

consulting
engineers

NRB

**Transportation Assessment
Report**

Including

**Stage 1-2 Road Safety/Quality Audit
(Appendix F)**

**Addressing SDCC RFI Item #1
Of SD22A/0231**

for

**Proposed Residential
Development**

At

***Main Street, Rathcoole,
Co. Dublin.***

FINAL ISSUE

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EXECUTIVE SUMMARY

NRB Consulting Engineers Ltd were appointed to address the Traffic & Transportation issues associated with a planning application for a small residential development to the rear of Muldowneys Public House, Main Street, Rathcoole Co Dublin.

The proposed residential development consists of a total of 21 No residential Apartments and 2 No small houses ('cottages') on the zoned site.

This Transportation Assessment Report (TA) has been prepared to address the Traffic and Transportation issues associated with the proposal, the capacity of the existing road network and the impact of the development locally, conscious that the proposed site use will generate very low traffic volumes indeed in the context of the road network in the area. The Report has been prepared in accordance with TII's Traffic & Transportation Assessment Guidelines and addresses the worst case traffic impact of the proposal.

The TA Report includes the effect of the traffic associated with the permitted school (SD21A/0231), and addresses the issues raised in the SDCC Request for Further Information Item #1.

We commissioned and undertook new traffic surveys of the adjacent road network during January 2023 when schools were fully open. This traffic survey data formed the basis of the study.

The analysis includes the effects of the existing traffic on the local roads, includes the traffic associated with the permitted/committed 16 Classroom Primary School, and assesses the impact during the traditional peak commuter periods in accordance with Traffic & Transportation Assessment Guidelines.

The Transportation Assessment confirms that the road network and the long established existing junction at Main St is more than adequate to accommodate the worst-case traffic associated with the development, and full occupation will have a negligible and unnoticeable impact upon the operation of the local roads.

The NRB commission includes an independent Stage 1-2 Road Safety/Quality Audit (incl Designer Feedback Form) and this is included herein as **Appendix F**.

We have included specific commentary in relation to Item #1 of the SDCCC RFI as Section 5 herein.

Based on our study and assessment, we believe that there are no adverse traffic/transportation capacity or operational issues associated with the construction and occupation of the residential development that would prevent planning permission being granted by South Dublin County Council (SDCC).

1.0 INTRODUCTION

1.1 This Transportation Assessment (TA) has been prepared by NRB Consulting Engineers Ltd and addresses the Traffic/ Transportation issues associated with a planning application for a small residential development to the rear of Muldowneys Public House, Main Street, Rathcoole Co Dublin.

1.2 Vehicular access to the site is proposed by way of a the established existing priority junction onto Main St. This access road will also serve as the primary access to the proposed permitted Primary School (SD21A/0231). A site location plan for the site is included below as **Figure 1.1**.



Figure 1.1 - Site Location

1.3 In describing the Receiving Environment and the Proposed Future Environment, this report addresses the following aspects of the proposed development:

- Very small scale of the development in traffic generation terms in the context of the local road network (Reflected in the very Low Traffic Generation of the Development, consistent with the proposed uses),
- Location of the development on the site, being on zoned lands in close proximity to local amenities for residents,

- Assessment and Quantification of the Traffic generated by both the permitted and proposed developments,
- Traffic & Transportation impact,
- Pedestrian permeability & modal promotion,
- Capacity and Safety of the proposed vehicular access junction,
- Capacity of the Existing Road Network,
- Adequacy and safety of the existing roads and junctions locally, within the area of influence.
- Impact upon the adjacent affected junctions locally, and
- Alternative Transport accessibility being within the centre of Rathcoole.

1.4 The NRB commission includes an independent Stage 1-2 Road Safety/Quality Audit together with the associated Designer Feedback form. All issues raised are addressed in the proposed layout and this Report is included herein as **Appendix F**

1.5 The Recommendations contained within this Transportation Assessment are based on the following sources of information and industry-standard practices; -

- TII Traffic & Transport Assessment Guidelines,
- Design Manual for Urban Roads and Streets,
- 2023 Traffic Survey Data collected,
- TRICS Database (being the recommended method referenced within the TII Guidelines),
- Relevant Roads Design Guidance, and,
- Our experience in assessing the impact of Developments of this Nature.

1.6 The Report has been prepared in accordance with the requirements of the TII's Traffic & Transport Assessment Guidelines. These are the professional Guidelines used to assess the impact of developments on public roads.

2.0 DEVELOPMENT PROPOSALS & EXISTING CONDITIONS

2.1 The proposal consists of the development of the town centre site to provide;

- 2 No. Residential Houses (2 x 2-Bed 'Cottages'),
- 21 No, Residential Apartments (9 x 1-Bed, 6 x 2-Bed and 6 x 3-Bed),
- Associated car & Bicycle parking, and
- Associated ancillary roads/footpaths, refuse storage & landscaping.

2.2 An extracted image from the Architects Layout Plans, showing the development in the context of the site and Main Street is reproduced below as **Figure 2.1** with more detailed annotated plans of the site and the vehicular access, including TRACK drawings, within **Appendix A**.

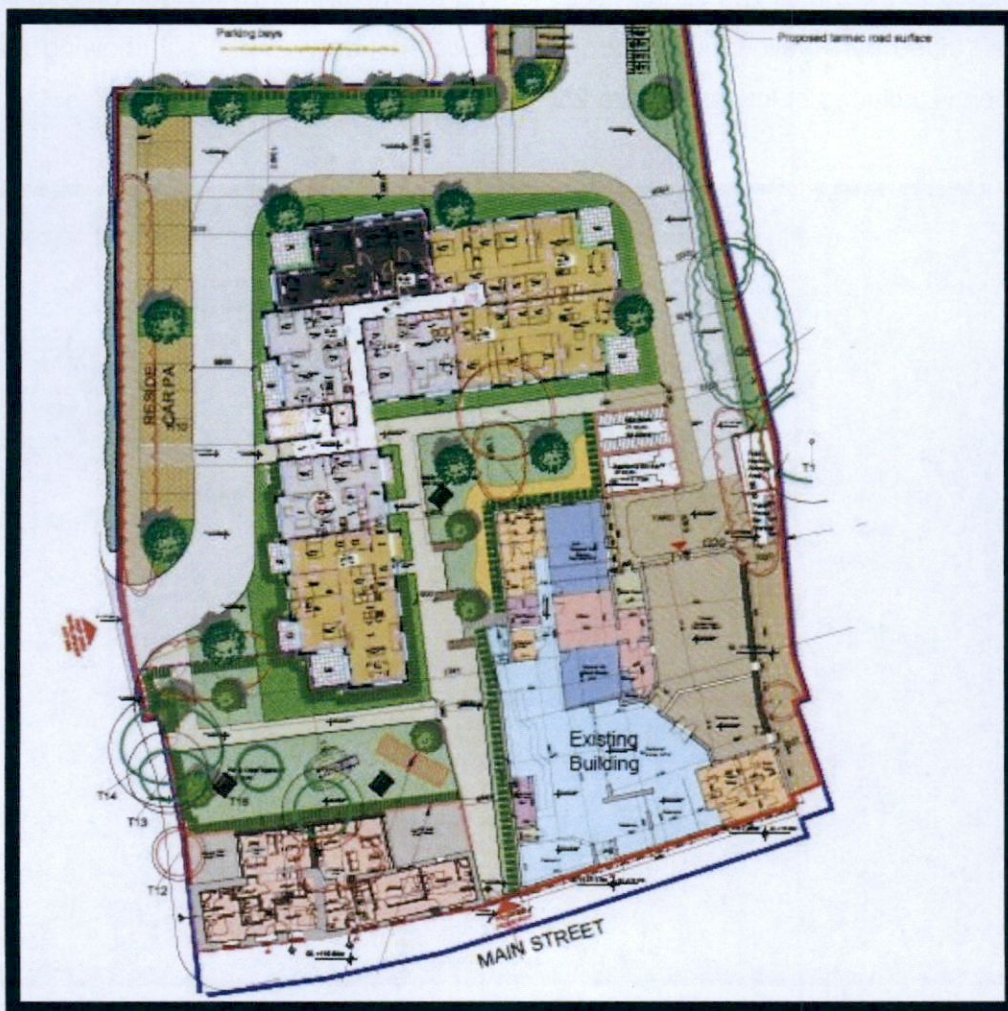


Figure 2.1 –Extract Architects Plans

2.3 The internal layout and arrangement has been designed to be generally consistent with both DMURS and best practice in terms of operational safety and design.

2.4 Details of the proposed layout and access are provided on the Architects drawings at **Appendix A**. It should be noted that the proposed development includes re-arrangement of the existing public house commercial elements and reorganising of the car park to provide for the proposed residential housing. Save for the proposed new residential elements, there are no new traffic-generating elements of the subject development.

Existing Conditions

2.5 The site is bound along the southern boundary by Muldowneys Public House and commercial premises fronting onto Main Street. It is bound to the north by undeveloped lands fronting onto the N7 Naas Road. Individual private residential houses are located along the eastern boundary and The Church of the Holy Family is located to the west. The site is accessed via a simple priority junction onto Main Street (aided by a yellow box control). A Google Streetview Extract showing the junction is included below as **Figure 2.2**



Figure 2.2 – Existing Main Street Access (View Looking East)

2.6 Rathcoole Main Street runs to the south of the site, and it is classified as a Local Road L2004. It consists of a single carriageway 2-way road provided with footpaths on both sides, and runs generally in an E-W orientation. It provides access to/from

the N7 at Junction #4 Rathcoole. Being an established residential/urban area, the L2004 is subject to a 50kph urban speed restriction.

- 2.7 Main Street carries a weekday AM Peak Hour 2-way flow of approximately 820 PCUs and a weekday PM Peak Hour 2-Way flow of approximately 975 PCUs, measured immediately east of the site access. In these terms, it can be considered as moderately trafficked in terms of its link carrying capacity.
- 2.8 To set the traffic flows in context, urban roads of this nature have a theoretical free flow link capacity of approximately 1,500 to 1,800 PCUs per-direction per-hour. In this regard, the L2004 can be considered to be moderately trafficked in comparison with the link carrying capacity. However, it is accepted that the capacity of any road is generally limited by the capacity of road junctions along its length, particularly in urban areas.
- 2.9 A site layout plan showing the development arrangement in relation to the existing site and roads is included herein as **Appendix A** along with further details of the development access/egress and internal layout.

Permitted/Committed School (SD21A/0231)

- 2.10 We have examined the application documents on the planning file. The proposed school will be access via the same roads infrastructure and junctions from Main Street. We have therefore included the traffic associated with the 16 classroom school as 'committed' for the purposes of this assessment, with the traffic generation, assessment and analysis undertaken from first principles.

Parking Allocation

- 2.11 Within the proposed car park, it is proposed that 17 No. car parking spaces will be allocated to the Residential elements (being a ratio of 0.74), with 15 No. dedicated to the Pub. This is considered an appropriate split in terms of the sustainable location of the Apartments and in terms of the Maximum Standards now applying to Pub/Restaurants and in particular to those located in town centre environments.

3.0 VEHICULAR TRIP GENERATION, ASSIGNMENT & DISTRIBUTION

3.1 The Trip Rate Information Computer System (TRICS) database is ordinarily used to ascertain vehicular trip generation associated with the use of any particular site. This represents industry standard practice for Transportation Assessments in Ireland and is specifically referenced and recommended for use in the TII Guidelines for Traffic & Transport Assessment. In this case the worst case assessment has been undertaken based on Primary Schools, Private Residential Apartments & Houses (using the licensed version of TRICS). The use of Trip Rates from TRICS in this fashion represents industry-standard practice.

3.2 A robust and onerous assessment has been undertaken of the impact in the network emanating from the site, given the small scale of the subject development proposals and the town centre sustainable location. We commissioned an independent Classified Interval Turning Movement Traffic Survey of the network in the vicinity of the site as set out in an image included below as **Figure 3.1**.

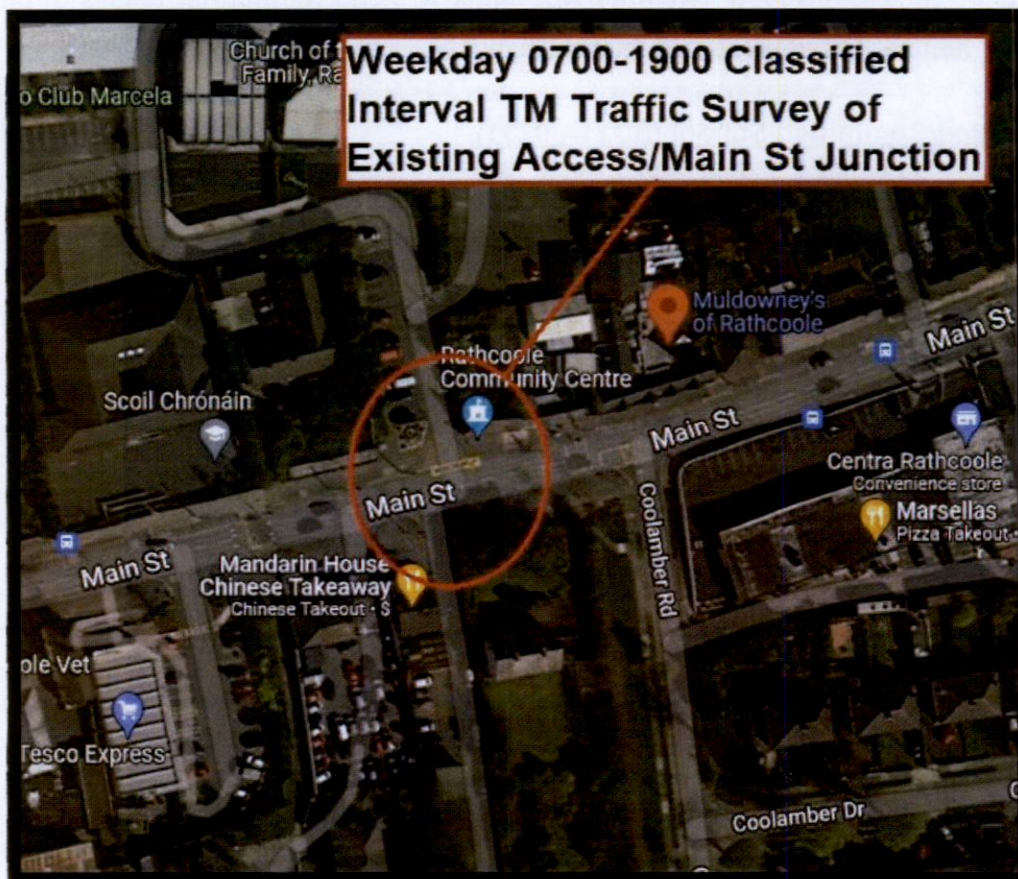


Figure 3.1 – Details of Traffic Data Collection/Surveys Commissioned

3.3 The quantification of traffic generated, and the associated network assessment is undertaken in accordance with the Guidelines in the context of the demonstrably low

levels of traffic generated by the proposed development, being a small infill Residential Development Scheme, conscious of a comparison of the traffic and pedestrian/cyclist volumes generated by the permitted school.

- 3.4 We have undertaken the Traffic Generation calculations using the appropriate categories from within TRICS. The resulting TRICS Trip Rates applied for the Permitted/Committed School and the Permitted Development in this case are as set out below as **Table 3.1** and **Table 3.2**.

Table 3.1; - TRICS Data Summary, School Development (1st Principles)

400 Pupil School Network Hour	Arrivals (PCUs)		Departures (PCUs)		Total 2-Way Vehicular Traffic Generated
	Pupil	Site	Pupil	Site	
Weekday AM Peak Hr 8-9	0.326	130	0.250	100	230
Weekday PM Peak Hr 5-6	0.016	6	0.031	12	19
24 Hours	0.822	329	0.826	330	659

Table 3.2; - TRICS Data Summary, Proposed Residential Development

21 Apts/Duplex Network Hour	Arrivals (PCUs)		Departures (PCUs)		Total 2-Way Vehicular Traffic Generated
	Per Unit	Site	Per Unit	Site	
Weekday AM Peak Hr 8-9	0.062	1	0.183	4	5
Weekday PM Peak Hr 5-6	0.170	4	0.088	2	6
24 Hours	1.105	25	1.172	27	52

Adding 2 x Trips EW to cover the 'Cottages' being small houses.

- 3.5 We have included herein as **Appendix C** the TRICS data output upon which the above assessment is based. The extremely low traffic generated by the subject development is noteworthy, when compared with the permitted school and the town centre sustainable location.

Assignment/Distribution - Future Year Traffic

- 3.6 We have used hand assignment techniques based on the observed movements, with the worst-case traffic assigned to the roads based on the observed established traffic patterns, for both the committed school and the proposed development, being the industry standard methodology.
- 3.7 The standard methodology applied was to firstly ascertain the base background traffic conditions for both the weekday AM and weekday PM Commuter Peak periods. To this end we commissioned and undertook the 2023 Traffic Survey of the network serving the site, in order to establish base background traffic conditions.
- 3.8 Details of the traffic surveys are included as **Appendix B** and are reproduced as commuter peak hour Network Flow Diagrams as **Appendix D**. We then used the TII PE-PAG-02017 Project Appraisal Guidelines for National Roads Unit 5.3 (Travel Demand Projections 2019, Table 6.2: Central Growth Rates: Annual Growth Factors

Co Dublin), to establish projected occupation/opening year 2026 and design year 2041 traffic conditions 15 years following opening on the local road network.

- 3.9 The worst case traffic based on the content of **Table 3.1** and **Table 3.2** above was then applied in order to establish Opening Year and Design Year Traffic Conditions with the committed school and proposed development in place and fully occupied and operational. This is all included in the calculations included herein as **Appendix D**.
- 3.10 It should be noted that we have selected an opening year of 2026 as being reasonable and appropriate. However, in our experience, varying the opening year and design year by 1-3 years, if required for whatever reason, would have no significant impact upon the conclusions of the study. In addition, given the favourable results reported in this study, if required to apply higher background traffic conditions for any reason we would not anticipate any changes whatsoever to the conclusions.
- 3.11 Traffic growth factors for future year assessments were calculated from data obtained in the TII PE-PAG-02017 Project Appraisal Guidelines for National Roads Unit 5.3 which provides the recommended method of predicting future year traffic growth on Roads. Calculations of the relevant growth factors are included in **Table 3.2** below (based on tabulated 'Central Growth' for County Dublin). It should be noted that any requirement to use different or higher growth factors will also have no implications whatsoever for the conclusions of the study.

Table 3.2 - Traffic Growth Rates, TII Travel Demand Projections Unit 5.3

Year	to Year	Table 6.2:
Surveyed	2026	1.055
2026	2039	1.150

- 3.12 The resulting Traffic Flow Projections and Figures within **Appendix D** allowed the assessment of impact of the development to be undertaken.

4.0 TRAFFIC IMPACT - THRESHOLD ASSESSMENT/TRAFFIC CAPACITY

- 4.1 The Institution of Highways and Transportation (IHT) Guidelines for Traffic Impact Assessment and the TII Traffic and Transport Assessment Guidelines sets out a strict mechanism for assessment of developments of this nature and determining whether further assessment is indeed required.
- 4.2 This TII Traffic and Transport Assessment Guidelines requires a **Threshold Assessment** of the impact on the local roads to be provided in order to determine whether additional detailed modelling and assessment of particular critical junctions is necessary. In this case we have included the effect of the permitted Primary School in accordance with the Guidelines.
- 4.3 The professional guidance referenced above sets out specific increases in traffic volume associated with new development, which, if breached, requires further more detailed analysis and assessment to be undertaken. The recommendation is that, if the expected increase is **5%** for networks that are considered heavily trafficked or congested, then further analysis is warranted. The threshold is set at 10% for lightly trafficked or uncongested networks. For robustness we have used the more onerous 5% threshold.
- 4.4 It is demonstrated herein that the proposed opening and occupation of the entire small residential development, with very low volumes of vehicular traffic added to the local road network, will not result in any significant or noticeable level of new trips on the local roads, with all anticipated traffic increases beyond and at the site access junction expected to be **well below** the Industry-Standard level of 5% above which further assessment is required.

Table 4.1; - Threshold Assessment, Worst-Case Impact - AM & PM Peak Hours

Assessed Road or Junction	Traffic Increase %		COMMENT
	AM Pk Hr	PM Pk Hr	
Overall Main St Access Junction	0.5%	0.5%	<5%; No Further Assessment Req'd
L2004 Main St West (2-Way Flow)	0.2%	0.2%	<5%; No Further Assessment Req'd
L2004 Main St East (2-Way Flow)	0.3%	0.3%	<5%; No Further Assessment Req'd

- 4.5 The Threshold assessment clearly confirms that, and and beyond the Main St site access junction, the worst case traffic increase are in all cases imperceptible AND significantly below the IHT and TII recommended level of 5% above which further assessment is warranted (5% being the lower threshold for congested networks).

- 4.6 To set these predicted increased levels of traffic in context, the day-to-day variation in traffic volume (due to day-of-week or weather conditions) is accepted as being 10%, so, in this context alone, increases of in all cases way less than 1% in Traffic on the local road links will go entirely unnoticed. This should be considered in the context of the permitted school which will generate several multiples of the traffic associated with the proposed residential development as demonstrated in Table 3.1 and Table 3.2 above.
- 4.7 It is clear that the introduction of the proposed development will have an absolutely negligible & unnoticeable impact upon vehicular traffic conditions locally. Notwithstanding the above we have undertaken detailed capacity modelling of the Main St site access, with the school and residential development in place, with the results summarised below.
- 4.8 We have used the TII-approved software package 'Junctions 9' PiCADY' (**P**riority **I**ntersection **C**apacity **A**nd **D**elay) software package (as part of the TRL Package 'Junction 9') to assess the capacity of the junction. PiCADY produces results based on a 'Ratio of Flow to capacity' (RFC) and queue length. An RFC greater than 1.00 indicates that a junction is operating at or above capacity, with 0.85 considered to be the optimum RFC value. We have appended the detailed computer simulation model results for the Main Street T Junction Access in **Appendix E**.

MAIN ST SITE ACCESS JUNCTION CAPACITY ANALYSIS

- 4.9 A summary of the results is included below as **Table 4.1**

Table 4.1 - PiCADY Summary Results, Established Main St Site Access Junction With Proposed Development AND Committed School in Place

<i>Modelled Scenario</i>	<i>Period Mean Max Q (PCUs)</i>	<i>Period Max RFC</i>
2026 Opening Year AM Peak Hr	0.9	0.49
2026 Opening Year PM Peak Hr	0.3	0.21
2041 Design Year AM Peak Hr	1.2	0.56
2041 Design Year PM Peak Hr	0.3	0.26

- 4.10 The results of the modelling clearly shows that the Main St T Junction will have significantly more than adequate capacity to accommodate the worst case traffic associated with the development. All of the RFCs are way below the theoretical optimum capacity of 0.85 and no queuing is anticipated. These results are unsurprising given the low traffic volumes generated. Given the low traffic volumes, the RFCs barely even register as measurable in the PiCADY model output underscoring the very significant reserve capacity that exists within the junction.

5.0 SPECIFIC COMMENTS -SDCC RFI ITEM #1

5.1 We include below the extract from the SDCC RFI as **Figure 5.1** for ease of reference

1. Traffic and Transport.
 The applicant is requested to submit a detailed Traffic and Transport Assessment (TTA) for the proposed development. The TTA should address
 a) any traffic and parking issues in respect to school drop-off/collection and masses and funerals at the church. The TTA should assume the delivery of the permitted school (SD21A/0231).
 b) the location and details of car parking for patrons of Muldowneys Pub (which should not be the same parking to be used for occupants or the proposed apartments)

Figure 5.1 – SDCC RFI Item #1

Traffic & Transport Assessment

5.2 This report constitutes a comprehensive assessment of the very low traffic impact of the proposed residential development.

School Drop-off/Collection and Church Activities

5.3 Dedicated Clauses can and will be contained within Sales or Letting Agreements for all Residential Apartments/units, which specifically address Car Parking. In the event where a parking space is an entitlement as part of a Sale or Letting Agreement, this will be clearly enunciated by way of a dedicated clause, with the specific space or spaces referenced in Agreements, with mapping provided & referenced therein to identify the relevant space. Accordingly, unless they are dedicated to individual Residential Apartments, on-site parking will otherwise remain in the control of the Management Company and the Public House.

5.4 A car parking management regime will be implemented by the Management Company to control and manage access to the car parking bays, thereby actively managing the availability of on-site car parking ensuring that it is privately controlled and operated, to include signage and duration of stay controls.

5.5 In terms of **schools set-down and pick-up** and **short to medium stay parking or waiting at the Church**, the proposed car park will remain fully in private control and ownership and it will be the responsibility of the management to implement reasonable policies and reasonable procedures consistent with all such similar private car parks in urban areas.

5.6 An annotated extract from the Architects Layout Plans is included below as **Figure 5.2** for reference.

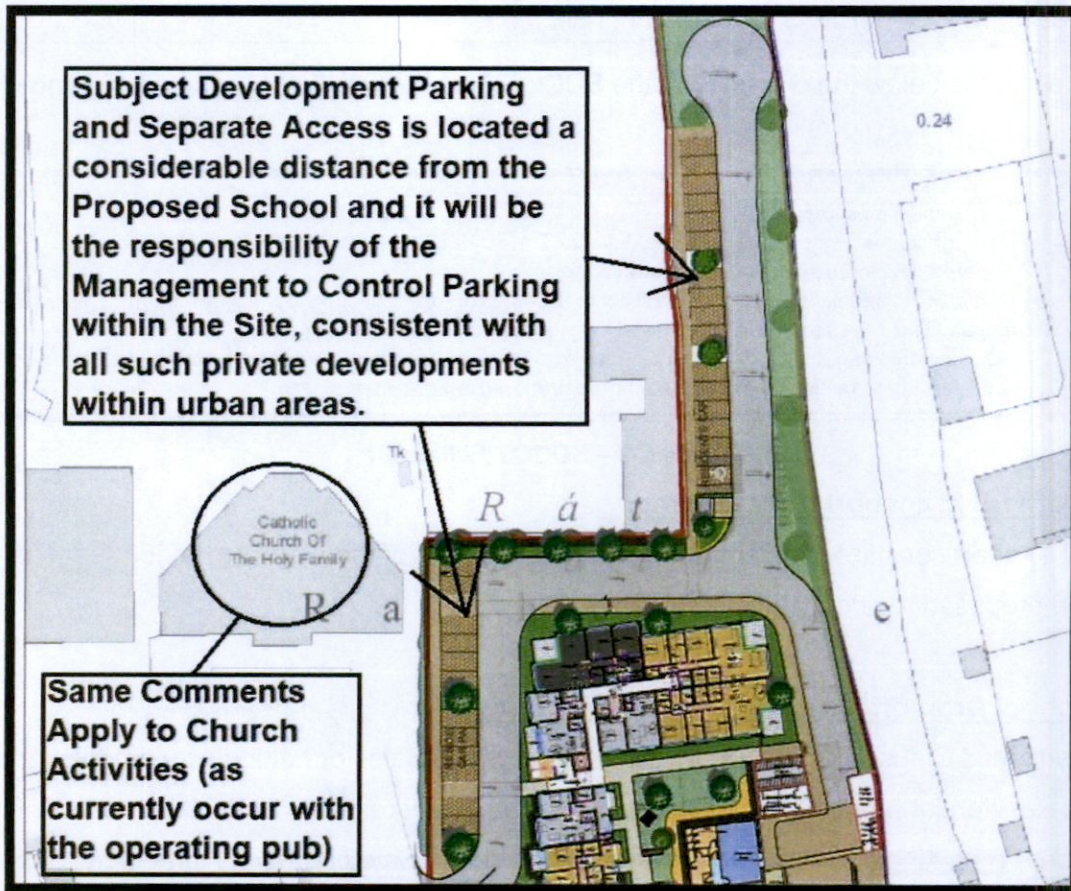


Figure 5.2 – Annotated Extract Architects Plans

- 5.7 As stated above, all residents will be advised that unless it is otherwise stated in the Lease or Sales Agreement, there will be no car parking available on the site. In the event that a parking space is part of a Legal Agreement, the apartment resident will have a parking permit for the particular dedicated space to display in the vehicle window (in their dedicated allocated assigned space).
- 5.8 The Management Company will have a limited supply of Visitor Car Parking Permits for the site. The Management Company will be responsible for the day-to-day management of all car parking operations. Other than the dedicated spaces for residents, visitors or pub users who request a short term permit will be allocated on a 'first-come first-served' basis. It is intended that a charge (or a receipt for proof of purchase in the pub) will be applied to obtain a visitor permit with the objective of discouraging unrelated usage of the parking spaces, thereby also encouraging more sustainable modes of travel.
- 5.9 In terms of the above, residents parking will be clearly defined and signed as such, with pub/visitor spaces also clearly assigned and defined

6.0 CONCLUSIONS

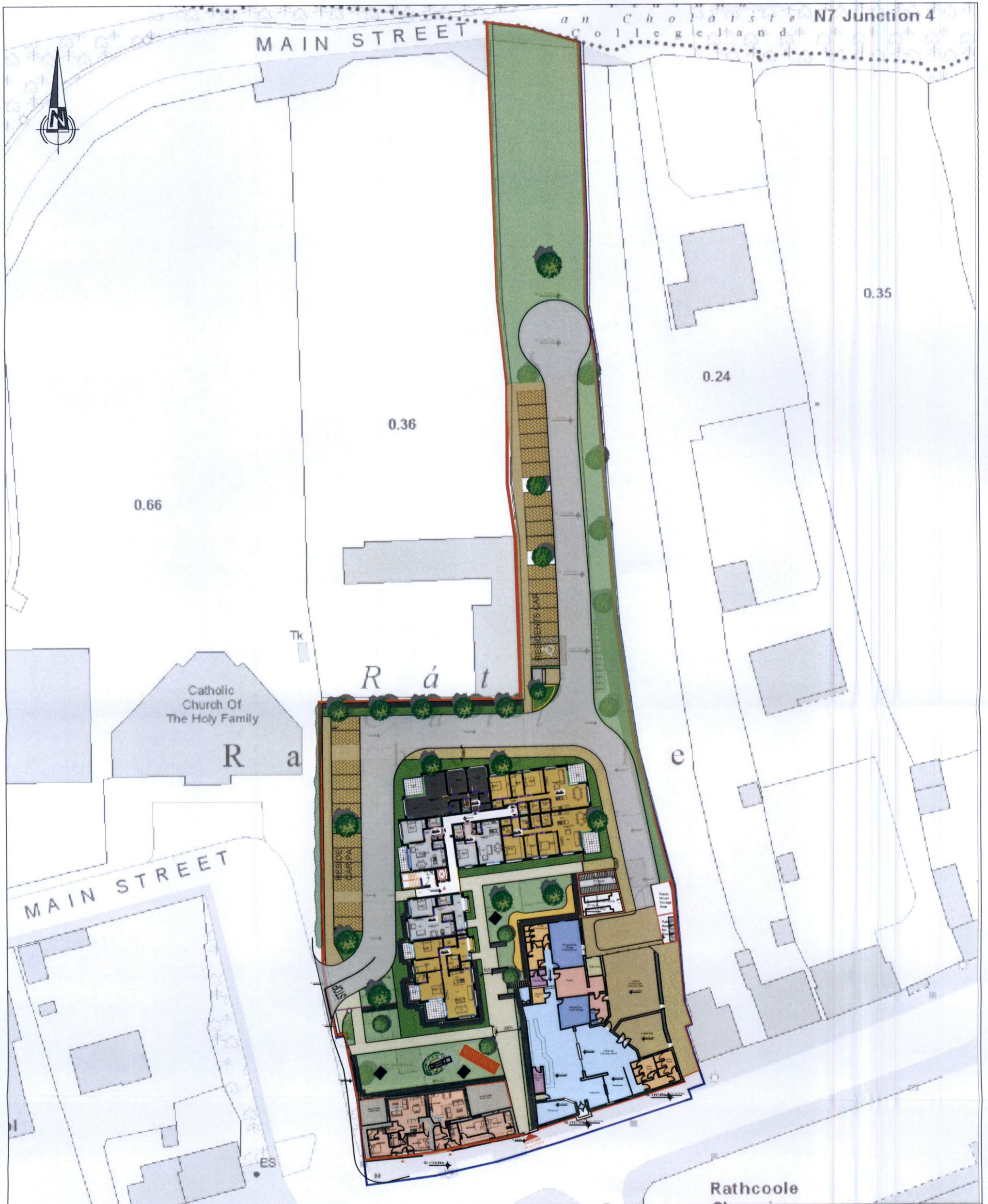
- 6.1 This Transportation Assessment Report assesses the traffic and transportation impact associated with a planning application for a small residential development to the rear of Muldowneys Public House, Main Street, Rathcoole Co Dublin. The proposed residential development consists of a total of 21 No residential Apartments and 2 No small houses ('cottages') on the zoned site.
- 6.2 This Report has been prepared in accordance with the TII Traffic & Transport Assessment Guidelines and is based on industry-standard Trip Generation Rates established using the most up to date version of the TRICS Database. The TA Report includes the effect of the traffic associated with the permitted school (SD21A/0231), and addresses the issues raised in the SDCC Request for Further Information Item #1 (addressed in Section 5 above).
- 6.3 The impact of the development traffic on the local roads has been modelled and assessed, based on a comprehensive traffic survey undertaken in January 2023. Appropriate industry standard TII traffic growth factors have been applied to establish selected opening year and design year traffic conditions.
- 6.4 This report demonstrates that the proposed Development will have an absolutely negligible impact upon the established local traffic conditions and can easily be accommodated on the road network without any capacity concerns arising. The impact of the subject scheme should be considered in the context of the permitted school, which will generate several multiples of the traffic associated with the proposed residential development as demonstrated herein.
- 6.5 The assessment confirms that the established existing Main Street access junction is of more than adequate capacity to accommodate the worst-case traffic associated with the proposed development during the selected year of opening and the design year 15 years following opening.
- 6.6 The NRB commission includes an independent Stage 1-2 Road Safety/Quality Audit (incl Designer Feedback Form) and this is included herein as **Appendix F**.
- 6.7 It is considered that there are no significant Operational Traffic Safety or Road Capacity issues that prevent a positive determination of the application by South Dublin County Council.

APPENDICES - CONTENT

A	Proposed Development – Layout & Access Arrangement
B	2023 Raw Traffic Survey Data Collected
C	TRICS Trip Generation Output (<i>Residential Housing & Apartments</i>)
D	Traffic Surveys, Trip Distribution & Network Traffic Flow Diagrams
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APPENDIX A

**Proposed Development
Layout & Access**

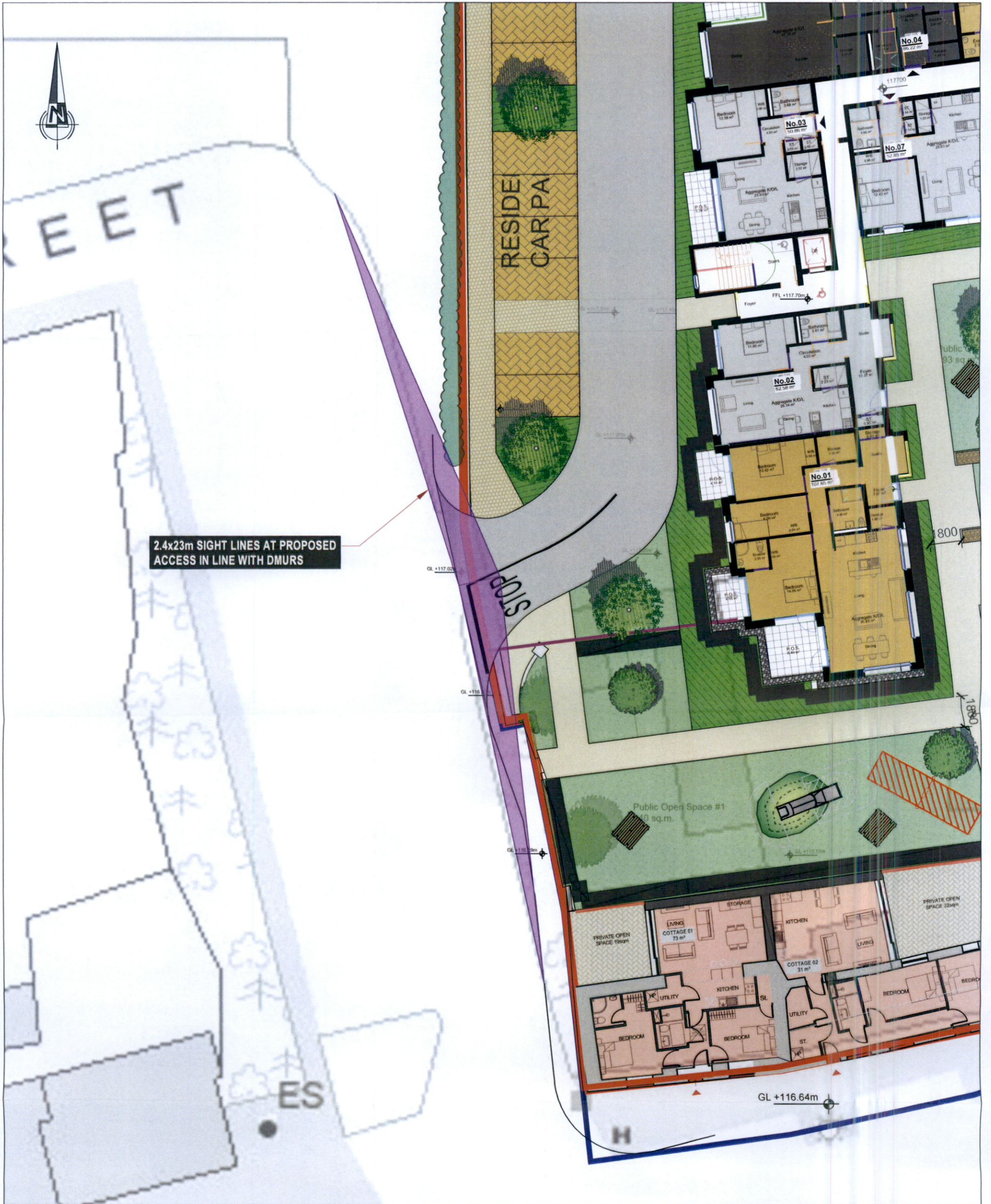


NRB Consulting Engineers Ltd recommend that Road and land ownership boundaries are verified through Legal & Land searches by the Client. This drawing is based upon Architects drawing MOD-436-003-AI-Landscape Layout, received 17/02/23. NRB Consulting Engineers Ltd shall not be liable for any inaccuracies or deficiencies.

REV	DATE	AMENDMENTS	DRAWN	CHK	APP
NRB Consulting Engineers Ltd 1st Floor, Apollo Building Dundrum Road Dundrum Dublin 14 Phone/Fax: +353 1 292 1941 Email: info@nrb.ie Web: www.nrb.ie Registered in Ireland No. 491679					



Client	Project No. 23-002		Drawing No. NRB-TA-001	
Project	Muldownys Rathcoole		Drawn PB	Checked ER 01/03/23
Title	Proposed Site Layout		Date 1-Mar-23	Scale @ A3 n.t.s.
NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.			Approved ER 01/03/23 Rev -	
			Purpose of Issue <input type="checkbox"/> Draft <input type="checkbox"/> As Built <input type="checkbox"/> Information <input type="checkbox"/> Tender <input type="checkbox"/> Approval <input type="checkbox"/> Construction	




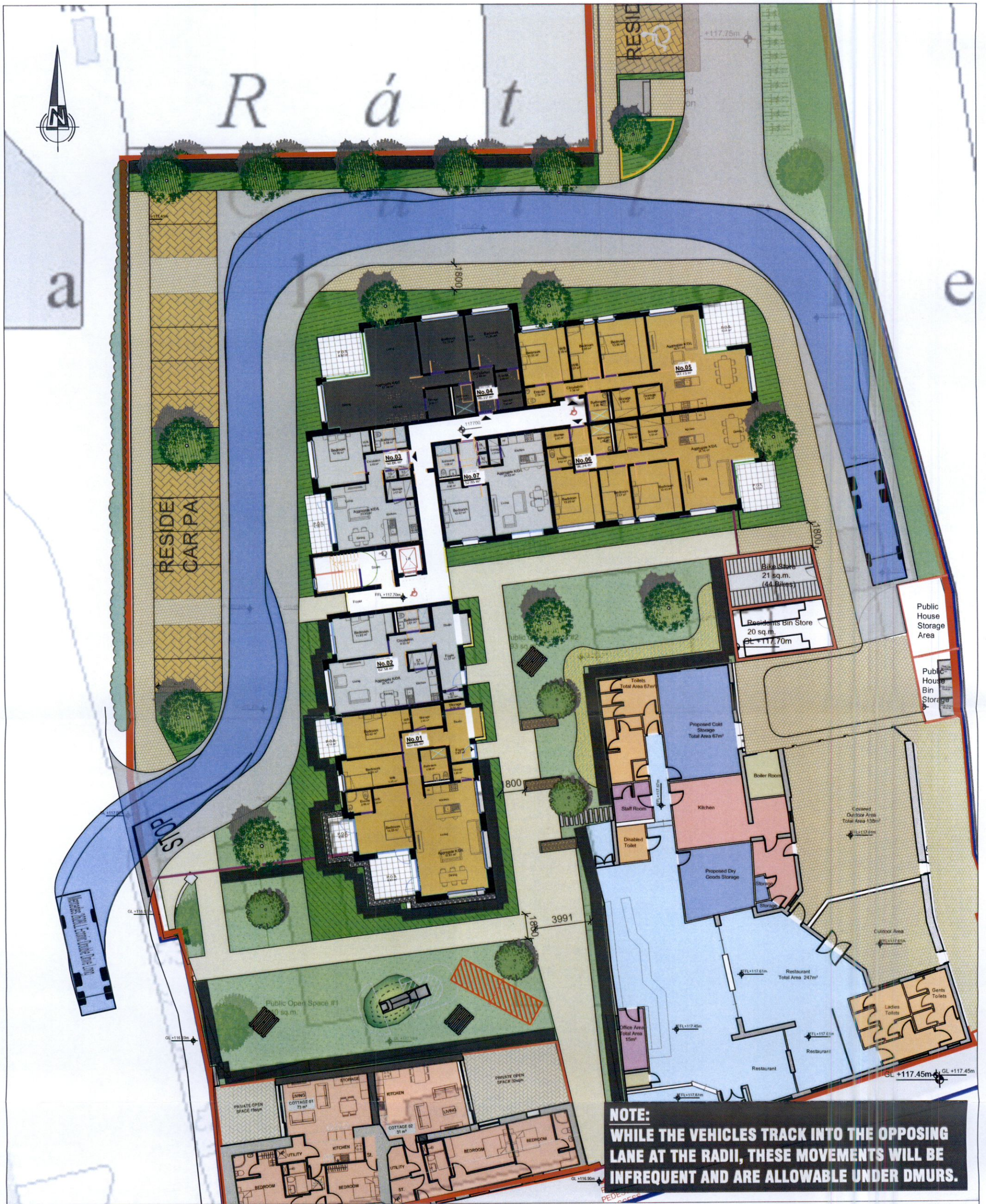
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						Project		Drawn		Checked	
						Muldowneys Rathcoole		PB		ER	
						Title		Date		Scale @ A3	
						Proposed Site Access Sight Lines		1-Mar-23		1:200	
NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.						Purpose of Issue		Scale @ A3		Rev	
						<input type="checkbox"/> Draft <input type="checkbox"/> As Built		<input type="checkbox"/> Information <input type="checkbox"/> Tender		<input type="checkbox"/> Approval <input type="checkbox"/> Construction	



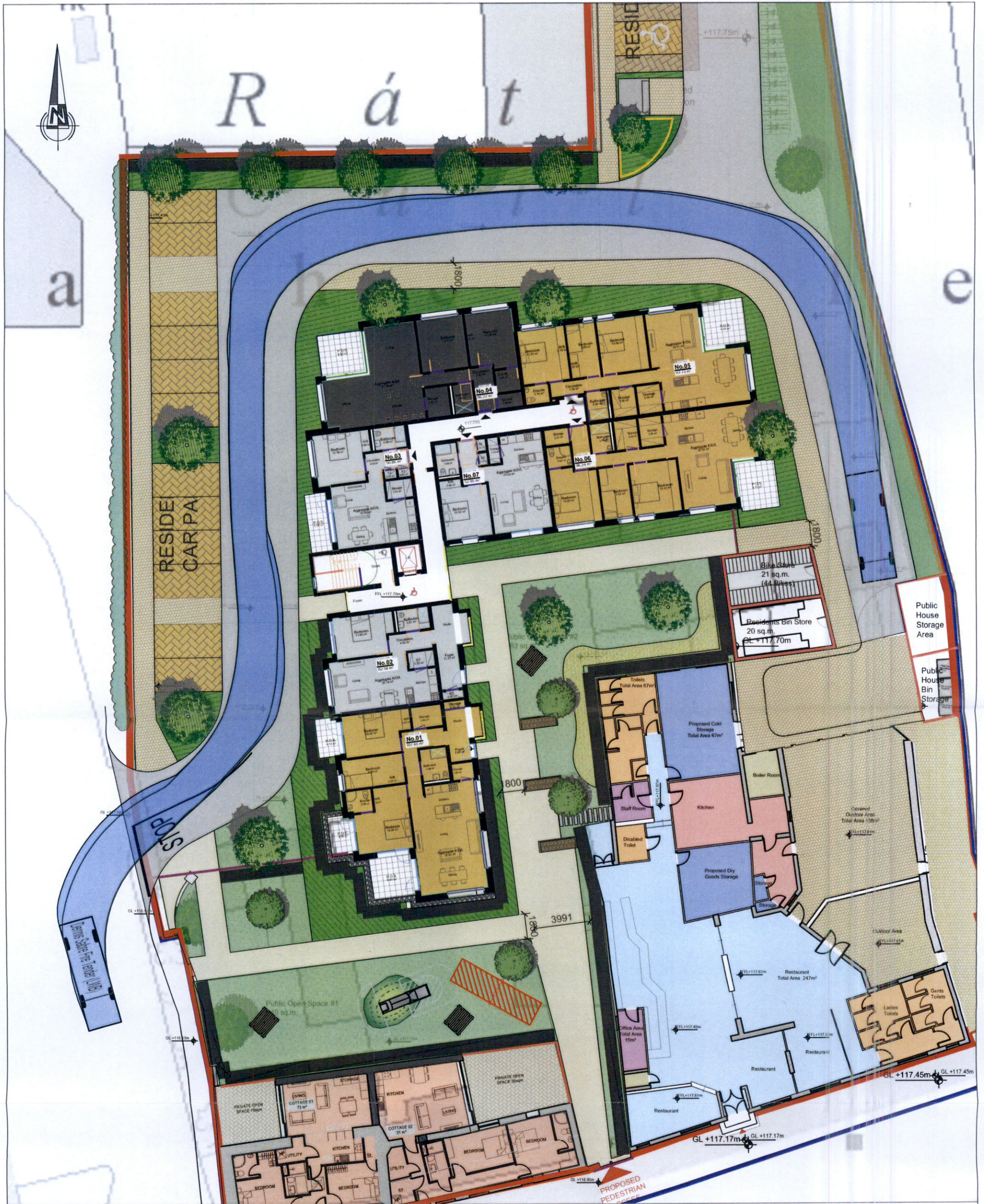
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						Project		23-002		NRB-TA-004	
Muldowneys Rathcoole						Drawn		Checked		Approved	
AutoTRACK of a Large Refuse Vehicle Exiting the Proposed Development						PB		ER		ER	
						Date		01/03/23		01/03/23	
						1-Mar-23		Scale @ A3		Rev	
						1:250				-	
NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.						Purpose of Issue		<input type="checkbox"/> Draft <input type="checkbox"/> As Built		<input type="checkbox"/> Information <input type="checkbox"/> Tender <input type="checkbox"/> Approval <input type="checkbox"/> Construction	



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NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.						Purpose of Issue		<input type="checkbox"/> Draft <input type="checkbox"/> As Built		<input type="checkbox"/> Information <input type="checkbox"/> Tender <input type="checkbox"/> Approval <input type="checkbox"/> Construction	



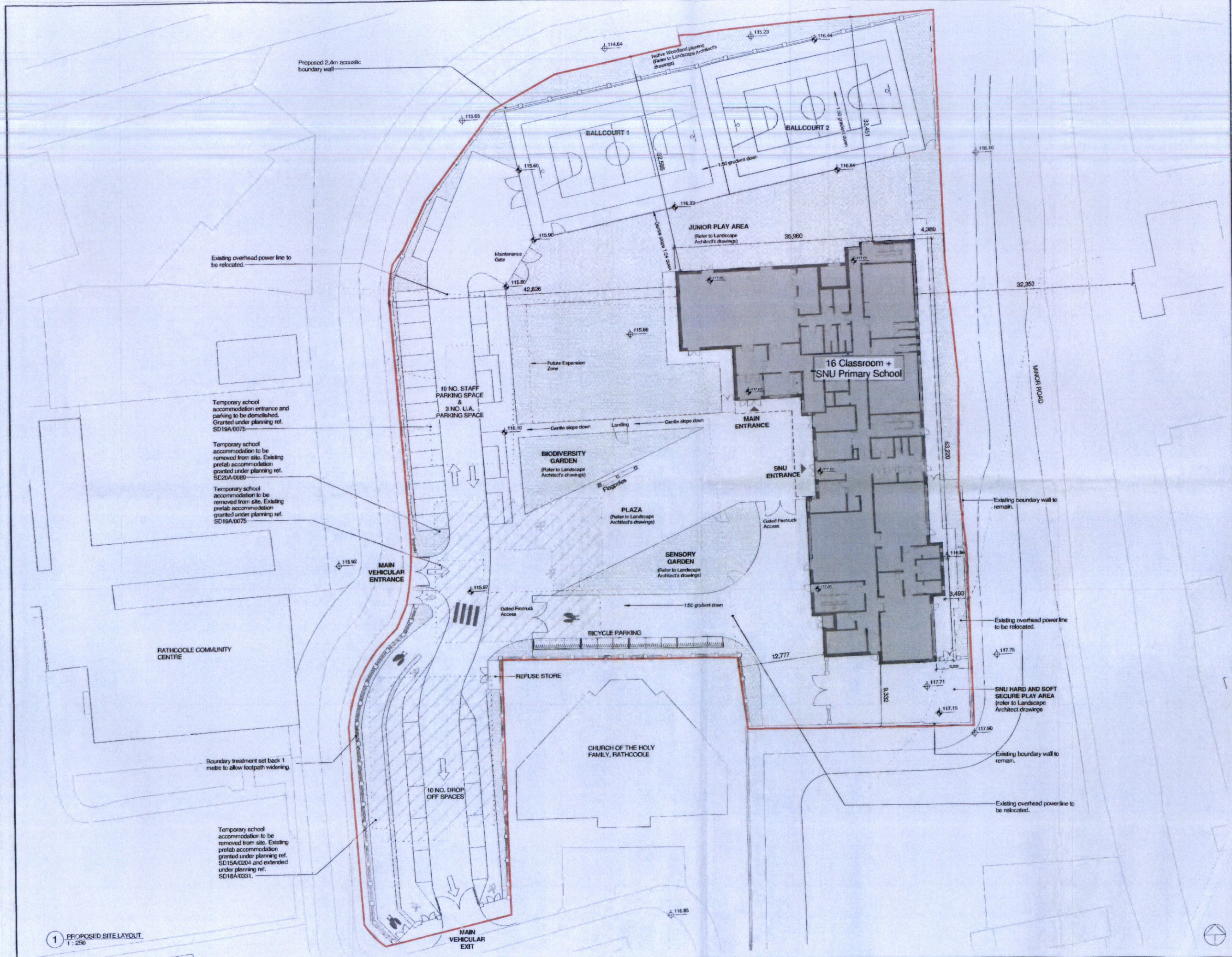
NRB Consulting Engineers Ltd recommend that Road and land ownership boundaries are verified through Legal & Land searches by the Client. This drawing is based upon Architects drawing MOD-436-003-AI-Landscape Layout, received 17/02/23. NRB Consulting Engineers Ltd shall not be liable for any inaccuracies or deficiencies.

REV	DATE	AMENDMENTS	DRAWN	CHK	APP
<p>NRB Consulting Engineers Ltd 1st Floor, Apollo Building Dundrum Road Dundrum Dublin 14</p> <p>Phone/Fax: +353 1 292 1941 Email: info@nrb.ie Web: www.nrb.ie Registered in Ireland No. 491679</p>					



Client	Project No. 23-002		Drawing No. NRB-TA-005	
Project	Muldownys Rathcoole		Drawn PB	Checked ER 01/03/23
Title	AutoTRACK of a Long Wheelbase Fire Tender Entering the Proposed Development		Date 1-Mar-23	Scale @ A3 1:250
<p>NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.</p>				

Approved ER 01/03/23	Rev -
Purpose of Issue: <input type="checkbox"/> Draft <input type="checkbox"/> As Built <input type="checkbox"/> Information <input type="checkbox"/> Tender <input type="checkbox"/> Approval <input type="checkbox"/> Construction	



1 PROPOSED SITE LAYOUT
1:250

Notes:

- Do not scale from this drawing. Use figured dimensions in all cases.
- Verify dimensions on site and report any discrepancies to the Architect immediately.
- This drawing is to be read in conjunction with the Architect's Specification.
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Drawing Notes:

Refer to Civil Engineer Drawings for Road Levels
Refer to Landscape Architect Drawings for detailed hard and soft landscaping

Gross Internal Floor Area	
Name	Area
L00 - Ground Floor GIFA	1,280.7 m ²
L01 - First Floor GIFA	968.6 m ²
L02 - Second Floor GIFA	834.5 m ²
	3,184.0 m ²

Gross Area GIA	
Name	Area
L00 - Ground Floor GIA	1,364.8 m ²
L01 - First Floor GIA	1,041.9 m ²
L02 - Second Floor GIA	1,010.7 m ²
	3,417.4 m ²

Site Legend

- Site Boundary
- Existing Level
- Proposed New Level
- Existing temporary accommodation to be removed

Site Area Calculations

- Site Area = 8590 sqm
- Building Footprint = 1403 sqm
- Gross Floor Area (GFA) = 3437 sqm
- Floor Ratio (GFA / Site Area) = 40%
- Site Coverage = 16%

Car Parking / Mobility

- 29 standard spaces
- 3 accessible spaces
- 32 Total parking spaces
- 252 bicycle parking spaces

Proj. No.	Date	By	Issued For
PROJ. 1	16/06/2021	EA	Issued for Planning
PROJ. 2	09/08/2021	EA	Issued for Design Team
PROJ. 3	24/06/2021	EA	Design Planning

Revision Number	Date	Drawn	Details of Issue / Revision
			Notes & Remarks

reddy architecture + urbanism

W: www.reddyarchitecture.com
E: info@reddyarchitecture.com

Client Details:
Department of Education

Project Details:
Scoll Chronian, Rathcoole Primary School
Roll No. 19503H

Drawing Title:
PROPOSED SITE LAYOUT

Job No.	Sheet Size	Scale
P19-073K	A1	1:250


Issue Date	Drawn By	Reviewed By
24/06/2021	L. Kaural	EP

Status: S4
Purpose of Issue: PLANNING

Project/Original/Zone-Level/Type-File-Client/Revision-Number: P19-073K-RAU-26-XX-DR-A-31000
Revision: P03.3



NRB Consulting Engineers Ltd recommend that Road and land ownership boundaries are verified through Legal & Land searches by the Client. This drawing is based upon Architects drawing MOD-436-003-AI-Landscape Layout, received 17/02/23. NRB Consulting Engineers Ltd shall not be liable for any inaccuracies or deficiencies.

REV	DATE	AMENDMENTS	DRAWN	CHK	APP	Client		Project No.	Drawing No.	
						NRB Consulting Engineers Ltd 1st Floor, Apollo Building Dundrum Road Dundrum Dublin 14		23-002	NRB-TA-006	
								Drawn PB	Checked ER 01/03/23	Approved ER 01/03/23
						Project Muldownys Rathcoole		Date 1-Mar-23	Scale @ A3 1:250	Rev -
						Title AutoTRACK of a Long Wheelbase Fire Tender Exiting the Proposed Development		Purpose of Issue <input type="checkbox"/> Draft <input type="checkbox"/> Information <input type="checkbox"/> Approval <input type="checkbox"/> As Built <input type="checkbox"/> Tender <input type="checkbox"/> Construction		
						<small>NRB Consulting Engineers Ltd accept no responsibility for any unauthorised amendments to this drawing. Only figured dimensions to be worked to.</small>				

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