

**PLANNING REPORT IN ACCORDANCE WITH
SECTION 179 3(a) OF THE PLANNING & DEVELOPMENT
ACT 2000 (as amended)**

Re: Permission for the following:

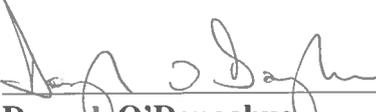
The proposed improvement works will be carried out within the existing 60kph speed limit zone over a length of 750m between L6135 Curraghchase Junction and the L6125 Junction. The improvement works proposed comprise a reduction of the N69 carriageway width to 6.5m over the 750m length of the scheme with a footway installed on the southern side (school side) and kerbing and a grass verge on the northern side of the carriageway. The proposed works also include for the installation of LED public lighting on the northern side of the carriageway, road lining and signage as well as surface water drainage along both sides of the N69 carriageway and pavement improvement works. Accommodation works will be undertaken as required including improvement works in and around the community hub of the national school and GAA club grounds. The implementation of the works proposed will result in a rearrangement of the existing road network in the vicinity of the scheme. Changes to the existing road network will include the reduction of road width to 6.5m over a 750m length and the installation of a kerbed footway abutting the westbound carriageway and kerbing and a verge abutting the eastbound carriageway over the scheme length

At: Townlands of Killeen, Ballyvogue, Cowpark, Curraghchase North and Boherboy, Kilcornan, Co. Limerick.

Planning Reference No. 19/8000


Mary O'Malley
Executive Planner


Stephane Duclot
A/ Senior Planner


Donogh O'Donoghue
A/Senior Executive Planner


Kieran Lehane
Director of Services
Service Operations Directorate

Pursuant to Section 179 3(a) of the Planning & Development Act 2000 (as amended) this report is submitted to the members of Limerick City & County Council. In accordance with Section 179(4) (b) of the above Act, it is proposed to proceed as indicated in Section 5 of this report.


Conn Murray
Deputy Chief Executive
Limerick City & County Council

Date: 14/4/2019

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1.0 Foreword

This planning report has been prepared pursuant to Section 179 of the Planning & Development Act 2000 (as amended), and Part 8 of the Planning & Development Regulations 2001 (as amended).

2.0 Description of the nature and extent of the proposed development

The proposed works will be carried out the proposed improvement works will be carried out within the existing 60kph speed limit zone over a length of 750m between L6135 Curraghchase Junction and the L6125 Junction

Under this planning application the Applicant, Design & Delivery Services, Limerick City & County Council proposes the following:

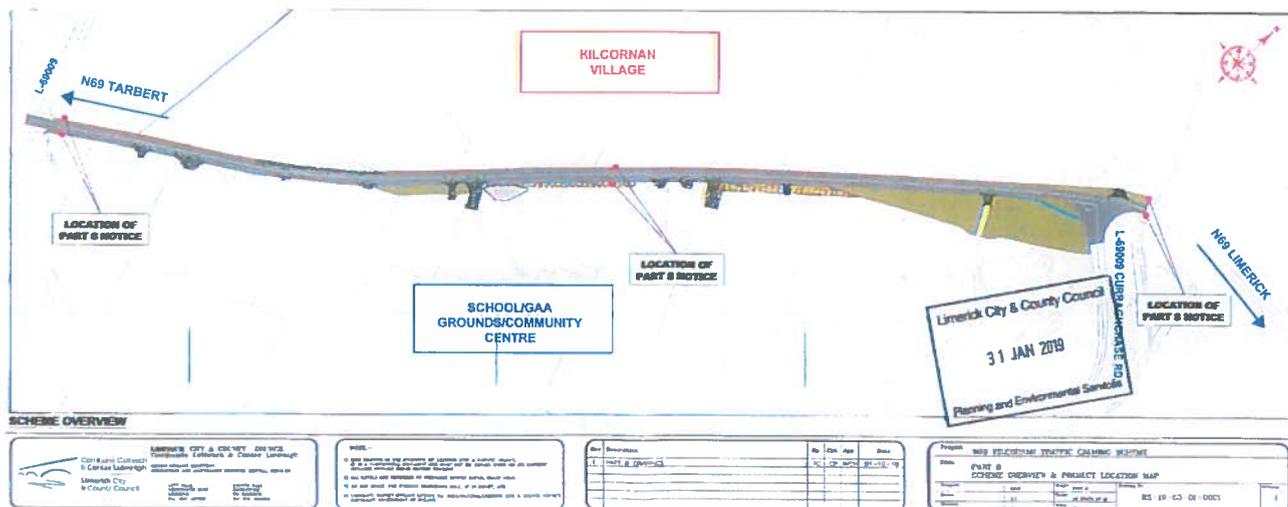
- The improvement works proposed comprise a reduction of the N69 carriageway width to 6.5m over the 750m length of the scheme with a footway installed on the southern side (school side) and kerbing and a grass verge on the northern side of the carriageway.
- The installation of LED public lighting on the northern side of the carriageway,
- road lining and signage as well as surface water drainage along both sides of the N69 carriageway and pavement improvement works.
- Accommodation works will be undertaken as required including improvement works in and around the community hub of the national school and GAA club grounds.
- The implementation of the works proposed will result in a rearrangement of the existing road network in the vicinity of the scheme. Changes to the existing road network will include the reduction of road width to 6.5m over a 750m length and the installation of a kerbed footway abutting the westbound carriageway and kerbing and a verge abutting the eastbound carriageway over the scheme length

The plans and particulars went on public display from 31nd of January, 2019 to 1st March, 2019. Submissions and observations had to be submitted by 19th of March, 2019.

Location:



Site Layout:



3.0 Likely implications, if any, with respect to the proper planning and sustainable development of the area

Limerick County Development Plan 2010 – 2016

The Limerick County Development Plan sets out the following with respect to road improvement schemes:

Policy IN P7: Road Safety and Capacity

To seek the improvement of road safety and capacity throughout the County, through minimising existing traffic hazards, preventing the creation of additional or new traffic hazards in the road network and securing appropriate signage.

Policy IN P9 Safeguard the Capacity of National Roads

It is Council policy to safeguard the capacity of the national road network and road safety standards in accordance with the NRAs (National Road Authority) Policy Statement on Development Management and Access to National Roads (May 2006), and subsequent amendments to or replacements of this, including the forthcoming Government guidance on spatial planning and national roads when adopted and the 'Sustainable Rural Housing Development Guidelines' (DEHLG, 2005).

Policy IN P10 Protection of Corridors and Route Alignments

The Council will continue to work with the NRA in protecting corridors and route alignments identified for national roads projects from prejudicial development, in accordance with the Mid-West Regional Planning Guidelines, Transport 21 and the National Development Plan.

Objective IN O22: Promotion of improvements to the N69 Limerick to Foynes

It is the objective of the Council to promote the strategic improvement of the N69 between Limerick City and Foynes to facilitate traffic by heavy goods vehicles into this important port from an easterly direction.

3.1 Habitats Directive Project Screening Assessment

Both construction and operating phases of the proposed development to be considered

Construction Phase: Yes Are effects significant? Yes	Ex-situ effects: Are effects significant? No
Are substantial works required: Yes Are effects significant? No	Run-off: Are effects significant? No
Operating phase effects: Are effects significant? No	Abstraction: Are effects significant? No
	Displacement: Are effects significant? No

Identification of Natura 2000 sites which may be impacted by the proposed development

1	Impacts on designated rivers, streams, lakes and fresh water dependant habitats and species e.g. bogs or otters -see abstraction/run off etc above.	<i>Is the development in the relevant catchment of or immediately up/downstream of a watercourse that has been designated as a Natura 2000 site?</i> Name of sites: <i>Curraghchase woods SAC</i>	Yes
2	Impacts on terrestrial habitats and species.-see area and disturbance/displacement effects above.	<i>Is the development within 1km of a SAC site with terrestrial based habitats or species?</i> Name of site: <i>Askeaton Fen Complex Sac site</i>	No
3	Impacts on designated marine habitats and species.	<i>Is the development located within marine or intertidal areas or within 5 km of a SAC site whose qualifying habitats or species include the following habitats: Salmonid, Lamprey Mudflats, sandflats, saltmarsh, shingle, reefs, sea cliffs</i> Name of site: <i>Lower river Shannon Sac site</i>	Yes
4	Impacts on birds in SPAs-	<i>Is the development within 1km of a Special Protection Area</i> Name of site: <i>No site</i>	No
5	Cumulative effects	Would consideration of a number of significant projects nearby such as forested areas, quarries, wind energy together with the	An AA Screening was submitted

		proposed development significantly increase the impacts listed above:	on file – No cumulative effects identified
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An Appropriate Assessment Screening Report was submitted as part of this application prepared by Limerick City & County Council.

The development therefore has been subject to an Appropriate Assessment Screening in accordance with Article 6 (3) of the EU Habitats Directive (Directive 92/43/EEC) and the Planning & Development Acts 2000 (as amended).

3.2 EIA Screening

Article 92 of the Planning and Development Regulation 2001, as amended defines ‘sub-threshold development’ as *“development of a type set out in Schedule 5 which does not exceed a quantity, area or other limit specified in that Schedule in respect of the relevant class of development;”*

The current requirements for EIA are outlined in Part X of the Planning and Development Act, 2000, as amended and Part 10 of the Planning and Development Regulations 2001, as amended. The prescribed classes of development and thresholds that trigger a mandatory EIS are set out in Schedule 5 of the Planning and Development Regulations 2001, as amended. The proposed development does not fall into a class of development contained in Schedule 5, Parts 1 or 2 and therefore the requirements for an EIA can be screened out. Having regard to the nature of the development and the location, it is not considered the development based on the documentation submitted will lead to negative environmental impacts. It is not considered that the proposed development is ‘subthreshold development’ for the purposes of EIA, as per Schedule 7 of the regulations.

3.3 Land Acquisition

Limerick City & County Council is the owner of the site.

3.4 Conclusion

Actions attached as per the information submitted on file.

4.0 Submissions with respect to the proposed development

A total of 15 written submissions/observations were received and are listed below:

Submission Ref.	Submitted By	Date Received	Method
No. 1	Gillian Downes	13/02/2019	Comment Card
No. 2	Helen Moore	13/02/2019	Comment Card
No. 3	Brigid Griffin	13/02/2019	Comment Card
No. 4	Eamonn Kelly	14/02/2019	Comment Card
No. 5	Brigid Griffin	15/02/2019	Comment Card
No. 6	Patricia Manning	21/02/2019	Email
No. 7	John Maher	25/02/2019	Email
No. 8	Pat Lynch	05/03/2019	Comment Card
No. 9	Ann Crosbie	19/03/2019	Letter
No. 10	Kilcornan National School - Board Of Management	19/03/2019	Consultant's Report
No. 11	Kilcornan Community Council	19/03/2019	Letter
No. 12	An Garda Síochána	08/02/2019	Letter
No. 13	Transport Infrastructure Ireland	20/02/2019	Letter
No. 14	Gas Networks Ireland	14/02/2019	Email
No. 15	Waste Management Section – Limerick City & County Council	13/03/2019	Email

Submission No 1. Gillian Downes

Submission Summary

Gillian Downes pointed out that School warning lights on Western approach to Kilcornan school are not working.

Central Services Response

The issue has been referred to the Rathkeale District Office, Limerick City and County Council. They have confirmed that replacement parts are on order and the lights will be operation again shortly.

Planning Department Comments:

Noted.

Submission No 2. Helen Moore

Submission Summary

Helen Moore wants the speed limit and traffic calming to commence at or before the church in Kilcornan.

Central Services Response

Under the current traffic speed limit review, it is proposed to reduce the speed limit at the church from 100kph to 80 kph, subject to agreement of Transport Infrastructure Ireland (TII) and the Limerick City and County Council. Such an extension to the scheme would increase the scale of the project by 125%. Therefore, it is not currently proposed to extend the traffic calming to the church at this stage.

Planning Department Comments:

Noted.

Submission No 3. Brigid Griffin

Submission Summary

Brigid Griffin is not happy with the removal of the car parking in front of the school as there is no alternative parking area available within the school bounds.

Central Services Response

Discussions are ongoing with the Community Council with regard to the provision of dedicated car parking spaces for the school in the community council carpark at the rear. TII were asked if it is possible to retain the parking in front of the school, behind the proposed footpath. They are not in favour of this as it poses additional risk with cars crossing the footpath.

Planning Department Comments

Noted.

Submission No 4. Eamonn Kelly

Submission Summary

Eamonn Kelly states that he is delighted that the scheme is going ahead. He notes a number of previous traffic accidents at locations in Kilcornan and he is sure the proposed works will make this section of road safer for all road users.

Central Services Response

Noted.

Planning Department Comments

Noted.

Submission No 5. Brigid Griffin

Submission Summary

Brigid Griffin submitted a further comment stating that she did not want her previous submission regarding the school parking to negatively impact on the project and that school car parking issues needed to be discussed with the school principal.

Central Services Response

Discussions are ongoing with the Community Council with regard to the provision of dedicated car parking spaces for the school in the community council carpark at the rear.

Planning Department Comments

Noted.

Submission No 6. Patricia Manning

Submission Summary

Patricia Manning stated that she was very impressed with the proposed new traffic calming measures proposed to slow down traffic at the entrance to the school, community centre and Curraghchase.

Central Services Response

Noted.

Planning Department Comments

Noted.

Submission No 7. John Maher

Submission Summary

John Maher submitted an email with a number of items he discussed with Trevor McKechnie, Senior Executive Engineer with Limerick City and County Council at the public consultation evening:

1. He wants to look at the possibility of replacing the place name signs on the approaches to Kilcornan. He raised this previously and was advised that the (National Roads Authority) NRA, now TII, were responsible for the signage on national roads.
2. He feels the Limerick City and County Council depot needs to be screened off with a hedge.
3. He wants to discuss the removal of the walled area that extends from the Blue Lake onto the green area on the Limerick side of the Curraghchase entrance. Drainage pipes would need to be laid and the wall on each side extended.
4. A number of years ago pipes were provided by Limerick City and County Council in Rathkeale to allow the surface water drain from the verges in order to prevent the need for digging the verges. These need to be reinstated.
5. The sight line at the Junction of the N69 and L6014 needs to be improved. Motorists exiting the L6014 have a poor view of traffic approaching from the Limerick (Eastern) direction. The landowner agreed to set back the stone wall a number of years ago but the council would only agree to providing a concrete post and rail fence.
6. He asked for the speed limit of 80kph be extended beyond the church on the Limerick (Eastern) side.

Central Services Response

Responses below in order as submission:

1. Limerick City and County Council have no objection to the replacement of the Place name signs, once TII have given their approval. This request lies outside the scope of the current project but Limerick City and County Council will follow this up separately with TII.

2. It is proposed to plant a hedge at the depot side of the fence this year.
3. This area lies outside the scope of this Part 8 application and the proposed traffic calming project. However, this could be discussed with the Rathkeale District Office, Limerick City and County Council, to see if some works could be carried out. It should be noted that any extension of the existing culvert will require Office Public Works (OPW) approval under Section 50 of the Arterial Drainage Act.
4. This issue will be investigated by the Rathkeale District Office, Limerick City and County Council.
5. The sight lines at the junction of N69 and L6014 are outside the scope of this Part 8 application and the proposed traffic-calming scheme. However, Limerick City and County Council will assess this junction to determine what may be required. It should be noted that any improvements would be subject to TII approval and the necessary funding being made available.
6. As part of the current speed limit review, it is proposed to reduce the speed limit from 100kph to 80kph on the Eastern approach to the N69-L6014 junction, subject to agreement of TII and the council.

Planning Department Comments

Noted.

Submission No 8. Pat Lynch

Submission Summary

Pat Lynch wants to see the Foynes -Limerick road scheme built. He considers the traffic calming proposals as not being required if the Foynes-Limerick road is constructed. Mr. Lynch also commented on other issues at various locations along the N69 that are outside the scope of this scheme.

Central Services Response

The Foynes-Limerick road scheme is due to be lodged with An Bord Pleanala in 2019 to commence the statutory planning process. The traffic calming proposed for Kilcornan is still considered necessary, as the Foynes-Limerick road will not remove all traffic at this location. When this road is operational it will still be necessary to have traffic calming measures at Kilcornan to facilitate the school, community centre and playing pitches.

Planning Department Comments

Noted.

Submission No 9. Ann Crosbie

Submission Summary

Ann Crosbie states that she lives in Kilcornan and almost every day she exits the L1202 (Pallaskenry Rd) onto the N69. She has experienced near misses while turning right onto the N69 and noted a recent accident where a truck hit the directional signs while trying to avoid a car turning right off the N69 onto the L1202. She states that the volume of traffic and its speed has increased in recent years.

She also points out that the speed detection van sets up at the graveyard where the speed limit is 100kph.

Central Services Response

While no works are proposed for this specific junction (N69 & L1202) and it lies outside the scope of this Part 8 application, the traffic calming signage will be erected prior to the junction so it should have a positive impact on traffic approaching this junction from the East. Also, as part of the current speed limit review, it is proposed to reduce the speed limit from 100kph to 80kph on the Eastern approach to this junction, subject to agreement of TII and the Council.

Planning Department Comments

Noted.

Submission No 10. Kilcornan National School – Bord of Management

Submission Summary

The Bord of Management of Kilcornan National School engaged Dennany Reidy Associates, Consulting Engineers, to lodge a submission report on their behalf. The report states that the school is very much in favour of the proposed traffic calming scheme. However, their main concern is the loss of school parking in front of the school. They state that they do not own the property to the rear of the school, parents currently use this as a set-down/pick-up area for students, but the school has no entitlement to use this area as a car park. The report states that the school are open to discussions to realign the front boundary wall of the school to provide a segregated car park to the front of the school. Finally, the report states that Limerick City and County Council propose to widen the entrance to the community centre resulting in a loss of land to for the school, details of this proposal should be forwarded to the school Board of Management for their consideration.

Central Services Response

As part of the proposed traffic calming scheme and to improve road safety at the school it is proposed to remove the car parking area to the front of the school. In order to address this issue and to find an acceptable solution, Trevor McKechnie and Kevin Murphy, of Limerick City and County Council, met with the school's Consultant Engineer, Sean Quinn of Dennany Reidy, to discuss possible solutions. Limerick City and County Council have considered options such as realignment of the school front wall and the provision of a new entrance to the North East of the school in order to provide a new car park. Both of these options would result in a substantial loss of green space and play area and may impede future development at the school. The safest and most desirable solution is to provide a dedicated staff parking area, during school hours, in the community centre car park adjacent to the school. Discussions are ongoing with the Community Council on this issue and if agreed, it is proposed to widen the entrance to the community centre as part of this solution. All details to be agreed with the school board of management, the community council and Limerick City and County Council prior to commencement of the works.

Planning Department Comments

Noted.

Submission No 11. Kilcornan Community Council

Submission Summary

The Kilcornan Community Council expressed their approval and support for the proposed traffic calming scheme. They appreciated the public consultation that took place on 13th February and the

availability of staff to address any concerns raised. They also stated that there was a very positive response to the plans for the scheme.

They acknowledge that the scheme will be of benefit to the community and in particular the children attending the school and using the playing pitches. They now wish for the scheme to progress as soon as possible and offer their assistance.

Service Operations Response

Noted.

Planning Department Comments

Noted and action to be attached.

Submission No 12. An Garda Síochána

Submission Summary

An Garda Síochána confirm that they have no objections, submissions or observations to add with respect to the proposed development.

Central Services Response

Noted.

Planning Department Comments

Noted.

Submission No 13. Transport Infrastructure Ireland

Submission Summary

TII advise that they have no specific observations to make in relation to the N69 Traffic Calming Scheme.

Central Services Response

Noted.

Planning Department Comments

Noted.

Submission No 14. Gas Networks Ireland

Submission Summary

Gas Networks Ireland advise that they have no comment to make in relation to the N69 Traffic Calming Scheme.

Central Services Response

Noted.

Planning Department Comments

Noted.

Submission No 15. Waste Management Section - Limerick City and County Council

Submission Summary

Environmental Services recommend that the following condition should apply to the Part 8 planning: Prior to initiating any works at this development, the site developer or appointed contractor, shall submit to Planning & Environmental Services for agreement in writing a site specific waste management plan for the recovery/disposal of all wastes that will arise from site clearance, demolition, refurbishment and/or construction related activities of this development. The waste management plan shall include:

- a) A list of proposed authorised waste collection permit holders to be employed.
- b) A list of the proposed waste facility permitted sites at which the waste may be recovered or disposed of.
- c) Estimates of the proposed tonnages of construction and demolition (C&D) wastes by type e.g. soil & stone, rubble, wood, metal & plastic.

Central Services Response

Noted.

Planning Department Comments

Noted and action to be attached.

5.0 Action taken by Local Authority

1. The development shall be carried out in accordance with the plans and particulars lodged with the application, on the 31/01/19 and the report received by the Planning Authority on 27/03/2019, except as may otherwise be required in order to comply with the following actions.

Reason - In order to clarify the development to which this permission applies.

2. During construction of the proposed development, the following shall apply-
 - a. No work shall take place on site outside the hours of 8.00 a.m. to 8.00 p.m. Monday to Friday and 8.00 a.m. to 4.00 p.m. Saturday, or on Sundays or public holidays, unless otherwise agreed in writing by the Planning Authority.
 - b. No surface water run-off shall be discharged onto public roads, foul sewers or adjacent property.
 - c. Adequate car parking facilities shall be provided on site for all workers and visitors.

Reason – To protect the residential amenities of the area in the interest of proper planning and sustainable development

3. Footpaths shall be dished at all road junctions.

Reason - To facilitate access for all in the interest of proper planning and development of the area

4. The Construction Management Plan shall be submitted to and agreed in writing with the Planning Authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including hours of working, noise/vibration and traffic management measures and off-site disposal of construction/demolition waste.

Reason- In the interests of public safety and residential amenity

5. Prior to the commencement of this development the site developer or appointed contractor shall submit to Planning & Environmental Services for agreement in writing a site specific waste management plan for the recovery/disposal of all wastes arising from the demolition, refurbishment and/or construction related activities of this development. The waste management plan shall include:

- a. A list of proposed authorised waste collection permit holders to be employed
- b. A list of the proposed waste facility permitted sites at which the wastes may be recovered or disposed of.
- c. Estimates of the proposed tonnages of construction and demolition (C&D) wastes by type e.g. soil and stone, rubble, wood, metal and plastic.

A template waste management plan can be found at:<https://www.limerick.ie/council/construction-and-demolition-waste>.

- d. If asbestos containing materials have been identified as present, they shall be included in items a, b and c above.

Reason - In the interests of public safety and residential amenity

Limerick City and County Council

Limerick City and County Council.



Appropriate Assessment Screening.

Traffic Calming Works at Kilcornan Co. Limerick

October 2018



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Limerick City & County Council
27 MAR 2019
Planning and Environmental Services

1.0 Introduction and Works required:

This Appropriate Assessment Screening Document is for traffic calming works along a 750m stretch of the N69 National Primary Route. These works include signage, provision of pathways, lighting and traffic calming measures such as kerbing. New drainage systems will also be provided with petrol interceptors as part of the works. A full description can be found in Feasibility Report that accompanies the Part 8 application.

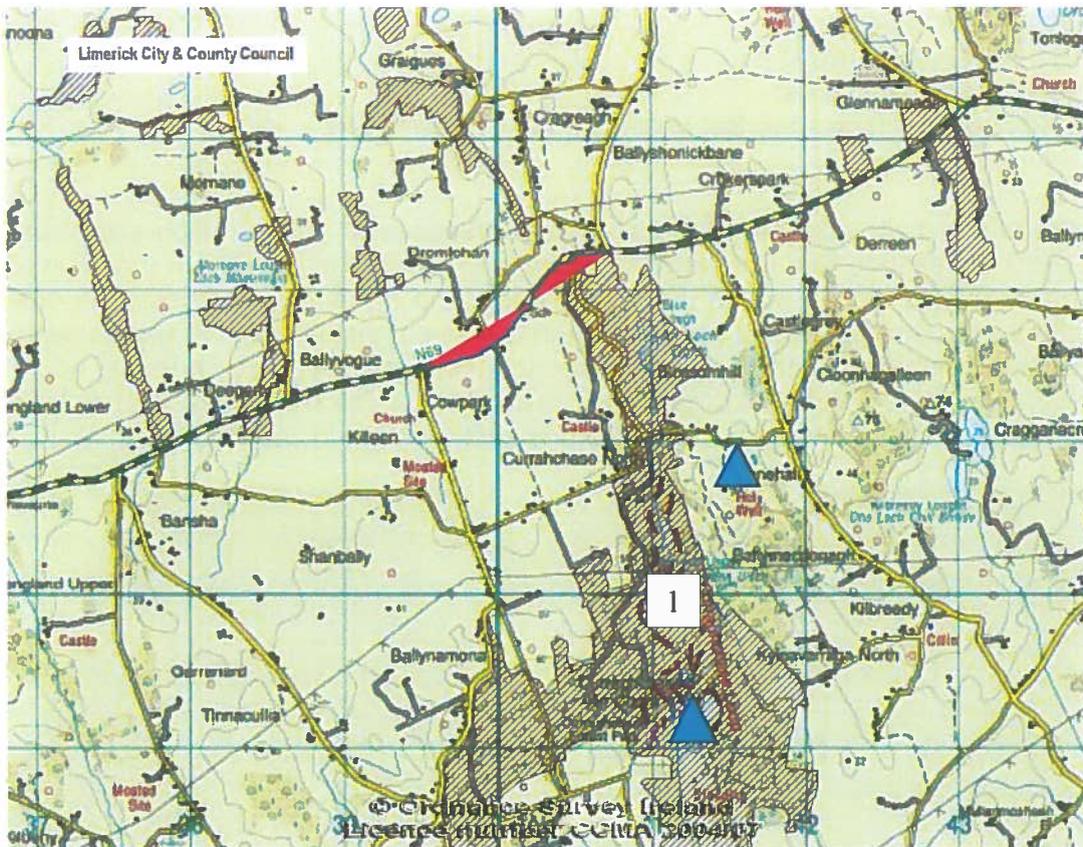
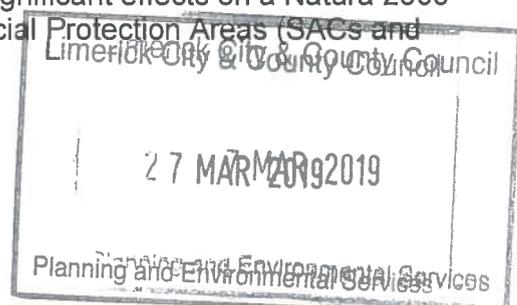


Figure 1: The location of the works is shown by the red indicator. The hatched area indicated as (1) shows the Curraghchase Special Area of Conservation Site (000174). The other hatched areas are part of the Askeaton Fen Complex (002279). The two blue triangles indicate the locations of Lesser Horseshoe Bat roosts in Curraghchase and Stonehall respectively.

The screening is required by Article 6(3) of the EU Habitats Directive (92/43/EEC). The principal consideration for an Appropriate Assessment would be if the proposed works were likely to have significant effects on a Natura 2000 site – Special Areas of Conservation and Special Protection Areas (SACs and SPAs) are Natura sites.



The preparation of the screening report has been informed by the document *Bats and Appropriate Assessment Guidelines* (Bat Conservation Ireland, December 2012). This outlines the methodology to be followed when assessing projects for their potential effects on the Lesser Horseshoe Bat in particular.

Designated sites: Curraghchase Special Area of Conservation (000174) lies immediately to the south of the road scheme. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):
[91E0] Alluvial Forests*
[91J0] Yew Woodlands*
[1303] Lesser Horseshoe Bat (*Rhinolophus hipposideros*)

One of the main interests at the site is the presence of a hibernation site of the Lesser Horseshoe Bat. The bats hibernate in the cellars of the former mansion of Curraghchase House, which is now in ruins. The entrance to the cellar is now grilled and all other access points blocked to prevent disturbance. In recent years bats have remained within the cellar throughout the year. A nearby building, which was part of the original Curraghchase building complex now plays host to bats which use it as a maternity roost. There is another roost in Stonehall (Fig. 1)



Figure 2: Lesser Horseshoe Bat (*Rhinolophus hipposideros*) from the Vincent Wildlife Trust Website.

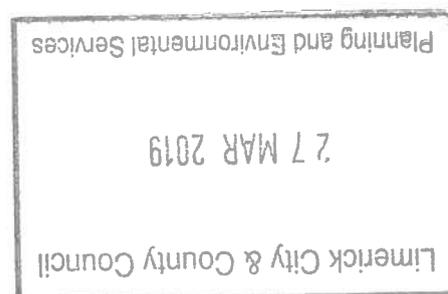
The lesser horseshoe bat belongs to the Rhinolophidae family of bats, while the other resident species belong to the Vespertilionidae family. Horseshoe bats differ from the Vespertilionid bats in that they have a number of flaps or folds of skin around their nostrils, called a noseleaf, that form a horseshoe shape. The lesser horseshoe hangs freely by its feet and wraps its wings around its body, the only Irish species to do so.

The range of the lesser horseshoe bat in Ireland is, for the most part, limited to six western counties – Clare, Cork, Galway, Kerry, Limerick and Mayo. The species has been recorded once in Roscommon and twice in Sligo.. It roosts mainly in roofs of old houses or in outhouses, stables or old cottages. These are usually stone built and unoccupied by humans. In winter this species hibernates in caves, disused cellars, mines and souterrains. The lesser horseshoe bat's distribution in the west is strongly linked with broadleaved and mixed woodland and it usually forages in woodland and scrub.

The Irish population of this species is estimated at 14,000 individuals and is considered of International Importance because it has declined dramatically and become extinct in many other parts of Europe.

The woodland consists of both deciduous species and stands of commercial conifers. Beech (*Fagus sylvatica*) is the most frequent deciduous species, but Pedunculate Oak (*Quercus robur*), Ash (*Fraxinus excelsior*), Sycamore (*Acer pseudoplatanus*) and Hornbeam (*Carpinus betulus*) are also present. Spruce (*Picea* sp.) and Scots Pine (*Pinus sylvestris*) are the commonest conifers. Hazel (*Corylus avellana*) scrub and areas of wet woodland (*Salix* spp.) also occur. Broad leaved woodland is a particularly important foraging habitat for the Lesser Horsehoe Bat (Bontadina, Schofield and Naef-Daenzer, 2002)

The alluvial forest occurs in the southern part of the site and occupies low ground in a stream valley and some areas adjacent to a small lake. The dominant canopy species include Rusty Willow (*Salix cinerea* subsp. *oleifolia*), Alder (*Alnus glutinosa*), Downy Birch (*Betula pubescens*) and Ash. Exotics also occur, both conifer and broadleaved species, such as Beech and Horse-chestnut (*Aesculus hippocastanum*). The Yew wood occurs as a stand on a limestone ridge above a stream valley. It is associated with an Oak-Ash wood, but also has a range of commercial planted species. Nevertheless, Yew is well represented and is readily regenerating. Other species present include Holly (*Ilex aquifolium*), Ash, Pedunculate Oak, Hazel and Hawthorn (*Crataegus monogyna*). A series of small lakes and fens runs the length of the site.



To the north and east of the site is the Askeaton Fen Complex. This consists of a number of small fen areas to the east, west and north of the road scheme. This area has a number of undulating hills, some of which are quite steep, and is underlain by Lower Carboniferous Limestone. At the base of the hills a series of fens/reedbeds/loughs can be found, often in association with marl or peat deposits. At the south-east of Askeaton, both Cappagh and Ballymorisheen fens are surrounded by large cliff-like rocky limestone outcrops.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[7210] *Cladium* Fens*

[7230] Alkaline Fens

Works required: as outlined above the works are a series of traffic calming measures which are designed to slow traffic speeds along this stretch of road. There will be no land take involved in the project so the works will take place within the existing road and its margins. There will be no works outside the existing footprint of the road and its margins. These works include signage, provision of pathways, lighting and traffic calming measures such as kerbing. New drainage systems will also be provided with petrol interceptors as part of the works. Lighting will also be part of the works, with LED lights running along the northern roadside boundary, the Limerick lane, at 35m intervals. A full description can be found in the Feasibility Report that accompanies the Part 8 application.

The suggested location for the site compound will be in a disused filling station complex to the east of the area of works. This is a previously developed hardstanding area and will require to be fenced. Its location is shown in Figure 2 and it is to the north of the N69 and outside the boundaries of the SAC site. This is a site which is already subject to human disturbance and lighting. By virtue of past usage and infrastructure it is well suited to being used as the site compound.

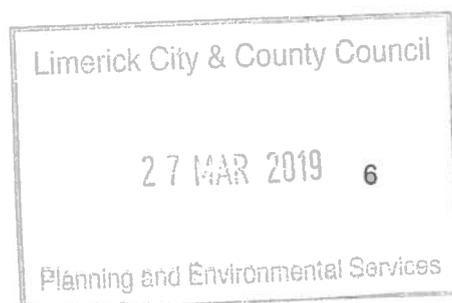




Figure 3: location of the proposed site compound.

Survey and Survey methodology: It was decided to carry out a bat survey along the northern boundary of the woodland, where the local road meets the N69. This location was decided upon as it was the beginning of the works area and was the portion of woodland closest to the Curraghchase roost and the Stonehall roost. These were 2.4 km and 1.4km away respectively. Across the road from this area is a copse of mature woodland that was considered to offer suitable foraging opportunities for the Lesser Horseshoe Bat. This being the case it was decided that the location chosen would establish potential bat usage of the area to the south of the road by the bats and also to see if they would cross the road to use the wooded habitats to the north of the N69. See Figure 5 below.

Traffic itself and its lighting would also be expected to have an effect on bats. Two 15 minute traffic counts were carried out early in the nights of both surveys shortly after emergence times. This would be an important time for bat foraging as bats would be moving to feeding areas and taking advantage of the first emergence of nocturnal insects. It was important to try and quantify levels of traffic disturbance at this time. This is considered later in this report.

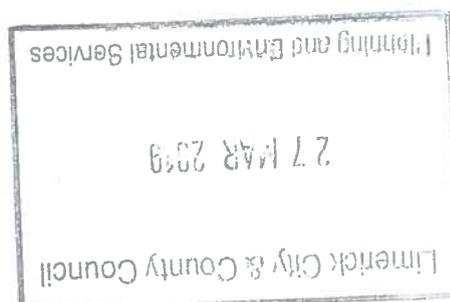




Figure 4: looking northwards across the road to the area of woodland to the north of the N69.



Figure 5: showing the location of the bat surveys carried out on the evenings of the 24th and 26th of September 2018.

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Figure 6; the entrance to Curraghchase forest park. The edge of the woodland in the picture provided the transect for the bat survey.

Two bat detector devices were used, one set at 45Khz, a range through which all Irish bats will transmit and the other set at 113Khz. This frequency is associated with the Lesser Horseshoe but is not exclusive to it (Fairley 2001, p.204)

Difficulties during the survey: It can be difficult to pick up the echo location calls of the lesser horseshoe bat due to their highly directional nature. To overcome this extensive use was made of night vision equipment. One of the issues associated with this was Infra Red (IR) light being reflected from vegetation and “blinding” the device until the optimum level of IR illumination was found.

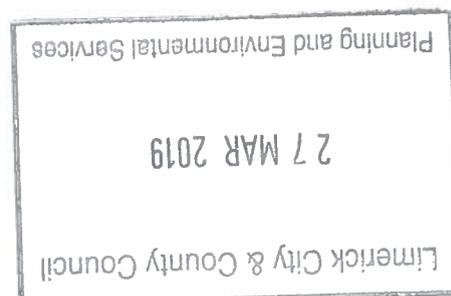
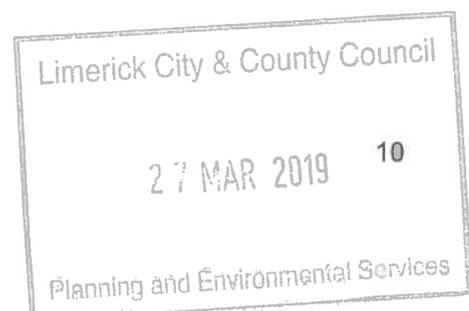


Table 1: Bat Survey Details

Date	Times	Weather Conditions	Comments.
24/9/2018	1900 to 0230	No breeze, temp 8 degrees.	Bright Moonlight.
26/9/2018	18:50 to 0230	No breeze, temp 11 degrees	Bright moonlight

It is considered that due to the current scale of works that progression to full Appropriate Assessment is not necessary, for the following reasons:

- 1** No works will take place at any lesser horseshoe bat roost. There will be no changes in conditions at these locations where bats are most vulnerable.
- 2** Both bat surveys and literature indicate that the Lesser Horseshoe bat forages in woodland and not in open spaces which are beside the N69. This means that the barrier effects of the works will not be significant as the bats do not use the location. Structures to the north of the N69 were checked to see if they could be used by the bats. They were unsuitable meaning there was no attraction for bats across the road and that any further roosts to the north of the N69 in the area of the proposed scheme were unlikely.
- 3** There is the possibility of leakage of pollutants from the roadway during both the construction and operational phases. No such leakages were observed during repeated site visits. The main risk to the integrity of the Askeaton fen Complex in the site synopsis (NPWS 2014, p.2) cite "new drainage or the deepening of existing drains" as posing a threat to "the aquatic habitats at the site". Run off from roads or road works has not been referred to as a risk and as such are not considered a significant risk to this site. Similarly it is considered that there is not a significant risk to the habitat quality of the Lower River Shannon Special Area of Conservation (002165) which is farther to the north.



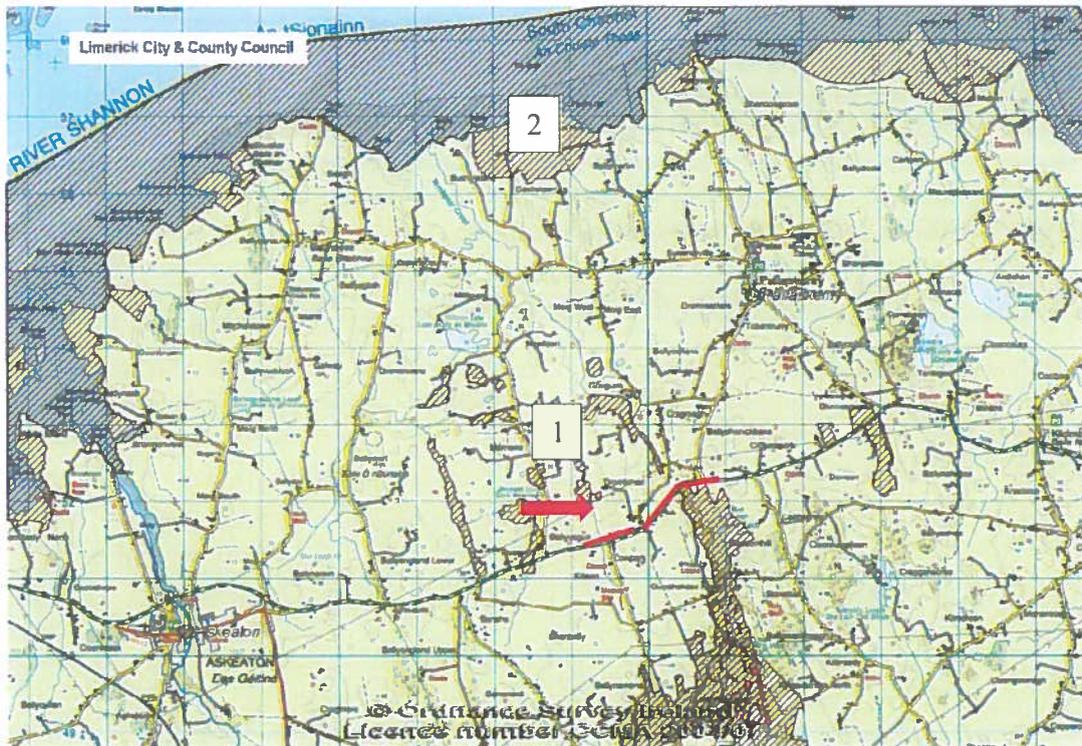


Figure 7: the red arrow shows the watercourse. 1 indicates the location of part of the Askeaton Fen Complex, while 2 shows the Lower River Shannon SAC site.

2.0 On site habitats:

As the works will take place within the existing footprint of the N69 corridor, the two habitats that will be affected will be that of the road verges and the road surface itself.

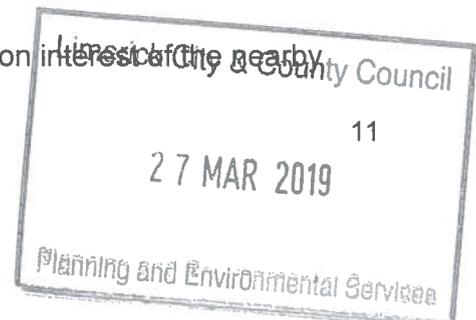
These are listed in the Fossitt Guide to Habitats in Ireland with Buildings and Artificial surfaces (BL3)

Road verges (GS2) are regularly mown and in this case support common grass species such as Cocksfoot (*Dactylis glomerata*), Foxtail (*Alopecurus pratensis*), Cow Parsley (*Anthriscus sylvestris*). The verges were checked for signs of regular animal runs or tracks but none were found.

The road surface itself is of very limited ecological value due to the volume of traffic that uses the N69 and barren nature of its surface.

None of the above habitats are part of the conservation interest of the nearby sites in the Natura 2000 network.

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Habitats affected by the works: the buildings and artificial habitats classification is of very limited ecological interest. The loss of some roadside verge habitat will take place along the length of the scheme. This is a common habitat along the N69 route and its loss is not ecologically significant

Table 1 Effects of the works on site habitats.

Works	Habitats affected	Effects	Comments
Widening of roads and installation of kerbing and traffic calming ensures.	Buildings and Artificial Surfaces BL3	Extension of artificial surfaces	Not ecologically significant.
	Grassy verges 9 (GS2)	Loss of grassy verges	These are a common habitat in the locality.

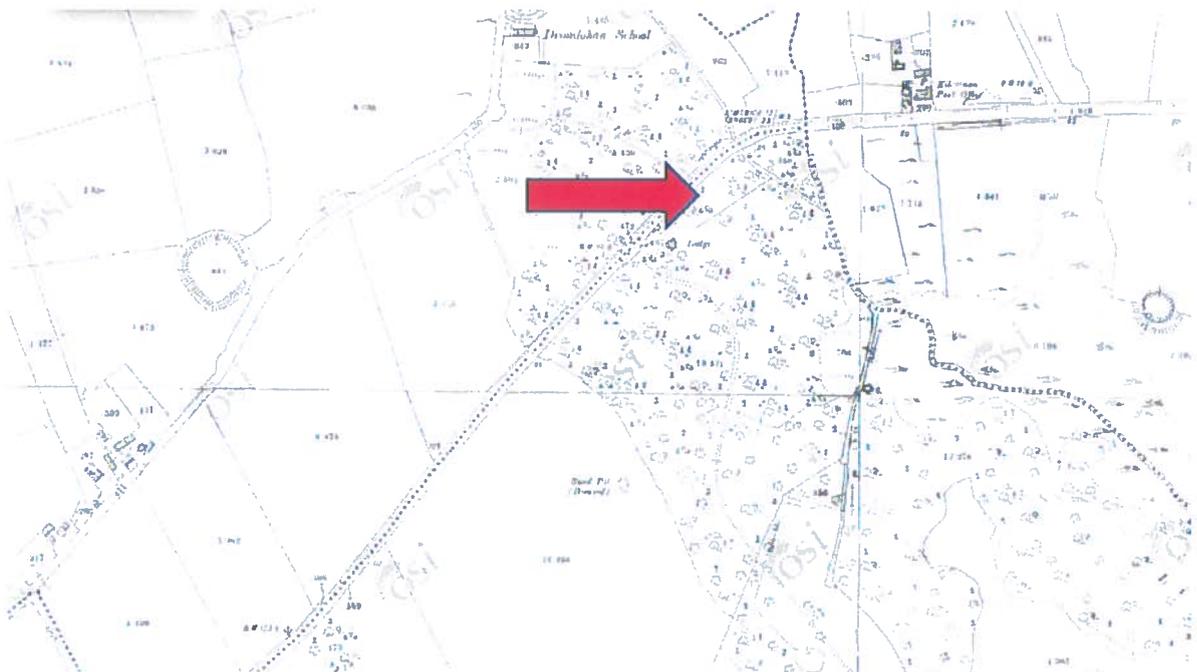


Figure 8: historic map showing the location of the bat surveys carried out in September 2018. This historic 25 inch map dates from the early 20th century. This shows the long established wooded nature of the locality

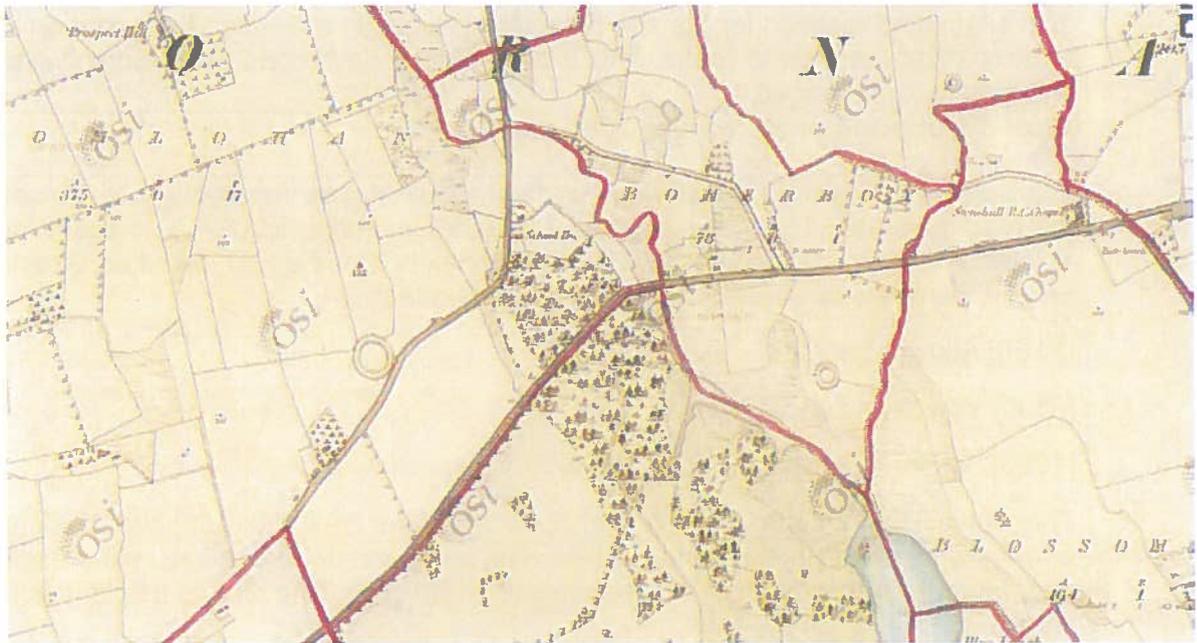


Figure 9: Showing first edition 6 inch map dating between 1838 and 1842 with well developed tree cover.

Site history: The Curraghchase site has long been afforested, first as part of the estate and then latterly under Coillte Management. The map in Figure 9 above dating from 1842 or before shows well developed cover at that point in time. The site has much of its area covered by broadleaved woodland. The bat roost within the SAC site is in the cellars of the ruined great house.

3.0 Screening Matrix

Brief description of the project:

The works are a series of traffic calming measures which are designed to reduce the number of collisions along this stretch of road. There will be no land take involved in the project so the works will take place within the existing road and its margins. These works include signage, provision of pathways, lighting and traffic calming measures such as kerbing. New drainage systems will also be provided with petrol interceptors as part of the works. Lighting will also be part of the works, with LED lights running along the northern roadside boundary, the Limerick lane, at 35m intervals. A full description can be found in the Feasibility Report that accompanies the Part 8 application.

The suggested location for the site compound will be in a disused filling station complex to the east of the area of works. This is a previously developed hardstanding area and will require to be fenced.

Brief description of the Natura 2000 sites:

Curraghchase Special Area of Conservation (000174) lies immediately to the south of the road scheme. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[91E0] Alluvial Forests*

[91J0] Yew Woodlands*

[1303] Lesser Horseshoe Bat (*Rhinolophus hipposideros*)

The works lie 5km south of the Lower River Shannon SAC (002165) site, designated for a range of riparian habitats and species. The works are to take place inside this site. The river channel in this location is approximately 85m wide. The river is tidal in this location.

To the north and east of the site is the Askeaton Fen Complex. This consists of a number of small fen areas to the east, west and north of the road scheme. This area has a number of undulating hills, some of which are quite steep, and is underlain by Lower Carboniferous Limestone. At the base of the hills a series of fens/reedbeds/loughs can be found, often in association with marl or peat deposits.

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site:

Bearing in mind the Lesser Horseshoe Bat preference for foraging in woodland and its avoidance of open spaces, it is considered that the bats would be unlikely to venture beyond the woodland into the area of works. Two evening surveys on the 24th and 26th of September (see Table 1) found that the bats did not use the area. While the additional works, including the erection of street lamps would potentially have the effects of reinforcing the barrier effects of the road, the fact that the area is unused by the bats means that the barrier effect is more apparent than real.

Additional notes:

The lighting from traffic is pre-existing in this location and the levels of lighting from traffic is independent of that of works.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:

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- **Size and scale;**

The works will take place outside any designated site along a 750m stretch of the N69. This will not take to result in any additional pressures on any Special Area of Conservation or any Special Protection Area as the area of works is heavily modified and is of limited ecological importance. The effects of the proposed works and following operational use of the roadway has to be viewed in the context of the existing road usage and the consequent effects of the existing traffic flows.

- **Land-take;**

There will be no land take or encroachment onto any of the Natura 2000 sites as the works will take place along the route of the existing N69 as shown in Figure 1.

- **Distance from Natura 2000 site or key features of the site;**

The works are immediately adjacent to the Curraghchase Woodland Special Area of Conservation Site, 400m from the Askeaton Fen Complex and 5km from the Lower River Shannon Special Area of conservation site.

- **Resource requirements (water abstraction etc);**

No water abstraction will take place from the watercourse along the route. Grit and stone used in the scheme will come from quarries and suppliers that are appropriately licensed.

- **Emission (disposal to land, water or air);**

There is the risk of pollutants (fuels, oils) escaping to the watercourse shown in Figure 4. The road currently does not have interceptor facilities to deal with traffic related run off but a site inspection on Tuesday 16th of October 2018 did not indicate any run off reaching the watercourse which connects to a portion of the Askeaton Fen complex. While the new works will include petrol and oil interceptors, these cannot be assessed as part of the screening following the ruling of ECJ 323/17, where has been ruled that "it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site". With this in mind it is fair to say that the situation in relation to run off will not be made worse by the proposed works.



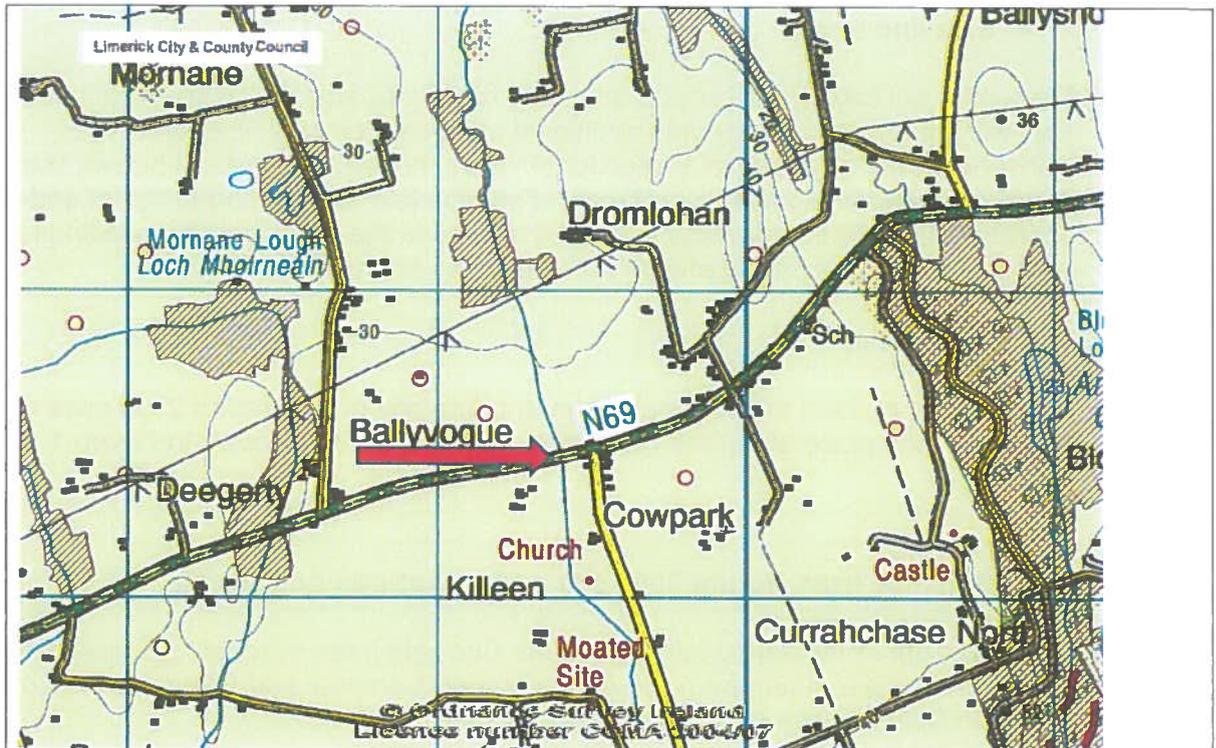


Figure 10: The arrow indicates the watercourse that runs into part of the Askeaton Fen SAC complex which is indicated by hatching towards the top of the picture. The watercourse is towards the western end of the scheme.

Water levels were low in the watercourse, as a result of the long dry summer, but sufficient remained in order to gauge whether road related contaminants had entered it. The direction of flow is to the north, towards parts of the Askeaton Fen Complex and thence to the Lower river Shannon SAC site. No traces of contaminants were detected. No flow paths leading from the road to the watercourse were seen in this location. From this, it is considered that the works will not contribute significantly to the risk of run off. As outlined above it is considered that the works would not cause significant risk of pollutant entering the watercourse. In the operational phase, the use of traffic calming measures are designed to lessen the chances of accidents. This would lessen spillages of fuels oils and and lubricants, so it is not considered that the ongoing usage of the roadway following completion of works would add significantly to the chances of pollution entering either the Askeaton Fen complex or the Lower River Shannon SAC site.

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Figure 11: looking into the watercourse just south of the N69 before it enters the culvert under the road. No signs of run off were seen in the water such as discolouration from hydrocarbons or other road run off or any smells which might indicate their presence

The other factor to be considered is that of lighting. Lanterns will be installed on the northern side of the carriageway (Limerick bound lane), the lights will be at 35m spacing's and will be LEDs 100watt output.

Rowse *et al* (2016, p.206) indicate that Lesser Horseshoe Bats and *Myotis* spp. avoid commuting routes that are illuminated to 3.6 LUX which is twilight light levels. These light levels would be exceeded by the proposed lighting. Lighting has been shown to have a negative effects on *Rhinolophus* species. The lights levels above would also be exceeded by the lights of existing traffic that uses the road. Two timed surveys to indicate the frequency of traffic use took place on the night of the bat surveys. These are shown in Table 2. These were timed to occur shortly after emergence period for the bats as this is an important time for bat foraging and disturbance at this period would be significant.

Table 2 Timed traffic surveys September 2018.

Date	Time	Traffic Amounts	Comments.
24/9/18	21:33 to 21:48	41	Sunset 19:34 time allowed for emergence and for bats to reach the road.
26/9/18	20:20 to 20:35	71	Roughly 20% of the traffic on both nights were Heavy Goods Vehicles with greater light output than standard cars or vans. Much of these were traffic to and from Foynes Port.

The lights of traffic and its disturbance would accentuate the barrier effects of the road and open space. However the surveys of the 24th and 26th of September showed that the area to the north of the woodland was not used by Lesser Horseshoe Bats and was only slightly used by other species. One call within the range of Pipistrelle Species was detected, but this was close to the treeline and over 50m from the road. Bearing in mind the preference for the Lesser Horseshoe Bat for foraging in woodland and its avoidance of open space and hence the roadway it is considered that the additional works would not add to the barrier effects of the roadway as the bats do not use this area.

- **Excavation requirements;**

Excavation will take place along the route of the N69 and will be of previously modified areas such as road verges and the older road surface. There will be no extraction of material within any of the designated sites.

Transportation requirements;

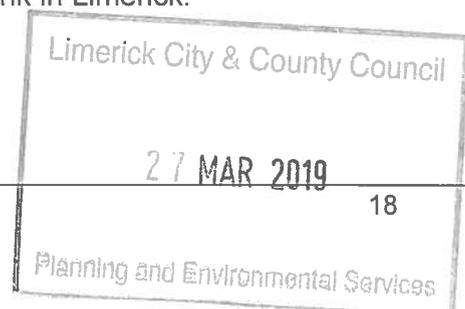
All materials required for the site will be transported there by existing public roads and thence to the works area. There will be no requirement to access the area of works through the SAC site.

- **Duration of construction, operation, decommissioning, etc;**

Works are expected to begin in September 2019 and last for six months. Operation will be indefinite as the N69 is an important transport link in Limerick.

Other

None.



Describe any likely changes to the site arising as a result of :

- **reduction of habitat area:**

There is no encroachment into either the Curraghchase Woodland SAC or the Askeaton fen Complex SAC. The works will take place within the footprint of the existing road and its margins (Communication from Road Design Office 15th October 2018).

- **habitat or species fragmentation;**

Before considering the bats, associated with the Curraghchase Special Area of conservation designation, attention was given to the possibility of the road proving a barrier to other mammals. While road mortality does play part in the population figures of wider ranging mammals such as foxes, otter and on occasion badgers, no remains of road casualties were found during the course of three visits to the area of the proposed works. The traffic calming works would play a role in slowing traffic which may have a beneficial effects on this but the increased use of lighting might also deter the movement of mammals across the stretch of road that is illuminated. Having said that mammals such as foxes have adopted well to living in well-lit urban areas and the increased lighting may not prove to be such an issue for them. In terms of the Special Area of Conservation designation it is the effects on the Lesser Horseshoe Bat that has to be considered.

Radio- tagging studies (Bontadina, Schofield and Naef-Daenzer (2001, p.286) indicate that for Lesser Horsehoe Bat foraging, " broadleaf woodland predominated over other woodland types" and that pasture and arable areas were the habitats least used by foraging bats. This coincides with comment from an Irish bat expert, when consulted on the scheme (McAney pers. comm. 8/10/2018) who considered that the bats would remain within the woodland rather than flying towards the road.

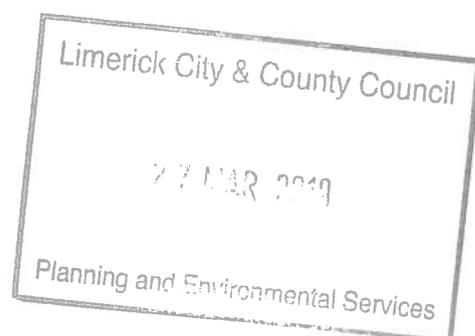




Figure 12: showing the open space beyond the entrance to the Curraghchase Special Area of Conservation. This is likely to prove an obstacle to bat movement and in particular the movement of the Lesser Horseshoe Bat.

Literature consulted regarding the effects of roadways on bats also find that they act as a barrier to bat activity and that bat activity of all species is considerably diminished in their vicinity. This can be due to light noise and chemical pollution (Berthinussen and Altringham 2011, p.6) The survey of 24th and 26th of September confirmed the lack of bat activity along the roadway. However the effects of this disturbance could well be limited. Studies have shown that even species that listen for noise produced by their prey are not likely to be affected by such noise beyond 100m from the roadway (Berthinussen and Altringham 2011 *op. cit.*) Lighting from cars also has an effect on bats. These effects have been assessed above and it is considered that since the bats do not use the area close to the roadway itself due to the existing open space (see figure 12 above) and existing traffic disturbance works would not cause additional barrier effects to bat movement. In short, the effects of the proposed scheme would not be significant.

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Figure 13: Kilcornan National School Building, showing modern windows installed

Lesser horseshoe bats often use older buildings as summer roost locations. While the Curraghchase colony has the cellars of the old great house and outbuilding to use as well as the Stonehall roost it was decided to examine suitable buildings in the vicinity. In general these would be older, i.e. stone rather than brick constructed. One such building lay within the area of the scheme. It's presence on the 6 inch map series dated it to the mid 19th century (Figure 14 below). This was to western end of the scheme and was on the northern side of the N69. It was the old Kilcornan National school building that now had new windows fitted and was sealed in such manner as to prevent access by Lesser Horseshoe Bats. This was discounted for possible use by the bat as a result. Should it have been suitable for use this would have reinforced the possibility of the road posing as a barrier. No traces of usage by other bats were found during the site visit.

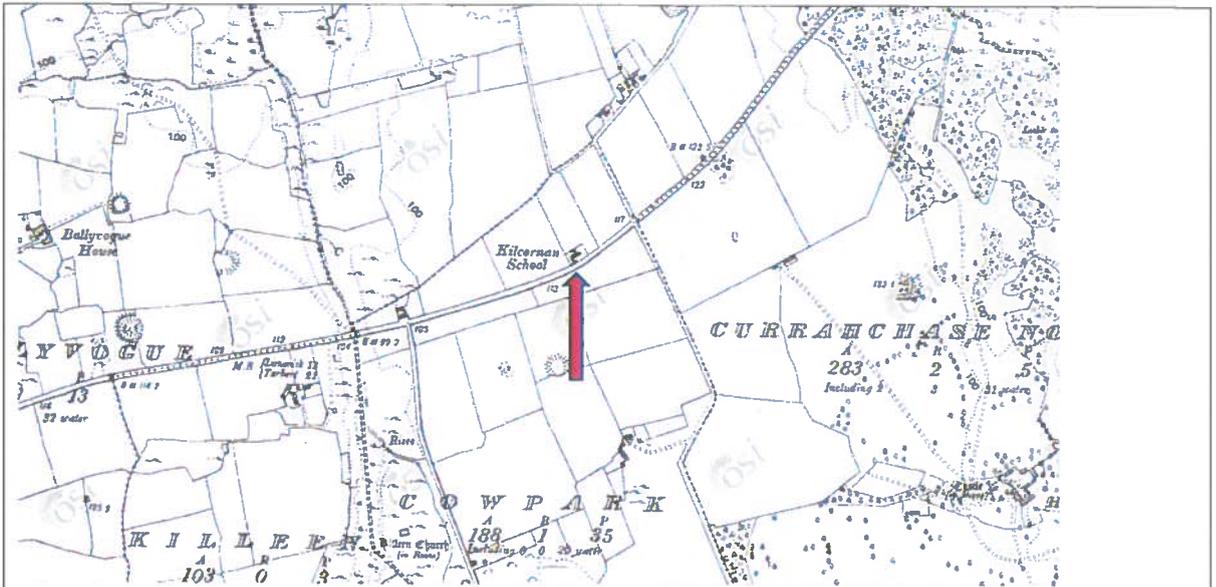


Figure 14: showing Kilcorman school building on the 6 inch map which dates from the 1837- 42 series of six inch maps (Source OSI Geohive)

- **reduction in species density;**

The Lesser Horseshoe Bat population forages within the woodland and does not venture onto the N69 area so direct mortality will not be an issue. No works will take place near the bat roosts, where they are at their most vulnerable, so there will no effects at these locations. One area that might have an effect is that of the proposed lighting which might draw insect prey from darker areas and affect the prey availability for the bats. However the new lighting will be LED in design with no UV output (Road Design Office October 2018 personal communication) . As a result its attractiveness for insects would be limited and as such would not have an effect on prey availability which might affect Lesser Horseshoe Bat density.

- **changes in key indicators of conservation value**

None, as the risk of pollution to local water based sites is not regarded as significant as no potential flow paths of hydrocarbons have been observed which might aid them entering the local watercourse. From the viewpoint of the bat population, there will no works within the broadleaved woodland that would affect the foraging habitats of the bat.

- **Climate change:**

It is not likely that the project would have significant effects on climate change.

Describe any likely impacts on the Natura 2000 site as a whole in terms of:

- **interference with the key relationships that define the structure of the site;**

None. The existing barrier effects of the roadway and the open space of the route corridor would not be compounded by the proposed works. This is due to the foraging habits of the bats who remain within the woodland. As detailed elsewhere the area close to the road is not used by the bats.

Provide indicators of significance as a result of the identification of effects set out above in terms of:

- **loss;**

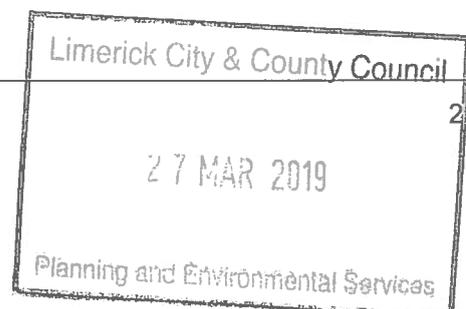
There will be no loss of habitat within any of designated sites as the works are confined to the N69 route corridor.

- **Fragmentation;**

As indicated elsewhere the current works will not cause fragmentation as the bats forage within the woodland rather than venturing into the open fields or open route corridor of the N69. It is the lack of habitats in the wider countryside rather than the road that restricts bat movement.

- **Disruption;**

It is not considered that the construction phase will cause significant disruption as works will take place from September 2019 and last for a six month period. The works will be confined to the route corridor of the N69 and will be outside the foraging range of the bats. In addition much of the works will take place in daylight hours, in which the bats will remain at roost. Any works that take place from late October onwards will be during the bat hibernation period



- **Disturbance;**

See above.

- **change to key elements of the site (e.g. water quality etc);**

As works will take place outside any of the sites and be confined to the route corridor of the N69 it is not considered that there will be any changes to the key elements of either the Curraghchase SAC site, the Askeaton Fen Complex SAC site or the Lower River Shannon SAC site.

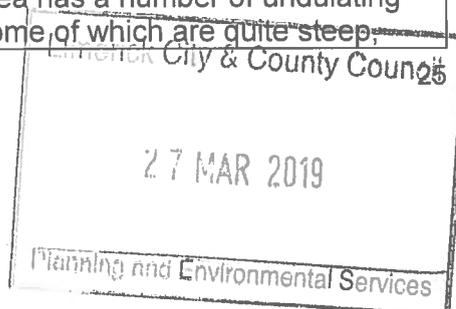
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts are not known.

One issue that arises is that of the N69 Road Improvement Scheme which proposes a new link from Foynes Port running around 7km south of the of the Curraghchase woodlands SAC site. The Natura Impact Report that accompanied its inclusion into the County Development Plan (variation No 6 to the Limerick County Development Plan – see www.limerick.ie), mentions several mitigation measures such as retention of trees and hedgerows and the inclusion of bat crossing points which would help in allowing the passage of the Lesser horse bats. This would reduce the possible barrier effects of the roadway.

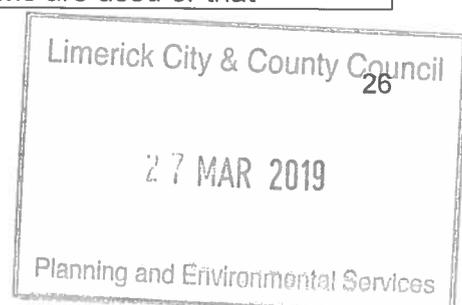
4.0 Finding of No Significant Effects Matrix

<p>Name of Project:</p>	<p>Kilcornan Traffic Calming works.</p>
<p>Name and location of Natura 2000 sites:</p>	<p>Curraghchase Special Area of Conservation lies immediately to the south of the road scheme. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):</p> <ul style="list-style-type: none"> [91E0] Alluvial Forests* [91J0] Yew Woodlands* [1303] Lesser Horseshoe Bat (Rhinolophus hipposideros) <p>One of the main interests at the site is the presence of a hibernation site of the Lesser Horseshoe Bat. The bats hibernate in the cellars of the former mansion of Curraghchase House, which is now in ruins. The entrance to the cellar is now gridded and all other access points blocked to prevent disturbance. In recent years bats have remained within the cellar throughout the year. A nearby building, which was part of the original Curraghchase building complex now plays host to bats which use it as a maternity roost.</p> <p>To the north and east of the site is the Askeaton Fen Complex. This consists of a number of small fen areas to the east, west and north of the road scheme.</p> <p>This area has a number of undulating hills, some of which are quite steep;</p>

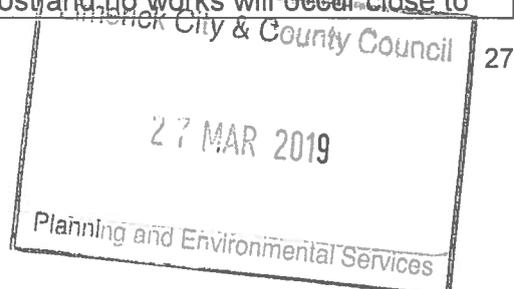
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	<p>and is underlain by Lower Carboniferous Limestone. At the base of the hills a series of fens/reedbeds/loughs can be found, often in association with marl or peat deposits. At the south-east of Askeaton, both Cappagh and Ballymorisheen fens are surrounded by large cliff-like rocky limestone outcrops. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes): [7210] <i>Cladium</i> Fens* [7230] Alkaline Fens</p>
Description of the Project or Plan	Series of traffic calming works including lights, kerbing and re-surfacing of the existing route-way.
Is the Project or Plan directly connected with or necessary to the management of the site (provide details) ?	No
Are there other projects or plans that together with the project of plan being assessed could affect the site (provide details)?	Yes, the proposed N69 road improvement scheme, in effect a new route to the port runs 7km to the south of this location. The Natura Impact Report that accompanied its inclusion into the County Development mentions the Lesser Horseshoe Bat. It states (p.770 that where required under passes and suitable landscaping will be used to facilitate Lesser Horseshoe bat movement. The need to ensure that suitable cowls are used or that



	lampstands are lowered are mentioned. These will be installed at project stage.
The Assessment of Significance of Effects	
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 sites:	<p>With the improved lighting to the north of the Curraghchase SAC site and the new route of the N69 Road Improvement Scheme to the south (mentioned above), there is the possibility of the population of Lesser Horseshoe Bat being isolated. However surveys have indicated that the bats do not use the area close to the road so the barrier effect is not expected to be significant in this case as the bats spend their time in the main body of woodland rather than on the northern edges.</p> <p>The NIR accompanying the N69 road improvement scheme provides for retention of habitats and the creation of bat crossing points to allow the movement of the Lesser Horseshoe Bat.</p> <p>The other possibility of effects would come from the possible entry of pollutants into the drain that runs to part of the Askeaton Fen Complex. However site visits have indicated that hydrocarbons are not finding their way into water courses that link to the site and literature indicates that the main threat to this is drainage. This is not part of this scheme.</p>
Explain why these effects are not considered significant:	<p>The bats are confined to the main body of the woodland because of the open gap between the woodland and road are not likely to move north towards the road and the location of the road scheme. The proposed works are to take place at 2.4km distance from the road and no works will occur close to</p>

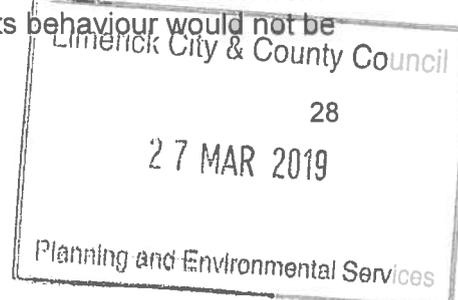


	the roost nor will any lights be installed outside the line of the N69. In short there is no interference with roost sites nor the woodland foraging area of the bats.		
List of Agencies Consulted: Provide contact name and telephone or email address:	<i>The Manager, Development Applications Unit DoEHLG Newtown Road, Wexford. (T: 053 9117382)</i>		
Response to consultation	<i>Awaited.</i>		
Data Collected to Carry out the Assessment			
Who carried out the Assessment?	Sources of Data	Level of assessment Completed	Where can the full results of the assessment be accessed and viewed
<i>Heritage Officer, Forward Planning Section, Limerick County Council.</i>	<i>Existing NPWS Site Synopses Site visits and site surveys.</i>	<i>Desktop study, site visits</i>	<i>The conclusions are included in the screening document.</i>

5.0 Conclusions: No lesser horseshoe bats were detected using the woodland margins close to the road during the two surveys of September 2018. The only species recorded was one fleeting contact with a Pipistrelle on the evening survey of the 26th of September.

The lesser horseshoe bat, favours broadleaved woodland as a foraging habitat, (McAney *et al* 2013, Lundy *et al* 2011 p.28, Bontadino *et al* 2002 p.287). The road itself, despite its characteristics as a barrier to bat activity, (Berthinussen and Altringham 2011) is not likely to be significant as no bats were found to be using the area close to it. This is, in part, due to the bats association with woodland habitats rather than open spaces and also the distance from the roost. Bontadino *et al* (2002) when speaking of lesser horseshoe bats, mentioned "that within 200m of the maternity roost, the estimated density of foraging lesser horseshoe bats was 5.8 bats/ha decreasing to 1 bat/ha at 390m and 0.01 bat/ha at 1200m". This strongly suggests that bat usage at the N69 route at 2.4km from the site would be lower still and the roads influence on its behaviour would not be significant.

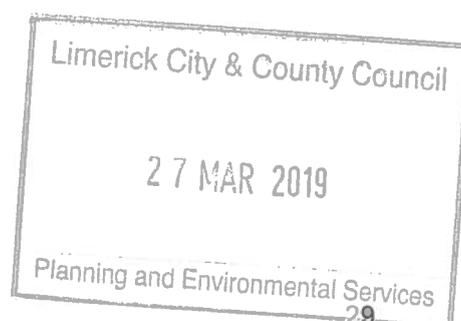
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Fairley (2001, p. 205) mentions these bats when crossing a road or track tend to do so when "the canopies of trees on either side touched". The gap from the woodland towards the N69 varies from 35 to 50m in width which in itself would deter bat movement northwards towards the road. This would mean that the existing open ground and existing conditions already proves to be a barrier to bat movement. This being the case the additional works proposed would not add to the barrier effect and would not have an effect on the existing movements of the species.

The lighting might be expected to have an effect on the bats insect prey by drawing away from the woodland and acting as population sink that would affect prey availability (Rowes *et al* 2016). The attraction of lights to insects is strongly correlated to its Ultraviolet (UV) component. Of "*the light sources that attract nocturnal insects, those that emit relatively large amounts of UV radiation ... exert the strongest attraction*" for insects ((Shimoda and Honda, 2013). The lighting that will be used will be LED type lighting with no UV output. This should greatly minimise any chances of drawing insects from surrounding areas thereby minimising trophic effects.

The other Special Area of Conservation site to be considered is the Askeaton Fen complex and the effects of the proposed works on it. There is the possibility of leakage of pollutants from the roadway during both the construction and operational phases. No such leakages were observed during repeated site visits. The main risk to the integrity of the Askeaton fen Complex in the site synopsis (NPWS 2014, p.2) cite "new drainage or the deepening of existing drains" as posing a threat to "the aquatic habitats at the site". Run off from roads or road works has not been referred to as a risk and as such are not considered a significant risk to this site. Similarly it is considered that there is not a significant risk to the habitat quality of the Lower River Shannon Special Area of Conservation (002165) which is farther to the north. The watercourse running from the N69 runs north through part of the Askeaton Fen Complex and onwards to the Shannon. See figure 7 above.



Sources:

Anna Berthinussen and John Altringham (2012) The effect of a major road on bat activity and diversity. *Journal of Applied Ecology* 49 pages 82-89.

Andrew Wakefield, Moth Broyles, Emma L. Stone, Gareth Jones, and Stephen Harris (2016) **Experimentally comparing the attractiveness of domestic lights to insects: Do LEDs attract fewer insects than conventional light types?** *Ecol Evol.* 2016 Nov; 6(22): 8028–8036. Published online 2016 Oct 13. doi: [10.1002/ece3.2527](https://doi.org/10.1002/ece3.2527) PMID: [27878075](https://pubmed.ncbi.nlm.nih.gov/27878075/)

Bat Conservation Ireland (2012) Bats and Appropriate Assessment Guidelines version no.1 December 2012.

Bontadino F, Schofield H and Naef-Daenzer B (2002) Radio tracking reveals that lesser horseshoe bats (*Rhinolophus hipposideros*) forage in woodland. *Journal of Zoology London*.

E.G. Rowse, D. Lewanzik, E.L. Stone, S. Harris and G. Jones 2016 Dark Matters: The Effects of Artificial Lighting on Bats in C.C. Voigt and T. Kingston (eds.), *Bats in the Anthropocene: Conservation of Bats in a Changing World*, DOI 10.1007/978-3-319-25220-9_7

Fairley J (2001) A Basket of Weasels. Published Privately Belfast.

European Union (2013) **Interpretation Manual Of European Union Habitats** European Commission DG Environment Brussels.

Fossitt J (2000) **A Guide to Habitats in Ireland**, Heritage Council Kilkenny.

Lewanik D and Voight C (2016) Transition from conventional to light- emitting diode street lighting changes activity of urban bats *Journal of Applied Ecology* September 2016.

McAney K, O Mahony C, Kelleher C, Taylor A, Biggane S (2013) *The Lesser Horseshoe Bat in Ireland*

National Parks and Wildlife Service (2018) Conservation objectives supporting document –lesser horseshoe bat (*Rhinolophus hipposideros*) Version 1 January 2018.

Shimoda, M. & Honda, K. *Appl Entomol Zool* (2013) 48: 413.
<https://doi.org/10.1007/s13355-013-0219-x>

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