

## Section 12.0: MATERIAL ASSETS – TRAFFIC

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## 12.0 MATERIAL ASSETS - TRAFFIC

### 12.1 Introduction

This section of the remedial Environmental Impact Assessment Report (rEIAR) evaluates the effects that the historical and current quarry traffic has had on the existing road network in its vicinity.

### 12.2 Scope

The scope of this section includes:

- An assessment and description of the road network surrounding the existing quarry.
- An assessment of the impact of the quarry traffic within the road network.
- A recommendation of remedial measures to reduce or mitigate against any potential negative impacts.

### 12.3 References

Data sets, publications and information from the following organisations were consulted during the preparation of this section:

- Ordnance Survey of Ireland, [www.osi.ie](http://www.osi.ie)
- The National Roads Authority, [www.nra.ie](http://www.nra.ie)

The scope and content of this section was largely guided by the documents below:

- The Environmental Protection Agency (EPA) 2017 – *'Draft Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)'*
- The Environmental Protection Agency (EPA) May 2022 – *'Guidelines on the information to be contained in Environmental Impact Assessment Reports (EIAR)'*
- The Environmental Protection Agency (EPA) 2002 – *'Guidelines on the information to be contained in EIS'*
- Donegal County Council 2018 – *'Donegal County Development Plan 2018-2024'*
- National Roads Authority 2014 - *'Traffic and Transport Assessment Guidelines'*

### 12.4 Methodology

The methodology involved in the assessment of the roads and traffic impact of the site was through a desk top study of the road network combined with a road traffic survey. The road traffic survey was conducted over three separate days as detailed in section 12.8. A Reolink Go PT Plus camera was installed at the bottom of the site entrance to capture traffic movements traveling east and west on the L-1264-4 road. The camera was motion censored and set for traffic, it captured images and recorded videos of each vehicle that past. The camera was set to record from 8am-6pm for 3 days. The camera footage data was recorded and analysed. An average was taken of the 3 days data to give overview of the volume of traffic on the road. Interpretation and analysis of the information gathered is presented in this report.

### 12.5 Site Description

The subject site and associated activities are fully described in Section 3. This section of the rEIAR will focus on the description of the subject site and its activities which have an impact on the road network and traffic of the area.

### 12.6 Road Network

The subject site is located within the townland of Trentamucklagh, St. Johnston, County Donegal. The quarry is served by the L-5414 which is a local secondary road and is in good condition. This road leads directly onto the L-1264-4 which is a local primary road. Map 12.1 shows the network of local roads surrounding the quarry and the overall distribution of roads in the general area.

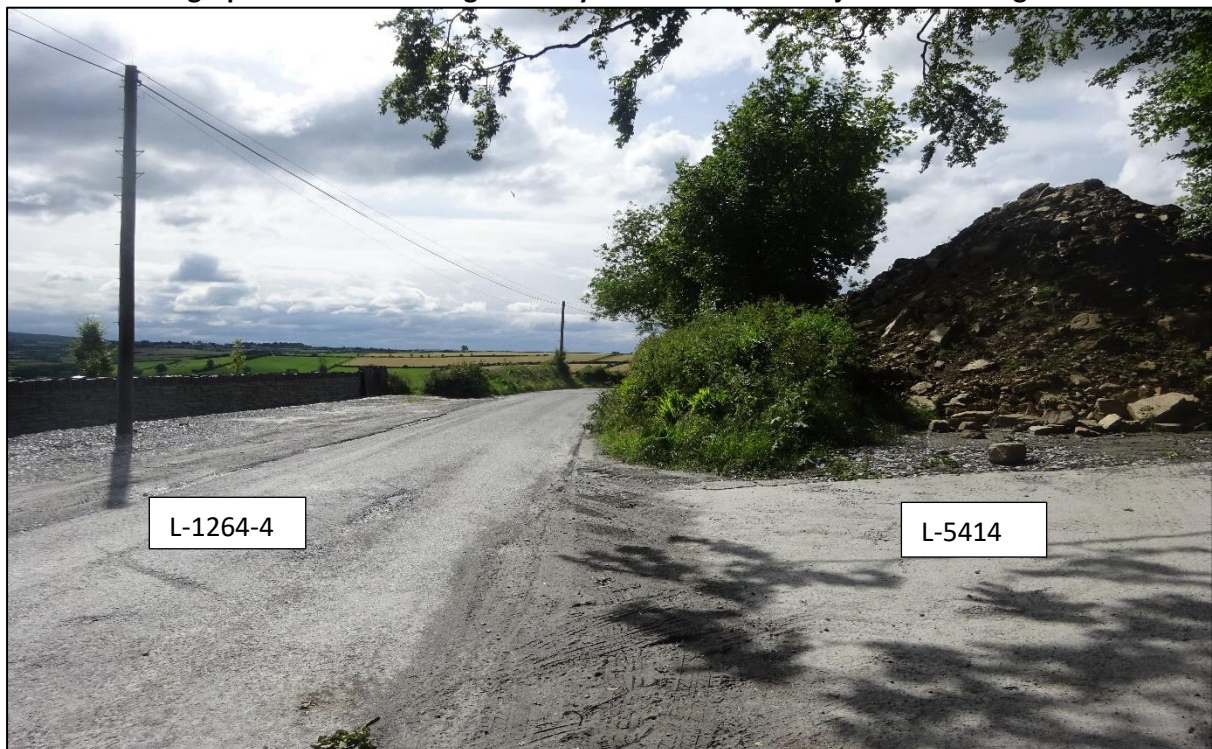
**Map 12.1: Site Location in Relation to Road Network**



CYAL50244901 © Ordnance Survey Ireland/Government of Ireland

Photograph 12.1 below, shows the Local Road L-1264-4 at the main entrance looking West.

**Photograph 12.1: The existing roadway entrance to the subject site looking West**





Photograph 12.2, below, shows the Local Road L-1264-4 at the main entrance looking East.

**Photograph 12.2: The Existing Roadway Entrance to the subject site looking East.**



### **12.6.1 Local Road Network**

The quarry is served by the L-5414 which is a local secondary road and is in good condition. This road leads directly onto the L-1264-4 which is also a local primary road. The village of St. Johnston is approx. 4km East of the quarry.

### **12.7 Road Traffic**

Findings from the traffic survey show that a significant amount of vehicles were travelling West on the L-1264-4 road towards Galdonagh and Manorcunnigham, perhaps this road was being used by vehicles to get to Letterkenny town and to avoid traffic on the Regional road at busier times of the day to. There are two primary schools and a playgroup located in the area which contribute to the road traffic levels in the morning and evening times. St. Baithin's National School is located approx. 3.8km from the subject site, Castletown National School is located 2.5km from subject site and Stepping Stones Playgroup is located 3.8km from the subject site. Figure 12.1 shows the location of the primary schools and playgroup in relation to the subject site.



**Figure 12.1: Location of schools and playgroup in relation to the subject site.**

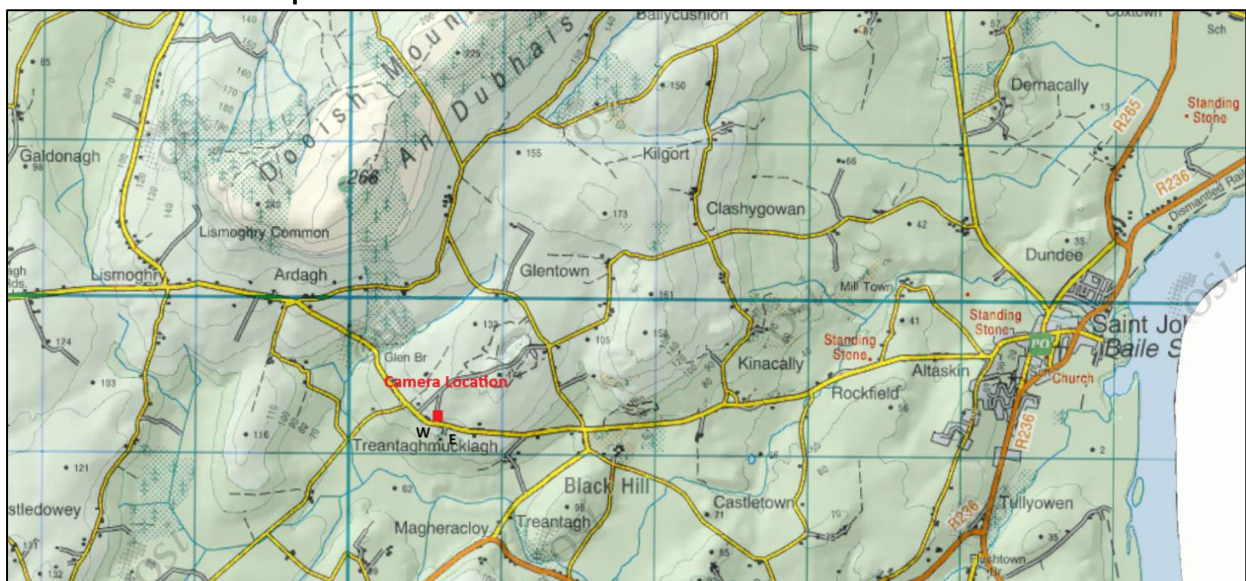


This map was created using QGIS

**12.8 Traffic Surveys**

Three traffic surveys were carried out on 12/06/2022, 13/06/2022 and 14/06/2022 from 8am-6pm as part of the rEIAR which surveyed the number of vehicles travelling on the L-1264-4 road to the east and west of the main entrance. Map 12.2 below which shows the camera location and the direction in which vehicles travelled. An average of the 3 surveys data is shown in Table 12.1.

**Map 12.2 Camera location and direction vehicles travelled**



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**Table 12.1: Traffic Survey**

| Direction of travel  | Vehicle type |           |           |       |         |     |      |            |
|--|--------------|-----------|-----------|-------|---------|-----|------|------------|
|  | Car/4x4      | Small Van | Large Van | Lorry | Tractor | Bus | Quad | Pedestrian |
| <i>L-West of the main entrance travelling NW towards Galdonagh/Manorcunningham</i> | 78           | 6         | 6         | 2     | 2       | 1   | 2    | 0          |
| <i>R-East of the main entrance travelling E towards St. Johnston</i>               | 11           | 3         | 2         | 1     | 5       | 1   | 0    | 0          |
| <i>Quarry Entrance</i>   | 2            | 0         | 0         | 8     | 2       | 0   | 0    | 0          |

The findings from the traffic surveys show that there were significantly more vehicles travelling West along the L-1264-4 road towards Galdonagh and Manorcunningham than to the East towards the village of St. Johnston.

### 12.9 Road Safety Considerations

Guidelines state that sightlines must be provided for an entrance onto a county road which is 2.5m back from the road and provides clear sightlines of 70m in each direction. These conditions are fulfilled for the main entrance to the site, which was permitted by way of a grant of retention permission issued under planning reg. ref. 04/6411 for 'Retention for quarry entrance and access road and associated site'.

Condition No. 2(e) of the of permission grant required that: -

- (e) Prior to commencement of development vision lines of **68m** shall be provided in each direction at a point 3.05m back from road edge at junction of access road and main Ardagh to St. Johnston County Road. Said vision lines shall be based on eye object height equal to 1.06m over ground level.

**Reason: In the interests of traffic safety.**

The condition has been achieved with vision lines in excess of 70m in each direction

### 12.10 Surface Run-off

Mechanisms and infrastructure have been in place to ensure that effluent leaving the site is treated and will not negatively affect surface or groundwaters. A hydrocarbon interceptor will be installed and this will trap any oils/hydrocarbons present in the effluent before the treated effluent is discharged off site to the tributary of the St Johnston Stream. Settlement ponds will capture surface water and with the above measures in place, there will be no effect on the local road system due to runoff from the quarry.

Condition No. 2 (d) of the of permission grant required that: -

- d) No surface water from site shall be permitted to discharge to public road and applicant shall take steps to ensure that no public road water discharges onto site.

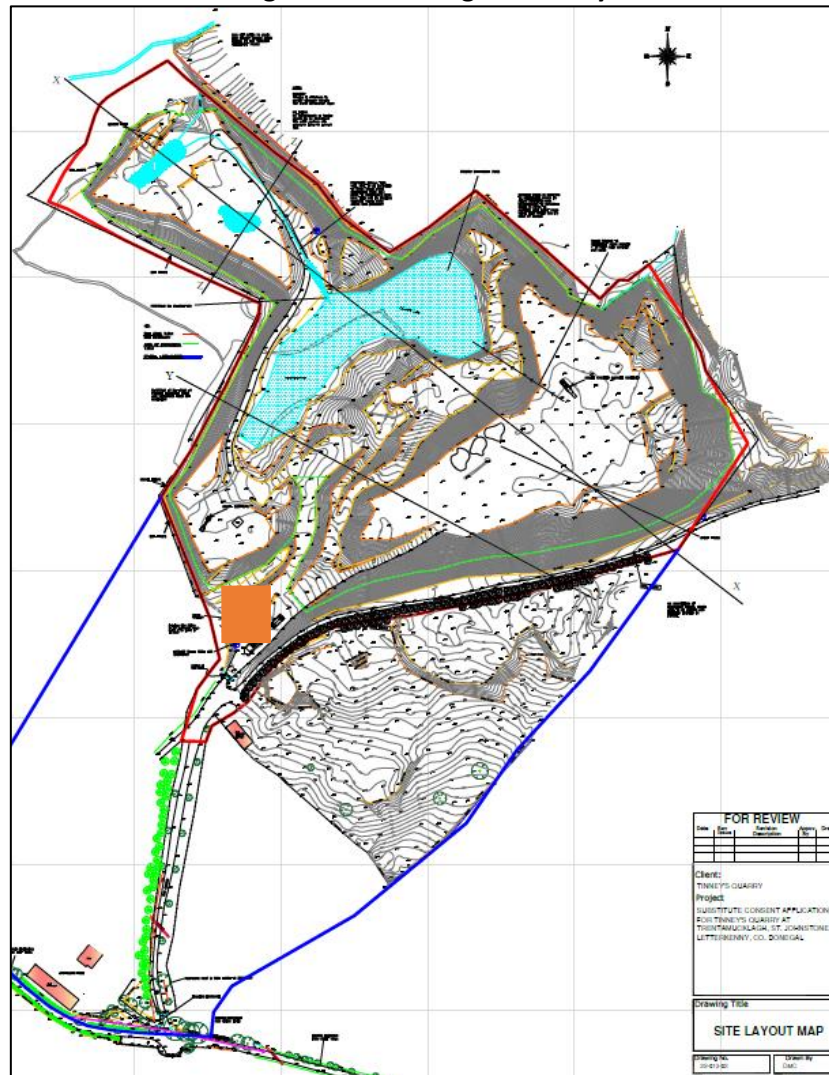
**Reason: To prevent flooding.**



### 12.11 Parking

The plant machinery parking is outlined at the southwest of the site which is highlighted in orange in Figure 12.2 below.

Figure 12.2 Parking for Quarry



### 12.12 Impact of Quarry Traffic

Currently there is an average of 5 loads per day leaving the quarry. The quarry has 2 lorries in operation, this means there is 10 traffic movements allowing for delivery and return of these lorries. Assuming working hours are 8-6pm, this is approximately 1 vehicle movement per hour. In boom times when the quarry was operating at peak trade the quarry would have been producing approximately 20 loads per day which is significantly more in comparison to present times. General traffic volumes are likely to have been proportionally higher during peak production times with increased economic activity causing more movements of goods and people.

The L-1264-4 is a relatively quiet road. When surveyed it showed that an average of 14 vehicles per hour travelled past the quarry entrance L-5414 road. The projected vehicle movements relating to the workers traffic is 1 per hour from the quarry which would not have a significant impact on traffic levels. The impact on the roads and traffic is therefore assessed as imperceptible.

**12.13 Remedial and Mitigation Measures**

There are no specific mitigation measures proposed as the quarry traffic expected will not pose any significant impact on the L-1264-4 road or surrounding area.