

## **12 MATERIAL ASSETS**

### **12.1 Traffic and Transport**

#### **12.1.1 Introduction**

##### **12.1.1.1 Purpose of Section**

The purpose of this Traffic and Transport EIAR Section is to assess the traffic impact of the proposed Housing Development on the surrounding road network at Moneyduff, County Galway.

This section is written as a concise summary of the Traffic and Transport Statement, included as Appendix 12-1 of this EIAR. Rather than repeat the detailed traffic assessments carried out within this Traffic and Transport Statement, it is referred to throughout this chapter, with the impact assessment findings discussed below.

##### **12.1.1.2 Statement of Authority**

This EIAR Section was written by Richard Daly of Tobin Consulting Engineers, who also authored the Traffic and Transport Statement for the project. TOBIN Consulting Engineers are in operation for over 60 years and has carried out numerous Traffic and Transportation Assessments (TTA's) for various residential, commercial, business, retail and leisure developments. TOBIN has also drafted various Traffic Chapters for EIAR's. The drafting of TTAs and Traffic Chapters involve the followings tasks:

- Liaising with local authorities, TII, clients and other key stakeholders,
- Analysis of the suitability of haul routes,
- Design and analysis of access points to all types of developments,
- Access and site layout arrangements using AutoTRACK, swept path analysis software,
- Junction analysis on uncontrolled, signalised and roundabout junctions

#### **12.1.2 Receiving Environment**

##### **12.1.2.1 Location and network summary**

The proposed site is situated on the outskirts of Oranmore town, county Galway west of the N67 National Road. The site is approximately 590m from the centre of Oranmore town as shown in Figure 2.1 of this EIAR.

As you travel away from the site, the traffic generated as a result of the new development, becomes more dispersed and the impact more diluted. The N67 will be the main point of access for the proposed development. As a result, this has formed the main area where the study is concentrated on to determine what future impact the development will have on the roads networks. The N67 is a good quality National road and up until, September 2017 was the main access route between Galway City and Limerick City.

The N67 is a good quality regional road typically with a speed limit of 100 kph and a varying road width, with a minimum of approximately 6 metres.

### 12.1.3 Scoping

An Initial scoping meeting was held with Galway County Council on 20<sup>th</sup> January 2018. During the meeting it was advised that the road infrastructure proposed under GCC Pl Ref 09/1925 (and extended under 15/1334) was designed to facilitate access to the development proposed under 09/1925, and to operate as a link road to serve traffic from the N67 National route to the Maree road (and future development). As a result, it was recommended that a Traffic and Transportation Assessment and Work Place Travel Plan Report would not be required. In Lieu of Traffic and Transportation Assessment and a Workplace Travel plan, traffic and transport statement and a mobility Management Statement have been provided respectively as part of the planning application documents.

### 12.1.4 Road Safety Audit

A road safety audit has been carried out by RSM independently from the design team on the proposed development. Several iterations of the site layout have been carried out by the design team on the back of continued liaison and outcomes of the road safety audit. As a result, the final site layout provides a roads network throughout the development which incorporates measures (such as curved alignments, surface materials to differentiate pedestrian and vehicle routes etc.) that ultimately provide a high level of safety for both the pedestrian and the driver without comprising the overall quality of the development.

Please refer to the RSM Road Safety Audit (Appendix 12-2) for further details.

### 12.1.5 Proposed Development

#### 12.1.5.1 Trip generation of Proposed Development

TOBIN Consulting Engineers have procured Trip Rate Information Computer System (TRICS) data for similar sized residential developments in order to inform the trip rate associated with such a development. Details of the TRICS data utilised are included in Appendix A of the Traffic and Transport Statement, which is itself included as Appendix 12-1 of this EIAR.

Table 12.2 below shows details the applicable Trip Rate, and the associated generated traffic for the AM and PM peak hours.

**Table 12.1 Traffic Generation**

TRAFFIC GENERATION							
AM Peak (08:00 – 09:00)				PM Peak (17:00 – 18:00)			
Arrivals Trip Rate Per Dwelling in AM Peak	Total No. Arrivals in AM Peak	Departures Trip Rate Per Dwelling in AM Peak	Total No. Departures in AM Peak	Arrivals Trip Rate Per Dwelling in PM Peak	Total No. Arrivals in PM Peak	Departures Trip Rate Per Dwelling in PM Peak	Total No. Departures in PM Peak
0.145	28	0.413	80	0.437	84	0.242	47

The above table demonstrates that a total of 108 trip movements in the AM peak and a total of 131 trip movements in the PM peak are expected to result from the proposed development.

## 12.1.6 Existing Traffic Flows and Traffic Impact of Proposed Development

### 12.1.6.1 Existing traffic flows on the local network and the traffic impact of the proposed Development

The strategic traffic counter (ref TMU N18 020.0 N) located on the N67 (formally N18) between Kilcolgan and Clarinbridge, Co. Galway has previously shown AADT's of 19,450 for the year 2016. Since the new road M18 motorway opened in the September 2017, AADT's for the N18 has reduced by some 46% to 10,583 for 2018.

Comparison data has been taken for the full calendar years of 2016 and 2018 which enables an accurate analysis to be carried out over the course of the year without the M18 Motorway (2016) and with the M18 Motorway (2018). Data for the year 2017 has not been included in the above calculation as the M18 Motorway opened in September 2017 thus not providing an accurate insight into the benefit of the Motorway for a full calendar year.

It should be noted that the access to the adjacent development as permitted under 09/1925 and 15/1334 were granted under the conditions of the N67 at the time and prior to the opening of the M18 motorway. Therefore, due to the substantial reduction of traffic on the N67, the additional volumes of traffic proposed for the N67 generated from the proposed development will have a minimal effect on the traffic volumes and can be considered well within the norms for urban developments.

## 12.1.7 Likely and Significant Effects and Associated Mitigation Measures

### 12.1.7.1 Construction Phase

Construction traffic travelling to the proposed development site in Moneyduff, Oranmore Co. Galway will use the existing entrance located off the existing Rocklands Roundabout on the N67. The permitted link road under planning ref 15/1334 shall connect to this roundabout allowing access to the proposed development (Plate 12.1).



Plate 12.1 Existing roundabout and entrance on N67

The link road from the roundabout will serve the site for construction access to the future phases therefore avoiding the need to access the future phases through the permitted adjacent development. The north / south link road of the adjacent permitted development will be constructed up to the existing estate roads but not actually opened for public use until the future phases are progressed as included with the pre-development submission to the planning office dated 25<sup>th</sup> May 2018 following interactions with the Galway County Council Roads Department. This approach will greatly assist the health and safety of the construction site during the various construction phases.

The increase in traffic volumes as a result of construction vehicles visiting the site is not considered to be excessive and will be spread out over the duration of the construction phase of the development. Due to the designated access point off the existing Rocklands roundabout, allowing delivery vehicles to pull off the site, there will be no significant disruption on the traffic flows on the N67 as a result of the construction of the development. It is recommended that all deliveries are provided with instructions/directions on accessing the site from the N67 roundabout. Overall there will be a short-term imperceptible negative impact to local traffic during the construction phase.

#### **12.1.7.2 Operational Phase**

Access to the proposed development is to be facilitated via the road infrastructure proposed as part of an adjoining committed development, as already permitted. Link roads will also connect to Oranhill and Coill Clocha providing additional routes to the surrounding network. TRICS data for similar sized residential developments were obtained in order to inform the trip rate associated with such a development. It is anticipated that 108 trip movements are expected during the AM peak period and 131 movements during the PM peak period. Details of the TRICS data utilised are included in Appendix A of the Traffic and Transport Statement, which is itself included as Appendix 12-1 of this EIAR. Overall there will be a long-term imperceptible negative impact to local traffic.

#### **12.1.7.3 Cumulative Assessment**

The projects referred to in Section 2.5.2 of this EIAR have been included in this cumulative impact assessment. Based on these projects, some potential cumulative impacts are discussed below.

The road infrastructure proposed under GCC PR 09/1925 (and extended under 15/1334) was designed to facilitate access to the development proposed under 09/1925, and to operate as a link road to serve traffic from the N67 National Route to the Maree Road (and future Development).

Additionally, the access to the adjacent proposed development as permitted under 09/1925 and 15/1334 were granted under the conditions of the N67 at the time and prior to the opening of the M18 motorway. Therefore, due to the substantial reduction of traffic on the N67, the additional volumes of traffic proposed for the N67 generated from the proposed development will have a minimal effect on the traffic volumes. This will result in a long term imperceptible negative cumulative impact on local traffic.

#### **12.1.7.4 Mitigation Measures**

##### ***12.1.7.4.1 Mitigation measures during the construction phase***

As population grows throughout Ireland and in particular, in popular commuting hub towns like Oranmore, a continued increase in traffic volumes is not sustainable. As a result, an ever-increasing approach by designers and planners to providing sustainable commuting alternatives is required. The use of public transport and promotion of walking and cycling will ultimately increase the overall quality of life for the people living in these fast paced, busy towns and villages located within commuter belts.

The proposed development has integrated a number of measures in line with the relevant standards and guidelines, such as DMURS 2013 and the National cycle Manual, which promotes the use of sustainable travel to and from the site. The Road safety audit carried out for the site allowed the design team to address any concerns initially flagged in the road safety audit. A continued and collaborative approach with the road safety auditors meant that a desirable and safe site layout could be achieved without negatively impacting the overall quality of the development.

The use of the private car will still be maintained as a primary mode of transport for a number of the residents in the development. Trip generations to and from the proposed development are 108 in the morning peak and 131 in the evening peak as noted above. The internal roads on the development and the permitted link roads to be constructed adjoining the N67 and the development have been suitably designed in accordance with the DMURS manual. Progressive and regular liaising with Galway County Council Roads Department in relation to the internal roads and the permitted link roads layouts contributed to the final road design for the development.

The proposed development is suitably located close to a number of amenities located in the town of Oranmore including, schools, shops, sports facilities etc. The majority of these amenities are within a 10 min walk if the proposed development. The area of Oranmore also offers an excellent variety of public transport options with the nearest bus stop a 10 minute walk away and has connections to Galway city. Additionally, the Oranmore rail station is approximately a 7 minute drive or a 33 minute walk from the proposed Development. The rail line is an attractive option for commuters to Galway City due to its strict departing schedule and the extremely low risk of delays when compared with road users who often suffer delays due traffic congestion.

It should be noted that due to the significant reduction in traffic volumes on the N67 since September 2017, as a result of the opening of the new M18 motorway, any increase in volumes on the N67 as a result of the proposed development will not have a significant impact.

##### ***12.1.7.4.2 Mitigation measures during the operational phase***

Mitigation measures proposed during the operational stage are as follows;

- Provision of “STOP” road markings at the access junctions in accordance with Figure 7.35 of the Traffic Signs Manual (NRA, 2010).
- Suitable Lighting of all junctions with lighting columns being positioned at the back of the footways.
- It is proposed to provide advanced warning signs on the link road as it approaches the roundabouts. The signage will be in accordance with Chapter 6 of the Traffic Signs Manual (TSM) and will comprise of W043 ‘Roundabout’

warning sign for road users travelling in the eastern and western direction towards the Rocklands roundabout and roundabout at the entrance to the development.

#### **12.1.7.5 Residual Impact**

The strategic traffic counter (ref TMU N18 020.0 N) located on the N67 (formally N18) between Kilcolgan and Clarinbridge, Co. Galway has previously shown AADT's of 19,450 for the year 2016. Since the new road M18 motorway opened in the September 2017, AADT's for the N18 has reduced by some 46% to 10,583 for 2018.

Comparison data has been taken for the full calendar years of 2016 and 2018 which enables an accurate analysis to be carried out over the course of the year without the M18 Motorway (2016) and with the M18 Motorway (2018). Data for the year 2017 has not been included in the above calculation as the M18 Motorway opened in September 2017 thus not providing an accurate insight into the benefit of the Motorway for a full calendar year.

It should be noted that the access to the adjacent development as permitted under 09/1925 and extended under 15/1334 was granted under the conditions of the N67 at the time and prior to the opening of the M18 motorway. Therefore, due to the substantial reduction of traffic on the N67, the additional volumes of traffic proposed for the N67 generated from the proposed development will have a minimal effect on the traffic volumes and can be considered well within the norms for urban developments.

Taking in into account the above mitigation measures, and the proposed development will overall have a long-term imperceptible negative impact.

#### **12.1.7.6 Significance of Effects**

Based on the assessment above there will be no significant effects.

## **12.2 Summary & Conclusions**

### **12.2.1 Summary**

An assessment of the traffic impact of the proposed development in Moneyduff was undertaken. The site is forecast to generate 108 vehicle movements during the AM peak and 131 movements during the PM peak times.

Since the M18 motorway opened in Sept 2017, traffic volumes in the N67 (previously N18) have decrease by up to 46% according the TII Traffic counter located between Kilcolgan and Clarinbridge. As a result, additional traffic volumes generated from the proposed development will have a minimal effect on the N67 and surrounding roads and junctions.

The Road Safety Audit carried out for the proposed development during the planning stage considered various aspects such as, junction design, provision for pedestrians, provisions for cyclists and road signage, marking and lighting. Recommendations noted from the independent company undertaking the road safety audit, RSM, have been taken into account and the concerns raised have either been designed out or will be considered and suitable measures put in place during the detailed design stage.

The proposed development has integrated a number of measures in line with the relevant standards and guidelines, such as DMURS 2013 and the National cycle Manual, which promotes the use of sustainable travel to and from the site.

### **12.2.2 Conclusion**

Based on this assessment it is considered that the traffic generated by the proposed development in Moneyduff, Oranmore, Co. Galway will be adequately accommodated on the local highway network in the vicinity.

## **12.3 Telecoms and Other Services**

### **12.3.1 Consultation**

The relevant national and regional authorities and bodies listed in Section 2.4 were consulted to identify any potential impact on material assets. Acknowledgements were received from ESB Networks and the National Transport Authority, but no comments were made on the development. The scoping responses are discussed in further detail in Section 2.4.2 of this EIAR.

### **12.3.2 Construction Methodology**

The construction methodology detailed in Chapter 3 of this EIAR describes the manner in which the proposed development will be constructed, including excavations and installation of services. Prior to works, the area where excavations are planned will be surveyed and all existing services will be identified. All relevant bodies i.e. ESB, Bord Gáis, Eir, Galway County Council etc. will be contacted and all drawings for all existing services sought.

Any underground services encountered during the works will be surveyed for level and where possible will be left in place. If there is a requirement to move the service, then the appropriate body (ESB, Gas Networks Ireland, etc.) will be contacted, and the appropriate procedure put in place. Back fill around any utility services will be with dead sand/pea shingle where appropriate. All works will be in compliance with required specifications. Construction methodologies are described in further detail in Chapter 3 of this EIAR.

### **12.3.3 Likely and Significant Impacts and Associated Mitigation Measures**

#### **12.3.3.1 Construction Phase**

The construction of the proposed development will have no impact on above ground or underground telecommunications networks.

There is the potential for short-term nuisance to users of local networks and services that may be accommodated underground within the works footprint. The overall proposed development will have a short-term negative impact.

#### **Mitigation**

Specific measures are incorporated into the Construction and Environmental Management Plan, included as Appendix 3-2 of this EIAR, to ensure that the construction of the proposed development will not have any adverse effect on any service networks in the vicinity. The mitigation measures include the following:

- Any area where excavations are planned will be surveyed and all existing services will be identified prior to commencement of any works.

- Liaison will be had with the relevant sections of the Local Authority including all the relevant area engineers to ensure all services are identified.
- Excavation permits will be completed and all plant operators and general operatives will be inducted and informed as to the location of any services.

#### **Residual Impacts**

There will be an overall insignificant impact on telecoms and other services.

#### **Significance of Effects**

Based on the assessment above there will be no significant effects.

#### **12.3.3.2 Operational Phase**

There will be no operational phase impacts or associated effects on telecoms or other services associated with the proposed development.

#### **12.3.3.3 Decommissioning Phase**

The proposed housing development will become a permanent part of the local housing supply, and therefore the requirement for decommissioning is not foreseen. There is therefore considered to be no potential for impacts on telecoms and other services.

#### **12.3.3.4 Cumulative Effects**

The potential cumulative impacts and associated effects between the proposed development and the projects described in Section 2.5.2 of this EIAR, hereafter referred to as the other projects, have been considered in terms of telecoms and other services.

The measures outlined above and in the Construction and Environmental Management Plan (CEMP), included as Appendix 3-2 of this EIAR, will eliminate any potential for cumulative effects in relation to telecommunications and other services during the construction phases of the proposed development and the other projects.

There will be no cumulative operational phase effects in relation to telecommunications and other services.