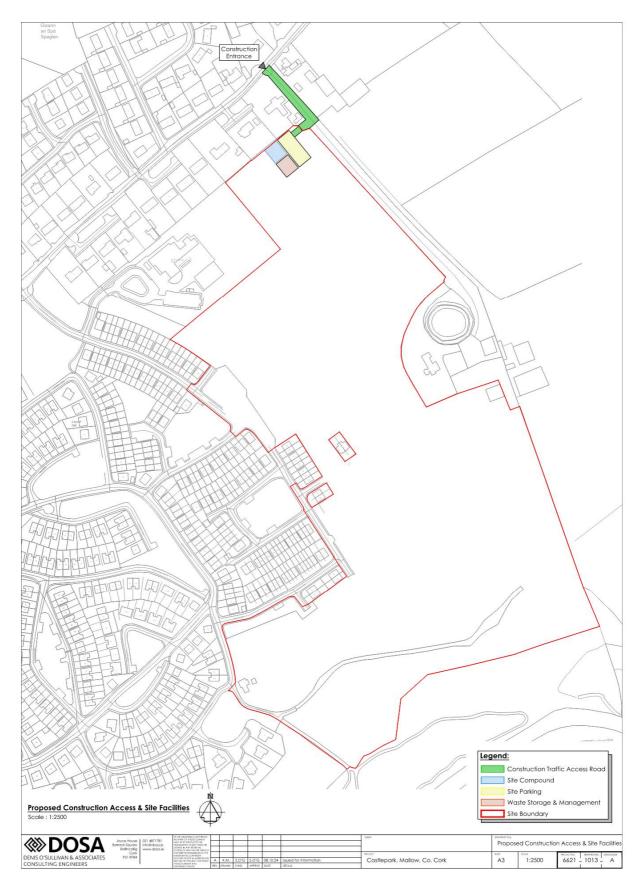


Figure 3.1 Construction Compound and Access



4 Site Set-Up and Security

The Main Contractor will be required to submit a site layout plan that will detail the proposed location of the site compound and associated welfare facilities. The initial proposals for these facilities in outlined in Figure 3.1 above. The Main Contractor will ensure that the site compound will be serviced as required and will be secured with appropriate fencing/hoarding. The site compound will be used as the primary location for the storage of materials, plant and equipment, site offices and worker welfare facilities. As Project Supervisor Construction Stage (PSCS), the Main Contractor will be responsible for site security, and they are to ensure that the site and site compound are adequately secured at all times.

As with other construction activities that are being carried out within the Cork County Council area, activities associated with the construction compounds will be subject to restrictions to the nature and timing of operations so that they do not cause undue disturbance to neighbouring areas and communities.

The site layout plan will also include the site perimeter and the proposed detail with regards the hoarding and gate system.



5 Construction Traffic Generation

5.1 Overview

The potential temporary impacts of the scheme on the wider and local road network are as follows:

- 1. Temporary impacts during construction due to the excavation of materials in order to facilitate construction, and the associated movements of excavation vehicles,
- 2. Temporary impacts associated with the importing of construction materials, equipment, etc. to the works areas, and the relevant movements of delivery and construction vehicles and construction personnel,
- 3. Construction staff commuting to and from the site and
- 4. General service traffic associated with construction activities (i.e. plant deliveries, visitors, traffic between working areas, etc.)

All of this traffic will be diverted away from the local residential estate roads through the designated temporary access to the site through Castleland's House.

5.2 Staff Type and Transportation Options

Given the location of the site, public transport links and the nature of construction transportation to and from the site is expected to be by car. Staff are instructed not to park on public roads and parking will be provided within the site compound as outlined in subsequent sections.

The estimated construction traffic expected during a typical working day is based on a maximum site staff attendance of 75 persons in each and every phase of the development. The trip rates are based on similar sites located in and around Cork County. Normal working hours will be between 8.00a.m. and 6.00p.m., five days per week, with some working on Saturday mornings, subject to any conditions set down by the Local Authority. The construction workers are expected to arrive to the site mainly by private vehicle. Limited additional trips may be generated by lunchtime traffic. A car occupancy rate of 1.5 individuals per vehicle has been considered, accounting for potential carpooling among teams/ tradesmen working closely together. This results in an estimated total of 50 vehicles arriving and departing each day. Typically, these vehicles will arrive before 8am and depart after 6pm.

5.3 Haul Routes and Deliveries

Construction equipment and vehicles required for each construction element/operation will be delivered to site by appropriate vehicles. Specific equipment and vehicles which are deemed to be required for the proposed development by the contactor, suppliers and staff are to be confirmed and included in the CTMP prepared by the Contractor.

Most of the material to be delivered to site will travel via the N72 and St. Joseph's Road. Materials from quarries and other suppliers is also likely to travel via the N72 and regional roads. These suppliers are as yet unspecified. The CTMP will specify locations of these suppliers and the haul routes to be used from each location to each working area. There is sufficient width on the proposed access road to facilitate these deliveries.

Truck movements are expected to be relatively evenly spread throughout the day. The truck movements associated with earth moving will be generally internal. The construction phase of the development is expected to generate much lower vehicle movements than the operational phase. However, a greater number of Heavy Goods Vehicles (HGVs) are expected during the construction phase.



To construct the development, the following works will be required to be carried out:

- Provision of a temporary construction access roadway, safe and secure site compound and the
 erection of temporary boundary fencing.
- Trenching for underground services including foul sewer, surface water drains, water mains, gas, telecommunications, electricity and lighting.
- Connection of underground services to existing underground services where available.
- Construction of the houses, apartments and the creche on the site.
- Construction of entrance, access roads, footpaths and paving.
- Erection of permanent boundary fencing, landscaping, signage and lighting.
- Construction of the proposed pedestrian and cycle path improvements to the amenity park.

Each of the activities outlined above will generate a level of vehicle movements to and from the site as well as internally within the subject site. The construction movements will take place initially against a background of no other activities on the subject site during the early stages of the development. However, as the development progresses, there will be a period when construction-generated traffic will be operating alongside the traffic generated by the completed parts of the development.

It is intended to balance the cut and fill in as far as is possible which will minimise haulage and disposal off site. Topsoil will be temporarily stockpiled on site and re-used when landscaping new open areas, gardens etc.

The typical plant used on site will be as follows:

- 4 no. excavators;
- 3 no. (40T) dumper trucks;
- 2 no. tractors and dump trailers;
- 2 no. (<6T) dumper trucks;
- 1 no. 20T roller;
- 1 no. small roller or/and heavy compaction plate;
- 1 no. Road Sprayer/Scraper/Sweeper;
- 1 no. Cement Mixer; and
- 1 no. Water Pump.



6 Management of Construction Traffic Requirements

6.1 Legislation & Guidelines

The appointed contractor shall consult the following documents when developing the CTMP:

- Traffic Signs Manual, Chapter 8: Temporary Traffic Measures and Signs for Roadworks Department of Transport
- Temporary Traffic Management Design Guidance Department of Transport
- Guidance for the Control and Management of Traffic at Roadworks Department of Transport, N.R.A and Local Government Management Services Board
- Guidelines for Working on Roads Health and Safety Authority, 2009 (Practical guidance on the Safety, Health and Welfare at Work (Construction) (Amendment) (No. 2) Regulations 2008)

These Guideline documents shall be read in conjunction with primary Safety Health & Welfare at Work legislation including the 2005 Act, the Safety, Health and Welfare (Construction) Regulations 2013, and any amendment to them (the Construction Regulations).

6.2 Site Access and Egress

The proposed access locations to the development have been identified and the Contractor will provide advanced warning signs, in accordance with the latest current Department of Transport's 'Traffic Signs Manual, Chapter 8: Temporary Traffic Measures and Signs for Roadworks, on the approaches to proposed site access locations, a minimum of one week prior to construction works commencing at that location.

Appropriate lines of sight are available at the access site, however, will be monitored by banksman during periods of large deliveries.

The management of construction traffic on the local St Joseph's road and accessing to the site will be actively managed by the Contractor and ensure the following measures:

- a) Construction vehicles must not stop or park along public routes at any time;
- b) Haulage vehicles must not travel in convoys greater than two vehicles at any time;
- c) Site entrance to remain free of parked or stationary vehicles at all times;
- d) All loading of demolition/waste material will occur within the site boundary;
- e) All off-loading of deliveries will take place within the site, remote from the public roads and will access via the agreed construction access point.
- f) The Contractor will be required to provide wheel cleaning facilities, and regular cleaning of the main access road.
- g) The contractor will be required to ensure pedestrian and cyclist safety on St. Joseph Road and that the design of the temporary junction is appropriately designed.
- h) Temporary car parking facilities for the construction workforce will be provided within the site. These car parking spaces will be located adjacent to the site compound. The surface of this car park will be prepared and finished to a standard sufficient to avoid mud spillage onto adjoining roads.
- i) Monitoring and control of construction traffic will be ongoing during construction works. Construction traffic will be scheduled to minimise movements during peak hours.



The Contractor is required to control construction traffic in and around the proposed development location to ensure no adverse impact on the surrounding residential areas. The Contractor must adhere to the following:

- a) Communicate clearly to all construction staff and subcontractors that they are bound by these restrictions to park within the construction compound and not on surrounding road networks.
- b) Schedule site traffic in advance to ensure that deliveries do not occur at peak times
- c) Monitor construction traffic at key points to check compliance.
- d) Details of the Contractor's traffic management plan must be submitted to Cork County Council (CCC) and approved by same prior to commencement on site.
- e) Daily construction programmes will be planned to minimise the number of disruptions to surrounding roads by staggering HGV movements.
- f) There will be limited parking, sufficient only to serve those directly involved with the works.
- g) Construction vehicles will follow the road hierarchy as much as practicable i.e. construction vehicles will be directed away from local or minor streets and roads and will be required to use designated primary national and regional routes for accessing the site.
- h) The Contractor will appoint a Traffic Management Coordinator who will be responsible for the coordination of all traffic safety/traffic management and pedestrian/cyclist safety/traffic management matters. The Traffic Management Coordinator will ensure that all traffic management requirements are met.

6.3 Traffic Management Signage

The Contractor will engage in consultations with relevant authorities to identify and agree signage requirements. These signs will be installed prior to the commencement of on-site works.

Proposed signage will include warning signs to provide warning to road users of the works access/egress locations and the presence of construction traffic.

All signage to be provided in accordance with the latest current Department of Transport's 'Traffic Signs Manual, Chapter 8: Temporary Traffic Measures and Signs for Roadworks. The Contractor will 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,
- Provision of general information signage to notify road users and local communities about the nature and locations of the works, including project contact details.



7 Other Measures To be Employed

7.1 Emergency Access

Access for emergency vehicles via the primary haul roads must be always maintained.

7.2 Temporary Road Surfaces

All reinstatement be it temporary or permanent shall be carried out in accordance with Guidelines for Managing Openings in Public Roads - Department of Transport, Tourism and Sport 2017

7.3 Loading/Unloading locations

Vehicles must be loaded and unloaded within the site area (i.e. within site boundary red line). Contractors are not permitted to carry out loading or unloading on the public roadway. This approach reduces the risk to the public, reduces congestion, and minimises disruption and risk to any passing vehicles on the highway. All deliveries and collections will be overseen and managed for the Contractor by a nominated competent person.

7.4 Potential Interface with Other Projects

The proposed works may have an interface with other projects within the locality. There may be a number of PSCS's operating in the locality at any one time on individual sites. It will be the responsibility of the appointed Contractor as PSCS to ensure that delivery and haul routes, site access and egress points and potential crossing points associated with the site are fully coordinated and agreed with other Contractors in advance of the works commencing.

7.5 Lighting

Where floodlighting of the works area is required in poor daylight conditions, the positioning of the lighting units must not be such as to cause glare to drivers. Workmen should be protected from stepping inadvertently from the illuminated area into an unilluminated traffic lane.

In addition to lighting, signs, chevrons, barriers and other devices should be reflectorised. Reflectors should be used to ensure that the work area is adequately marked if the lighting is vandalised or otherwise fails.

7.6 Road Cleaning

It will be a requirement of the works contract that the Contractor carry out periodic road sweeping/cleaning operations to remove any scheme related dirt and material deposited on the road network by construction / delivery vehicles. Road sweepers will dispose of material following sweeping of road network, to a licensed waste facility.

7.7 Vehicle Cleaning

It will be a requirement of the works contract that the Contractor will provide dry or wet wheel washing facilities where appropriate, and any other necessary measures to remove mud and organic material from vehicles exiting sites or works areas.

7.8 Traffic Management Speed Limits

Adherence to posted / legal speed limits will be emphasised to all staff and suppliers and contractors during induction training. Drivers of construction vehicles and HGVs will be advised that vehicular speeds in sensitive locations, such as local community areas, will be restricted to appropriate levels.



7.9 Asset Protection

The Contractor must take care to avoid damage to roads, footpaths, grass margins, and other surfaces and all walls including protected walls, structures including protected structures and the associated curtilage, trees, lighting fixtures and all other street furniture within or outside of the overall site. They shall be liable for the cost of repairing / replacing all such damage caused by its operations to the satisfaction of Cork County Council.

Contractors must take precautions to ensure against spillage of diesel fuel, contaminated water or solvents. Any damage so caused shall be made good by the offending Contractor.

Contractors must prohibit the use of tracked plant on road surfaces outside of the site unless suitably approved protective measures are taken to safeguard the integrity of surfaces.

The Contractors Construction Management Plan must include specifications regarding the quality of temporary reinstatements and the timelines for permanent reinstatements of roads and pavements affected by the works.

7.10 Outline Construction Approach

Please refer to the Outline Construction Environmental Management Plan (OCEMP) prepared by DOSA and included with this Planning Application for details on the outline construction approach.

7.11 Communications with Local Stakeholder Management

The Contractor will, as required, liaise with owners of local properties in advance of works commencing onsite and coordinate works to have minimum impact on the operation of local properties. The Contractor will use a competent sign provider and all signage used will meet the requirements of the Safety, Health & Welfare at Work (General Applications) Regulations 2007 and Chapter 8 Traffic Signs Manual.



8 Conclusion

This document has provided an Outline Construction Traffic Management Plan for the proposed residential developments of a proposed residential development at Castle Crest, Castlelands, Mallow, Co. Cork. The subject site is located within lands at St. Joseph's Road, Mallow, Co. Cork. The proposed development consists of 469 no. residential units, 1 no. crèche on site and an upgrade of the existing Gate House. The LRD comprises of 5no. development phases namely 1a, 1b, 1c, 2 and phase 3. Phase 1a and 1b of this LRD are also being assessed under a different planning application 24/04519.

The development will include all relevant infrastructure including parking areas, access, drainage, changes in levels; internal roads and pathways, pedestrian access points, services provisions; landscaping and boundary treatment and all associated site development and excavation works.

The construction programme for the works will take an estimated 96 months with units delivered in a phased basis. The site will be accessed via the existing entrance to Castlelands House with a link through agricultural fields to the site, thus removing traffic from the local residential streets. The proposed hours of work on site will be stipulated in the planning conditions attached to the planning grant. The planning of such works will take consideration of sensitive receptors, in particular any nearby businesses, residences and schools. It is anticipated that at the peak of construction there will be a workforce varying in a range of approximately 75 people employed depending on phasing and stage of construction. Deliveries to the development will involve HGV's but in a very low volume.

The Main Contractor will be required to prepare a detailed outline construction traffic management plan for the project, considering this outline plans requirements.