

Clifton Scannell Emerson Associates

Traffic and Transportation Report Abbeylands Redevelopment, Part 8



Client: Cavan County Council

Date: 16/11/ 2022

Job Number: 19_134

	Civil Engineering	Structural Engineering	Transport Engineering	Environmental Engineering	Project Management	Health and Safety	
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Document Control Sheet

Project Name:	Abbeylands Public Realm Cavan for Design and Redevelopment
Project Number:	19_134
Report Title:	Traffic and Transportation Report for Part 8
Filename:	RPT-19_134-003

Issue No.	Issue Status	Date	Prepared by	Checked by
1st	DRAFT	14/10/2022	HO	CAB
2 nd	DRAFT	07/11/2022	HO	CAB
3 rd	FINAL	16/11/2022	HO	CAB



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1 Introduction

1.1 Overview

This Report has been prepared by Clifton Scannell Emerson Associates (CSEA) on behalf of Cavan County Council (CCC) to document the likely traffic impacts of the proposed Phase 1 redevelopment of the Abbeylands site in Cavan Town. This Report presents a description of the existing conditions, including existing land use, local road network, and site access arrangements. Furthermore, a description of the proposed development and its likely traffic generation and traffic impact are also provided.

1.1.1 Site Location

The Abbeylands site in Cavan is of significant archaeological, architectural and civic importance

playing a vital role in the town for over seven centuries. Geographically located at the centre of the island, and within the province of Ulster, Cavan town is located 70 miles northwest of Dublin along two major national road connections; the N3 and the N55 respectively. The town is the largest in the County and holds 'hub' status.

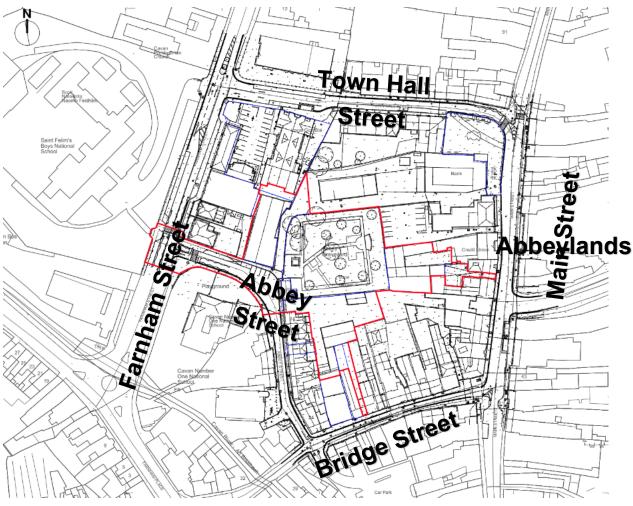


Figure 1.1 Site Location, development site outlined in red

As shown outlined in red on Figure 1.1 above, the proposed development site is located between Abbey Street and Main Street in Cavan Town and will be accessible via Abbey Street, Bridge Street and Main Street on foot and vehicular access will be via Abbey Street. The current Cavan County Council ownership boundary, and the development boundary that is subject to this planning permission extends to 6293m.sq.

1.1.2 General Description of the Proposed Development

The Proposed Development (Figure 1.2) consists of:

- 1. Demolition of McIntyres Furniture Shop building (currently derelict) and construction of a cultural and remote working centre;
- 2. Public Realm upgrade of the Abbeylands former graveyard;
- 3. Pedestrian walkway through the Credit Union site and stabilisation of the existing derelict buildings within the site;
- Demolition of the old Donohoe's abattoir building and construction of a Community Services Centre;
- 5. Upgrade of Abbey Street between the junction with Farnham Street and the access to the Abbeylands development.

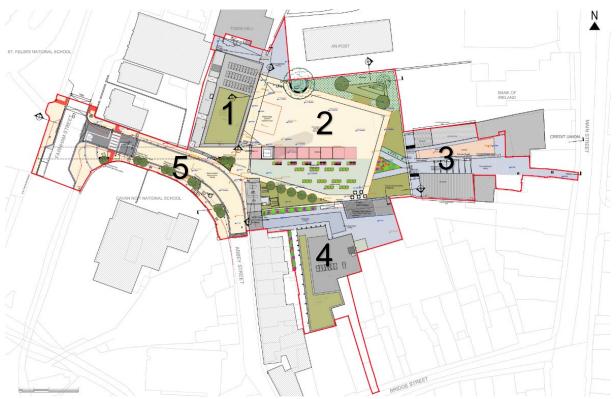


Figure 1.2 Site Layout

The proposals include improving accessibility into the Abbeylands site as well as opening it up to the surrounding town centre by reimagining existing and potential connections, developing the backland areas for use as civic space with the opportunity for private and public development, with a special emphasis on the Abbey enclosure area, and proposing a range of sustainable new uses within the block for local residents, business owners and visitors to the Town.

1.2 Policy Guidance

The Proposed Development (Figure 1.2) consists of:

This report has been prepared taking the following documents into account:

- Cavan County Council Development Plan 2022-2028, incorporating a Local Area Plan for Cavan Town, Cavan County Council;
- Cavan Abbeylands Masterplan, Cavan County Council, 2020, and
- TII Traffic and Transport Assessment Guidelines, 2014.

1.3 Study Methodology

As per the document TII Traffic and Transport Assessment Guidelines, none of the thresholds/subthresholds as outlined in Table 2.1, Table 2.2 and Table 2.3 have been exceeded. Therefore, a Traffic and Transport Assessment is not required.

This is due to the development being envisaged to generate less than 5% additional trips to the surrounding road network and the areas of all types of development within the site are below the thresholds. It should also be noted that the proposals no additional car parking spaces (See Section 3.3.1) but consider that the site can be accommodated from existing parking that is currently available for public use within walking distance of the site.



2 Existing Conditions

2.1 Existing Development Description

This existing development consists of the derelict McIntyres Furniture Shop on Abbey Street, the Abbeylands open space, which was formerly a graveyard and includes a tower associated with the former Abbey site and is accessed from Abbey Street, the backlands and alley beside the Credit Union buildings, which are accessed from Main Street, including a number of derelict buildings, and the disused former abattoir behind Donohoe's Foodstore, which was previously accessed via both an access from Abbey Street and through the former foodstore which was accessed from Bridge Street.

2.2 Local Road Network

Abbey Street

Abbey Street is a two-way street located directly to the west of the proposed development site. This road links to Farnham Street to the west and Bridge Street to the south to the south. It provides for one lane of general traffic in both directions; however, it is of inconsistent width, with parking permitted in some areas where two cars could not pass each other when cars are parked. Elsewhere parking is permitted in pay and display bays, with some of these being parallel space and some end on parking bays. Footpaths are provided on each side of the carriageway and the is a zebra crossing near the junction with Farnham Street. These are footpaths of varying widths, typically below current preferred minimum widths. The are no dedicated cycle facilities. Abbey Street provides direct access to the development site.

Main Street

Main Street is a one-way street located directly to the east of the proposed development site, with traffic permitted to move from north to south along this route. Church Street, Cock Hill and Town Hall Street link to this street to the north and it links to Bridge Street to the south of the development site. In the vicinity of the site there are two traffic lanes in some parts and one lane plus pay and display parallel parking along other stretches. There are footpaths on both sides of the road. The are no dedicated cycle facilities. It currently provides no direct access to the development site.

Bridge Street

Bridge Street is a narrow one-way street located directly to the south of the proposed development site, with traffic permitted to move from east to west only. Main Street links with this street to the east and it links to Abbey Street to the west. In the vicinity of the site is one traffic lane only. There are footpaths on both sides. It currently provides no public access to the development site.

Farnham Street

Farnham Street is a two-way street, running from north to south and located to the west of the proposed development site, with traffic permitted to move in both directions. Farnham Street has a junctions with

Abbey Street (priority t-junction) with a zebra crossing to the north of the junction. There are footpaths of varying widths on both sides.

2.3 Existing Traffic Volumes

A traffic survey was carried out at two junctions near the Proposed Development Site, namely:

- Farnham Street & Townhall Street (including access to St. Felim's National School); and
- Town Hall Street & Main Street

The traffic volumes were recorded as part of a classified 12hr (07:00-19:00) traffic count carried out Thursday March 5th, 2020 by NDC on behalf of CCC and made available to CSEA.

It should be noted that no government enforced COVID-19 restrictions were in place at the time of the survey.

For the junction of Farnham Street and Townhall Street, the AM peak hour was 09:30-10:30 with a total of 1230PCU's passing through the junction and the PM peak hour was 15:30-16:30 with 1326PCU's passing through the junction.

For the junction of Town Hall Street and Main Street, the AM peak hour was 10:00-11:00 with a total of 493PCU's passing through the junction and the PM peak hour was 17:00-18:00 with 516PCU's passing through the junction.

Note: Vehicular fleets are made up of several different vehicle classes (bikes, cars, vans, buses, HGV's etc). For standardisation and traffic modelling purposes, vehicle classes are measured in Passenger Car Units (PCUs). PCUs evaluate the impact that a vehicle has on traffic variables relative to a standard vehicle length, with an allowance to include for a buffer length to the front and back. For the purposes of assessment, a PCU length of 5.75 metres is assumed. The vehicle class to PCU conversation factors are shown in the table below.

Vehicle Class	PCU Factor
Pedal Cycle (PC)	0.2
Motorcycle (MC)	0.4
Car	1
Light Goods Vehicle (LGV)	1
Medium Goods Vehicle (MGV)	1.5
Public Service Vehicle (PSV)	2
Heavy Goods Vehicle (HGV)	2.3

Table 2.1 PCU Conversion Factors (as per Traffic Modelling Guidelines published by TfL, in	ł
accordance with TII Guidance PE-PAG-02016)	

2.4 Existing Public Transport Services

The public transport network in the vicinity of the Abbeylands area is comprised of bus services, taxis and hackneys. The bus services are mainly operated by Bus Eireann with few private bus services in operation. The bus station is located approximately 100m from the Abbeylands site. The bus station is serviced by intercity buses that travel from Donegal and Longford to Dublin City Centre (Busaras). It is also served by a number of local bus routes.

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2.5 Site Access Arrangements

The site is most accessible from Abbey Street via Farnham Street. Figure 1.1 illustrates to location of the site in relation to the local road network.





3 Description of the Proposed Development

3.1 Proposed Development Overview

Cavan County Council intends to apply for Part 8 Planning Permission for a development that is Phase 1 of the Abbeylands Masterplan development. This development will include a cultural and remote working centre, a new public plaza, an improved public realm and shared space for pedestrians and cyclists connecting Abbeylands to Main Street and a community service centre.

3.2 Proposed Development Traffic Generation

The Abbeylands area has three main approaches for vehicular traffic, namely Farnham Street/Town Hall Street, Church Street and Cock Hill. All three of these approaches lead to Main Street.

The Abbeylands Phase 1 development will require access for recreational, cultural, employment, commercial and emergency purposes. Connectivity of the site will vary by mode such as pedestrian (including wheelchairs and prams/buggies), cyclist, car, light goods vehicles and service vehicles. Priority and increased access options will be given to pedestrians and cyclists while vehicular traffic will be discouraged and on a 'needs only' basis.

Vehicular trip rates were estimated for the proposed development using TRICS database for the various land uses and corresponding areas as part of Phase 1 of Masterplan development. The trips generated as part of Phase 1 of the Masterplan Development are shown in Appendix A. Trips were generated for the junctions of Farnham Street/Town Hall Street and Town Hall Street/Main Street as these are the junctions that will be used by vehicular traffic access the proposed development.

Using the available traffic data for the Farnham Street/Town Hall Street approach (Section 2.3) and estimating a worst-case scenario with 50% of new car trips (Appendix A) to the redeveloped Abbeylands area taking this route to park within a 2-minute walk of the area, traffic levels are predicted to rise by a maximum of 1.62%. The expected traffic impact is shown in Table 3.1.

	Baseline Flows		Proposed De Traffic	•	Traffic Impact	
	Farnham St/ Town Hall St	Town Hall St/ Main St	Farnham St/ Town Hall St	Town Hall St/ Main St	Farnham St/ Town Hall St	Town Hall St/ Main St
AM Peak	1230	493	14	8	1.14%	1.62%
PM Peak	1326	516	6	3	0.45%	0.58%

Table 3.1 – Expected Traffic Impact

The traffic generated by the development will not put undue strain on the studied junctions and they will still operate at under-capacity. The traffic impact of the development is *long-term, neutral* and *imperceptible.*

Construction of the Proposed Development would take place over a period of approximately two years from the commencement of construction for site development works, including for initial demolition and stabilisation works. The works would be phased to minimise impacts and detailed preconstruction archaeological investigations will be undertaken in order to reduce the overall length of construction duration. Due to the short-term nature of the construction phase and that low volumes of construction traffic are expected (particularly at peak times), the overall impact of the construction phase is considered **short-term**, **neutral** and **imperceptible**.

3.3 Parking Provision

There are 48no. car parking spaces within a 2min walk from Abbey Tower and a further 955no. car parking spaces within a 2-6min walk. On-street parking in Cavan town is 'Pay & Display' paid parking charged at a rate of $\in 0.60$ an hour with a maximum stay of 2 hours permitted. The public car parks on Farnham Street, Main Street and Connolly Street operate on 'Pay & Display' paid parking charged at a rate of $\in 0.40$ an hour with no maximum stay. Typically, the on-street parking spaces have high rates of occupancy whilst off-street car parks, particularly the 311no. space multi-story car park, are underutilised. Upgrades to the multi-storey car park including redesigned parking spaces, competitive pricing, cashless payment options, increased connectivity for pedestrians and provision of e-charge parking spaces will encourage uptake.

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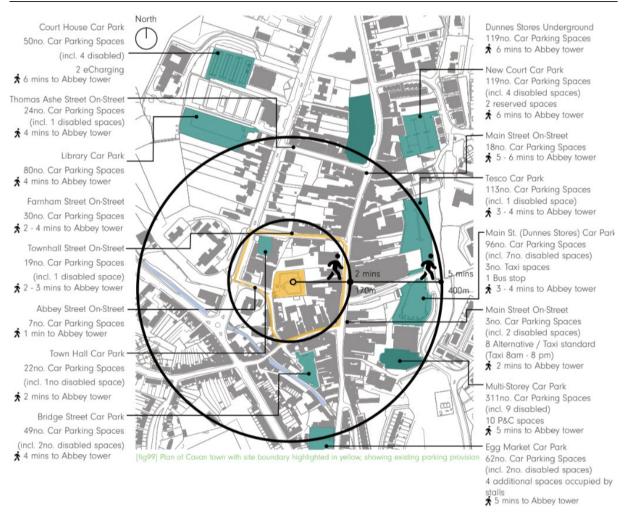


Figure 3.1 Existing Parking Provision and Walking Distances

A parking was survey carried out to review the level of uptake of both on-street and off street parking on weekdays and weekends (Appendix B) (Table 3.32). The parking rates were recorded as part of a classified 10hr (09:00-19:00) survey carried out Thursday March 5th, 2020 and a classified 8hr (11:00-19:00) survey Saturday 7th of March 2020. The surveys were carried out by NDC on behalf of CCC and made available to CSEA.

Site	Weekday/Weekend	Max Occupancy (%)	Free Spaces at Max Occupancy (no.)
On Street	Weekday	78	37
On Street	Weekend	82	31
Off Street	Weekday	62	351
Off Street	Weekend	47	491

Preliminary analysis of the parking requirements show that 151no. car parking spaces are likely to be needed for the proposed development. At maximum occupancy, the existing supply of free car parking spots is 388no. on weekdays and 522no. on weekends. However, all of the 151no. required car parking spaces should not all be considered as 'additional' as not all trips to the devlopment will be independent of trips that are already being made into the vicinity of the Abbeylands area. It is reasonable to assume that the existing car parking network can adequately accomodate the extra demand.

This parking strategy is outlined in the Cavan Abbeylands Masterplan, which shows adequate existing parking within the surrounding existing provision for all development proposed under the Masterplan.

This development is designed to promote sustainable transport, particularly walking and cycling, and is envisaged to have minimal associated vehicular trips. On-site parking cannot be practically facilitated within the site with the exception of loading/unloading spaces, which will be provided for deliveries to the area. It is in the interest of sustainable transport and planning to have open civic spaces available to the public in preference to a car park. The surrounding parking facilities have the capacity to adequately meet the parking demand of the development and operationally it is not desirable to attract more traffic travelling along Main Street.

The development will include the removal of 7No existing parking spaces from Abbey Street (4No end on and 3No parallel). These spaces must be removed in order to provide improved access to the proposed building on the site of the existing McIntyres building, which will tie-in to and be accessible to all other areas of the development site. An accessible bay will be provided on Abbey Street, opposite to this building. A courtesy crossing, complete with tactile paving and dropped kerbs, will be provided between the parking space and the building.

3.4 Cycle Parking Provision

The Cavan Development Plan sets 2022-2028 sets out a cycle parking rate for new developments, recommending 1 stand per 100m.sq. of office floor space, and 1 stand per 75m.sq. of community centre space. Accommodating this cycle parking would require approximately 260m.sq. of space, which is not available on the development site. It is acknowledged that there is a lack of cycle parking facilities within Cavan Town, and that secure, covered cycle parking can be a factor in encouraging uptake in cycling for trips that might otherwise be taken by car. However, it is also noted that the existing cycle parking in the town is currently underutilised.

It is proposed to provide 5No bike racks within the civic space, adjacent the main entrance to the McIntyres Building, and a further 5No bike racks at the opposite side of the civic space, close to the access from Main Street via the Credit Union site. These will be highly visible to the public and will be convenient to all users of the development site. They will also have passive surveillance from users of the proposed development.

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3.5 Public Transport

The proposed development will provide a new pedestrian access from the bus station to Main Street. This link will not only be a short cut for pedestrians (from >300m down to <200m) but it will also be a more pleasant and attractive route between these two destinations. The pedestrian route through the Abbeylands public realm space will be safe, appropriately lit, well paved and well signposted. It will allow pedestrians an escape from the impacts of vehicular traffic on the narrow footpath and road widths within the town and will allow a connection with both nature and history while pedestrian travel through a space that will incorporate the old Abbey Tower structure and sustainable and biodiverse areas of planting.

4 Road Safety Impact

4.1 Vehicular Access

Vehicular access to the site will be limited to emergency vehicles and infrequent deliveries. Both access points to the site are existing vehicular access points, with the vehicular access beside McIntyres Furniture Shop having been the access and egress to the former sorting office for An Post LGVs for many years, and the vehicular access to the development in Donohoe's backlands having previously been customer parking for Donohoe's Foodstore.

The swept path analysis for emergency vehicles is given in Appendix C.



5 Proposed Development Traffic Impact

As noted in Section 3.2, the proposed development is expected to generate negligible additional traffic on the existing road network. Furthermore, the parking needs of the development can be accommodated within the existing public parking within the town. Therefore, the impact of the development is negligible.

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Appendix A

Trip Generation Data

19030 Abbeylands Cavan 21/07/2022

LEVEL	USE SPECIFIED IN URDF PHASE 1	SQM INCLUDED IN URDF PHASE 1	LAYOUT/FUNCTION ON WHICH	FPM REQUIRED ACCOMODATION	FPM REQUIRED ACCOMODATION AREA CHECK IN SQN
	APPLICATION	APPLICATION	URDF APPLICATION WAS BASED		
McIntyres Building - Remo	te working and Cultural				
GF	Cultural	494 m ² Gross	2 x WC	Reception area	30
		350 m² Net	2 X Stairs	Multi use space - gallery/ events	20
			1 x lift 21m Public Counter	Commercial Space Rehersal Space	30 30
			Foyer + Casual Meeting Space	Storage	20
				Training room	30
				Meeting Room	30
				Kitchen Brook out Aroos	10 20
				Break out Areas Toilets	20
				Pods / Studios	110
					TOTAL 350 + Stairs, Etc.
FF	Remote working	494 m ² Gross 350 m ² Net	2 x WC 2 X Stairs	stairs/ lifts / toilets hall	144 0
		350 m- Net	2 X Stairs 1 x Lift	small kitchen	10
			2 x Atria		
			2 Meeting Rooms		
			- Meeting room A 12 sqm.	5 @ 1 desk units - 12 m2 8 @ 2 desk units - 20 m2	50 - 1 Desk Units to be changed to 1m2
			 Meeting Room B 15 sqm. 2 x Stairs 	8 @ 2 desk units - 20 m2 4 @ 5 desk units - 25 m2	160 100
			50 Desks	2 x meeting room	30
			Open Plan	boardroom	Meeting rooms combined to form board room
		101. 20	a. 1110		Total 494 m2
6F	Remote Working	494 m ² Gross 350 m ² Net	2 x WC 2 X Stairs	stairs/ lifts / toilets / hall/small kitchen	144 0
		S50 m Net	1 x Lift	kichen	10
			2 x Atria		
			2 Meeting Rooms		
			 Meeting room A 12 sqm. Meeting Room B 15 sqm. 	6 @ 5 desk units - 25 m2 3 @ 10 desk units - 50m2	50 - 1 Desk Units to be changed to 1m2 160
			2 x Stairs	2 x meeting room	100
			50 Desks	Boardroom	30
			Open Plan		Meeting rooms combined to form board room
					Total 494 m2
Donohues Building (Rear P	art only) - Community Services Build	ing			
iF	Community Services	313 Gross	2 x WC	1 Reception Area	25
		260 Net	2 X Stairs	4 – Interview Rooms	40
			1 x lift 26 No. Staff Per Floor @ 10 m ² PP	1 – Guest /Hot Desk 1 Meeting Room (20)	10 20
			20 NO. Stall Per Plot @ 10 III PP	Canteen	20
				Coffee docks	20
				Access to Multi -Media room	20
				Zoom Booth	10
				Hot Desk facilities Events space (100+	20 Use Town Hall
				Events space (1001	Total 185 m2
				2 Offices 1 Office	2 X 10m2 = 20 1 X 30m2 Office
				1 Meeting room	1 x 30 m2 Once 1 x 30 m2 Meeting room
				5 Staff	5 Staff
					Total 80 m2
					Total National construction of Groups of Groups 2007 and
					Total Net area required Ground floor 265m2
F	Community Services	313 Gross	2 x WC		Total Net area Available = 260m2 Total Net area required First Floor 250m2
	community services	250 Net	2 X Stairs 1 x lift		Total Net area Available = 250m2
			26 No. Staff Per Floor @ 10 m ² PP		
iF	Community Services	313 Gross 250 Net	2 x WC 2 X Stairs		Net Area required 150m2
		250 Net	1 x lift		Net Area required 22m2
			26 No. Staff Per Floor @ 10 m ² PP		
					Net Area required 510m2
					Total Net area required at Second floor Floor 682 m2
					Total Net area Available = 250m2
Phase 1 Development	1	1	T	Freedom of A Trans 1 Mar	1
rip Generation		sqm	Town Hall St & Main St	Farnham St & Townhall St	4
	Civic Amenity Sites	sqm 111	D 1	7	5
	Retail*			0 (
	Education			0 (
	Employment (Office)	98		12 10	
otal Trips	Residential*			0 (
lalf of Trips		1		19 10	
	Civic Amenity Sites	111			5
	Retail*			0	
	Education			0 (
	Employment (Office)	98		0 (
	Residential*			0	
otal Trips Ialf of Trips			1	6	
		1	1	۲I ::	3
	Sq m	Car Parking Requirement		Bicycle Standards	
evelopment Type					
Development Type Residential - Apartments*		0 1 per unit		0	-
		0 1 per unit 1 space per 20m.sq. of net retail floor		0 1 stand per 100 m.sq. of retail floor	

Residential - Apartments*	0	1 per unit	0		-
Shop/Retail Units*	0	1 space per 20m.sq. of net retail floor space	0	1 stand per 100 m.sq. of retail floor space	
Offices		1 space per 25 m. sq.of gross floor space		1 stand per 100 m.sq of gross floor space	10
Community centre	1110	1 space per 10 m.sq. of public floor space	111	1 stand per 75 m.sq. of gross floor space	15
Post Second Level**	-	1 per Classroom and 1 per 10 Students, set down area and bus stop plus additional visitor/ancillary staff parking which will be individually assessed	0	2 stands per school	
Total			151		25

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Appendix B

Parking Survey Analysis

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60 minute parking beat surveys were conducted by Nationwide Data Collection (NDC) on Thursday 2nd March and Saturday 4th March 2017. The surveys were carried out using manual staff recording the total number of vehicles parked along each area listed below between the hours of 09:00 and 19:00 on Thursday %%% and between the hours of 10:00 and 18:00 on Saturday %%%, with the first beats starting at 09:00 and last beats at 18:00.

Hourly beat surveys were undertaken at nine publicly accessible car parks as follows:

- Court House;
- Library (Publicly Accessible Area);
- Town Hall;
- Bridge Street;
- Newcourt Car Park;
- Tesco;
- Main St/ Dunnes;
- Multi-Storey;
- James Connolly Street (Egg Market).;

In addition, 60 minute beat surveys were carried out on the following streets:

- Church Street;
- Thomas Ashe Street;
- Farnham Street;
- Main Street;
- Townhall Street;
- Abbey Street; and
- James Connolly Street.

While the Dunnes Stores private car park was not included in the beat surveys, it was observed to be full during a site visit conducted on Wednesday 8th November 2019. The number of car parking spaces available in each car parking area listed was also confirmed during this site visit.

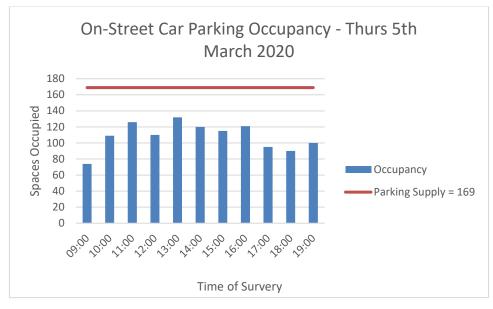


Figure B1 – Weekday On-Street Parking Occupancy Levels (max occupancy – 78%, 37 free spaces at max occupancy)



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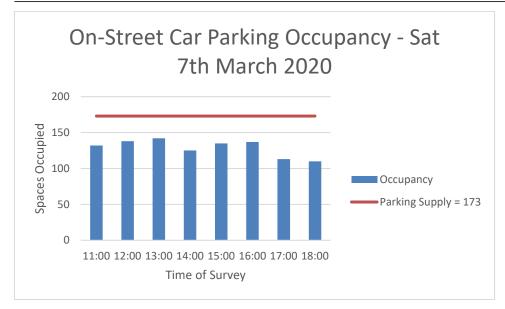


Figure B2 – Weekend On-Street Parking Occupancy Levels (max occupancy – 82%, 31 free spaces at max occupancy)



Figure B3 – Weekday Off-Street Parking Occupancy Levels (max occupancy – 62%, 351 free spaces at max occupancy)

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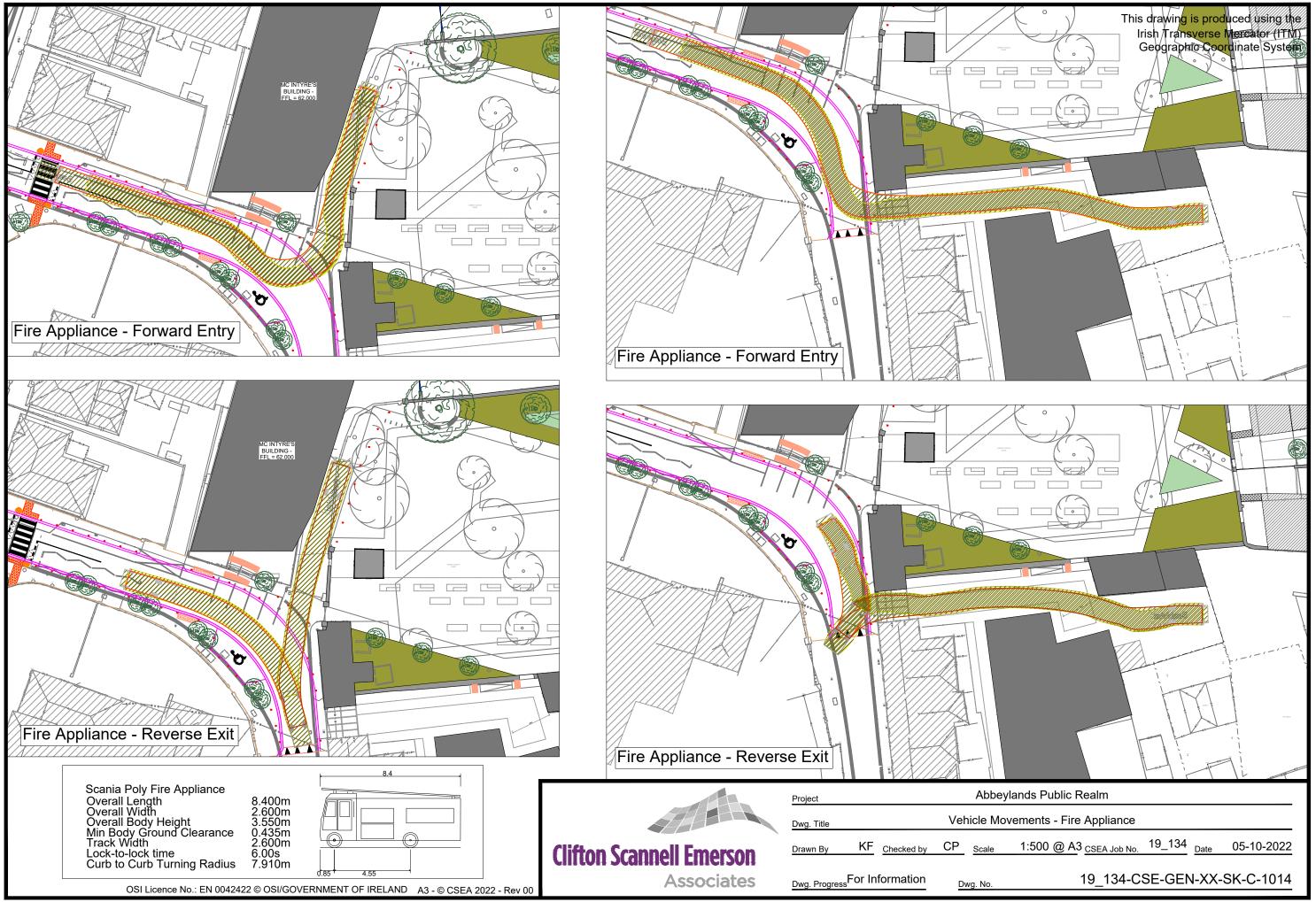
Figure B4 – Weekend Off-Street Parking Occupancy Levels (max occupancy – 46%, 491 free spaces at max occupancy)

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Appendix C

Swept Path Analysis



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