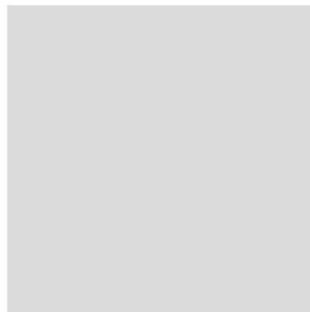


Foynes to Limerick Road Improvement Scheme

Route Selection Report

Volume 3 - Appendices



PRS Reference:	LC/14/10965
Phase:	2 – Route Options
Issue Date:	May 2016

Foynes to Limerick Road Improvement Scheme

Route Selection Report

Volume 3 - Appendices

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Appendix A

Public Exhibition Brochures

Foynes to Limerick Road Improvement Scheme



Public Consultation Route Corridor Options | March 2015

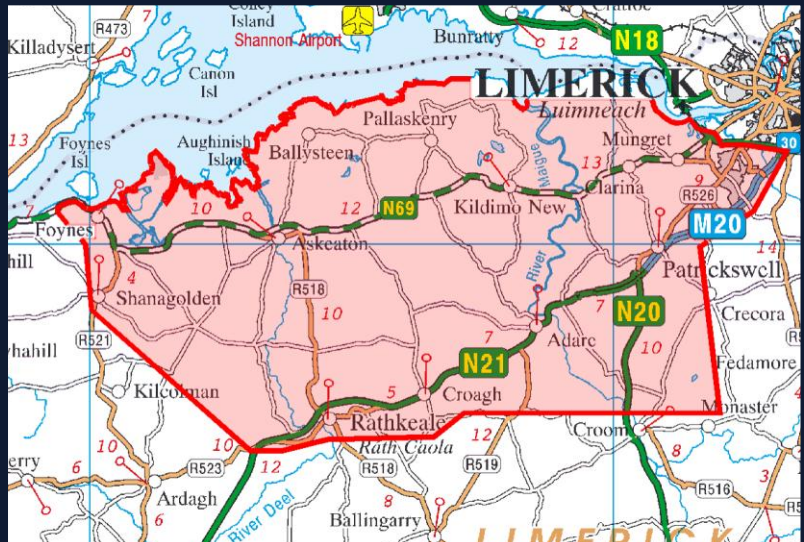
Limerick City and County Council has commenced the planning and design of the Foynes to Limerick Road Improvement Scheme. The scheme will provide a high quality road connection between the port of Foynes and Limerick, leading to reduced journey times, improved journey time reliability and improved safety between Foynes and Limerick for all road users.

Shannon-Foynes has been designated a Core Port under EU legislation (Trans European Network TEN-T) which requires a high quality road to be provided between the port of Foynes and the Core transport network in Limerick.

A study area was developed drawing on the findings of initial studies and previously proposed road schemes. The study area extends from Foynes to Limerick City. The northern boundary of the study area borders the Shannon Estuary and the southern boundary extends to south of Rathkeale and Adare incorporating

sections of the existing N69, N21, N20 and M20.

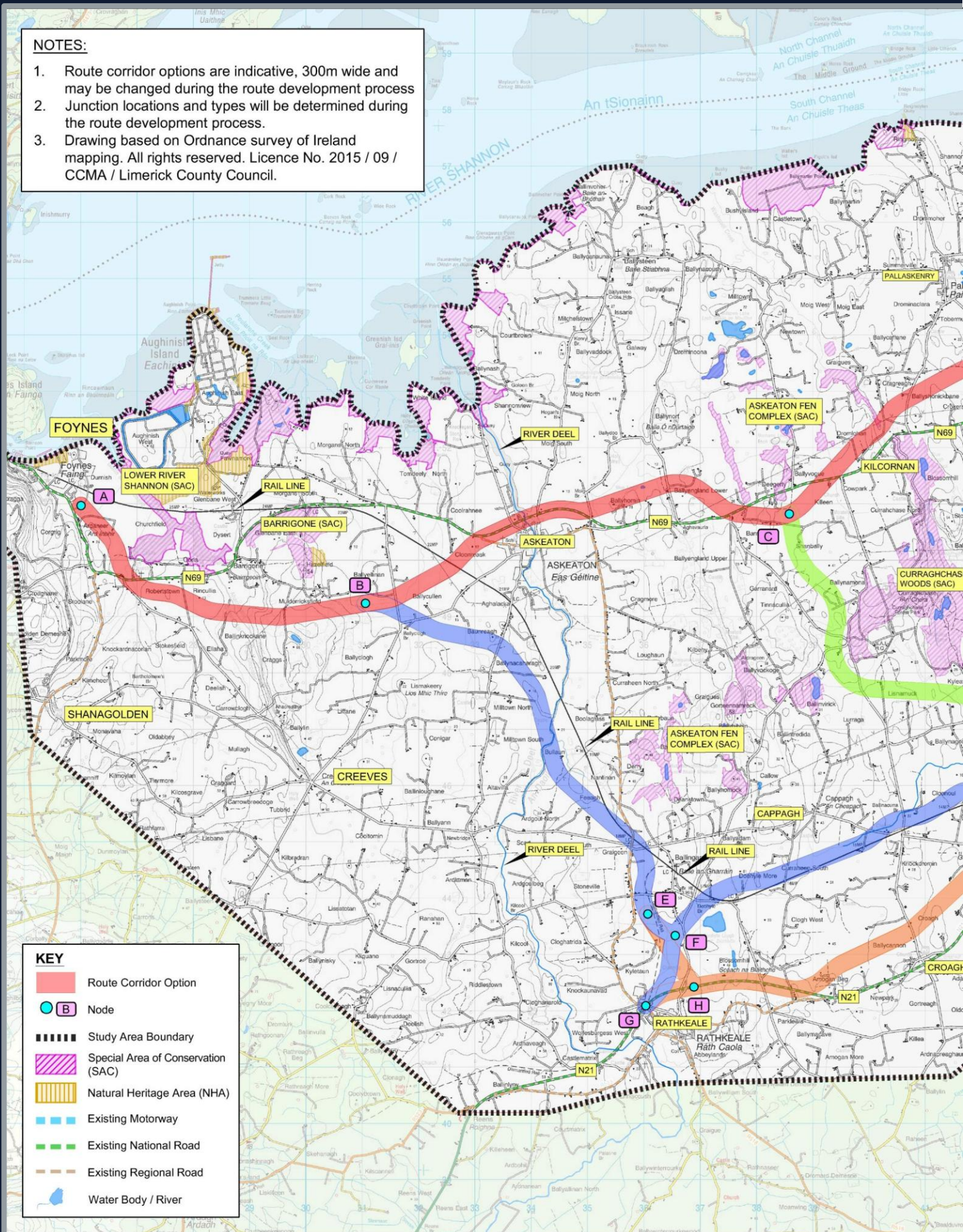
It is proposed that the Foynes to Limerick Road Improvement Scheme will extend from the Port of Foynes to tie in with the core road network in the vicinity of Limerick. Following the identification of the known constraints within the study area, a number of route corridor options for a road between Foynes and Limerick were developed for assessment. The four route corridor options shown on the following drawing are now presented for public consultation.



Route Corridor Options - Foynes to L

NOTES:

1. Route corridor options are indicative, 300m wide and may be changed during the route development process
2. Junction locations and types will be determined during the route development process.
3. Drawing based on Ordnance survey of Ireland mapping. All rights reserved. Licence No. 2015 / 09 / CCMA / Limerick County Council.



Foynes to Limerick Road Improvement Scheme

Public Consultation

The extent of the proposed study area was initially identified in mid 2014 and advertised in July 2014 on the project website www.foyneslimerick.ie. The purpose of this first public consultation is to inform the public of the route corridor options under consideration and invite written submissions regarding any aspects of the proposals. A comment sheet is included with this information leaflet to assist you in making comments. All comments will be recorded and considered during the next stage of the studies, which includes comparison of these route corridor options and the selection of a preferred route corridor.

Route Selection

The route selection has involved the development of numerous feasible route corridor options for a road between Foynes and Limerick. The 300m wide route corridor options presented here are the result of this development and refinement. In addition to the options presented, multiple route corridor options were developed which were considered less preferable comparative to those presented here based on environmental impacts, engineering complexity and economic performance.

The Planning Process

In addition to your comments the route corridor options will be subjected to further detailed assessment under the Department of Finance's Common Appraisal Framework, leading to the selection of a preferred route corridor, which will be the subject of further public consultation.

Following design development of the selected preferred route, an Environmental Impact Statement will be prepared. The Statutory Orders and Environmental Impact Statement will be published and a Public Hearing into the proposal will be conducted by An Bord Pleanála.

Stage
Public Consultation for Route Corridor Options
Public Display of Preferred Route Corridor
Design and Environmental Assessment
The Statutory Process

Contact Information

If you have any observations or submissions to make in relation to the route corridor options as shown please forward them to the following address by **Friday 10th April 2015**:

Post: Mid West National Road Design Office,
Limerick City and County Council,
Lissanalta House,
Dooradoyle Road,
Dooradoyle,
Limerick

Phone: 061 496800

Fax: 061 583150

Email: foynes@midwestroads.ie

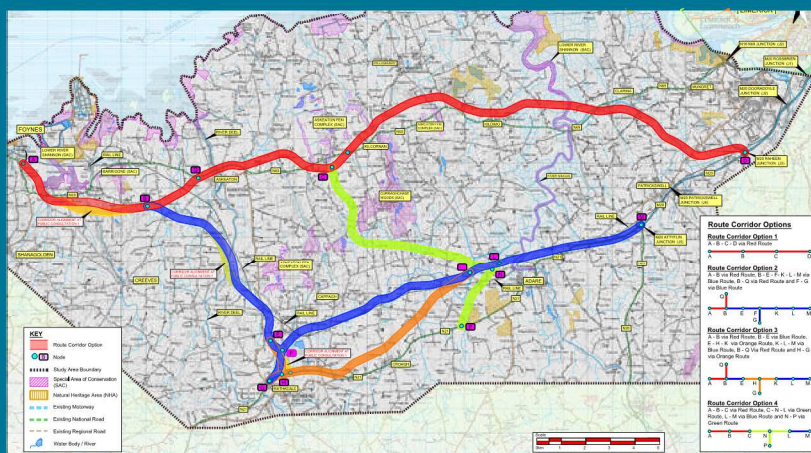
For further information regarding this scheme please visit the project website www.foyneslimerick.ie

Foynes to Limerick Road Improvement Scheme



Public Display Preferred Route Corridor | December 2015

Shannon-Foynes has been designated a Core Port under EU legislation (Trans European Transport Network TEN-T) which requires a high quality road to be provided between the port of Foynes and the core transport network in the vicinity of Limerick.



In March 2015, Limerick City & County Council held a Public Consultation to present four route corridor options for the Foynes to Limerick Road Improvement Scheme (see drawing above). Since then, the route corridor options, together with the feedback received from the public, have been assessed under the headings of Environment, Economy, Safety, Accessibility & Social Inclusion and Integration.

The Project Team (Mid West National Road Design Office and Roughan & O'Donovan – AECOM Alliance Consulting Engineers) has now identified a Preferred Route Corridor which is Route Corridor Option 3 (Orange) as shown overleaf.

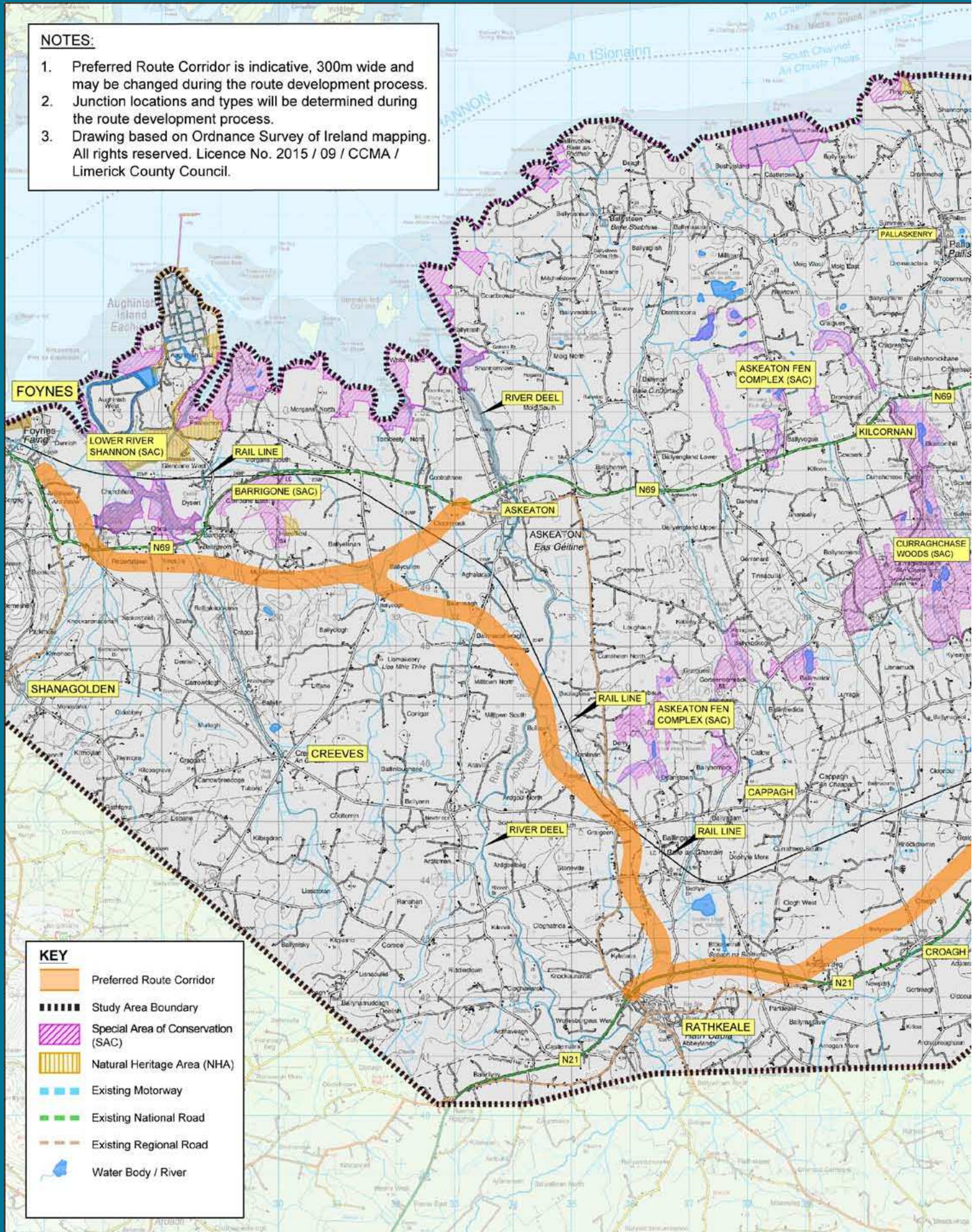
The preferred route corridor is indicative and 300m wide, within which the road alignment is likely to be developed. Junction locations and types will be developed during the route development process. The purpose of the public display is to inform the public of the preferred route corridor and to afford the opportunity for the public to engage in the process and to raise queries, concerns and comments for consideration as part of the detailed design of the road alignment within the preferred route corridor.

The project will provide a high quality road connection between the port of Foynes and Limerick, leading to reduced journey times, improved journey time reliability and improved safety between Foynes and Limerick for all road users. At the same time the option chosen will include a bypass of Adare, thus relieving a major traffic bottleneck on the National Road Network.

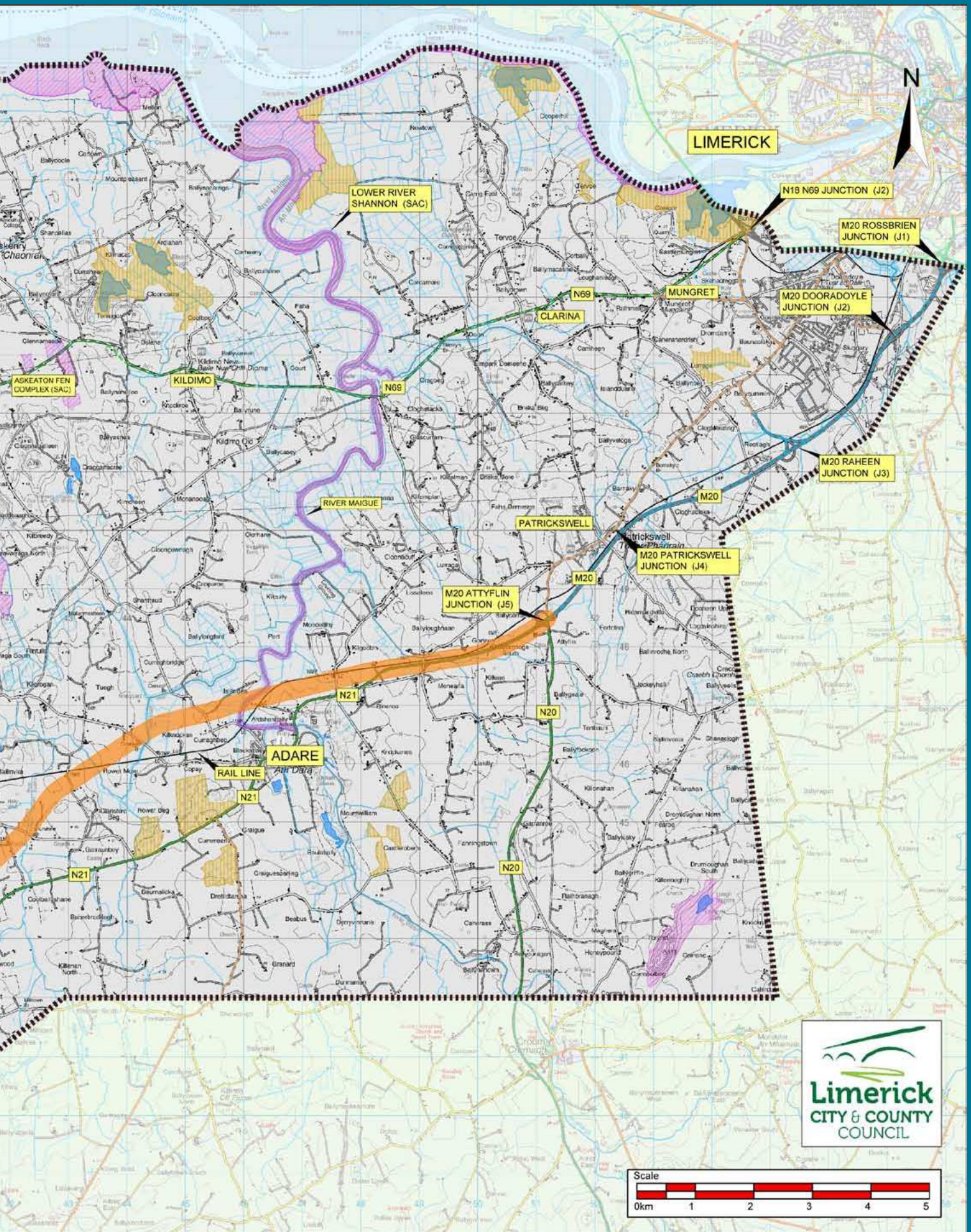
Preferred Route Corridor - Foynes to

NOTES:

1. Preferred Route Corridor is indicative, 300m wide and may be changed during the route development process.
2. Junction locations and types will be determined during the route development process.
3. Drawing based on Ordnance Survey of Ireland mapping. All rights reserved. Licence No. 2015 / 09 / CCMA / Limerick County Council.



Limerick Road Improvement Scheme



Foynes to Limerick Road Improvement Scheme

Amendments to Route Corridor Option 3 (Orange)

There have been four amendments to Route Corridor Option 3 (Orange) since the public consultation in March 2015 as described below:

- Moving the corridor by approximately 350m to the north in the townlands of Rincullia and Craggs to avoid a sensitive ecological habitat along the Ahacronane River.
- Moving the corridor by approximately 250m to the east in the townlands of Boolaglass and Nantinan to further avoid a Cashel in Milltown North which is subject to a Preservation Order under the National Monuments Acts.
- Moving the corridor by approximately 100m to the west in the townland of Kyletaun to further avoid St Joseph's Cemetery.
- Including a section of Route Corridor Option 1 (Red) to connect with the existing N69 to the west of Askeaton through the townlands of Ballyellinan, Ballycullen and Cloonreask.

What Happens Next?

The design of the road alignment within the Preferred Route Corridor, including side roads and junctions, will be developed, modified and refined as a result of further investigation, including comments and feedback from stakeholders (including direct consultations with property owners and interested parties that may be impacted); environmental, land, and geotechnical surveys; ongoing refinement of the design and assessments by the various environmental and technical specialists.

The Project Team will undertake all of the various environmental and technical assessments whilst continuing to develop the design of the alignment with the objective of seeking to avoid, reduce and mitigate potential impacts. This process will culminate in the publication of an Environmental Impact Statement and Statutory Orders in accordance with the relevant legislation for the development consent process. A Public Hearing into the proposal will then be conducted by An Bord Pleanála.

Anticipated Programme

Stage
Public Consultation for Route Corridor Options
Public Display of Preferred Route Corridor
Design and Environmental Assessment
The Statutory Process

Further Information

Drawings outlining the preferred route corridor will be available to view at the Mid West National Road Design Office and on the project website. For further information on this project or to offer feedback or comments on the preferred route corridor, contact details are as follows:

Post: Mid West National Roads Design Office,
Limerick City and County Council,
Lissanalta House, Dooradoyle Road, Dooradoyle, Limerick

Phone: 061 496800

Email: foynes@midwestroads.ie

Website: www.foyneshlimerick.ie

The closing date for receipt of feedback or comments on the preferred route corridor is
Friday 15th January 2016.

Appendix B

Air Quality Report For Route Corridor Option Appraisal

FOYNES TO LIMERICK ROAD IMPROVEMENT SCHEME

ROUTE SELECTION

AIR QUALITY REPORT

Technical Report Prepared For

**Roughan & O'Donovan -
AECOM Alliance**

Technical Report Prepared By

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EXECUTIVE SUMMARY

AWN Consulting was commissioned by Roughan & O'Donovan - AECOM Alliance to conduct an air quality route selection assessment for four route corridor options proposed for the Foynes to Limerick Road Improvement Scheme. The four route corridor options are as follows: Route Corridor Option 1, Route Corridor Option 2, Route Corridor Option 3 and Route Corridor Option 4.

As recommended by the TII guidelines, the UK DMRB air dispersion model was used to determine the impact of each of the routes on ambient levels of NO_x at each of the sensitive ecosystems listed in Table 1. Predicted NO_x concentrations are below the limit value for the protection of ecosystems for each of the locations assessed.

The Index of Overall Change in Exposure identified the number of sensitive receptors within the assumed zone of interest (assumed as 200m either side of the centreline of the route corridor options, or within 50m of the edge of existing roads, as appropriate) that would experience a significant change in traffic for each of the routes. The analysis was carried out using the methodology of the TII using the UK DMRB air dispersion model.

The route corridor options with the lowest exposure index to NO_x and PM₁₀ are the preferred options from an air quality perspective, as they lead to the smallest increases (or greatest decreases) in air pollution. The results of the Index of Overall Change in Exposure have been used to rank the route corridor options in order of their potential impact on air quality as shown below:

- 1) Route Corridor Option 2 – Most Preferred**
- 2) Route Corridor Option 4**
- 3) Route Corridor Option 3**
- 4) Route Corridor Option 1 – Least Preferred**

The results show that route corridor option 2 will lead to the greatest potential improvement in air quality and as a result is the preferred route.

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1.0 INTRODUCTION

AWN Consulting was commissioned by the Roughan & O'Donovan – AECOM Alliance to conduct an air quality route selection assessment for four route corridor options proposed for the Foynes to Limerick Road Improvement Scheme. There are four route corridor options which connect Foynes to the M20. This report assesses the various route corridor options from their points of deviation and presents the most favourable routes in terms of air quality impact.

2.0 ASSESSMENT METHODOLOGY

The Transport Infrastructure Ireland document entitled *“Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes”*⁽¹⁾ provides guidance on the route selection assessment procedures in *“Chapter 2 - Route Selection”*. The primary aspects of the assessment relate to existing ambient air quality, proximity of sensitive receptors and a review of the overall significance of potential changes in air quality.

TII Guidelines state that sensitive receptor locations for air quality include: residential housing, schools, hospitals, places of worship and shopping areas, i.e. locations where members of the public are likely to be regularly present. Designated habitats are also potentially sensitive receptors. Such sites include, Natural Heritage Areas (NHA), Special Areas of Conservation (SAC) and Special Protection Areas (SPA). The reason for the designation will define if the designated habitat is considered a sensitive ecosystem in respect of air quality.

The objective at this stage of the route selection process is to indicate whether there are likely to be significant air quality impacts associated with particular broadly defined routes. In the current assessment, the number of sensitive receptor locations (i.e. residential housing and other buildings) within 50m of the edge of each existing road has been identified. In the case of the new proposed route corridors, designated habitats (i.e. sensitive ecosystems), together with residential houses and buildings have been considered within 200m of each corridor centreline. Preliminary estimates of traffic data obtained from AECOM for the opening year of 2024 have been used in the model. A comparison of the proposed routes has been carried out based on a calculation of the Index of Overall Change in Exposure to NO_x and PM₁₀ resulting from each individual route. Oxides of nitrogen (NO_x) and particulate matter with a diameter < 10µm (PM₁₀) are the pollutants of greatest concern with respect to road traffic emissions as they are the pollutants at greatest risk of exceeding the standards.

3.0 BASELINE AIR QUALITY

3.1 Air Pollution Sources

The major source of air pollution within the study area is road traffic, predominantly that from the M20, N20, N69, N21 and to a lesser extent the R521, R518 and R526. Air quality is variable and subject to significant spatial variation, with concentrations generally falling significantly with distance from major road sources⁽²⁾. The highest levels of air pollution are experienced along the M20, N20, N69 and N21 with the remainder of the study area generally experiencing rural background concentrations of pollutants.

A review of Integrated Pollution Prevention and Control (IPPC) licences issued by the Environmental Protection Agency (EPA) for the region show that there are 9 IPPC licenced facilities with emissions to the atmosphere within the study area for this project. All of these facilities must comply with emissions limit values as stipulated in their IPPC licences⁽³⁾.

3.2 Meteorological Data

A key factor in assessing temporal and spatial variations in air quality is the prevailing meteorological conditions. Depending on wind speed and direction, individual receptors may experience very significant variations in pollutant levels under the same source strength (e.g. traffic levels)⁽⁴⁾. Wind is of key importance in dispersing air pollutants and for ground level sources, such as traffic emissions, pollutant concentrations are generally inversely related to wind speed. Thus, concentrations of pollutants derived from traffic sources will generally be greatest under very calm conditions and low wind speeds when the movement of air is restricted. In relation to PM₁₀, the situation is more complex due to the range of sources of this pollutant, and thus measured levels of PM₁₀ can be a non-linear function of wind speed.

The nearest representative weather station collating detailed weather records is Shannon Airport meteorological station. Shannon Airport meteorological station is located approximately 8 km north of the N69 and approximately 3 km north of the northern boundary of the study area. For data collated between 1981-2010 for Shannon Airport meteorological station, the annual average wind speed is approximately 4.7 m/s. For data collected between 2010-2014 for Shannon Airport meteorological station, the predominant wind ranges from south to westerly in direction. The windrose for Shannon Airport for the years 2010-2014 can be seen in Figure 1 in Appendix 1 of this Report.

3.3 Air Quality Zones in Ireland

As part of the implementation of the Framework Directive on Air Quality (1996/62/EC), four air quality zones have been defined in Ireland for air quality management and assessment purposes⁽⁵⁾. Dublin is defined as Zone A and Cork as Zone B. Zone C is composed of 15 towns with a population of greater than 15,000. The remainder of the country, which represents rural Ireland but also includes all towns with a population of less than 15,000 is defined as Zone D. In terms of air monitoring, the study area is predominantly categorised as Zone D whereas the eastern part of the study area is defined as Zone C as it incorporates the suburbs of Limerick City⁽⁵⁾.

3.4 EPA / Local Authority Monitoring Programmes

Air quality monitoring programmes have been undertaken throughout Ireland in recent years by the EPA and Local Authorities. The most recent EPA annual report on air quality monitoring undertaken throughout Ireland is entitled "*Air Quality In Ireland 2014 - Key Indicators of Ambient Air Quality*"⁽⁵⁾.

Continuous EPA monitoring is carried out for NO₂ at three Zone C locations in 2014 at Kilkenny Seville Lodge, Portlaoise (Laois) and Mullingar (Westmeath) and three Zone D locations at Emo (Laois), Castlebar (Mayo), Enniscorthy (Wexford) and Kilkitt (Monaghan) using continuous monitors^(5,6). Continuous EPA monitoring was also carried out for PM₁₀ at five Zone C locations in 2014 at Galway, Portlaoise, Mullingar, Ennis (Clare) and Bray (Wicklow) and three Zone D locations at Castlebar, Enniscorthy, Claremorris (Mayo) and Kilkitt. Although no EPA or Local Authority monitoring has been carried out within the study area, data from Zone C and Zone D locations in Ireland can be used to provide an indication of the prevailing air quality conditions.

3.5 Review of EPA Monitoring Data

The TII Guidelines⁽¹⁾ state that the local air quality assessment should focus on NO₂ and PM₁₀, as these are the pollutants of greatest concern with respect to road traffic conditions.

Long-term NO₂ monitoring is carried out at the two rural Zone D locations, Emo and Kilkitt in 2014⁽⁵⁾. The NO₂ annual average in 2014 for Emo and Kilkitt was 3 µg/m³. These concentrations are significantly lower than the limit value and would be broadly representative of the prevailing NO₂ concentrations at distances of 250m or greater from the national roads within the study area. A conservative estimate of the current rural background NO₂ concentration in the study area is 10 µg/m³.

The results of NO₂ monitoring carried out at the urban Zone D locations of Castlebar and Enniscorthy in 2014 indicated an average NO₂ concentration of 8 and 13 µg/m³,

respectively⁽⁵⁾, with no exceedances of the 1-hour limit value. Furthermore, the NO₂ annual average in 2014 for the Zone C locations of Kilkenny Seville Lodge, Portlaoise and Mullingar ranged from 4-16 µg/m³⁽⁵⁾. Hence long-term average concentrations measured at these locations were significantly lower than the annual average limit value for NO₂ of 40 µg/m³. Based on the above information, a conservative estimate of the current background NO₂ concentration close to the national roads within the study area and at small towns and villages in the study area is 12 µg/m³.

Long-term PM₁₀ monitoring is carried out at the rural Zone D location of Kilkitt⁽⁵⁾. The average concentration measured at Kilkitt in 2014 was 9 µg/m³. This concentration would be broadly representative of the prevailing PM₁₀ concentration at distances of 250m or greater from the national roads within the study area. A conservative estimate of the current rural background PM₁₀ concentration in the study area is 12 µg/m³.

Long-term PM₁₀ measurements carried out at urban Zone D locations in Castlebar, Enniscorthy and Claremorris in 2013 gave average levels of 10 - 22 µg/m³⁽⁵⁾. Data from the Phoenix Park in Dublin also provides a good indication of urban background levels, with an annual average in 2014 of 12 µg/m³⁽⁵⁾. Hence long-term average concentrations measured at these locations were significantly lower than the annual average limit value for PM₁₀ of 40 µg/m³. Based on the above information, a conservative estimate of the background PM₁₀ concentration close to the national roads within the study area and at small towns and villages in the study area is 15 µg/m³.

4.0 SENSITIVE RECEPTORS

The number of receptors sensitive to air quality within 50m of the edge of each of the proposed routes (assumed as 200m either side of the centreline of the route corridor options) has been determined. Receptors for the purpose of this assessment are regarded as residential buildings and other highly sensitive locations such as hospitals and schools. The results of this exercise were used for calculation of the Index of Overall Change in Exposure (see Section 6.0 of this Report). The numbers of sensitive receptors along each route corridor option are included in the detailed Tables 3 – 10 in Appendix 1 of this Report.

5.0 IMPACTS ON SENSITIVE ECOSYSTEMS

The EC Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the “Habitats Directive”) requires an Appropriate Assessment to be carried out where there is likely to be a significant impact upon a European protected site. TII requires the Air Quality Specialist to liaise with an ecologist on schemes where there is a European protected site within 2km of the route. However, as the potential impact of a scheme is limited to local level, detailed consideration need only be given to roads where there is a significant change to traffic flows (>5%) and the designated site lies within 200m of the road centre line. Where these two requirements are fulfilled, the assessment at the route selection stage involves a calculation of nitrogen oxides (NO_x) concentrations using a methodology recommended by Transport Infrastructure Ireland (TII), the DMRB screening method.

Each of the proposed route corridors enter or come within 200m of the sensitive ecosystems listed in Table 1. The UK DMRB air dispersion model was used to determine the impact of each of the routes on ambient levels of NO_x at the sensitive ecosystems listed in Table 1. The results of the assessment are detailed in Table 1.

As can be seen in Table 1 below, the worst-case predicted annual average NO_x level is 27.66 µg/m³ in the Lower River Shannon SAC at Adare for Route Corridor Option 3. This is below the standard for the protection of vegetation of 30 µg/m³. While the predicted annual average NO_x level of 27.66 µg/m³ is close to the limit value, the vegetation of the lower River Shannon SAC is not nitrogen sensitive and the project ecologist has confirmed there will be no significant impact. The assumed background concentration of NO_x in the area is 12.7 µg/m³. For each of the proposed routes there will be an increase in NO_x concentrations. The TII guidelines state in Appendix 9 that where the scheme is expected to cause an increase of more than 2 µg/m³ and the predicted concentrations (including background) are close to, or exceed the standard, then the sensitivity of the habitat to NO_x should be assessed by the project ecologist.

Table 1: Impact Assessment of Routes on Sensitive Ecosystems – Predicted NO_x Concentrations in the Opening Year (2024).

Route	Townland	Ecosystem	NO _x (µg/m ³) ^{Note 1}
Route Corridor Option 1	Foynes South	Lower River Shannon SAC / River Shannon and River Fergus SPA / Inner Shannon pNHA	15.28
	Askeaton	River Shannon and River Fergus Estuaries SPA	19.76
	Ballyvogue	Askeaton Fen Complex SAC	20.11
	Curraghchase	Curraghchase Woods SAC	15.39
	Dromore	Dromore and Bleach Loughs pNHA	16.17
	Kildimo	Lower River Shannon SAC	25.37
Route Corridor Option 2	Foynes South	Lower River Shannon SAC / River Shannon and River Fergus SPA / Inner Shannon pNHA	15.13
	Adare	Lower River Shannon SAC	27.61
Route Corridor Option 3	Foynes South	Lower River Shannon SAC / River Shannon and River Fergus SPA / Inner Shannon pNHA	15.11
	Adare	Lower River Shannon SAC	27.66
Route Corridor Option 4	Foynes South	Lower River Shannon SAC / River Shannon and River Fergus SPA / Inner Shannon pNHA	15.12
	Askeaton	River Shannon and River Fergus Estuaries SPA	20.24
	Ballyengland Lower	Askeaton Fen Complex SAC	14.96
	Ballynamona	Curraghchase Woods SAC	13.79
	Rower Beg	Adare Woodlands pNHA	26.22
	Adare	Lower River Shannon SAC	27.16
	Limit Value		30 ^{Note 2}

^{Note 1} Including a conservative background NO_x concentration of 12.7 µg/m³

^{Note 2} EU Council Directive 2008/50/EC (as an annual average)

6.0 CALCULATION OF THE INDEX OF OVERALL CHANGE IN EXPOSURE

The calculation of the Index of Overall Change in Exposure allows a comparison of the overall impact on people in each route option to be carried out. The Index is based on identifying the number of sensitive receptor locations (e.g. residential properties) within 50m of the edge of all road links (including each of the route corridors - assumed as 200m either side of the centreline of the route corridor options) that would experience a significant change in traffic for each of the routes. The change in emissions is influenced by changes in traffic flow, composition and speed. The analysis was carried out using the methodology of the TII⁽¹⁾ using the UK DMRB air dispersion model⁽²⁾.

Pollution from traffic sources increases at low traffic speeds and during congested traffic conditions. An improvement in the road infrastructure is likely to reduce traffic levels and congestion along the existing N69 and N21 Roads. In addition, the number of sensitive receptors directly impacted by the proposed routes will be less than the numbers currently impacted along the existing N69 and N21 roads.

A summary of the calculated Index of Overall Change in Exposure for the proposed route corridor options of the scheme is provided in Table 2 of this report. Detailed results of the analysis for each route corridor option are provided in Tables 3 – 10 in Appendix 1 of this report. The route corridor option with the lowest exposure index is the preferred option from an air quality perspective, as it leads to the smallest increases (or greatest decreases) in air pollution. The results of the Index of Overall Change in Exposure have been used to rank the route corridor options in order of their potential impact on air quality as shown below:

- 1) Route Corridor Option 2 – Most Preferred
- 2) Route Corridor Option 4
- 3) Route Corridor Option 3
- 4) Route Corridor Option 1 – Least Preferred

The results show that route corridor option 2 will have a slightly positive impact on ambient air quality, route corridor options 3 and 4 will have neutral impact on air quality and route corridor option 1 will have a slightly negative impact on ambient air quality (see Table 2).

Table 2 Summary of Index of Overall Change in Exposure For Each Route

Route	NO _x Exposure Index	PM ₁₀ Exposure Index	Air Quality Impact	Preferred Route
1	19512	189	Slightly Negative	-
2	-76122	-1784	Slightly Positive	✓
3	-34846	-194	Neutral	-
4	-45397	-376	Neutral	-

Route Corridor Option 2 would result in the greatest potential improvement in air quality of all four routes corridor options. The emission levels of NO_x and PM₁₀ are lower for the “Do Something” scenario than the “Do Nothing”. The number of receptors directly impacted by Route Corridor Option 2 is less than those impacted by the existing N69 and N21 roads. This will therefore result in an improvement in air quality in the region of the aforementioned roads. (see Appendix 1, Tables 3 - 4).

7.0 CONCLUSION

The route corridor option with the greatest potential improvement in pollutant exposure is the preferred option from an air quality perspective. The results of the Index of Overall Change in Exposure have been used to rank the route corridor options in order of their potential impact on air quality. The results show that Route Corridor Option 2 will lead to an improvement in air quality, Routes Corridor Options 3 and 4 will have a neutral effect on air quality and Route Corridor Option 1 will have a slightly negative effect on air quality.

The results show that Route Corridor Option 2 will lead to the greatest potential improvement in air quality and as a result is the preferred route corridor from an air quality perspective.

References

- (1) NRA (2011) Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes
- (2) Highways England (2007) Design Manual for Roads and Bridges Vol 11 Section 3, Part 1 (Document & Calculation Spreadsheet)
- (3) EPA (2015) <http://www.epa.ie/Licensing/IPPC/Licensing/>
- (4) World Health Organisation (2006) Guidelines For Air Quality
- (5) EPA (2015) Air Quality in Ireland 2014 - Key Indicators of Ambient Air Quality (and earlier reports)
- (6) EPA (2015) <http://www.epa.ie/whatwedo/monitoring/air>

APPENDIX 1

Table 1 - Route Corridor Option 1 – Detailed Results for NO_x Assessment

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		NO _x Emissions Rate (kg/yr)			Change in NO _x Emission Rate per km (kg/km/yr)	NO _x Score
	Do Nothing	Do Something		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Foynes Village	5650	6100	58	1.5	1.5	1008	1089	80	54	3126
Foynes Village S to R521 Junction	5950	1250	10	1.2	1.2	1340	241	-1098	-908	-9076
R521 Jnct to Newbridge Road Jnct	5900	1250	4	0.5	0.5	571	92	-479	-920	-3681
Newbridge Road Jnct to Aughinish Entrance	6000	350	13	2.5	2.5	2813	102	-2711	-1076	-13987
Aughinish Entrance to Tomdeely	5900	300	8	2.7	2.7	2953	100	-2853	-1060	-8484
Tomdeely to Askeaton West	6150	500	5	1.8	1.8	2048	111	-1937	-1082	-5411
Askeaton West to River Deel	4600		5	1.0		937	0	-937	-937	-4685
River Deel to Askeaton East	5450		7	1.3		1359	0	-1359	-1014	-7098
Askeaton East to Ballyvogue	7750	1850	17	3.4	3.4	4477	845	-3632	-1059	-18002
Ballyvogue to Curraghchase Jnct	7750	1800	4	0.9	0.9	1175	216	-959	-1066	-4262
Curraghchase Jnct to Boherboy	8750	2750	17	1.5	1.5	2225	553	-1672	-1108	-18828
Boherboy to Crokerspark	7650	1600	2	0.6	0.6	799	150	-649	-1047	-2094
Crokerspark to Glenameade	7500	1500	6	2.0	2.0	2592	441	-2151	-1103	-6619
Glenameade to Kildimo	9550	3550	26	2.2	2.2	3307	1093	-2214	-1020	-26524
Kildimo to Court	11500	3150	31	1.7	1.7	3175	822	-2353	-1360	-42170
Court to Ferrybridge	12150	3750	6	1.6	1.6	3122	910	-2212	-1374	-8242
Ferrybridge to Clarina	11400	3150	29	2.9	2.9	5239	1368	-3872	-1344	-38987
Clarina to Mungret	14050	13200	50	2.4	2.4	4978	4677	-301	-128	-6407
Foynes (Node A) to N69 Robertstown		5200	9		1.5	0	1553	1553	1035	9318
N69 Roberstown to N69 Cloonreask (Node Q)		6150	26		7.0	0	8572	8572	1225	31837
N69 Cloonreask (North of Askeaton) to Moig South (North of Askeaton)		4850	83		1.0	0	1015	1015	1015	84285
Moig South (North of Askeaton) to Ballyhomin (North-East of Askeaton)		6150	7		1.0	0	1161	1161	1161	8129
Ballyhomin (North-East of Askeaton) to Bolane (North-West of Kildimo)		6650	50		10.5	0	13186	13186	1256	62788
Bolane (North-West of Kildimo) to N69 Cragbeg		9050	26		5.0	0	7615	7615	1523	39600
N69 Cragbeg to M20 Raheen (Node D)		1450	25		7.0	0	1395	1395	199	4984
TOTAL						44117	47307			19512

Table 2 – Route Corridor Option 1 – Detailed Results for PM₁₀ Assessment

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		PM ₁₀ Emissions Rate (kg/yr)			Change in PM ₁₀ Emission Rate per km (kg/km/yr)	PM ₁₀ Score
	Do Nothing	Do Some- thing		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Foynes Village	5650	6100	58	1.5	1.5	32	34	3	2	99
Foynes Village S to R521 Junction	5950	1250	10	1.2	1.2	46	9	-36	-30	-301
R521 Jnct to Newbridge Road Jnct	5900	1250	4	0.5	0.5	19	4	-16	-30	-120
Newbridge Road Jnct to Aughinish Entrance	6000	350	13	2.5	2.5	96	5	-91	-36	-469
Aughinish Entrance to Tomdeely	5900	300	8	2.7	2.7	101	5	-96	-36	-286
Tomdeely to Askeaton West	6150	500	5	1.8	1.8	70	5	-65	-36	-181
Askeaton West to River Deel	4600		5	1.0		30	0	-30	-30	-149
River Deel to Askeaton East	5450		7	1.3		46	0	-46	-35	-242
Askeaton East to Ballyvogue	7750	1850	17	3.4	3.4	165	38	-127	-37	-632
Ballyvogue to Curraghchase Jnct	7750	1800	4	0.9	0.9	43	10	-34	-37	-150
Curraghchase Jnct to Boherboy	8750	2750	17	1.5	1.5	82	25	-57	-38	-646
Boherboy to Crokerspark	7650	1600	2	0.6	0.6	29	6	-23	-38	-76
Crokerspark to Glenameade	7500	1500	6	2.0	2.0	92	18	-74	-38	-228
Glenameade to Kildimo	9550	3550	26	2.2	2.2	127	46	-81	-37	-971
Kildimo to Court	11500	3150	31	1.7	1.7	122	33	-89	-51	-1596
Court to Ferrybridge	12150	3750	6	1.6	1.6	120	37	-83	-52	-311
Ferrybridge to Clarina	11400	3150	29	2.9	2.9	202	55	-146	-51	-1475
Clarina to Mungret	14050	13200	50	2.4	2.4	200	188	-12	-5	-258
Foynes (Node A) to N69 Robertstown		5200	9		1.5	0	51	51	34	308
N69 Roberstown to N69 Cloonreask (Node Q)		6150	26		7.0	0	283	283	40	1052
N69 Cloonreask (North of Askeaton) to Moig South (North of Askeaton)		4850	83		1.0	0	32	32	32	2685
Moig South (North of Askeaton) to Ballyhomin (North-East of Askeaton)		6150	7		1.0	0	40	40	40	279
Ballyhomin (North-East of Askeaton) to Bolane (North-West of Kildimo)		6650	50		10.5	0	453	453	43	2156
Bolane (North-West of Kildimo) to N69 Cragbeg		9050	26		5.0	0	285	285	57	1481
N69 Cragbeg to M20 Raheen (Node D)		1450	25		7.0	0	61	61	9	218
TOTAL						1623	1723			189

Table 3 - Route Corridor Option 2 – Detailed Results for NO_x Assessment

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		NO _x Emissions Rate (kg/yr)			Change in NO _x Emission Rate per km (kg/km/yr)	NO _x Score
	Do Nothing	Do Something		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Foynes Village S to R521 Junction	5950	1150	10	1.2	1.2	1340	222	-1117	-924	-9235
R521 Jnct to Newbridge Road Jnct	5900	1050	4	0.5	0.5	571	82	-489	-939	-3758
Newbridge Road Jnct to Aughinish Entrance	6000	350	13	2.5	2.5	2813	102	-2711	-1076	-13987
Aughinish Entrance to Tomdeely	5900	300	8	2.7	2.7	2953	100	-2853	-1060	-8484
Tomdeely to Askeaton West	6150	500	5	1.8	1.8	2048	111	-1937	-1082	-5411
Askeaton West to River Deel	4600	3100	5	1.0	1.0	937	686	-251	-251	-1254
River Deel to Askeaton East	5450	3100	7	1.3	1.3	1359	920	-439	-328	-2295
Askeaton East to Ballyvogue	7750	5800	17	3.4	3.4	4477	3526	-951	-277	-4713
Ballyvogue to Curraghchase Jnct	7750	5800	4	0.9	0.9	1175	925	-249	-277	-1109
Curraghchase Jnct to Boherboy	8750	6750	17	1.5	1.5	2225	1717	-509	-337	-5726
Boherboy to Crokerspark	7650	5650	2	0.6	0.6	799	652	-147	-237	-474
Crokerspark to Glenameade	7500	5500	6	2.0	2.0	2592	1995	-597	-306	-1836
Glenameade to Kildimo	9550	7550	26	2.2	2.2	3307	2759	-548	-253	-6566
Kildimo to Court	11500	9550	31	1.7	1.7	3175	2637	-538	-311	-9647
Court to Ferrybridge	12150	10100	6	1.6	1.6	3122	2595	-527	-327	-1963
Ferrybridge to Clarina	11400	9650	29	2.9	2.9	5239	4435	-804	-279	-8099
Clarina to Mungret	14050	12350	50	2.4	2.4	4978	4375	-602	-256	-12815
Mungret to N18	11100	10350	16	1.9	1.9	3496	3259	-236	-126	-2021
Rathkeale to Rathkeale East	13450	1300	9	3.3	3.3	6691	533	-6158	-1866	-16795
Rathkeale East to Croagh	14450	2050	24	1.9	1.9	4161	487	-3674	-1924	-46169
Croagh to Clonshire	14350	1950	18	3.6	3.6	7810	875	-6935	-1921	-34579
Clonshire to Murphys Cross	14350	2000	8	1.6	1.6	3397	390	-3006	-1915	-15319
Adare Village	18450	6500	90	3.3	3.3	7270	2180	-5089	-1547	-139226
Adare to Attyflin	18500		2	3.5		9790	0	-9790	-2789	-5578
Attyflin to Patrickswell	31250	33050	6	2.5	2.5	16046	16970	924	367	2201
Foynes(Node A) to N69 Robertstown		4700	9		1.5	0	1476	1476	984	8857
N69 Robertstown to Ballyclogh (Node B)		5650	15		4.5	0	5062	5062	1125	16874
Ballyclogh (Node B) to Cloonreask (Node Q)		4750	10		2.3	0	2175	2175	946	9458
Ballyclogh (Node B) to Kyletaun (Node F)		2350	27		8.5	0	3362	3362	395	10678

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		NO _x Emissions Rate (kg/yr)			Change in NO _x Emission Rate per km (kg/km/yr)	NO _x Score
	Do Nothing	Do Something		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Rathkeale (Node G) to Kilknockan (West of Adare)		14400	68		10.0	0	22756	22756	2276	154739
Kilknockan (West of Adare) to M20 Attyflin (Node M)		20600	24		7.0	0	22787	22787	3255	78128
TOTAL						101769	110153			-76122

Table 4 – Route Corridor Option 2 – Detailed Results for PM₁₀ Assessment

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		PM ₁₀ Emissions Rate (kg/yr)			Change in PM ₁₀ Emission Rate per km (kg/km/yr)	PM ₁₀ Score
	Do Nothing	Do Something		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Foynes Village S to R521 Junction	5950	1150	10	1.2	1.2	46	9	-37	-31	-307
R521 Jnct to Newbridge Road Jnct	5900	1050	4	0.5	0.5	19	3	-16	-31	-124
Newbridge Road Jnct to Aughinish Entrance	6000	350	13	2.5	2.5	96	5	-91	-36	-469
Aughinish Entrance to Tomdeely	5900	300	8	2.7	2.7	101	5	-96	-36	-286
Tomdeely to Askeaton West	6150	500	5	1.8	1.8	70	5	-65	-36	-181
Askeaton West to Rock Abbey	4600	3100	5	1.0	1.0	30	21	-9	-9	-46
Rock Abbey to Askeaton East	5450	3100	7	1.3	1.3	46	28	-19	-14	-98
Askeaton East to Ballyvogue	7750	5800	17	3.4	3.4	165	125	-40	-12	-199
Ballyvogue to Curraghchase Jnct	7750	5800	4	0.9	0.9	43	33	-11	-12	-47
Curraghchase Jnct to Boherboy	8750	6750	17	1.5	1.5	82	63	-19	-12	-211
Boherboy to Crokerspark	7650	5650	2	0.6	0.6	29	22	-7	-12	-23
Crokerspark to Glenameade	7500	5500	6	2.0	2.0	92	68	-24	-12	-73
Glenameade to Kildimo	9550	7550	26	2.2	2.2	127	102	-25	-12	-305
Kildimo to Court	11500	9550	31	1.7	1.7	122	101	-21	-12	-371
Court to Ferrybridge	12150	10100	6	1.6	1.6	120	100	-20	-13	-75
Ferrybridge to Clarina	11400	9650	29	2.9	2.9	202	171	-31	-11	-311
Clarina to Mungret	14050	12350	50	2.4	2.4	200	176	-24	-10	-516
Mungret to Interchange	11100	10350	16	1.9	1.9	129	120	-9	-5	-74
Rathkeale to Rathkeale East	13450	1300	9	3.3	3.3	269	25	-244	-74	-666
Rathkeale East to Croagh	14450	2050	24	1.9	1.9	167	23	-145	-76	-1816
Croagh to Clonshire	14350	1950	18	3.6	3.6	314	41	-273	-76	-1362
Clonshire to Murphys Cross	14350	2000	8	1.6	1.6	137	18	-118	-75	-603
Adare	18450	6500	90	3.3	3.3	230	76	-154	-47	-4201
Adare to N20/N21 Interchange	18500		2	3.5		394	0	-394	-112	-224
N20/21 Interchange to Patrickswell	31250	33050	6	2.5	2.5	836	884	48	19	115
Foynes(Node A) to N69 Robertstown		4700	9		1.5	0	47	47	31	282
N69 Robertstown to Ballyclogh (Node B)		5650	15		4.5	0	167	167	37	557
Ballyclogh (Node B) to Cloonreask (Node Q)		4750	10		2.3	0	72	72	31	312
Ballyclogh (Node B) to Kyletaun (Node F)		2350	27		8.5	0	126	126	15	399

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		PM ₁₀ Emissions Rate (kg/yr)			Change in PM ₁₀ Emission Rate per km (kg/km/yr)	PM ₁₀ Score
	Do Nothing	Do Something		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Rathkeale (Node G) to Kilknockan (West of Adare)		14400	68		10.0	0	893	893	89	6073
Kilknockan (West of Adare) to M20 Attyflin (Node M)		20600	24		7.0	0	894	894	128	3066
TOTAL						4067	4424			-1784

Table 5 – Route Corridor Option 3 – Detailed Results for NO_x Assessment

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		NO _x Emissions Rate (kg/yr)			Change in NO _x Emission Rate per km (kg/km/yr)	NO _x Score
	Do Nothing	Do Something		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Foynes Village S to R521 Junction	5950	1150	10	1.2	1.2	1340	222	-1117	-924	-9235
R521 Jnct to Newbridge Road Jnct	5900	1050	4	0.5	0.5	571	82	-489	-939	-3758
Newbridge Road Jnct to Aughinish Entrance	6000	400	13	2.5	2.5	2813	116	-2697	-1070	-13912
Aughinish Entrance to Tomdeely	5900	250	8	2.7	2.7	2953	90	-2863	-1064	-8516
Tomdeely to Askeaton West	6150	500	5	1.8	1.8	2048	111	-1937	-1082	-5411
Askeaton West to Rock Abbey	4600	3450	5	1.0	1.0	937	764	-173	-173	-867
Rock Abbey to Askeaton East	5450	3450	7	1.3	1.3	1359	1023	-335	-250	-1752
Askeaton East to Ballyvogue	7750	6200	17	3.4	3.4	4477	3769	-708	-206	-3507
Ballyvogue to Curraghchase Jnct	7750	6150	4	0.9	0.9	1175	981	-194	-215	-861
Curraghchase Jnct to Boherboy	8750	7100	17	1.5	1.5	2225	1806	-420	-278	-4724
Boherboy to Crokerspark	7650	6000	2	0.6	0.6	799	692	-107	-172	-344
Crokerspark to Glenameade	7500	5850	6	2.0	2.0	2592	2122	-470	-241	-1445
Glenameade to Kildimo	9550	7900	26	2.2	2.2	3307	2887	-420	-194	-5034
Kildimo to Court	11500	9900	31	1.7	1.7	3175	2733	-442	-255	-7915
Court to Ferrybridge	12150	10450	6	1.6	1.6	3122	2685	-437	-271	-1628
Ferrybridge to Clarina	11400	9950	29	2.9	2.9	5239	4573	-666	-231	-6711
Clarina to Mungret	14050	12700	50	2.4	2.4	4978	4499	-478	-204	-10176
Mungret to Interchange	11100	10450	16	1.9	1.9	3496	3291	-205	-109	-1751
Rathkeale to Rathkeale East	13450		9	3.3		6691	0	-6691	-2028	-18249
Rathkeale East to Croagh	14450	1800	24	1.9	1.9	4161	427	-3734	-1955	-46914
Croagh to Clonshire	14350	1900	18	3.6	3.6	7810	852	-6957	-1927	-34691
Clonshire to Murphys Cross	14350	1950	8	1.6	1.6	3397	381	-3016	-1921	-15368
Adare	18450	6500	90	3.3	3.3	7270	2180	-5089	-1547	-139226
Adare to N20/N21 Interchange	18500		2	3.5		9790	0	-9790	-2789	-5578
N20/21 Interchange to Patrickswell	31250	32750	6	2.5	2.5	16046	16816	770	306	1834
Foynes(Node A) to N69 Robertstown		4650	9		1.5	0	1460	1460	974	8762
N69 Robertstown to Ballyclogh (Node B)		5650	15		4.5	0	5062	5062	1125	16874
Ballyclogh (Node B) to Cloonreask (Node Q)		5050	10		2.3	0	2313	2313	1005	10055
Ballyclogh (Node B) to Rathkeale (Node H)		1900	30		9.5	0	2852	2852	300	9007

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		NO _x Emissions Rate (kg/yr)			Change in NO _x Emission Rate per km (kg/km/yr)	NO _x Score
	Do Nothing	Do Something		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Rathkeale (Node G) to Kilknockan (close to Node K)		14100	85		10.0	0	22282	22282	2228	189394
Kilknockan (close to Node K) to M20 Attyflin (Node M)		20250	24		7.0	0	22400	22400	3200	76801
TOTAL						101769	109474			-34846

Table 6 - Route Corridor Option 3 – Detailed Results for PM₁₀ Assessment

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		PM ₁₀ Emissions Rate (kg/yr)			Change in PM ₁₀ Emission Rate per km (kg/km/yr)	PM ₁₀ Score
	Do Nothing	Do Some- thing		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Foynes Village S to R521 Junction	5950	1150	10	1.2	1.2	46	9	-37	-31	-307
R521 Jnct to Newbridge Road Jnct	5900	1050	4	0.5	0.5	19	3	-16	-31	-124
Newbridge Road Jnct to Aughinish Entrance	6000	400	13	2.5	2.5	96	6	-90	-36	-465
Aughinish Entrance to Tomdeely	5900	250	8	2.7	2.7	101	4	-97	-36	-288
Tomdeely to Askeaton West	6150	500	5	1.8	1.8	70	5	-65	-36	-181
Askeaton West to Rock Abbey	4600	3450	5	1.0	1.0	30	23	-7	-7	-35
Rock Abbey to Askeaton East	5450	3450	7	1.3	1.3	46	31	-16	-12	-82
Askeaton East to Ballyvogue	7750	6200	17	3.4	3.4	165	134	-32	-9	-156
Ballyvogue to Curraghchase Jnct	7750	6150	4	0.9	0.9	43	35	-9	-9	-38
Curraghchase Jnct to Boherboy	8750	7100	17	1.5	1.5	82	67	-15	-10	-174
Boherboy to Crokerspark	7650	6000	2	0.6	0.6	29	24	-6	-9	-19
Crokerspark to Glenameade	7500	5850	6	2.0	2.0	92	72	-19	-10	-60
Glenameade to Kildimo	9550	7900	26	2.2	2.2	127	106	-21	-10	-249
Kildimo to Court	11500	9900	31	1.7	1.7	122	105	-17	-10	-304
Court to Ferrybridge	12150	10450	6	1.6	1.6	120	103	-17	-10	-63
Ferrybridge to Clarina	11400	9950	29	2.9	2.9	202	176	-26	-9	-258
Clarina to Mungret	14050	12700	50	2.4	2.4	200	181	-19	-8	-410
Mungret to Interchange	11100	10450	16	1.9	1.9	129	121	-8	-4	-65
Rathkeale to Rathkeale East	13450		9	3.3		269	0	-269	-82	-734
Rathkeale East to Croagh	14450	1800	24	1.9	1.9	167	20	-147	-77	-1851
Croagh to Clonshire	14350	1900	18	3.6	3.6	314	40	-274	-76	-1367
Clonshire to Murphys Cross	14350	1950	8	1.6	1.6	137	18	-119	-76	-605
Adare	18450	6500	90	3.3	3.3	230	76	-154	-47	-4201
Adare to N20/N21 Interchange	18500		2	3.5		394	0	-394	-112	-224
N20/21 Interchange to Patrickswell	31250	32750	6	2.5	2.5	836	876	40	16	96
Foynes(Node A) to N69 Robertstown		4650	9		1.5	0	47	47	31	279
N69 Robertstown to Ballyclogh (Node B)		5650	15		4.5	0	167	167	37	557
Ballyclogh (Node B) to Cloonreask (Node Q)		5050	10		2.3	0	76	76	33	332
Ballyclogh (Node B) to Rathkeale (Node H)		1900	30		9.5	0	112	112	12	354

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		PM ₁₀ Emissions Rate (kg/yr)			Change in PM ₁₀ Emission Rate per km (kg/km/yr)	PM ₁₀ Score
	Do Nothing	Do Some- thing		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Rathkeale (Node G) to Kilknockan (close to Node K)		14100	85		10.0	0	875	875	87	7433
Kilknockan (close to Node K) to M20 Attyflin (Node M)		20250	24		7.0	0	879	879	126	3014
TOTAL						4067	4391			-194

Table 7 – Route 4 – Detailed Results for NO_x Assessment

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		NO _x Emissions Rate (kg/yr)			Change in NO _x Emission Rate per km (kg/km/yr)	NO _x Score
	Do Nothing	Do Something		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Foynes Village S to R521 Junction	5950	1200	10	1.2	1.2	1340	232	-1108	-916	-9155
R521 Jnct to Newbridge Road Jnct	5900	1150	4	0.5	0.5	571	85	-486	-935	-3738
Newbridge Road Jnct to Aughinish Entrance	6000	350	13	2.5	2.5	2813	102	-2711	-1076	-13987
Aughinish Entrance to Tomdeely	5900	300	8	2.7	2.7	2953	100	-2853	-1060	-8484
Tomdeely to Askeaton West	6150	500	5	1.8	1.8	2048	111	-1937	-1082	-5411
Askeaton West to Rock Abbey	4600	-	5	1.0		937	0	-937	-937	-4685
Rock Abbey to Askeaton East	5450	-	7	1.3		1359	0	-1359	-1014	-7098
Askeaton East to Ballyvogue	7750	600	17	3.4	3.4	4477	328	-4148	-1209	-20560
Ballyvogue to Curraghchase Jnct	7750	5350	4	0.9	0.9	1175	896	-279	-310	-1239
Curraghchase Jnct to Boherboy	8750	5800	17	1.5	1.5	2225	1552	-673	-446	-7576
Boherboy to Crokerspark	7650	4650	2	0.6	0.6	799	562	-237	-382	-764
Crokerspark to Glenameade	7500	4600	6	2.0	2.0	2592	1748	-844	-433	-2597
Glenameade to Kildimo	9550	6500	26	2.2	2.2	3307	2500	-807	-372	-9672
Kildimo to Court	11500	8500	31	1.7	1.7	3175	2476	-698	-404	-12516
Court to Ferrybridge	12150	9100	6	1.6	1.6	3122	2338	-784	-487	-2920
Ferrybridge to Clarina	11400	8800	29	2.9	2.9	5239	4045	-1195	-415	-12033
Clarina to Mungret	14050	11550	50	2.4	2.4	4978	4092	-886	-377	-18845
Mungret to Interchange	11100	9600	16	1.9	1.9	3496	3023	-472	-253	-4042
Clonshire to Murphys Cross	14350	1450	8	1.6	1.6	3397	383	-3013	-1919	-15354
Adare	18450	5650	90	3.3	3.3	7270	1730	-5540	-1684	-151553
Adare to N20/N21 Interchange	18500	-	2	3.5		9790	0	-9790	-2789	-5578
N20/21 Interchange to Patrickswell	31250	33900	6	2.5	2.5	16046	17407	1361	540	3240
Patrickswell to Ballycummin Interchange	28150	30200	5	2.8	2.8	16840	17230	390	139	696
Ballycummin Interchange to Dooradoyle Interchange	29350	31100	40	2.9	2.9	18373	18567	194	66	2649
Dooradoyle Interchange to M7/M20/N18 Interchange	26950	28550	0	1.5	1.5	8810	9333	523	342	0
Foynes(Node A) to N69 Robertstown	-	4700	9		1.5	0	1476	1476	984	8857
N69 Roberstown to N69 Cloonreask (Node Q)	-	5600	26		7.0	0	7805	7805	1115	28990
N69 Cloonreask (Node Q) to Moig South (North of	-	4300	80		1.0	0	944	944	944	75559

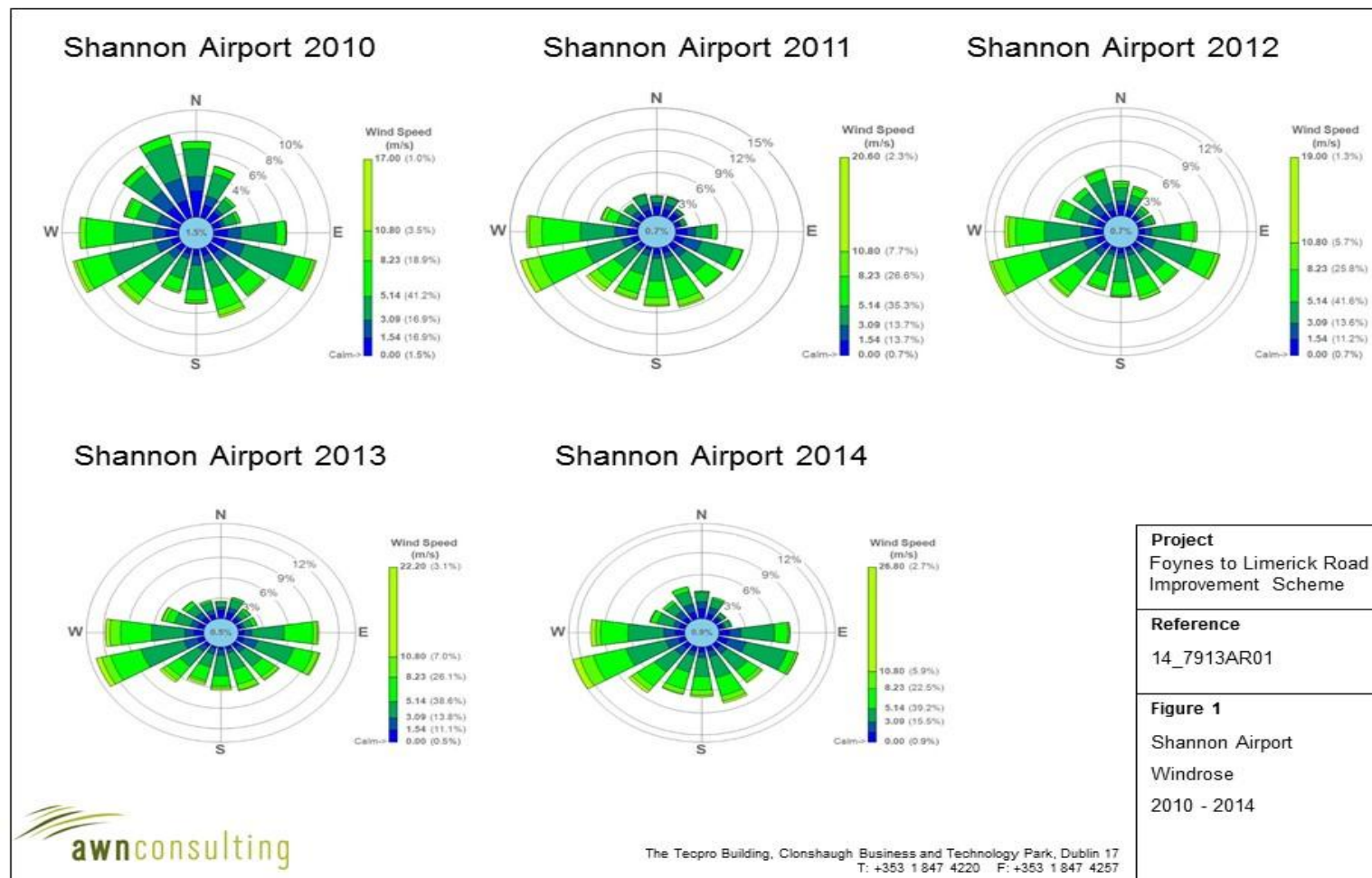
Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		NO _x Emissions Rate (kg/yr)			Change in NO _x Emission Rate per km (kg/km/yr)	NO _x Score
	Do Nothing	Do Some- thing		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Askeaton)										
Moig South (North of Askeaton) to Ballyhomin (North-East of Askeaton)	-	6750	7		1.0	0	1275	1275	1275	8923
Ballyhomin (North-East of Askeaton) to N69 Cowpark	-	6850	20		4.5	0	5504	5504	1223	24464
Ballyvogue (Node C) to Kilnockan (Node N)	-	29 50	27		8.5	0	3705	3705	436	11769
N21 Garraunboy (Node P) to Kilnockan (Node N)	-	13600	14		2.5	0	5373	5373	2149	30088
Kilnockan (Node N) to Mondellihy (North of Adare)	-	16300	10		2.5	0	6440	6440	2576	25758
Mondellihy (North of Adare) to M20 Attyflin (Node M)	-	21750	16		4.0	0	12855	12855	3214	51419
TOTAL						127130	134217			-45397

Table 8 - Route Corridor Option 4 – Detailed Results for PM₁₀ Assessment

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		PM ₁₀ Emissions Rate (kg/yr)			Change in PM ₁₀ Emission Rate per km (kg/km/yr)	PM ₁₀ Score
	Do Nothing	Do Something		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Foynes Village S to R521 Junction	5950	1200	10	1.2	1.2	46	9	-37	-30	-304
R521 Jnct to Newbridge Road Jnct	5900	1150	4	0.5	0.5	19	4	-16	-31	-122
Newbridge Road Jnct to Aughinish Entrance	6000	350	13	2.5	2.5	96	5	-91	-36	-469
Aughinish Entrance to Tomdeely	5900	300	8	2.7	2.7	101	5	-96	-36	-286
Tomdeely to Askeaton West	6150	500	5	1.8	1.8	70	5	-65	-36	-181
Askeaton West to Rock Abbey	4600	-	5	1.0		30	0	-30	-30	-149
Rock Abbey to Askeaton East	5450	-	7	1.3		46	0	-46	-35	-242
Askeaton East to Ballyvogue	7750	600	17	3.4	3.4	165	13	-152	-44	-755
Ballyvogue to Curraghchase Jnct	7750	5350	4	0.9	0.9	43	31	-13	-14	-57
Curraghchase Jnct to Boherboy	8750	5800	17	1.5	1.5	82	55	-27	-18	-304
Boherboy to Crokerspark	7650	4650	2	0.6	0.6	29	19	-11	-18	-35
Crokerspark to Glenameade	7500	4600	6	2.0	2.0	92	58	-34	-18	-105
Glenameade to Kildimo	9550	6500	26	2.2	2.2	127	89	-39	-18	-463
Kildimo to Court	11500	8500	31	1.7	1.7	122	91	-31	-18	-552
Court to Ferrybridge	12150	9100	6	1.6	1.6	120	90	-30	-19	-112
Ferrybridge to Clarina	11400	8800	29	2.9	2.9	202	156	-46	-16	-463
Clarina to Mungret	14050	11550	50	2.4	2.4	200	165	-36	-15	-758
Mungret to Interchange	11100	9600	16	1.9	1.9	129	111	-17	-9	-149
Clonshire to Murphys Cross	14350	1450	8	1.6	1.6	137	14	-123	-78	-624
Adare	18450	5650	90	3.3	3.3	230	64	-166	-50	-4530
Adare to N20/N21 Interchange	18500	-	2	3.5		394	0	-394	-112	-224
N20/21 Interchange to Patrickswell	31250	33900	6	2.5	2.5	836	907	71	28	169
Patrickswell to Ballycummin Interchange	28150	30200	5	2.8	2.8	841	898	57	20	102
Ballycummin Interchange to Dooradoyle Interchange	29350	31100	40	2.9	2.9	917	968	50	17	687
Dooradoyle Interchange to M7/M20/N18 Interchange	26950	28550	0	1.5	1.5	440	466	26	17	0
Foynes(Node A) to N69 Robertstown	-	4700	9		1.5	0	47	47	31	282
N69 Roberstown to N69 Cloonreask (Node Q)	-	5600	26		7.0	0	258	258	37	958
N69 Cloonreask (Node Q) to Moig South (North of Askeaton)	-	4300	80		1.0	0	29	29	29	2327

Link	AADT (2024)		No. Receptors (0-50m)	Link Length (km)		PM ₁₀ Emissions Rate (kg/yr)			Change in PM ₁₀ Emission Rate per km (kg/km/yr)	PM ₁₀ Score
	Do Nothing	Do Something		Do Nothing	Do Something	Do Nothing	Do Something	Change In Emissions		
Moig South (North of Askeaton) to Ballyhomin (North-East of Askeaton)	-	6750	7		1.0	0	44	44	44	306
Ballyhomin (North-East of Askeaton) to N69 Cowpark	-	6850	20		4.5	0	197	197	44	875
Ballyvogue (Node C) to Kilknockan (Node N)	-	2950	27		8.5	0	153	153	18	487
N21 Garraunboy (Node P) to Kilknockan (Node N)	-	13600	14		2.5	0	211	211	84	1181
Kilknockan (Node N) to Mondellihy (North of Adare)	-	16300	10		2.5	0	253	253	101	1011
Mondellihy (North of Adare) to M20 Attyflin (Node M)	-	21750	16		4.0	0	531	531	133	2126
TOTAL						5514	5943			-376

Figure 1: Windrose for Shannon Airport (2010-2014)



Appendix C

Noise and Vibration Report For Route Corridor Option Appraisal

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N69 FOYNES TO LIMERICK STAGE 2 ROUTE SELECTION NOISE AND VIBRATION REPORT

Technical Report Prepared For

**Roughan & O'Donovan -
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1.0 INTRODUCTION

Four route corridor options have been proposed as part of the Foynes to Limerick Road Improvement Scheme. This report is concerned with the assessment of these route corridors with respect to their potential noise and vibration impact.

The noise and vibration impact assessment has been conducted in accordance with the relevant guidance set down in Section 5.0 of the TII 2004 *Guidelines for the treatment of noise and vibration in national road schemes*, the 2014 *Good practice guidance for the treatment of noise during the planning of national road schemes* and in accordance with the requirements of the TII Project Management Guidelines 2010.

The four route corridor options have been compared with reference to their Potential Impact Ratings (PIR) based on property counts between 0 and 300m from the route corridor centreline. An assessment was also made of the likely range of noise levels at specified distances from the corridors in addition to the likely requirement of noise mitigation.

Appendix A contains a glossary of terminology used in this report.

2.0 ASSESSMENT METHODOLOGY

In order to establish a ranking methodology for this assessment, the following approach was undertaken in line with the guidelines set out in Chapter 5 of the TII document "Guidelines for the Treatment of Noise and Vibration in National Road Schemes (2004)" and Chapter 2 of the TII document, "Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes (2014)".

In terms of operational noise, the Authority considers it appropriate to set the design goal for road traffic noise for new national roads in Ireland as follows:

- Day-evening-night 60dB L_{den} (free field)

Both documents acknowledge that it may not always be sustainable to achieve this design goal. In such circumstances, nevertheless, a structured approach should be taken in order to ameliorate as far as practicable road traffic noise through the consideration of measures such as alignment changes, barrier type (e.g. earth mounds) or low noise road surfaces.

In general, the assessment of potential noise and vibration impacts is based primarily upon property counts, likely changes in traffic flow and a review of the likely requirement for mitigation measures.

The following has been conducted to assess the impact rating of each of the route corridors under consideration.

- Property counts have been conducted within four bands either side of the centreline of each route corridor option, i.e. 0 to 50m, 50 to 100m, 100 to 200m and 200 to 300m. Using this information the PIR for each route was established.
- The potential noise footprint of each route corridor option was then established taking into account the vertical alignments for varying sections of each route corridor option, traffic flows and traffic speed for the route corridor options.

- An assessment of the potential number of properties likely to be exposed to traffic noise levels at or above 60dB L_{den} , and hence require noise mitigation was determined using a noise 'footprint' assessment.
- An assessment of the likely change in traffic noise levels along the existing surrounding roads has been conducted to assess the noise impacts associated with the redistribution of traffic along the existing road network.

3.0 EXISTING ENVIRONMENT

The existing environment of the study area is predominately rural in nature. The land use is predominately a mixture of agricultural lands, residential properties and a small degree of commercial premises. Review of Ordnance Survey Ireland, aerial and digital mapping noted that the main contributors to the noise environment are likely to be from road traffic along the existing national, regional, local and minor roads, farm yard activities and general environmental sources including bird song and rustling foliage.

The Limerick City Council and Limerick County Council Joint Noise Action Plan (2013 to 2018) presents an overview of the noise contribution of road traffic within the bounds of the county. As part of the noise mapping requirements, all roads with traffic flows greater than 3 million vehicle trips per annum (approximately 8,000 Annual Average Daily Traffic) were required to be mapped in terms of the L_{den} and the L_{night} parameter. For Limerick City and County Council, sections of the N69, N21 and N20 roads within the study area of this route corridor study have been mapped. It should be noted that some sections of the existing national roads (e.g. along the N69 between Askeaton and Foynes) did not meet or exceed the traffic volumes which require a noise map to be generated. The maps are presented in noise contour bands in increments of 5 decibels starting at 55dB L_{den} .

Figure 1 displays an overview of the L_{den} noise contour map for the sections of roads within the study area which meet the noise mapping requirements.

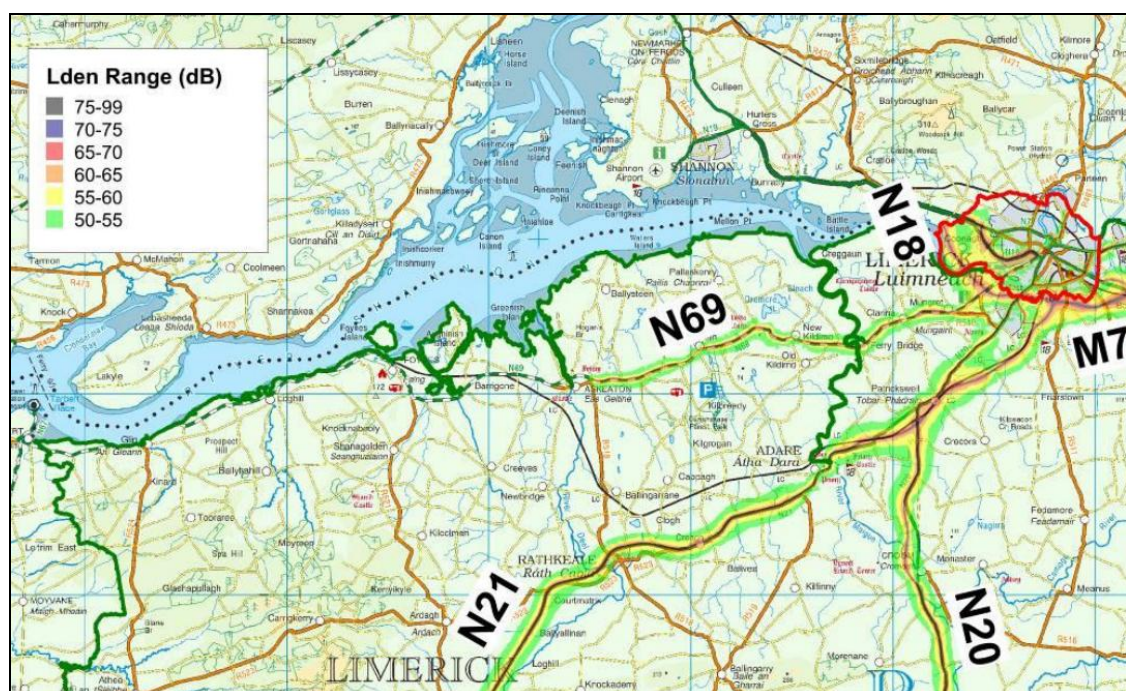


Figure 1 L_{den} Noise Map of study area relating to existing road traffic.

Following from the noise maps generated, the joint noise action plan has put forward a suggested threshold noise level above which identified areas are put forward to be considered for noise mitigation or management. The proposed onset levels for the assessment of noise mitigation measures are:

- 70dB, L_{den} ; and
- 57dB L_{night} .

Based on the noise mapping process, the noise action plan has conducted a review of the number of people likely to be exposed to road traffic noise above the onset of levels for the assessment of noise mitigation measures. The plan has noted that the main population centres exposed to noise levels above the onset of assessment thresholds lie in Limerick City and the suburbs of the city within the County boundary. There are also populations within towns, villages and associated with ribbon development settlements along all stretches of the major roads which experience relatively high levels of environmental noise exposure. Figures B1 to B5 in Appendix B display the L_{den} noise levels mapped for individual sections of these roads.

The results of the noise mapping process have identified the section of the N21 Road passing through Adare as a key “hotspot” where noise management measures should be prioritised. The range of management options at present relate to traffic management systems, (traffic calming measures, speed restrictions etc.) and the development of better public transport systems. The diversion of traffic volumes away from this area through the development of a bypass route would also be a key management option, where available.

It should be noted that noise contour maps are based on road traffic only for those routes which have been mapped. Noise from road traffic along other regional and local roads with traffic volumes less than the mapping requirement (8,000 AADT) will also contribute to the ambient noise levels at properties in the vicinity of these routes.

The scheme study area comprises a mix of noise sensitive receptors which are therefore already exposed to varying levels of road traffic noise. In addition, noise from industrial process, quarries, plant noise and other urban sources are not included in the noise mapping study but will contribute to the noise environment depending on their proximity to these sources.

4.0 ROUTE CORRIDOR OPTIONS DESCRIPTION

4.1 Route Corridor Option 1

This route corridor commences at Node A to the south of Foynes and travels south east meeting the existing N69 road and proceeding south of this road as far as Askeaton. The route corridor follows along the existing N69 alignment to the north of Askeaton where it continues east following an alignment predominately to the north of the existing N69 Road as far as Clarina. The proposed route corridor then veers south east towards Node D where it connects back with the M20 Motorway at Raheen. This route follows most closely the alignment of the existing N69 Road.

4.2 Route Corridor Option 2

This route corridor commences at Node A to the south of Foynes and travels south east meeting the existing N69 road and proceeding south of this road as far as Node B where it diverts south towards Node E to the north east of Rathkeale. The route corridor then veers east parallel to and north of the Foynes to Limerick rail line,

bypassing the town of Adare. The corridor crosses the rail line to the north of Adare and continues east parallel to and immediately south of the rail line and along the existing N21 Road as far as Node M where it ties into the existing M20 Motorway and Junction J5 (Attyflin). Two spur links are included as part of this route option, between node B and Q to provide a direct link to Askeaton and between Node F and G to provide a direct link to the N21 Rathkeale Bypass.

4.3 Route Corridor Option 3

This route corridor commences at Node A to the south of Foynes and travels south east meeting the existing N69 road and proceeding south of this road as far as Node B where it diverts south towards Node H to the north east of Rathkeale. A spur road between Nodes G and H connect the route corridor to Rathkeale which follows along the existing N21 Rathkeale Bypass. The proposed corridor continues east from Rathkeale along the existing N21 Road where it diverts north at Amogan Beg and continues north east bypassing Croagh as far as Node K to the north-west of Adare. From this point, Option 3 follows the same alignment as Option 2 continuing eastwards towards the M20 tie in point at Node M. Similar to Route Option 2 a spur link is included between node B and Q to provide a direct link to Askeaton.

4.4 Route Corridor Option 4

This route corridor follows the same alignment as Option 1 as far as Node C in the vicinity of Killeen. The route corridor then diverts south as far as Node N to the north west of Adare. A spur link road will connect the route corridor back towards the existing N21 at Garraunboy. From Node N, the route continues east to Node L where it follows the same alignment as Option 2 and 3 to the north of Adare and proceeds east along the existing N21 Road as far as Node M at the tie in point with the M20 Motorway.

5.0 ASSESSMENT OF ROUTE CORRIDOR OPTIONS

5.1 Potential Rating Based on Property Counts

An assessment of potential impact in terms of noise based upon the number of noise sensitive receptors within specified distance bands from each of the route options under consideration is set out in this Section.

The number of properties potentially sensitive to noise and/or vibration within 300m of each of the proposed route corridor options has been identified. This has been done for four bands either side of centreline of each route corridor, i.e. 0 to 50m, 50 to 100m, 100 to 200m and 200 to 300m. For the Potential Impact Rating (PIR) assessment, the total number of properties within 300m from the road centreline has been counted, irrespective of their location along existing roads (N21, N69 etc.), where applicable.

Sensitive properties may include residential units, schools, hospitals, nursing homes. In-line with the TII guidelines; at this stage of the assessment no further distinction is made between these different types of properties. Details of the particularly noise sensitive locations, including schools, hospitals, places of worship, sensitive habitats etc, have been identified through the Constraints Study and have been included in the overall assessment of the Route Corridor Selection Report.

The information collected is then used to establish a PIR for each route corridor option in accordance with the TII guidelines. The route corridor option with the lowest PIR has the lowest nominal potential impact.

5.1.1 Route Corridor Option 1

Table 1 presents the potential impact rating for Route Corridor Option 1 based on the number of property counts within 300m of the proposed corridor centreline.

Distance Bands	No. of Sensitive Properties in Band (A)	Rating Factor (B)	PIR (AxB)
0 - 50 m	13	4	52
50 - 100m	44	3	132
100 - 200m	169	2	338
200 - 300m	251	1	251
TOTAL			773

Table 1 Calculation of Potential Impact Rating for Route Corridor Option 1

Based upon the assessment of properties within the various distance bands and the rating factors associated with each band, the calculated PIR for Route Corridor Option 1 is 773. The majority of properties located along this corridor is within the furthest distance band of between 200 and 300m from the centreline.

5.1.2 Route Corridor Option 2

Table 2 presents the potential impact rating for Route Corridor Option 2 based on the number of property counts within 300m of the proposed corridor centreline.

Distance Bands	No. of Sensitive Properties in Band (A)	Rating Factor (B)	PIR (AxB)
0 - 50 m	8	4	32
50 - 100m	48	3	144
100 - 200m	87	2	174
200 - 300m	156	1	156
TOTAL			506

Table 2 Calculation of Potential Impact Rating for Route Corridor Option 2

Based upon the assessment of properties within the various distance bands and the rating factors associated with each band, the calculated PIR for Route Corridor Option 2 is 506. The majority of properties located along this corridor are also located within the furthest distance band of between 200 and 300m from the centreline.

5.1.3 Route Corridor Option 3

Table 3 presents the potential impact rating for Route Corridor Option 3 based on the number of property counts within 300m of the proposed corridor centreline.

Distance Bands	No. of Sensitive Properties in Band (A)	Rating Factor (B)	PIR (AxB)
0 - 50 m	15	4	60
50 - 100m	49	3	147
100 - 200m	98	2	196
200 - 300m	175	1	175
TOTAL			578

Table 3 Calculation of Potential Impact Rating for Route Corridor Option 3

Based upon the assessment of properties within the various distance bands and the rating factors associated with each band, the calculated PIR for Route Corridor Option 3 is 578. The majority of properties located along this corridor are also located within the furthest distance band of between 200 and 300m from the centreline.

5.1.4 Route Corridor Option 4

Table 4 presents the potential impact rating for Route Corridor Option 4 based on the number of property counts within 300m of the proposed corridor centreline.

Distance Bands	No. of Sensitive Properties in Band (A)	Rating Factor (B)	PIR (AxB)
0 - 50 m	16	4	64
50 - 100m	51	3	153
100 - 200m	142	2	284
200 - 300m	196	1	196
TOTAL			697

Table 4 Calculation of Potential Impact Rating for Route Corridor Option 4

Based upon the assessment of properties within the various distance bands and the rating factors associated with each band, the calculated PIR for Route Corridor Option 4 is 697. The majority of properties located along this corridor are also located within the furthest distance band of between 200 and 300m from the centreline.

5.1.5 PIR Summary

The PIR assessment above demonstrates the range of Potential Impact Ratings for each of the route corridor options under assessment. Route Corridor Option 1 has the highest calculated PIR value compared to the other routes and hence using this assessment methodology would rank this route least preferable compared to the other route corridor options. Route Corridor Option 2 has the lowest PIR value compared to the other routes and hence would be ranked the most favourable compared to the other route corridor options.

Whilst the PIR assessment provides a good overview of the number of properties potentially affected by the proposed route corridor options, this methodology does not distinguish between those properties which are already exposed to road traffic noise along sections of existing roads (i.e. sections of the N69 and N21) and hence may not experience any significant change in noise levels between the Do Nothing and Do Something scenarios. Route Corridor Option 1 follows a section of the existing N69

Road to the north of Askeaton and hence the higher density of properties in the vicinity of this area contributes to the overall PIR counts along this route.

Route Corridor Options 2, 3 and 4 all tie back into the existing N21 Road to the east of Adare Village. The properties along this section of road are also exposed to existing levels of road traffic in this area. Route Corridor Option 3 also follows along the existing alignment of the N21 from Rathkeale to Amogan Beg which is similarly located along the existing road.

Whilst the PIR assessment provides information on the number of properties in the vicinity of each route, the Guidelines acknowledge that the PIR process only provides an initial high level screening for route ranking. This approach does not take into account other key factors affecting the potential noise impact from a route, most notably its vertical alignment (cuttings, embankments, at grade, tunnels etc.), road traffic flows and potential for noise mitigation.

5.2 Assessment of Changes in Traffic Flow

5.2.1 Noise Impact along New Route Corridor Options

Consideration should be given to the new route corridor options that are introducing traffic flows where none presently exist. The guidelines state that where traffic flows are expected to increase by 100% or more or where new roads with moderate to high traffic flows are in close proximity to sensitive receptors; it may be deemed necessary to prepare indicative predictions calculations.

In order to analyse the potential noise and/or vibration impacts associated with the route corridors, the number of properties likely to require noise mitigation was determined using the following methodology:

- Each route corridor was overlaid on OS and aerial mapping. An indicative vertical alignment of each route corridor was then reviewed to identify areas of at-grade, cuttings and embankments along each route corridor;
- Using guidance from the TII's '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes*' (March 2014), the approximate distance to a 60dB L_{den} contour was established using the "noise footprint" graphs set out in Chapter 5 of the Guidance document;
- The noise contour lines were determined for individual sections of each route corridor option, taking account the vertical alignment of the route corridor option, traffic flows, traffic speed and the road surface;
- An operational speed of 100km/hr was assumed along all route corridor options and traffic flows for individual sections of each route was obtained from the AADT link information provided by the traffic consultants. A standard hot rolled asphalt road surface was assumed for all route corridor options;
- The number of noise sensitive properties within the 60dB L_{den} footprint line for each section of route corridor option was counted and a total number within each sub-section was established.
- For properties located along the existing roads, the change in traffic flows between the 'Do Nothing' and 'Do Something' scenarios has been assessed to determine the likely change in traffic noise levels and hence likely requirement for noise mitigation.

Whilst some sections of route corridor options have similar numbers of noise sensitive properties within their 300m wide corridor, sections of route corridor options which extend into a shallow cutting or those sections of routes with lower traffic flows have a narrower 60dB L_{den} contour band (i.e. fewer properties would exceed this criterion closer to the road development).

Table 5 summarises the number of properties counted along each route corridor option which are likely to require noise mitigation using the methodology described above.

Route Corridor Option	Indicative No. of Properties Likely to require Noise Mitigation
Route Corridor Option 1	20
Route Corridor Option 2	37
Route Corridor Option 3	29
Route Corridor Option 4	26

Table 5 Indicative Number of Properties Requiring Noise Mitigation

The result of this assessment has indicated that the number of properties likely to require noise mitigation is lowest along Route Corridor Option 1 whilst Route Corridor Option 2 has the highest number of properties. Whilst the number of properties requiring noise mitigation along each route corridor has been indicated, the number of properties affected is marginal between each of the route corridor options.

The difference in properties requiring noise mitigation between Route Corridor Option 2 and Route Corridor Option 3 relates to the area of divergence between nodes E and K. Route Corridor Option 2 has 8 additional properties likely to fall within the 60dB L_{den} contour and hence require noise mitigation compared to Route Corridor Option 3 between these nodes.

5.2.2 Noise Impact along Existing Routes

The guidelines note that an estimate should be made of the number of receptors in the vicinity of roads where traffic flows are likely to increase or decrease by 25% or more.

Consideration has therefore been given to traffic volumes along sections of the existing N69 and N21 Roads during the operational phase of each of the route corridor options. Due to the variation of route corridors proposed, the re-distribution of traffic flows will vary depending on the route corridor chosen. For Route Corridor Option 1, the majority of traffic flows along the existing N69 will be redistributed to the proposed new alignment which runs in close proximity to this road, however a minimal change in traffic volumes will be experienced along the N21 Road to the south.

For Route Corridor Options 2 to 4, the majority of traffic along the existing N21 will be diverted to the new proposed alignments with a portion of traffic from the N69 diverted between Nodes A to B or C, depending on the alignment.

Traffic flow predictions between the Do Something and Do Nothing scenarios for each route corridor option have been reviewed to determine the likely change in noise levels during the operational phase of each route. The number of properties within 50m from the edge of the existing roads has also been counted to determine an approximate number of properties impacted by the traffic flow changes. Table 6

presents a count of the number of properties calculated to experience a decrease in traffic noise by 3dB or greater (i.e. a change in noise level which is perceptible to the human ear).

Route Corridor Option	Indicative No. of Properties Likely to experience noise level reduction > 3dB(A)
Route Corridor Option 1	219
Route Corridor Option 2	191
Route Corridor Option 3	191
Route Corridor Option 4	169

Table 6 Indicative Number of Properties Likely to experience traffic noise decrease.

The results of the assessment has noted that the highest number of properties likely to experience a perceptible decrease in road traffic noise is associated with Route Corridor Option 1, these relate to the relatively large number of existing properties along the existing N69. Route Corridor Options 2 and 3 closely follow with 191 properties experiencing a positive reduction. Route Corridor Option 4 has the lowest number of properties likely to experience a positive reduction in road traffic noise along its route.

5.3 Overall Assessment of Route Corridor Options

Taking account of the assessments set out above, there are a number of considerations which give rise to the preference of one route corridor over another.

Table 7 summarises the results of the main assessments to provide a summary overview.

Route Corridor Option	PIR	Indicative No. of properties requiring mitigation	No of properties with reduction in traffic flow >3dB(A)	Ranking	Preference
Route Corridor Option 1	773	20	219	Moderately Negative	Least preferred
Route Corridor Option 2	506	37	191	Moderately Negative	Intermediate
Route Corridor Option 3	578	29	191	Moderately Negative	Preferred
Route Corridor Option 4	697	26	169	Moderately Negative	Least preferred

Table 7 Summary of ranking assessments for each route corridor option

On consideration of the above assessment criteria, all four route options are considered to have a ranking of Moderately Negative.

Whilst there are marginal differences between all route corridor options from a noise point of view, on consideration of the Potential Impact Rating (PIR) value for Route Corridor Option 1, this would indicate that a high number of properties overall would be affected by this option. In addition to the above, Route Option 1 would result in traffic volumes through Adare village remaining nominally unchanged. This would result in a missed opportunity to address one of the key “hotspots” identified in and the Limerick County Council Noise Action Plan and as an area which would benefit from noise mitigation and noise management measures. In this regard, whilst this

Option is considered to have a comparable moderately negative impact, it is least preferred from a noise point of view.

A moderately negative ranking has been applied to Route Corridor Option 2 given this option has the highest number of properties calculated to require noise mitigation compared to the other route options, albeit a lower PIR.

A moderately negative ranking has similarly been applied to Route Corridor Option 4 given the relatively higher PIR calculated for this route and the number of properties likely to require noise mitigation compared to the other route options in addition to the least benefit provided in terms of noise reduction to existing properties.

A moderately negative ranking has been applied to Route Corridor Option 3. This has been applied taking account of the PIR when compared to the other options, the lower requirement for noise mitigation and the benefit in terms of noise reduction to existing properties.

On consideration of the above, route corridor options 1 and 4 are considered to be least preferred given the high PIR values, the potential missed opportunity to bypass Adare village (Route Corridor Option 1) and the requirement for noise mitigation.

Option 3 has been ranked as a preference over Option 2. This is due to the overall noise footprint of Option 2 compared to Option 3. On assessment of the indicative horizontal and vertical alignment of both, a higher number of properties are calculated to exceed 60dB L_{den} for Option 2 compared to Option 3. Taking account these factors with the other assessment criteria being similar, Option 3 has been ranked ahead of Option 2 from a noise point of view.

6.0 MITIGATION MEASURES

Mitigation measures will typically consist of one or a combination of the following measures:

- Locating the route away from sensitive locations to avoid the need for further mitigation measures. It should be noted that the methodology used within this route selection process aims to ensure the chosen route corridor will impact the least number of properties;
- Containing the road within a cutting to provide acoustic and visual screening, where other engineering and environmental constraints permit;
- The use of noise barriers which can take many forms, e.g. an earth bund, a wall or a proprietary timber noise barrier;
- Where a barrier is required and constraints permit consideration should be given to the use of natural materials such as earth mounds/berms with appropriate levels of planting;
- Where mounds cannot be used, consideration should be given to the use of proprietary noise barriers. These must meet the specification outlined in the TII Manual for Contract Documents and may be upgraded to absorptive noise barriers in certain instances, and;
- The use of low noise road surfaces will also be considered where practicable.

Further detail is offered in relation to these mitigation opportunities in the following sections

6.1 Embankments and Bunds

- Earth mounds or bunds are often used to screen infrastructural developments from noise sensitive locations. Where appropriate earth mounds have a number of advantages over other noise barriers. These include:
- A more appealing visual aesthetic;
- Cost less if excess material is available from construction;
- May be less costly to maintain, and;
- Usually have a longer lifespan.

Earth mounds do however require much more space than a vertical barrier (e.g. timber).

6.2 Noise Barriers

A number of types of barriers are supplied to the market. These range from the timber barriers (typically the most frequently used barriers along roadsides in Ireland) to sheet metal, concrete/brick, plastic (PVC) and bio barriers. The extent and height of noise barriers will be defined as detailed alignments of the proposed scheme are assessed.

It should be noted that timber barriers can be used in combination with mounds/berms in order to develop an overall barrier of a required height (e.g. 1.5m berm with 1m timber barrier to give a mitigation measure of overall 2.5m height).

6.3 Low-Noise Road Surfaces (LNRS)

A variety of products are available on the market that are viable alternatives to the use of hot rolled asphalt. A commonly used alternative in recent years has been porous asphalt. Other alternatives are available such as Stone Mastic Asphalt (SMA) and Very Thin Surface Layers (VTSL). Reductions in traffic noise levels of the order of 2.5dB (A) are considered achievable by the TII from LNRS.

APPENDIX A

Glossary of Terms

AADT Annual Average Daily Traffic is the average number of vehicles, calculated over a period of one year, passing a point on a road each day. It is expressed in terms of vehicles per day

Decibel (dB) The scale in which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the Root Mean Square (**RMS**) pressure of the sound field and the reference pressure of 20 micro-pascals (20 µPa).

Free Field These are conditions in which the radiation from sound sources is unaffected by the presence of any reflecting boundaries or the source itself. In practice, it is a field in which the effects of the boundaries are negligible over the audible frequency range. In environmental noise, true free-field measurement conditions are seldom achieved and generally the microphone will be positioned at a height between 1.2 and 1.5 metres above ground level. To minimise the influence of reflections, measurements are generally made at least 3.5 metres from any reflecting surface other than the ground.

L_{den} Is the 24 hour noise rating level determined by the averaging of the L_{day} with the L_{evening} plus a 5 dB penalty and the L_{night} plus a 10 dB penalty. L_{den} is calculated using the following formula:

$$L_{den} = 10 \log \left(\frac{1}{24} \right) \left(12 * \left(10^{\frac{L_{day}}{10}} \right) + 4 * \left(10^{\frac{L_{evening} + 5}{10}} \right) + 8 * \left(10^{\frac{L_{night} + 10}{10}} \right) \right)$$

Where:

- L_{day} is the A-weighted long-term average sound level as defined in ISO 1996-2, determined over all the day periods of a year (07:00 to 19:00 hours);
- L_{evening} is the A-weighted long-term average sound level as defined in ISO 1996-2, determined over all the evening periods of a year (19:00 to 23:00 hours) and;
- L_{night} is the A-weighted long-term average sound level as defined in ISO 1996-2, determined over all the night periods of a year (23:00 to 07:00 hours).

PIR Potential Impact Rating. The total number of receptors in each band is multiplied by a rating factor. The resultant values are summed to give a single number for each route option, termed the Potential Impact Rating (PIR). The PIR values may be used to assess the potential impact of each route corridor option, the larger the PIR the greater the potential impact

APPENDIX B

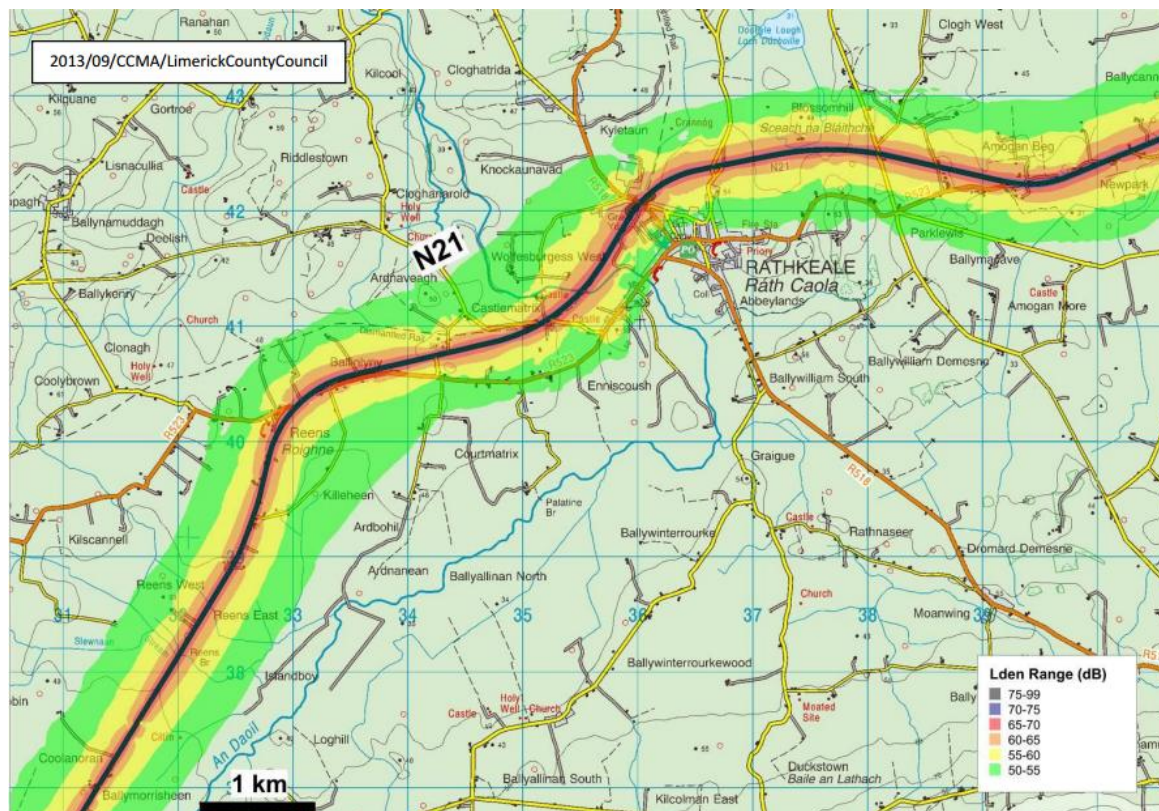
L_{den} Noise Maps for Limerick City and County Areas

Figure B1 : L_{den} (dB) – N21, Rathkeale Area

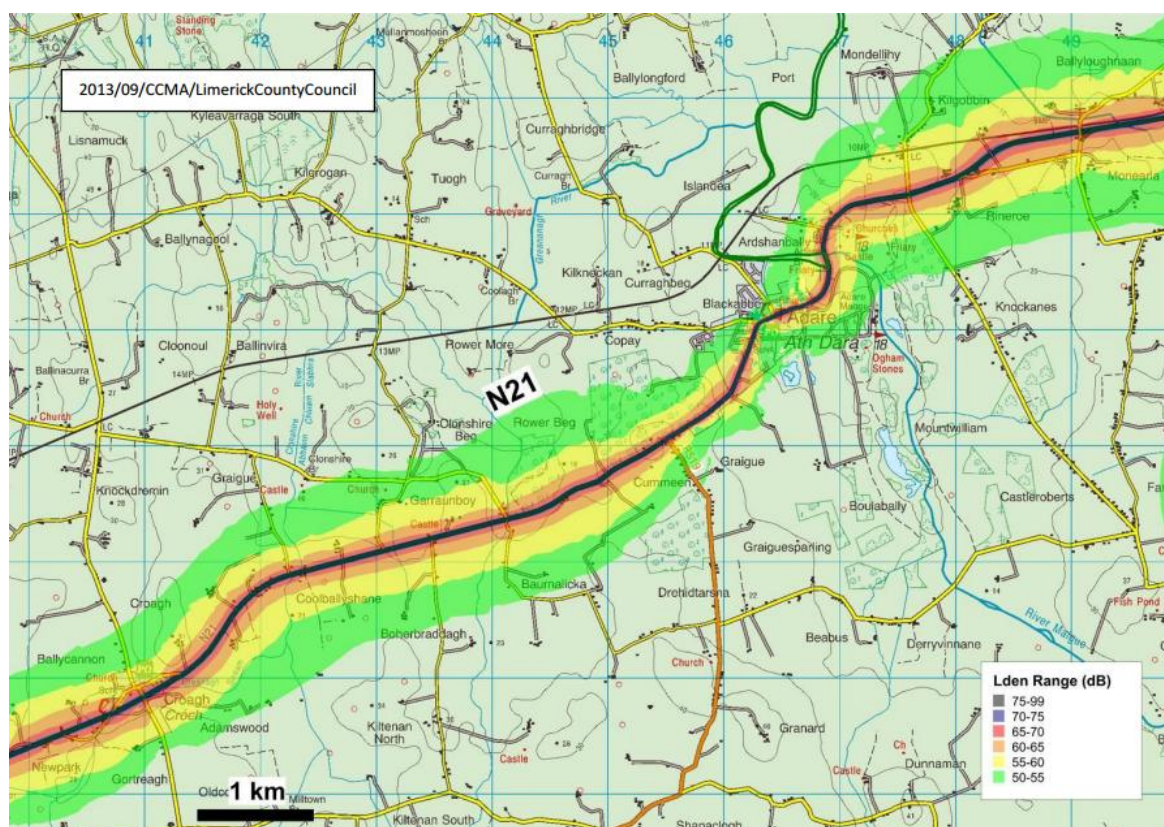


Figure B2 : L_{den} (dB) – N21, Adare Area

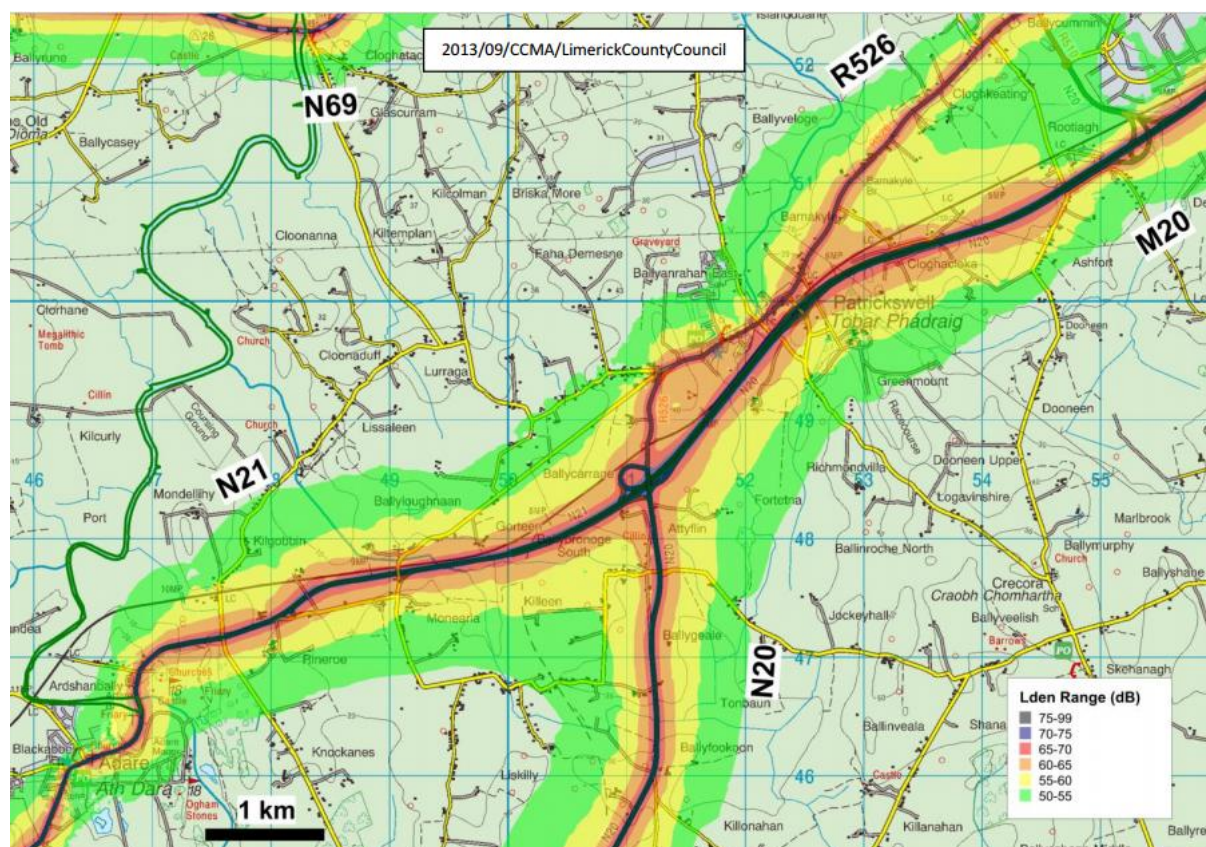


Figure B3 : L_{den} (dB) – N21/N20, Patrickswell Area

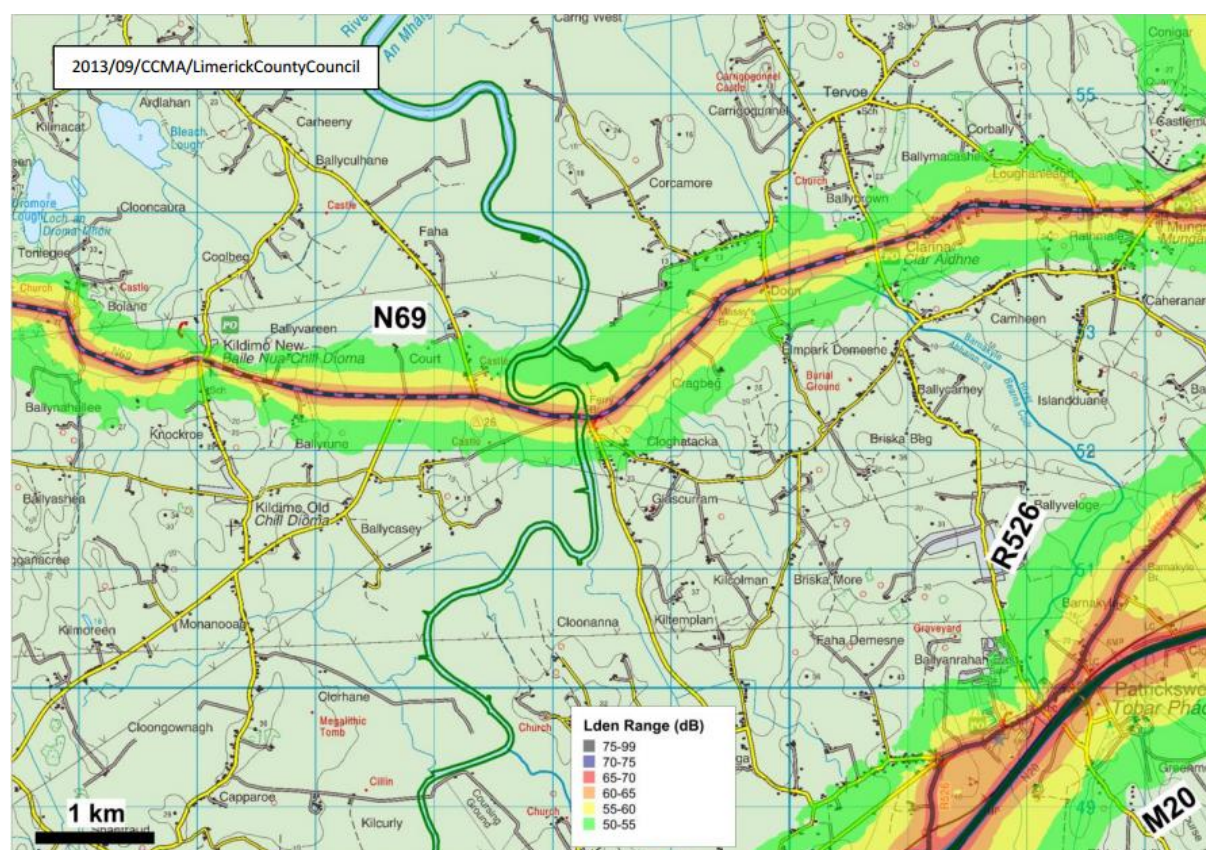
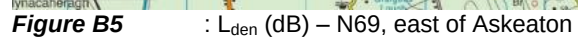


Figure B4 : L_{den} (dB) – N69, west of Limerick City



Appendix D

Visual Effects Report For Route Corridor Option Appraisal



murray & associates
landscape architecture

Foynes to Limerick Road Improvement Scheme ROUTE SELECTION REPORT

LANDSCAPE & VISUAL EFFECTS REPORT

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APPENDICES

1	Detailed Landscape & Visual Assessment Table

1.0 Executive Summary

Four route corridor options have been identified for the proposed road improvement scheme, following preliminary studies. This report will describe the visual characteristics of the route corridor options within the receiving landscape. The assessment will then evaluate the general and specific effects of the route corridor options within this context with the aim of identifying a route corridor which will minimise potential landscape and visual impacts.

The study area is located in the west of County Limerick, to the east of Foynes and west of Limerick city. The Landscape and Visual study area includes the route corridors and up to 500m to either side of the outer edges of the route corridors. This is a relatively complex landscape, with varying landforms, but it is consistent throughout and can be described as a rolling agricultural landscape with steep hills to the west and south and the Shannon Estuary to the north and urban landscapes to the east. Several watercourses are contained in the landscape ranging from small streams to large rivers such as the River Maigue and River Deel. Several existing national roads, the N20, N21, N69 and M20 are within the study area and so is the Limerick to Foynes railway.

Land use in this study area is predominantly in agricultural and residential use, with dwellings in a linear pattern along local roads, and distributed widely throughout the landscape. There are also touristic landscapes such as Curraghchase Forest Park in the centre, Adare Manor to the south, the Great Southern Way walking route in the south-west and the Wild Atlantic Way route to the western end.

In visual terms, there are listed views at the periphery of the study area, one of which includes views over the study area as a whole, from elevated viewpoints at Tory Hill. The other is largely irrelevant to the study area as it concentrates on the views to the west of Foynes. Several other viewpoints accessible to the public, with significant merit, have been identified within the area and private dwellings are the most numerous group of sensitive receptors.

Each of the proposed route corridor options is analysed with regard to the landscape and visual properties and assessment is based on this analysis. All of the proposed route corridor options would generate negative effects on the existing landscape and visual environment. Due to the nature of the settlement pattern within the study area, there are few parts of the proposed route corridor options that do not have visual sensitive receptors (i.e. residential dwellings or important views) within a short distance and therefore visual impact registers particularly highly on the scale. The most significant impacts occur where the proposed road would form a new element in the view. Landscape impacts are highest where the route impacts on the coastal and the high value rural landscape, particularly where these areas are removed from existing development. Removal of mature trees, hedgerows and woodlands also generate significant negative impacts.

The route corridor options were rated for their landscape and visual impact on the study area as follows, in order of least impact:

1. Route Corridor Option 2
2. Route Corridor Option 3
3. Route Corridor Option 4
4. Route Corridor Option 1

Route Corridor Option 2 is the preferred option from a landscape and visual perspective, although it has some significant negative effects. The principal advantages of this option are that the proposed route corridor passes a relatively smaller number of dwellings than the other routes and avoids some of most sensitive landscapes. It also follows the route of the Limerick to Foynes railway closely for a substantial part of the route which is a less sensitive and less populated area.

Route Corridor Option 1 is the least desirable route from a landscape and visual perspective as the route traverses the Shannon Coastal zone to the north of the study area and this generates significant landscape impact due to the high value of this area. This is also the most heavily populated area of the study area, so the proposed road would result in significant visual impacts to the dwellings and the intrinsic scenic quality. A new crossing structure close to the mouth of the River Maigue would also generate significant negative effects, as it would be larger and more visible at this point than at almost any other in the study area.

2.0 Introduction & Terms of Reference

This report was commissioned by Roughan & O'Donovan – AECOM Alliance on behalf of Limerick City and County Council. The purpose of this report is to examine the potential landscape and visual effects of the various route corridor options which have been proposed for the new route between Foynes and Limerick. The study area extends from the western edge of Limerick City in the east to Foynes in the west and from the Shannon Estuary along the northern edge to Rathkeale, Adare, Patrickswell and Dooradoyle - and their hinterlands in the south.

Four route corridor options have been identified, following preliminary constraints studies. This report will describe the visual characteristics of the route corridor options within the receiving landscape. The assessment will then evaluate the general and specific effects of the routes within this context.

3.0 Methodology and Sources

3.1 Definition of Study Area:

Several broad route corridor options were considered during earlier scoping and sifting processes by the project team. The current four corridor route options under study are the result of this process which eliminated several broad route corridors on grounds of environmental, engineering or other considerations. The receiving environment and the route corridor options have been sub-divided into sections for assessment. This report will assess each section in terms of landscape and visual effects on the existing environment.

The study area for initial assessment is considered to include the area of land within approximately 500m either side of the identified route corridor options that are 300m wide (i.e. total width of 1300m). This may vary depending on the nature of the landscape in a given area. In theory, an effect on the landscape of the potential development could have effects outside the study area (e.g. by affecting the flow of a river or floodplain), but this is considered to be unlikely in the context of a road project. Visual effects outside this distance are likely to be insignificant, except in the case of particularly sensitive viewpoints, if any exist. Such viewpoints would be identified and included in the assessment.

3.2 Assessment Methodology:

3.2.1 General

The methodology employed in the landscape and visual assessment of the route corridor options evaluation is as follows:

1. Desktop study of the proposed route corridor options and the geography of the receiving environment.

2. Site survey and photographic survey to determine the landscape character and to evaluate the quality and sensitivity of the landscape and the opportunities for route corridor option location.
3. An evaluation of the potential significant effects of the potential route corridor options and the degree to which these elements would be visible in the landscape.
4. The route corridor options are analysed and ranked in order of preference based on the criteria given hereunder.

The level of detail in terms of classification and assessment will increase in later studies, i.e. the EIS stage, from a broad evaluation and assessment of the route corridor options, to detailed assessment of the preferred route.

The various constraints which have been identified are presented in Drawing Nos. CS-095 to CS-099 of Volume 2 of the Route Selection Report.

3.2.2 References

The assessment of the landscape and visual effects follows the guidelines set down in the following publications:

1. ***Guidelines for Landscape and Visual Impact Assessment*** 3rd Edition, by The Landscape Institute / Institute of Environmental Assessment published by E&FN Spon (2013).
2. ***Advice notes on Current Practice in the Preparation of Environmental Impact Statements***, published by the EPA (2003).
3. ***Guidelines on the information to be contained in environmental impact statements***, published by the EPA (2002).
4. ***Design Manual for Roads and Bridges, Vol. 11, Environmental Assessment***, published by HMSO (1993).

3.2.3 Terminology

The main reference for the assessment is landscape and visual impact assessment. The purpose of the assessment of the preliminary route corridor options is to determine the route corridor option which presents the least overall landscape & visual impact. A key element of this stage of the assessment is the difference between landscape and visual impacts. These are defined as follows:

Landscape impacts:

Landscape impacts are defined as changes in the fabric, character and quality of the landscape, as follows:

- Direct impacts upon specific landscape elements.
- Impart subtle effects on the overall pattern of landscape in terms of regional and local distinctiveness.
- Impinge on designated landscapes, amenity and conservation areas.

Visual impacts:

Visual impacts are defined as changes in the fabric, character and quality of the visual environment, usually directly related to the landscape impacts identified as follows:

- The direct impact of a particular development on views.
- The potential reaction of viewers both in numerical terms and viewing location.
- The impact, either positive or negative, on visual amenity.

In terms of the initial assessment, the landscape and visual impacts are considered together. There would however be a weighting towards assessment of landscape impacts, as the nature of the particular route corridor options are assessed in terms of the overall change to the landscape.

Specific visual impacts are considered in the initial stages of the assessment, but will form a greater part of the assessment for the preferred route corridor.

3.2.4 Specific Route Corridor Options Assessment Methodology

In order to evaluate potential impacts to the existing landscape and visual environment, the following procedure is followed. First, the baseline conditions are established by classifying baseline data according to its importance and sensitivity. Second, the impact significance of the route corridor options on the baseline environment is assessed through a table, which shows the potential impacts of the proposed road development, cross-indexed to the landscape baseline sensitivity.

3.2.4(a) Baseline Evaluations

For the purpose of the evaluation, four baseline evaluation categories shall be used with respect to sensitivity:

- Very high **(IV)** – most important, most sensitive area;
- High **(III)**;
- Medium **(II)**; and
- Low **(I)** – least sensitive area.

The baseline evaluations shall be based on: -

- Legally-defined protected categories (e.g. European-protected sites, national monuments);
- Specific designations (such as those in Development Plans);
- Particularly sensitive and protection-worthy areas identified through the analysis of existing available data and site surveys.

The baseline evaluation conditions are listed in the following Tables 1 and 2.

Table 1: Baseline Evaluation – Landscape Impact

Landscape typology / Receptor	Category
Designated Landscapes (SPA, cSAC, pNHA, etc.) National / Regional / District Parks / Public Amenity Areas Riparian landscapes Significant trees (Tree Preservation Order or Co. Dev. Plan designation) 'Champion' trees (Tree Council of Ireland designation) Areas of "Scenic Beauty" as described in Limerick CDP Historic Designed Landscape associated with listed building (e.g. Demesne) with intact, mature landscape	IV
Local Parks / Amenity facilities e.g. walking routes Townscape / Streetscape (good quality, e.g. Architectural Conservation Areas) Landscape features with significant merit – walls, structures, entrances, mature tree-lined avenues, etc. Deciduous woodland Rural Landscape of high quality with distinctive features or field patterns Traditional Stone Walls	III
Rural Landscape (typical field patterns, hedgerows) Trees / Hedgerows (not designated) Coniferous woodland	II
Infrastructural landscape Waste ground	I

Table 2: Baseline Evaluations – Visual Impact

Receptor	Category
Listed Views in County Development Plans Local properties (residential, nursing homes, residential care units, schools, cemeteries, tourist accommodation) with direct views of the development, within a route corridor option, or outside route corridor option with existing high quality views from elevated / open viewpoints.	IV
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting. Users of parks / recreational areas, tourist attractions Publicly accessible viewpoints identified in the study area with high quality open / panoramic views	III
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II
People working in the area, travelling through	I

3.2.4(b) Impact Significance

Changes to baseline conditions are given a value in order to weight appropriately when determining the significance of any impact of the potential route corridor options on the existing landscape and visual environment. Tables 3 and 4 below define the extent of impact significance, assigning each category of impact a numerical value.

Negative impacts arise in those instances where it is determined that the proposed road development would compromise the quality of the existing landscape (as at the time of the survey), resulting in a deterioration of the existing landscape or views of the landscape. This would usually be the case in the context of good quality landscapes, where the introduction of the structures and elements relating to the road development could be disharmonious with the surroundings, causing a reduction in quality.

Positive impacts would improve or enhance the landscape of the receiving environment or a particular view. Neutral impacts neither detract from nor enhance the landscape of the receiving environment or view.

The following definitions of impact significance are utilised in this assessment:

Table 3: The extent of Landscape Impact

Scale of impact	Impact Value		Impact Description
	Neg.	Pos.	
Profound	9	1	There are notable changes in landscape characteristics over an extensive area (50-100%) or a very intensive change over a more limited area
Significant	8	2	There are notable changes in landscape characteristics over a substantial area (30-50%) or an intensive change over a more limited area
Moderate	7	3	There are minor changes over some of the area (10-30%) or modest changes in a localised area
Slight	6	4	There are minimal changes over some of the area (up to 10%)
Neutral	5	5	There are no appreciable changes to the landscape.

Table 4: The extent of Visual Impact

Scale of impact	Impact Value		Impact Description
	Neg.	Pos.	
Profound	9	1	The view is entirely altered, obscured or affected.
Significant	8	2	The proposal affects a large proportion of the overall visual composition, or views are so affected that they form a new element in the physical landscape.
Moderate	7	3	The proposal affects an appreciable segment of the overall visual composition, or there is an intrusion in the foreground of a view.
Slight	6	4	The affected view forms only a small element in the overall visual composition, or changes the view in a marginal manner
Neutral	5	5	There are no appreciable changes to views in the visual landscape.

The following Tables 5 & 6 are based on the definitions in Tables 3 & 4 and the sensitivity analysis of tables 1 & 2, in order to fully evaluate the potential impact significance. This method ensures that the significance of impact is relative to the scale of the proposed development and not by sensitivity alone.

Table 5: Impact Significance Categorisation – Landscape

		P o t e n t i a l I m p a c t	
		At-grade sections of road: may divide landscapes, may affect landscape character, may result in removal of trees.	Significant Cut or Fill sections /Bridges / Interchanges: may affect landscape character, may result in removal of trees.
Baseline Evaluation – Landscape Effects	IV	7, 8, 9	8, 9
	III	6, 7, 8	7, 8, 9
	=	4, 5, 6, 7	6, 7, 8
	–	1, 2, 3, 4, 5, 6, 7	2, 3, 4, 5, 6, 7

Table 6: Impact Significance Categorisation – Visual

		P o t e n t i a l I m p a c t	
		At-grade or cut sections of road: may interrupt views, may alter visual character.	Cut or Fill sections /Bridges / Interchanges: may block views, may alter visual character significantly
Baseline Evaluation – Visual Effects	IV	7, 8, 9	8, 9
	III	6, 7, 8	7, 8, 9
	=	4, 5, 6, 7	6, 7, 8
	–	1, 2, 3, 4, 5, 6, 7	2, 3, 4, 5, 6, 7

4.0 Baseline Landscape Assessment

4.1 General Description of Landscape Context

The study area can be described as an agricultural landscape, with significant mature tree and hedgerow cover and moderate to high scenic quality. The landscape is relatively homogenous in character for such a large area with the main distinctions in character being between the Shannon Estuary zone in the north and the remaining agricultural land. The Shannon Estuary is of particularly high scenic value, although all parts of the study area have value in visual terms.

The topography is rolling to undulating, with hills which are part of the Mullaghareirk Mountains range forming a continuous horizon to the western and southern edges of the study area. The peaks reach heights of 172m OD (Knockpatrick, 2km due south of Foynes) and 288m OD (Knockfeerina, some 10km south of Adare, or 7km from the nearest route corridor). Also of note is Tory Hill which rises sharply locally to a height of 112m OD (7km south of Patrickswell, 5km from the nearest route corridor). There are views from each of these peaks across the study area, despite their distance, and are therefore considered as part of the study.

The coastal edge tends to slope reasonably steeply at the coast, rising to 20-30m, before giving way to the rolling farmland characteristic of the area. Along the coastal zone, views are extensive across the estuary to the west, north and east, but views inland are often restricted by the rising topography and mature vegetation. There are numerous rivers, lakes and streams in the area, adding to the rural agricultural character of the landscape, as well as several wooded areas. Within this area, the rolling farmland rarely reaches heights of more than 40m OD, and can dip to 10m OD, even as far inland as the hinterland of Adare. This results in a complex topography and a limiting of views throughout the study area. Woodland and mature parkland trees further exaggerate this effect resulting in a visually impermeable landscape where views are usually of greater value from the elevated locations.

The study area includes the settlement centres of Mungret, Dooradoyle, Clarina, Kildimo, Pallaskenry, Askeaton, Foynes, Rathkeale, Adare, and Patrickswell. The wider landscape area is also settled throughout with individual dwellings and farms, and there are also schools, recreational, religious/institutional, industry and commercial land uses. Settlement in rural areas is linear, along the roads and is constant throughout the study area, though is denser near settlement centres and to the east of the River Maigue, closer to Limerick.

Historical landscapes are also a feature of the study area. There were many demesnes and private estates in this area, many of which have left a legacy of mature trees, woodlands, avenues, walls, gates and many architectural and designed landscape elements which are prominent features of the present landscape.

The most sensitive views within the study area would be from individual dwellings, public areas or monuments, cemeteries, hotels, guest houses and listed views, especially those on elevated ground or with a view of a focal element (e.g. church spire, castle, towerhouse).

Some industrial elements are highly visible in the landscape, particularly around Foynes (Aughinish Island) and at Askeaton. The tall industrial plants and chimneys are focal elements in the landscape and prominent in any views of which they form part.

4.1.1 Landscape Planning Context - Development Plan / Landscape Character Assessment

The Limerick County Development Plan 2010-2016 (CDP) makes a number of specific references to landscape elements within the study area. The most relevant section is Section 7.3 – Landscape and Visual Amenity. This sets out the CDP objectives as they relate to the landscape and visual amenity of the county, including Landscape Character Assessment. As part of the Core Strategy for the county, Policy CP 10 proposes:

To identify, conserve, protect and enhance the unique and diverse natural and built heritage of Limerick County and to implement the provisions of the National Biodiversity Plan to secure the conservation, including where possible the enhancement, and sustainable use of biological diversity in Limerick.

Objective EH O5: Enhancing Tree Cover sets out the Council's intention that trees should be preserved:

It is the objective of the Council to preserve and enhance the general level of tree cover within the County, both in the countryside at large and also in the County's towns. The Council strongly encourages the establishment of native species, in particular broadleaf species.

Due to the level of cover across the study area and the quality of mature trees, this should be taken into account as a landscape constraint. Almost all field boundaries are heavily populated with good quality, mature parkland trees.

Sections 7.3.3 *Landscape Assessment and Landscape Character Areas* and 7.3.4 *Landscape Character Areas* set out the more specific landscape objectives as they related to different typologies throughout the county. The study area includes three of the ten identified Landscape Character Areas, as follows: Area 1 - Agricultural Lowlands; Area 6 - Shannon Integrated Coastal Management Zone and Area 8 - Tory Hill.

Area 1 Agricultural Lowlands is described as follows:

This is the largest of the Landscape Character Areas in the County and comprises almost the entire central plain. This landscape is a farming landscape and is defined by a series of regular field boundaries, often allowed to grow to maturity. This well developed hedgerow system is one of its main characteristics. In terms of topography the landscape is generally rather flat with some locally

prominent hills and ridges. The pastoral nature of the landscape is reinforced by the presence of farmyards.

This landscape character unit covers approximately half of the study area, roughly described as the southern section of the area. Objective EH O7 sets out the specific objectives with regard to the Agricultural Lowlands Landscape Character Area, the most relevant of which are as follows:

- (b) Encourage retention of existing landscape features such as hedgerows and trees and their incorporation into landscaping for new developments.*
- (c) Discourage development of locally prominent sites.*

Area 6 Shannon Coastal Zone is described as follows:

This zone comprises a large area of northern County Limerick and is bounded on one side by the Shannon Estuary while its southern boundary is defined by the gradually rising ground, which leads onto the agricultural zone and the western hills to the south west. The presence of the estuary is the defining characteristic of the region. The landscape itself is generally that of an enclosed farm type, essentially that of a hedgerow dominant landscape. This differs from the other agricultural landscapes of the County in that the field patterns, particularly close to the estuary, tend to be less regular than those elsewhere in the County.

This landscape character unit covers approximately half of the study area, roughly described as the northern section of the area. Objective EH O12 sets out the specific objectives with regard to the Shannon Intergrated Coastal Zone Landscape Character Area, the most relevant of which are as follows:

- (b) To protect the views and prospects along the N69 as a priority for the Planning Authority...*
- (f) To rigidly adhere to best practice in the installation and use of wastewater treatment systems, given the proximity of the Shannon and the importance of water-based habitats in the area, to ensure that no deterioration in water quality takes place.*

Area 8 Tory Hill is described as follows:

Tory Hill is an isolated locally prominent hill which is within 2km of the town of Croom and is visible from the Cork/Limerick road. It is an important feature in the surrounding countryside, and is of geologic importance as it is a limestone hill with deposits of gravel, which have been left since the last ice age. The hill supports areas of scrub and woodland as well as limestone grassland. The dominant nature of the hill, which rises from the surrounding flat landscape, magnifies the effect of development.

This landscape character unit is located in the south-east of the study area and covers a relatively small area. Objective EH O15 sets out the specific objective with regard to the Tory Hill Landscape Character Area, which states that "It is an objective of the Council that there is a presumption against development in this location."

Section 7.3.5 *Incorporation of Views and Prospects into Landscape Character Areas* sets out views and prospects that are to be protected. Two of the listed views are within the study area: the views of the Shannon estuary from Foynes to Glin and from Tory Hill. The former area is west of Foynes and only a small part of the designated viewshed is within the study area; less than 1km of the 14km from Foynes to Glin. The latter, Tory Hill is in the south-east of the study area and is included as its own landscape character area.

Section 7.3.6 sets out the importance of the listed views and prospects with respect to tourism:

- *The scenic views and prospects in the west of the County such as the coastal route from Foynes onwards [i.e. to the west]... help provide the basis of a number of attractions which include Foynes, the medieval town of Askeaton and Curraghchase Forest Park. These routes are indicative of the scenic nature of the surrounding landscapes.*
- *The Lough Gur and Tory Hill views and prospects further complement the attractions of Lough Gur itself. [Note: Lough Gur is approximately 8km to the east of the study area and not considered relevant to the study.]*

Section 7.3.7 elaborates on the attractions of individual views and prospects. In general, the rationale for selection of views is described as follows:

The views and prospects which are incorporated into the County Development Plan indicate parts of the County that are valuable amenities for locals and visitors alike and which properly conserved could help to provide the basis for further development of the tourist industry in County Limerick.

In relation to the N69, the following is included:

...the N69 from Foynes [is] less suitable for walking purposes due to the busy road network yet at certain points along them they provide opportunities for visitors and locals alike to stop and enjoy the view.

It should be noted that the N69 west of Foynes is also part of the Wild Atlantic Way tourist driving route, which adds additional value to the visual amenity. The starting point of the listed views is at the edge of Foynes, which is also the edge of the route corridor, so it is to be considered in the visual study, but it should be noted that the most valuable views are through the town itself and to the west of the town along the coast.

Objective EH O17: *Scenic Views and Prospects* sets out the following objectives with regard to listed views:

- (a) *It is the objective of the Council to safeguard the scenic views and prospects by integrating them into landscape character areas, which will ensure a more balanced approach towards landscape issues within the County.*

(b) In areas where scenic views and prospects are listed there will be a presumption against development except that which is required in relation to farming and appropriate tourism and related activities... that can be appropriately designed so that it can be integrated into the landscape.

(c) The Planning Authority will exercise a high level of control (layout design, siting, materials used, landscaping) on developments in these areas. In such areas site specific designs are required...

Section 7.3.8 *Historical Landscapes* draws attention to the wealth of historic landscapes in Co. Limerick: "Historical landscapes can be defined as the archaeological and historical elements that survive in the current landscape. Limerick is rich in such areas." Features of these landscapes include field boundaries and old demesnes. Areas around and including the village of Adare are specifically mentioned as being important from an archaeological and historical perspective. Objective EH O18: *Historical Landscape Characterisation* states that "It is the objective of the Council during the lifetime of the plan to develop an historical landscape appraisal process, which will identify key historical landscapes within County Limerick." Therefore, these areas should be considered and assessed as part of the landscape assessment. See Section 3.4 below for further details.

Related policies include those on green infrastructure, ecology, biodiversity and natural and cultural heritage, which add to the requirements for protection of landscapes.

4.2 Public Amenity Areas / Walking Route

The most significant public amenity area within the study area appears to be Curragh Chase Forest Park, which is run by Coillte. Part of the wooded area is enclosed and used for recreation. Other public amenity areas are the car parks and trails to the west of Foynes, and the Aughinish Nature Trail. These are indicated on the Landscape Mapping in Drawings RS-032 to RS-036 in Volume 2 of this report and would be sensitive to landscape change.

Some of the villages and towns have small parks, playgrounds or public spaces, but these whilst locally important are not significant in the context of the constraints study. There are also landscape-related facilities in the study area, such as fisheries at lakes, for example at Bleach Lough, which would have sensitivity to visual or landscape change. Golf courses would also be sensitive to landscape change, and there are two courses within the study area.

The Great Southern Trail walking route is located in the south-western part of the study area and follows a dismantled railway line from Rathkeale for over 40km to the west and south, through Limerick. A further stretch of the route which has not been developed, described as "undeveloped greenway" follows the dismantled railway line from Rathkeale to Ballingarrane, 2.5km north of Rathkeale. As this facility is aimed at recreational walkers and tourists and its landscape setting is a considerable part of the attraction, it would have high sensitivity to change.

4.3 Existing Trees and Woodlands

A very striking feature of this landscape is the amount of mature trees. Most of the trees are part of field boundary divisions and hedgerows, but there are also some significant individual parkland specimens and pockets of woodland throughout the study area. The species include natives such as Oak (*Quercus robur*) and Ash (*Fraxinus excelsior*) with small numbers of Pine (*Pinus sylvestris*) and Yew (*Taxus baccata*) but these are outnumbered by the non-native species including Beech (*Fagus sylvatica*), Horse Chestnut (*Aesculus hippocastanum*), Sycamore (*Acer pseudoplatanus*), Lime (*Tilia* spp.), Poplar (*Populus nigra italica*) and others. The large number of non-native trees indicates that many of the trees were deliberately planted, rather than self-seeded, and there are several tree-lined roads and avenues that form significant features in the landscape. It is likely that much of the tree cover was planted in the 19th and early 20th centuries and is a legacy of the private estates and demesnes (see Section 3.4).

The tree cover is very consistent throughout the site, with a slight change in some coastal areas, where the trees are smaller and there are fewer in number and species. However, even in many coastal areas, there are mature wooded areas located on the coast, indicating a relatively benign climate.

Hedgerows are primarily Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*), Hazel (*Corylus avellana*) with emergent trees including Elder (*Sambucus nigra*), Ash, Sycamore, Rowan (*Sorbus* spp.), Birch (*Betula pendula*), Aspen (*Populus tremula*) and parkland trees as listed above. Many ditches, river-/stream-banks and scrub areas contain Willow (*Salix* spp.), Alder (*Alnus glutinosa*) and other riparian species.

More recent planting includes evergreen shelterbelts (Monterey Cypress [*Cupressus macrocarpa*] and Leyland Cypress [*X Cupressocyparis leylandii*] are most frequent) and garden trees. Along the recently constructed roads and by-passes are plantations of Norway Maple (*Acer platanoides*), Field Maple (*Acer campestre*), Poplar (*Populus alba*), Birch and Ash, among others.

Commercial forests are also present in the study area, with coniferous trees dominating. Coillte managed several forests, including some with recreational elements at Curraghchase and Foynes.

[Note: It is not feasible to map the mature trees in this landscape due to their frequency. It can be assumed that almost all field boundaries and road boundaries contain significant trees, and that there are mature standalone parkland trees in a significant proportion of fields. Woodlands are mapped on the landscape constraints mapping.]

4.4 Historical Landscapes

The 19th Century Ordnance Survey mapping for the area shows that there was a high concentration of private estates and demesnes in the study area. In some instances the word “demesne” has survived on current OS maps (even, in some cases, where the designed landscape associates with the

demesne itself has not), and is appended to the house name as the current townland name. The legacy of these demesnes is the large number of mature parkland trees, woodlands, avenues and driveways, high stone walls and (often ornate) gates/piers/entrances, manor houses and other associated features in the landscape of the study area such as water bodies, canalised streams, limekilns, dovecotes, windmills, etc. The Limerick County Development Plan has made particular mention of the potential value of this landscape asset (see section 4.1 above for policy reference).

99 such demesnes were identified on the first edition Ordnance Survey mapping within, or immediately adjacent to, the study area. The NIAH Survey of Gardens and Designed Landscape for Limerick (<http://www.buildingsofireland.ie/cgi-bin/viewcounty.cgi?county=13>; accessed 20-08-14) enables identification of the individual estates and their potential value in the landscape. [Note: This survey does not confer protected status on the places identified; it is based on desktop mapping analyses only; no fieldwork has been carried out in Co. Limerick to date.] Most of the estates are described as having either only “peripheral features visible” or “virtually no recognisable features remaining”, whilst some were described as having “Main features substantially present - some loss of integrity”.

In all, twenty-one demesnes could be considered to be within the study area for route selection, as follows.

- Ballyclogh House demesne (DL 1) **
- Currahchase House & Demesne (DL 2)
- Ballynolan House demesne (DL 3) *
- Bolane House Demesne (DL 4) **
- Dromore Castle demesne (DL 5)
- Court House demesne (DL 6) *
- Elm Park Demesne (DL 7) *
- Ballycullen House demesne (DL 8) *
- Wellmount House demesne (DL 10) **
- Nantinan House demesne (DL 11)
- Stoneville Demesne (DL 12)
- Curraheen House demesne (DL 13) ***
- Hollywood House demesne, Ballinvira (DL 14)
- Curraghbridge House (DL 15)
- Adare Manor demesne (DL 16)
- Ballycarrane House (DL 17)**
- Ballybronoge South (DL 18) ***
- Smithfield House demesne (DL 19) *
- Tuogh Cottage demesne (DL 20) **
- Clonshire Lodge demesne (DL 21)

All of the above have “Main features substantially present - some loss of integrity” or “Main features substantially present - peripheral features unrecognisable” according to NIAH Survey with the exception of those marked with asterisks, as follows:

** Main features unrecognisable - peripheral features visible*

*** Virtually no recognisable features remaining*

**** Not listed*

As the context of the demesne landscapes has changed substantially since they were first enclosed, it is considered for the purposes of this study, that potential affects to demesnes can only occur if the demesne is directly within the proposed route corridor and not within the extended areas outlined in the methodology above.

Other historical landscapes present in the study area include archaeological monuments such as: Ringforts, Barrows, Fulachta Fiadh, Cists, from the Bronze and Iron Ages; ecclesiastical sites, churches, abbeys; medieval settlements, castles, towerhouses; and other monuments. Such monuments confer a “profound sense of the real presence of the past” (Geraldine Stout and Matthew Stout in ‘Atlas of the Irish Rural Landscape’ Second Edition, 2011). Their landscape setting is a part of this and is therefore vulnerable to change. However, at this stage, it is considered that the primary importance of these features is covered in the Cultural Heritage section of the Route Selection Report and therefore not evaluated here. Visual impacts to these features may be considered in later, more detailed assessments, where deemed relevant.

4.5 Existing Water Bodies

There are significant numbers of lakes, pools, rivers and streams across the study area, which add to the landscape and visual character of the area. They are also a key part of the green infrastructure of the area, which link all parts of the landscape. The Shannon Estuary is the largest water body in the study area. The main rivers are River Mague, Barnakyle River, River Deel and Ahacronane River and there are numerous streams, creeks and ditches.

Water elements are vulnerable to change, both in visual terms due to the structures required to cross them, and in landscape terms, as a change to the water table or drainage pattern can alter a landscape.

4.6 Visual Amenity

In general, the scenic quality of the study area is considered to be high, with the highest values in the Shannon Coastal Zone. There would be lower values around settlements and particularly within Dooradoyle and the suburban environs of Limerick. The following groups of sensitive receptors have been identified in the study to date.

4.6.1 Publicly Accessible Views and Viewpoints

Where distant views occur in the site, the hills and mountains of the Mullaghareirk Mountains form the visual horizon in views from elevated areas to the south and west of the study area. To the north and west, the horizon is potentially much longer, and from elevated or coastal positions, the Shannon Estuary is a key feature. However, due to the undulating topography and the presence of mature hedgerows and trees, there is variability in the quality and availability of views throughout the landscape. These features often block, restrict or frame views within the landscape and distant views are rare within the majority of the study area. Along the coastal zone, views are extensive across the estuary and to the north, but views inland are often restricted by the rising topography and mature vegetation. As a result, the landscape could be said to have high visual absorption capacity in general, with local areas of sensitivity.

The most sensitive views within the study area would be from the listed viewpoints (see section 4.1 above), coastal viewpoints, individual dwellings, public areas or monuments, cemeteries, hotels, guest houses and listed views, especially those on elevated ground or with a view of the coast or a focal element (e.g. church spire, castle, towerhouse). Specific views which are particularly noteworthy within the study area are listed in Table 7.

Table 7 Significant views

Ref	Viewpoint	Description	Significance
V1	N69 – Within and west of Foynes	Views of the coastal landscape and Shannon Estuary; part of Wild Atlantic Way	Regional / National (Listed)
V2	N69 - West of Kildimo - Mague River bridge	Views of the coastal landscape zone: - Parkland and Castle at Dromore Lough; - Open view from bridge over landscape	Local
V3	Tory Hill	Panoramic views west and north across the landscape of the study area – farmland, parkland, mature trees	Regional / National (Listed)
V4	Knockpatrick Cemetery	Elevated position (highest point in study area, 172m OD) – panoramic views across the study area to the east and across Shannon Estuary to Clare	Regional
V5	Askeaton Bypass Bridge	View of Askeaton - Friary and quays	Local
V6	Approaches to Adare on N21	Parkland setting and mature trees, key buildings	Local/Regional
V7	Approaches to Rathkeale on R518 and R523	Parkland setting and mature trees, views of church steeple from surrounding areas	Local
V8	Views from Knockfeerina and hills to south of study area	Panoramic views north across the landscape of the study area – farmland, parkland, mature trees	Regional

These views are indicated on the Landscape Mapping. There may be other views of local significance from local roads, of upstanding cultural heritage features, water bodies, farmland, trees and woodlands, etc. These are considered to be evenly spread across all areas of the study area and are not singled out at this stage. They would be identified in later, more detailed assessments.

4.6.2 Local Properties

Views from individual dwellings vary from distant to enclosed. As described previously, settlement is widely dispersed throughout the landscape, with individual dwellings located along all local roads. The density increases in the east of the study area, closer to Limerick, around Patrickswell, Dooradoyle and Mungret in particular and generally east of the River Maigue.

4.6.3 Users of parks / recreational areas, tourist attractions

The visual settings of recreational areas, such as forest parks, walking trails, etc. and heritage areas such as cemeteries, churches, etc. are also considered to be sensitive to change.

4.6.4 Urban / Suburban Areas

Areas within settlement centres may have sensitivity where sightlines to the proposed routes exist. The Architectural Conservation Areas of Foynes, Askeaton, Rathkeale and Adare would also have moderate to high visual value, although intervisibility from the conservation areas to the route corridors is not likely and therefore not assessed at this stage.

4.6.5 People working in the area, travelling through

Such people have relatively low sensitivity, but the visual setting of the “everyday landscape” as defined in the European Landscape Convention should be considered as part of the study.

4.7 Designated Landscapes

Designated Landscapes include Special Areas of Conservation, Natural Heritage Areas and Proposed Natural Heritage Areas, and Special Protection Areas. These areas are listed and mapped in the CDP and on the Landscape Constraints Map. Whilst these are primarily ecological designations, they are also considered to be part of the green infrastructure within the landscape and can have landscape and visual significance as features within views.

4.8 Low Quality Landscapes in the Study Area

The landscape around Aughinish Island and the port area is dominated by industrial use and so it is of low landscape quality. There are also some other prominent industrial facilities in the study area, including concrete works on the western edge of Limerick, and Wyeth and Kingspan in Askeaton. These landscapes have low sensitivity to change.

5. Specific Descriptions of Sections of Proposed Route Corridor Options and Study Area

Four route corridor options have been identified for the proposed Foynes to Limerick Road Improvement Scheme, following studies and preliminary environmental assessments. The landscape constraints identified in sections 4.1 to 4.8 are used as baseline reference and the route corridor options are described with regard to these landscape elements and potential receptors. Each route corridor option is subdivided into several subsections and some of the route corridors include subsections that occur in more than one route. For clarity, these subsections are used as the basis of this report.

In all subsections, the landscape is considered to be of a high quality.

5.1 Route Corridor Option 1 (A-B-C-D via Red Route)

The total length of Route Corridor Option 1 is 33km. The entire route passes through the Shannon Integrated Coastal Management zone as designated in the County Development Plan Character Assessment, which is considered to be a sensitive landscape and there are individual dwellings throughout the area, as well as settlement centres.

Subsection A-B commences in the north-west of the study area on the existing N69 to the eastern fringe of Foynes. At the point of contact with the N69, there is potential for overlap with the section of road that is designated as having listed views, albeit that the focus of the views is to the north. There are also some housing estates and several individual dwellings clustered to the south of Foynes. The elevated viewpoint at Knockpatrick, where there is a burial ground and ruined church (viewpoint V4), overlooks this section of the route.

For the first 1.5km of the corridor, the corridor has a north-west / south-east orientation. It then turns to a more east-west orientation which is maintained for the remainder. The route passes close to the Lower River Shannon and Barrigone SACs, within 50m in some places. Between Ch3+500 and Ch4+500, the route passes through deciduous woodland areas in Ballinknockane and Craggs townlands and at Ballyclogh. It passes close to some demesne landscapes but these are not within the study area.

With regard to sensitive visual receptors, the following were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	1 (V1)
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	5
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	33
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V4)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	120

Subsection B-C continues in a generally east-west direction, veering slightly north to by-pass Askeaton, utilising the existing bridge crossing the River Deel and utilising part of the by-pass road, and turning south-east. The majority of the landscape through which this section passes is composed of undulating fields with mature trees, hedgerows, scrub vegetation and small wooded areas. At Askeaton, the route crosses the Shannon Estuary SAC and it passes close to the Askeaton Fen Complex around Ch13+300. It passes close to some demesne landscapes but these are not within the study area.

With regard to sensitive visual receptors, this section includes the views from the existing by-pass bridge of the friary and town centre of Askeaton, identified as sensitive in the study (V5). The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	12
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	80
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V5)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	304

Subsection C-D arcs in a generally east-west direction, veering slightly north to avoid some sensitive elements such as Curraghchase Woodland and demesne. The majority of the landscape through which this section passes is composed of undulating fields with mature trees, hedgerows, scrub vegetation and small wooded areas. The route crosses the Lower River Shannon SAC as it crosses the River Maigue at Ch25+000 and also passes close to the Askeaton Fen Complex SAC around Ch15+000 to Ch17+000, making direct contact at Ch16+500. There is also close contact with pNHA at Ch20+000 to Ch22+000. The route also intersects with four demesne landscapes – Ballynolan House (DL 3), Bolane House Demesne (DL 4), Dromore Castle demesne (DL 5) and Elm Park Demesne (DL 7). Of these, only Dromore Castle demesne has substantial features present whilst the rest are considered to be less sensitive as they have no substantive elements intact.

This route passes close to the settlement centres of Kilcornan, Kildimo and Clarina and there are large numbers of dwellings in the east of the section, particularly east of the River Maigue. Existing views from the N69, particularly where it crosses the River Maigue and where there are views of castles or towers, are considered to be of value in the landscape (V2). With regard to sensitive visual receptors, the following were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	52
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	163
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V2)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	434

Overall, Route Corridor Option 1 is considered to have high sensitivity due to the large numbers of dwellings and other viewpoints present, and the sensitivity of the Shannon Integrated Coastal Management zone (SICMZ) landscape.

5.2 Route Corridor Option 2 (A-B, B-E, E-F, F-G, F-K, K-L, L-M)

The total length of Route Corridor Option 2 is 32km. A significant proportion of the route (c.17km) passes through the Shannon Integrated Coastal Management zone as designated in the County Development Plan Character Assessment, which is considered to be a sensitive landscape and there are individual dwellings throughout the area.

Subsection A-B commences in the north-west of the study area on the existing N69 to the eastern fringe of Foynes. At the point of contact with the N69, there is potential for overlap with the section of road that is designated as having listed views, albeit that the focus of the views is to the north. There are also some housing estates and several individual dwellings clustered to the south of Foynes. The elevated viewpoint at Knockpatrick, where there is a burial ground and ruined church (viewpoint V4), overlooks this section of the route.

For the first 1.5km of the corridor, the corridor has a north-west / south-east orientation. It then turns to a more east-west orientation which is maintained for the remainder. The route passes close to the Lower River Shannon and Barrigone SACs, within 50m in some places. Between Ch3+500 and Ch4+500, the route passes through deciduous woodland areas in Ballinknockane and Craggs townlands and at Ballyclogh. It passes close to some demesne landscapes but these are not within the study area.

With regard to sensitive visual receptors, the following were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	1 (V1)
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	5
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	33
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V4)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	120

Subsection B-E has a spur which follows route B-C for 2.5km to the east from B to access Askeaton, but continues in a generally south-east direction to E, which is just north of Rathkeale. The majority of the landscape through which this section passes is composed of undulating fields with mature trees, hedgerows and small wooded pockets. The route passes close to the Askeaton Fen Complex SAC around Ch12+500. It intersects four demesne landscapes including Stoneville Demesne (DL 12), Ballycullen House (DL 8), Ballyclogh House (DL 1) and Wellmount House (DL 10). Of these, only Stoneville Demesne is considered to be of substantial value and only a small corner of the demesne landscape would be affected. The remaining properties are not considered to have many features of the original demesne present, but there are mature trees and potential for other associated elements. Ballycullen House demesne could be significantly affected as the route corridor divides the original demesne area. The greenway walking route appended to the Great Southern Trail is also present in the south of this subsection.

With regard to sensitive visual receptors, the main receptor groups are individual properties. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	22
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	90
Users of parks / recreational areas, tourist attractions	III	1
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	0
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	102

Subsection E-F is quite short and continues from E south-east to F, north of Rathkeale. The landscape through which this section passes is composed of undulating fields with mature trees, hedgerows and small wooded pockets, similar to B-E. The undeveloped section of the Great Southern Trail is also present in this subsection, where the route crosses the dismantled railway.

With regard to sensitive visual receptors, the main receptor groups are individual properties in the hinterland north of Rathkeale. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	1
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	11
Users of parks / recreational areas, tourist attractions	III	1
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	0
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	0

Subsection F-G is a short spur road connecting the Foynes-Limerick route with the N21 on the outskirts of Rathkeale. The landscape through which this section passes is composed of undulating fields with mature trees, hedgerows and small wooded pockets, similar to B-E/E-F and also contains the N21 road, with relatively recent mass planting and hedgerows to either side of the road. The Great Southern Trail is also present in this subsection, and the trail crosses the route corridor / N21 at the existing N21 crossing.

With regard to sensitive visual receptors, the main receptor groups are individual properties in the hinterland north of Rathkeale and in the town itself. The routes into Rathkeale from the northwest are considered sensitive in terms of visual setting and approach to the town. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	2
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	26
Users of parks / recreational areas, tourist attractions	III	1
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V7)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	160

Subsection F-K is orientated east-west with a slight northerly trajectory and runs more or less parallel to the mainline railway. The landscape through which this section passes is composed of fields with mature trees, hedgerows, streams and small wooded pockets. It intersects one demesne landscape, that of Hollywood House (DL 14), which is listed on the Record of Protected Structures (RPS) and also considered to have substantial features of the original demesne present, and so is considered sensitive. Curraheen House demesne is also within this subsection corridor and – whilst the house is listed on the RPS – the demesne is not included in the NIAH Survey of Designed Landscapes. The route corridor option runs to the south and overlaps the southern periphery of the demesne area. [Note: Curraheen House is shown on the first edition Ordnance Survey mapping, but it would appear that the main features, including woodland and garden areas have been cleared for agriculture. Nonetheless, there is potential for some original features or mature trees to remain.]

With regard to sensitive visual receptors, the main receptor groups are individual properties. Viewpoint V8, from the hills some 7km to the south may have views of this corridor. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	26
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	50
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V8)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	60

Subsection K-L is a short section which diverges from the mainline railway but continues predominantly east-west. The landscape through which this section passes is composed of fields with mature trees, hedgerows, streams and small wooded pockets. It intersects one demesne landscape, that of Curraghbridge House (DL 15), which is listed on the RPS and also considered to have substantial features of the original demesne present, and so is considered sensitive. However, it would affect only a small corner of the site, so this is not considered to pose a substantial risk to its integrity.

With regard to sensitive visual receptors, the main receptor groups are individual properties. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	1
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	6
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	0
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	9

Subsection L-M is orientated east-west with a slight northerly trajectory. The landscape through which this section passes is composed of undulating fields with mature trees, hedgerows, streams and small wooded pockets. It intersects two demesne landscapes, Ballycarrane (DL 17) and Ballybronoge South (DL 18). Large areas of each are affected, but they are not listed on the RPS and do not have substantial features of the original demesne present, and so are not considered sensitive. Adare village is bypassed by the proposed route corridor.

With regard to sensitive visual receptors, the main receptor groups are individual properties. Viewpoint V6, the visual sequence entering Adare from the N21 on both sides, could be affected. The listed view from Tory Hill (V3), some 5km to the south-east of the corridor has elevated views which would include the route corridor. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	1 (V3)
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	6
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	47
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V6)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	66

Overall, Route Corridor Option 2 is considered to have moderate sensitivity as it contains the lowest number of dwellings in the associated study area and the most sensitive landscapes are generally avoided. The majority of this landscape has a large number of trees and hedges which increase visual absorption capacity, but are also potential sensitive landscape elements. It follows the route of the rail line most closely, which reduces potential sensitivities in those locations.

5.3 Route Corridor Option 3 (A-B, B-E, E-H, H-G, H-K, K-L, L-M)

The total length of Route Corridor Option 3 is 33km. A significant proportion of the route (c.17km) passes through the Shannon Integrated Coastal Management zone as designated in the County Development Plan Character Assessment, which is considered to be a sensitive landscape and there are individual dwellings throughout the area.

Subsection A-B commences in the north-west of the study area on the existing N69 to the eastern fringe of Foynes. At the point of contact with the N69, there is potential for overlap with the section of road that is designated as having listed views, albeit that the focus of the views is to the north. There are also some housing estates and several individual dwellings clustered to the south of Foynes. The elevated viewpoint at Knockpatrick, where there is a burial ground and ruined church (viewpoint V4), overlooks this section of the route.

For the first 1.5km of the corridor, the corridor has a north-west / south-east orientation. It then turns to a more east-west orientation which is maintained for the remainder. The route passes close to the Lower River Shannon and Barrigone SACs, within 50m in some places. Between Ch3+500 and Ch4+500, the route passes through deciduous woodland areas in Ballinknockane and Craggs townlands and at Ballyclogh. It passes close to some demesne landscapes but these are not within the study area.

With regard to sensitive visual receptors, the following were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	1 (V1)
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	5
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	33
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V4)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	120

Subsection B-E has a spur which follows route B-C for 2.5km to the east from B to access Askeaton, but continues in a generally south-east direction to E, which is just north of Rathkeale. The majority of the landscape through which this section passes is composed of undulating fields with mature trees, hedgerows and small wooded pockets. The route passes close to the Askeaton Fen Complex SAC around Ch12+500. It intersects four demesne landscapes including Stoneville Demesne (DL 12), Ballycullen House (DL 8), Ballyclogh House (DL 1) and Wellmount House (DL 10). Of these, only Stoneville Demesne is considered to be of substantial value and only a small corner of the demesne landscape would be affected. The remaining properties are not considered to have many features of the original demesne present, but there are mature trees and potential for other associated elements. Ballycullen House demesne could be significantly affected as the route corridor divides the original demesne area. The greenway walking route appended to the Great Southern Trail is also present in the south of this subsection.

With regard to sensitive visual receptors, the main receptor groups are individual properties. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	22
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	90
Users of parks / recreational areas, tourist attractions	III	1
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	0
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	102

Subsection K-L is a short section which diverges from the mainline railway but continues predominantly east-west. The landscape through which this section passes is composed of fields with mature trees, hedgerows, streams and small wooded pockets. It intersects one demesne landscape, that of Curraghbridge House (DL 15), which is listed on the RPS and also considered to have substantial features of the original demesne present, and so is considered sensitive. However, it would affect only a small corner of the site, so this is not considered to pose a substantial risk to its integrity.

With regard to sensitive visual receptors, the main receptor groups are individual properties. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	1
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	6
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	0
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	9

Subsection L-M is orientated east-west with a slight northerly trajectory. The landscape through which this section passes is composed of undulating fields with mature trees, hedgerows, streams and small wooded pockets. It intersects two demesne landscapes, Ballycarrane (DL 17) and Ballybronoge South (DL 18). Large areas of each are affected, but they are not listed on the RPS and do not have substantial features of the original demesne present, and so are not considered sensitive. Adare village is bypassed by the proposed route corridor.

With regard to sensitive visual receptors, the main receptor groups are individual properties. Viewpoint V6, the visual sequence entering Adare from the N21 on both sides, could be affected. The listed view from Tory Hill (V3), some 5km to the south-east of the corridor has elevated views which would include the route corridor. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	1 (V3)
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	6
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	47
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V6)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	66

Subsection E-H is quite short and continues south, where it joins the N21 Rathkeale Bypass just north of Rathkeale. The landscape through which this section passes is composed of undulating fields with mature trees, hedgerows and small wooded pockets, similar to B-E. The undeveloped section of the Great Southern Trail is also present in this subsection, where the route crosses the dismantled railway.

With regard to sensitive visual receptors, the main receptor groups are individual properties in the hinterland north of Rathkeale. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	5
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	9
Users of parks / recreational areas, tourist attractions	III	1
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	0
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	15

Subsection H-G is short and follows the existing N21 Rathkeale Bypass route. The landscape through which this section passes is dominated by the N21 road, with relatively recent mass planting and hedgerows to either side of the road. The Great Southern Trail is also present in this subsection, and the trail crosses the route corridor / N21 at the existing N21 crossing.

With regard to sensitive visual receptors, the main receptor groups are individual properties in the hinterland north of Rathkeale and in the town itself. The routes into Rathkeale from the northwest are considered sensitive in terms of visual setting and approach to the town. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	0
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	33
Users of parks / recreational areas, tourist attractions	III	1
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V7)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	162

Subsection H-K is orientated east-west for the first 1.7km where it follows the existing N21 Rathkeale Bypass. It then turns in a north-east direction. The landscape through which this section passes is composed of fields with mature trees, hedgerows, streams and small wooded pockets. It intersects two demesne landscapes marginally: Clonshire Lodge (DL 21) and Smithfield House (DL 19). The former is listed on the RPS and also considered to have substantial features of the original demesne present, and so is considered more sensitive.

With regard to sensitive visual receptors, the main receptor groups are individual properties. Viewpoint V8, from the hills some 5km to the south may have views of this corridor. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	26
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	61
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V8)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	107

Overall, Route Corridor Option 3 is similar to Route Corridor Option 2 and has moderate sensitivity as there are relatively low amounts of dwellings in the associated study area and the most sensitive landscapes are generally avoided, although marginally more would be affected than in Route Corridor Option 2. Where Route Corridor Option 3 diverges from Route Corridor Option 2, it runs close to Rathkeale and Croagh and as a result has the potential to affect more sensitive visual receptors than Option 2 which runs parallel to the rail line for much of the comparable route. The majority of this landscape has a large number of trees and hedges which increase visual absorption capacity, but are also potential sensitive landscape elements.

5.4 Route Corridor Option 4 (A-B, B-C, C-N, N-L, N-P, L-M)

The total length of Route Corridor Option 4 is 32km. A significant proportion of the route (c.16km) passes through the Shannon Integrated Coastal Management zone as designated in the County Development Plan Character Assessment, which is considered to be a sensitive landscape and there are individual dwellings throughout the area.

Subsection A-B commences in the north-west of the study area on the existing N69 to the eastern fringe of Foynes. At the point of contact with the N69, there is potential for overlap with the section of road that is designated as having listed views, albeit that the focus of the views is to the north. There are also some housing estates and several individual dwellings clustered to the south of Foynes. The elevated viewpoint at Knockpatrick, where there is a burial ground and ruined church (viewpoint V4), overlooks this section of the route.

For the first 1.5km of the corridor, the corridor has a north-west / south-east orientation. It then turns to a more east-west orientation which is maintained for the remainder. The route passes close to the Lower River Shannon and Barrigone SACs, within 50m in some places. Between Ch3+500 and Ch4+500, the route passes through deciduous woodland areas in Ballinknockane and Craggs townlands and at Ballyclogh. It passes close to some demesne landscapes but these are not within the study area.

With regard to sensitive visual receptors, the following were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	1 (V1)
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	5
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	33
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V4)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	120

Subsection B-C continues in a generally east-west direction, veering slightly north to by-pass Askeaton, utilising the existing bridge crossing the River Deel and utilising part of the by-pass road, and turning south-east. The majority of the landscape through which this section passes is composed of undulating fields with mature trees, hedgerows, scrub vegetation and small wooded areas. At Askeaton, the route crosses the Shannon Estuary SAC and it passes close to the Askeaton Fen Complex around Ch13+300. It passes close to some demesne landscapes but these are not within the study area.

With regard to sensitive visual receptors, this section includes the views from the existing by-pass bridge of the friary and town centre of Askeaton, identified as sensitive in the study (V5). The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	12
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	80
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V5)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	304

Subsection L-M is orientated east-west with a slight northerly trajectory. The landscape through which this section passes is composed of undulating fields with mature trees, hedgerows, streams and small wooded pockets. It intersects two demesne landscapes: Ballycarrane (DL 17) and Ballybronoge South (DL 18). Large areas of each are affected, but they are not listed on the RPS and do not have substantial features of the original demesne present, and so are not considered sensitive. Adare village is bypassed by the proposed route corridor.

With regard to sensitive visual receptors, the main receptor groups are individual properties. Viewpoint V6, the visual sequence entering Adare from the N21 on both sides, could be affected. The listed view from Tory Hill (V3), some 5km to the south-east of the corridor has elevated views which would include the route corridor. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	1 (V3)
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	6
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	47
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V6)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	66

Subsection C-N continues in a generally south-east direction to N, which is just north-west of Adare. The majority of the landscape through which this section passes is composed of undulating fields with mature trees, hedgerows, streams and small wooded pockets. The route passes close to the Askeaton Fen Complex SAC around Ch3+000 and the Curraghchase Woods SAC at Ch2+200. It passes close to several demesne landscapes but does not intersect any of them. Similarly, it passes close to Curraghchase Forest Park, but does not intersect with it.

With regard to sensitive visual receptors, the main receptor groups are individual properties. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	23
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	47
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	0
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	109

Subsection N-L is orientated north-east / south-west. The landscape through which this section passes is composed of fields with mature trees and hedgerows.

The following visual receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	1
Local properties with direct or oblique views of the development, within 200m of the edge of route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	2
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	0
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	2

Subsection N-P is orientated north-east / south-west. The landscape through which this section passes is composed of fields with mature trees, hedgerows, streams and small wooded pockets. It intersects one demesne landscapes marginally: Clonshire Lodge (DL 21), which is listed on the RPS and also considered to have substantial features of the original demesne present, and so is considered sensitive.

With regard to sensitive visual receptors, the main receptor groups are individual properties. Viewpoint V8, from the hills some 5km to the south may have views of this corridor. The following receptors were recorded in this subsection:

Receptor	Sensitivity	Number
Listed Views in County Development Plans	IV	0
Local properties with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints.	IV	7
Local properties with direct or oblique views of the development, within 200m of the edge of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road or in urban / suburban setting.	III	17
Users of parks / recreational areas, tourist attractions	III	0
Publicly accessible viewpoints identified in the study with high quality open / panoramic views	III	1 (V8)
Local properties with direct or oblique views of the development, within 500m of the edge of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of the edge of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	35

Overall, Route Corridor Option 4 has moderate sensitivity. It runs close to Curraghchase Woods (demesne landscape, SAC and forest park) and Askeaton Fen Complex (SAC) which add to the scenic quality in this area, and there are more sensitive visual receptors in this area, consistent with the general increase in housing density on the eastern side of the study area, closer to Limerick city. The majority of this landscape has a large number of trees and hedges which increase visual absorption capacity, but are also potential sensitive landscape elements.

6.0 Impact Assessment

All of the proposed route corridor options would generate negative effects on the existing landscape and visual environment. Due to the nature of the settlement pattern within the study area, there are few parts of the proposed route corridor options that do not have visual sensitive receptors (i.e. residential dwellings or important views) within a short distance and therefore visual impact registers particularly highly on the scale. The most significant impacts occur where the proposed road would form a new element in the view.

Landscape impacts are highest where the route impacts on the Shannon Integrated Coastal Management Zone and the rural landscape, particularly where these areas are removed from existing development. Removal of mature trees, hedgerows and woodlands also generate significant negative impacts.

For details of the impact assessment of the route options, see the analytical tables in Appendix 1 of this Report. See Drawings RS-032 to RS-036 in Volume 2 of this report for Landscape & Visual mapping

7.0 Comparison of Route Corridor Options

All route corridor options will have consequential negative effects in several respects. In summary the effects of the route corridor options are tabulated in the following Table 8.

Table 8: Summary of Landscape and Visual Impacts

	<i>Impact</i>	Option 1	Option 2	Option 3	Option 4
1.	Overall landscape impact See Table at Appendix 1	144	92	91	98
2.	Overall visual impact See Table at Appendix 1	2827	851	924	1041
	Total (Note: Highest Score indicates greatest impact)	2971	942	1015	1139

As can be seen from the above table, Route Corridor Option 2 is the preferred option from a landscape and visual perspective, although it has some significant negative effects. The principal advantages of this route corridor option are that the proposed route corridor passes a relatively smaller number of dwellings than the other route corridor options and avoids some of most sensitive landscapes. It also follows the route of the railway closely for a substantial part of the route which is a less populated area.

There will be residual impacts relating to removal of trees, woodland and visual impacts to dwellings that are close to this corridor.

Route Corridor Option 1 is the least desirable route from a landscape and visual perspective as the route corridor traverses the Shannon Integrated Coastal Management Zone to the north of the study area and this generates significant landscape impact due to the high value of this area. This is also the most heavily populated area of the study area, so the proposed road would result in significant visual impacts to the dwellings and the intrinsic scenic quality. A new crossing structure close to the mouth of the River Maigue would also generate significant negative effects, as it would be larger and more visible at this point than at almost any other in the study area.

Route Corridor Options 3 and 4 are marginally less favourable than Route Corridor Option 2, primarily because they run through more sensitive landscapes and more densely populated areas. Route Corridor Option 4 runs close to Curraghchase Woods (demesne landscape, SAC and forest park) and Askeaton Fen

Complex (SAC) which add to the scenic quality in this area, and there are more sensitive visual receptors in this area, consistent with the general increase in housing density on the eastern side of the study area, closer to Limerick city. Where Route Corridor Option 3 diverges from Route Corridor Option 2, it runs close to Rathkeale and Croagh and as a result has the potential to affect more sensitive visual receptors than Option 2 which runs parallel to the rail line for much of the comparable route.

8.0 Bibliography

- ***Guidelines for Landscape and Visual Impact Assessment*** 3rd Edition, by The Landscape Institute / Institute of Environmental Assessment published by E&FN Spon (2013).
- ***Advice notes on Current Practice in the Preparation of Environmental Impact Statements***, published by the EPA (2003).
- ***Guidelines on the information to be contained in environmental impact statements***, published by the EPA (2002).
- ***Design Manual for Roads and Bridges, Vol. 11, Environmental Assessment***, published by HMSO (1993).
- ***Atlas of the Irish Rural Landscape*** 2nd Edition, by Aalen, F.H.A., Whelan, K. & Stout, M. (Eds.), published by Cork University Press (2011).
- ***Limerick County Development Plan 2010 –2016*** Limerick County Council
- ***A Guide to Landscape Treatments for National Road Schemes in Ireland***, published by National Roads Authority, 2006
- ***A Draft National Landscape Strategy for Ireland 2014-24***, Department of Arts, Heritage and the Gaeltacht, 2014.

APPENDICES

1: Landscape & Visual Assessment Tables

FOYNES-LIMERICK ROUTE OPTIONS ASSESSMENT TABLE - LANDSCAPE & VISUAL																																
			ROUTE CORRIDORS																													
Ref.	Landscape typology / Receptor	Category	A-B		B-C		C-D		B-E		E-F		F-G		F-K		K-L		L-M		E-H		H-G		H-K		C-N		N-P		N-L	
	Within 500m of the corridor, except where indicated * below - within corridor only																															
4.1	Designated Landscapes (SPA, cSAC, pNHA, etc.); Note - all interact with Cut/Fill Sections, Bridges, Interchanges due to scale / extent	IV	Y - Lower River Shannon SAC; Barrigone SAC; SPA; pNHA	36	Y - Shannon Estuary SAC; Askeaton Fen Complex SAC, SPA	27	Y - Askeaton Fen Complex SAC; Lwr. R. Shannon SAC; Curraghchase Woods SAC; pNHA x3; SPA	90	Y - Askeaton Fen Complex SAC; pNHA	14	N	5	N	5	N	5	N	5	Y - Lower River Shannon SAC	9	N	5	N	5	N	5	Y - Curraghchase Woods SAC; Askeaton Fen Complex SAC; pNHA x2	32	Y - pNHA 429	9	N	5
4.2	National / Regional / District Parks / Public Amenity AreasNote - all interact with Cut/Fill Sections, Bridges, Interchanges due to scale / extent	IV	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	Y -Curraghchase Woods	8	N	5	N	5
4.3	Riparian landscapes - at grade;Note - all interact with Fill Sections, Bridges due to nature of interaction	IV	Y - Ahacronane River	9	Y - River Deel	9	Y - River Maigue	9	Y - River Deel	9	N	5	N	5	N	5	N	5	Y - River Maigue	9	N	5	N	5	N	5	N	5	N	5	N	5
4.4	Significant trees (Tree Preservation Order or Co. Dev. Plan designation)* OR 'Champion' trees (i.e. trees of great age and local significance)* - NONE RELEVANT - Adare Manor, Shannongrove House and Curraghchase Forest Park have Champion trees and are within the estate but outside the route corridor and only trees within the route corridor could be affected.	IV																														
4.5	Historic Designed Landscape associated with listed building (e.g. Demesne) with intact, mature landscape (includes only those estates with "Main features substantially present - some loss of integrity" or "Main features substantially present - peripheral features unrecognisable" according to NIAH Survey.*	IV	N	5	N	5	Y - Dromore Castle (DL 5, peripheral impact - 8)	8	Y - Stoneville Demesne (DL12, corner)	8	N	5	N	5	Y - Hollywood House (DL14, substantial intersect)	9	Y - Curraghbridge House (DL15, southern edge of property)	8	N	5	N	5	N	5	Y - Clonshire Lodge (DL21, NW edge only)	8	N	5	Y - Clonshire Lodge (DL21, E edge only)	8	Y - Curraghbridge House (DL15, southern edge of property)	8
4.6	Areas of "Scenic Beauty" as described in Limerick CDP	IV	Y - Shannon Estuary ICMZ	9	Y - Shannon Estuary ICMZ	9	Y - Shannon Estuary ICMZ	9	Y - Shannon Estuary ICMZ	8	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	Y - Shannon Estuary ICMZ	8	N	5	N	5
3.1	Local Parks / Amenity facilities e.g. walking routes	III	N	5	N	5	N	5	Y - Great Southern Trail Walking Route	8	Y - Great Southern Trail Walking Route - Crossing of routes	8	Y - Great Southern Trail Walking Route	7	N	5	N	5	N	5	Y - Great Southern Trail Walking Route	7	Y - Great Southern Trail Walking Route	7	N	5	N	5	N	5	N	5
3.2	Townscape / Streetscape (good quality)	III	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	Y - Indirect positive impact on Adare by removing traffic from main street	3	N	5	N	5	N	5	N	5	N	5	N	5
3.3	Landscape features with significant merit – walls, structures, entrances, mature tree-lined avenues, etc. (includes Historic Landscapes with few main features or loss of integrity, based on the NIAH survey).*	III	N	5	N	5	Y - Elm Park Demesne (DL 7, large area affected, river cut off from demesne - 8); Ballynolan (DL 3, significant area affected - 8); Bolane (DL 4, not significant, but impact profound - 8)	31	Y Ballycullen House (DL 8 - not significant but profound impact - 8); Ballyclogh House (DL 1 - peripheral impact - 7); Wellmount House (DL 10, small area affected - 7)	30	N	5	N	5	Y - Curraheen House (DL 13 - perihperal - 7)	7	N	5	Y - Ballycarrane (DL 17, large area affected, low value - 7); Ballybrongoe South (DL 18, large area affected, low value - 7)	14	N	5	N	5	Y - Smithfield House (DL 19, small area affected - 6)	6	Y - Tuogh Cottage demesne (DL 20 - substantial impact on low-value demesne - 7)	7	N	5	N	5
3.4	Deciduous woodland*	III	Y	8	Y	8	Y	7	Y	7	N	5	N	5	N	5	N	5	Y	7	N	5	N	5	N	5	N	5	Y	7	N	5
3.5	Rural Landscape of high quality with distinctive features or field patterns; Traditional Stone Walls	III	Y	8	Y	8	Y	8	Y	7	Y	7	Y	7	Y	7	Y	7	Y	7	Y	7	N	5	Y	7	Y	7	Y	7	Y	7
2.1	Rural Landscape (typical field patterns, streams, ditches)	II	Y	7	Y	7	Y	7	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6
2.2	Trees / Hedgerows (not designated)*	II	Y	7	Y	7	Y	7	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6
2.3	Coniferous woodland*	II	N	5	N	5	Y	6	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5	N	5
1.1	Infrastructural landscape, Waste Ground	I	Y	5	Y	5	Y	5	Y	5	Y	5	Y	5	Y	5	Y	5	Y	5	Y	5	Y	5	Y	5	Y	5	Y	5	Y	5
LANDSCAPE TOTAL			119		110		202		123		77		76		80		77		91		76		74		78		109		83		77	

		ROUTE CORRIDORS																														
	Visual Receptor	Category	A-B		B-C		C-D		B-E		E-F		F-G		F-K		K-L		L-M		E-H		H-G		H-K		C-N		N-P		N-L	
4.1	Listed Views in County Development Plan	IV	Y - N69 Foynes - end is within study area	8	N	5	N	5	N	5	N	5	N	5	N	5	N	5	Y - Tory Hill is c.5km with an elevated view of the corridor	8	N	5	N	5	N	5	N	5	N	5	N	5
4.2	Local properties (residential, nursing homes, residential care units, schools, cemeteries, tourist accommodation) with direct views of the development, within a route corridor option, or outside route corridor with existing high quality views from elevated / open viewpoints	IV	5 receptors	45	12 receptors	108	52 receptors	468	22 receptors	198	1 receptor	9	2 receptors	18	28 receptors	252	1 receptor	9	6 receptors	54	5 receptors	45	0 receptors	0	26 receptors	234	23 receptors	207	7 receptors	63	1 receptor	9
3.1	Local properties with direct or oblique views of the development, within 200m of a route corridor option or >200m with existing high quality views from elevated / open viewpoints; or within a route corridor option, where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	III	33 receptors	264	80 receptors	640	163 receptors	1304	90 receptors	720	11 receptors	88	26 receptors	208	50 receptors	400	6 receptors	48	47 receptors	376	9 receptors	72	33 receptors	264	61 receptors	488	47 receptors	376	17 receptors	136	2 receptors	16
3.2	Users of parks / recreational areas, tourist attractions	III	N	5	N	5	Y - Entrance to Curraghchase Forest Park	7	Y - Great Southern Trail Walking Route	8	Y - Great Southern Trail Walking Route	7	Y - Great Southern Trail Walking Route, Playground	7	N	5	N	5	N	5	Y - Great Southern Trail Walking Route	7	Y - Great Southern Trail Walking Route	7	N	5	N	5	N	5	N	5
3.3	Publicly accessible viewpoints identified in the study with high quality open / panoramic views		Y - V4	7	Y - V5	7	Y - V2	7	N	5	N	5	Y - V7 Rathkeale	6	Y - V8 Liskennett, Knockfeerina, etc. @ 7km to south	6	N	5	Y - V6 Adare (slight improvement)	4	N	5	N	5	Y - V8 @ 5km to southV8 (Rathkeale, no appreciable	9	N	5	Y - V8 @ 5km to southV8 (Rathkeale, no appreciable	7	N	5
2.1	Local properties with direct or oblique views of the development, within 500m of a route corridor option or >500m with existing high quality views from elevated / open viewpoints; or within 200m of a route corridor option where the existing view includes an existing major road (N21, N69, railway or other major roadway) or in urban / suburban setting	II	120 receptors (including S fringe of Foynes as single receptor)	720	304 receptors (including most of Askeaton as single receptor)	1824	434 receptors	2604	102 receptors	612	0 receptors	0	160 receptors (including W Askeaton as single receptor)	960	60 receptors	360	9 receptors	54	66 receptors (inc. Manor Court Est, Adare as single)	396	15 receptors	90	162 receptors (inc. Rathkeale N as single)	972	107 receptors	642	109 receptors	654	35 receptors	210	2 receptors	12
1.1	People working in the area, travelling through	I	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6	Y	6
VISUAL TOTAL			1055		2595		4401		1554		120		1210		1034		132		849		230		1259		1389		1258		432		58	
TOTAL - SECTION BY SECTION			1174		2705		4603		1677		197		1286		1114		209		940		306		1333		1467		1367		515		135	

RESULT:	TOTAL
OPTION 1 (A-B, B-C, C-D)	8482
OPTION 2 (A-B, B-E, E-F, F-G, F-K, K-L, L-M)	6597
OPTION 3 (A-B, B-E, E-H, H-G, H-K, K-L, L-M)	7106
OPTION 4 (A-B, B-C, C-N, N-L, N-P, L-M)	6836

Notes:
4.6 Refers to section 9.3 in CDP "many coastal areas of scenic beauty in Ireland there are few with the type of landscape provided by the estuary"; A to D is entirely within this zone, therefore rates 1; B-E and C-N are partially inside and therefore rate 2.
Visual - general comment - frequency of structures and fill sections results in generally higher levels of impact, so for comparative purposes - a value of 9 was applied to all receptors in Section 4.2; 8 in Section 3.1; and 6 in Section 2.1

RESULT (BASED ON AVERAGES):	LS	VIS	TOT	RANKING	RESULT	COMMENTS
OPTION 1 (A-B, B-C, C-D)	144	2827	2971	4	Major Negative	Least preferred route due to highly sensitive landscape (Shannon Coastal Management Zone) as designated in CDP and high concentration of housing to east of study area, closer to Limerick
OPTION 2 (A-B, B-E, E-F, F-G, F-K, K-L, L-M)	92	851	942	1	Moderately Negative	Preferred route due to relatively small number of dwellings and avoidance of most sensitive landscapes; follows route of train most closely
OPTION 3 (A-B, B-E, E-H, H-G, H-K, K-L, L-M)	91	924	1015	2	Moderately Negative	Relatively similar to Option 2, but H-K more sensitive than F-K (more receptors, especially outside corridor)
OPTION 4 (A-B, B-C, C-N, N-L, N-P, L-M)	98	1041	1139	3	Moderately Negative	Also quite similar to Option 2, but B-C more sensitive than B-E as there are more receptors within the SCMZ, and proximity to high-value landscape of Curraghchase and designated landscapes along C-N

Note: Averages were calculated by dividing each route corridor option's score by the number of sections involved in each route corridor option to give a more balanced ranking of the loading on the landscape

Appendix E

Agriculture, Agronomy and Property Report For Route Corridor Option Appraisal

Agriculture, Agronomy & Property

1.1 Introduction

This section of the Route Selection Report is a comparative study of the impact on agriculture, agronomy and property from the proposed route corridor options for the Foynes to Limerick Road Improvement Scheme.

There are no TII Guidelines specific to Agricultural or Non-Agricultural assessment of road schemes. In line with best practice this section was prepared with regards to the following guidance documents:

- Advice notes on current practice in the preparation of Environmental Impact Statements (EPA, 2003).
- Advice notes for preparing Environmental Impact Statements (Draft) (EPA, 2015).
- Environmental Impact Assessment of National Road Schemes – A Practical Guide (NRA, 2008).
- Guidelines on the information to be contained in Environmental Impact Statements (EPA, 2002).
- Project Management Guidelines (TII, 2010)
- Revised guidelines on the information to be contained in Environmental Impact Statements (Draft) (EPA, 2015).

The comparative study comprises of a quantitative and qualitative assessment of agricultural and non-agricultural property within the proposed route corridor options. An evaluation of the preference of each route corridor option, in terms of least impact on agricultural or non-agricultural (i.e. residential, commercial or community) property, will contribute towards the overall Route Selection Report.

1.2 Methodology

The route selection methodology involves desktop study, local consultation and roadside survey of the route corridor options. Available information during the desktop study includes proposed route corridor option mapping, aerial photography and submissions made during the public consultation held in March 2015. Local consultation took place with representatives of the agricultural sector to identify key agricultural constraints including those involved in dairy and equine enterprises.

The qualitative assessment includes:

- Land use;
- Farm types / operations;
- Topography; and
- Soils information.

The quantitative assessment includes:

- Landtake (ha);
- Length offline (km);
- Land use (% area);
- Grassland / Tillage lands under land quality (% area);
- Farm houses within corridor (Number);
- Farm buildings, farm yards within corridor (Number);
- Key agricultural enterprises within corridor (Type and Number);
- Non-agricultural property within corridor – Residential (Number);
- Non-agricultural property within corridor – Commercial (Number); and
- Non-agricultural property within corridor – Community (Number).

The significance of the agricultural and non-agricultural impact will be evaluated and conclusions will outline preferences for each of the proposed route corridor options. Summary assessment information for each route corridor option is presented in an appendix to this report.

1.2.1 Data sources

The following sources of information were used:

- AutoCAD route corridor options and cross section drawings;
- Census of Agriculture, 2010 – Final Results (2012), CSO;
- Discovery Series Mapping – Route Development (Drawing Nos. CS-060 to CS-064 in Volume 2 of this Report);
- Digital OS, Discovery Series and satellite imagery;
- Foynes to Limerick Constraints Report – Agriculture, Agronomy and Property;
- General Soil Map of Ireland (1980), The National Soil Survey, An Fóras Talúntais;
- Horse Racing Ireland Factbook, 2014;
- Soil Associations of Ireland and their Land Use Potential (1980), M.J. Gardiner and T. Radford, The National Soil Survey, An Fóras Talúntais; and
- Teagasc – Consultation with agricultural advisors for study area.

1.2.2 Assessment methodology

The route corridor options assessment involved an appraisal of agricultural and non-agricultural property along each 300m route corridor option.

The agricultural appraisal involved an assessment of the impact with respect to estimated agricultural landtake, land use, land quality, key agricultural enterprises, farm houses and farmyards present within each route corridor option.

The non-agricultural property appraisal involved an assessment of the residential, commercial and community properties present within each route corridor option.

At Route Selection stage, information regarding detailed road alignments is not available for each of the route corridor options and as a result the appraisal did not involve an assessment of landtake and land severance on individual farm holdings or property acquisitions and other impacts on non-agricultural property.

The assessment criteria for agricultural and non-agricultural property range from Neutral to Major Negative. The assessment is focused on those agricultural and non-agricultural properties that experience a direct physical impact. As such, any positive impacts that may result from the proposed scheme (e.g. greater access between farm holdings or improved drainage at a local level) have not been considered at this stage. Similarly, positive effects to agricultural and non-agricultural properties that are not directly physically impacted (e.g. reduced impacts from lower traffic levels on existing roads) have not been considered at this stage. In this way, a worst case assessment has been applied to help determine the preferred option. Positive effects and mitigation measures will be considered at the next stage of the assessment

Agricultural property was evaluated in terms of agricultural landtake, land use, land quality and a survey count of farmhouses, farmyards and key agricultural enterprises.

For comparative purposes, agricultural landtake for offline sections is based on route corridor length, alignment type and because of its importance, cross section width for the relevant road type.

The land use and land quality assessments were carried out as a desktop study of digital satellite imagery and presented as a percentage of the agricultural areas within each route corridor option. Non-agricultural property was based on a survey count in August 2015 of residential, commercial and community property within the route corridor option.

The assessment included the identification of agricultural holdings with farm enterprises considered most sensitive to new road development. These key agricultural enterprises consist mainly of dairy and equine farm enterprises. Dairy farms, as intensively operated grassland farms, are particularly sensitive to significant landtake and severance impacts that may adversely affect daily livestock movements and farm milk production. Activities on equine farms vary between breeding and training of high value bloodstock that are considered particularly sensitive to noise and visual impacts associated with the construction and operation of new road development. Such impacts may have the potential to affect the day to day interaction with horses and overall operation of such equine farms. Beef and tillage farms are not considered to be as sensitive as dairy or equine enterprises to road development with regard to loss of lands or loss of access to severed lands. It is expected that there will be significant impacts on beef and tillage farms and that, following the implementation of detailed mitigation including measures relating to land severance, these farms will be in a position to continue with the farm enterprise.

The assessment criteria used to determine the route corridor option impact on agricultural property are presented in Table 1.

Table 1 – Assessment criteria

Impact	Criteria
Major Negative	- Land use is primarily grass or arable based. - Land quality is primarily good being suited to intensive agricultural production and a wide range of agricultural uses. - There is a high number of sensitive farming enterprises, i.e. dairy, equine. - There is a high number of farmhouses and farmyards
Moderately Negative	- Land use is mainly grass or arable based with low levels of forestry, rough grassland / scrub. - Land quality is average to good and with effective management is suited to intensive agricultural production and a wide range of agricultural uses. - There is a medium number of sensitive farming enterprises, i.e. dairy, equine. - There is a medium number of farmhouses and farmyards.
Minor Negative	- Land use is grass based with medium levels of forestry, rough grassland / scrub. - Land quality is primarily average being less suited to intensive agricultural production. Lands are limited in the range of agricultural use. - There is a low number of sensitive farming enterprises, i.e. dairy, equine - There are a low number of farmhouses and farmyards.

Impact	Criteria
Neutral	No effect on agricultural lands.
Positive	Not applicable for reasons given in assessment methodology.

The assessment criteria used to determine the route corridor option impact on non-agricultural property are presented in Table 2.

Table 2 – Assessment criteria

Impact	Criteria
Major Negative	- There are a high number of residential properties. - There is a medium to high number of commercial properties. - There is a medium to high number of community properties.
Moderately Negative	- There are a medium number of residential properties. - There are a low number of commercial properties. - There are a low number of community properties.
Minor Negative	- There are a low number of residential properties. - There are no commercial properties. - There are no community properties.
Neutral	No effect on non-agricultural property.
Positive	Not applicable for reasons given in assessment methodology.

The determination of a preference for a route corridor option is one having the least impact in terms of agriculture or non-agricultural property. The selection of preferred options does not generally allow for a preference common to both agriculture and non-agricultural property and as a result a preference is selected in each respective area.

1.3 Existing environment

1.3.1 General

The study area is generally low-lying with a flat to undulating topography and limestone derived agricultural soils. Land use is almost entirely grass-based and farming practices are predominantly beef related with significant levels of dairy farming. The lands are also well suited to horses accounting for a significant equine industry presence in the study area.

1.3.2 Agriculture in County Limerick

The total agricultural area of Co. Limerick is 209,133ha and when commonage and rough grazing are excluded there is 196,303ha grassland, 923ha cereals and 1,135ha of other crops, fruit and horticulture (CSO, 2012).

There are 5,991 farms with an average farm size of 34.5ha. The main agricultural enterprises are beef (58.4%), dairy (24.1%), mixed field crops (7.4%) and mixed grazing livestock (6.9%). There are very low levels of farms specialising in sheep (0.9%), mixed crops and livestock (0.5%) and tillage (0.3%) (CSO, 2012).

The equine industry in County Limerick is a significant agricultural sector with 4,094 horses and ponies on 679 farms in County Limerick involved in both racing and Sport

Horse activities. Of these, the population of Thoroughbred animals is 777 Brood mares and 1,113 others representing 4.9% and 5.1% of the national population respectively (CSO, 2012). The racing industry in County Limerick is represented by 281 registered breeders and 23 licensed trainers (HRI Factbook, 2014).

1.3.3 Agriculture in the study area

The study area for the Foynes to Limerick Road Improvement Scheme is located entirely within County Limerick and covers an area from Foynes to Limerick City extending from the River Shannon estuary to south of Rathkeale and north of Croom village. The area is primarily rural in nature apart from urban areas of Raheen on the outskirts of Limerick city and towns or villages such as Askeaton, Patrickswell, Adare, Pallaskenry and Rathkeale.

Agriculture is primarily livestock based and similar to County Limerick overall with beef farming as the predominant farm enterprise and dairy farming also significant. The Rural Districts (Rathkeale, Croom and Limerick No. 1) are taken as representative of the study area and the main agricultural enterprises are beef (60.9%), dairy (20.3%), mixed grazing livestock (8.3%) and mixed field crops (7.5%). Farming type in the study area is broadly similar to that of County Limerick (CSO, 2012).

The agricultural data for Electoral Districts along the route corridor options indicate a larger farm size than at a county or national level. In the study area, farms of greater than 30ha account for 48.9% which is comparable with 46.1% in County Limerick and 40.1% nationally. Land use data for the same area indicate the study area is almost entirely grass based with pasture, silage and hay accounting for 93.8% and rough grassland a further 4.2%. By comparison, the combined categories of pasture, silage and hay for County Limerick and nationally are 93.8% and 75.7% respectively. Farm specific data on the equine sector is not available at Electoral District level. In 2012, there were 812 horses within the Electoral Districts along the route corridor options (CSO, 2012).

1.3.4 Soils

In the west of the study area, between Askeaton and Rathkeale, agricultural soils are predominantly well drained, somewhat shallow and are ideally suited to grassland use. Extending inland from the Shannon estuary and bordering the River Maigue as far as Adare village the agricultural soils are derived from alluvial deposits. The high silt content of these soils has resulted in poor drainage which can limit land use although good management can still ensure good productivity. In the remaining area, agricultural soils are predominantly well drained, with a deep profile and good moisture holding capacity. These soils are ideally suited to grassland production.

1.4 Route corridor options

The comparative assessment involved an evaluation of the impact on agriculture and non-agriculture of four route corridor options, namely options 1, 2, 3 and 4, for the Foynes to Limerick Road Improvement Scheme. All options share a common section at the western end from Node A at Foynes to Node B and options 2, 3 and 4 share a common section from Node L north of Adare village to Node M at Attyflin.

The route corridor options are primarily offline on agricultural lands with short online sections on existing bypasses of Askeaton and Rathkeale towns and on the improved section of the N21 east of Adare village.

The route corridor options are similar in terms of overall length despite the variation in direction and placement.

Route Corridor Option 1 was assessed as a Single Carriageway.

Route Corridor Options 2 and 3 were assessed as a Single Carriageway from Node A at Foynes to Node F and G respectively at Rathkeale. From Node F in the case of Route Corridor Option 2 and Node H in the case of Route Corridor Option 3 to Node M the respective road type has been assessed as a Dual Carriageway.

Route Corridor Option 4 was assessed as a Single Carriageway from Node A at Foynes to Node N at Adare. From Node N to Node P in Garraunboy and Node M at Attyflin the road type was assessed as a Dual Carriageway.

The Single Carriageway road type for Route Corridor Options 1 and 4 incorporates an online upgrade section between Nodes B and C. Similarly the Single Carriageway section on Route Corridor Option 3 incorporates an online upgrade section between Nodes H and G in Rathkeale.

The Dual Carriageway on Route Corridor Options 2, 3 and 4 incorporates online upgrades between Nodes L and M at Attyflin and in the case of Route Corridor Option 3 an additional section on the Rathkeale Bypass.

Summary details of the assessment of the impact on agricultural and non-agricultural property are presented in Appendix A of this Report.

1.4.1 Route Corridor Option 1 (A-B-C-D)

This route corridor option is 32.5km in length and is offline on agricultural lands with the exception of a 1.7km online section on the N69 Askeaton bypass. Agricultural landtake is estimated at approximately 154.1ha.

The topography along this option is generally low lying with elevations below 50m. Land use is predominantly grass based (85.6%) with medium levels of rough grassland / scrub (10.7%) and forestry / woodland (3.7%). The quality of agricultural lands is lower on this option with 56.4% regarded as being of good quality and 28.2% of average quality. Farm holdings along the corridor option are livestock based and farm size is in line with those in the study area.

In general, the better quality lands are between Askeaton and Kildimo village and the improved agricultural capacity is reflected by the presence of a number of key dairy farm enterprises. Where these farm holdings extend across the width of the route corridor land severance impacts will be significant. There may be an impact on two key equine farm holdings, west of Kildimo village and north east of Patrickswell, both with equine training facilities at the boundary of the route corridor.

It is apparent that many farm holdings extend fully or partly across the width of the route corridor and will be impacted by land severance. The significance of the impact of land severance is dependent on the extent of individual farm holdings and the development of a road alignment within the corridor.

There is a medium number of farm houses and farmyards within Route Corridor Option 1 at eight farm houses and 18 farmyards respectively. There is a medium number of key farming enterprises within Route Corridor Option 1 at nine dairy farms and two equine farms.

Non-agricultural property within Route Corridor Option 1 is comprised of 100 residential and mostly detached rural dwellings, four commercial properties and four community properties. Commercial property includes Galtee Fuels Ltd. at Craggs, commercial premises at Coolrahee, Askeaton, Membrane Technology Ltd at Moig South, Askeaton and the Raheen Business Park. Community property includes Robertstown Church located within the corridor east of Foynes, lands belonging to Askeaton Leisure Centre, the Franciscan Abbey at Moig South, Askeaton and Askeaton AFC grounds.

Summary details of the assessment of Route Corridor Option 1 are presented in Table 1 – Route Corridor Option 1 in Appendix A of this Report.

1.4.2 Route Corridor Option 2 (A-B-E-F-G-K-L-M)

This route corridor option is 32.3km in length and is offline on agricultural lands with the exception of a 1.8km link to the existing N69 road west of Askeaton and a 1.3km online section on the N21 east of Adare village. Agricultural landtake is estimated at 168.0ha and is the highest of the route corridor options.

Topography is generally low lying with elevations below 50m. There are higher levels of grass based land use (93.5%) and corresponding lower levels of rough grassland / scrub (4.2%) and forestry / woodland (2.3%). The agricultural lands are of a higher quality with 66.8% of lands within the good quality category and 23.7% of average quality. The farming enterprises along the corridor option are livestock based and farm sizes are generally large in line with the study area.

The better quality land is from Askeaton to Adare village and is mainly occupied by beef farm enterprises and a number of key dairy enterprises. The significance of the agricultural impact on these farms will vary dependent on the location of landtake and level of land severance. The agricultural impact on key dairy enterprises may be significant given the requirement for any alignment to be set back from the existing rail line. The route corridor option will have a significant impact on one key equine holding, a stud/equestrian centre, at Dohoye. The significance of the equine impact is due to the proximity of any road alignment to the existing equestrian facilities. A key farm enterprise west of Adare Village may be impacted due to the proximity of the route corridor in relation to the farm buildings and manufacturing premises.

The offline sections will have land severance impacts on many farm holdings and the significance of the impact of land severance is dependent on the extent of individual farm holdings and the development of a road alignment within the corridor.

Overall there are a medium number of farm houses and farmyards within Route Corridor Option 2 at six farm houses and 22 farmyards. There is a medium number of key farming enterprises within Route Corridor Option 2 at nine dairy farms, two equine farms and one farm with agri-business, beef and tillage farm enterprises.

Non-agricultural property within Route Corridor Option 2 is comprised of 74 residential and mostly detached rural dwellings, three commercial properties and three community properties. The commercial properties include Galtee Fuels Ltd. at Craggs and the Tyre Stop business and ABP plant in Rathkeale. The community properties include Robertstown Church located within the corridor east of Foynes, community area and playground beside St. Marys Park in Rathkeale and the graveyard beside St. Marys Church in Rathkeale.

Summary details of the assessment of Route Corridor Option 2 are presented in Table 2 – Route Corridor Option 2 in Appendix A of this Report.

1.4.3 Route Corridor Option 3 (A-B-E-H-G-K-L-M)

This route corridor option is 33.0km in length and includes a 1.8km link to the existing N69 road west of Askeaton. This option is mainly offline on agricultural lands with the exception of a 2.2km section on the N21 Rathkeale bypass, a 1.3km section on the N21 east of Adare village and a further 0.5km section in Rathkeale. The agricultural landtake is estimated at 156.5ha.

Route Corridor Option 3 is similar to Route Corridor Option 2 with common sections between Nodes A-E and K-M. The corridor option variation between Nodes E and K includes the online Rathkeale section and impacts on low-lying agricultural lands of very good quality. This section contributes to this route corridor option as overall having the highest land quality at 74.6% within the good quality category overall and 19.5% of average quality. The option has the highest levels of grass based land use (94.4%) and lowest levels of rough grassland / scrub (4.1%) and forestry / woodland (1.5%). Farming enterprises are livestock based and farm sizes are generally large in line with the study area.

The better quality land extends from Askeaton to Adare village and is occupied by beef farm enterprises and a number of key dairy and equine farm enterprises. The significance of the agricultural impact on these farms will vary dependent on the location of landtake and level of land severance. There would be a significant agricultural impact on key dairy enterprises near Croagh village based on the position of the route corridor option. The route corridor option may impact on a number of key equine holdings in the Croagh village to Clonshire area. These holdings include an equestrian centre located partly within the route corridor, a farm with equine training facilities in the proximity of the corridor and an equine farm with lands extending across the corridor. The equestrian centre facilities include indoor and outdoor arenas at the corridor boundary and activities include trekking via routes across the route corridor to Hollywood House, Ballininvira.

The agricultural impact on farm holdings that extend fully across the width of the route corridor will include land severance. The significance of the impact of land severance is dependent on the extent of individual farm holdings, farm type and the development of a route alignment within the corridor.

Overall there are a medium number of farm houses and farmyards within Route Corridor Option 3 at six farm houses and 21 farmyards. There is a medium number of key farming enterprises within Route Corridor Option 3 at nine dairy farms, four equine farms and one farm with agri-business, beef and tillage farm enterprises.

Non-agricultural property within Route Corridor Option 3 is comprised of 89 residential and mostly detached rural dwellings, three commercial properties and four community properties. The commercial properties include Galtee Fuels Ltd. at Craggs and the Tyre Stop business and ABP plant in Rathkeale. The community properties include Robertstown Church located within the corridor east of Foynes, a community area and playground beside St. Marys Park in Rathkeale, the graveyard beside St. Marys Church in Rathkeale.

Summary details of the assessment of Route Corridor Option 3 are presented in Table 3 – Route Corridor Option 3 in Appendix A of this Report.

1.4.4 Route Corridor Option 4 (A-B-C-N-P-L-M)

This route corridor option is 32.0km in length and includes a 1.0km link to the existing N69 road east of Askeaton. This option is offline on agricultural lands with the exception of a 1.7km section on the N69 Askeaton bypass and a 1.3km section on the N21 east of Adare village. The agricultural landtake is the lowest on this option at an estimated 145.3ha.

Route Corridor Option 4 is similar to Route Corridor Option 1 with a common section between Nodes A-C. There is a section common with the other options between Nodes L-M.

The section between Nodes C and L impacts on agricultural lands of average to good quality. Overall, the route corridor option has the lowest land quality with 54.3% within the good quality category. Higher levels of non-grass land use are seen within the categories of rough grassland / scrub (7.8%) and forestry / woodland (3.2%). As with other options the farming enterprises are livestock based and farm sizes are generally in line with the study area.

There are a number of key farming enterprises along the route corridor option particularly on the common section with Route Corridor Option 1. There may be a further impact on a key dairy farm located south of Curraghchase. The route corridor option may impact on one key equine holding located south of Curraghchase due to the proximity of training facilities to the route corridor.

Overall, there are a medium number of farm houses and farmyards within Route Corridor Option 4 at eight farm houses and 21 farmyards. There are a medium number of key farming enterprises within Route Corridor Option 4 at eight dairy farms and two equine farms.

Non-agricultural property within Route Corridor Option 4 is comprised of 90 residential and mostly detached rural dwellings, three commercial properties and four community properties. The commercial properties include Galtee Fuels Ltd. at Craggs, commercial premises at Coolrahnee, Askeaton, and Membrane Technology Ltd at Moig South, Askeaton. The community properties include Robertstown Church located within the corridor east of Foynes Foynes, lands belonging to Askeaton Leisure Centre, the Franciscan Abbey at Moig South, Askeaton and Askeaton AFC grounds.

Summary details of the assessment of Route Corridor Option 4 are presented in Table 4 – Route Corridor Option 4 in Appendix A of this Report.

1.4.5 Summary

An overall summary of the assessment of Route Corridor Options on agriculture is presented in Table 3.

Table 3 Summary of agriculture assessment

Assessment criteria	Option 1	Option 2	Option 3	Option 4
Offline landtake (ha)	154.1 ha	168.0ha	156.5ha	145.3ha
Land Use (% area)				
- Grassland	85.6%	93.5%	94.4%	89.0%
- Rough Grassland / Scrub	10.7%	4.2%	4.1%	7.8%
- Forestry, Woodland	3.7%	2.3%	1.5%	3.2%
Land quality (% area)				
- Good	56.4%	66.8%	74.6%	54.3%
- Average	28.2%	23.7%	19.5%	34.8%
- Poor	15.4%	9.5%	5.9%	10.9%
Agricultural property (No.)				
- Farm houses	8	6	6	8
- Farmyards	18	22	21	21
Key agricultural enterprises (No.)				
- Dairy	9	9	9	8
- Equine	2	2	4	2
- Other	0	1 *	1 *	0
* Agri-business, beef and tillage				
Agricultural property impact	Moderately Negative	Major Negative	Major Negative	Moderately Negative
Preference	Preferred	Least Preferred	Intermediate	Preferred

An overall summary of the assessment of Route Corridor Options on non-agricultural property is presented in Table 4.

Table 4 Summary of non-agricultural property assessment

Assessment criteria	Option 1	Option 2	Option 3	Option 4
Non-agricultural property (No.)				
- Residential	100	74	89	90
- Commercial	4	3	3	3
- Community	4	3	4	4
Non-agricultural property impact	Moderately Negative	Moderately Negative	Moderately Negative	Moderately Negative
Preference	Least Preferred	Preferred	Intermediate	Intermediate

1.5 Mitigation

The route corridor options assessment has included mitigation by avoidance through the identification of key agricultural constraints within the study area. The

development of a detailed road alignment will allow further mitigation by avoidance of key agricultural constraints within the preferred route corridor option. The assessment of the impact on agriculture from each of the 300m route corridor options does not allow for the recommendation of specific mitigation measures.

The final design of the road alignment will include provision for a suite of measures to mitigate agricultural impacts such as land severance, impact on field drainage, interruption of water / power supplies / access to drinking points. It will include further measures dealing with the mitigation of construction and operation impacts on agriculture and non-agricultural property from noise, dust, visual impacts, etc.

For agricultural and non-agricultural properties directly impacted by the compulsory purchase of lands, monetary compensation for land acquisition and disturbance will be agreed following the statutory approval for the scheme by An Bord Pleanála.

1.6 Conclusions

This assessment involved the evaluation of the agricultural and non-agricultural impact of four route corridor options within the study area of the Foynes to Limerick road improvement scheme. As outlined in Table 3, the impact on agricultural property was deemed to be Moderately Negative on Route Corridor Options 1 and 4 and Major Negative on Route Corridor Options 2 and 3.

Despite the similarity in the overall lengths of route corridor options, there was a variation of 15% in estimated agricultural landtake between Options 2 and 4 mainly due to changes in road type and offline length.

The main determining influences between route corridor options were the variation in land quality and land use. The higher quality lands along Route Corridor Options 2 and 3 allows for increased grass and arable based land use, more intensive agricultural activity and potentially a greater agricultural impact. Route Corridor Options 2 and 3 from Foynes to Rathkeale and then from Rathkeale to Adare would have a greater impact than either of Route Corridor Options 1 and 4. Higher level of rough grassland / scrub and forestry / woodland on Route Corridor Options 1 and 4 contribute to a lower impact on agricultural property.

The impact of the four route corridor options on key agricultural enterprises was quite similar in terms of farm numbers and farm enterprise type. This assessment considered the location of the key enterprises relative to the relevant route corridor option. It was not possible to consider more farm specific impacts without detailed road alignments and further details of all farms.

The selection of a route corridor option preference for agriculture gave an equal preference to Route Corridor Options 1 and 4 with a Moderately Negative agricultural impact. There is a slight preference for Route Corridor Option 4 over Route Corridor Option 1 due to the lower level of estimated agricultural landtake and potential for less impact on key agricultural enterprises.

Route Corridor Options 2 and 3 were both assessed as Major Negative agricultural impacts and overall were similar due to the high level of good quality land, grass-based land use and similar number of key agricultural enterprises. Both Route Corridor Options 2 and 3 may significantly impact on the operation of equestrian centres at separate locations along their respective route corridor options. Route Corridor Option 2 was identified as the least preference due to the potential for more significant agricultural impacts on key agricultural enterprises.

The comparative assessment of the impact on non-agricultural property was based on a survey count of residential, commercial and community properties within the route corridor options. As outlined in Table 4, the impact on non-agricultural property was deemed to be Moderately Negative on Route Corridor Options 1, 2, 3 and 4 based on the assessment criteria in Table 2. Non-agricultural property broadly consisted of residential rural dwellings and varied from 100 houses on Option 1 to 74 houses on Option 2. Route Corridor Options 3 and 4 were similar with 89 and 90 properties respectively. There was a low level of commercial and community properties along the Route Corridor Options.

Appendix A – Summary Route Assessment Tables

Table 1 - Route Corridor Option 1

Assessment criteria	Route Option 1
Route corridor option details	
Total length of route option (km)	32.5km
Offline landtake – estimated (ha)	154.1ha
Agricultural property	
Land Use (% area of corridor)	
Grassland	85.6%
Rough Grassland / Scrub	10.7%
Forestry, Woodland	3.7%
Land quality (% of plots)	
Good	56.4%
Average	28.2%
Poor	15.4%
Agricultural property within corridor (No.)	
Farm houses	8
Farmyards	18
Key agricultural enterprises within corridor (No.)	
Dairy	9
Equine	2
Other	0
Agricultural property impact Preference	Moderately Negative Preferred
Non-agricultural property	
Agricultural property within corridor (No.)	
Residential	100
Commercial	4
Community	4
Non-agricultural property impact Preference	Moderately Negative Least preferred

Table 2 - Route Corridor Option 2

Assessment criteria	Route Option 2
Route corridor option details	
Total length of route option (km)	32.3km
Offline landtake – estimated (ha)	168.0ha
Agricultural property	
Land Use (% area of corridor)	
Grassland	93.5%
Rough Grassland / Scrub	4.2%
Forestry, Woodland	2.3%
Land quality (% of plots)	
Good	66.8%
Average	23.7%
Poor	9.5%
Agricultural property within corridor (No.)	
Farm houses	6
Farmyards	22
Key agricultural enterprises within corridor (No.)	
Dairy	9
Equine	2
Other – Agri business, beef & tillage	1
Agricultural property impact	Major Negative
Preference	Least Preferred
Non-agricultural property	
Agricultural property within corridor (No.)	
Residential	74
Commercial	3
Community	3
Non-agricultural property impact	Moderately Negative
Preference	Preferred

Table 3 - Route Corridor Option 3

Assessment criteria	Route Option 3
Route corridor option details	
Total length of route option (km)	33.0km
Offline landtake – estimated (ha)	156.5 ha
Agricultural property	
Land Use (% area of corridor)	
Grassland	94.4%
Rough Grassland / Scrub	4.1%
Forestry, Woodland	1.5%
Land quality (% of plots)	
Good	74.6%
Average	19.5%
Poor	5.9%
Agricultural property within corridor (No.)	
Farm houses	6
Farmyards	21
Key agricultural enterprises within corridor (No.)	
Dairy	9
Equine	4
Other – Agri business, beef & tillage	1
Agricultural property impact	Major Negative
Preference	Intermediate
Non-agricultural property	
Agricultural property within corridor (No.)	
Residential	89
Commercial	3
Community	4
Non-agricultural property impact	Moderately Negative
Preference	Intermediate

Table 4 - Route Corridor Option 4

Assessment criteria	Route Option 4
Route corridor option details	
Total length of route option (km)	32.0km
Offline landtake – estimated (ha)	145.3ha
Agricultural property	
Land Use (% area of corridor)	
Grassland	89.0%
Rough Grassland / Scrub	7.8%
Forestry, Woodland	3.2%
Land quality (% of plots)	
Good	54.3%
Average	34.8%
Poor	10.9%
Agricultural property within corridor (No.)	
Farm houses	8
Farmyards	21
Key agricultural enterprises within corridor (No.)	
Dairy	8
Equine	2
Other	0
Agricultural property impact	Moderately Negative
Preference	Preferred
Non-agricultural property	
Agricultural property within corridor (No.)	
Residential	90
Commercial	3
Community	4
Non-agricultural property impact	Moderately Negative
Preference	Intermediate

Appendix F

Ecology Report For Route Corridor Option Appraisal

Foynes to Limerick Road Improvement Scheme

Route Corridor Selection Report

Ecology

May 2016



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1. Introduction

This report assesses and compares the potential impacts of four route corridor options for the proposed Foynes to Limerick Road Scheme on the terrestrial and aquatic natural environment. The report builds on the Foynes to Limerick Road Improvement Scheme constraints study carried out in 2014 which identified the main ecological constraints within the study area established for the scheme. The four route corridor options selected have been developed with the objective of minimising potential impacts on the full range of environmental, socio-economic and engineering constraints identified in the Constraints Study. Each of the route options has now been assessed as a 300m wide corridor to determine potential impacts on the principle ecological receptors within or adjacent to the corridors, and also in relation to potential impacts arising from fragmentation or interference with species movement across the corridors. In particular, the issue of impacts on the movement of Lesser Horseshoe Bats (an Annex II listed species under the EU Habitats Directive) has been considered.

The assessment was undertaken by Paul Murphy of EirEco Environmental Consultants in conjunction with Conor Kelleher of Aardwolf Wildlife Surveys (dealing with the bats) on behalf of Roughan O'Donovan – AECOM Alliance.

2. Methodology

The TII Guidelines for the Assessment of Ecological Impacts of National Road Schemes (Revision 2, June 2009) specify that *"the Natural Environment section of the RCS (Route Corridor Selection) study involves the identification of ecological resources/receptors along each of the route option corridors and a broad assessment of the likely impacts upon them. The zone(s) of influence for the route options should take account of the range of impacts likely to arise from construction and operation of them. Following on from the earlier CS (Constraints Study), the RCS study should involve a combination of desk study and field survey."*

In accordance with the Guidelines, the assessment has identified sites of potential ecological value along the various route corridor options or within a potential zone of influence including:

- Designated conservation areas and sites proposed for designation,
- Inland surface waters and a description of their fisheries value and any relevant designations,
- Aquifers and dependent systems and turloughs and their subterranean water systems,
- Intertidal and marine areas,
- Known or potentially important sites for rare or protected flora or fauna,
- Any other sites of ecological value, that are not designated,
- Any other relevant conservation designations or programmes (e.g. catchment management schemes, habitat restoration or creation projects, community conservation projects, etc.),
- Any other features of particular ecological or conservation significance.

Existing sources of information examined to provide data on ecological receptors within the zone of influence of the various route corridor options included:

- National Parks and Wildlife Service (NPWS) on-line Mapviewer and databases.
- National Biodiversity Data Centre.
- Environmental Protection Agency (EPA) online Map Viewer database (Envision).
- Botanical Society of the British Isles (BSBI) online mapping database.
- Consultation with Bat Conservation Ireland (BCI) and BirdWatch Ireland (BWI).
- Review of previous studies carried out within the Constraints Study Area.
- Examination of recent aerial photography to identify sites of ecological potential.

Consultations

Consultations were undertaken with Inland Fisheries Ireland (IFI) to determine the fisheries value of watercourses crossed by any of the route corridor options, and also with regard to the fisheries values of other waterbodies within the vicinity of any route corridor options. Consultations were also undertaken with the Developments Application Unit (National Parks and Wildlife Service) of the Department of Arts, Heritage and the Gaeltacht to seek their views and concerns in relation to the various route options. Following the DAU response dated 29th April 2015, a meeting was held with the Divisional Ecologist and local wildlife rangers on 14th July 2015 to discuss ecological issues along the various route corridor options.

Field Surveys

A suite of surveys were carried out in two separate phases targeting potential ecological receptors identified from the various data sources on or within the potential zone of influence of any of the route corridor options. Surveys to confirm the habitat classification on potential ecological sites identified from a review of aerial photography was undertaken in September 2014. A more comprehensive botanical assessment of a number of sites on or in the vicinity of route options, including those supporting potential Annex listed habitats outside of the Natura 2000 network, was undertaken in May 2015.

All major watercourses crossed by the various route options were also surveyed in May 2015 to identify their fisheries value and determine the presence or suitability for protected aquatic species. This information was bolstered with the information on records of protected species provided by IFI and NPWS, and the EPA database on water quality.

Bat Assessment

An assessment of bat activity from the study area was undertaken by Conor Kelleher of Aardwolf Wildlife Surveys. This was based on existing data and records included reviewing the National Parks and Wildlife Service National Lesser Horseshoe Bat Roost Database and bat distribution records held by Bat Conservation Ireland. The approach detailed in the following guidelines was followed during the route selection phase to guide the selection of a preferred route:

- Hundt, L. 2012 in *Bat Surveys: Good Practice Guidelines* (2nd edition). Bat Conservation Trust
- National Roads Authority 2006 *Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes*

In May and August 2015, fieldwork was undertaken onsite to appraise the existing habitats and to assess bat activity in the overall area of the proposed route corridor options. At night, transects through bat favourable habitats were walked in several areas along each of the proposed road route corridor options during which bat activity was recorded using heterodyne/frequency division (*BatBox Duet* - *BatBox Electronics*) and heterodyne/frequency division/time expansion (*Echometer EM3+* - *Wildlife Acoustics*) detectors while the wider area of the proposed development was surveyed from a vehicle driven at 20 kph with a detector mounted on the hedge-side of the vehicle. Bats were identified by their ultrasonic calls coupled with behavioural and flight observations and on computer by sound analysis of recorded echolocation and social calls with dedicated software (*Kaleidoscope Viewer* - *Wildlife Acoustics*).

Both field surveys were undertaken within the active bat season. The May survey was carried out during poor to fair weather conditions as night time temperatures were low at 7°C to 9°C which affected insect activity and there were strong winds and intermittent rainfall. The August survey was carried out during milder conditions (12°C) with light winds and occasional showers.

Assessment of Impacts

A broad assessment was undertaken of the likely impacts of each of the route corridor options on the key ecological receptors identified on or within the zone of influence, with an indication as to which, if any, of these are likely to be significant, and at what geographical level. The number of significant impacts at each geographic level associated with the various route options are presented, characterized and compared in a tabulated format. The levels of impact assigned to particular route corridor options make the assumption that general mitigation measures will be implemented. The order of preference is determined on the basis of the number and significance of ecological receptors impacted by each route corridor option.

3. Overview of Study Area

3.1 General Site Description

The study area is defined in Drawing No. CS-002 in Volume 2 of this Route Selection Report. It extends from west of Limerick city to the west of Foynes, and from the River Shannon Estuary to the south of the N21 road. The study area has a low-lying, gently undulating topography intersected by a number of watercourses draining northwards towards the River Shannon Estuary including the River Maigue in the east of the study area and the River Deel in the west. These rivers have extensive estuaries, which in the case of the Maigue extends upstream as far as Adare. There are a series of low hills in the central part of the study area between Shanagolden and Kildimo which are intersected by valleys running in a generally north-south direction. The study area has a number of wetland habitats which include numerous small lakes and fens around Askeaton, Curraghchase, Pallaskenry and Ballysteen.

The underlying geology within the study area is predominantly limestone with some localised areas of exposed karstified limestone such as at Barrigone. The generalised direction of groundwater flow across the study area is northwards to the Shannon Estuary with the exception of areas to the east and west where flow is to the Maigue or Deel Rivers and some areas along the southern boundary where the groundwater gradient is southwards. Hydraulic gradients across the study area are generally low, particularly where karst conditions exist, except in areas where confined conditions exist. Recharge occurs diffusely through the overlying subsoil and directly through bedrock outcrops which are extensive throughout the study area. Groundwater discharges to streams and springs where the subsoil is not too thick or impermeable. There are numerous records of springs in the study area which are evident in both the GSI and historic OSI maps for the area. The occurrence of springs is concentrated in the central area inside the Askeaton groundwater body.

A number of active quarries occur in the west of the study area. The land use throughout is dominated by agricultural grassland production. There are a number of old estates which have associated woodland and parkland habitats, and areas of scrub and woodland also occur on elevated lands where soils are shallower.

3.2 Designated Areas

The study area for the Foynes to Limerick Road Scheme is bounded to the north by the River Shannon Estuary, a Special Area of Conservation (SAC) (site code no. 002165) and River Shannon and River Fergus Estuaries Special Protection Area (SPA) (site code no. 004077). The SAC boundary extends to include the River Maigue upstream as far as Adare, while the SPA boundary extends upstream as far as Ferry Bridge on the N69. One of the principle ecological constraints and challenges in the scheme will be the crossing of the River Maigue in a manner which does not result in any significant impact on the integrity or any of the qualifying interests of the Natura 2000 site. The scheme will be subject to Appropriate Assessment in accordance with Article 6.3 of the EU Habitats Directive to assess the impacts on the Natura 2000 network, both alone and in combination with other plans or projects.

The Lower River Shannon SAC boundary also extends to include the estuary of the River Deel upstream to the N69 at Askeaton and the estuary of the River Ahacronane upstream to the N69 at Rinculia. The qualifying interests for the Lower River Shannon SAC comprise a large number of habitats and species including estuaries and mudflats, alluvial forests (a Priority habitat), salmon, lamprey and otter. Two plant species afforded protection under the Flora Protection Order (Triangular clubrush and Meadow barley) are also recorded from the River Maigue estuary.

A number of other Natura 2000 sites occur within the study area including the large woodland complex at Curraghchase Woods (site code no. 174) which supports a hibernation site of the Lesser Horseshoe Bat, a species listed on Annex II of the EU Habitats Directive. The Askeaton Fen Complex (site code no 002279) includes a number of individual sites scattered to the north and south of the N69 between Askeaton and Kildimo. The fens occur in basins between undulating hills in an otherwise intensive agricultural landscape. The area is underlain by Lower Carboniferous Limestone and some of the fens are surrounded by large cliff-like rock outcrops.

Barrigone SAC (site code no 000432) is situated approximately 5km west of Askeaton, and comprises an area of dry, species-rich, calcareous grassland with patches of scrub and occasional limestone outcrops. This site supports a large population of the Annex II listed Marsh fritillary butterfly and Hairy violet, a species protected under the Flora Protection Order.

Outside of the Natura 2000 network, the principle ecological constraints include Adare Woods Proposed Natural Heritage Area (pNHA) (site code 000429), which occurs as six separate blocks of woodland to the east and west of Adare village. Other pNHAs within the study area include Dromore and Bleach Loughs pNHA (site code 001030) and Loughmore Common Turlough pNHA (site code 000438). Ballinvirick Marsh pNHA (site code 001427), Cappagh Fen pNHA (site code 001429), Ballymorrisheen Marsh pNHA (site code 001425) and Gorteennamrock Fen pNHA (site code 001433) are all part of the Askeaton Fen Complex SAC. Non-designated areas of woodland and scrub with potential high ecological value also occur along the course of the River Ahacronane in the townland of Deelish and Creeves (Shanagolden), and in the vicinity of the Askeaton Fen Complex to the west of Curraghchase Woods.

The River Deel and the River Ahacronane will both require crossings with due consideration given to both the potential for direct impacts on aquatic habitats and species, and to potential indirect impacts on the Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA downstream.

Designated areas within 10km of the study area are listed in Table 1.

Table 1. Designated Conservation Sites and Qualifying Interests within the Study Area.

Site Code	Site Name	Status	Qualifying Interests (* indicated priority habitat)
002165	Lower River Shannon	SAC	Freshwater pearl mussel Sea lamprey Brook lamprey River lamprey Salmon Sandbanks Estuaries Mudflats and sandflats Coastal lagoons Large shallow inlets and bays Reefs Perennial vegetation of stony banks Vegetated sea cliffs Salicornia and other annuals colonizing mud and sand Spartina swards Atlantic salt meadows Bottle-nosed dolphin Otter Mediterranean salt meadows Water courses of plain to montane levels with the <i>Ranunculus fluitans</i> Molinia meadows Alluvial forests
004077	River Shannon and River Fergus Estuaries	SPA	Cormorant Whooper Swan Light-bellied Brent Goose Shelduck Wigeon Teal Pintail Shoveler Scaup Ringed Plover Golden Plover Grey Plover Lapwing Knot Dunlin Black-tailed Godwit Bar-tailed Godwit Curlew Redshank Greenishank Black-headed Gull Wetlands & Waterbirds
000174	Curraghchase Woods	SAC	Lesser horseshoe bat Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> <i>Taxus baccata</i> woods of the British Isles
002279	Askeaton Fen Complex	SAC	Calcareous fens with <i>Cladium mariscus</i> Alkaline fens

Site Code	Site Name	Status	Qualifying Interests (* indicated priority habitat)
000432	Barrigone	SAC	Marsh fritillary Juniperus communis formations on heaths or calcareous grasslands Semi-natural dry grasslands and scrubland facies on calcareous substrates (*important orchid sites) Limestone pavements
000439	Tory Hill	SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (*important orchid sites) Calcareous fens with Cladium mariscus and species of the Caricion davallianae Alkaline fens
000429	Adare Woods	pNHA	Series of woodland blocks around Adare Village
001030	Dromore and Bleach Loughs	pNHA	Two freshwater lakes and surrounding wetland habitats north of Kildimo
000438	Loughmore Common Turlough	pNHA	Turlough and adjacent wetland habitats south of Mungret
000435	Inner Shannon Estuary - South	pNHA	The pNHA boundaries are within the Lower River Shannon SAC boundaries
001427	Ballinvirick Marsh	pNHA	Calcareous / Alkaline fens with Cladium mariscus within Askeaton Fen Complex SAC
001429	Cappagh Fen	pNHA	Calcareous / Alkaline fens with Cladium mariscus within Askeaton Fen Complex SAC
001425	Ballymorrisheen Marsh	pNHA	Calcareous / Alkaline fens with Cladium mariscus within Askeaton Fen Complex SAC
001433	Gorteennamrock Fen	pNHA	Calcareous / Alkaline fens with Cladium mariscus within Askeaton Fen Complex SAC

3.3 Rivers and Lakes

As the drainage within the study area is principally in a south to north direction, the four route corridor options will require crossings of many of the same watercourses including the Ahacronane, the Deel and the Mague Rivers. Table 2 lists the watercourses within the study area and summarises their fisheries value, the presence of, or suitability for protected species and the water quality rating.

The entire section of the River Mague upstream to the N21 at Adare is within the Lower River Shannon candidate Special Area of Conservation (site code no. 002165). The Mague has two tributaries which join from the east, the Barnakyle which joins north of the N69 and the Kilgobbin Stream which joins at Cloonaduff to the south of the N69. The Greananagh River joins the River Mague from the west upstream of Adare. The Greananagh River has two main tributaries, a northerly one (the Kilbreedy Stream) which rises in the vicinity of Curraghchase Woods, and a southerly one, the Clonshire River which rises to the south of the N21 near Kilfinny.

The River Deel which rises near Newtownshandrum flows in a northerly direction to the east of Abbeyfeale and through Askeaton after which it flows into the Shannon Estuary. The River Deel is a renowned brown trout fishery and 200,000 salmon-fry have been introduced per annum in the past 10 years in an attempt to restore the salmon stocks. It has one tributary joining from the east, the Doohyle stream rising south of Doohyle Lake which joins the River Deel at Bullaun. Two tributaries join from the west, the Kissaghatrodaun Stream which joins at Ardgoulbeg and the Ballyclogh Stream which joins a short distance to north at Scart. The Ahacronane River rises near Ballinisky and flows in a northerly direction to the River Shannon which it joins just east of Foynes.

Table 2. Watercourses crossed by the various Route Options.

River	Description	Fisheries value	Protected Species	Q Value (EPA)
Mague	Estuarine upstream to Adare.	Runs of salmon and good population of brown trout.	Freshwater crayfish (u/s Adare).	Q4 (good) Castleroberts Br.
Barnakyle	Tributary of the River Mague.			Q3 (poor) Br. SE Clarina
Kilgobbin Stream	Tributary of the River Mague			No data
Greananagh	Tributary of the River Mague.			Q3 (poor) Coolagh Br.
Kilbreedy Stream	Tributary of the Greananagh River (Rises Kilbreedy Lough)			No data
Clonshire	Tributary of the Greananagh. River			Q3 (poor) Drehidnahan Br.
Deel	Estuarine upstream to Askeaton.	Runs of salmon and good population of brown trout.	Freshwater crayfish (u/s Askeaton).	Q4 (good) Kilcool Br.
Ballyclogh Stream	Tributary of River Deel			Q3 (poor) Br. E. Tomdeely
Doohyle Stream	Tributary of River Deel (rises S of Doohyle Lough)			No data
Ahacronane	Estuarine upstream to N69.			Q3 (poor) Br. W Barrigone

A series of small lakes also occur to the north and south of the N69 many of which are part of the Askeaton Fen Complex and Curraghchase SACs. Dromore and Bleach Lough are designated as a proposed Natural Heritage Area (Site code no.001030). There are a number of lakes not within designated conservation areas including Doohyle Loughs which are located just northeast of Rathkeale and the Kilbreedy Loughs located to the east of Curraghchase Woods. Miltown Lake and a series of smaller lakes to the west are located near Pallaskenry in the north of the study area. The lakes are primarily alkaline and vary in their trophic status from oligotrophic to mesotrophic.

AWN carried out an air quality assessment as part of the route selection process using the UK DMRB air dispersion model to determine the impact of each of the routes on ambient levels of NO_x at each of the sensitive ecosystems listed in Table 6.2. For each of the proposed routes there will be an increase in NO_x concentrations though predicted NO_x concentrations will remain below the limit value of 30 µg/m³ for the protection of ecosystems for each of the locations assessed. They identified the worst-case predicted annual average increase in NO_x level as 27.66 µg/m³ in the Lower River Shannon SAC at Adare for Route Corridor Option 3 which is. While the predicted annual average NO_x level of 27.66 µg/m³ is close to

the limit value, the vegetation of the lower River Shannon SAC in this area is not nitrogen sensitive and this increase in NO_x will not result in any significant impact or alteration of the vegetation community at the location. The results show that route corridor option 2 will have a slightly positive impact on ambient air quality, route corridor options 3 and 4 will have neutral impact on air quality and route corridor option 1 will have a slightly negative impact on ambient air quality

3.4 Rare Plants

Rare plant species recorded for the 10 km squares (Ordnance Survey Ireland National Grid) within the Study Area obtained from the National Parks and Wildlife Service database are presented in Table 3 below, which lists the species, their protected status and preferred habitat. A number of these species occur within the Lower River Shannon candidate Special Area of Conservation (cSAC).

Table 3. Rare plant species recorded from the Study Area.

Species	Name	Grid Square	Flora Protection Order	Preferred habitat
<i>Viola hirta</i>	Hairy violet	R24 R34 R35	Yes	A perennial of dry banks, rocky ground and limestone scrub. Found in the Askeaton/Foynes area.
<i>Hordeum secalinum</i>	Meadow barley	R35 R45 R55	Yes	Upper parts of brackish marshes, chiefly near the sea and along the River Shannon.
<i>Papaver hybridum</i>	Rough poppy	R35	Yes	Sandy fields.
<i>Groenlandia densa</i>	Opposite-leaved pondweed	R24 R45 R55	Yes	Found in the Shannon where it passes through Limerick City.
<i>Mentha pulegium</i>	Pennyroyal	R55	Yes	Damp sandy places.
<i>Colchicum autumnale</i>	Autumn crocus	R43 R55	Yes	Found in Ballingarry Co. Limerick. Occurs in old damp meadows and on river banks.
<i>Scirpus triquetar</i>	Triangular club rush	R44 R45 R55	Yes	A creeping perennial found in mud bordering tidal rivers. Found in the Shannon estuary bordering creeks in the inner estuary.

3.5 Fauna

The white-clawed crayfish (*Austropotamobius pallipes*) is recorded from the River Maigue upstream of Adare and from the River Deel just south of Askeaton (National Biodiversity Data Centre [NBDC] Database). The white-clawed crayfish is protected under Annex II of the EU Habitats Directive.

The otter (*Lutra lutra*) is recorded from over 20 1km squares within the study area (NBDC Database) and is likely to be widespread on all watercourses as well as on the various lakes and fens within the study area. The otter is also protected under Annex II of the EU Habitats Directive.

While there are no records on the NBDC Database of Sea Lamprey (*Petromyzon marinus*) within the study area, the species is likely to occur on the Maigue and the Deel Rivers. Similarly there are no records of the more common and widespread Brook Lamprey (*Lampetra planeri*) from the study area, but this species is likely to occur in many of the watercourses throughout the study area. All lamprey species are afforded protection under Annex II of the EU Habitats Directive.

Both common frog (*Rana temporaria*) and common newt (*Lissotriton vulgaris*) are expected to be widespread in the study area, while the common lizard (*Lacerta vivipara*) is likely to occur in a range of suitable habitats which would include heath, woodland and marshes.

A range of mammalian species afforded protection under the Wildlife Acts are likely to be widespread within the study area including badger (*Meles meles*), pine marten (*Martes martes*), hedgehog (*Erinaceus europaeus*), Irish stoat (*Mustela erminea*), red squirrel (*Sciurus vulgaris*), fox (*Vulpes vulpes*) and Irish hare (*Lepus timidus hibernicus*).

The study area supports a number of breeding sites of barn owl (*Tyto alba*) which is a red-listed species of conservation concern by BirdWatch Ireland. The range of habitats within the study area is however,

likely to support a larger population of this species than existing records suggest. There is potential foraging by wintering whooper swan (*Cygnus cygnus*) in the northern and eastern parts of the study area where large areas of improved grassland occur in proximity to the Shannon Estuary and River Maigue. The whooper swan is listed under Annex I of the EU Birds Directive, an amber listed species of conservation concern by BirdWatch Ireland and is one of the conservation interests for the River Shannon and River Fergus Estuaries SPA.

Bats

Within the study area, the most important bat species is the Annex II listed Lesser Horseshoe Bat (*Rhinolophus hipposideros*) which occurs throughout the area though its numbers are concentrated in the Curraghchase and Adare areas. Lesser Horseshoe Bat are a qualifying interest for Curraghchase SAC. There are a total of 18 known roost sites for the species within the study area (National Parks and Wildlife Service National Lesser Horseshoe Bat Roost Database accessed September 2015). A maternity roost of 160+ lesser horseshoe bats is present in Curraghchase whilst the highest number recorded in any roost in Rathkeale is 18 animals and only two bats have been recorded in Pallaskenry to the north of the study area. Both of the latter sites are mainly used in autumn, winter and spring and both are more important than they appear as many single animals move through these sites seasonally and, although one or two are only ever seen, these would be different individuals each time making their way to or from summer roosts elsewhere including, possibly, Curraghchase. Successive surveys have revealed that the population of lesser horseshoe bats in the Adare area has crashed since the mid-1980s. The manor was a known summer and winter roosting site in the 1980s but this is no longer the case and, despite the continued existence of optimum habitat for the species in the area, only single bats have been recorded in Adare since the late 1990s (Bat Conservation Ireland data).

The lesser horseshoe bat population in the study area is isolated from other lesser horseshoe bat populations to the north (in Co. Clare) by Limerick city and the River Shannon and to the southwest (in mid-Kerry) by bog and other habitats that are unfavourable for this species. Genetic studies have been undertaken on the species to investigate this isolation as there is a fear that the gene pool of the Limerick population may be compromised as a result. The *Vincent Wildlife Trust* are currently undertaking a study of lesser horseshoe bats within the Curraghchase area to try and determine any possible links with, or barriers between, the nearest known populations to the southwest, in the Castleisland and Tralee areas, in Co. Kerry.

Many of the remaining known Irish bat species have been recorded from the study area and those not recorded can be expected to occur at least occasionally. The adjudged status of these is given in Table 4 below. There are a total of 85 bat roosts currently recorded within the study area on the Bat Conservation Ireland Database (accessed September 2015), though some structures are host to more than one species so the total number of roosts are located within 70 separate structures and trees.

Table 4. The adjudged status of bat species within the study area

Common name	Scientific name	Status in study area
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Present - recorded
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	Present - 2 known roosts
Nathusius's pipistrelle	<i>Pipistrellus nathusii</i>	Potential - rare
Unidentified pipistrelle	<i>Pipistrellus spp.</i>	Present - 23 known roosts
Brown long-eared bat	<i>Plecotus auritus</i>	Present - 23 known roosts
Leisler's bat	<i>Nyctalus leisleri</i>	Present - 2 known roosts
Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>	Present - 18 known roosts
Whiskered bat	<i>Myotis mystacinus</i>	Present - recorded
Natterer's bat	<i>Myotis nattereri</i>	Present - 5 known roosts
Daubenton's bat	<i>Myotis daubentonii</i>	Present - 1 known roost
Brandt's bat	<i>Myotis brandtii</i>	Potential - rare
Other unidentified species		Present - 11 known roosts

4. Description of Route Corridor Options

4.1 Route Corridor Option 1

All route corridor options commence at Foynes and follow a similar corridor between nodes A and B before diverging. The route corridor in this stretch between Foynes and Ballyclogh impacts on four ecological sites (No. 6, 7, 8 and 9) and includes a crossing of the Ahacronane River which flows into the Lower River Shannon SAC approximately 500m downstream of the corridor thus giving rise to potential impacts on the SAC and River Shannon and River Fergus SPA. Site 6 is a series of rocky ridges which until recently supported scrub but has been subject to clearance leaving isolated trees and a small amount of remaining scrub.

Further south-east an area of shallow bedrock with scrub and dry calcareous grassland is crossed on the west of the Ahacronane River (Site 7). A narrow fringe of wet grassland occurs along the river in the vicinity of the corridor and an area of fen occurs to the south of the route corridor. There has been recent clearance of woodland and scrub along the river in the vicinity of the corridor.

To the east of the Ahacronane River Site 8 extends to include a range of woodland and scrub habitats mainly occurring on shallow soiled areas. Of particular note is the occurrence of an area of wet ash-hazel woodland which conforms to the Annex II priority habitat Alluvial Woodland. The woodland occurs in a narrow band of up to c.30m in width along the eastern side of the river, and the river when in flood flows through the woodland in a series of braided channels. As the land rises the woodland becomes drier and merges into scrub in areas of shallow rocky ground. The dry scrub-woodland mosaic occurs in irregular patches amongst fields of mainly improved grassland. The route corridor was modified by the project team in June 2015 to avoid the area of alluvial woodland at this location though will result in some loss of dry woodland habitat.

From Node B route corridor option 1 continues in an easterly direction to cross the River Deel downstream of the existing N69 within the River Shannon and River Fergus Estuaries SPA. The Lower River Shannon SAC occurs approximately 1.7km downstream. The river is tidal at this point and within a steep sided valley with wooded slopes. East of Askeaton, the route corridor extends into Site 23 at Ballyhomin which includes Blue Lough, an alkaline lake with surrounding alkaline fen. Further east, the Askeaton Fen Complex SAC occurs as a series of isolated sites mostly elongated in a north-south orientation. The route avoids directly impacting on the SAC but crosses through three sites which contain undesignated areas of Alkaline Fen, namely sites 30, 41 and 42 at Bansha, Ballycahane and Ballyshonickbane respectively. The three sites consist of a mosaic of habitats including areas of shallow soil and outcropping rock which supports woodland and scrub and some residual areas of calcareous grassland. Immediately west of site 42 the route corridor passes to north of Curraghchase SAC which is bounded by the existing N69 road. A small area of mixed woodland occurs at this location (Boherboy, Site 39) Further east, the route crosses the southern part of an area of mixed woodland which adjoins the Dromore and Bleach Loughs NHA (site 45). The woodland is on elevated ground so a route would require extensive cut at this location.

The route corridor fringes an area of deciduous woodland at Bolane (site 46) which could be readily avoided, and extends into two separate areas of plantation woodland at Ballyvareen (site 56). The lands either side of the River Maigue are low-lying and consist of improved agricultural grasslands. The Maigue is estuarine at the crossing point and is confined within high embankments and has a narrow fringe of reed-swamp along both banks, backed by a thin band of grassland. The reed-swamp habitat may support the Flora Protection Order species Triangular club rush. The Barnakyle River is crossed in a section which is also estuarine and where the channel is confined within flood embankments. Further east the Barnakyle River flows within the route corridor for a distance of c2km.

4.2 Route Corridor Option 2

Route 2 follows the initial shared corridor to Node B where it turns south towards Rathkeale, crossing the River Deel at Bullaun and impacts on an area of woodland at site 62. The river has been subject to some drainage works at this location and there are spoil heaps on either bank. The flow regime is swift with some potential spawning habitat for salmonids. North of Rathkeale, the route divides at Node F with one section continuing south to the town and the other heading east towards Adare where it fringes the wet grassland to the north of Doohyle Lough (site 68). This is a small alkaline lake with some surrounding and adjacent scrub-woodland and wet grassland habitats and the route corridor extends into the northern part of the site. Further east the route corridor option passes through the south of Hollywood House

Demesne (site 79) which consists of a mosaic of mixed wood land and parkland with high potential value for lesser horseshoe bats. The route corridor also intersects a potential flight corridor for lesser horseshoe bat movement between Adare and Curraghchase which extends through Clonshire Beg to the south (site 71).

The route corridor option crosses the Clonshire River at two locations within 1km of each other and further east crosses the Greananagh River of which the Clonshire is a tributary. The Clonshire is a moderate sized watercourse with good habitat for salmonids, lamprey, otter, kingfisher and potentially freshwater crayfish, while the Greananagh in the vicinity of the corridor is estuarine and contained within flood embankments.

The route passes to the north of Adare where it crosses the River Maigue at a point common to Route Corridor Options 3 and 4. The river is estuarine at this location and contained within flood embankments which have recently been subject to vegetation clearance by the Office of Public Works. The river has a very narrow fringe of reed-swamp and is unlikely to support triangular clubrush in the vicinity of the corridor. East of the Adare the corridor crosses the Barnakyle River.

4.3 Route Corridor Option 3

This route corridor option is identical to Route Corridor Option 2 as far as Node E to the north of Rathkeale after which it parallels the existing N21 for c2km. At this point the corridor extends in to the southern boundary of site 68 at Doohyle Lough, a small alkaline lake with some surrounding and adjacent scrub-woodland and grassland habitats. At Amogan Beg the corridor diverts north-eastwards from the N21 and crosses the Clonshire River at Graigue and also at Rowermore less than 1km further east. Between the two crossings it runs between Hollywood House to the north (site 79) and Clonshire Beg to the south (site 71) thus intersecting a potential flight corridor for lesser horseshoe bat movement between Adare Woodlands and Curraghchase. The route continues as for Route 2 east of node K at Coolagh Bridge where the Greananagh River is crossed.

4.4 Route Corridor Option 4

Option 4 runs along the same corridor as Option 1 as far as node C just south of the N69 at Deegerty. The corridor continues in a southerly direction to the west of Curraghchase SAC (site 40). In this area it extends into a number of ecological sites at Shanbally (site 31), Tinnacullia (site 34), Ballynamona (site 35) and Ballinvirick (site 73). These sites contain a mixture of wet grassland, scrub, woodland and at Tinnacullia and Ballinvirick some fen habitat. While all the sites are potentially avoidable, there is a high potential for this route option to interfere with lesser horseshoe bat movement to the west of Curraghchase SAC which is within c200m of the corridor over a length of c1.5km.

At Ballinvirick the corridor swings to the east and crosses through an area of conifer plantation at Kyleavarraga South (site 77). Again, there is a high potential for this route corridor option to interfere with lesser horseshoe bat movement between Curraghchase SAC and Adare Woodlands to the south. The corridor crosses the Greananagh River in its freshwater reaches before connecting to node N. At this location there is a link which connects to the existing N21 at Garraunboy (node P) while the remainder of the route eastwards towards Limerick is common with route corridor options 2 and 3.

5. Comparison of Route Corridor Options

Table 5 presents a summary of the ecological sites impacted by the various options, their evaluation and the number of impacts by each of the route corridor options. Appendix 1 provides a description of the sites, lists their principle habitats, and provides an assessment of the likely impacts on the sites by the various route options.

Table 5. Ecological Sites impacted by the various route corridor options.

Site No	Townland	Value (Note 1)	Brief site description	Number of Ecological Sites impacts			
				Option 1	Option 2	Option 3	Option 4
1	Aughinish West	A	R. Shannon & R. Fergus SPA	2	1	1	2
2	Churchfield	A	Lower R. Shannon SAC	1	1	1	1
6	Ardaneer	D	Rocky ridges with gorse scrub - recently cleared. Spring emerging from low rock face in north corner.	1	1	1	1
7	Rincullia	C	Area of shallow soils with patches of scrub. Linear fen in south. Recent clearance along Ahacronane River.	1	1	1	1
8	Craggs	C/B	Mosaic of scrub-woodland on higher ground with linear strip of alluvial woodland and marsh along Ahacronane River.	1	1	1	1
9	Ballyclogh	C	Mosaic of scrub-woodland on higher ground	1	1	1	1
23	Ballyhomin	C	Blue Lough - alkaline oligotrophic lake with surrounding fen.	1			1
30	Bansha	D	Potential fen habitat Adjacent Askeaton Fen SAC	1			1
31	Shanbally	C	Mosaic irregular small fields and patches scrub				1
34	Tinnacullia	C/B	Fen in valley (Cladium) with surrounding scrub-woodland.				1
35	Ballynamona	D/C	Block scrub adjacent Curraghchase Woods SAC				1
39	Boherboy	D/C	Adjacent Curraghchase SAC	1			
40	Curraghchase	A	Curraghchase Woods SAC				1
41	Ballycahane	C/B	Mosaic scrub and grassland, much of it recently cleared. Numerous small areas of fen with adjacent willow woodland fringe. Scrub-woodland on elevated ground.	1			
42	Ballyshonickbane	C/B	Linear patch fen running N-S. Scrub on higher ground with recent clearance in parts.	1			
444	Dromore	C/B	Adj. Dromore & Bleach Lough pNHA. Mixed woodland on hilly ground. Potential LHB corridor to south.	1			
46	Bolane	C	Mixed woodland around old castle site	1			
56	Ballyvareen	D	Two blocks young plantation - conifer & broadleaves	1			
62	Bullaun	D	Mosaic plantation with some old woodland in south around Nantinan House.		1	1	
68	Doohyle Beg	C/B	Doohyle lake and fen extending south to smaller lake. Adjacent scrub-woodland to east of S. lake & GS4 to W.		1	1	
72	Rower Beg	B	Adare Woodlands pNHA. Clonshire Beg (site 71) to NW with linking hedgerows and parkland.				1
73	Ballinvirrick	D	Area of GS4 drained - residual patch of fen in south of site outside of corridor.				1
77	Kyleavarraga South	D	Plantation conifers - mixed ages. Some potential corridor for LHB to south towards Hollywood House.				1
79	Hollywood House	C/B	Wood-Parkland with high LHB value.		1		

Note 1: Site Evaluation key. A = International importance
B = National importance
C = County importance
D = Local importance (higher value)

The preference for the route corridor options is based on the options with the least number and severity of impacts on the various ecological receptors and for potential interference with the movement of Lesser Horseshoe Bats. The selection, which is presented in Table 6 below identifies Route Corridor Option 3 as

being the most favourable, Route Corridor Options 2 as being marginally worse, while Route Corridor Options 1 and 4 have the most adverse overall potential impact on ecology and potential Lesser Horseshoe Bat (LHB) movement. Route 2 has a greater potential impact on LHB in the vicinity of Hollywood House (site 79) than Route 3

Table 6. Order of Preference for Route Corridor Options.

Preference	Option 1	Option 2	Option 3	Option 4
General Ecology	2 nd	Joint 1 st	Joint 1 st	2 nd
Lesser Horseshoe Bat	3 rd	2 nd	1 st	4 th
Combined	3 rd	2 nd	1 st	3 rd

6. Conclusion

The four route corridor options for the Foynes to Limerick Road Improvement Scheme have been subjected to a detailed analysis to determine potential direct and indirect impacts on sites designated for nature conservation as well as other non-designated sites of ecological value and protected species of flora and fauna.

All of the route options will require a crossing of the River Maigue, where it is within the Lower River Shannon SAC and within the River Shannon and River Fergus SPA. A second impact on the latter occurs with Route Corridor Options 1 and 4. Further study will be required at the next stage of the project to consider the optimal crossing location for the preferred route corridor and mitigate any impacts by design, as far as possible. Other designated sites such as the Curraghchase Woods SAC could be affected by a number of the options.

Route Corridor Option 2 has the potential to cause significant impacts on Hollywood House Demesne which consists of a mosaic of mixed wood land and parkland with high potential value for lesser horseshoe bats. The route corridor also intersects a potential flight corridor for lesser horseshoe bat movement between Adare and Curraghchase Woods which extends through Clonshire Beg to the south. Both Route Corridor Options 1 and 4 would result in a number of direct or indirect impacts on sites of conservation value (both designated and non-designated) and are jointly considered the least preferred.

Option 3 affects a number of non-designated ecological sites that have been identified during the route corridor assessment process. These sites include those affected by all route options near Foynes including Aughinish, Ardaneer, Rincullia, Craggs and Ballyclogh. While the route corridor will clip the mosaic of deciduous and plantation woodland at Bullaun and run in close proximity to Doohyle Lake, it is possible to avoid any direct impact on these habitats.

The preferred route corridor option is Option 3, which apart from a crossing of the River Maigue avoids any direct impacts on designated sites and poses the least risk of causing indirect impacts. The selection of the preferred option in terms of ecology included all aspects of flora and fauna. An assessment was undertaken of general ecology and then specifically of lesser horseshoe bats, because of the importance of that species in that area. While Options 2 and 3 were scored similarly in terms of general ecology, the higher scoring in terms of lesser horseshoe bats made Option 3 the preferred option for ecology.

The next stage of the project will involve further assessment of these sites and identifying a road alignment for the preferred route corridor to mitigate any impacts by design, as far as possible.

Appendix 1
Foynes to Limerick Road Improvement Scheme
Ecological Sites Impacted by Route Corridor Options 1 to 4

Site No.	Townland	Habitats (1)	Value (2)	Notes	Option 1	Option 2	Option 3	Option 4
1	Aughinish West		A	R. Shannon & R. Fergus SPA	2 impacts. On margins at Askeaton. Right angled crossing at Maigne.	Oblique crossing.	Oblique crossing.	2 impacts. On margins at Askeaton. Oblique crossing at Maigne.
2	Churchfield		A	Lower R. Shannon SAC	Right angled crossing at Maigne.	Oblique crossing.	Oblique crossing.	Oblique crossing at Maigne.
6	Ardaneer	WS	D	Rocky ridges with gorse scrub - recently cleared. Spring emerging from low rock face in north corner.	Large impact on eastern half of site.	Large impact on eastern half of site.	Large impact on eastern half of site.	Large impact on eastern half of site.
7	Rinculia	WS/HH/GS/ER	C	Area of shallow soils, some scrub, linear fen in south. Recent clearance along Ahacronane R.	Impacting site but avoiding areas of fen and adjacent scrub in south.	Impacting site but avoiding areas of fen and adjacent scrub in south.	Impacting site but avoiding areas of fen and adjacent scrub in south.	Impacting site but avoiding areas of fen and adjacent scrub in south.
8	Craggs	WN6/WD-WS/GM/ER	C/B	Mosaic of scrub-woodland on higher ground with linear strip of alluvial woodland along Ahacronane River with freshwater marsh.	Avoiding Alluvial woodland but impacting on some dry woodland along river.	Avoiding Alluvial woodland but impacting on some dry woodland along river.	Avoiding Alluvial woodland but impacting on some dry woodland along river.	Avoiding Alluvial woodland but impacting on some dry woodland along river.
9	Ballyclogh	WD-WS/GM/ER/FL6	C	Mosaic grassland and patches scrub on shallow soil with small turlough.	Avoiding turlough but crossing mosaic of grassland and scrub.	Avoiding turlough but crossing mosaic of grassland and scrub.	Avoiding turlough but crossing mosaic of grassland and scrub.	Avoiding turlough but crossing mosaic of grassland and scrub.
23	Ballyhomin	FL/PF	C	Blue Lough - alkaline oligotrophic lake with surrounding fen and patches of scrub.	Lake within corridor. Impact on scrub and southern side of site.			Lake within corridor. Impact on scrub and southern side of site.
30	Bansha	GS4	D	Adjacent Askeaton Fen. Wet grassland - drained and spp. poor.	Large impact on site.			Large impact on site.
31	Shanbally	WL1-2/WS/GS	C	Mosaic irregular small fields and patches scrub. Some recent clearance.				Within corridor but possible to avoid.
34	Tinnacullia	GS/PF/WD	C/B	Fen in valley (Cladium) with surrounding scrub-woodland. Network of hedgerows linking to Curraghchase to the east.				Within corridor but possible to avoid main part of site, but still potential to interfere with LBH movement.

Site No.	Townland	Habitats (1)	Value (2)	Notes	Option 1	Option 2	Option 3	Option 4
35	Ballynamona	WS/WL1-2	D/C	Block of scrub adjacent Curraghchase Woods SAC. Potential flight corridor to WD to west via linking hedgerows.				Within corridor - possible to avoid but still potential to interfere with LBH movement.
39	Boherboy	WD/WN	D/C	Area of broad-leaved woodland to north of N69 - forms continuum with Curraghchase SAC	Clipping northern fringe site- possible to avoid.			
40	Currahchase	WD/WN	A	Curraghchase Woods SAC				Not within corridor but potential impacts on LHB flightpaths.
41	Ballycahane	WS-WD/ER/PF	C/B	Mosaic scrub and grassland, much of it recently cleared. Numerous small areas of fen with adjacent willow woodland fringe. Scrub-woodland on elevated ground.	Dissecting site. Impact on fen habitat and adjacent scrub woodland.			
42	Ballyshonickbane	PF/WS/GS	C/B	Linear patch fen running N-S. Scrub on higher ground with recent clearance in parts.	Dissecting site. Impact on narrow band of fen and scrub woodland.			
44	Dromore	WD/WN	C/B	Adj. Dromore & Bleach Lough pNHA. Mixed woodland on hilly ground. Potential LHB corridor to south.	Clipping southern part of site with requirement for large cut. Potential impact on LHB corridor.			
46	Bolane	WD/WN	C	Mixed woodland around old castle site	Clipping southern fringe of site - possible to avoid.			
56	Ballyvareen	WD4	D	Two blocks young plantation - conifer & broadleaves	Clipping northern fringe of sites - possible to avoid.			
62	Bullaun	WD/WN	D	Mosaic plantation with some old woodland in south around Nantinan House.		Clipping margin of site	Clipping margin of site	
68	Doohyle Beg	FL/GS/WN/PF	C/B	Doohyle lake and fen extending south to smaller lake. Adj scrub-woodland to east of lake & GS4 to W.		Possible to avoid site. Crossing of outflowing stream.	Possible to avoid site. Crossing of outflowing stream.	

Site No.	Townland	Habitats (1)	Value (2)	Notes	Option 1	Option 2	Option 3	Option 4
72	Adare	WN/WD	B	Adare Woodlands pNHA. Clonshire Beg (site 71) to NW with linking hedgerows and parkland.				Clipping margin of site – possible to avoid. Potential to interfere with LBH movement.
73	Ballinvirrick	GS4/PF	D	Area of GS4 drained - residual patch of fen in south of site outside of corridor.				Within corridor but possible to avoid.
77	Kyleavarraga South	WD4	D	Plantation conifers - mixed ages. Some potential corridor for LHB to south towards Hollywood House.				Large impact.
79	Hollywood House	WD/WN/W D5	C/B	Wood-Parkland with high LHB value.		Impact on south edge of site - possible to avoid but still potential to interfere with LHB movement.	Not impacting on site but potential interference with LHB movement.	

(1) Habitat codes according to Heritage Council Classification (Fossitt, 2000).

(2) Valuation according to NRA Guidelines for the Assessment of Ecological Impacts of National Road Schemes (Revision 2, June 2009)

Evaluation key. A = International importance
B = National importance
C = County importance
D = Local importance (higher value)

Appendix G

Archaeology, Built Heritage and Cultural Heritage For Route Corridor Option Appraisal

1 Archaeology, Built Heritage and Cultural Heritage

1.1 Introduction

The following report details the results of an archaeological, built heritage and cultural heritage route selection assessment, which has been carried out in order to assess the impacts on the archaeological, architectural and cultural heritage resource arising from the proposed Limerick-Foynes Road Improvement Scheme. The study has been undertaken in order to inform the selection of the most preferable route and follows on from an initial Constraints Study and Stage 1 Preliminary Options Assessment. Faith Bailey of Irish Archaeological Consultancy Ltd has carried out the study on behalf of Roughan & O'Donovan - AECOM Alliance and Limerick City and County Council.

The study area is located within County Limerick and covers an area roughly measuring 33km east-west by 16km north-south. The study area is located between Foynes to the west and Limerick City to the east. It contains several large water courses and a number of towns, including Adare, Rathkeale and Askeaton. Despite small pockets of urban development, the character of the landscape remains largely rural and characterised by arable and livestock agriculture.

1.2 Methodology

The study involved detailed interrogation of the archaeological, historical and architectural background of the receiving environment containing the route options, with assessment of a 580m corridor width in each case (i.e. 290m either side of the route corridor centreline). This is equivalent to 250m either side of a generic road footprint of 80m (i.e. 40m either side of the route corridor option centreline), which has been applied to the more specific assessment. Prior to detailed design this is assumed to be the maximum landtake required for the construction of the road. All measurements referenced in this chapter are taken from the edge of the road footprint to the upstanding remains of the recorded site (or to the centre of the site, where no upstanding remains occur).

Research has been undertaken in several phases. The first phase comprised a paper survey of all available archaeological, architectural, historical and cartographic sources. The second phase involved a drive-over of the study area containing the route options in an attempt to assess the current state of any recorded archaeological and built heritage sites that were accessible from the existing road network. The third phase involved a public consultation, which resulted in the identification of additional sites from local knowledge and oral history.

The study has been carried out in accordance with the TII *Guidelines for the Assessment of Archaeological Heritage Impacts of National Road Schemes* (2005) and *Guidelines for the Assessment Architectural Heritage Impacts of National Road Schemes* (2005).

The following sources were consulted as part of the paper survey:

- Record of Monuments and Places for County Limerick;
- Sites and Monuments Record for County Limerick;
- Monuments in State Care Database County Limerick;

- Preservation Orders County Limerick;
- Register of Historic Monuments County Limerick;
- Topographical Files of the National Museum of Ireland;
- Cartographic and written sources relating to the study area;
- National Inventory of Architectural Heritage County Limerick (Architectural & Garden Survey);
- Excavations Bulletin (1970-2015);
- Limerick County Development Plan (2010-2016);
- Askeaton Local Area Plan (2015-2021);
- Adare Local Area Plan (2015-2021);
- Rathkeale Local Area Plan (2012-2018);
- Aerial photographic coverage;

Record of Monuments and Places (RMP) Section 12 (1) of the National Monuments Act (1994 amendment) provides that the Minister for Arts, Heritage, Gaeltacht and the Islands (now the Minister for Regional Development, Rural Affairs, Arts and the Gaeltacht) shall establish and maintain a record of monuments and places where the Minister believes that such monuments exist. The record comprises of a list of monuments and relevant places and a map or maps showing each monument and relevant place in respect of each county in the State. Sites recorded on the Record of Monuments and Places all receive statutory protection under the National Monuments Act. All recorded monuments are referred to as Archaeological Heritage (AH sites) within this assessment.

Sites and Monuments Record (SMR) holds documentary evidence and records of field inspections of all known archaeological sites and monuments. Some information is also held about archaeological sites and monuments whose precise location is not known e.g. only a site type and townland are recorded. These are known to the National Monuments Section as 'un-located sites' and cannot be afforded legal protection due to lack of locational information. As a result these are omitted from the Record of Monuments and Places. SMR (and RMP) sites are also listed on a website maintained by the Department – www.archaeology.ie. All SMR records are referred to as Archaeological Heritage (AH sites) within this assessment.

National Monuments in State Care Database is a list of all the National Monuments in State guardianship or ownership. Each is assigned a National Monument number whether in guardianship or ownership and has a brief description of the remains of each Monument.

A National Monument receives statutory protection and is described as 'a monument or the remains of a monument the preservation of which is a matter of national importance by reason of the historical, architectural, traditional, artistic or archaeological interest attaching thereto' (National Monuments Act, 1930, Section 2)

The Minister for the Department of Regional Development, Rural Affairs, Arts and the Gaeltacht may acquire National Monuments by agreement or by compulsory order. The state or local authority may assume guardianship of any National Monument (other than dwellings). The owners of National Monuments (other than dwellings) may also appoint the Minister or the local authority as guardian of that monument if the state or local authority

agrees. Once the site is in ownership or guardianship of the State, it may not be interfered with without the written consent of the Minister. There are two National Monuments located within the receiving environment of Route Option 1—the Franciscan Friary at Askeaton (AH 18) and Kilulta Church in Glennameade (AH 32). Askeaton Friary is also within the receiving environment of Route Option 4.

Preservation Orders and/or Temporary Preservation Orders, can be assigned to a site or sites that are deemed to be of national importance and may be in danger of injury or destruction. These are allocated under the 1930 Act. Preservation Orders make any interference with the site illegal. Temporary Preservation Orders can be attached under the 1954 Act. These perform the same function as a Preservation Order but have a time limit of six months, after which the situation must be reviewed. Work may only be undertaken on or in the vicinity of sites under Preservation Orders with the written consent, and at the discretion of the Minister. One site is subject to a Preservation Order within the receiving environment of Route Options 2 and 3 (AH 88, a Cashel in Milltown North).

Register of Historic Monuments was established (as a precursor to the RMP) under Section 5 of the 1987 National Monuments Act, which requires the Minister to establish and maintain such a record. Historic monuments and archaeological areas present on the register are afforded statutory protection under the 1987 Act. The register also includes sites under Preservation Orders and Temporary Preservation Orders. All registered monuments are included in the Record of Monuments and Places. Inclusion within the RHM does not afford an archaeological site any more statutory protection than those registered as RMP sites.

Topographical files of the National Museum of Ireland comprise the national archive of all known finds recorded by the National Museum of Ireland. This archive relates primarily to artefacts but also includes references to monuments and unique records of previous excavations. The locations where artefacts are found are important sources of information on the discovery of sites of archaeological significance.

Cartographic sources are important in tracing land-use development within the development area as well as providing important topographical information on areas of archaeological potential and the development of buildings. Cartographic analysis of the Ordnance Survey six and 25 inch mapping (1844, 1901, 1918-24) has been made to identify any topographical anomalies or structures that no longer remain within the landscape. All sites or structures identified during the cartographic assessment are identified as Cultural Heritage (CH) sites within this assessment.

Documentary sources were consulted to gain background information on the archaeological, architectural and cultural heritage landscape of the proposed development area.

The National Inventory of Architectural Heritage (NIAH) is a government based organisation tasked with making a nationwide record of significant local, regional, national and international structures, which in turn provides County Councils with a guide as to what structures to list within the Record of Protected Structures. The NIAH have also carried out a

nationwide desk based survey of historic gardens, including demesnes that surround large houses. All NIAH structures are referred to as Built Heritage sites (BH) as part of this assessment.

Whilst the NIAH Garden Survey was utilised as part of this assessment, this was carried out in conjunction with detailed analysis of the first edition OS maps in order to identify all designed landscapes (DL) within the route corridor options.

Excavations Bulletin is a summary publication that has been produced every year since 1970. This summarises every archaeological excavation that has taken place in Ireland during that year up until 2010 and since 1987 this bulletin has been edited by Isabel Bennett. This information is vital when examining the archaeological content of any area, which may not have been recorded under the SMR and RMP files. This information is also available online (www.excavations.ie) from 1970-2015.

Development Plans contain a catalogue of all the Protected Structures, National Monuments and Architectural Conservation Areas within every county. The development plan for County Limerick (2010-2016) was examined as part of this assessment along with the local area plans for Adare, Rathkeale and Askeaton. All protected structures are referred to as Built Heritage sites (BH) as part of this assessment.

Aerial photographic coverage is an important source of information regarding the precise location of sites and their extent and provides a means of identifying new sites. It also provides initial information on the terrain and its likely potential for archaeology. Ordnance Survey aerial photographs (1995, 2000, 2005), Google Earth coverage (2003-2012) and Bing Maps coverage were examined for this assessment. All sites identified during aerial photographic analysis are identified as Cultural Heritage (CH) sites within this assessment.

Once all the baseline data had been assembled for each route option, including any additional sites identified during drive-overs and public consultation, an assessment of how many impacts the route might potentially have on the archaeological, architectural and cultural heritage resource was made. Based on this assessment, the most preferred route corridor, from the point of view of archaeology, built heritage and cultural heritage was selected for the proposed scheme.

1.3 Definitions

The following impact types and definitions were used in order to assess the potential impacts of the proposed route options.

The quality and type of an impact can vary to include the following (as per NRA's Guidelines for the Assessment of Archaeological/Architectural Heritage Impacts of National Road Schemes (NRA 2005, 25/54)):

- *Negative Impact: A change that will detract from or permanently remove an archaeological/architectural monument/structure from the landscape.*
- *Neutral Impact: A change that does not affect the archaeological/architectural heritage.*

- *Positive Impact: A change that improves or enhances the setting of an archaeological/architectural monument/structure.*
- *Direct Impact: Where an archaeological/architectural feature or site is physically located within the footprint of a potential route and entails the removal of part, or all of the monument or feature.*
- *Indirect Impact: Where a feature or site of archaeological/architectural heritage merit or its setting is located in close proximity to the footprint of a potential route alignment.*
- *No Predicted Impact: Where the potential route does not adversely or positively affect an archaeological/architectural heritage site.*

The impact level is defined in the following Tables 1.1 and 1.2 (as outlined in the NRA's Guidelines for the Assessment of Archaeological/Architectural Heritage Impacts of National Road Schemes (NRA 2005, 54/21)).

Table 1.1 – Impact levels: Archaeology

Type of Impact	Definitions relating to sites of an archaeological nature
Profound	Applies where mitigation would be unlikely to remove adverse effects. Reserved for adverse, negative effects only. These effects arise when an archaeological site is completely and irreversibly destroyed by a proposed development.
Significant	An impact which, by its magnitude, duration or intensity, alters an important aspect of the environment. An impact like this would be where part of a site would be permanently impacted upon, leading to a loss of character, integrity and data about the archaeological feature/site.
Moderate	A moderate impact arises where a change to the site is proposed, which although noticeable, is not such that the archaeological integrity of the site is compromised and which is reversible. This arises where an archaeological feature can be incorporated into modern day development without damage and that all procedures used to facilitate this are reversible.
Slight	An impact which causes changes to the character of the environment which are not significant or profound and do not directly impact or affect an archaeological feature or monument.
Imperceptible	An impact capable of measurement but without noticeable consequences.

Tables 1.2 – Impact Levels: Architecture

Type of Impact	Definitions relating to sites of an archaeological nature
Profound	An impact that obliterates the architectural heritage of a structure or feature of national or international importance. These effects arise where an architectural structure or feature is completely and irreversibly destroyed by the proposed development. Mitigation is unlikely to remove adverse effects.
Significant	An impact that, by its, magnitude, duration or intensity alters the character and/or setting of the architectural heritage. These effects arise where an aspect or aspects of the architectural heritage is/are permanently impacted upon leading to a loss of character and integrity in the architectural structure or feature. Appropriate mitigation is likely to reduce the impact.

Type of Impact	Definitions relating to sites of an archaeological nature
Moderate	An impact that results in a change to the architectural heritage which, although noticeable, is not such that alters the integrity of the heritage. The change is likely to be consistent with existing and emerging trends. Impacts are probably reversible and may be of relatively short duration. Appropriate mitigation is very likely to reduce the impact.
Slight	An impact that causes some minor change in the character of architectural heritage of local or regional importance without affecting its integrity or sensitivities. Although noticeable, the effects do not directly impact on the architectural structure or feature. Impacts are reversible and of relatively short duration. Appropriate mitigation will reduce the impact.
Imperceptible	An impact on architectural heritage of local importance that is capable of measurement but without noticeable consequences.

1.4 Historical and Archaeological Background

1.4.1 Prehistoric Period

Mesolithic Period (c. 7000-4000 BC)

The Mesolithic Period is the earliest time for which there is clear evidence of prehistoric activity in Ireland. During this period people hunted, foraged and gathered food and appear to have had a mobile lifestyle. The most common evidence indicative of Mesolithic activity at a site comprises of scatters of worked flint material; a by-product from the production of flint implements or rubbish middens consisting largely of shells (Stout & Stout, 1997). The latter are commonly discovered in coastal regions or at the edge of lakes.

Whilst there are no recorded sites of this date located within the environs of the route corridor options, a Mesolithic site was excavated in Ballycahane Lower, c. 4.15km southeast of Attyflin in 1986. This site, which consisted of a layer of heat-affected stone lay on and within a deposit of peat, also contained butchered animal bones and was dated to 5036-4792 BC (O'Sullivan 2001, 3; Bennett 1986:37). In addition, a wooden plank that was found within the foreshore of the Shannon Estuary c. 4.1km north of Route Corridor Option 1, was also dated to the later part of the Mesolithic period (c. 4789-4551 BC) (O'Sullivan 2001, 71-2). Within the wider context of County Limerick, a late Mesolithic/ early Neolithic axehead and lithics were found within alluvial deposits on the northern bank of the River Shannon as part of the Limerick Southern Ring Road (Bermingham *et al.*, 2013, 45). The most significant discovery of this period, arguably within the country, took place within the townland of Hermitage on the banks on the River Shannon, c. 19km to the northeast of the proposed route options. Here two cremations were excavated, the earliest of which dated to 7550-7290 (cal)¹ BC. These Mesolithic burials provide the earliest evidence in Ireland for formal burial practices (Collins and Coyne 2006).

Neolithic Period (c. 4000-2500 BC)

During the Neolithic period communities became less mobile and their economy became based on the rearing of stock and cereal cultivation. This transition was accompanied by

¹ Calibrated Carbon 14 date

major social change. Agriculture demanded an altering of the physical landscape, forests were rapidly cleared and field boundaries constructed. There was a greater concern for territory, which saw the construction of large communal ritual monuments called megalithic tombs, which are characteristic of the period. In Ireland four main types of megalithic tomb have been identified: court-tombs, portal-tombs, passage-tombs and wedge-tombs. The first three types are earlier in date (pre-2000 BC) and are largely confined to the northern half of the country, while wedge-tombs are slightly later in date and are most numerous in the west and south-west. There are no recorded megalithic tombs located within the receiving environment of the route options. However, within the wider area, a wedge-tomb is recorded c. 2.46km north of the Route Options 2, 3 and 4 in the townland of Clorhane (LI012-067).

Neolithic settlement, in the form of houses with associated domestic activity, is becoming more common within the archaeological record. Whilst no definitive Neolithic habitations sites have been identified within the receiving environment of the proposed route corridor options, houses and settlement activity has been recorded in the southeast of the county, at Kilmallock (Gowen 1988, 26-43). A Neolithic enclosure and settlement has also been recorded at Lough Gur, 14.5km southeast of the proposed route options (Grogan *et al.* 1987, 305). In addition, two stone axes that are likely to be Neolithic in date, have been recovered from the townlands of Shanbally and Ballyhomin (National Museum of Ireland (NMI) Files 1985:83 and IA/23/83), within the receiving environment of Route Corridor Options 1 and 4.

Bronze Age (c. 2500-600 BC)

The Bronze Age was characterised by the introduction of metalworking technology to Ireland and coincides with many changes in the archaeological record, both in terms of material culture as well as the nature of the sites and monuments themselves. Although this activity had markedly different characteristics to that of the preceding Neolithic period, including new structural forms and new artefacts (such as Beaker pottery), it also reflects a degree of continuity. Megalithic tombs were no longer constructed and the burial of the individual became more typical. Cremated or inhumed bodies were often placed in a cist, a small stone box set into the ground, a stone-lined grave or even a simple pit. Burials were often made within cemeteries and marked within the landscape with the construction of an earthen barrow or cairn of stones. There are no recorded sites of this type within the receiving environment of the route options. However, a small cremation pit was excavated in 2012 c. 57m southwest of Route Corridor Options 1-4 in the townland of Sroolane North (EX 2). The feature was dated to the Early Bronze Age period. In addition, the topographical files of the National Museum record that a cist with an urn, likely to represent a Bronze Age cist burial, was destroyed within the townland of Tobermurry in the 1920s. This townland is located within the receiving environment of Route Corridor Option 1.

The most common Bronze Age site within the archaeological record, and indeed the overall study area of the route corridor options, is the burnt mound or *fulacht fia*. Over 7000 *fulachtaí fia* have been recorded in the country making them the most common prehistoric monument in Ireland (Waddell 2010, 183). Although burnt mounds of shattered stone occur as a result of various activities that have been practiced from the Mesolithic to the present day, those noted in close proximity to a trough are generally interpreted as Bronze Age

cooking/industrial sites. *Fulachtaí fia* generally consist of a low mound of burnt stone, commonly in a horseshoe shape, centred around an earth-cut trough. They are found in low-lying marshy areas or close to streams or rivers. Often these sites have been ploughed out and survive as a spread of heat-shattered stones in charcoal-rich soil with no surface expression. There are a number of *fulachtaí fia* recorded within the vicinity of the route corridor options, although most have been excavated as part of the Gas Pipeline to the West (AH 17, 35, 43, 71, 76, 81, 85, 83). In 2012 several burnt mounds were excavated as part of the realignment of the existing N69 in Bolane and Glennnameade c. 120m southwest of Route Option 1. The three sites were all broadly contemporary, dating to the Early Bronze Age period (Walsh 2014). It is highly likely that multiple examples of this site type remain currently unrecorded within the landscape.

Another common feature of the Bronze Age landscape is the standing stone, usually a single upright orthostat. They are known by various names including *gallán*, *dallán*, *leacht* and long stone (Power et. al. 1992, 45). Although it is thought that the standing stones were erected across a wide time span and had multiple functions they are most often associated with the Bronze Age. They are generally unworked stones and often have packing stones around their base providing additional support. A large number of standing stones are orientated on a north-east–south-west axis corresponding with those of other megalithic architecture, such as stone rows or circles (Ronan, Egan and Byrne 2009, 22). A wide variety of functions have been attributed to these stones, such as burial markers and route or territorial markers. More recent stones have been erected as scratching posts for cattle. A standing stone is recorded c. 147m southwest of Route Corridor Option 1 (AH 42), whilst the proposed Route Option 3 may result in the complete removal of a standing stone to the north of the existing Rathkeale Bypass (AH 110). A previously unrecorded standing stone is located in the townland of Elmpark, c. 122m from Route Corridor Option 1 (AH 122).

Iron Age (c. 600 BC- AD 500)

There is increasing evidence for Iron Age (c. 600 BC – AD 500) settlement and activity in recent years as a result of development-led excavations. There are two phases of the Iron Age in Ireland, the Hallstatt and the La Tène, which are associated with distinct artwork and metalwork. Whilst the Shannon as a route way was known to Ptolemy in the second century AD (O'Sullivan 2001, 4), there is very little in the way of recorded Iron Age activity within the receiving environment of the route corridor options. Sites, including burial evidence, have been identified within the wider area, including Ballysimon 1, Rathbane South and Coonagh West 4 that were excavated as part of the Limerick Southern Ring Road (Bermingham *et al.* 2013, 24). The NMI files also record that sherds of possible Roman pottery were recovered within the townland of Cloonreask during the 1960s (NMI 1961:275-8) (Route Corridor Options 1 and 4).

1.4.2 Early Medieval Period (AD 500–1169)

During this period Ireland was not a united country but rather a patchwork of minor kingdoms all scrambling for dominance, with their borders ever changing as alliances were formed and battles fought. Kingdoms were a conglomerate of clannish principalities with the basic territorial unit known as a *túath*. Byrne (1973) estimates that there were probably at least 150 kings in Ireland at any given time during this period, each ruling over his own *túath*. In Munster the *Eóganachta* formed the ruling dynasties until the middle of the 10th

century. These kings were distributed strategically throughout the region and ruled over many tribal units.

During this often violent period, roughly circular defensive enclosures known as ringforts were constructed to protect farmsteads and these are considered to be the most common indicator of settlement during the early medieval period. One of the most recent studies of the ringfort (Stout 1997) has suggested that there is a total of 45,119 potential ringforts or enclosure sites throughout Ireland. They are typically enclosed by an earthen bank and exterior ditch, and range from 25m to 50m in diameter. The smaller single-banked type of ringfort (univallate) was more likely to be home to the lower ranks of society while larger examples with more than one bank (bivallate/trivallate) housed the more powerful kings and lords.

Ringforts and potential ringforts—often recorded as enclosures—are the most common archaeological sites recorded within the receiving environment of the route corridor options. Indeed, West Limerick has one of the highest ringfort densities in the country, at c. 1.52 per square kilometre (Stout 1997, 99). During the course of the present assessment a significant number of additional sites that are likely to date to the early medieval period have been identified through aerial photographic analysis. All of the route options will directly impact on a number of recorded enclosures and potential ringforts.

This period was also characterised by the introduction of Christianity to Ireland. The new religion was a catalyst for many changes, one of the most important being literacy. The church created impressive tomes in their official language, Latin. Examples of these include the Book of Kells and the Book of Durrow as well as other works such as The Annals, which were an account of the history of the church and other significant events. Monasticism was known in St. Patrick's time but it was not until the 6th and 7th centuries that the famous monastic houses such as Glendalough, Bangor, Clonfert, Clonard, Clonmacnoise and Durrow were founded. The most significant early medieval ecclesiastical foundation within the study area is located at Mungret, just outside of the assessment corridor associated with Route Corridor Option 1.

It was during the latter part of this period that attacks by the Norse on the lower Shannon area were recorded. The Annals of Clonmacnoise record that in AD 843 Foranan, Primate of Armagh, was taken hostage by the Vikings and held on their ships in Limerick (Lenihan 1866, 5). The location of the Norse settlement in the following century is notable as the lowest fording point of the River Shannon, at the head of the tidal reach (O'Rahilly 1988, 141). The Norse fortified a settlement on the southern part of an island bounded by the west by the Shannon and all other sides by the Abbey River. Later known as "Kings Island", this naturally defended location had the double advantage that it was navigable from the sea and was presumably a crossing point over the Shannon. This provided the Vikings with a secure base from which raids could be conducted along the river upstream of Limerick (ibid, 141). Coonagh, to the west of the King's Island, was also described as an ancient fishing village of Viking origin, although to date no archaeological evidence for this exists (Spellissey, 1998, 316).

1.4.3 Medieval Period (AD 1169-1600)

The beginning of the medieval period was characterised by political unrest that originated from the death of *Brian Borumha* in 1014. *Diarmait MacMurchadha*, deposed King of Leinster, sought the support of mercenaries from England, Wales and Flanders to assist him in his challenge for kingship. Norman involvement in Ireland began in 1169, when Richard de Clare and his followers landed in Wexford to support *MacMurchadha*. Two years later de Clare (Strongbow) inherited the Kingdom of Leinster and by the end of the 12th century the Normans had succeeded in conquering much of the country (Stout & Stout 1997, 53).

The Anglo-Normans arrived at Limerick in 1175; however, they were forced to withdraw in 1176, and did not succeed in occupying the town until 1190 (Lee 1997, 19). Prince John granted Limerick a charter seven years later, declaring that the citizens would have all the liberties and free customs through all Ireland that were enjoyed by the citizens of Dublin (ibid, 24). Several early sources state that during the early 13th century King John instructed that a castle should be erected (King John's Castle) along with a bridge (Thomond Bridge) within the English town of the settlement (Wiggins 2000, 16). However, there are references to a castle within Limerick in 1202 and it is possible that this refers to the earlier ringwork, which was constructed by the Norman garrison in 1175 (Wiggins 2016, 3). The 12th century ringwork ditch was identified during excavations at the castle in 1990-91, beneath the 13th century masonry (Wiggins 2000, 17).

There are a number of other medieval towns located within the vicinity of the route corridor options. These include Askeaton, Adare, Rathkeale and the smaller settlement of Clonshire, with the settlements of Shanagolden and Mungret located within the wider landscape. It should be noted that the medieval borough of Clonshire has no known location, although the earliest references to burgages here date to 1252 (Westropp 1906-7, 219). The possible site of the town has been listed as AH 124 in this assessment. However, it may not have been located close to the castle and it is equally possible that it was formed by a dispersed settlement

Route Corridor Options 2-4 will travel to the north of Adare town, which contains multiple medieval sites. Desmond Castle, to the south of the route options, dates to the 13th century and formed part of the estates belonging to the Geraldines of Kildare, after it was passed to Maurice Fitzgerald through marriage in 1266 (Dunne 2007, 155). During the 16th century it was confiscated by the crown due to the rebellion of the tenth Earl and given over to the Earls of Desmond. The Desmonds held it for only 42 years before it reverted again to the Earls of Kildare (ibid, 156). The castle was constructed on the northern bank of the River Maigue, in order to defend the ford across the river. The village of Adare was established c. within the environs, although the exact location of the settlement is unclear due to the fact that the village was re-planned during the 19th century (Keegan 2005, 25).

The presence of the castle and the wealth of the Earls of Kildare resulted in the foundation of three religious houses at Adare. The first foundation was possibly made in 1230 by Lord Ossory and consisted of a Trinitarian Priory, thought to be the only one to have survived in Ireland (Harbison 1992, 214). This order of friars was founded in France, following the Crusades, with the main purpose of raising ransom money in order to rescue Christian

captives taken during the wars ([www.buildingsofireland²](http://www.buildingsofireland.ie/niah/search.jsp?type=record&county=LC&regno=21824046)). The monastery was suppressed during the reign of King Henry VIII but repaired and enlarged in the mid-19th century. The building is now called the "Holy Trinity Abbey" and is used as the local Roman Catholic Church (ibid.).

The second foundation took place during the early 14th century, when an order of Augustinians established a house to the west of the castle (Harbison 1992, 216). The house was damaged after the reign of Henry VIII but was repaired and renovated during the early part of the 19th century. The building has been used as the local Protestant Church (Church of Ireland) since the early 19th century ([www.buildingsofireland³](http://www.buildingsofireland.ie/niah/search.jsp?type=record&county=LC&regno=21824052)). The third foundation took place in 1464, when the 7th Earl of Kildare founded a Franciscan House to the southeast of the castle (Harbison 1992, 214). The ruins of the abbey are extensive and were later incorporated into the demesne landscape associated with Adare Manor.

Askeaton, located to the south of Route Corridor Options 1 and 4 is another town of medieval origin, which contains two impressive medieval sites: Askeaton Castle at the centre of the town and the Franciscan Friary to the immediate south of the existing bypass and Route Corridor Options 1 and 4. In 1199 the castle was founded on an island in the River Deel by the Anglo-Normans under William de Burgo (Keegan 2005, 23). The existing ruined tower is dated 15th century but replaced an earlier tower on the site (Harbison 1992, 216). During the 14th century Askeaton became part of the Desmond lands and they were to hold it as one of their principal residences for two centuries (ibid, 217). The Franciscan Friary was founded c. 1400 by Gerald, the fourth earl of Desmond (Gwynn and Hadcock 1970, 242). Much of the current building dates to 1420-40. In 1579 the friary was plundered and its inhabitants killed. However, it was later revived and was in use until the early 18th century (Harbison 1992, 217). Despite the importance of the settlement at Askeaton, there is no definite evidence that the town was enclosed by walls (Thomas 1992, 3).

Rathkeale is located to the southwest of Route Options 2-4. After the arrival of the Normans Rathkeale formed part of the lands granted by King John to Hamo de Valognes in 1199 (Keegan 2005, 23). It appears to have then been held by the Waspayl family during the first half of the 13th century (Westropp 1906-7, 213). The settlement has attained borough status by 1300 as it is recorded as having contributed 40 shillings to the crown as part of a subsidy required for the Scottish War (Martin 1981, 48).

1.4.4 Post-Medieval Period (AD 1600-1900)

The 17th century in County Limerick, as with other parts of the country, was characterised by two particular conflicts - the Irish Confederate Wars (1641–53) and the Williamite War (or War of the Two Kings; 1688–91). In 1651 a protracted siege by Cromwell's forces left Limerick City besieged with famine, pestilence and death. The city finally surrendered with a death toll of five thousand inhabitants. The Williamite Wars of the late 17th century saw the reactivation of the city mint to finance James II's campaign. Gun money was minted in Dublin and Limerick, allegedly from the brass of old cannons, hence its name. The city withstood attacks by Williamite forces throughout 1690 and 1691, becoming the last Jacobean stronghold to repel William's army. After the slaughter of 600 inhabitants who had

² <http://www.buildingsofireland.ie/niah/search.jsp?type=record&county=LC&regno=21824046>

³ <http://www.buildingsofireland.ie/niah/search.jsp?type=record&county=LC&regno=21824052>

become trapped outside the city walls and the failure of French reinforcements to arrive, Patrick Sarsfield signed the Treaty of Limerick in October 1691 (Spellissy 1998, 58).

With the onset of the 18th century, the political climate settled and this saw a dramatic rise in the establishment of large residential houses around the country, including within the study area. This was largely due to the fact that after the turbulence of the preceding centuries, the success of the Protestant cause and effective removal of any political opposition, the country was at peace. The large country house was only a small part of the overall estate of a large landowner and provided a base to manage often large areas of land that could be dispersed nationally. During the latter part of the 18th century, the establishment of a parkland context (or demesnes) for large houses was the fashion. Although the creation of a parkland landscape involved working with nature, rather than against it, considerable construction effort went into their creation. Earth was moved, field boundaries disappeared, streams were diverted to form lakes and quite often roads were completely diverted to avoid travelling anywhere near the main house or across the estate. Major topographical features like rivers and mountains were desirable features for inclusion into, and as a setting, for the large house and parkland. There are multiple examples of large demesne landscapes within the study area. These include well preserved landscapes, such as the demesne surrounding Adare Manor, which is also an Architectural Conservation Area, along with those that have almost been entirely subsumed back into the landscape. Often the demesnes survive in association with the original large house, many of which are protected structures.

Another characteristic of the post-medieval landscape are the vernacular buildings that represent the homes of farmers and workers. 'Vernacular architecture' is a term used to describe traditional buildings constructed using locally available materials and according to local/regional styles i.e. the homes and workplaces of the ordinary people. This is in contrast to formal architecture, such as the grand estate houses of the gentry, churches and public buildings, which were often designed by architects or engineers. The majority of vernacular buildings are domestic dwellings. Examples of other structures that may fall into this category include shops, outbuildings, mills, limekilns, farmsteads, forges, gates and gate piers. Typically the single-storied thatched cottage would be considered to represent the real vernacular style in Ireland. There are multiple examples of vernacular structures, including houses, bridges and limekilns, located within the receiving environments of the route corridor options. A number of the thatched vernacular properties that still exist within the landscape are listed as protected structures within the County Development Plan.

1.5 Route Corridor Options Assessment

1.5.1 Route Corridor Option 1 (Red)

Route Corridor Option 1 is the northernmost route option and roughly follows the alignment of the existing N69. It passes through, or within close proximity to the following townlands, parishes and baronies:

Table 1.3: Route Corridor Option 1: Townlands, Parishes and Baronies

Barony	Parish	Townlands
Connello Lower	Askeaton	Moig South, Askeaton, Ballyengland Lower, Ballyhomin, Cragmore, Cloonreask, Coolrahee
	Lismakeery	Ballyclogh, Ballycullen, Ballyellinan
Kenry	Kilcornan	Bansha, Ballyshonickbane, Ballyvogue, Boherboy, Cragreagh, Crokerspark, Currahchase North, Deegerty, Dromlohan, Killeen, Shanbally
	Kildimo	Ballynolan, Ballyvareen, Bolane, Coolbeg, Court, Curraheen, Faha, Glennameade, Tobermurry
Pubblebrien	Crecora	Ashfort
	Kilkeedy	Corcamore, Ballycarney, Ballyveloge, Briska Beg, Cragbeg, Elm Park Demesne, Rahina
	Knocknagaul	Derryknockane
	Mungret	Ballycummin, Ballynoe, Barnakyle, Camheen, Cloghkeating, Islandduane
Shanid	Robertstown	Corrig, Craggs, Durnish, Mulderricksfield, Robertstown, Rincullia, Sroolane North
	Shanagolden	Ardaneer, Sroolane

1.5.1.1 Summary of Previous Archaeological Excavations

A review of the Excavations Bulletin (1970-2014) has revealed that a number of previous excavations have been carried out within the 580m wide corridor assessed for archaeology and cultural heritage. Some of these sites have since been added to the SMR and as such have also been highlighted within this assessment with an AH label. Relevant excavations are listed in Table 1.4 below:

Table 1.4: Route Corridor Option 1: Previous Archaeological Investigations

EX No.	Ex. Bulletin Ref.:	Licence No.:	Townland:	Results:
EX 1	2001:799	01E0003	Robertstown	Testing at AH 3 failed to reveal any features of archaeological significance.
EX 2	2012:409	12E0024	Sroolane North	Early Bronze Age cremation pit.
EX 3	2002:1249	02E0752	Rincullia	Isolated undated pit with stake holes through the base (AH 7).
EX 4	2002:1252	02E0670	Rinculla	Burnt mound, six roasting pits and connecting trackway (AH 12).
EX 5	2002:1093	02E0873	Ballyellinan	Isolated pit (AH 16).
EX 6	2002:0085	02E0748	Ballycullen	<i>Fulacht fia</i> (AH 17).
EX 7	2003:1130	03E1663	Askeaton	Testing was carried out in the northern part of Deel Manor estate in Askeaton. Nothing of archaeological significance was identified.
EX 8	2002:1169	02E0780	Dromlohan	Archaeological monitoring within AH 27 (burial ground) revealed nothing of archaeological significance.

EX No.	Ex. Bulletin Ref.:	Licence No.:	Townland:	Results:
EX 9	2012:387 2012:388 2012:398	12E228 12E229 12E230	Bolane (1) Bolane (2) Glennnameade (1)	<i>Fulacht fia</i> with troughs and pits. <i>Fulacht fia</i> with a trough. <i>Fulacht fia</i> with trough and pits & two charcoal-production kilns.
EX 10	1996:240	96E380-AR16	Derryknockane	Archaeological testing either side of a small bridge (AH 45) failed to identify any archaeological remains.

1.5.1.2 Topographical Files

A review of the topographical files held by the National Museum of Ireland has produced a number of records from in or within the vicinity of the route option corridor. These are summarised in Table 1.5 and more detail is provided in Appendix 1.1.

Table 1.5: Route Option 1: NMI Topographical Files

NMI No	Townland	Classification	Location (if recorded)
Record only	Tobermurry	Cist with urn	Not given
1985:83	Shanbally	Stone axe head	Not given
IA/12/64	Robertstown	Burials (AH 6)	AH 6
1995:46	Moig South	Bronze binding strip	Not given
1983:4-8	Glennnameade	Bronze stick pin, Circular bronze mount, 2 fragments bottle glass, disc shaped lead piece	Vicinity of Killulta Church (AH 32)
1935:428	Corcamore	Bronze ring pin	Found within a 'fort' in Corcamore
1961:275-8	Cloonreask	Bronze chisel, 3 glazed potsherds (possibly Roman)	Not given
1995:47-66	Cloonreask	Bronze ring, 7 musket balls, 12 copper coins	Not given
IA/23/83	Ballyhomin	Polished stone axe	Not given
1945:162	Ballycullane	Iron horseshoe	Ballycullane Bog
1995:45	Askeaton	Lead plump	Not given
1968:261	Askeaton	Bronze spearhead	Not given
C 17:17/18	Askeaton	Horn spoon	Not given
In private possession	Askeaton	Medieval wooden beam	Not given
WK.25	Askeaton	Iron sword	River near Askeaton

1.5.1.3 Archaeological Heritage

A detailed analysis of Route Corridor Option 1 has led to the identification of the following AH sites and a potential impact assessment has been made. Please note that detailed information relating to these sites is included in Appendix 1.1.

Table 1.6: Route Corridor Option 1: Archaeological Heritage Sites

AH No.	RMP/ SMR No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AH 1	LI010-012	Ringfort	72m west	875	Yes	Indirect	Slight negative
AH 2	LI010-106	Mill	191m east	1250	Yes	Indirect	Imperceptible

AH No.	RMP/ SMR No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
							negative
AH 121 (BH 41)	LI010-069 001/2	Church & graveyard	277m ENE	1400	Yes	Indirect	Imperceptible negative
AH 3	LI010-068	Ringfort	79m NE	1600	Yes	No impact	N/a
AH 4	LI010-144	Enclosure	149m NE	1750	Yes	Indirect	Slight negative
AH 5	LI010-070	Ringfort	90m south	2250	Yes	Indirect	Slight negative
AH 6	LI010-071	Burial ground	80m north	2400	No	No impact	N/a
AH 7 (EX 3)	LI010-140	Isolated pit and stakes	96m south	2900	No	No impact	N/a
AH 8	LI010-074	Enclosure	0m	3000	Yes	Direct	Significant negative
AH 9	LI010-081	Ringfort	67m SW	3700	Yes	Indirect	Slight negative
AH 10	LI010-087	Enclosure	102m SSW	4200	Yes	Indirect	Slight negative
AH 11	LI010-073	Ringfort	147m north	2800	Yes	Indirect	Slight negative
AH 12 (EX 4)	LI010-141001-3	Burnt mound, pit, road	98m north	3220	No	No impact	N/a
AH 13	LI010-099	Ringfort	105m NNW	5650	Yes	Indirect	Slight negative
AH 14	LI010-098	Ringfort	106m south	5500	Yes	Indirect	Slight negative
AH 15	LI010-097	Ringfort	198m south	5500	Yes	Indirect	Imperceptible negative
AH 16 (EX 5)	LI010-134	Pit	181m north	6100	No	No impact	N/a
AH 17 (EX 6)	LI010-149	<i>Fulacht fia</i>	63m SE	6750	No	No impact	N/a
AH 18 (BH 7d)	LI011-092006-14	Franciscan Abbey, tombs, grave slabs, cross	0m	9250	Yes	Direct	Significant negative
AH 19	LI011-042	Ringfort	47m SSE	11000	Yes	Indirect	Moderate negative
AH 20	LI011-045	Ringfort	151m south	11800	Yes	Indirect	Imperceptible negative
AH 21	LI011-050	Ringfort	131m NNE	12400	Yes	Indirect	Slight negative
AH 22	LI011-053	Ringfort	189m NE	12750	Yes	Indirect	Imperceptible negative
AH 23	LI011-058	Enclosure	0m	13700	Yes	Direct	Significant negative
AH 24	LI011-062	Ringfort	154m NW	15000	Yes	Indirect	Imperceptible negative
AH 25	LI011-064	Ringfort	110m NW	15200	Yes	Indirect	Slight negative
AH 26	LI011-069	Ringfort	5m SE	16100	Yes	Indirect	Moderate negative
AH 27	LI011-070	Burial ground	0m	16500	Yes	Direct	Significant negative
AH 28	LI011-130	Ringfort	154m NW	17700	Yes	Indirect	Imperceptible negative
AH 29	LI011-148	Enclosure	0m	17850	Yes	Direct	Significant negative
AH 30	LI011-086	Ringfort	19m south	19400	Yes	Indirect	Moderate negative

AH No.	RMP/ SMR No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AH 31	LI012-002	Ringfort	200m NNE	19200	Yes	Neutral	N/a
AH 32 (BH 15)	LI012-025001/2	Church & ecclesiastical site	0m (zone of potential)	19900-20300	Yes	Direct	Moderate negative
AH 33	LI012-007	Tower House	171m NNE	20950	Yes	Indirect	Imperceptible negative
AH 34	LI012-009	Ringfort	25m south	22300	Yes	Indirect	Moderate negative
AH 35	LI012-148	<i>Fulacht fia</i>	180m SSE	22350	No	No impact	N/a
AH 36	LI012-094	Castle	126m NNE	25750	Yes	Indirect	Slight negative
AH 122	LI012-149	Standing stone	12m south	26550	Yes	Indirect	Moderate negative
AH 37	LI012-100	Enclosure	0m	27250	Yes	Direct	Significant negative
AH 38	LI012-052	Enclosure	181m NE	28000	Yes	Indirect	Imperceptible negative
AH 39	LI012-056	Enclosure	22m NE	29750	Yes	Indirect	Moderate negative
AH 40	LI012-141	Cashel	134m SW	29850	Yes	Indirect	Slight negative
AH 41	LI012-055	Enclosure	145m SW	29850	Yes	Indirect	Slight negative
AH 42	LI012-127	Standing stone	37m SW	30050	Yes	Indirect	Moderate negative
AH 43	LI012-145	<i>Fulacht fia</i>	178m SW	30150	No	No impact	N/a
AH 44	LI013-128	Enclosure	0m	30800	Yes	Direct	Significant negative
AH 45 (EX 10)	LI013-153	Bridge	0m	33000	No	No impact	N/a
AH 46	LI013-154	Bridge	0m	33000	No	No impact	N/a

1.5.1.4 Built Heritage

A detailed analysis of Route Corridor Option 1 has led to the identification of the following BH sites and a potential impact assessment has been made. The sites consist of a mixture of protected structures and NIAH structures. Please note that detailed information relating to these sites is included in Appendix 1.1.

Architectural Conservation Areas (ACAs) as designated within the relevant development plans have been included within this section.

Table 1.7: Route Corridor Option 1: Built Heritage Sites

BH No.	RPS/ NIAH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
BH 1	18	Vernacular farm house	194m WSW	1000	Yes	Indirect	Imperceptible negative
BH 41 (AH 121)	667	Church & graveyard	277m ENE	1400	Yes	Indirect	Imperceptible negative
BH 42	21901006	House	266m south	2200	No	Indirect	Imperceptible negative
BH 2	668/ 21901005	Church	99m NE	1750	Yes	Indirect	Slight negative
BH 3	75	Concrete pill	26m north	5450	Yes	Indirect	Moderate

BH No.	RPS/ NIAH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
		box					negative
BH 43	(Direct link to 73, 74, 75)	Concrete pill box	169m NNW	5500	Yes	Indirect	Moderate negative
BH 4	74	Concrete pill box	66m south	5800	Yes	Indirect	Moderate negative
BH 5	73	Concrete pill box	0m	6200	Yes	Direct	Profound negative
BH 6	916 21826001	St. Mary's Church	138m SE	8650	Yes	Indirect	Imperceptible negative
ACA	Askeaton (Franciscan Friary)		0m	9250	Yes	Direct	Significant negative
BH 7a	909 21826007	Thatched cottage	80m SSE	9150	Yes	Indirect	Slight negative
BH 7b	910 21826008	Thatched cottage	113m SSE	9150	Yes	Indirect	Slight negative
BH 7c	911	Water pump	108m SSE	9050	Yes	Indirect	Imperceptible negative
BH 7d (Also AH 18)	912 913 914	Franciscan Abbey, Boundary wall, Former RC Church	0m	9250	Yes	Direct	Significant negative
BH 7e	915, 916 21826014	Askeaton Mill & sluice	83m SSE	9300	Yes	Indirect	Slight negative
BH 7f	917 21826015	Former nursing home	141m SSE	9250	Yes	Neutral	N/a
BH 8	608	Concrete pill box	100m NNW	9350	Yes	Indirect	Slight negative
BH 9	907	Concrete pill box	132m NNW	9500	Yes	Indirect	Slight negative
BH 10	906	Concrete pill box	85m north	9650	Yes	Indirect	Slight negative
BH 44	88	Thatched house	247m north	12250	Yes	Indirect	Imperceptible negative
BH 11	89/ 21901107	Stables	189m SW	12800	Yes	Indirect	Imperceptible negative
BH 45	293	Kilcornan School	272m SE	15550	Yes	Indirect	Slight positive
BH 12	348/ 21901122	School	52m SE	16450	Yes	Indirect	Moderate negative
BH 13	304/ 21901123	Demesne walls/ gates/ railings	230m SE	16200- 16450	Yes	Indirect	Slight positive
BH 14	349/ 21901201	Gate lodge	126m north	19550	No	Indirect	Slight negative
BH 15 (AH 32)	413	Church	95m SW	20150	Yes	Indirect	Slight negative
BH 16	186	Bolane House	30m NE	20550	Yes	Indirect	Significant negative
BH 46	278 21901205	Thatched cottage	279m north	21750	Yes	Indirect	Imperceptible negative
BH 17	279	School	190m south	21700	Yes	Indirect	Slight positive
BH 47	163	Slattery's Pub	232m south	21750	Yes	Indirect	Slight positive

BH No.	RPS/ NIAH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
BH 48	161	Thatched house	252m south	21900	Yes	Indirect	Slight positive
BH 49	21901230	Clarina Lodge	306m NNE	27500	No	Indirect	Slight negative
BH 18	360/ 21901231	Forge	5m NE	27900	Yes	Indirect	Significant negative

1.5.1.5 Designed Landscapes

A detailed analysis of the historical OS mapping of Route Corridor Option 1 has led to the identification of the following DL sites and a potential impact assessment has been made. The landscapes have been cross referenced with the NIAH garden survey. Please note that detailed information relating to these sites is included in Appendix 1.1.

Table 1.8: Route Corridor Option 1: Designed Landscapes

DL No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
DL 1	Ballyclogh House demesne	132m south	5200-6500	House in RPS	Indirect	Imperceptible negative
DL 2	Currahchase House & Demesne	230m SE	15700-16450	House in RPS	Indirect	Slight positive
DL 3	Ballynolan House demesne	0m	18950-19850	No	Direct	Significant negative
DL 4	Bolane House demesne	0m	20450-20700	House in RPS	Direct	Significant negative
DL 5	Dromore Castle demesne	0m	19700-20000	House in RPS	Direct	Moderate negative
DL 6	Court House demesne	146m south	22150-23600	House in RPS	Indirect	Slight negative
DL 7	Elm Park House demesne	0m	26750-27850	No	Direct	Significant negative

1.5.1.6 Cultural Heritage Sites

A detailed analysis of the historic cartographic resource and aerial photographic coverage of Route Corridor Option 1, along with drive-over inspections and public consultations, has led to the identification of the following previously unrecorded cultural heritage sites. These include sites of built heritage and archaeological potential and a potential impact assessment has been made.

Table 1.9: Route Corridor Option 1: Cultural Heritage Sites

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 1	Vernacular buildings	45m NE	700	No	Indirect	Moderate negative
CH 2	Vernacular buildings	167m east	1000	No	Indirect	Slight negative
CH 3	Vernacular buildings	143m ENE	1250	No	Indirect	Slight negative
CH 4	Relic field system	0m	500-1100	No	Direct	Moderate negative
CH 5	Relic field system	0m	1650-1800	No	Direct	Significant negative
CH 43	Possible large-scale	0m	2550	No	Direct	Significant

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
	circular enclosure					negative
CH 171	Vernacular buildings	142m north	2990	No	Indirect	Slight negative
CH 6	Large circular enclosure	52m south	3200	No	Indirect	Moderate negative
CH 7	Relic field system (containing CH 6)	0m	2850-3400	No	Direct	Moderate negative
CH 172	Vernacular buildings	200m NNE	3980	No	Indirect	Imperceptible negative
CH 173	Vernacular building	50m north	4400	No	Indirect	Moderate negative
CH 8	Site of vernacular buildings	85m south	4550	No	Indirect	Slight negative
CH 9	Possible circular enclosure	0m	4650	No	Direct	Significant negative
CH 10	Possible circular enclosure	154m south	5200	No	Indirect	Slight negative
CH 11	Vernacular buildings, in ruins	123m south	5850	No	Indirect	Slight negative
CH 12	Possible circular enclosure	113m south	6250	No	Indirect	Slight negative
CH 13	Possible circular enclosure & site of vernacular buildings	141m SSE	6350	No	Indirect	Slight negative
CH 14	Vernacular building, in ruins	0m	6850	No	Direct	Significant negative
CH 15	Site of vernacular buildings	0m	7100	No	Direct	Significant negative
CH 16	Railway	0m	7700	No	Direct	Moderate negative
CH 17	Cloonreask House	127m NW	7850	No	Indirect	Slight negative
CH 18	Vernacular building, derelict	37m NW	8550	No	Indirect	Slight negative
CH 166	Concrete pill box	173m NNW	9000	No	Indirect	Imperceptible negative
CH 165	Lighthouse Keepers Cottages	0m	9200	No	Direct	Significant negative
CH 19	Vernacular building, in ruins	200m NNW	9500	No	Indirect	Imperceptible negative
CH 20	Vernacular building, in ruins	0m	9500	No	Direct	Significant negative
CH 21	Vernacular buildings, in ruins	0m	10800	No	Direct	Significant negative
CH 22	Vernacular buildings, in ruins	106m NNW	10950	No	Indirect	Slight negative
CH 23	Site of lime kiln	0m	11500	No	Direct	Significant negative
CH 24	Vernacular buildings, derelict	21m NNW	11800	No	Indirect	Moderate negative
CH 25	Vernacular buildings, in ruin	137m SW	12250	No	Indirect	Slight negative
CH 26	Possible circular enclosure	86m north	13750	No	Indirect	Slight negative
CH 27	Limekiln, derelict	0m	13850	No	Direct	Significant negative

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 28	Circular mound	0m	14950	No	Direct	Significant negative
CH 29	19th century house	60m SE	15010	No	Indirect	Moderate negative
CH 30	Group of vernacular buildings	113m SE	15800	No	Indirect	Slight negative
CH 31	circular mound	0m	16750	No	Direct	Significant negative
CH 32	Vernacular buildings	62m NW	17010	No	Indirect	Moderate negative
CH 33	Possible circular enclosure	30m NW	17800	No	Indirect	Moderate negative
CH 34	Vernacular building, in ruins	23m NW	18050	No	Indirect	Moderate negative
CH 35	Site of vernacular building	0m	18500	No	Direct	Significant negative
CH 36	Vernacular buildings, in ruins	107m NW	18450	No	Indirect	Slight negative
CH 177	Vernacular buildings	101m SSE	18670	No	Indirect	Slight negative
CH 37	Ballynolan House	200m north	19250	No	Indirect	Slight negative
CH 38	Limekiln, in ruins	86m north	19400	No	Indirect	Slight negative
CH 39	Site of vernacular buildings	0m	19600	No	Direct	Significant negative
CH 40	Vernacular buildings	197m SSW	20000	No	Indirect	Imperceptible negative
CH 41	Site of limekiln	0m	20500	No	Direct	Significant negative
CH 42	Vernacular building	85m SSW	20600	No	Indirect	Slight negative
CH 44	Site of vernacular buildings	0m	21550	No	Direct	Significant negative
CH 45	Site of vernacular buildings	5m north	21700	No	Indirect	Significant negative
CH 167	Former Creamery	73m south	21800	No	Indirect	Moderate negative
CH 46	Circular enclosure	195m NW	22800	No	Indirect	Slight negative
CH 168	Vernacular building	108m south	23650	No	Indirect	Slight negative
CH 47	Vernacular buildings	178m south	14050	No	Indirect	Slight negative
CH 48	Island House	179m SSW	25400	No	Indirect	Slight negative
CH 50	Meelick House	120m NNE	25750	No	Indirect	Slight negative
CH 51	Massey Bridge	68m north	26200	No	Indirect	Slight positive
CH 169	Red Lodge	200m north	26650	No	Indirect	Slight positive
CH 52	Stables, gardens, outbuildings (Elm Park demesne)	30m south	26700	No	Indirect	Moderate negative
CH 53	Ruins of Elm Park House	200m south	27050	No	Indirect	Slight negative
CH 54	Bridge	85m north	26650	No	Indirect	Slight negative
CH 55	Possible circular enclosure	0m	27250	No	Direct	Significant negative

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 56	Relic field system	0m	27000-27350	No	Direct	Significant negative
CH 57	Bridge	170m NE	27500	No	Indirect	Slight negative
CH 178	Possible stone circle	88m NE	27690	No	Indirect	Slight negative
CH 58	Bridge	22m NE	27900	No	Indirect	Moderate negative
CH 59	Vernacular buildings	85m NE	27950	No	Indirect	Moderate negative
CH 170	Vernacular building	118m NE	27550	No	Indirect	Slight negative
CH 60	Vernacular buildings	0m	28020	No	Indirect	Significant negative
CH 61	Vernacular buildings	85m SW	28450	No	Indirect	Slight negative
CH 62	Possible circular enclosure	0m	28550	No	Direct	Profound negative
CH 63	Vernacular buildings	85m NNE	30850	No	Indirect	Moderate negative
CH 64	Vernacular buildings	59m SSW	30900	No	Indirect	Moderate negative

1.5.1.7 Areas of Archaeological Potential

A detailed analysis of the historic cartographic resource and aerial photographic coverage of Route Corridor Option 1, along with drive-over inspections, has led to the identification of the following areas of archaeological potential. Where a watercourse follows a townland boundary the relevant acknowledgement is made.

Table 1.10: Route Corridor Option 1: Areas of Archaeological Potential

AAP No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AAP 1	Stream (Also TB 1)	0m	150	No	Direct	Moderate negative
AAP 2	Stream (Also TB 2)	0m	1100	No	Direct	Moderate negative
AAP 3	Streams	0m	1400	No	Direct	Moderate negative
AAP 4	Stream	0m	1650	No	Direct	Moderate negative
AAP 6	Ahacronane River (Also TB 6)	0m	3600	No	Direct	Significant/ Moderate negative
AAP 7	Wetland area & stream	0m	5750-6200	No	Direct	Significant/ Moderate negative
AAP 8	Stream (Also TB 9)	0m	6200-6500	No	Direct	Moderate negative
AAP 9	Stream (Also TB 10)	0m	6750	No	Direct	Moderate negative
AAP 10	Stream	0m	7400	No	Direct	Moderate negative
AAP 11	Stream (Also TB 13)	0m	8000	No	Direct	Moderate negative
AAP 12	River Deel (Also TB 15)	0m	9200	No	Direct	Moderate negative
AAP 13	Stream (Also TB 16)	0m	9750	No	Direct	Moderate negative
AAP 14	Stream (Also TB 18)	0m	10450	No	Direct	Moderate negative
AAP 15	Wetland area, containing 'Blue Lough'	0m	11250-11550	No	Direct	Significant/ Moderate negative
AAP 16	Stream (Also TB 19)	0m	11750	No	Direct	Moderate negative
AAP 17	Stream (Also TB 21)	0m	13800	No	Direct	Moderate negative
AAP 18	Stream (Also TB 25)	0m	15250	No	Direct	Moderate negative
AAP 19	Wetland area	0m	16300-	No	Direct	Significant/ Moderate

AAP No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
			16500			negative
AAP 20	Stream/ wetland (Also TB 27)	0m	16750	No	Direct	Moderate negative
AAP 21	Stream (Also TB 29)	0m	17800	No	Direct	Moderate negative
AAP 22	Stream and wetland (Also TB 30)	0m	18150	No	Direct	Moderate negative
AAP 23	Stream	0m	19250	No	Direct	Moderate negative
AAP 24	Circular area of high ground	0m	20200-20400	No	Direct	Moderate negative
AAP 25	Streams and wetland (Also TB 36)	0m	21350-21500	No	Direct	Moderate negative
AAP 26	Stream (Also TB 40)	0m	24000	No	Direct	Moderate negative
AAP 27	River Mague and margins (Also TB 41)	0m	24100-25500	No	Direct	Significant negative
AAP 28	Small river and margins (canalised) (Also TB 42)	0m	25700-26300	No	Direct	Moderate negative
AAP 29	Stream	0m	27000	No	Direct	Moderate negative
AAP 30	Stream and wetland (Also TB 45)	0m	29000-29250	No	Direct	Moderate negative
AAP 31	Stream (Also TB 46)	0m	29600-30150	No	Direct	Moderate negative
AAP 32	Wetland	0m	31600-32500	No	Direct	Significant negative

1.5.1.8 Townland Boundaries

A detailed analysis of the historic cartographic resource of Route Corridor Option 1, has led to the identification of the following townland boundary crossings. Where a townland boundary follows a watercourse the relevant acknowledgement is made.

Table 1.11: Route Corridor Option 1: Townland Boundaries

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 1	Townland & parish boundary (Corrig/ Ardaneer) (Also AAP 1)	0m	150	No	Direct	Moderate negative
TB 2	Townland & parish boundary (Ardaneer/ Sroolane/ Sroolane North) (Also AAP 2)	0m	1100	No	Direct	Moderate negative
TB 3	Townland boundary (Sroolane North/ Robertstown)	0m	1400	No	Direct	Moderate negative
TB 4	Townland boundary (Robertstown/ Rincullia)	0m	2650	No	Direct	Moderate negative
TB 5	Site of parish boundary (Craggs (Robertstown P.)/ Craggs (Kilmoylan P.))	0m	4000	No	Direct	Moderate negative
TB 6	Townland boundary (Rincullia/ Craggs) (Also AAP 6)	0m	3600	No	Direct	Moderate negative

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 7	Townland boundary (Craggs/ Mulderricksfield)	0m	4500	No	Direct	Moderate negative
TB 8	Townland & parish boundary (Mulderricksfield/ Ballyclogh)	0m	5750	No	Direct	Moderate negative
TB 9	Townland boundary (Ballyclogh/ Ballyellinan) also AAP 8)	0m	6200-6500	No	Direct	Moderate negative
TB 10	Townland boundary (Ballyellinan/ Ballycullen) also AAP 9)	0m	6750	No	Direct	Moderate negative
TB 11	Townland boundary (Ballycullen/ Cloonreask)	0m	7450	No	Direct	Moderate negative
TB 12	Site of former townland & parish boundary between Cloonreask (Tomdeely P.) & Cloonreask (Askeaton P.)	0m	7650	No	Direct	Moderate negative
TB 13	Site of former townland & parish boundary between Cloonreask (Tomdeely P.) & Cloonreask (Askeaton P.) (Also AAP 11)	0m	8000	No	Direct	Moderate negative
TB 14	Townland boundary (Cloonreask/ Coolrahnee)	0m	8500-9000	No	Direct	Slight negative
TB 15	Townland boundary (Coolrahnee/ Moig South) (Also AAP 12)	0m	9200	No	Direct	Slight negative
TB 16	Townland boundary (Moig South/ Askeaton) (Also AAP 13)	0m	9750	No	Direct	Moderate negative
TB 17	Townland boundary (Askeaton/ Cragmore)	0m	10400	No	Direct	Moderate negative
TB 18	Townland boundary (Cragmore/ Ballyhomin) (Also AAP 14)	0m	10450	No	Direct	Moderate negative
TB 19	Townland boundary (Ballyhomin/ Ballyengland Lower) (Also AAP 16)	0m	11750	No	Direct	Moderate negative
TB 20	Townland & parish boundary Ballyengland Lower/ Deegerty)	0m	13250	No	Direct	Moderate negative
TB 21	Former townland boundary (Deegerty/ Ballyvogue) (Also AAP 17)	0m	13800	No	Direct	Moderate negative
TB 22	Townland boundary (Deegerty/ Ballyvogue)	0m	13850	No	Direct	Moderate negative
TB 23	Former townland boundary (Ballyvogue/ Killeen)	0m	14550-14800	No	Direct	Moderate negative
TB 24	Townland boundary (Killeen/ Ballyvogue)	0m	15000	No	Direct	Moderate negative
TB 25	Townland boundary (Ballyvogue/ Dromlohan) (Also AAP 18)	0m	15250	No	Direct	Moderate negative
TB 26	Townland boundary (Dromlohan/ Boherboy)	0m	16550	No	Direct	Moderate negative

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 27	Townland boundary (Boherboy/ Cragreagh) (Also AAP 20)	0m	16750	No	Direct	Moderate negative
TB 28	Townland boundary (Boherboy/ Ballyshonickbane)	0m	16950	No	Direct	Moderate negative
TB 29	Townland boundary (Ballyshonickbane/ Crokerspark) (Also AAP 21)	0m	17800	No	Direct	Moderate negative
TB 30	Townland boundary (Crokerspark/ Glennameade) (Also AAP 22)	0m	18150	No	Direct	Moderate negative
TB 31	Townland boundary (Glennameade/ Tobermurry)	0m	18550-19000	No	Direct	Moderate negative
TB 32	Townland boundary (Glennameade/ Ballynolan)	0m	19000-19450	No	Direct	Moderate negative
TB 33	Townland boundary (Glennameade/ Curraheen)	0m	19650	No	Direct	Moderate negative
TB 34	Townland boundary (Curraheen/ Dromore/ Bolane)	0m	19800-20050	No	Direct	Moderate negative
TB 35	Townland boundary (Bolane/ Glennameade)	0m	20250-20500	No	Direct	Moderate negative
TB 36	Townland boundary (Bolane/ Coolbeg) (Also AAP 25)	0m	21450	No	Direct	Moderate negative
TB 37	Townland boundary (Coolbeg/ Ballyvareen)	0m	21800	No	Direct	Moderate negative
TB 38	Townland boundary (Ballyvareen/ Ballyculhane)	0m	22800	No	Direct	Moderate negative
TB 39	Townland boundary (Ballyculhane/ Faha)	0m	23250	No	Direct	Moderate negative
TB 40	Townland boundary (Faha/ Court) (Also AAP 26)	0m	24000	No	Direct	Moderate negative
TB 41	Townland & parish boundary (Court/ Corcamore) (Also AAP 27)	0m	25000	No	Direct	Moderate negative
TB 42	Townland boundary (Corcamore/ Cragbeg) (Also AAP 28)	0m	26000	No	Direct	Moderate negative
TB 43	Townland boundary (Cragbeg/ Elm Park Demesne)	0m	26400	No	Direct	Moderate negative
TB 44	Townland boundary (Elm Park Demesne/ Ballycarney)	0m	27850	No	Direct	Moderate negative
TB 45	Townland boundary (Ballycarney/ Ballyveloge) (Also AAP 30)	0m	29000	No	Direct	Moderate negative
TB 46	Townland boundary (Ballyveloge/ Ballynoe/ Islandduane/ Cloghkeating) (Also AAP 31)	0m	29600-30150	No	Direct	Moderate negative
TB 47	Townland boundary (Cloghkeating/ Ballycummin)	0m	32000	No	Direct	Moderate negative
TB 48	Townland boundary (Ballycummin/ Rootiagh)	0m	32000-32400	No	Direct	Moderate negative

1.5.2 Route Corridor Option 2 (Blue)

Route Corridor Option 2 runs from Foynes in a south-westerly direction to Rathkeale before turning ENE to bypass Adare and then run onto Limerick. It passes through, or within close proximity to the following townlands, parishes and baronies:

Table 1.12: Route Corridor Option 2: Townlands, Parishes and Baronies

Barony	Parish	Townlands
Connello Lower	Askeaton	Moig South, Cloonreask, Coolrahee, Ballynacaheragh, Baunreagh
	Cappagh	Cappagh, Cloonoul, Knockdromin
	Clonshire	Clonshire More, Gortnagrour
	Croagh	Ballinvira, Raheen
	Lismakeery	Ballyclogh, Ballycullen, Ballyellinan, Lismakeery, Milltown North, Milltown South
	Nantinan	Ardgoul North, Ardgoul South, Ballingarrane, Bullaun, Doohyle Beg, Doohyle More, Graigean, Boolaglass, Raheen South, Nantinan, Feeagh
	Rathkeale	Kyletaun
Coshma	Adare	Ardshanbally, Gortaganniff, Kilgobbin, Killeen, Mondellihy, Rineroe, Monearla
Kenry	Adare	Kilnockan, Tuogh
Pubblebrien	Croom	Ballycarrane, Gorteen, Ballyloughnaa
	Killonahan	Ballybronoge South, Attyflin
Shanid	Robertstown	Robertstown, Rincullia, Corrig, Craggs, Mulderricksfield, Sroolane North
	Shanagolden	Ardaneer, Sroolane

1.5.2.1 Summary of Previous Archaeological Excavations

A review of the Excavations Bulletin (1970-2014) has revealed that a number of previous excavations have been carried out within the 580m wide corridor assessed for archaeology and cultural heritage. Some of these sites have since been added to the SMR and as such have also been highlighted within this assessment with an AH label. Relevant excavations are listed in Table 1.12 below:

Table 1.13: Route Corridor Option 2: Previous Archaeological Investigations

EX No.	Ex. Bulletin Ref.:	Licence No.:	Townland:	Results:
EX 1	2001:799	01E0003	Robertstown	Testing at AH 3 failed to reveal any features of archaeological significance.
EX 2	2012:409	12E0024	Sroolane North	Early Bronze Age cremation pit.
EX 3	2002:1249	02E0752	Rincullia	Isolated undated pit with stake holes through the base (AH 7).
EX 4	2002:1252	02E0670	Rincullia	Burnt mound, six roasting pits and connecting trackway (AH 12).
EX 5	2002:1093	02E0873	Ballyellinan	Isolated pit (AH 16).
EX 6	2002:0085	02E0748	Ballycullen	<i>Fulacht fia</i> (AH 17).

EX No.	Ex. Bulletin Ref.:	Licence No.:	Townland:	Results:
EX 11	2002:1131	02E0750	Baunreagh	Two small <i>fulachtaí fia</i> (AH 81).
EX 12	2002:1130	02E0661	Baunreagh	Isolated undated pit (AH 82).
EX 13	2002:1129	02E0741	Baunreagh	Burnt spread and six shallow pits (AH 83).
EX 14	2002:1229 2002:1231	02E0643 02E0644	Milltown North	<i>Fulachtaí fia</i> . Sherd of Bronze Age pottery and two post-holes (AH 85).
EX 15	2000:0474	00E0844	Kyletaun	Archaeological testing to the immediate north of the burial ground (AH 94) revealed nothing of archaeological significance.
EX 16	2002:1157	02E0811	Curraheen South	Post-medieval refuse pits and the skeleton of a 19th-century famine victim (AH 101).
EX 17	1999:508	99E0423	Kilgobbin	Three undated and severely truncated pits (AH 66).
EX 18	1999:505	99E0307	Ballycarrane	Two <i>fulachtaí fia</i> (AH 71)
EX 19	1998:399 1999:504 2008:776	97E0230ext 08E0174	Gorteen	A portion of a medieval moated site was excavated. Corn drying kiln. Central part of medieval moated site, including pits, post-holes, possible structure and two kilns (AH 72).
EX 20	1999:481	99E0324	Ballybronoge South	Ring ditch with 14 deposits of cremated bone (AH 75).
EX 21	2008:763	08E0171	Ballybronoge South	Hearth (AH 77).
EX 22	1999:479	99E0171	Attyflin	<i>Fulacht fia</i> with a trough, pits and possible windbreak (AH 76).

1.5.2.2 Topographical Files

A review of the topographical files held by the National Museum of Ireland has produced only five records from in or within the vicinity of the route option corridor. These are summarised in Table 1.13 and detailed in Appendix 1.2:

Table 1.14: Route Corridor Option 2: NMI Topographical Files

NMI No	Townland	Classification	Location (if recorded)
IA/12/64	Robertstown	Burials (AH 6)	AH 6
1995:46	Moig South	Bronze binding strip	Not given
1961:275-8	Cloonreask	Bronze chisel, 3 glazed potsherds (possibly Roman)	Not given
1995:47-66	Cloonreask	Bronze ring, 7 musket balls, 12 copper coins	Not given
Record only	Rathkeale	Gold Band	Vicinity of Rathkeale

1.5.2.3 Archaeological Heritage

A detailed analysis of Route Corridor Option 2 has led to the identification of the following AH sites and a potential impact assessment has been made. Please note that detailed information relating to these sites is included in Appendix 1.2.

Table 1.15: Route Corridor Option 2: Archaeological Heritage Sites

AH No.	RMP/ SMR No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AH 1	LI010-012	Ringfort	72m west	875	Yes	Indirect	Slight negative
AH 2	LI010-106	Mill	191m east	1250	Yes	Indirect	Imperceptible negative
AH 121 (BH 41)	LI010-069 001/2	Church & graveyard	277m ENE	1400	Yes	Indirect	Imperceptible negative
AH 3	LI010-068	Ringfort	79m NE	1600	Yes	No impact	N/a
AH 4	LI010-144	Enclosure	149m NE	1750	Yes	Indirect	Slight negative
AH 5	LI010-070	Ringfort	90m south	2250	Yes	Indirect	Slight negative
AH 6	LI010-071	Burial ground	80m north	2400	No	No impact	N/a
AH 7 (EX 3)	LI010-140	Isolated pit and stakes	96m south	2900	No	No impact	N/a
AH 8	LI010-074	Enclosure	0m	3000	Yes	Direct	Significant negative
AH 9	LI010-081	Ringfort	67m SW	3700	Yes	Indirect	Slight negative
AH 10	LI010-087	Enclosure	102m SSW	4200	Yes	Indirect	Slight negative
AH 11	LI010-073	Ringfort	147m north	2800	Yes	Indirect	Slight negative
AH 12 (EX 4)	LI010-141001-3	Burnt mound, pit, road	98m north	3220	No	No impact	N/a
AH 13	LI010-099	Ringfort	105m NNW	5650	Yes	Indirect	Slight negative
AH 14	LI010-098	Ringfort	106m south	5500	Yes	Indirect	Slight negative
AH 15	LI010-097	Ringfort	198m south	5500	Yes	Indirect	Imperceptible negative
AH 16 (EX 5)	LI010-134	Pit	181m north	6100	No	No impact	N/a
AH 17 (EX 6)	LI010-149	<i>Fulacht fia</i>	63m SE	6750	No	No impact	N/a
AH 79	LI019-059	Castle	153m SW	6800	Yes	Indirect	Slight negative
AH 80	LI019-060	Redundant record	143m SW	7000	No	No impact	N/a
AH 81 (EX 11)	LI019-268/269	<i>Fulachtaí fia</i>	65m north	7800	No	No impact	N/a
AH 82 (EX 12)	LI019-267	Pit	100m south	8200	No	No impact	N/a
AH 83 (EX 13)	LI019-163001/2	Pits & <i>fulacht fia</i>	184m SW	8450	No	No impact	N/a
AH 84	LI020-002	Enclosure	170m SW	8750	Yes	Indirect	Slight negative
AH 85 (EX 14)	LI020-175/177	Post holes & <i>fulacht fia</i>	219m SW	9300	No	No impact	N/a
AH 87	LI020-005	Enclosure	0m	10000	Yes	Direct	Significant negative
AH 88	LI020-004001/2	Tower house, cashel,	250m WSW	10000	Yes	Indirect	Slight negative

AH No.	RMP/ SMR No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
	& 176	southern					
AH 86	LI020-007	Ringfort	170m east	10500	Yes	Indirect	Slight negative
AH 89	LI020-053	Ringfort	36m SW	11700	Yes	Indirect	Moderate negative
AH 90	LI020-052	Ringfort	196m SW	11700	Yes	Indirect	Imperceptible negative
AH 91	LI020-059	Ringfort	96m east	13250	Yes	Indirect	Slight negative
AH 92	LI020-058	Ringfort	78m east	13450	Yes	Indirect	Slight negative
AH 93	LI020-060	Ringfort	176m east	13550	Yes	Indirect	Imperceptible negative
AH 94	LI020-144	Burial ground	125m east	1500	Yes	Indirect	Slight negative
AH 95	LI020-113	Crannóg	96m west	750	Yes	Indirect	Slight negative
AH 97	LI020-063	Ringfort	8m north	2750	Yes	Indirect	Significant negative
AH 98	LI020-064	Ringfort	12m south	2800	Yes	Indirect	Significant negative
AH 99	LI020-070	Ringfort	115m north	3200	Yes	Indirect	Slight negative
AH 100	LI020-076	Ringfort	158m SSE	3650	Yes	Indirect	Imperceptible negative
AH 101 (EX 16)	LI020-168	Burial	162m SE	4050	No	No impact	N/a
AH 102	LI020-080	Ringfort	194m SE	5000	Yes	Indirect	Imperceptible negative
AH 103	LI020-081	Ringfort	200m SE	5250	Yes	Indirect	Imperceptible negative
AH 104 (Also BH 23)	LI020-082001/2	Church & graveyard	63m NW	5500	Yes	Indirect	Moderate negative
AH 105	LI020-090	Ringfort	97m south	7550	Yes	Indirect	Slight negative
AH 106	LI020-089	Ringfort	120m north	7550	Yes	Indirect	Slight negative
AH 107	LI020-091	Cashel	53m north	7700	Yes	Indirect	Moderate negative
AH 108	LI021-002	Mill	167m NNW	8900	Yes	Indirect	Slight negative
AH 109	LI021-005	Ringfort	0m	9550	Yes	Direct	Significant negative
AH 55	LI021-118	Enclosure	167m NNW	11800	Yes	Indirect	Slight negative
AH 57	LI021-149	Enclosure	63m south	12050	Yes	Indirect	Slight negative
AH 58	LI021-010	Enclosure	0m	12100	Yes	Direct	Significant negative
AH 59	LI021-173	<i>Fulacht fia</i>	31m NNW	12400	Yes	Indirect	Moderate negative
AH 60	LI021-143	Enclosure	37m NNW	12400	Yes	Indirect	Moderate negative
AH 61	LI021-144	Enclosure	0m	12600	Yes	Direct	Significant negative
AH 62	LI021-011001/2	Two enclosures	0m	13000	Yes	Direct	Profound negative
AH 63	LI021-145	Enclosure	0m	13150	Yes	Direct	Significant negative
AH 64	LI021-146	Enclosure	0m	13450	Yes	Direct	Profound

AH No.	RMP/ SMR No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
							negative
AH 65	LI021-147001/2	Two enclosures	0m	13600	Yes	Direct	Profound negative
AH 66 (EX 17)	LI021-179	Group of pits	38m south	14050	No	No impact	N/a
AH 67	LI021-148	Enclosure	0m	14400	Yes	Direct	Moderate negative
AH 68	LI021-014	Enclosure	126m north	14400	Yes	Neutral	N/a
AH 69	LI021-015	Enclosure	59m south	14600	Yes	Neutral	N/a
AH 70	LI021-121	Enclosure	164m south	15200	Yes	Neutral	N/a
AH 71 (EX 18)	LI021-181001/2	Two <i>fulachtaí fia</i>	0m	15450	Yes	Neutral	N/a
AH 72 (EX 19)	LI021-017, 187, 180	Moated site, kilns	0m	15750	Yes	Direct	Significant negative
AH 73	LI021-118	Enclosure	200m NW	16200	Yes	Neutral	N/a
AH 74	LI021-121	Enclosure	200m NW	16600	Yes	Neutral	N/a
AH 75 (EX 20)	LI021-167	Ring ditch	0m	17000	No	No impact	N/a
AH 76 (EX 22)	LI021-177	<i>Fulacht fia</i>	156m east	17200	No	No impact	N/a
AH 77 (EX 21)	LI021-185	Hearth	55m SE	17100	No	No impact	N/a
AH 78	LI021-027	Enclosure	250m east	17200	Yes	Neutral	N/a

1.5.2.4 Built Heritage

A detailed analysis of Route Corridor Option 2 has led to the identification of the following BH sites and a potential impact assessment has been made. The sites consist of a mixture of protected structures and NIAH structures. Please note that detailed information relating to these sites is included in Appendix 1.2.

ACAs as designated within the relevant development plans have been included within this section.

Table 1.16: Route Corridor Option 2: Built Heritage Sites

BH No.	RPS/ NIAH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
BH 1	18	Vernacular farm house	176m WSW	1000	Yes	Indirect	Imperceptible negative
BH 41 (AH 121)	667	Church & graveyard	277m ENE	1400	Yes	Indirect	Imperceptible negative
BH 42	21901006	House	266m south	2200	No	Indirect	Imperceptible negative
BH 2	668/ 21901005	Church	84m NE	1750	Yes	Indirect	Slight negative
BH 3	75	Concrete pill box	26m north	5450	Yes	Indirect	Moderate negative
BH 43	(Direct link to 73, 74, 75)	Concrete pill box	169m NNW	5500	Yes	Indirect	Moderate negative

BH No.	RPS/ NIAH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
BH 4	74	Concrete pill box	66m south	5800	Yes	Indirect	Moderate negative
BH 5	73	Concrete pill box	0m	6200	Yes	Direct	Profound negative
BH 19	21901916	Country house	155m SW	6750	House proposed for the RPS	Indirect	Slight negative
BH 20	21902005	Wellmount House	91m SW	11900	No	Indirect	Slight negative
BH 21	45	Forge	91m NE	12650	Yes	Indirect	Slight negative
BH 22	307/ 21902023	Country house	205m NW	3900	Yes	Indirect	Imperceptible negative
BH 23	217	Church (Also AH 104)	63m NW	5500	Yes	Indirect	Moderate negative
BH 24	528/ 21902026	House	69m SE	5650	Yes	Indirect	Moderate negative
BH 25	21902032	Bridge	109m SSE	7100	No	Indirect	Slight negative
BH 26	21902102	Bridge	105m SSE	8500	No	Indirect	Slight negative
BH 27	21902101	Bridge	132m NNW	8800	No	Indirect	Slight negative
BH 28	21902135	House	122m NW	9750	No	Indirect	Slight negative
BH 29	21902105	Bridge	135m SE	9850	No	Indirect	Slight negative
BH 30	810 21902113	Limerick Lodge	220m SSE	13250	Yes	Indirect	Slight positive
BH 50	811	Adare Manor demesne walls	215m SSE	12670-13250	Yes	Indirect	Slight positive
BH 31	21902114	Fort Union House gate lodge	196m SSE	13750	No	Indirect	Slight positive
BH 32	21902121	House	187m north	14650	No	Neutral	N/a
BH 33	21902120	House	136m north	15000	No	Neutral	N/a
BH 40	113	Former Methodist Church	121m north	14980	Yes	Neutral	N/a
ACA	Adare Manor demesne		186m SSE	12670-13250	Yes	Indirect	Slight positive

1.5.2.5 Designed Landscapes

A detailed analysis of the historical OS mapping of Route Corridor Option 2 has led to the identification of the following DL sites and a potential impact assessment has been made. The landscapes have been cross referenced with the NIAH garden survey. Please note that detailed information relating to these sites is included in Appendix 1.2.

Table 1.17: Route Corridor Option 2: Designed Landscapes

DL No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
DL 1	Ballyclogh House demesne	Immediately SW	5200-6500	House in RPS	Indirect	Slight negative
DL 8	Ballycullen House demesne	0m	6800-7200	House is proposed for the RPS	Direct	Significant negative
DL 10	Wellmount House	0m	11950	No	Direct	Slight negative

DL No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
	demesne					
DL 11	Nantinan House demesne	170m NW	11330-12350	House in RPS	Indirect	Imperceptible negative
DL 12	Stoneville demesne	65m SW	12500-13000	House in RPS	Indirect	Slight negative
DL 13	Curraheen House demesne	0m	3750	House in RPS	Direct	Slight negative
DL 14	Hollywood House demesne	To immediate north	7250-8150	House in RPS	Indirect	Moderate negative
DL 15	Curraghbridge House demesne	0m	11000-11250	House in RPS	Direct	Slight negative
DL 16	Adare Manor demesne	215m SSE	12670-13250	Yes	Indirect	Slight positive
DL 17	Ballycarrane House demesne	0m	15350-15500	No	Direct	Slight negative
DL 18	Ballybronoge South (unnamed)	0m	16500-17000	No	Neutral	N/a

1.5.2.6 Cultural Heritage Sites

A detailed analysis of the historic cartographic resource and aerial photographic coverage of Route Corridor Option 2, along with drive-over inspections and public consultations, has led to the identification of the following previously unrecorded cultural heritage sites. These include sites of built heritage and archaeological potential and a potential impact assessment has been made.

Table 1.18: Route Corridor Option 2: Cultural Heritage Sites

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 1	Vernacular buildings	45m NE	700	No	Indirect	Moderate negative
CH 2	Vernacular buildings	167m east	1000	No	Indirect	Slight negative
CH 3	Vernacular buildings	143m ENE	1250	No	Indirect	Slight negative
CH 4	Relic field system	0m	500-1100	No	Direct	Moderate negative
CH 5	Relic field system	0m	1650-1800	No	Direct	Significant negative
CH 43	Possible large-scale circular enclosure	0m	2550	No	Direct	Significant negative
CH 171	Vernacular buildings	142m north	2990	No	Indirect	Slight negative
CH 6	Large circular enclosure	52m south	3200	No	Indirect	Moderate negative
CH 7	Relic field system (containing CH 6)	0m	2850-3400	No	Direct	Moderate negative
CH 172	Vernacular buildings	200m NNE	3980	No	Indirect	Imperceptible negative
CH 173	Vernacular building	50m north	4400	No	Indirect	Moderate negative
CH 8	Site of vernacular buildings	85m south	4550	No	Indirect	Slight negative
CH 9	Possible circular enclosure	0m	4650	No	Direct	Significant negative
CH 10	Possible circular enclosure	154m south	5200	No	Indirect	Slight negative
CH 11	Vernacular buildings, in ruins	123m south	5850	No	Indirect	Slight negative

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 12	Possible circular enclosure	40m SSW	6350	No	Indirect	Slight negative
CH 13	Possible circular enclosure & site of vernacular buildings	0m	6500	No	Direct	Significant negative
CH 14	Vernacular building, in ruins	0m	6850	No	Direct	Significant negative
CH 15	Site of vernacular buildings	0m	7100	No	Direct	Significant negative
CH 16	Railway	0m	7700	No	Direct	Moderate negative
CH 17	Cloonreask House	146m NW	7850	No	Indirect	Slight negative
CH 107	Limekiln	71m NE	6800	No	Indirect	Slight negative
CH 108	Entrance to Ballycullen House	0m	6800	No	Direct	Significant negative
CH 176	Vernacular cottage	155m NE	7100	No	Indirect	Slight negative
CH 164	House	93m SW	6750	No	Indirect	Slight negative
CH 109	Site of vernacular building	0m	8500	No	Direct	Significant negative
CH 110	Vernacular buildings	138m ENE	8250	No	Indirect	Slight negative
CH 150	Possible circular enclosure	163m ENE	10000	No	Indirect	Slight negative
CH 111	Railway bridge	185m ENE	9700	No	Indirect	Slight negative
CH 174	Vernacular buildings	55m east	10600	No	Indirect	Imperceptible negative
CH 175	Vernacular buildings	117m east	10700	No	Indirect	Imperceptible negative
CH 112	Vernacular buildings & limekiln	0m	10750	No	Direct	Significant negative
CH 113	Vernacular building	166m SW	11700	No	Indirect	Slight negative
CH 114	Limekiln, in ruins	38m SW	12000	No	Indirect	Moderate negative
CH 115	Level crossing	0m	12300	No	Direct	Significant negative
CH 16	Railway	0m	12500-12950	No	Direct	Moderate negative
CH 116	Level crossing & cottage	30m east	13000	No	Indirect	Moderate negative
CH 117	Former School House	10m west	13000	No	Indirect	Significant negative
CH 118	Vernacular buildings, in ruin	0m	13200	No	Direct	Significant negative
CH 179	Railway Bridge	194m ENE	13260	No	Indirect	Slight negative
CH 119	Railway (x2 crossings)	0m	13400-13750 & 14500	No	Direct	Moderate negative
CH 120	Vernacular building	101m west	13750	No	Indirect	Slight negative
CH 121	Level crossing	27m east	13750	No	Indirect	Moderate negative
CH 122	Vernacular buildings & Limekiln, in ruins	100m SE	1350	No	Indirect	Slight negative
CH 123	Doohyle Bridge	95m NW	2150	No	Indirect	Slight negative
CH 124	Railway bridge	0m	2600	No	Direct	Significant negative
CH 125	Limekiln, in ruins	170m SE	2500	No	Indirect	Slight negative
CH 126	Site of vernacular building	0m	2200	No	Direct	Significant negative
CH 180	Railway Cottage	44m SE	2600	No	Indirect	Moderate negative

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 127	Vernacular building	159m NNW	2400	No	Indirect	Slight negative
CH 181	Level Crossing	199m south	2750	No	Indirect	Imperceptible negative
CH 128	Vernacular buildings	141m SSW	2800	No	Indirect	Slight negative
CH 129	Railway Bridge	48m SSE	3700	No	Indirect	Moderate negative
CH 130	Vernacular building	0m	4500	No	Direct	Significant negative
CH 131	Vernacular buildings	103m NW	5350	No	Indirect	Slight negative
CH 132	Railway bridge	23m SE	5150	No	Indirect	Moderate negative
CH 133	Level crossing & cottage	143m SSE	6000	No	Indirect	Slight negative
CH 134	Ballincurra Bridge	61m NNW	6100	No	Indirect	Moderate negative
CH 135	Vernacular building	0m	6300	No	Direct	Significant negative
CH 136	Vernacular buildings	72m NNW	6650	No	Indirect	Slight negative
CH 137	Vernacular building, in ruins	0m	6800	No	Direct	Significant negative
CH 138	Site of vernacular buildings	0m	7250	No	Direct	Significant negative
CH 139	Vernacular building	24m SSE	7300	No	Indirect	Moderate negative
CH 140	Gortnagrour House	0m	8400	No	Direct	Significant negative
CH 141	Vernacular building	34m north	8250	No	Indirect	Moderate negative
CH 142	Vernacular building, in ruins	0m	8550	No	Direct	Significant negative
CH 143	Site of vernacular buildings	0m	8750	No	Direct	Significant negative
CH 144	Site of mill race	0m	8900	No	Direct	Moderate negative
CH 145	Vernacular buildings, in ruins	137m SE	9400	No	Indirect	Slight negative
CH 146	Site of vernacular building	0m	9350	No	Direct	Significant negative
CH 147	Vernacular buildings	66m NNW	9600	No	Indirect	Slight negative
CH 97	Vernacular buildings	154m SSE	10500	No	Indirect	Slight negative
CH 82	Site of vernacular buildings	0m	11050	No	Direct	Significant negative
CH 83	Site of quay	0m	11750	No	Direct	Significant negative
CH 84	Vernacular building	24m SSE	11450	No	Indirect	Moderate negative
CH 182	Railway Cottage	47m SE	11850	No	Indirect	Moderate negative
CH 85	Site of limekiln	0m	12000	No	Direct	Significant negative
CH 86	Level crossing	51m south	12000	No	Indirect	Moderate negative
CH 183	Vernacular building, in ruins	125m SSE	12100	No	Indirect	Slight negative
CH 16	Railway	0m	12150	No	Direct	Moderate negative
CH 87	Vernacular building	40m north	13800	No	Indirect	Moderate negative
CH 88	Level crossing & cottage	60m north	13850	No	Indirect	Slight negative
CH 89	House & outbuildings	124m south	13200	No	Indirect	Slight negative
CH 90	Site of circular enclosure	29m north	14000	No	Indirect	Slight negative
CH 91	Rose Cottage	200m south	14650	No	Neutral	N/a
CH 92	Vernacular building	15m south	14850	No	Neutral	N/a

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 93	Vernacular buildings	105m north	15000	No	Neutral	N/a
CH 94	Ballycarrane House & outbuildings	70m north	15650	No	Neutral	N/a
CH 95	Site of railway	0m	16000	No	Neutral	N/a
CH 96	Gate lodge	161m SE	1700	No	Neutral	N/a

1.5.2.7 Areas of Archaeological Potential

A detailed analysis of the historic cartographic resource and aerial photographic coverage of Route Corridor Option 2, along with drive over inspections, has led to the identification of the following areas of archaeological potential. Where a watercourse follows a townland boundary the relevant acknowledgement is made.

Table 1.19: Route Corridor Option 2: Areas of Archaeological Potential

AAP No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AAP 1	Stream (Also TB 1)	0m	150	No	Direct	Moderate negative
AAP 2	Stream (Also TB 2)	0m	1100	No	Direct	Moderate negative
AAP 3	Streams	0m	1400	No	Direct	Moderate negative
AAP 4	Stream	0m	1650	No	Direct	Moderate negative
AAP 6	Ahacronane River (Also TB 6)	0m	3600	No	Direct	Significant/ Moderate negative
AAP 7	Wetland area & stream	0m	5750-6200	No	Direct	Significant/ Moderate negative
AAP 8	Stream (Also TB 9)	0m	6200-6500	No	Direct	Moderate negative
AAP 9	Stream (Also TB 10)	0m	6750	No	Direct	Moderate negative
AAP 10	Stream	0m	7400	No	Direct	Moderate negative
AAP 11	Stream	0m	8000	No	Direct	Moderate negative
AAP 39	Stream (Also TB 73)	0m	6500	No	Direct	Moderate negative
AAP 40	Streams (Also TB 75)	0m	7850	No	Direct	Moderate negative
AAP 5	River Deel & margins (Also TB 77)	0m	10450	No	Direct	Significant negative
AAP 41	Stream (Also TB 78)	0m	10500-10950	No	Direct	Significant negative
AAP 42	Stream (Also TB 79)	0m	11150	No	Direct	Moderate negative
AAP 43	Wetland	0m	11050-11500	No	Direct	Significant/ Moderate negative
AAP 45	Stream (Also TB 83)	0m	12400	No	Direct	Moderate negative
AAP 46	Stream (Also TB 84)	0m	12750	No	Direct	Moderate negative
AAP 47	Stream (Also TB 85)	0m	13900-1500	No	Direct	Moderate negative
AAP 48	Wetland & stream (Also TB 86)	0m	1600-2000	No	Direct	Significant/ Moderate negative
AAP 49	Stream (Also TB 88)	0m	3550	No	Direct	Moderate negative
AAP 50	Wetland (Also TB 89)	0m	4000-4400	No	Direct	Significant/ Moderate negative
AAP 51	Wetland	0m	4550-5000	No	Direct	Significant/ Moderate negative
AAP 52	Stream (Also TB 91)	0m	5000-6000	No	Direct	Moderate negative

AAP No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AAP 53	Stream (Also TB 94)	0m	8300	No	Direct	Moderate negative
AAP 54	Stream (Also TB 96)	0m	8950	No	Direct	Moderate negative
AAP 35	River Greananagh & wetlands (canalised)(Also TB 56)	0m	9900-10500	No	Direct	Significant/ Moderate negative
AAP 27	River Maigne & margins (Also TB 60)	0m	11850-12200	No	Direct	Significant negative
AAP 36	Stream	0m	13050-13450	No	Direct	Moderate negative
AAP 37	Stream (Also TB 65)	0m	15200	No	Direct	Slight negative

1.5.2.8 Townland Boundaries

A detailed analysis of the historic cartographic resource of Route Corridor Option 2, has led to the identification of the following townland boundary crossings. Where a townland boundary follows a watercourse the relevant acknowledgement is made.

Table 1.20: Route Corridor Option 2: Townland Boundaries

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 1	Townland & parish boundary (Corrig/ Ardaneer) (Also AAP 1)	0m	150	No	Direct	Moderate negative
TB 2	Townland & parish boundary (Ardaneer/ Sroolane/ Sroolane North) (Also AAP 2)	0m	1100	No	Direct	Moderate negative
TB 3	Townland boundary (Sroolane North/ Robertstown)	0m	1400	No	Direct	Moderate negative
TB 4	Townland boundary (Robertstown/ Rincullia)	0m	2650	No	Direct	Moderate negative
TB 5	Site of parish boundary (Craggs (Robertstown P.)/ Craggs (Kilmoylan P.))	0m	4000	No	Direct	Moderate negative
TB 6	Townland boundary (Rincullia/ Craggs) (Also AAP 6)	0m	3600	No	Direct	Moderate negative
TB 7	Townland boundary (Craggs/ Mulderricksfield)	0m	4500	No	Direct	Moderate negative
TB 8	Townland & parish boundary (Mulderricksfield/ Ballyclogh)	0m	5750	No	Direct	Moderate negative
TB 9	Townland boundary (Ballyclogh/ Ballyellinan) also AAP 8)	0m	6200-6500	No	Direct	Moderate negative
TB 10	Townland boundary (Ballyellinan/ Ballycullen) also AAP 9)	0m	6750	No	Direct	Moderate negative
TB 11	Townland boundary (Ballycullen/ Cloonreask)	0m	7450	No	Direct	Moderate negative
TB 12	Site of former townland & parish boundary between Cloonreask (Tomdeely P.) & Cloonreask (Askeaton P.)	0m	7650	No	Direct	Moderate negative

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 13	Site of former townland & parish boundary between Cloonreask (Tomdeely P.) & Cloonreask (Askeaton P.) (Also AAP 11)	0m	8000	No	Direct	Moderate negative
TB 73	Townland boundary (Ballyclogh/ Ballycullen) (Also AAP 39)	0m	6500	No	Direct	Moderate negative
TB 74	Townland boundary (Ballycullen/ Lismakeery)	0m	7500	No	Direct	Moderate negative
TB 75	Townland boundary (Lismakeery/ Baunreagh) (Also AAP 40)	0m	7800	No	Direct	Moderate negative
TB 76	Townland boundary (Baunreagh/ Ballynacaheragh)	0m	8450	No	Direct	Moderate negative
TB 77	Townland & parish boundary (Ballynacaheragh/ Boolaglass) (Also AAP 5)	0m	9800	No	Direct	Moderate negative
TB 78	Townland boundary (Boolaglass/ Bullaun/ Nantinan) (Also AAP 41)	0m	10250	No	Direct	Moderate negative
TB 79	Townland boundary (Nantinan/ Feeagh) (Also AAP 42)	0m	10450	No	Direct	Moderate negative
TB 82	Townland boundary (Feeagh/ Ardgoul South)	0m	11950	No	Direct	Moderate negative
TB 83	Townland boundary (Ardgoul South/ Graigeen) (Also AAP 45)	0m	12400	No	Direct	Moderate negative
TB 84	Townland boundary (Graigeen/ Ballingarrane) (Also AAP 46)	0m	12750	No	Direct	Moderate negative
TB 85	Townland boundary (Ballingarrane/ Kyletaun) (Also AAP 47)	0m	13900-1500	No	Direct	Moderate negative
TB 86	Townland boundary (Kyletaun/ Doohyle Beg) (Also AAP 48)	0m	1950	No	Direct	Moderate negative
TB 87	Townland boundary (Doohyle Beg/ Doohyle More)	0m	2650	No	Direct	Moderate negative
TB 88	Townland boundary (Doohyle More/ Curraheen South) (Also AAP 49)	0m	3550	No	Direct	Moderate negative
TB 89	Townland boundary (Curraheen South/ Cappagh) (Also AAP 50)	0m	4250	No	Direct	Moderate negative
TB 90	Townland boundary, site of (Cappagh/ Knockdromin)	0m	5450	No	Direct	Moderate negative
TB 91	Townland boundary (Cappagh/ Knockdromin) (Also AAP 52)	0m	5000-6000	No	Direct	Moderate negative
TB 92	Townland boundary (Knockdromin/ Cloonoul)	0m	6300	No	Direct	Moderate negative
TB 93	Townland boundary	0m	6900	No	Direct	Moderate

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
	(Cloonoul/ Ballinvira)					negative
TB 94	Townland & parish boundary (Ballinvira/ Clonshire More/ Gortnagrour) (Also AAP 53)	0m	8300	No	Direct	Moderate negative
TB 95	Townland boundary (Gortnagrour/ Clonshire Beg)	0m	8600	No	Direct	Moderate negative
TB 96	Townland & parish boundary (Clonshire Beg/ Rower More) (Also AAP 54)	0m	8950	No	Direct	Moderate negative
TB 97	Townland & parish boundary (Rower More/ Tuogh)	0m	9250	No	Direct	Moderate negative
TB 56	Townland boundary (Tuogh/ Kilknockan) (Also AAP 35)	0m	10000	No	Direct	Moderate negative
TB 57	Townland boundary (Kilknockan/ Curraghbeg)	0m	10850	No	Direct	Moderate negative
TB 58	Townland boundary (Curraghbeg/ Curraghbridge)	0m	11000-11200	No	Direct	Moderate negative
TB 59	Townland & parish boundary (Curraghbeg/ Islandea)	0m	11200	No	Direct	Moderate negative
TB 60	Townland boundary (Islandea/ Ardshanbally) (Also AAP 27)	0m	11600	No	Direct	Moderate negative
TB 61	Townland boundary (Ardshanbally/ Gortaganniff/ Mondellihy)	0m	12700	No	Direct	Moderate negative
TB 62	Townland boundary (Mondellihy/ Kilgobbin)	0m	13850	No	Direct	Moderate negative
TB 63	Townland boundary (Kilgobbin/ Rineroe)	0m	14500	No	Direct	Slight negative
TB 64	Townland boundary (Rineroe/ Monearla)	0m	14850	No	Direct	Slight negative
TB 65	Townland & parish boundary (Monearla/ Ballyloughnaan/ Ballycarrane) (Also AAP 37)	0m	15200	No	Direct	Slight negative
TB 66	Townland boundary (Ballycarrane/ Gorteen)	0m	15700	No	Direct	Slight negative
TB 67	Townland boundary (Gorteen/ Ballycarrane)	0m	15950	No	Direct	Slight negative
TB 68	Townland boundary (Ballycarrane/ Ballybronoge South)	0m	16100	No	Direct	Slight negative

1.5.3 Route Corridor Option 3 (Orange)

Route Corridor Option 3 runs from Foynes in a south-westerly direction to Rathkeale before turning ENE to bypass Adare in close proximity to the existing N20 and then run onto Limerick. It passes through, or within close proximity to the following townlands, parishes and baronies:

Table 1.21: Route Corridor Option 3: Townlands, Parishes and Baronies

Barony	Parish	Townlands
Connello Lower	Askeaton	Moig South, Cloonreask, Coolrahee, Ballynacaheragh, Baunreagh
	Cappagh	Cappagh, Cloonoul, Knockdromin
	Clonshire	Clonshire More, Clonshire Beg, Garraunboy, Gortnagour
	Croagh	Amogan Beg, Ballycannon, Croagh, Croagh Commons
	Lismakeery	Ballyclogh, Ballycullen, Ballyellinan, Lismakeery, Milltown North, Milltown South
	Nantinan	Ardgoul North, Ardgoul South, Ballingarrane, Bullaun, Doohyle Beg, Doohyle More, Graigean, Boolaglass, Raheen South, Nantinan, Feeagh
	Rathkeale	Blossomhill, Kyletaun, Rathkeale, Rathkeale Commons, Wolfesburgess East,
Coshma	Adare	Ardshanbally, Gortaganniff, Islandea, Kilgobbin, Killeen, Mondellihiy, Rineroe, Monearla
Kenry	Adare	Kilknockan, Tuogh
Pubblebrien	Croom	Ballycarrane, Gorteen, Ballyloughnaa
	Killonahan	Attyflin, Ballybronoge South
Shanid	Robertstown	Robertstown, Rincullia, Corrig, Craggs, Mulderricksfield, Sroolane North
	Shanagolden	Ardaneer, Sroolane

1.5.4.1 Summary of Previous Archaeological Excavations

A review of the Excavations Bulletin (1970-2014) has revealed that a number of previous excavations have been carried out within the 580m wide corridor assessed for archaeology and cultural heritage.. Some of these sites have since been added to the SMR and as such have also been highlighted within this assessment with an AH label. Relevant excavations are listed in Table 1.21 below:

Table 1.22: Route Corridor Option 3: Previous Archaeological Investigations

EX No.	Ex. Bulletin Ref.:	Licence No.:	Townland:	Results:
EX 1	2001:799	01E0003	Robertstown	Testing at AH 3 failed to reveal any features of archaeological significance.
EX 2	2012:409	12E0024	Sroolane North	Early Bronze Age cremation pit.
EX 3	2002:1249	02E0752	Rincullia	Isolated undated pit with stake holes through the base (AH 7).
EX 4	2002:1252	02E0670	Rincullia	Burnt mound, six roasting pits and connecting trackway (AH 12).
EX 5	2002:1093	02E0873	Ballyellinan	Isolated pit (AH 16).
EX 6	2002:0085	02E0748	Ballycullen	<i>Fulacht fia</i> (AH 17).
EX 11	2002:1131	02E0750	Baunreagh	Two small <i>fulachtaí fia</i> (AH 81).
EX 12	2002:1130	02E0661	Baunreagh	Isolated undated pit (AH 82).

EX No.	Ex. Bulletin Ref.:	Licence No.:	Townland:	Results:
EX 13	2002:1129	02E0741	Baunreagh	Burnt spread and six shallow pits (AH 83).
EX 14	2002:1229 2002:1231	02E0643 02E0644	Milltown North	<i>Fulachtaí fia</i> . Sherd of Bronze Age pottery and two post-holes (AH 85).
EX 15	2000:0474	00E0844	Kyletaun	Archaeological testing to the immediate north of the burial ground (AH 94) revealed nothing of archaeological significance.
EX 17	1999:508	99E0423	Kilgobbin	Three undated and severely truncated pits (AH 66).
EX 18	1999:505	99E0307	Ballycarrane	Two <i>Fulachtaí fia</i> (AH 71)
EX 19	1998:399 1999:504 2008:776	97E0230ext 08E0174	Gorteen	A portion of a medieval moated site was excavated. Corn drying kiln. Central part of medieval moated site, including pits, post-holes, possible structure and two kilns (AH 72).
EX 20	1999:481	99E0324	Ballybronoge South	Ring ditch with 14 deposits of cremated bone (AH 75).
EX 21	2008:763	08E0171	Ballybronoge South	Hearth (AH 77).
EX 22	1999:479	99E0171	Attyflin	<i>Fulacht fia</i> with a trough, pits and possible windbreak (AH 76).

1.5.4.2 Topographical Files

A review of the topographical files held by the National Museum of Ireland has produced only five records from in or within the vicinity of the route corridor option. These are summarised in Table 1.22 with more detail provided in Appendix 1.3:

Table 1.23: Route Corridor Option 3: NMI Topographical Files

NMI No	Townland	Classification	Location (if recorded)
IA/12/64	Robertstown	Burials (AH 6)	AH 6
1995:46	Moig South	Bronze binding strip	Not given
1961:275-8	Cloonreask	Bronze chisel, 3 glazed potsherds (possibly Roman)	Not given
1995:47-66	Cloonreask	Bronze ring, 7 musket balls, 12 copper coins	Not given
Record only	Rathkeale	Gold Band	Vicinity of Rathkeale

1.5.4.3 Archaeological Heritage

A detailed analysis of Route Corridor Option 3 has led to the identification of the following AH sites and a potential impact assessment has been made. Please note that detailed information relating to these sites is included in Appendix 1.3.

Table 1.24: Route Corridor Option 3: Archaeological Heritage Sites

AH No.	RMP No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AH 1	LI010-012	Ringfort	72m west	875	Yes	Indirect	Slight negative
AH 2	LI010-106	Mill	179m east	1250	Yes	Indirect	Imperceptible negative
AH 121 (BH 41)	LI010-069 001/2	Church & graveyard	277m ENE	1400	Yes	Indirect	Imperceptible negative
AH 3	LI010-068	Ringfort	79m NE	1600	Yes	No impact	N/a
AH 4	LI010-144	Enclosure	149m NE	1750	Yes	Indirect	Slight negative
AH 5	LI010-070	Ringfort	90m south	2250	Yes	Indirect	Slight negative
AH 6	LI010-071	Burial ground	80m north	2400	No	No impact	N/a
AH 7 (EX 3)	LI010-140	Isolated pit and stakes	96m south	2900	No	No impact	N/a
AH 8	LI010-074	Enclosure	0m	3000	Yes	Direct	Significant negative
AH 9	LI010-081	Ringfort	67m SW	3700	Yes	Indirect	Slight negative
AH 10	LI010-087	Enclosure	102m SSW	4200	Yes	Indirect	Slight negative
AH 11	LI010-073	Ringfort	147m north	2800	Yes	Indirect	Slight negative
AH 12 (EX 4)	LI010-141001-3	Burnt mound, pit, road	98m north	3220	No	No impact	N/a
AH 13	LI010-099	Ringfort	105m NNW	5650	Yes	Indirect	Slight negative
AH 14	LI010-098	Ringfort	106m south	5500	Yes	Indirect	Slight negative
AH 15	LI010-097	Ringfort	198m south	5500	Yes	Indirect	Imperceptible negative
AH 16 (EX 5)	LI010-134	Pit	181m north	6100	No	No impact	N/a
AH 17 (EX 6)	LI010-149	<i>Fulacht fia</i>	63m SE	6750	No	No impact	N/a
AH 79	LI019-059	Castle	153m SW	6800	Yes	Indirect	Slight negative
AH 80	LI019-060	Redundant record	143m SW	7000	No	No impact	N/a
AH 81 (EX 11)	LI019-268/269	<i>Fulachtaí fia</i>	65m north	7800	No	No impact	N/a
AH 82 (EX 12)	LI019-267	Pit	100m south	8200	No	No impact	N/a
AH 83 (EX 13)	LI019-163001/2	Pits & <i>fulacht fia</i>	184m SW	8450	No	No impact	N/a
AH 84	LI020-002	Enclosure	170m SW	8750	Yes	Indirect	Slight negative
AH 85 (EX 14)	LI020-175/177	<i>fulachtaí fia</i>	219m SW	9300	No	No impact	N/a
AH 87	LI020-005	Enclosure	0m	10000	Yes	Direct	Significant negative
AH 88	LI020-004001/2 & 176	Tower house, cashel, souterrain	250m WSW	10000	Yes	Indirect	Slight negative
AH 86	LI020-007	Ringfort	170m east	10500	Yes	Indirect	Slight negative
AH 89	LI020-053	Ringfort	36m SW	11700	Yes	Indirect	Moderate negative
AH 90	LI020-052	Ringfort	196m SW	11700	Yes	Indirect	Imperceptible negative
AH 91	LI020-059	Ringfort	96m east	13250	Yes	Indirect	Slight negative
AH 92	LI020-058	Ringfort	78m east	13450	Yes	Indirect	Slight negative
AH 93	LI020-060	Ringfort	176m east	13550	Yes	Indirect	Imperceptible negative

AH No.	RMP No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AH 95	LI020-113	Crannóg	200m west	750	Yes	Indirect	Imperceptible negative
AH 96	LI029-029	Standing stone	198m SE	450	Yes	Neutral	N/a
AH 110	LI020-156	Standing stone	0m	1250	Yes	Direct	Profound negative
AH 123	LI020-152	Redundant record	0m	1250	No	No impact	N/a
AH 111	LI020-115	Redundant record	33m north	1800	No	No impact	N/a
AH 112	LI029-037	Ringfort	55m south	1950	Yes	Indirect	Slight negative
AH 113	LI020-116	Enclosure	66m north	2700	Yes	Indirect	Slight negative
AH 114	LI020-117	Redundant record	36m north	2800	No	No impact	N/a
AH 115	LI020-137	Ringfort	80m NW	3900	Yes	Indirect	Slight negative
AH 116	LI020-120	Ringfort	181m SE	3700	Yes	Indirect	Slight negative
AH 117	LI020-088	Ringfort	73m NW	6500	Yes	Indirect	Slight negative
AH 118	LI020-087	Enclosure	175m NW	6550	Yes	Indirect	Imperceptible negative
AH 119 (also BH 39)	LI020-159	Castle	152m SE	7050	Yes	Indirect	Moderate negative
AH 124	LI020-094 ⁴	Clonshire medieval settlement	33m south SE	7050	Yes	Indirect	Moderate negative
AH 120	LI020-095	Ringfort	161m SE	7800	Yes	Indirect	Slight negative
AH 109	LI021-005	Ringfort	22m NW	9550	Yes	Indirect	Moderate negative
AH 55	LI021-118	Enclosure	167m NNW	11800	Yes	Indirect	Slight negative
AH 57	LI021-149	Enclosure	63m south	12050	Yes	Indirect	Slight negative
AH 58	LI021-010	Enclosure	0m	12100	Yes	Direct	Significant negative
AH 59	LI021-173	<i>Fulacht fia</i>	31m NNW	12400	Yes	Indirect	Moderate negative
AH 60	LI021-143	Enclosure	37m NNW	12400	Yes	Indirect	Moderate negative
AH 61	LI021-144	Enclosure	0m	12600	Yes	Direct	Significant negative
AH 62	LI021-011001/2	Two enclosures	0m	13000	Yes	Direct	Profound negative
AH 63	LI021-145	Enclosure	0m	13150	Yes	Direct	Significant negative
AH 64	LI021-146	Enclosure	0m	13450	Yes	Direct	Profound negative
AH 65	LI021-147001/2	Two enclosures	0m	13600	Yes	Direct	Profound negative
AH 66 (EX 17)	LI021-179	Group of pits	38m south	14050	No	No impact	N/a

⁴ Please note that this site is currently listed as having no known location (www.archaeology.ie) and is scheduled for removal from the RMP at the next revision. Whilst it is possible that the medieval borough may have been close to the castle, it may equally have been located further away or been a dispersed settlement.

AH No.	RMP No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AH 67	LI021-148	Enclosure	0m	14400	Yes	Direct	Moderate negative
AH 68	LI021-014	Enclosure	126m north	14400	Yes	Neutral	N/a
AH 69	LI021-015	Enclosure	59m south	14600	Yes	Neutral	N/a
AH 70	LI021-121	Enclosure	164m south	15200	Yes	Neutral	N/a
AH 71 (EX 18)	LI021-181001/2	Two <i>fulachtaí fia</i>	0m	15450	Yes	Neutral	N/a
AH 72 (EX 19)	LI021-017, 187, 180	Moated site, kilns	0m	15750	Yes	Direct	Significant negative
AH 73	LI021-118	Enclosure	200m NW	16200	Yes	Neutral	N/a
AH 74	LI021-121	Enclosure	200m NW	16600	Yes	Neutral	N/a
AH 75 (EX 20)	LI021-167	Ring ditch	0m	17000	No	No impact	N/a
AH 76 (EX 22)	LI021-177	<i>Fulacht fia</i>	156m east	17200	No	No impact	N/a
AH 77 (EX 21)	LI021-185	Hearth	55m SE	17100	No	No impact	N/a
AH 78	LI021-027	Enclosure	250m east	17200	Yes	Neutral	N/a

1.5.4.4 Built Heritage

A detailed analysis of Route Corridor Option 3 has led to the identification of the following BH sites and a potential impact assessment has been made. The sites consist of a mixture of protected structures and NIAH structures. Please note that detailed information relating to these sites is included in Appendix 1.3.

Architectural Conservation Areas (ACAs) as designated within the relevant development plans have been included within this section.

Table 1.25: Route Corridor Option 3: Built Heritage Sites

BH No.	RPS/ NIAH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
BH 1	18	Vernacular farm house	176m WSW	1000	Yes	Indirect	Imperceptible negative
BH 41 (AH 121)	667	Church & graveyard	277m ENE	1400	Yes	Indirect	Imperceptible negative
BH 42	21901006	House	266m south	2200	No	Indirect	Imperceptible negative
BH 2	668/ 21901005	Church	84m NE	1750	Yes	Indirect	Slight negative
BH 3	75	Concrete pill box	26m north	5450	Yes	Indirect	Moderate negative
BH 43	(Direct link to 73, 74, 75)	Concrete pill box	169m NNW	5500	Yes	Indirect	Moderate negative
BH 4	74	Concrete pill box	66m south	5800	Yes	Indirect	Moderate negative
BH 5	73	Concrete pill box	0m	6200	Yes	Direct	Profound negative
BH 19	21901916	Country house	155m SW	6750	House proposed for the RPS	Indirect	Slight negative

BH No.	RPS/ NIAH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
BH 20	21902005	Wellmount House	91m SW	11900	No	Indirect	Slight negative
BH 21	45	Forge	91m NE	12650	Yes	Indirect	Slight negative
BH 36	69	Duneeven House	64m SE	5000	Yes	Indirect	Moderate negative
BH 37	298/ 21902035	Smithfield House	210m SE	5900	Yes	Indirect	Slight negative
BH 38	21902034	House	20m NW	6800	No	Indirect	Moderate negative
BH 39 (Also AH 119)	266	Castle	152m SE	7050	Yes	Indirect	Moderate negative
BH 26	21902102	Bridge	127m NW	8400	No	Indirect	Slight negative
BH 28	21902135	House	122m NW	9750	No	Indirect	Slight negative
BH 29	21902105	Bridge	135m SE	9850	No	Indirect	Slight negative
BH 30	810 21902113	Limerick Lodge	220m SSE	13250	Yes	Indirect	Slight positive
BH 50	811	Adare Manor demesne walls	215m SSE	12670- 13250	Yes	Indirect	Slight positive
BH 31	21902114	Fort Union House gate lodge	196m SSE	13750	No	Indirect	Slight positive
BH 32	21902121	House	187m north	14650	No	Neutral	N/a
BH 33	21902120	House	136m north	15000	No	Neutral	N/a
BH 40	113	Former Methodist Church	121m north	14980	Yes	Neutral	N/a
ACA	Adare Manor demesne		186m SSE	12670- 13250	Yes	Indirect	Slight positive

1.5.4.5 Designed Landscapes

A detailed analysis of the historical OS mapping of Route Corridor Option 3 has led to the identification of the following DL sites and a potential impact assessment has been made. The landscapes have been cross referenced with the NIAH garden survey. Please note that detailed information relating to these sites is included in Appendix 1.3.

Table 1.26: Route Corridor Option 3: Designed Landscapes

DL No.	Classification	Dist. From route	Approx. chainage	Statutory protection	Impact Type	Impact level
DL 1	Ballyclogh House demesne	Immediately SW	5200-6500	House in RPS	Indirect	Slight negative
DL 8	Ballycullen House demesne	0m	6800-7200	House proposed for the RPS	Direct	Significant negative
DL 10	Wellmount House demesne	0m	11950	No	Direct	Slight negative
DL 11	Nantinan House demesne	170m NW	11330-12350	House in RPS	Indirect	Imperceptible negative
DL 12	Stoneville demesne	65m SW	12500-13000	House in RPS	Indirect	Slight negative
DL 19	Smithfield House demesne	15m SE	5750	House in RPS	Indirect	Slight negative

DL No.	Classification	Dist. From route	Approx. chainage	Statutory protection	Impact Type	Impact level
DL 21	Clonshire Lodge demesne	31m SE	8250-8700	House in RPS	Indirect	Slight negative
DL 15	Curraghbridge House demesne	0m	11000-11250	House in RPS	Direct	Slight negative
DL 16	Adare Manor demesne	215m SSE	12670-13250	Yes	Indirect	Slight positive
DL 17	Ballycarrane House demesne	0m	15350-15500	No	Direct	Slight negative
DL 18	Ballybronoge South (unnamed)	0m	16500-17000	No	Neutral	N/a

1.5.4.6 Cultural Heritage Sites

A detailed analysis of the historic cartographic resource and aerial photographic coverage of Route Corridor Option 3, along with drive-over inspections and public consultations, has led to the identification of the following previously unrecorded cultural heritage sites. These include sites of built heritage and archaeological potential and a potential impact assessment has been made.

Table 1.27: Route Corridor Option 3: Cultural Heritage Sites

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 1	Vernacular buildings	45m NE	700	No	Indirect	Moderate negative
CH 2	Vernacular buildings	167m east	1000	No	Indirect	Slight negative
CH 3	Vernacular buildings	143m ENE	1250	No	Indirect	Slight negative
CH 4	Relic field system	0m	500-1100	No	Direct	Moderate negative
CH 5	Relic field system	0m	1650-1800	No	Direct	Significant negative
CH 43	Possible large scale circular enclosure	0m	2550	No	Direct	Significant negative
CH 171	Vernacular buildings	142m north	2990	No	Indirect	Slight negative
CH 6	Large circular enclosure	52m south	3200	No	Indirect	Moderate negative
CH 7	Relic field system (containing CH 6)	0m	2850-3400	No	Direct	Moderate negative
CH 172	Vernacular buildings	200m NNE	3980	No	Indirect	Imperceptible negative
CH 173	Vernacular building	50m north	4400	No	Indirect	Moderate negative
CH 8	Site of vernacular buildings	85m south	4550	No	Indirect	Slight negative
CH 9	Possible circular enclosure	0m	4650	No	Direct	Significant negative
CH 10	Possible circular enclosure	154m south	5200	No	Indirect	Slight negative
CH 11	Vernacular buildings, in ruins	123m south	5850	No	Indirect	Slight negative
CH 12	Possible circular enclosure	40m SSW	6350	No	Indirect	Slight negative
CH 13	Possible circular enclosure & site of vernacular buildings	0m	6500	No	Direct	Significant negative
CH 14	Vernacular building, in ruins	0m	6850	No	Direct	Significant negative

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 15	Site of vernacular buildings	0m	7100	No	Direct	Significant negative
CH 16	Railway	0m	7700	No	Direct	Moderate negative
CH 17	Clooreask House	146m NW	7850	No	Indirect	Slight negative
CH 107	Limekiln	71m NE	6800	No	Indirect	Slight negative
CH 108	Entrance to Ballycullen House	0m	6800	No	Direct	Significant negative
CH 176	Vernacular cottage	155m NE	7100	No	Indirect	Slight negative
CH 164	House	93m SW	6750	No	Indirect	Slight negative
CH 109	Site of vernacular building	0m	8500	No	Direct	Significant negative
CH 110	Vernacular buildings	138m ENE	8250	No	Indirect	Slight negative
CH 150	Possible circular enclosure	163m ENE	10000	No	Indirect	Slight negative
CH 111	Railway bridge	185m ENE	9700	No	Indirect	Slight negative
CH 174	Vernacular buildings	55m east	10600	No	Indirect	Imperceptible negative
CH 175	Vernacular buildings	117m east	10700	No	Indirect	Imperceptible negative
CH 112	Vernacular buildings & limekiln	0m	10750	No	Direct	Significant negative
CH 113	Vernacular building	166m SW	11700	No	Indirect	Slight negative
CH 114	Limekiln, in ruins	38m SW	12000	No	Indirect	Moderate negative
CH 115	Level crossing	0m	12300	No	Direct	Significant negative
CH 16	Railway	0m	12500-12950	No	Direct	Moderate negative
CH 116	Level crossing & cottage	30m east	13000	No	Indirect	Moderate negative
CH 117	Former School House	10m west	13000	No	Indirect	Significant negative
CH 118	Vernacular buildings, in ruin	0m	13200	No	Direct	Significant negative
CH 179	Railway Bridge	194m ENE	13260	No	Indirect	Slight negative
CH 119	Railway (x2 crossings)	0m	13400-13750 & 14500	No	Direct	Moderate negative
CH 122	Vernacular buildings & Limekiln, in ruins	141m east	14850	No	Indirect	Slight negative
CH 151	Vernacular building, in ruins	154m east	15400	No	Indirect	Slight negative
CH 152	Vernacular buildings	56m north	1350	No	Indirect	Slight negative
CH 153	Vernacular building	0m	1950	No	Direct	Significant negative
CH 154	Site of vernacular buildings	0m	3850	No	Direct	Significant negative
CH 155	Vernacular buildings	200m NW	5150	No	Indirect	Imperceptible negative
CH 156	Vernacular buildings	147m NW	6300	No	Indirect	Slight negative
CH 157	Site of limekiln	0m	6250	No	Direct	Significant negative
CH 158	Vernacular building	155m SE	6450	No	Indirect	Slight negative
CH 184	Early 20th century house	30m SE	6700	No	Indirect	Moderate negative
CH 159	Smithfield Mill, in ruins	173m SE	6750	No	Indirect	Imperceptible negative
CH 160	Clonshire Bridge	12m SE	7150	No	Indirect	Significant negative

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 161	Vernacular buildings, in ruin	128m NW	7800	No	Indirect	Slight negative
CH 162	Gate lodge, in ruins	148m SE	8250	No	Indirect	Slight negative
CH 163	Railway Bridge	0m	9000	No	Direct	Significant negative
CH 144	Site of mill race	128m NW	9000	No	Neutral	N/a
CH 145	Vernacular buildings, in ruins	55m SE	9250	No	Indirect	Moderate negative
CH 146	Site of vernacular building	0m	9400	No	Direct	Significant negative
CH 147	Vernacular buildings	94m NNW	9600	No	Indirect	Slight negative
CH 97	Vernacular buildings	154m SSE	10500	No	Indirect	Slight negative
CH 82	Site of vernacular buildings	0m	11050	No	Direct	Significant negative
CH 83	Site of quay	0m	11750	No	Direct	Significant negative
CH 84	Vernacular building	24m SSE	11450	No	Indirect	Moderate negative
CH 182	Railway Cottage	47m SE	11850	No	Indirect	Moderate negative
CH 85	Site of limekiln	0m	12000	No	Direct	Significant negative
CH 86	Level crossing	51m south	12000	No	Indirect	Moderate negative
CH 183	Vernacular building, in ruins	125m SSE	12100	No	Indirect	Slight negative
CH 16	Railway	0m	12150	No	Direct	Moderate negative
CH 87	Vernacular building	40m north	13800	No	Indirect	Moderate negative
CH 88	Level crossing & cottage	60m north	13850	No	Indirect	Slight negative
CH 89	House & outbuildings	124m south	13200	No	Indirect	Slight negative
CH 90	Site of circular enclosure	29m north	14000	No	Indirect	Slight negative
CH 91	Rose Cottage	200m south	14650	No	Neutral	N/a
CH 92	Vernacular building	15m south	14850	No	Neutral	N/a
CH 93	Vernacular buildings	105m north	15000	No	Neutral	N/a
CH 94	Ballycarrane House & outbuildings	70m north	15650	No	Neutral	N/a
CH 95	Site of railway	0m	16000	No	Neutral	N/a
CH 96	Gate lodge	161m SE	1700	No	Neutral	N/a

1.5.4.7 Areas of Archaeological Potential

A detailed analysis of the historic cartographic resource and aerial photographic coverage of Route Corridor Option 3, along with drive-over inspections, has led to the identification of the following areas of archaeological potential. Where a watercourse follows a townland boundary the relevant acknowledgement is made.

Table 1.28: Route Corridor Option 3: Areas of Archaeological Potential

AAP No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AAP 1	Stream (Also TB 1)	0m	150	No	Direct	Moderate negative
AAP 2	Stream (Also TB 2)	0m	1100	No	Direct	Moderate negative
AAP 3	Streams	0m	1400	No	Direct	Moderate negative
AAP 4	Stream	0m	1650	No	Direct	Moderate negative

AAP No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AAP 6	Ahacronane River (Also TB 6)	0m	3600	No	Direct	Significant/ Moderate negative
AAP 7	Wetland area & stream	0m	5750-6200	No	Direct	Significant/ Moderate negative
AAP 8	Stream (Also TB 9)	0m	6200-6500	No	Direct	Moderate negative
AAP 9	Stream (Also TB 10)	0m	6750	No	Direct	Moderate negative
AAP 10	Stream	0m	7400	No	Direct	Moderate negative
AAP 11	Stream	0m	8000	No	Direct	Moderate negative
AAP 39	Stream (Also TB 73)	0m	6500	No	Direct	Moderate negative
AAP 40	Streams (Also TB 75)	0m	7850	No	Direct	Moderate negative
AAP 5	River Deel & margins (Also TB 77)	0m	10450	No	Direct	Significant negative
AAP 41	Stream (Also TB 78)	0m	10500-10950	No	Direct	Significant negative
AAP 42	Stream (Also TB 79)	0m	11150	No	Direct	Moderate negative
AAP 43	Wetland	0m	11050-11500	No	Direct	Significant/ Moderate negative
AAP 45	Stream (Also TB 83)	0m	12400	No	Direct	Moderate negative
AAP 46	Stream (Also TB 84)	0m	12750	No	Direct	Moderate negative
AAP 47	Stream (Also TB 85)	0m	13900-1500	No	Direct	Moderate negative
AAP 55	Wetland	0m	500-1250	No	Direct	Significant/ Moderate negative
AAP 56	Stream (Also TB 98)	0m	1300	No	Direct	Slight negative
AAP 57	Stream (Also TB 107)	0m	7220	No	Direct	Moderate negative
AAP 58	Clonshire River (Also TB 110)	0m	9000	No	Direct	Moderate negative
AAP 35	River Greananagh & wetlands (canalised)(Also TB 56)	0m	9900-10500	No	Direct	Significant/ Moderate negative
AAP 27	River Mague & margins (Also TB 60)	0m	11850-12200	No	Direct	Significant negative
AAP 36	Stream	0m	13050-13450	No	Direct	Moderate negative
AAP 37	Stream (Also TB 65)	0m	15200	No	Direct	Slight negative

1.5.4.8 Townland Boundaries

A detailed analysis of the historic cartographic resource of Route Corridor Option 3, has led to the identification of the following townland boundary crossings. Where a townland boundary follows a watercourse the relevant acknowledgement is made.

Table 1.29: Route Corridor Option 3: Townland Boundaries

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 1	Townland & parish boundary (Corrig/ Ardaneer) (Also AAP 1)	0m	150	No	Direct	Moderate negative
TB 2	Townland & parish boundary (Ardaneer/ Sroolane/ Sroolane North) (Also AAP 2)	0m	1100	No	Direct	Moderate negative
TB 3	Townland boundary (Sroolane North/ Robertstown)	0m	1400	No	Direct	Moderate negative

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 4	Townland boundary (Robertstown/ Rincullia)	0m	2650	No	Direct	Moderate negative
TB 5	Site of parish boundary (Craggs (Robertstown P.)/ Craggs (Kilmoylan P.))	0m	4000	No	Direct	Moderate negative
TB 6	Townland boundary (Rincullia/ Craggs) (Also AAP 6)	0m	3600	No	Direct	Moderate negative
TB 7	Townland boundary (Craggs/ Mulderricksfield)	0m	4500	No	Direct	Moderate negative
TB 8	Townland & parish boundary (Mulderricksfield/ Ballyclogh)	0m	5750	No	Direct	Moderate negative
TB 9	Townland boundary (Ballyclogh/ Ballyellinan) also AAP 8)	0m	6200-6500	No	Direct	Moderate negative
TB 10	Townland boundary (Ballyellinan/ Ballycullen) also AAP 9)	0m	6750	No	Direct	Moderate negative
TB 11	Townland boundary (Ballycullen/ Cloonreask)	0m	7450	No	Direct	Moderate negative
TB 12	Site of former townland & parish boundary between Cloonreask (Tomdeely P.) & Cloonreask (Askeaton P.)	0m	7650	No	Direct	Moderate negative
TB 13	Site of former townland & parish boundary between Cloonreask (Tomdeely P.) & Cloonreask (Askeaton P.) (Also AAP 11)	0m	8000	No	Direct	Moderate negative
TB 73	Townland boundary (Ballyclogh/ Ballycullen) (Also AAP 39)	0m	6500	No	Direct	Moderate negative
TB 74	Townland boundary (Ballycullen/ Lismakeery)	0m	7500	No	Direct	Moderate negative
TB 75	Townland boundary (Lismakeery/ Baunreagh) (Also AAP 40)	0m	7800	No	Direct	Moderate negative
TB 76	Townland boundary (Baunreagh/ Ballynacagheragh)	0m	8450	No	Direct	Moderate negative
TB 77	Townland & parish boundary (Ballynacagheragh/ Boolaglass) (Also AAP 5)	0m	9800	No	Direct	Moderate negative
TB 78	Townland boundary (Boolaglass/ Bullaun/ Nantinan) (Also AAP 41)	0m	10250	No	Direct	Moderate negative
TB 79	Townland boundary (Nantinan/ Feeagh) (Also AAP 42)	0m	10450	No	Direct	Moderate negative
TB 82	Townland boundary (Ardgoul North/ Ardgoul South)	0m	11950	No	Direct	Moderate negative
TB 83	Townland boundary (Ardgoul South/ Graigeen) (Also AAP 45)	0m	12400	No	Direct	Moderate negative
TB 84	Townland boundary (Graigeen/ Ballingarrane) (Also AAP 46)	0m	12750	No	Direct	Moderate negative

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 85	Townland boundary (Ballingarrane/ Kyletaun) (Also AAP 47)	0m	13900-1500	No	Direct	Moderate negative
TB 111	Townland boundary (Kyletaun/ Rathkeale)	0m	300	No	Direct	Moderate negative
TB 98	Townland boundary (Rathkeale/ Wolfesburgess East) (Also AAP 56)	0m	1300	No	Direct	Slight negative
TB 99	Townland boundary (Wolfesburgess East/ Blossomhill)	0m	1555	No	Direct	Slight negative
TB 100	Townland boundary (Blossomhill/ Rathkeale Commons)	0m	1985	No	Direct	Slight negative
TB 101	Townland boundary, site of (Rathkeale Commons/ Croagh Commons)	0m	2275	No	Direct	Slight negative
TB 102	Townland boundary (Croagh Commons/ Amogan Beg)	0m	2655	No	Direct	Slight negative
TB 103	Townland boundary, (Amogan Beg/ Ballycannon)	0m	3850	No	Direct	Moderate negative
TB 104	Townland boundary, (Ballycannon/ Croagh)	0m	4755	No	Direct	Moderate negative
TB 105	Townland boundary, (Croagh/ Graigue)	0m	6350	No	Direct	Moderate negative
TB 106	Former townland & parish boundary, (Graigue (Cappagh P.)/ Graigue (Clonshire P.))	0m	7640	No	Direct	Moderate negative
TB 107	Townland & parish boundary, (Graigue/ Clonshire More) (Also AAP 57)	0m	7220	No	Direct	Moderate negative
TB 108	Townland boundary, (Clonshire More/ Gortnagrour)	0m	7970	No	Direct	Moderate negative
TB 109	Townland boundary (Gortnagrour/ Clonshire Beg)	0m	8225	No	Direct	Moderate negative
TB 110	Townland & parish boundary (Clonshire Beg/ Rower More) (Also AAP 58)	0m	9000	No	Direct	Moderate negative
TB 97	Townland & parish boundary (Rower More/ Tuogh)	0m	9250	No	Direct	Moderate negative
TB 56	Townland boundary (Tuogh/ Kilknockan) (Also AAP 35)	0m	10000	No	Direct	Moderate negative
TB 57	Townland boundary (Kilknockan/ Curraghbeg)	0m	10850	No	Direct	Moderate negative
TB 58	Townland boundary (Curraghbeg/ Curraghbridge)	0m	11000-11200	No	Direct	Moderate negative
TB 59	Townland & parish boundary (Curraghbeg/ Islandea)	0m	11200	No	Direct	Moderate negative
TB 60	Townland boundary (Islandea/ Ardshanbally) (Also AAP 27)	0m	11600	No	Direct	Moderate negative

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 61	Townland boundary (Ardshanbally/ Gortaganniff/ Mondellihiy)	0m	12700	No	Direct	Moderate negative
TB 62	Townland boundary (Mondellihiy/ Kilgobbin)	0m	13850	No	Direct	Moderate negative
TB 63	Townland boundary (Kilgobbin/ Rineroe)	0m	14500	No	Direct	Slight negative
TB 64	Townland boundary (Rineroe/ Monearla)	0m	14850	No	Direct	Slight negative
TB 65	Townland & parish boundary (Monearla/ Ballyloughnaa/ Ballycarrane) (Also AAP 37)	0m	15200	No	Direct	Slight negative
TB 66	Townland boundary (Ballycarrane/ Gorteen)	0m	15700	No	Direct	Slight Negative
TB 67	Townland boundary (Gorteen/ Ballycarrane)	0m	15950	No	Direct	Slight Negative
TB 68	Townland boundary (Ballycarrane/ Ballybronoge South)	0m	16100	No	Direct	Slight Negative

1.5.5 Route Corridor Option 4 (Green)

Route Corridor Option 4 runs in an easterly direction from Foynes and passes to the north of Askeaton before turning south-east to bypass Adare. It passes through, or within close proximity to the following townlands, parishes and baronies:

Table 1.30: Route Corridor Option 4: Townlands, Parishes and Baronies

Barony	Parish	Townlands
Connello Lower	Askeaton	Askeaton, Ballyengland Lower, Ballyhomin, Cloonreask, Coolrahnee, Cragmore, Moig South
	Clonshire	Clonshire Beg, Garraunboy
	Croagh	Ballynagool, Lisnamuck
	Lismakeery	Ballyclogh, Ballycullen, Ballyellinan
	Nantinan	Lurragea
Coshma	Adare	Ardshanbally, Gortaganniff, Islandea, Kilgobbin, Mondellihiy, Rineroe, Rower Beg, Rower More, Monearla
Kenry	Adare	Copay, Curraghbeg, Curraghbridge, Kilknockan, Kyleavarraga South, Tuogh, Kilgrogan
	Kilcornan	Ballynamona, Ballyvogue, Currahchase, Deegerty, Killeen, Shanbally, Tinnacullia, Cowpark, Dromlohan
Pubblebrien	Croom	Ballycarrane, Ballyloughnaa, Gorteen
	Killonahan	Ballybronoge South, Attyflin
	Knocknagaul	Derryknockane
Shanid	Robertstown	Corrig, Craggs, Durnish, Mulderricksfield, Robertstown, Rincullia, Sroolane North
	Shanagolden	Ardaneer, Sroolane

1.5.5.1 Summary of Previous Archaeological Excavations

A review of the Excavations Bulletin (1970-2014) has revealed that a number of previous excavations have been carried out within the 580 wide corridor assessed for archaeology

and cultural heritage . Some of these sites have since been added to the SMR and as such have also been highlighted within this assessment with an AH label. Relevant excavations are listed in Table 1.30 below:

Table 1.31: Route Option 4: Previous Archaeological Investigations

EX No.	Ex. Bulletin Ref.:	Licence No.:	Townland:	Results:
EX 1	2001:799	01E0003	Robertstown	Testing at AH 3 failed to reveal any features of archaeological significance.
EX 2	2012:409	12E0024	Sroolane North	Early Bronze Age cremation pit.
EX 3	2002:1249	02E0752	Rincullia	Isolated undated pit with stake holes through the base.
EX 4	2002:1252	02E0670	Rincullia	Burnt mound, six roasting pits and connecting trackway (AH 12).
EX 5	2002:1093	02E0873	Ballyellinan	Isolated pit (AH 16).
EX 6	2002:0085	02E0748	Ballycullen	<i>Fulacht fia</i> (AH 17).
EX 7	2003:1130	03E1663	Askeaton	Testing was carried out in the northern part of Deel Manor estate in Askeaton. Nothing of archaeological significance was identified.
EX 17	1999:508	99E0423	Kilgobbin	Three undated and severely truncated pits (AH 66).
EX 18	1999:505	99E0307	Ballycarrane	Two <i>fulachtaí fia</i> (AH 71)
EX 19	1998:399 1999:504 2008:776	97E0230ext 08E0174	Gorteen	A portion of a medieval moated site was excavated. Corn drying kiln. Central part of medieval moated site, including pits, post-holes, possible structure and two kilns (AH 72).
EX 20	1999:481	99E0324	Ballybronoge South	Ring ditch with 14 deposits of cremated bone (AH 75).
EX 21	2008:763	08E0171	Ballybronoge South	Hearth (AH 77).
EX 22	1999:479	99E0171	Attyflin	<i>Fulacht fia</i> with a trough, pits and possible windbreak (AH 76).

1.5.5.2 Topographical Files

A review of the topographical files held by the National Museum of Ireland has produced a number of recorded from in or within the vicinity of the route option corridor. These are summarised in Table 1.31 with more detail given in Appendix 1.4:

Table 1.32: Route Option 4: NMI Topographical Files

NMI No	Townland	Classification	Location (if recorded)
1985:83	Shanbally	Stone axe head	Not given
IA/12/64	Robertstown	Burials (AH 6)	AH 6
1995:46	Moig South	Bronze binding strip	Not given
1961:275-8	Cloonreask	Bronze chisel, 3 Glazed Potsherds (possibly Roman)	Not given
1995:47-66	Cloonreask	Bronze Ring, 7 Musket Balls, 12	Not given

NMI No	Townland	Classification	Location (if recorded)
		Copper Coins	
IA/23/83	Ballyhomin	Polished Stone Axe	Not given
1995:45	Askeaton	Lead plump	Not given
1968:261	Askeaton	Bronze Spearhead	Not given
C 17:17/18	Askeaton	Horn Spoon	Not given
In private possession	Askeaton	Medieval wooden beam	Not given
WK.25	Askeaton	Iron sword	River near Askeaton
2012:232	Rower More	'Bully Beef' Tin Opener	Not given
Not given	Kyleavarraga	Bronze Javelin Head	Kyleavarraga River
IA/416/47	Curraghbridge/ Tuogh	Spearhead	River Coillavaragh

1.5.5.3 Archaeological Heritage

A detailed analysis of Route Corridor Option 4 has led to the identification of the following AH sites and a potential impact assessment has been made. Please note that detailed information relating to these sites is included in Appendix 1.4.

Table 1.33: Route Corridor Option 4: Archaeological Heritage Sites

AH No.	RMP/ SMR No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AH 1	LI010-012	Ringfort	72m west	875	Yes	Indirect	Slight negative
AH 2	LI010-106	Mill	191m east	1250	Yes	Indirect	Imperceptible negative
AH 121 (BH 41)	LI010-069 001/2	Church & graveyard	277m ENE	1400	Yes	Indirect	Imperceptible negative
AH 3	LI010-068	Ringfort	79m NE	1600	Yes	Indirect	Imperceptible negative
AH 4	LI010-144	Enclosure	149m NE	1750	Yes	Indirect	Slight negative
AH 5	LI010-070	Ringfort	90m south	2250	Yes	Indirect	Slight negative
AH 6	LI010-071	Burial ground	80m north	2400	No	No impact	N/a
AH 7 (EX 3)	LI010-140	Isolated pit and stakes	96m south	2900	No	No impact	N/a
AH 8	LI010-074	Enclosure	0m	3000	Yes	Direct	Significant negative
AH 9	LI010-081	Ringfort	67m SW	3700	Yes	Indirect	Slight negative
AH 10	LI010-087	Enclosure	102m SSW	4200	Yes	Indirect	Slight negative
AH 11	LI010-073	Ringfort	147m north	2800	Yes	Indirect	Slight negative
AH 12 (EX 4)	LI010-141001-3	Burnt mound, pit, road	98m north	3220	No	No impact	N/a
AH 13	LI010-099	Ringfort	105m NNW	5650	Yes	Indirect	Slight negative
AH 14	LI010-098	Ringfort	106m south	5500	Yes	Indirect	Slight negative
AH 15	LI010-097	Ringfort	198m south	5500	Yes	Indirect	Imperceptible negative
AH 16 (EX 5)	LI010-134	Pit	181m north	6100	No	No impact	N/a
AH 17 (EX 6)	LI010-149	<i>Fulacht fia</i>	63m SE	6750	No	No impact	N/a
AH 18 (BH 7d)	LI011-092006-14	Franciscan Abbey, tombs, grave slabs, cross	0m	9250	Yes	Direct	Significant negative

AH No.	RMP/ SMR No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AH 19	LI011-042	Ringfort	47m SSE	11000	Yes	Indirect	Moderate negative
AH 20	LI011-045	Ringfort	151m south	11800	Yes	Indirect	Imperceptible negative
AH 21	LI011-050	Ringfort	131m NNE	12400	Yes	Indirect	Slight negative
AH 22	LI011-053	Ringfort	189m NE	12750	Yes	Indirect	Imperceptible negative
AH 23	LI011-058	Enclosure	0m	13700	Yes	Direct	Significant negative
AH 24	LI011-062	Ringfort	154m NW	15000	Yes	Indirect	Imperceptible negative
AH 25	LI011-064	Ringfort	160m north	15200	Yes	Indirect	Imperceptible negative
AH 47	LI011-109	Ringfort	200m SW	950	Yes	Indirect	Imperceptible negative
AH 48	LI011-113	Cashel	172m east	1900	Yes	Indirect	Imperceptible negative
AH 49	LI020-036	Ringfort	41m west	2500	Yes	Indirect	Moderate negative
AH 50	LI020-037	Ringfort	57m NE	3850	Yes	Indirect	Moderate negative
AH 51	LI020-040	Enclosure	73m south	3950	Yes	Indirect	Moderate negative
AH 52	LI020-043	Ringfort	144m SSW	6500	Yes	Indirect	Slight negative
AH 53	LI021-004	Ringfort	50m SW	7600	Yes	Indirect	Moderate negative
AH 54	LI021-007	Graveyard	71m NNE	7950	Yes	Indirect	Moderate negative
AH 55	LI021-118	Enclosure	167m NNW	11800	Yes	Indirect	Slight negative
AH 56 (Also BH 35)	LI021-070	Tower house	199m west	0	Yes	Indirect	Slight negative
AH 57	LI021-149	Enclosure	63m south	12050	Yes	Indirect	Slight negative
AH 58	LI021-010	Enclosure	0m	12100	Yes	Direct	Significant negative
AH 59	LI021-173	<i>Fulacht fia</i>	31m NNW	12400	Yes	Indirect	Moderate negative
AH 60	LI021-143	Enclosure	37m NNW	12400	Yes	Indirect	Moderate negative
AH 61	LI021-144	Enclosure	0m	12600	Yes	Direct	Significant negative
AH 62	LI021-011001/2	Two enclosures	0m	13000	Yes	Direct	Profound negative
AH 63	LI021-145	Enclosure	0m	13150	Yes	Direct	Significant negative
AH 64	LI021-146	Enclosure	0m	13450	Yes	Direct	Profound negative
AH 65	LI021-147001/2	Two enclosures	0m	13600	Yes	Direct	Profound negative
AH 66 (EX 17)	LI021-179	Group of pits	38m south	14050	No	No impact	N/a
AH 67	LI021-148	Enclosure	0m	14400	Yes	Direct	Moderate negative

AH No.	RMP/ SMR No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AH 68	LI021-014	Enclosure	126m north	14400	Yes	Neutral	N/a
AH 69	LI021-015	Enclosure	59m south	14600	Yes	Neutral	N/a
AH 70	LI021-121	Enclosure	164m south	15200	Yes	Neutral	N/a
AH 71 (EX 18)	LI021-181001/2	Two <i>fulachtaí fia</i>	0m	15450	Yes	Neutral	N/a
AH 72 (EX 19)	LI021-017, 187, 180	Moated site, kilns	0m	15750	Yes	Direct	Significant negative
AH 73	LI021-118	Enclosure	200m NW	16200	Yes	Neutral	N/a
AH 74	LI021-121	Enclosure	200m NW	16600	Yes	Neutral	N/a
AH 75 (EX 20)	LI021-167	Ring ditch	0m	17000	No	No impact	N/a
AH 76 (EX 22)	LI021-177	<i>Fulacht fia</i>	156m east	17200	No	No impact	N/a
AH 77 (EX 21)	LI021-185	Hearth	55m SE	17100	No	No impact	N/a
AH 78	LI021-027	Enclosure	250m east	17200	Yes	Neutral	N/a

1.5.5.4 Built Heritage

A detailed analysis of Route Corridor Option 4 has led to the identification of the following BH sites and a potential impact assessment has been made. The sites consist of a mixture of protected structures and NIAH structures. Please note that detailed information relating to these sites is included in Appendix 1.4.

Architectural Conservation Areas (ACAs) as designated within the relevant development plans have been included within this section.

Table 1.34: Route Corridor Option 4: Built Heritage Sites

BH No.	RPS/ NIAH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
BH 1	18	Vernacular farm house	194m WSW	1000	Yes	Indirect	Imperceptible negative
BH 41 (AH 121)	667	Church & graveyard	277m ENE	1400	Yes	Indirect	Imperceptible negative
BH 42	21901006	House	266m south	2200	No	Indirect	Imperceptible negative
BH 2	668/ 21901005	Church	99m NE	1750	Yes	Indirect	Slight negative
BH 3	75	Concrete pill box	26m north	5450	Yes	Indirect	Moderate negative
BH 43	(Direct link to 73, 74, 75)	Concrete pill box	169m NNW	5500	Yes	Indirect	Moderate negative
BH 4	74	Concrete pill box	66m south	5800	Yes	Indirect	Moderate negative
BH 5	73	Concrete pill box	0m	6200	Yes	Direct	Profound negative
BH 6	916 21826001	St. Mary's Church	138m SE	8650	Yes	Indirect	Imperceptible negative
ACA	Askeaton (Franciscan Friary)		0m	9250	Yes	Direct	Significant negative
BH 7a	909	Thatched	80m SSE	9150	Yes	Indirect	Slight negative

BH No.	RPS/ NIAH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
	21826007	cottage					
BH 7b	910 21826008	Thatched cottage	113m SSE	9150	Yes	Indirect	Slight negative
BH 7c	911	Water pump	108m SSE	9050	Yes	Indirect	Imperceptible negative
BH 7d (Also AH 18)	912 913 914	Franciscan Abbey, Boundary wall, Former RC Church	0m	9250	Yes	Direct	Significant negative
BH 7e	915, 916 21826014	Askeaton Mill & sluice	83m SSE	9300	Yes	Indirect	Slight negative
BH 7f	917 21826015	Former nursing home	141m SSE	9250	Yes	Neutral	N/a
BH 8	608	Concrete pill box	100m NNW	9350	Yes	Indirect	Slight negative
BH 9	907	Concrete pill box	132m NNW	9500	Yes	Indirect	Slight negative
BH 10	906	Concrete pill box	85m north	9650	Yes	Indirect	Slight negative
BH 44	88	Thatched house	247m north	12250	Yes	Indirect	Imperceptible negative
BH 11	89/ 21901107	Stables	189m SW	12800	Yes	Indirect	Imperceptible negative
BH 34	303/ 21902018	Demesne walls/ gates/ railings	194m east	2500	Yes	Indirect	Imperceptible negative
BH 35	390	Tower house (Also AH 56)	199m west	0	Yes	Indirect	Slight negative
BH 30	810 21902113	Limerick Lodge	220m SSE	13250	Yes	Indirect	Slight positive
BH 50	811	Adare Manor demesne walls	215m SSE	12670-13250	Yes	Indirect	Slight positive
BH 31	21902114	Fort Union House gate lodge	196m SSE	13750	No	Indirect	Slight positive
BH 32	21902121	House	187m north	14650	No	Neutral	N/a
BH 33	21902120	House	136m north	15000	No	Neutral	N/a
BH 40	113	Former Methodist Church	121m north	14980	Yes	Neutral	N/a
ACA	Adare Manor demesne		186m SSE	12670-13250	Yes	Indirect	Slight positive

1.5.5.5 Designed Landscapes

A detailed analysis of the historical OS mapping of Route Corridor Option 4 has led to the identification of the following DL sites and a potential impact assessment has been made. The landscapes have been cross referenced with the NIAH garden survey. Please note that detailed information relating to these sites is included in Appendix 1.4.

Table 1.35: Route Corridor Option 4: Designed Landscapes

DL No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
DL 1	Ballyclogh House demesne	132m south	5200-6500	House in RPS	Indirect	Imperceptible negative
DL 2	Currahchase House & Demesne	178m east & 143m north	2200 & 4650	House in RPS	Indirect	Imperceptible negative
DL 20	Tuogh Cottage demesne	0m	6800	No	Direct	Significant negative
DL 21	Clonshire Lodge demesne	77m west	400-1000	House in RPS	Indirect	Slight negative
DL 22	Adare Manor Deerpark	182m SE	2000	No	Indirect	Imperceptible negative
DL 15	Curraghbridge House demesne	0m	11000-11250	House in RPS	Direct	Slight negative
DL 16	Adare Manor demesne	215m SSE	12670-13250	Yes	Indirect	Slight positive
DL 17	Ballycarrane House demesne	0m	15350-15500	No	Direct	Slight negative
DL 18	Ballybronoge South (unnamed)	0m	16500-17000	No	Neutral	N/a

1.5.5.6 Cultural Heritage Sites

A detailed analysis of the historic cartographic resource and aerial photographic coverage of Route Corridor Option 4, along with drive-over inspections and public consultations, has led to the identification of the following previously unrecorded cultural heritage sites. These include sites of built heritage and archaeological potential and a potential impact assessment has been made.

Table 1.36: Route Corridor Option 4: Cultural Heritage Sites

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 1	Vernacular buildings	45m NE	700	No	Indirect	Moderate negative
CH 2	Vernacular buildings	167m east	1000	No	Indirect	Slight negative
CH 3	Vernacular buildings	143m ENE	1250	No	Indirect	Slight negative
CH 4	Relic field system	0m	500-1100	No	Direct	Moderate negative
CH 5	Relic field system	0m	1650-1800	No	Direct	Significant negative
CH 43	Possible large scale circular enclosure	0m	2550	No	Direct	Significant negative
CH 171	Vernacular buildings	142m north	2990	No	Indirect	Slight negative
CH 6	Large circular enclosure	52m south	3200	No	Indirect	Moderate negative
CH 7	Relic field system (containing CH 6)	0m	2850-3400	No	Direct	Moderate negative
CH 172	Vernacular buildings	200m NNE	3980	No	Indirect	Imperceptible negative
CH 173	Vernacular building	50m north	4400	No	Indirect	Moderate negative
CH 8	Site of vernacular buildings	85m south	4550	No	Indirect	Slight negative
CH 9	Possible circular enclosure	0m	4650	No	Direct	Significant negative
CH 10	Possible circular enclosure	154m south	5200	No	Indirect	Slight negative

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 11	Vernacular buildings, in ruins	123m south	5850	No	Indirect	Slight negative
CH 12	Possible circular enclosure	113m south	6250	No	Indirect	Slight negative
CH 13	Possible circular enclosure & site of vernacular buildings	141m SSE	6350	No	Indirect	Slight negative
CH 14	Vernacular building, in ruins	0m	6850	No	Direct	Significant negative
CH 15	Site of vernacular buildings	0m	7100	No	Direct	Significant negative
CH 16	Railway	0m	7700	No	Direct	Moderate negative
CH 17	Clooreask House	127m NW	7850	No	Indirect	Slight negative
CH 18	Vernacular building, derelict	37m NW	8550	No	Indirect	Slight negative
CH 166	Concrete pill box	173m NNW	9000	No	Indirect	Imperceptible negative
CH 165	Lighthouse Keepers Cottages	0m	9200	No	Direct	Significant negative
CH 19	Vernacular building, in ruins	200m NNW	9500	No	Indirect	Imperceptible negative
CH 20	Vernacular building, in ruins	0m	9500	No	Direct	Significant negative
CH 21	Vernacular buildings, in ruins	0m	10800	No	Direct	Significant negative
CH 22	Vernacular buildings, in ruins	106m NNW	10950	No	Indirect	Slight negative
CH 23	Site of lime kiln	0m	11500	No	Direct	Significant negative
CH 24	Vernacular buildings, derelict	21m NNW	11800	No	Indirect	Moderate negative
CH 25	Vernacular buildings, in ruin	137m SW	12250	No	Indirect	Slight negative
CH 26	Possible circular enclosure	86m north	13750	No	Indirect	Slight negative
CH 27	Limekiln, derelict	0m	13850	No	Direct	Significant negative
CH 28	Circular mound	0m	14950	No	Direct	Significant negative
CH 29	19th century house	22m SE	15010	No	Indirect	Moderate negative
CH 49	Vernacular building, in ruins	181m west	350	No	Indirect	Slight negative
CH 65	Vernacular building	19m east	500	No	Indirect	Moderate negative
CH 66	Site of vernacular buildings	0m	950	No	Direct	Significant negative
CH 67	Vernacular buildings, in ruins	0m	1350	No	Direct	Significant negative
CH 68	Vernacular buildings	0m	1550	No	Direct	Significant negative
CH 185	Vernacular buildings	46m east	1600	No	Indirect	Moderate negative
CH 69	Vernacular buildings	26m east	2750	No	Indirect	Moderate negative
CH 70	Site of vernacular buildings	0m	2850	No	Direct	Significant negative
CH 71	Site of vernacular buildings	0m	3800	No	Direct	Significant negative
CH 72	Vernacular buildings	78m north	3950	No	Indirect	Moderate negative

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
CH 73	Site of vernacular buildings	0m	4000	No	Direct	Significant negative
CH 74	Site of vernacular building	0m	4400	No	Direct	Significant negative
CH 75	Vernacular buildings	172m south	5300	No	Indirect	Slight negative
CH 76	Vernacular buildings	200m SSW	5550	No	Indirect	Slight negative
CH 77	Currahchase demesne entrance	176m NNE	5450	No	Indirect	Slight negative
CH 78	Tuogh Cottage	78m NNE	6750	No	Indirect	Moderate negative
CH 148	Circular enclosure	0m	6750	No	Direct	Profound negative
CH 149	Circular enclosure	0m	6900	No	Direct	Profound negative
CH 79	Vernacular buildings, in ruins	108m SSW	6900	No	Indirect	Slight negative
CH 80	Vernacular buildings	13m SSW	7800	No	Indirect	Significant negative
CH 81	Possible large oval enclosure	79m north	8350	No	Indirect	Slight negative
CH 82	Site of vernacular buildings	0m	11000	No	Direct	Significant negative
CH 83	Site of quay	0m	11750	No	Direct	Significant negative
CH 84	Vernacular building	24m SSE	11450	No	Indirect	Moderate negative
CH 182	Railway Cottage	47m SE	11850	No	Indirect	Moderate negative
CH 85	Site of limekiln	0m	12000	No	Direct	Significant negative
CH 86	Level crossing	51m south	12000	No	Indirect	Moderate negative
CH 183	Vernacular building, in ruins	125m SSE	12100	No	Indirect	Slight negative
CH 16	Railway	0m	12150	No	Direct	Moderate negative
CH 87	Vernacular building	40m north	13800	No	Indirect	Moderate negative
CH 88	Level crossing & cottage	60m north	13850	No	Indirect	Slight negative
CH 89	House & outbuildings	124m south	13200	No	Indirect	Slight negative
CH 90	Site of circular enclosure	29m north	14000	No	Indirect	Slight negative
CH 91	Rose Cottage	200m south	14650	No	Neutral	N/a
CH 92	Vernacular building	15m south	14850	No	Neutral	N/a
CH 93	Vernacular buildings	105m north	15000	No	Neutral	N/a
CH 94	Ballycarrane House & outbuildings	70m north	15650	No	Neutral	N/a
CH 95	Site of railway	0m	16000	No	Neutral	N/a
CH 96	Gate lodge	161m SE	1700	No	Neutral	N/a
CH 97	Vernacular buildings	54m WNW	2500	No	Indirect	Moderate negative
CH 98	Vernacular buildings	0m	2400	No	Direct	Significant negative
CH 16	Railway	0m	2000	No	Direct	Moderate negative
CH 99	Level crossing	122m SE	2200	No	Indirect	Slight negative
CH 100	Vernacular building	200m SE	2150	No	Indirect	Slight negative
CH 101	Level crossing & cottage	36m NW	1950	No	Indirect	Moderate negative
CH 102	Rower House	188m ESE	1550	No	Indirect	Slight negative
CH 103	Vernacular buildings	202m WNW	1500	No	Indirect	Slight negative
CH 104	Site of vernacular building	0m	1800	No	Direct	Significant negative
CH 105	Vernacular buildings	41m west	400	No	Indirect	Moderate negative
CH 106	Site of vernacular	0m	400	No	Direct	Significant negative

CH No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
	building					

1.5.5.7 Areas of Archaeological Potential

A detailed analysis of the historic cartographic resource and aerial photographic coverage of Route Corridor Option 4, along with drive-over inspections, has led to the identification of the following areas of archaeological potential. Where a watercourse follows a townland boundary the relevant acknowledgement is made.

Table 1.37: Route Corridor Option 4: Areas of Archaeological Potential

AAP No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
AAP 1	Stream (Also TB 1)	0m	150	No	Direct	Moderate negative
AAP 2	Stream (Also TB 2)	0m	1100	No	Direct	Moderate negative
AAP 3	Streams	0m	1400	No	Direct	Moderate negative
AAP 4	Stream	0m	1650	No	Direct	Moderate negative
AAP 6	Ahacronane River (Also TB 6)	0m	3600	No	Direct	Significant/ Moderate negative
AAP 7	Wetland area & stream	0m	5750-6200	No	Direct	Significant/ Moderate negative
AAP 8	Stream (Also TB 9)	0m	6200-6500	No	Direct	Moderate negative
AAP 9	Stream (Also TB 10)	0m	6750	No	Direct	Moderate negative
AAP 10	Stream	0m	7400	No	Direct	Moderate negative
AAP 11	Stream	0m	8000	No	Direct	Moderate negative
AAP 12	River Deel (Also TB 15)	0m	9200	No	Direct	Moderate negative
AAP 13	Stream (Also TB 16)	0m	9750	No	Direct	Moderate negative
AAP 14	Stream (Also TB 18)	0m	10450	No	Direct	Moderate negative
AAP 15	Wetland area, containing 'Blue Lough'	0m	11250-11550	No	Direct	Significant/ Moderate negative
AAP 16	Stream (Also TB 19)	0m	11750	No	Direct	Moderate negative
AAP 17	Stream (Also TB 21)	0m	13800	No	Direct	Moderate negative
AAP 33	Stream (Also TB 51)	0m	4050	No	Direct	Moderate negative
AAP 34	Wetland (Also TB 54)	0m	6050-6680	No	Direct	Significant/ Moderate negative
AAP 35	River Greananagh & wetlands (canalised) (Also TB 56)	0m	8430-9100	No	Direct	Significant/ Moderate negative
AAP 27	River Maigue & margins (Also TB 60)	0m	11850-12200	No	Direct	Significant negative
AAP 36	Stream	0m	13050-13450	No	Direct	Moderate negative
AAP 37	Stream (Also TB 65)	0m	15200	No	Direct	Slight Negative
AAP 38	Stream (Also TB 71)	0m	860	No	Direct	Moderate negative

1.5.5.8 Townland Boundaries

A detailed analysis of the historic cartographic resource of Route Corridor Option 4, has led to the identification of the following townland boundary crossings. Where a townland boundary follows a watercourse the relevant acknowledgement is made.

Table 1.38: Route Corridor Option 4: Townland Boundaries

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 1	Townland & parish boundary (Corrig/ Ardaneer) (Also AAP 1)	0m	150	No	Direct	Moderate negative
TB 2	Townland & parish boundary (Ardaneer/ Sroolane/ Sroolane North) (Also AAP 2)	0m	1100	No	Direct	Moderate negative
TB 3	Townland boundary (Sroolane North/ Robertstown)	0m	1400	No	Direct	Moderate negative
TB 4	Townland boundary (Robertstown/ Rincullia)	0m	2650	No	Direct	Moderate negative
TB 5	Site of parish boundary (Craggs (Robertstown P.)/ Craggs (Kilmoylan P.))	0m	4000	No	Direct	Moderate negative
TB 6	Townland boundary (Rincullia/ Craggs) (Also AAP 6)	0m	3600	No	Direct	Moderate negative
TB 7	Townland boundary (Craggs/ Mulderricksfield)	0m	4500	No	Direct	Moderate negative
TB 8	Townland & parish boundary (Mulderricksfield/ Ballyclogh)	0m	5750	No	Direct	Moderate negative
TB 9	Townland boundary (Ballyclogh/ Ballyellinan) also AAP 8)	0m	6200-6500	No	Direct	Moderate negative
TB 10	Townland boundary (Ballyellinan/ Ballycullen) also AAP 9)	0m	6750	No	Direct	Moderate negative
TB 11	Townland boundary (Ballycullen/ Cloonreask)	0m	7450	No	Direct	Moderate negative
TB 12	Site of former townland & parish boundary between Cloonreask (Tomdeely P.) & Cloonreask (Askeaton P.)	0m	7650	No	Direct	Moderate negative
TB 13	Site of former townland & parish boundary between Cloonreask (Tomdeely P.) & Cloonreask (Askeaton P.) (Also AAP 11)	0m	8000	No	Direct	Moderate negative
TB 14	Townland boundary (Cloonreask/ Coorahnee)	0m	8500-9000	No	Direct	Slight negative
TB 15	Townland boundary (Coolrahee/ Moig South) (Also AAP 12)	0m	9200	No	Direct	Slight negative
TB 16	Townland boundary (Moig South/ Askeaton) (Also AAP 13)	0m	9750	No	Direct	Moderate negative
TB 17	Townland boundary (Askeaton/ Cragmore)	0m	10400	No	Direct	Moderate negative
TB 18	Townland boundary (Cragmore/ Ballyhomin) (Also AAP 14)	0m	10450	No	Direct	Moderate negative
TB 19	Townland boundary (Ballyhomin/ Ballyengland)	0m	11750	No	Direct	Moderate negative

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
	Lower) (Also AAP 16)					
TB 20	Townland & parish boundary Ballyengland Lower/ Deegerty)	0m	13250	No	Direct	Moderate negative
TB 21	Former townland boundary (Deegerty/ Ballyvogue) (Also AAP 17)	0m	13800	No	Direct	Moderate negative
TB 22	Townland boundary (Deegerty/ Ballyvogue)	0m	13850	No	Direct	Moderate negative
TB 23	Former townland boundary (Ballyvogue/ Killeen)	0m	14550-14800	No	Direct	Moderate negative
TB 24	Townland boundary (Killeen/ Ballyvogue)	0m	15000	No	Direct	Moderate negative
TB 49	Townland boundary (Ballyvogue/ Shanbally)	0m	160	No	Direct	Moderate negative
TB 50	Townland boundary (Shanbally/ Tinnacullia/ Ballynamona)	0m	1030	No	Direct	Moderate negative
TB 51	Townland & parish boundary (Ballynamona/ Lurruga/ Lisnamuck)	0m	4050	No	Direct	Moderate negative
TB 52	Townland boundary (Lisnamuck/ Ballynagool)	0m	5065	No	Direct	Moderate negative
TB 53	Townland & parish boundary (Ballynagool/ Kyleavarraga South)	0m	5555	No	Direct	Moderate negative
TB 54	Townland boundary (Kyleavarraga South/ Kilgrogan)	0m	6175	No	Direct	Moderate negative
TB 55	Townland boundary (Kilgrogan/ Tuogh)	0m	6860	No	Direct	Moderate negative
TB 56	Townland boundary (Tuogh/ Kilknockan) (in AAP 35)	0m	10000	No	Direct	Moderate negative
TB 57	Townland boundary (Kilknockan/ Curraghbeg)	0m	10850	No	Direct	Moderate negative
TB 58	Townland boundary (Curraghbeg/ Curraghbridge)	0m	11000-11200	No	Direct	Moderate negative
TB 59	Townland & parish boundary (Curraghbeg/ Islandea)	0m	11200	No	Direct	Moderate negative
TB 60	Townland boundary (Islandea/ Ardshanbally) (Also AAP 27)	0m	11600	No	Direct	Moderate negative
TB 61	Townland boundary (Ardshanbally/ Gortaganniff/ Mondellihy)	0m	12700	No	Direct	Moderate negative
TB 62	Townland boundary (Mondellihy/ Kilgobbin)	0m	13850	No	Direct	Moderate negative
TB 63	Townland boundary (Kilgobbin/ Rineroe)	0m	14500	No	Direct	Slight negative
TB 64	Townland boundary (Rineroe/ Monearla)	0m	14850	No	Direct	Slight negative
TB 65	Townland & parish boundary (Monearla/ Ballyloughnaan/ Ballycarrane) (Also AAP 37)	0m	15200	No	Direct	Slight negative
TB 66	Townland boundary (Ballycarrane/ Gorteen)	0m	15700	No	Direct	Slight negative

TB No.	Classification	Dist. From 80m band	Approx. chainage	Statutory protection	Impact Type	Impact level
TB 67	Townland boundary (Gorteen/ Ballycarrane)	0m	15950	No	Direct	Slight negative
TB 68	Townland boundary (Ballycarrane/ Ballybronoge South)	0m	16100	No	Direct	Slight negative
TB 69	Townland & parish boundary (Kilnockan/ Rower More)	0m	1850	No	Direct	Moderate negative
TB 70	Townland boundary (Rower More/ Rower Beg)	0m	1360	No	Direct	Moderate negative
TB 71	Townland & parish boundary (Rower Beg/ Clonshire Beg) (Also AAP 38)	0m	860	No	Direct	Moderate negative
TB 72	Townland boundary (Clonshire Beg/ Garraunboy)	0m	400	No	Direct	Moderate negative

1.6 Assessment Summary and Results

Table 1.39: Potential Impacts of Proposed Route Options

Impact Level:	Option 1 (Low Preference)	Option 2 (Intermediate preference)	Option 3 (Preferred Option)	Option 4 (Intermediate preference)
Profound Negative	BH 5 (Concrete pill box) CH 62 (Possible circular enclosure)	AH 62 (Two enclosures) AH 64 (Enclosure) AH 65 (Two enclosures) BH 5 (Concrete pill box)	AH 62 (Two enclosures) AH 64 (Enclosure) AH 65 (Two enclosures) AH 110 (Standing stone) BH 5 (Concrete pill box)	AH 62 (Two enclosures) AH 64 (Enclosure) AH 65 (Two enclosures) BH 5 (Concrete pill box) CH 148 (Circular enclosure) CH 149 (Circular enclosure)
Significant Negative	AH 8 (Enclosure) AH 18/ BH 7d (Franciscan Abbey, tombs, grave slabs, cross) AH 23 (Enclosure) AH 27 (Burial ground) AH 29 (Enclosure) AH 37 (Enclosure) AH 44 (Enclosure) BH 16 (Country House) BH 18 (Forge) Askeaton ACA (Franciscan Friary) DL 3 (Ballynolan House Demesne) DL 4 (Bolane House Demesne) DL 7 (Elm Park House Demesne)	AH 8 (Enclosure) AH 87 (Enclosure) AH 97 (Ringfort) AH 98 (Ringfort) AH 109 (Ringfort) AH 58 (Enclosure) AH 61 (Enclosure) AH 63 (Enclosure) AH 72 (Moated site, kilns) DL 8 (Ballycullen House Demesne) CH 5 (Relic field system) CH 43 (Possible large scale circular enclosure) CH 9 (Possible circular enclosure) CH 13 (Possible circular enclosure and site of vernacular buildings) CH 14 (Vernacular building, in ruins) CH 15 (Site of vernacular buildings) CH 108 (Entrance to Ballycullen	AH 8 (Enclosure) AH 87 (Enclosure) AH 58 (Enclosure) AH 61 (Enclosure) AH 63 (Enclosure) AH 72 (Moated site, kilns) DL 8 (Ballycullen House Demesne) CH 5 (Relic field system) CH 43 (Possible large scale circular enclosure) CH 9 (Possible circular enclosure) CH 13 (Possible circular enclosure and site of vernacular buildings) CH 14 (Vernacular building, in ruins) CH 15 (Site of vernacular buildings) CH 108 (Entrance to Ballycullen House) CH 109 (Site of vernacular building) CH 112 (Vernacular buildings and limekiln) CH 115 (Level crossing)	AH 8 (Enclosure) AH 18/ BH 7d (Franciscan Abbey, tombs, grave slabs, cross) AH 23 (Enclosure) AH 58 (Enclosure) AH 61 (Enclosure) AH 63 (Enclosure) AH 72 (Moated site, kilns) Askeaton ACA (Franciscan Friary) DL 20 (Tuogh Cottage demesne) CH 5 (Relic field system) CH 43 (Possible large scale circular enclosure) CH 9 (Possible circular enclosure) CH 14 (Vernacular building, in ruins) CH 165 (Lighthouse Keepers Cottages) CH 15 (Site of vernacular buildings)

Impact Level:	Option 1 (Low Preference)	Option 2 (Intermediate preference)	Option 3 (Preferred Option)	Option 4 (Intermediate preference)
	CH 5 (Relic field system) CH 43 (Possible large scale circular enclosure) CH 9 (Possible circular enclosure) CH 14 (Vernacular building, in ruins) CH 165 (Lighthouse Keepers Cottages) CH 15 (Site of vernacular buildings) CH 20 (Vernacular building, in ruins) CH 21 (Vernacular building, in ruins) CH 23 (Site of lime kiln) CH 27 (Limekiln, derelict) CH 28 (Circular mound) CH 31 (Circular mound) CH 35 (Site of vernacular building) CH 39 (Site of vernacular buildings) CH 41 (Site of limekiln) CH 44 (Site of vernacular buildings) CH 45 (Site of vernacular buildings) CH 55 (Possible circular enclosure) CH 56 (Relic field system) CH 60 (Vernacular buildings)	House) CH 109 (Site of vernacular building) CH 112 (Vernacular buildings and limekiln) CH 115 (Level crossing) CH 117 (Former School house) CH 118 (Vernacular buildings, in ruins) CH 124 (Railway bridge) CH 126 (Site of vernacular building) CH 130 (Vernacular buildings) CH 135 (Vernacular buildings) CH 137 (Vernacular building, in ruins) CH 138 (Site of vernacular buildings) CH 140 (Gortnagrour House) CH 142 (Vernacular building, in ruins) CH 143 (Site of vernacular buildings) CH 146 (Site of vernacular building) CH 82 (Site of vernacular buildings) CH 83 (Site of quay) CH 85 (Site of limekiln) AAP 5 (River Deel) AAP 27 (River Maigue) AAP 41 (Stream) Significant/Moderate: AAP 6 (Ahacronane River) AAP 7 (Wetland area and stream) AAP 43 (Wetland)	CH 117 (Former School house) CH 118 (Vernacular buildings, in ruins) CH 153 (Vernacular building) CH 154 (Site of vernacular buildings) CH 157 (Site of limekiln) CH 160 (Clonshire Bridge) CH 163 (Railway bridge) CH 146 (Site of vernacular building) CH 82 (Site of vernacular buildings) CH 83 (Site of quay) CH 85 (Site of limekiln) AAP 27 (River Maigue and margins) AAP 5 (River Deel and margins) AAP 41 (Stream) Significant/Moderate: AAP 6 (Ahacronane River) AAP 7 (Wetland area and stream) AAP 35 (River Greananagh) AAP 43 (Wetland) AAP 55 (Wetland)	CH 20 (Vernacular building, in ruins) CH 21 (Vernacular building, in ruins) CH 23 (Site of lime kiln) CH 27 (Limekiln, derelict) CH 28 (Circular mound) CH 66 (Site of vernacular buildings) CH 67 (Vernacular buildings, in ruins) CH 68 (Vernacular buildings) CH 70 (Site of vernacular buildings) CH 71 (Site of vernacular buildings) CH 73 (Site of vernacular buildings) CH 74 (Site of vernacular buildings) CH 80 (Vernacular buildings) CH 82 (Site of vernacular buildings) CH 83 (Site of quay) CH 85 (Site of limekiln) CH 98 (Vernacular buildings) CH 104 (Site of vernacular buildings) CH 106 (Site of vernacular buildings) AAP 27 (River Maigue and margins) Significant/Moderate: AAP 6 (Ahacronane River) AAP 7 Wetland area/ stream AAP 15 (Wetland area, containing 'Blue Lough') AAP 34 (Wetland) AAP 35 (River Greananagh)

Impact Level:	Option 1 (Low Preference)	Option 2 (Intermediate preference)	Option 3 (Preferred Option)	Option 4 (Intermediate preference)
	AAP 27 (River Maigue and margins) AAP 32 (Wetland) Significant/Moderate: AAP 6 (Ahacronane River) AAP 7 (Wetland area and stream) AAP 15 (Wetland area, containing 'Blue Lough') AAP 19 (Wetland area)	AAP 48 (Wetland and stream) AAP 50 (Wetland) AAP 51 (Wetland) AAP 35 (River Greananagh)		
Moderate Negative	AH 19 (Ringfort) AH 26 (Ringfort) AH 30 (Ringfort) AH 32 (Church and ecclesiastical site) AH 34 (Ringfort) AH 39 (Enclosure) AH 42 (Standing stone) AH 122 (Standing stone) BH 3 (Concrete pill box) BH 43 (Concrete pill box) BH 4 (Concrete pill box) BH 12 (School) DL 5 (Dromore Castle demesne) CH 1 (Vernacular buildings) CH 4 (Relic field system)	AH 89 (Ringfort) AH 104 (Church and graveyard) AH 107 (Cashel) AH 59 (<i>Fulacht fia</i>) AH 60 (Enclosure) AH 67 (Enclosure) BH 3 (Concrete pill box) BH 43 (Concrete pill box) BH 4 (Concrete pill box) BH 23 (Church, also AH 104) BH 24 (House) DL 14 (Hollywood House demesne) CH 1 (Vernacular buildings) CH 4 (Relic field system) CH 6 (Large circular enclosure) CH 7 (Relic field system) CH 173 (Vernacular building)	AH 89 (Ringfort) AH 59 (<i>Fulacht fia</i>) AH 60 (Enclosure) AH 109 (Ringfort) AH 119/ BH 39 (Castle) AH 124 (Clonshire Medieval Borough) AH 67 (Enclosure) BH 3 (Concrete pill box) BH 43 (Concrete pill box) BH 4 (Concrete pill box) BH 36 (Duneeven House) BH 38 (House) CH 1 (Vernacular buildings) CH 4 (Relic field system) CH 6 (Large circular enclosure) CH 7 (Relic field system) CH 173 (Vernacular building) CH 16 (Railway)	AH 19 (Ringfort) AH 49 (Ringfort) AH 50 (Ringfort) AH 51 (Enclosure) AH 53 (Ringfort) AH 54 (Graveyard) AH 59 (<i>Fulacht fia</i>) AH 60 (Enclosure) AH 67 (Enclosure) BH 3 (Concrete pill box) BH 43 (Concrete pill box) BH 4 (Concrete pill box) CH 1 (Vernacular buildings) CH 4 (Relic field system) CH 6 (Large circular enclosure) CH 7 (Relic field system) CH 173 (Vernacular building) CH 16 (Railway)

Impact Level:	Option 1 (Low Preference)	Option 2 (Intermediate preference)	Option 3 (Preferred Option)	Option 4 (Intermediate preference)
	CH 6 (Large circular enclosure) CH 7 (Relic field system) CH 173 (Vernacular building) CH 16 (Railway) CH 24 (Vernacular buildings, derelict) CH 29 (19th century house) CH 32 (Vernacular buildings) CH 33 (Possible circular enclosure) CH 34 (Vernacular buildings, in ruins) CH 167 (Former Creamery) CH 52 (Stables, gardens, outbuildings (Elm Park demesne)) CH 58 (Bridge) CH 59 (Vernacular buildings) CH 63 (Vernacular buildings) CH 64 (Vernacular buildings) 24 water courses & 1 area of high ground (AAPs) 46 townland boundaries	CH 16 (Railway) CH 114 (Limekiln, in ruins) CH 116 (Level crossing and cottage) CH 119 (Railway x2 crossings) CH 121 (Level crossing) CH 180 (Railway Cottage) CH 129 (Railway bridge) CH 132 (Railway bridge) CH 134 (Ballinacurra bridge) CH 139 (Vernacular building) CH 141 (Vernacular building) CH 144 (Site of mill race) CH 84 (Vernacular building) CH 182 (Railway Cottage) CH 86 (Level crossing) CH 87 (Vernacular building) 19 water courses (AAPs) 43 townland boundaries	CH 114 (Limekiln, in ruins) CH 116 (Level crossing and cottage) CH 119 (Railway x2 crossings) CH 184 (Early 20th century house) CH 145 (Vernacular buildings, in ruins) CH 84 (Vernacular building) CH 182 (Railway Cottage) CH 86 (Level crossing) CH 87 (Vernacular building) 17 water courses (AAPs) 41 townland boundaries	CH 24 (Vernacular buildings, derelict) CH 29 (19th century house) CH 65 (Vernacular building) CH 185 (Vernacular buildings) CH 69 (Vernacular buildings) CH 72 (Vernacular buildings) CH 78 (Tuogh Cottage) CH 84 (Vernacular building) CH 182 (Railway Cottage) CH 86 (Level crossing) CH 16 (Railway) CH 87 (Vernacular building) CH 97 (Vernacular buildings) CH 101 (Level crossing and cottage) CH 105 (Vernacular buildings) 16 water courses (AAPs) 40 townland boundaries
Slight Negative	AH 1 (Ringfort) AH 4 (Enclosure) AH 5 (Ringfort) AH 9 (Ringfort) AH 10 (Enclosure) AH 11 (Ringfort) AH 13 (Ringfort) AH 14 (Ringfort) AH 21 (Ringfort)	AH 1 (Ringfort) AH 4 (Enclosure) AH 5 (Ringfort) AH 9 (Ringfort) AH 10 (Enclosure) AH 11 (Ringfort) AH 13 (Ringfort) AH 14 (Ringfort) AH 79 (Castle)	AH 1 (Ringfort) AH 4 (Enclosure) AH 5 (Ringfort) AH 9 (Ringfort) AH 10 (Enclosure) AH 11 (Ringfort) AH 13 (Ringfort) AH 14 (Ringfort) AH 79 (Castle)	AH 1 (Ringfort) AH 4 (Enclosure) AH 5 (Ringfort) AH 9 (Ringfort) AH 10 (Enclosure) AH 11 (Ringfort) AH 13 (Ringfort) AH 14 (Ringfort) AH 21 (Ringfort)

Impact Level:	Option 1 (Low Preference)	Option 2 (Intermediate preference)	Option 3 (Preferred Option)	Option 4 (Intermediate preference)
	AH 25 (Ringfort) AH 36 (Castle) AH 40 (Cashel) AH 41 (Enclosure) BH 2 (Church) BH 7a/b (Thatched cottages) BH 7e (Askeaton Mill) BH 8 (Concrete pill box) BH 9 (Concrete pill box) BH 10 (Concrete pill box) BH 14 (Gate lodge) BH 15 (Church) BH 49 (Clarina Lodge) DL 6 (Court House demesne) CH 2 (Vernacular buildings) CH 3 (Vernacular buildings) CH 171 (Vernacular buildings) CH 8 (Site of vernacular buildings) CH 10 (Possible circular enclosure) CH 11 (Vernacular buildings, in ruins) CH 12 (Possible circular enclosure) CH 13 (Possible circular enclosure and site of vernacular buildings) CH 17 (Cloonreask House) CH 18 (Vernacular building, derelict)	AH 84 (Enclosure) AH 88 (Tower house, cashel, souterrain) AH 86 (Ringfort) AH 91 (Ringfort) AH 92 (Ringfort) AH 94 (Burial ground) AH 95 (Crannog) AH 99 (Ringfort) AH 105 (Ringfort) AH 106 (Ringfort) AH 108 (Mill) AH 55 (Enclosure) AH 57 (Enclosure) BH 2 (Church) BH 19 (Country House) BH 20 (House) BH 21 (Forge) BH 25 (Castle) BH 26 (Bridge) BH 27 (Bridge) BH 28 (House) BH 29 (Bridge) DL 1 (Ballyclogh House demesne) DL 10 (Wellmount House demesne) DL 12 (Stoneville demesne) DL 13 (Curragheen House demesne) DL 15 (Curraghbridge House demesne) DL 17 (Ballycarrane House	AH 84 (Enclosure) AH 88 (Tower house, cashel, souterrain) AH 86 (Ringfort) AH 91 (Ringfort) AH 92 (Ringfort) AH 112 (Ringfort) AH 113 (Enclosure) AH 115 (Ringfort) AH 116 (Ringfort) AH 117 (Ringfort) AH 120 (Ringfort) AH 55 (Enclosure) AH 57 (Enclosure) BH 2 (Church) BH 19 (Country House) BH 20 (House) BH 21 (Forge) BH 37 (Smithfield House) BH 26 (Bridge) BH 28 (House) BH 29 (Bridge) DL 1 (Ballyclogh House demesne) DL 10 (Wellmount House demesne) DL 12 (Stoneville demesne) DL 19 (Smithfield House demesne) DL 21 (Clonshire Lodge demesne) DL 15 (Curraghbridge House demesne) DL 17 (Ballycarrane House demesne) CH 2 (Vernacular buildings) CH 3 (Vernacular buildings)	AH 52 (Ringfort) AH 55 (Enclosure) AH 56/ BH 35 (Tower House) AH 57 (Enclosure) BH 2 (Church) BH 7a/b (Thatched cottages) BH 7e (Askeaton Mill) BH 8 (Concrete pill box) BH 9 (Concrete pill box) BH 10 (Concrete pill box) DL 21 (Clonshire Lodge demesne) DL 15 (Curraghbridge House demesne) DL 17 (Ballycarrane House demesne) CH 2 (Vernacular buildings) CH 3 (Vernacular buildings) CH 171 (Vernacular buildings) CH 8 (Site of vernacular buildings) CH 10 (Possible circular enclosure) CH 11 (Vernacular buildings, in ruins) CH 12 (Possible circular enclosure) CH 13 (Possible circular enclosure and site of vernacular buildings) CH 17 (Cloonreask House) CH 18 (Vernacular building, derelict) CH 22 (Vernacular buildings, in ruins) CH 25 (Vernacular buildings,

Impact Level:	Option 1 (Low Preference)	Option 2 (Intermediate preference)	Option 3 (Preferred Option)	Option 4 (Intermediate preference)
	CH 22 (Vernacular buildings, in ruins) CH 25 (Vernacular buildings, derelict) CH 26 (Limekiln, derelict) CH 30 (Group of vernacular buildings) CH 36 (Vernacular buildings, in ruins) CH 177 (Vernacular buildings) CH 37 (Ballynolan House) CH 38 (Limekiln, in ruins) CH 42 (Vernacular building) CH 46 (Circular enclosure) CH 168 (Vernacular building) CH 47 (Vernacular buildings) CH 48 (Island House) CH 50 (Meelick House) CH 53 (Ruins of Elm Park House) CH 54 (Bridge) CH 57 (Bridge) CH 178 (Possible stone circle) CH 170 (Vernacular building) CH 61 (Vernacular buildings) 2 townland boundaries	demesne) CH 2 (Vernacular buildings) CH 3 (Vernacular buildings) CH 171 (Vernacular buildings) CH 8 (Site of vernacular buildings) CH 10 (Possible circular enclosure) CH 11 (Vernacular buildings, in ruins) CH 12 (Possible circular enclosure) CH 176 (Vernacular cottage) CH 164 (House) CH 150 (Possible circular enclosure) CH 111 (Railway Bridge) CH 17 (Cloonreask House) CH 107 (Limekiln) CH 110 (Vernacular buildings) CH 113 (Vernacular building) CH 179 (Railway Bridge) CH 120 (Vernacular building) CH 122 (Vernacular building and limekiln, in ruins) CH 123 (Doohyle Bridge) CH 125 (Limekiln, in ruins) CH 127 (Vernacular building) CH 128 (Vernacular buildings) CH 131 (Vernacular buildings) CH 133 (Level crossing and cottage) CH 136 (Vernacular buildings) CH 145 (Vernacular buildings, in ruins) CH 147 (Vernacular buildings) CH 97 (Vernacular buildings) CH 183 (Vernacular building, in	CH 171 (Vernacular buildings) CH 8 (Site of vernacular buildings) CH 10 (Possible circular enclosure) CH 11 (Vernacular buildings, in ruins) CH 12 (Possible circular enclosure) CH 176 (Vernacular cottage) CH 164 (House) CH 150 (Possible circular enclosure) CH 111 (Railway Bridge) CH 17 (Cloonreask House) CH 107 (Limekiln) CH 110 (Vernacular buildings) CH 113 (Vernacular building) CH 179 (Railway Bridge) CH 122 (Vernacular building and limekiln, in ruins) CH 151 (Vernacular buildings, in ruins) CH 152 (Vernacular buildings) CH 156 (Vernacular buildings) CH 158 (Vernacular building) CH 161 (Vernacular buildings, in ruins) CH 162 Gate Lodge in ruins) CH 147 (Vernacular buildings) CH 97 (Vernacular buildings) CH 183 (Vernacular building, in ruins) CH 88 (Level crossing and cottage) CH 89 (House and outbuildings) CH 90 (Site of circular enclosure) AAP 56 (Stream) AAP 37 (Stream) 11 townland boundaries	derelict) CH 26 (Limekiln, derelict) CH 49 (Vernacular building, in ruins) CH 75 (Vernacular buildings) CH 76 (Vernacular buildings) CH 77 (Curraghchase demesne entrance) CH 79 (Vernacular buildings, in ruins) CH 81 (Possible large oval entrance) CH 183 (Vernacular building, in ruins) CH 88 (Level crossing and cottage) CH 89 (House and outbuildings) CH 90 (Site of circular enclosure) CH 99 (Level crossing) CH 100 (Vernacular building) CH 102 (Rower House) CH 103 (Vernacular buildings) AAP 37 (Stream) 8 townland boundaries

Impact Level:	Option 1 (Low Preference)	Option 2 (Intermediate preference)	Option 3 (Preferred Option)	Option 4 (Intermediate preference)
		ruins) CH 88 (Level crossing and cottage) CH 89 (House and outbuildings) CH 90 (Site of circular enclosure) AAP 37 (Stream) 6 townland boundaries		
Imperceptible Negative	AH 2 (Mill) AH 15 (Ringfort) AH 121/ BH 41 (Church & graveyard) AH 20 (Ringfort) AH 22 (Ringfort) AH 24 (Ringfort) AH 28 (Enclosure) AH 33 (Tower house) AH 38 (Enclosure) BH 1 (Vernacular farm house) BH 42 (House) BH 6 (Church) BH 7c (Water pump) BH 44 (Thatched house) BH 11 (Stables) BH 46 (Thatched house) DL 1 (Ballyclogh House demesne) CH 172 (Vernacular buildings) CH 166 (Pill Box) CH 19 (Vernacular buildings, in ruins)	AH 2 (Mill) AH 121/ BH 41 (Church & graveyard) AH 3 (Ringfort) AH 15 (Ringfort) AH 90 (Ringfort) AH 93 (Ringfort) AH 100 (Ringfort) AH 102 (Ringfort) AH 103 (Ringfort) BH 1 (Vernacular farm house) BH 42 (House) BH 22 (Gate lodge/ entrance) DL 11 (Nantinan House demesne) CH 172 (Vernacular buildings) CH 174 (Vernacular buildings) CH 175 (Vernacular buildings) CH 181 (Level crossing)	AH 2 (Mill) AH 121/ BH 41 (Church & graveyard) AH 15 (Ringfort) AH 90 (Ringfort) AH 93 (Ringfort) AH 95 (Crannog) AH 118 (Enclosure) BH 1 (Vernacular farm house) BH 42 (House) DL 11 (Nantinan House demesne) CH 172 (Vernacular buildings) CH 174 (Vernacular buildings) CH 175 (Vernacular buildings) CH 155 (Vernacular buildings) CH 159 (Smithfield Mill, in ruins)	AH 2 (Mill) AH 121/ BH 41 (Church & graveyard) AH 3 (Ringfort) AH 15 (Ringfort) AH 20 (Ringfort) AH 22 (Ringfort) AH 24 (Ringfort) AH 25 (Ringfort) AH 28 (Enclosure) AH 47 (Ringfort) AH 48 (Cashel) BH 1 (Vernacular farm house) BH 42 (House) BH 6 (Church) BH 7c (Water pump) BH 44 (Thatched house) BH 11 (Stables) BH 34 (Demesne walls/ gates/ railings) DL 1 (Ballyclogh House demesne) DL 2 (Currahchase House and demesne) DL 22 (Adare Manor Deerpark)

Impact Level:	Option 1 (Low Preference)	Option 2 (Intermediate preference)	Option 3 (Preferred Option)	Option 4 (Intermediate preference)
	CH 40 (Vernacular buildings)			CH 172 (Vernacular buildings) CH 166 (Pill Box) CH 19 (Vernacular buildings, in ruins)
Neutral	AH 31 (Ringfort) BH 7f (Former nursing home)	AH 68 (Enclosure) AH 69 (Enclosure) AH 70 (Enclosure) AH 71 (Two <i>fulachtaí fia</i>) AH 73 (Enclosure) AH 74 (Enclosure) AH 78 (Enclosure) BH 32 (House) BH 33 (House) BH 40 (Methodist Church, former) DL 18 (Ballybronoge South (unnamed)) CH 91 (Rose Cottage) CH 92 (Vernacular building) CH 93 (Vernacular buildings) CH 94 (Ballycarrane House and outbuildings) CH 95 (Site of railway) CH 96 (Gate Lodge)	AH 68 (Enclosure) AH 69 (Enclosure) AH 70 (Enclosure) AH 71 (Two <i>fulachtaí fia</i>) AH 73 (Enclosure) AH 74 (Enclosure) AH 96 (Standing stone) AH 78 (Enclosure) BH 32 (House) BH 33 (House) BH 40 (Methodist Church, former) DL 18 (Ballybronoge South (unnamed)) CH 91 (Rose Cottage) CH 92 (Vernacular building) CH 93 (Vernacular buildings) CH 94 (Ballycarrane House and outbuildings) CH 95 (Site of railway) CH 96 (Gate Lodge) CH 144 (Site of mill race)	AH 68 (Enclosure) AH 69 (Enclosure) AH 70 (Enclosure) AH 71 (Two <i>fulachtaí fia</i>) AH 73 (Enclosure) AH 74 (Enclosure) AH 78 (Enclosure) BH 7f (Former nursing home) BH 32 (House) BH 33 (House) BH 40 (Methodist Church, former) DL 18 (Ballybronoge South (unnamed)) CH 91 (Rose Cottage) CH 92 (Vernacular building) CH 93 (Vernacular building) CH 94 (Ballycarrane House and outbuildings) CH 95 (Site of railway) CH 96 (Gate lodge)
Positive	BH 13 (Demesne gates/ walls/ railings) BH 45 (Kilcornan School) BH 17 (School) BH 47 (Slattery's Pub)	BH 30 (Limerick Lodge) BH 50 (Adare Manor demesne walls) BH 31 (Fort Union House gate lodge)	BH 30 (Limerick Lodge) BH 50 (Adare Manor demesne walls) BH 31 (Fort Union House gate lodge) ACA & DL 16 (Adare Manor demesne)	BH 30 (Limerick Lodge) BH 50 (Adare Manor demesne walls) BH 31 (Fort Union House gate lodge)

Impact Level:	Option 1 (Low Preference)	Option 2 (Intermediate preference)	Option 3 (Preferred Option)	Option 4 (Intermediate preference)
	BH 48 (Thatched house) DL 2 Currahchase House and demesne CH 51 (Massey Bridge) CH 169 (Red Lodge)	ACA & DL 16 (Adare Manor demesne)		ACA & DL 16 (Adare Manor demesne)
No impact	AH 3 (Ringfort) AH 6 (Burial ground) AH 7 (Isolated pit and stakes) AH 12 (Burnt mound, pit, road) AH 16 (Pit) AH 17 (<i>Fulacht fia</i>) AH 35 (<i>Fulacht fia</i>) AH 43 (<i>Fulacht fia</i>) AH 45 (Bridge) AH 46 (Bridge)	AH 3 (Ringfort) AH 6 (Burial ground) AH 7 (Isolated pit and stakes) AH 12 (Burnt mound, pit, road) AH 16 (Pit) AH 17 (<i>Fulacht fia</i>) AH 80 (Redundant record) AH 81 (<i>Fulacht fia</i>) AH 82 (Pit) AH 83 (Pits & <i>fulacht fia</i>) AH 85 (<i>fulachtaí fia</i>) AH 101 (Burial) AH 66 (Group of pits) AH 75 (Ring ditch) AH 76 (<i>Fulacht fia</i>) AH 77 (Hearth)	AH 3 (Ringfort) AH 6 (Burial ground) AH 7 (Isolated pit and stakes) AH 12 (Burnt mound, pit, road) AH 16 (Pit) AH 17 (<i>Fulacht fia</i>) AH 80 (Redundant record) AH 81 (<i>Fulacht fia</i>) AH 82 (Pit) AH 83 (Pits & <i>fulacht fia</i>) AH 85 (<i>fulachtaí fia</i>) AH 123 (Redundant record) AH 111 (Redundant record) AH 114 (Redundant record) AH 66 (Group of pits) AH 75 (Ring ditch) AH 76 (<i>Fulacht fia</i>) AH 77 (Hearth)	AH 6 (Burial ground) AH 7 (Isolated pit and stakes) AH 12 (Burnt mound, pit, road) AH 16 (Pit) AH 17 (<i>Fulacht fia</i>) AH 66 (Group of pits) AH 75 (Ring ditch) AH 76 (<i>Fulacht fia</i>) AH 77 (Hearth)

Table 1.40: Summary of Potential Impacts of Proposed Route Corridor Options

Impacts	Option 1	Option 2	Option 3	Option 4
Profound negative	2	4	5	6
Significant negative (recorded sites)	10	9	6	8
Significant negative (previously unrecorded sites or structures)	20	25	21	25
Significant negative (demesne landscapes)	3	1	1	1
AAP's (significant or moderate negative)	31	29	25	22
Moderate negative	30	33	27	33
Moderate negative (townland boundaries)	46	43	41	40
Slight negative	56	69	79	59
Imperceptible negative	21	17	15	24
Neutral*	2	17	19	18
None*	10	16	18	9
Potentially positive	8	4	4	4
Archaeology, Built Heritage and Cultural Heritage Impact	Major Negative	Major Negative	Major Negative	Major Negative
Preference	Least Preferred	Intermediate preference	Preferred	Intermediate preference

* "Neutral" indicates no change to the receiving environment where the site feature continues to exist. "None" relates to a site where the feature has been removed, even though still mentioned on the record.

1.6.1 Route Corridor Option 1

As shown in the summary table (Table 1.38), this route will have a profound impact on a newly identified enclosure and a protected structure. The latter is subject to statutory protection under the Planning and Development Act. The enclosure (CH 62) has been identified within the aerial photographic resource and is likely to represent an early medieval ringfort that measures c. 32m by 26m. It should be noted that the protected structure (BH 5) will be impacted upon by all route options and consists of a concrete pill box.

A further seven significant direct impacts have been predicted on recorded archaeological sites. These consist of five recorded enclosures, which are likely to represent early medieval

ringforts and more significantly, a burial ground. It should be noted that the impact on AH 8 (enclosure) is common to all of the route options. There is also the potential for a significant impact on the National Monument at Askeaton (Franciscan Friary), although it is likely that the route would follow the footprint of the existing bypass at this location.

The Franciscan Friary is also further protected as an Architectural Conservation Area (ACA). Route Corridor Option 1 has the potential to have a significant impact on this designated area, although again, it is likely that the option would be online at this location, enabling direct impacts to be avoided.

The proposed route would have a significant indirect impact on two protected structures, consisting of Bolane House (BH 16) and a former forge (BH 18). Whilst the route will not physically impact on these structures, the proximity of the scheme would result in a significant negative impact on their setting.

In addition, three significant impacts on demesne landscapes have also been identified. DL 4 consists of Bolane House demesne. This landscape is directly associated with a protected structure (BH 16) and survives in good condition. DL 3 (Ballynolan House demesne) is associated with a principal structure that is not covered by any statutory protection. Again the demesne survives in good condition. DL 7 (Elm Park) has lost its principal structure, although numerous elements relating to the demesne survive within the landscape, including the main entrance and lodge and an extensive complex of gardens and outbuildings. The proposed route option would severely truncate this landscape.

Detailed assessment has shown that the proposed route would have a significant impact on 20 previously unrecorded sites of archaeological or built heritage significance. These include enclosures, as well as a number of vernacular heritage sites, relic field systems, two circular mounds and three limekilns. Of these, five are considered to be of particular significance. CH 5 is a relict field system visible on a Google Earth photograph (2010). It is possible that these relict boundaries, which are apparent as crop marks, are associated with a recorded enclosure to the north (AH 4). CH 43 is a large circular enclosure apparent as a partial earthwork on Bing Maps aerial photographs. The site measures c. 76m by c. 93m and it is possible that further enclosing elements are also present. CH 9 consists of a large circular enclosure visible as an anomaly within pasture (Goggle Earth 2010), which measures c. 67 by c. 63m. It should be noted that the predicted level of impact on these sites is shared by all four route options.

CH 55 and 56 are located in close proximity to one another and appear to represent an enclosure and associated relic field system within the Elmpark Demesne. These may be associated with recorded enclosure AH 37 and be representative of a large-scale early medieval landscape.

A total of 31 areas of archaeological potential (AAPs) have been identified where a significant or moderate impact could be predicted. Forty-six townland boundaries will be directly impacted upon by the route but the impact level has been defined as moderate.

A large number of potential moderate impacts have been identified as a result of the Option 1 assessment. This includes 12 recorded archaeological or built heritage sites and 17 previously unrecorded sites or structures. The route option would also have a direct moderate impact on the demesne associated with Dromore Castle, which is a protected structure.

Multiple indirect impacts have been identified during the course of the assessment including 56 slight negative impacts, 21 imperceptible negative impacts and two occurrences where the impact is deemed to be neutral. There are 10 sites within the receiving environment where no impact will occur. A number of positive impacts have been identified, two of which relate to Currahchase demesne and an associated entrance. In addition, positive impacts have been identified at two schools, a public house, a thatched house, a lodge and a bridge. These impacts are deemed to be potentially positive due to the movement of traffic away from the immediate environs of the heritage assets.

Whilst the total number of potential profound and significant negative impacts identified within the assessment is similar in scale to the other route options, the nature of the sites and landscapes to be impacted upon are more significant in character. Multiple impacts on potential early medieval enclosures have been identified but the route will also directly impact a recorded burial ground, which is more significant due to potential disturbance of human remains. In addition, several significant landscapes will be severely truncated by this route option. These include Elmpark Demesne, which is important in the context of a post-medieval designed landscape, but equally contains an extensive early medieval landscape. The route will also sever Bolane House, a protected structure, from its associated demesne. Based on the significance of the sites and landscapes to be impacted upon, this option would have a major negative impact on the cultural heritage resource and is deemed to be the least preferred route option.

1.6.2 Route Option 2

This route option would result in profound negative impacts on three recorded archaeological sites (which covers five enclosure sites) and one protected structure. The enclosures are likely to represent early medieval ringforts and these impacts are common to route options 2, 3 and 4. The protected structure consists of a concrete pill box (BH 5), which is common to all route options under assessment. These sites are subject to statutory protection under the National Monuments Act and Planning and Development Act.

This route also has the potential to have a significant impact on a further nine recorded archaeological sites. These sites consist of early medieval ringforts and enclosures, with the exception of one site, which has already been partially excavated and is listed as a medieval moated site. Four of these impacts are common within route Corridor Options 3 and 4 (AH 58, 61, 63, 72) and the potential impact on AH 8 is shared by all four options.

With the exception of BH 5, which will be impacted on by all four route corridor options, this route option will not profoundly or significantly impact upon any recorded BH sites. However, it has the potential to significantly impact on the entrance into Ballycullen House and demesne (CH 108), which is associated with the proposed protected structure. The

route will also have a significant impact on the extended demesne (as shown within the historic mapping resource) of Ballycullen House (DL 8).

A further 24 significant impacts on previously unrecorded sites or structures of cultural heritage merit have been identified. These include relict field systems, enclosures, upstanding or buried remains relating to vernacular structures (or sites of), a former school house and infrastructure relating to the former Limerick to Tralee Railway and the Foynes Branch Line. Of these, four of the sites can be considered as being of particular significance. CH 5, CH 43 and CH 9 are described in the above section 1.6.1 and the predicted level of impact on these sites is shared by all four route options.

CH 13 consists of a circular enclosure that measures c. 25m in diameter, which was identified on Google Earth aerial photographs (2010). This is likely to represent an early medieval enclosure or ringfort.

A total of 29 areas of archaeological potential (AAPs) have been identified where a significant or moderate impact is predicted. In addition, 43 townland boundaries will be subject to a moderate impact, whereas six will be slightly impacted upon.

A large number of potential moderate impacts have been identified as a result of the Option 2 assessment. A total of 11 recorded archaeological or built heritage sites will be subject to moderate negative impacts; whereas 22 previously unrecorded sites or structures will be subject to the same impact level.

Multiple indirect impacts have been identified during the course of the assessment including 69 slight negative impacts, 17 imperceptible negative impacts and 16 occurrences where the impact is deemed to be neutral. There are 17 sites within the receiving environment where no impact will occur. Several positive impacts have been identified which relate to Adare Manor demesne (part of the Adare ACA), an associated gate lodge (Limerick Lodge), the demesne walls and a gate lodge associated with Fort Union House. These impacts are deemed to be potentially positive due to the movement of traffic away from the immediate environs of the structures.

The total number of potential profound and significant negative impacts identified within the assessment is similar in scale to the other route options. However, this route will have less of an impact on the recorded built heritage resource and designed landscapes than Route Corridor Option 1. In addition, no known burial grounds will be impacted upon. However, of all the route options, this route will have the greatest impact on the recorded archaeological resource, which is formed, in the most part, by early medieval enclosures. Whilst these sites are common within the archaeological record and eight of the impacts are shared with Options 3 and 4, 11 enclosures or ringforts will be directly impacted upon by the route corridor option. Route Corridor Option 2 would result in a major negative impact upon the cultural heritage resource and is deemed to be have Intermediate preference. .

1.6.3 Route Corridor Option 3

This route corridor option would result in profound negative impacts on three recorded archaeological sites (which covers five enclosure sites) and one protected structure. The

enclosures are likely to represent early medieval ringforts and these impacts are common to route corridor options 2, 3 and 4. The protected structure consists of a concrete pill box (BH 5), which is common to all route options under assessment. These sites are subject to statutory protection under the National Monuments Act and Planning and Development Act. One further potential profound impact has been identified in the form of a standing stone, which is located adjacent to the Rathkeale Bypass (AH 110). However, the route option is likely to be online at this location and as such a direct impact would be relatively easy to avoid.

This route also has the potential to have a significant impact on a further six recorded archaeological sites. These sites consist of probable early medieval enclosures, with the exception of one site, which has already been partially excavated and is listed as a medieval moated site. Four of these impacts are common within routes 2 and 4 (AH 58, 61, 63, 72) and the potential impact on AH 8 is shared by all four options.

With the exception of BH 5, which will be impacted on by all four route options, this route option will not profoundly or significantly impact upon any recorded BH sites. However, it has the potential to significantly impact on the entrance into Ballycullen House and demesne (CH 108), which is associated with the proposed protected structure. The route will also have a significant impact on the extended demesne (as shown within the historic mapping resource) of Ballycullen House (DL 8).

An additional 20 significant impacts on previously unrecorded sites or structures of cultural heritage merit have been identified. These include relict field systems, enclosures, upstanding or buried remains relating to vernacular structures (or sites of), several bridges, lime kilns and infrastructure relating to the former Limerick to Tralee Railway Line and the Foynes Branch Line. Of these, four of the sites can be considered as being of particular significance. CH 5, CH 43 and CH 9 are described in the above section 1.6.1 and the predicted level of impact on these sites is shared by all four route corridor options.

CH 13 consists of a circular enclosure that measures c. 25m in diameter, which was identified on Google Earth aerial photographs (2010). This is likely to represent an early medieval enclosure or ringfort.

A total of 25 areas of archaeological potential (AAPs) have been identified where a significant or moderate impact could be predicted. Fifty two townland boundaries will be directly impacted upon by the route but the impact level has been defined as moderate for 41 of these and slight for the remaining 11.

A large number of potential moderate impacts have been identified as a result of the Option 3 assessment. A total of 11 recorded archaeological or built heritage sites will be subject to a moderate negative impact; whereas 15 previously unrecorded sites or structures will be subject to the same impact level.

Multiple indirect impacts have been identified during the course of the assessment including 79 slight negative impacts, 15 imperceptible negative impacts and 18 occurrences where the impact is deemed to be neutral. There are 19 sites within the receiving environment where

no impact will occur. Several positive impacts have been identified which relate to Adare Manor demesne (part of the Adare ACA), an associated gate lodge (Limerick Lodge), the demesne walls and a gate lodge associated with Fort Union House. These impacts are deemed to be potentially positive due to the movement of traffic away from the immediate environs of the heritage sites.

The total number of potential profound and significant negative impacts identified within the assessment is similar in scale to the other route options. However, this route will have less of an impact on the recorded built heritage resource and designed landscapes than Route Corridor Option 1. In addition, no known burial grounds will be impacted upon. Route Corridor Option 1 is the least preferred route due to the nature and scale of potential impacts and the level of significance of the sites and landscapes involved. However, of the remaining three options, Route Corridor Option 3 will have slightly less of an impact on the archaeological, architectural and cultural heritage resource based on the scale and significance of the sites and areas involved. Although this option will have a major negative impact on the cultural heritage resource, Route Corridor Option 3 is nevertheless the preferred route option.

1.6.4 Route Corridor Option 4

This route corridor option would result in profound negative impacts on three recorded archaeological sites (which covers five enclosure sites) and one protected structure. The enclosures are likely to represent early medieval ringforts and these impacts are common to route corridor options 2, 3 and 4. The protected structure consists of a concrete pill box (BH 5), which is common to all route options under assessment. These sites are subject to statutory protection under the National Monuments Act and Planning and Development Act. This route would also result in a profound impact on two previously unrecorded circular enclosures in the townland of Tuogh (CH 148, CH 149). These have the potential to represent early medieval ringforts and are located adjacent to one another within a small demesne landscape associated with Tuogh Cottage demesne (DL 20).

This route would also have a significant impact on a further seven recorded archaeological sites, including five enclosures and a partially excavated medieval moated site. Four of these impacts are common within routes 2 and 3 (AH 58, 61, 63, 72) and the potential impact on AH 8 is shared by all four options.

There is also the potential for a significant impact on the National Monument at Askeaton (Franciscan Friary) (AH 18), although it is likely that the route would follow the footprint of the existing bypass at this location.

The Franciscan Friary is also further protected as an Architectural Conservation Area (ACA). The route option has the potential to have a significant impact on this designated area, although again, it is likely that the option would be online at this location, enabling direct impacts to be avoided.

With the exception of BH 5 and potential impacts at the Franciscan Friary, this route will not significantly impact on the built heritage resource. One designed landscape, associated with Tuogh Cottage (DL 20), will be significantly impacted upon. This small demesne also contains

two circular enclosures and whilst the principal structure is extant, it is not subject to statutory protection.

A further 25 significant impacts were identified during the assessment with respect to previously unrecorded sites or structures of cultural heritage merit. These include relict field systems, enclosures, upstanding or buried remains relating to vernacular structures (or sites of), limekilns and a circular mound. Of these, three of the sites can be considered as being of particular significance. CH 5, CH 43 and CH 9 are described in the above section 1.6.1 and the predicted level of impact on these sites is shared by all four route options.

A total of 22 areas of archaeological potential (AAPs) have been identified where a significant or moderate impact could be predicted. A further 48 townland boundaries will be directly impacted upon by the route. Of these, 40 will be subject to a moderate negative impact, whereas eight will be slightly impacted on.

A large number of potential moderate impacts have been identified as a result of the Option 4 assessment. A total of 12 recorded archaeological or built heritage sites will be subject to a moderate negative impact; whereas 21 previously unrecorded sites or structures will be subject to the same impact level.

Multiple indirect impacts have been identified during the course of the assessment including 59 slight negative impacts, 24 imperceptible negative impacts and 17 occurrences where the impact is deemed to be neutral. There are 10 sites within the receiving environment where no impact will occur. Several positive impacts have been identified which relate to Adare Manor demesne (part of the Adare ACA), an associated gate lodge (Limerick Lodge), the demesne walls and a gate lodge associated with Fort Union House. These impacts are deemed to be potentially positive due to the movement of traffic away from the immediate environs of the heritage sites.

The total number of potential profound and significant negative impacts identified within the assessment is similar in scale to the other route corridor options. However, this route will have less of an impact on the recorded built heritage resource and designed landscapes than Route Corridor Option 1. In addition, no known burial grounds will be impacted upon. Route Corridor Option 1 is the least preferred route due to the nature and scale of potential impacts and the level of significance of the sites and landscapes involved. However, of the remaining three options, Option 4 will have slightly less of an impact on the archaeological, architectural and cultural heritage resource when compared to Option 2, but slightly more than Option 3. Although this option will have a major negative impact on the cultural heritage resource, Route Corridor Option 2 nevertheless has an Intermediate preference..

1.7 Bibliography

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Appendix 1.1 Recorded Archaeological & Architectural Heritage Sites within the receiving environment of Route Option 1

Topographical Files

NMI No	Townland	Classification	Location (if recorded)
Record only	Tobermurry	Cist with urn	Not given
Description of a cist and associated BA urn found in 1922. The description comes from a letter sent to the museum by a former resident of the area, detailing how a local farmer found a cist, but destroyed it 'thinking of the proverbial croc of gold'. The writer describes the urn as a 'flowerpot' but no measurements were recorded. The cist was described as being comprised of limestone flags, the urn was lost.			

NMI No	Townland	Classification	Location (if recorded)
1985:83	Shanbally	Stone axe head	Not given
Polished stone axehead, recorded as a surface find, comprised of local basaltic rock (lower carboniferous). L 8.8 cm T 1.725 cm W (cutting edge) 5 cm.			

NMI No	Townland	Classification	Location (if recorded)
IA/12/64	Robertstown	Burials (AH 6)	AH 6
Site of human inhumations discovery. The site is a low gravel ridge (50' OD) used as a gravel pit, location 6" OS Sheet 10 39.5cm from W 5.8cm from S. Initially 5 skeletons were uncovered by mechanical excavator on the 28th January 1964, whilst a further 18 were discovered on 5th February. The remains had been removed to Foynes Garda Station by the authorities prior to Museum investigation. The top surface of the ridge had been stripped by bulldozer to a depth of 0.5m. Seven skeletons were uncovered by Peter Danagher of NMI. Two of these burials lay in shallow graves c. 0.90m below the surface, extended E-W, lying on fine gravel. The south side of one grave was lined with large spalls. Another burials, again E-W, was uncovered close to this, although only 0.6m below surface. A fourth burial, at a depth of 0.9m contained 4 skeletons 'lying on each other'. All the skeletons in this group were adult, average 1.75m height. No grave goods were present. Approximately 4m SE of the burials there were some large patches of burnt stone, although these failed to yield any archaeological objects. Determined to be Early Christian.			

NMI No	Townland	Classification	Location (if recorded)
1995:46	Moig South	Bronze binding strip	Not given
Decorated bronze binding strip. No dimensions given. Loan from Limerick Museum.			

NMI No	Townland	Classification	Location (if recorded)
1983:4-8	Glennamade	Bronze stick pin, Circular bronze mount, 2 Fragments bottle glass, Disc shaped lead piece	Vicinity of Killulta Church (AH 32)
Objects found c. 1940s in vicinity of probable 11th/12th century church site above. Only stick pin has description (1983:4): Copper alloy club headed stick pin. The small head is decorated with a central dot inside a triangle. The upper section of the pin shank is swollen, whilst the point is described as blunt. The surface patina has been worn away. L 9cm, D (head) 0.4cm.			

NMI No	Townland	Classification	Location (if recorded)
1935:428	Corcamore	Bronze Ring Pin	Found within a 'fort' in Corcamore
Object found within a 'fort' in Corcamore. The pin is rectangular in cross section. Slightly bent mid			

way, and the point is damaged. The stem is wider and flatter at the non-pointed end. The pin head is decorated with an incised X. L 9.6cm Ring D 1.8cm (max). Pre Norman.

NMI No	Townland	Classification	Location (if recorded)
1961:275-8	Cloonreask	Bronze chisel, 3 Glazed Potsherds (possibly Roman)	Not given
Small bronze chisel (1961:275) with narrow convex cutting edge and a sharp point at opposing end. Somewhat corroded. The section of the pointed end is round, with the section at cutting edge rectangular. L 7.35cm D (pointed end) 0.35 cm. Found in a group with ceramics in surface soil, probable habitation site. The NMI thought the chisel is of the same typology of objects from Bishopsland Hoard c. 500 BC, but smaller in dimensions. The pottery is said to be conventionally 'medieval' in look, but given the stratigraphy, it is possible that they are Roman (Ellen Prendergast and Etienne Rynne agreed).			

NMI No	Townland	Classification	Location (if recorded)
1995:47-66	Cloonreask	Bronze Ring, 7 Musket Balls, 12 Copper Coins	Not given
Bronze Ring (1995:47), Musket Balls (1995:48-54), Copper Coins (1995:55-66).			

NMI No	Townland	Classification	Location (if recorded)
IA/23/83	Ballyhomin	Polished Stone Axe	Not given
Symmetrical polished stone axe of sideritic iron stone. Tapers to the butt at about two thirds up from the cutting edge. The narrow butt is flat, whilst the cutting edge is blunted and slightly chipped. L 14.8cm W (max) 6.5cm W (min) 1.5cm T (max) 2.4cm.			

NMI No	Townland	Classification	Location (if recorded)
1945:162	Ballycullane	Iron Horseshoe	Ballycullane Bog
No description given.			

NMI No	Townland	Classification	Location (if recorded)
1995:45	Askeaton	Lead plump	Not given
No description given.			

NMI No	Townland	Classification	Location (if recorded)
1968:261	Askeaton	Bronze Spearhead	Not given
Bronze spearhead, socketed with circular cross section. The blade has bevelled edges, and projections at the base form basal loops. There is a possible patch or repair on one of the basal loops. L 16.5cm (tang 4.5cm) W (blade) 3cm.			

NMI No	Townland	Classification	Location (if recorded)
C 17:17/18	Askeaton	Horn Spoon	Not given
No details. Small drawing showing spoon bowl, with possible perforation at base.			

NMI No	Townland	Classification	Location (if recorded)
In private possession	Askeaton	Medieval wooden beam	Not given
Found in the ceiling joists of a house being renovated. The beam bears the date 1479. The beam is 12 feet in length and the full inscription is 'M.F. 1497 VIII I M'. Etienne Rynne inspected the beam and suggested that the beam may have been reused from the Great Hall of Desmond castle, with the date and initials suggesting that it was possibly a chimney or gate lintel, or even a rafter. Chamfered			

pine.

NMI No	Townland	Classification	Location (if recorded)
WK.25	Askeaton	Iron sword	River near Askeaton
Iron sword in good condition. Double edged blade with bevelled edges and a flat cross section. Rounded tip. The upper and lower cross guards are similar, elliptical in plan with re curved ends, the upper towards the blade, the lower towards the pommel. Iron plates cover the tang. The pommel is flat, three lobed with re-curved extremities. Double grooved ornament on lobes, silver inlay. L 0.9m W (blade) 0.04m, W (cross bar upper) 0.11m. No known type. Double cross guards usually mean early medieval – Viking.			

Archaeological Heritage

AH No	AH 1
RMP No	LI010-012
Statutory protection	RMP
Townland	Ardaneer
Parish	Shanagolden
Barony	Shanid
Classification	Ringfort
ITM Ref	526448, 650267
Description	In low-lying pasture, with frequent outcrops of limestone. Circular area (25.2m N-S; 24.6m E-W) enclosed by earth-and-stone bank (int. H 0.65m; ext. H 0.5m), with external bank (int. H 0.25m; ext. H 0.6m) NW->NE. No obvious entrance but cattle breaks at N and NE. Interior level and covered by tall grass. Enclosure abutted by earthen banks at NE (L-shaped: extends 15.8m to N and then returns W for 21m; Wth 0.95m; H 0.4m), at SW (L 0.45m; Wth 1.2m; H 0.6m) and at NW (L 15.3m; Wth 2.4m; H 0.45m). These are probably remnants of an ancient field system. Immediately NE of enclosure is area which has been surface quarried for limestone (22m N-S; 22m E-W; D c. 0.7m).
Source	www.archaeology.ie/ SMR file

AH No	AH 2
RMP No	LI010-106
Statutory protection	RMP
Townland	Sroolane North
Parish	Shanagolden
Barony	Shanid
Classification	Mill
ITM Ref	526896, 650065
Description	The 1840 OS six-inch map shows a rectangular structure in this location that is named 'Old Mill'. No structure is shown in this location on later editions of the OS map and there is no evident trace of such a structure on the ground.
Source	www.archaeology.ie/ SMR file

AH No	AH 121 (also BH 41)
RMP No	LI010-069001/2
Statutory	RMP (Also RPS)

protection	
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church and graveyard
ITM Ref	527018, 650000
Description	File not reviewed.
Source	www.archaeology.ie/ SMR file

AH No	AH 3
RMP No	LI010-068
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	526914, 649791
Description	In tillage, on local rise in generally flat low-lying terrain. Monument, depicted as embanked circular enclosure (diam. c. 30m) on 1841 OS 6-inch map, has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 4
RMP No	LI010-144
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	527057, 649798
Description	D Power, 2009, "According to Lar Dunne 'the landowner identified a number of coherent enclosure sites in the adjacent field some 150m east of SMR 10:68. These features were clearly visible on an aerial photograph obtained for the assessment'".
Source	SMR file

AH No	AH 5
RMP No	LI010-070
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	527376, 649346
Description	Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been removed. Area of site occupied by derelict gravel quarry.
Source	www.archaeology.ie/ SMR file

AH No	AH 6
RMP No	LI010-071
Statutory protection	No
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Burial ground
ITM Ref	527635, 649591
Description	In 1964 'over thirty skeletons were discovered, buried in a low gravel-ridge' (Dannaher 1964) during quarrying operations. Most of these were removed prior to the site being archaeologically investigated, and the topsoil removed so that 'it was impossible to ascertain if there had been any surface indications of the graves' (ibid.). Investigations revealed 'a further seven skeletons, all of adults, in four separate graves, close to one another and all orientated East-West' (ibid.). There were no grave goods. The conclusion was that these were burials 'from the Christian Period' and, because they were buried in un-consecrated ground, 'the result of a plague or famine in the area' (ibid.). This area is now part of an industrial complex.
Source	www.archaeology.ie/ SMR file

AH No	AH 7 (EX 3)
RMP No	LI010-140
Statutory protection	No
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Isolated pit and stakes
ITM Ref	528231, 649430
Description	An isolated pit and stakes excavated by Emer Dennehy (Licence Ref.: 02E0752) and described as 'a pit 0.3m deep. Five stakes, averaging 0.08m in diameter and with a maximum depth of 0.25m, were driven into the base of the pit. All of the stakes-holes were filled with the same charcoal-rich, silty peat, indicating that they were likely to have been burnt in situ. Subsequently the pit had been left open and filled naturally over time. Although there is no clear indication of function for this pit, it can be concluded that there was deliberate human action and forethought involved in the use of the site.'
Source	www.archaeology.ie/ SMR file

AH No	AH 8
RMP No	LI010-074
Statutory protection	RMP
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	528231, 649430

Description	On slight rise in undulating pasture. Roughly square area (23.5m N-S) enclosed by collapsed stone and earth wall (int. H 0.8m; ext. H 1m) incorporated into surrounding field-boundary system on E and S sides. Gap (Wth. 1.4m) on N side to NNE. Interior level but densely overgrown except for N end; strewn with stones from collapsing walls.
Source	www.archaeology.ie/ SMR file

AH No	AH 9
RMP No	LI010-081
Statutory protection	RMP
Townland	Craggs
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	528802, 649319
Description	In area of mixed pasture, scrub and quarrying. Site, marked as circular enclosure (diam. c. 25m) on 1923 OS 6-inch map, does not appear to be extant in area heavily modified by surface quarrying and covered by scrub overgrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 10
RMP No	LI010-087
Statutory protection	RMP
Townland	Craggs
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	529313, 649135
Description	In undulating pasture, on N-facing slope. Roughly rectangular area (31m N-S) enclosed by collapsed dry-stone wall (int. H 1.6m; ext. H 1.4m; Wth. 8m), but truncated on N side by E-W field boundary. Centre of interior and W side of enclosure covered by dense overgrowth of bush. Only apparent point of access gap in field boundary to N (Wth. 2m). Interior surface lower than that of surrounding terrain (D c. 0.2m). Immediately outside rounded SE corner is rectangular structure (7m N-S; 10.2m E-W) defined by collapsed dry-stone wall (H c. 0.6m; Wth. c. 3m); E side almost entirely removed; low wall (H 0.4m; Wth. 0.8m) divides interior on N-S axis. Collapsed wall (L 3.6m; Wth. 0.8m; H c. 0.3m) links both enclosures.
Source	www.archaeology.ie/ SMR file

AH No	AH 11
RMP No	LI010-073
Statutory protection	RMP
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Ringfort

ITM Ref	528027, 649674
Description	Atop slight rise, in otherwise level terrain. Site is completely covered by dense overgrowth but as far as can be ascertained consists of circular area (diam. c. 25m) enclosed by earthen bank (int. H 0.5m; ext. H 0.6m) with external fosse (D 0.4m; Wth c. 2m).
Source	www.archaeology.ie/ SMR file

AH No	AH 12 (EX 4)
RMP No	LI010-141001-3
Statutory protection	No
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Burnt mound, pit, road way
ITM Ref	529743, 648955
Description	001 - A burnt mound excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a circular mound, 16m in diameter and 0.84m deep. It was composed of 70% limestone and 30% sandstone in a charcoal-enriched matrix. Six phases of activity were identified in the mound. A shallow rectangular trough was present at the base of the mound, measuring 4.3m north-south by 2.45m.' 002 - Pits excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a complex of six roasting pits excavated into the underlying gravel. The pits were subcircular, averaging 1.5m north-south by 1.2m, with an average depth of 0.4m. The roasting pits would not have retained water and were filled with burnt sandstone and limestone in a charcoal-enriched matrix.' 003 - A limestone trackway excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a trackway composed of two courses of fractured limestone bedrock, measuring 10m north-south by 15.5m. It served to connect the roasting pits of Area B to the debris mound of Area A. The need for the construction of the trackway arose during Phase 2 of the history of the site. It provided a secure, level footing to combat adverse weather conditions, the encroachment of peat and the seasonal flooding from the nearby stream.'
Source	www.archaeology.ie/ SMR file

AH No	AH 13
RMP No	LI010-099
Statutory protection	RMP
Townland	Mulderricksfield
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	530646, 649365
Description	In low-lying level area, newly planted with coniferous trees. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been levelled, except for arc of earth-and-stone bank (C 18m; H c. 0.65m; Wth c. 1.15m) NW->NE. Otherwise area of site covered by tall rough grass and newly planted trees.
Source	www.archaeology.ie/ SMR file

AH No	AH 14
RMP No	LI010-098
Statutory protection	RMP
Townland	Ballyclogh (Connello Lower By.)
Parish	Lismakeery
Barony	Connello Lower
Classification	Ringfort
ITM Ref	530634, 649059
Description	In woodland. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, could not be located due to impenetrable undergrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 15
RMP No	LI010-097
Statutory protection	RMP
Townland	Ballyclogh (Connello Lower By.)
Parish	Lismakeery
Barony	Connello Lower
Classification	Ringfort
ITM Ref	530633, 648974
Description	In woodland. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, could not be located in impenetrable undergrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 16 (EX 5)
RMP No	LI010-134
Statutory protection	No
Townland	Ballyellinan
Parish	Lismakeery
Barony	Connello Lower
Classification	Pit
ITM Ref	531140, 649523
Description	A 'fire-pit' excavated by Graham Hull (Licence Ref.: 02E0873)
Source	SMR file

AH No	AH 17 (EX 6)
RMP No	LI010-149
Statutory protection	No
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	<i>Fulacht fia</i>
ITM Ref	531858, 649429
Description	Excavation by Brian Halpin (Licence Ref.: 02E0748) and described as 'heat-

	shattered stones and charcoal-rich material, typically associated with a fulacht fiadh.'
Source	www.archaeology.ie/ SMR file

AH No	AH 18 (Also BH 7d)
RMP No	LI011-092006-14
Statutory protection	National Monument, RMP, RPS
Townland	Moig South
Parish	Caherconlish
Barony	Clanwilliam
Classification	Franciscan Abbey, tombs, grave slabs, cross
ITM Ref	533931, 650731
Description	The first documentary mention of this friary occurs in 1400 when it is referred to as 'Inysgebryny', i.e. Inis Geightine (Gwynn and Hadcock 1970, 242). Its founder was probably Gerald, the 4th earl of Desmond. The friary survived the Dissolution and a provincial chapter was held here in 1564. During the Desmond Wars the friary was captured by Nicholas Malby and the friars were expelled. The exact date for this expulsion is unclear but it is variously given as 1579 and 1581 (ibid.). The friary is situated on the east bank of the Deel and it consists of a single aisled 14th/15th century church with a 14th/15th century cloister to the south flanked by an east and west range. Later 15th century additions include a sacristy to the north of the chancel, and a transept with western aisle to the north of the nave. On the south side of the cloister a two-storied refectory was added, oriented N-S, and a later barrel vaulted chamber was added to the west and extends beyond the west range. According to the 'Pacata Hibernia' drawing (Westropp 1903, 240) a large tower was also on the site but no trace of this remains. The insertion of carved stone doorways with Renaissance style decoration suggest repairs or refurbishments in the 16th century. The masonry is limestone throughout (Leask 1955-60, iii, 101-2). The church is a long undifferentiated nave and chancel with side walls and gables intact. It is lit by a five light window in the east wall, three triple-light windows in the south wall of the chancel, one in the west wall and one at the west end of the north wall, all "with switch line tracery. The east window in the south wall has cusps added to the tracery to give a flame-like effect and a later twin-light cusped window was inserted in the north wall of the nave. A pointed door opens from the chancel to the sacristy on the north which had two floors: the lower one was divided by a partition wall and was probably roofed with a barrel vault. The ground floor was lit by a twin-light window in the east wall and had a wall cupboard and fireplace in the north wall. There was a spiral stairs to the first floor at the west end. The first floor, which is only partly intact, was lit from the east and north by twin-light windows. The transept is entered through two large pointed arches resting on a drum shaped column. It is very ruined but was lit from the east by three twin-light windows - only the south one survives intact - and from the west by three twin-light ogee-headed windows. Much of the east and north walls have fallen and there are large pieces of masonry on the ground to the north east. The transept and aisle are separated by two pointed arches and one rounded arch supported on rectangular piers. The cloister is intact and consists of a pointed arcade of web shaped colonettes

	in groups of three (Leask 1955-60, iii, 137-8) and retains much of its plaster and wattle centering. The east range is two floored with a long barrel vaulted roof over the ground floor which is lit from the east by three splayed narrow loops with sloping sills. There is an inserted fireplace towards the north end of the wall; the north end of the chamber was cut off to form a small room which has a door opening externally to the east. The first floor, which is reached by spiral stairs on the south, extends over the ground floor chamber and the east ambulatory and was lit from the east by three single-light ogee headed windows and from the west by two single-light and one twin-light window. The south wall has a larger rectangular twin-light window with mullions and transoms and there is a small wall cupboard in the north wall. Covered passages open to the west range over the north and south ambulatories. The west range is also two storeyed. The ground floor has two rooms; the larger one at the northern end has a pointed barrel vault and is lit from the west by three widely splaying windows; the north one is a single-light cusped pointed window, the middle one a rectangular twinlight and the southern one is a single-light rectangular window. The room probably had a loft as there are two corbels in the north wall and a rectangular window looks into the nave just below the barrel vault. The south end of the ground floor (known as the prison), is entered from the south and the floor is at a lower level. It has a small garderobe and a narrow loop to the west. The first floor is a long room also extending over the west ambulatory. It was lit from the west and east by four single light pointed windows. There is another similar window in the north wall with a squint through the eastern splay which provides a view to the altar of the church. Beside this window are traces of mural decoration in the plaster. The south wall has, apart from the stairs on the east side, a tall twin-light ogee-headed window with window seats and a single-light window with wall cupboards in both splays. The refectory to the south is two storeyed; the ground level being c. 1.5m below the ground level of the cloister arcade. Much of the ground floor has been rebuilt but the west wall has a twin-light ogee headed window, a reader's recess flanked by rounded colonettes with moulded capitals and bases which extends to the west from the centre of the wall and a second twin-light window. The first floor was supported on corbels in the east, west and north walls and the room was lit by six or seven small rectangular windows in both east and west walls. There are three windows in the south wall; a large twin-light ogee-headed window flanked by two smaller single-light ogee-headed windows. Two doors open on the north to the south ambulatory. The two floored structure to the west of the south range was added at a later date as it blocks some of the windows of the south range. The ground floor has a pointed barrel vault with traces of wickerwork centering and is lit from the south by a rectangular loop and a gun-loop near the east end. There is also a fireplace in the south wall and three wall cupboards in the west wall. The floor above has a long deep pit for a 'necessarium' at the west end and was lit from the south by three windows; two of which have stepped heads. There was a loft above this floor supported on corbels in the north wall and lit by a single light rectangular window which overlooks the south range. Architectural Fragments Over fifty fragments of window mouldings, a roof boss, door mouldings etc. are collected in the chapter house. Panel with St. Francis: A depiction of St. Francis is carved in deep false relief on a respond on the north

	side of the cloister arcade. Dims: H. 60cm W. 36cm Mural decoration As noted above there is painted decoration on the north wall of the first floor of the west range. In addition there are some consecration crosses in the plaster on the west wall of the first floor of the south range and there is a sun-dial incised on the north wall of the cloister ambulatory."
Source	www.archaeology.ie/ SMR file

AH No	AH 19
RMP No	LI011-042
Statutory protection	RMP
Townland	Ballyhomin
Parish	Askeaton
Barony	Connello Lower
Classification	Ringfort
ITM Ref	535608, 651032
Description	In paddock area, on W-facing slope below brow of low hill. Monument, depicted on 1841 OS 6-inch map as embanked circular enclosure (diam. c. 30m), has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 20
RMP No	LI011-045
Statutory protection	RMP
Townland	Ballyengland Lower
Parish	Askeaton
Barony	Connello Lower
Classification	Ringfort
ITM Ref	536397, 651194
Description	In farmyard, on break in W-facing slope. Monument, depicted as embanked circular enclosure on 1923 OS 6-inch map, has been engulfed within farmyard complex. A roughly circular area (diam. 28m E-W) can be discerned, defined S->N by scarped edge which appears to be natural break in slope. From NE->E area skirted by artificially raised horse-training paddock, from E->SE a fence defines area, and SE->S it is bordered by a farm shed. Interior area under grass and slopes down to W. It is unclear what if anything of original site survives.
Source	www.archaeology.ie/ SMR file

AH No	AH 21
RMP No	LI011-050
Statutory protection	RMP
Townland	Ballyengland Lower
Parish	Askeaton
Barony	Connello Lower
Classification	Ringfort
ITM Ref	537050, 651465
Description	In pasture, on gentle SW-facing slope. Roughly circular area (22.3m N-S; 20.6m

	E-W) defined by scarped edge (H 0.4m; Wth 4.6m), best preserved NNE->E and SW->NW. A slight dip (D 0.2m) immediately to W of scarp, with low rise (H 0.15m) running along its outer edge, is probably natural feature. Interior is under pasture except for S half which is covered with briars. Immediately N of enclosure is area of limestone outcrop.
Source	www.archaeology.ie/ SMR file

AH No	AH 22
RMP No	LI011-053
Statutory protection	RMP
Townland	Ballyengland Lower
Parish	Askeaton
Barony	Connello Lower
Classification	Ringfort
ITM Ref	537389, 651249
Description	In reclaimed pasture, on gentle S-facing slope, in area of outcropping limestone. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 23
RMP No	LI011-058
Statutory protection	RMP
Townland	Deegerty
Parish	Kilcornan
Barony	Kenry
Classification	Enclosure
ITM Ref	538071, 650875
Description	In pasture, on S-facing slope. Circular depression (32m N-S; 30m E-W) enclosed by earthen bank (int. H 0.6m; ext. H 0.15m) NE->SSE and SW->NW, and defined by scarped edge (H 0.9m) facing inwards SSE->SW and NW>NE. Interior, under pasture, lowest near centre.
Source	www.archaeology.ie/ SMR file

AH No	AH 24
RMP No	LI011-062
Statutory protection	RMP
Townland	Ballyvogue
Parish	Kilcornan
Barony	Kenry
Classification	Ringfort
ITM Ref	538926, 651521
Description	In pasture, atop low hill. Roughly circular area (34m N-S; 32m E-W) enclosed by earthen bank (int. H 0.5m; ext. H 2.2m), with external fosse (D 0.35m; Wth 1.2m) NE->SE. Bank denuded to scarped edge (H 0.45m; Wth 4m) SE->NNE from which there is a gradual slope down towards centre of enclosure. Dry-stone field boundary (H 0.9m) runs along outer edge of fosse NNE->SE. Interior under

	pasture.
Source	www.archaeology.ie/ SMR file

AH No	AH 25
RMP No	LI011-064
Statutory protection	RMP
Townland	Ballyvogue
Parish	Kilcornan
Barony	Kenry
Classification	Ringfort
ITM Ref	539113, 651650
Description	In pasture, on break in E-facing slope overlooking river valley. Oval area (38m N-S) enclosed by earth-and-stone bank (int. H 0.75m; ext. H 0.85m) NW->SW, but bank truncated by field boundary SW->NW. Bank is widened (Wth 3m) by boulders dumped atop it at NE->SE. Bank dips at SSW. Level interior covered with nettles.
Source	www.archaeology.ie/ SMR file

AH No	AH 26
RMP No	LI011-069
Statutory protection	RMP
Townland	Dromlohan
Parish	Kilcornan
Barony	Kenry
Classification	Ringfort
ITM Ref	539985, 652169
Description	In pasture, atop hill with panoramic views over surrounding countryside. Circular area (40m N-S; 38m E-W) enclosed by earthen bank (int. H 1.05m; ext. H 2.65m) with external fosse. Bank well preserved all around but external height greatest at N. It lowers to a scarped edge (H 1.7m; Wth 7.7m) E->ESE. Bank damaged externally at ENE where interior recently linked by raised passage (Wth 4m) to adjacent pasture field. Causeway entrance at SW (Wth 5.5m). Fosse (D 1.95m, max. Wth 3.5m) narrows along N arc (Wth 2.10m). Interior, under pasture, slopes gently down to S; two ESB poles stand in SW quadrant. Outer edge of fosse abutted by converging field boundaries at N. Public road runs tangentially to SE arc.
Source	www.archaeology.ie/ SMR file

AH No	AH 27
RMP No	LI011-070
Statutory protection	RMP
Townland	Dromlohan
Parish	Kilcornan
Barony	Kenry
Classification	Burial ground
ITM Ref	540244, 652450
Description	In pasture, on E edge of break in E-facing hill slope. No visible surface trace of

	mass burial discovered here about 1965 of which no details are known (Wallace 1972, 60).
Source	www.archaeology.ie/ SMR file

AH No	AH 28
RMP No	LI011-130
Statutory protection	RMP
Townland	Ballyshonickbane
Parish	Kilcornan
Barony	Kenry
Classification	Ringfort
ITM Ref	541065, 653353
Description	In pasture, atop limestone hillock. Monument, depicted on 1841 OS 6-inch map as embanked circular enclosure (diam. c. 25m), has been levelled. No trace of monument evident when inspected. Field where site located has very uneven surface with numerous humps and hollows due to outcropping limestone.
Source	www.archaeology.ie/ SMR file

AH No	AH 29
RMP No	LI011-148
Statutory protection	RMP
Townland	Ballyshonickbane
Parish	Kilcornan
Barony	Kenry
Classification	Enclosure
ITM Ref	541257, 653273
Description	A possible enclosure evident on aerial photographs taken by Michael Moore (04/03/06) – he says may be ‘horse ring’ but should be inspected on ground.
Source	SMR files

AH No	AH 30
RMP No	LI011-086
Statutory protection	RMP
Townland	Glennamade
Parish	Kildimo
Barony	Kenry
Classification	Ringfort
ITM Ref	542763, 653638
Description	In pasture, atop rise in gently undulating terrain. Oval area (31m N-S; 34m E-W) defined by scarped edge (H 1.3m; Wth 6.5m); dry-stone field wall overlies scarp NNE->ESE. Scarp is best preserved W->N. Interior, under pasture, has slightly higher W half with a gentle slope down towards centre in E half. Boulders and earth have been dumped at E verge against inner face of wall.
Source	www.archaeology.ie/ SMR file

AH No	AH 31
RMP No	LI012-002

Statutory protection	RMP
Townland	Curraheen
Parish	Kildimo
Barony	Kenry
Classification	Ringfort
ITM Ref	543109, 653962
Description	In mixed woodland. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, is now completely covered by dense undergrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 32 (Also BH 15)
RMP No	LI012-025001/2
Statutory protection	National Monument/ RMP/ Protected Structure
Townland	Glennamade
Parish	Kildimo
Barony	Kenry
Classification	Church and ecclesiastical site
ITM Ref	543404, 653423
Description	In rough pasture, atop platform of limestone outcrop; overlooking Dromore Lough to N. Roofless ruin of rectangular gable-ended church (int.: 5.1m E-W; 3.05m N-S; wall thickness c. 0.7m). Built of roughly coursed limestone (with some sandstone) bonded by lime mortar; W wall rebuilt after it fell in mid-19th century during storm (Begley 1906, 117). Entered through plain lintelled door in centre of W wall; door has plain inclined sides and lintel supported by iron bar- it was rebuilt in 19th century (see above). Side walls are blank apart from small wall press (Wth 0.42m; D 0.5m) near E end of S wall, and a single projecting stone about mid-way along exterior top of S wall. Single window is in centre of E gable: plain opening with splayed sides and a triangular head which splays upwards towards the inside; lower half has been blocked up (Westropp 1903-4, 386-7, plate 10). Leask (1955, vol. 1, 73) unsure of its date but considered it 'oldest church in the county'; otherwise date given as 8th century (Craig and Glin 1970, 45) and 9th/10th century (Duignan & Killanin 1962, 396). According to O'Donovan called Cill Ollta (OSL vol. 1, 21) though Spellissy says known locally as the Teampailli(fada)n (1989, 243); no traditions or history have survived regarding this church (OSL ibid.; Harbison 1992, 220). Used as a children's burial ground until 1910 (Spellissy ibid.) but now no trace of burials or burial markers in vicinity of church.
Source	www.archaeology.ie/ SMR file

AH No	AH 33
RMP No	LI012-007
Statutory protection	RMP
Townland	Bolane
Parish	Kildimo
Barony	Kenry
Classification	Tower house

ITM Ref	544237, 653410
Description	No descriptive details, but file does note the castle is mentioned on the 1923 3rd Ed. OS map as 'Bolane Castle (in ruins)'. Westrop mentions it in the PRIA (1906-7, 161)
Source	SMR files

AH No	AH 34
RMP No	LI012-009
Statutory protection	RMP
Townland	Ballyvareen
Parish	Kildimo
Barony	Kenry
Classification	Ringfort
ITM Ref	545554, 652977
Description	In rough-pasture, on flat terrain ringed by marshy ground NE->NW. Roughly circular area (19.5m N-S; 20.3m E-W) defined by scarped edge (H 1.05m; Wth 4.1m), best preserved NNE->SE. Interior is covered by overgrowth and its surface is very uneven due to dumping there of rotten timbers and tree stumps.
Source	www.archaeology.ie/ SMR file

AH No	AH 35
RMP No	LI012-148
Statutory protection	No
Townland	Ballyvareen
Parish	Kildimo
Barony	Kenry
Classification	<i>Fulacht fia</i>
ITM Ref	545554, 652977
Description	Excavated by Mary Henry (Licence Ref.: 06E1100 ext.) who described it a 'located on the western side of the site. This feature mainly comprised a burnt spread measuring 9.1m north-south by 7.5m and a depth of 0.19m. It consisted an irregular spread of black sandy clay with frequent small pieces of burnt sandstone. A sondage was opened in the western part of the feature, where it was cut by a furrow. The furrow had an exposed length of 2m by 0.47m wide and 0.09m deep. It was filled with a dark-brown silty clay with occasional gravels.
Source	www.archaeology.ie/ SMR file

AH No	AH 36
RMP No	LI012-094
Statutory protection	RMP
Townland	Corcamore
Parish	Kilkeedy
Barony	Pubblebrien
Classification	Castle
ITM Ref	548922, 653415
Description	In modern farmyard. There is no trace of a castle, but the old farmhouse still

	remains, now used as a store. The site has excellent views to the NE and NW, but poor in other directions.
Source	SMR file

AH No	AH 122
RMP No	LI012-149
Statutory protection	RMP
Townland	Elmpark Demesne
Parish	Kilkeedy
Barony	Pubblebrien
Classification	Standing stone
ITM Ref	549671, 653110
Description	Identified during public consultations associated with the proposed Foynes-Limerick Road Scheme. Standing stone located within pasture standing c. 1.2m in height.
Source	SMR file

AH No	AH 37
RMP No	LI012-100
Statutory protection	RMP
Townland	Elmpark Demesne
Parish	Kilkeedy
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	550351, 653185
Description	In pasture land on a slight slope, W facing. No surface trace of an enclosure. Identified by aerial photography.
Source	SMR file

AH No	AH 38
RMP No	LI012-052
Statutory protection	RMP
Townland	Rahina
Parish	Kilkeedy
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	551195, 653201
Description	In level pasture on a slight rise. Views excellent in all directions with ground sloping away on all sides. The enclosure is sub rectangular, defined by an earth and stone bank. The interior is noted as dry and clear of undergrowth.
Source	SMR files

AH No	AH 39
RMP No	LI012-056
Statutory protection	RMP
Townland	Island-Duane

Parish	Mungret
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	552496, 652030
Description	In undulating pasture land, the ringfort occupies a low rise, giving moderate views in all directions. The plan is roughly D shaped, and defined by an earth and stone bank, evidence for a fosse and counterscarp bank. A 3.5m wide gap in bank is noted to W and causeway, but not considered to be original features. The counterscarp bank only encloses site NE – W (northern area may have been affected by a stone field boundary). Clear of undergrowth.
Source	SMR files

AH No	AH 40
RMP No	LI012-141
Statutory protection	RMP
Townland	Ballyveloge
Parish	Kilkeedy
Barony	Pubblebrien
Classification	Cashel
ITM Ref	552451, 651703
Description	Enclosure recorded to the immediate NE (3.2m at closest point) of LI012-055 (AH 41 below). The structures are noted as non-conjoined. Enclosure is defined by a rubble stone bank which encloses on all sides. There appears to be an original entrance break 5m wide on SW side of enclosure. The terminals at the entrance feature are described as slightly offset, and if continued would not join. A line of parallel slabs laid across the entrance feature is described as a threshold feature. Interior is undulating, small amount of rubble and lightly overgrown.
Source	SMR files

AH No	AH 41
RMP No	LI012-055
Statutory protection	RMP
Townland	Ballyveloge
Parish	Kilkeedy
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	552427, 651668
Description	Knockanabausa Fort. Detail of enclosure is given under AH 40 above. The enclosure is recorded as a circular area defined by a stone bank, which encloses on all sides, and has no visible entrance. Undulating interior with some stone rubble. Lightly overgrown. Approximately 29m in diameter, bank 2.10m in width.
Source	SMR files

AH No	AH 42
RMP No	LI012-127
Statutory	RMP

protection	
Townland	Ballyveloge
Parish	Kilkeedy
Barony	Pubblebrien
Classification	Standing stone
ITM Ref	552690, 651710
Description	A large megalithic type boulder in the field boundary. This could be result of field clearance, but equally could be a boulder burial. A second example is also noted in the field boundary to the east. Closer examination is needed from the N. C O'Rahilly noted in a BGE survey as site C/1/4.
Source	www.archaeology.ie/ SMR file

AH No	AH 43
RMP No	LI012-145
Statutory protection	No
Townland	Ballyveloge
Parish	Kilkeedy
Barony	Pubblebrien
Classification	<i>Fulacht fia</i>
ITM Ref	552671, 651558
Description	Excavated by K Wiggins (Licence Ref.: 02E1697) – Gas Pipeline to the West Report, Section 4 (M Gowen and Co 2003).
Source	www.archaeology.ie/ SMR file

AH No	AH 44
RMP No	LI013-128
Statutory protection	RMP
Townland	Cloghkeating
Parish	Mungret
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	553380, 651409
Description	Situated on a gentle rise in undulating pasture. Not marked on the OS 1924 OS 6-inch map but identified on an aerial photograph during preliminary archaeological work on the N20 Limerick South Ring Road (OS 2 926, 1/5000, No. 2925) as a crop mark of a circular enclosure. The monument was not evident when the site was inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 45 (EX 10)
RMP No	LI013-153
Statutory protection	No
Townland	Derryknockane
Parish	Knocknagaul
Barony	Pubblebrien
Classification	Bridge
ITM Ref	555488, 651526

Description	An area 5 x 1m was excavated in a small semi-circular stone platform at the eastern side of bridge. The stone platform was found to be laid on a layer of hardcore, probably contemporary with bridge construction. No archaeological significance (J Eogan 1996). The evidence suggests all traces have been removed, and consequently not included in revised RMP list (D Power 2010).
Source	SMR files

AH No	AH 46
RMP No	LI013-154
Statutory protection	No
Townland	Derryknockane
Parish	Knocknagaul
Barony	Pubblebrien
Classification	Bridge
ITM Ref	555584, 651519
Description	One of two small bridges noted by C O Rahilly to be investigated prior to road development. No sign of archaeological investigation.
Source	SMR files

Built Heritage

BH No	BH 283
RPS No	18
NIAH No	N/A
Statutory protection	RPS
Townland	Ardaneer
Parish	Shanagolden
Barony	Shanid
Classification	Vernacular farm house
ITM Ref	526382, 650148
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 41 (Also AH 121)
RPS No	667
NIAH No	N/a
Statutory protection	RPS
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church and graveyard
ITM Ref	527018, 650000
Description	None given
Rating	None given

Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 42
RPS No	N/a
NIAH No	21901006
Statutory protection	N/a
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	House
ITM Ref	527301, 649171
Description	Description Detached two-storey T-plan house, built c. 1840, with gable-fronted extension to south, c. 1880, with canted bay window. Lean-to to west elevation. Pitched slate roofs, half-hipped to south gable of extension with rendered chimneystacks, cast-iron rainwater goods, terracotta ridge tiles and timber eaves course. Roughcast rendered walls having render plinth course. Fishscale hipped slate roof to bay window. Square-headed openings throughout, having concrete sills, one-over-one pane and two-over-two pane timber sliding sash windows. Tooled limestone sills to canted bay window and to first-floor window to south elevation of main block. Timber framed windows to north elevation. Square-headed opening to east elevation of end-bay with timber panelled door and overlight. Render step to entrance. Square-headed opening to north elevation having half-glazed timber panelled door. Square-headed opening to north elevation of lean-to with glazed timber battened door and overlight. Pair of square-profile limestone piers to east of house, flanking double-leaf cast-iron gate with foundry mark. Three-bay single-storey outbuilding to north of house. Pitched corrugated-iron roof having render copings and eaves course. Roughcast rendered walls. Square-headed openings with timber fittings. Square-headed vents. Pair of square-profile cut limestone piers to south of building, flanking double-leaf cast-iron gate. Appraisal The regular asymmetrical form of this house marks it out on the landscape. The form is enhanced by the canted bay and half-hipped roof. Artistic interest is added by subtle features such as its render plinth course and the timber sliding sash windows add to the architectural interest. The foundry mark, which reads: 'NEWSOM LIMK 181' is another notable feature and adds context to the site.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 2
RPS No	668
NIAH No	21901005
Statutory	RPS

protection	
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church
ITM Ref	527003, 649747
Description	Description Freestanding gable-fronted Roman Catholic church built in 1830. Comprising five-bay nave with two-bay single-storey flat-roofed porch to west elevation, three-bay single-storey sacristy to east elevation incorporating central single-bay crenellated porch to south elevation. Pitched slate roof having cut limestone copings and finial and cast-iron rainwater goods. Red brick chimneystack to sacristy. Render crenellations to west porch. Roughcast rendered walls, smooth render to west elevation, render plinth course to south, east and west elevations. Render platband to west elevation. Render platband to west porch and sacristy porch. Round-headed openings having painted sills, timber fittings and stained glazed panels to south and west elevations, and to south elevation of sacristy. Segmental-headed opening to west elevation of porch with painted sill and stained glass window. Square-headed opening to south elevation of porch to sacristy, having painted sill and stained glass window. Segmental-headed opening to west elevation of porch with recent timber panelled double doors. Segmental-headed openings to south elevation and interior north elevation of porch, with double-leaf timber panelled doors. Square-headed opening to interior south elevation of porch having timber panelled door. Square-headed opening to east elevation of porch to sacristy, with timber battened door. Step to entrance. Retains interior features including timber pews, marble altar table and timber gallery. Scissors brace roof supports to ceiling. Iron bell mounted on render base to south of church, bell supported on four iron columns. Appraisal The regular form of this church is enhanced by the restraint in the exterior ornamentation, which makes a strong impression on the landscape. The stained glass windows and the decorative Gothic styled reredos in the interior add considerably to the importance of this rural church.
Rating	Regional
Categories of special interest	Architectural, artistic, social
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 3
RPS No	75
NIAH No	N/A
Statutory protection	RPS
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	530532, 649267
Description	None given
Rating	None given

Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 43
RPS No	N/A but directly linked to BH 3, 4 and 5
NIAH No	N/A
Statutory protection	RPS
Townland	Mulderricksfield
Parish	Robertstown
Barony	Shanid
Classification	Concrete pill box
ITM Ref	530655, 649437
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 4
RPS No	74
NIAH No	N/A
Statutory protection	RPS
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	530890, 649131
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 5
RPS No	73
NIAH No	N/A
Statutory protection	RPS
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	531229, 649261
Description	None given
Rating	None given
Categories of special interest	None given

Source	Limerick County Development Plan 2010-2016
BH No	BH 6
RPS No	916
NIAH No	21826001
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	St. Mary's Church
ITM Ref	5334531, 650373
Description	Description Freestanding T-plan gable-fronted Roman Catholic church, built in 1851. Comprising three-bay nave, single-bay transepts, single-bay single-storey sacristy and single-bay single-storey lean-to to north. Ashlar limestone walls with ashlar plinth course, inscribed plaque having trefoil motifs, stringcourse to crenellated gable, carved pinnacles and open-work carved bellcote having cross finial to south elevation. Coursed rubble limestone walls with tooled quoins to north, east and west elevations. Pitched slate roof having limestone eaves course. Pitched slate roof to sacristy. Single-pitched slate roof to lean-to with tall rendered chimneystack. Pointed arch opening to south elevation with timber tracery, stained glass window and carved limestone hood-moulding. Pointed arch openings to nave, transepts and north elevation having timber Y-tracery, stained glass windows, limestone sills and cut limestone voussoirs. Pointed arch opening to south with carved limestone label moulding, carved limestone surround having roll moulding and double-leaf timber battened doors. Pointed arch openings to transepts, south elevation with painted limestone surrounds, cut voussoirs and double-leaf timber battened doors. Pointed arch opening to sacristy having brick voussoirs and spoked fanlight over timber battened door. Square-headed opening to lean-to with timber battened door. Vaulted ceiling to interior having moulded render ribs with ornate corbels. Recent timber porch to entrance. Recent timber panelled wall to altar. Timber galleries to transepts. Crenellated rubble limestone walls to east and west elevations. Limestone monument to east. Limestone high cross style grave marker to west. Rubble limestone boundary walls to south having carved limestone copings and pair of square-profile ashlar limestone piers with carved caps and quatrefoil motifs. Appraisal This attractive church, situated at the west end of Askeaton, is of a substantial size and scale making it an imposing building in the townscape. It was built in 1851 to replace an earlier church in Askeaton, which burnt down in 1847. There is evidence of fine craftsmanship in both the exterior and interior detailing, such as the decorative carved entrance front and the render rib vaults to the interior ceiling. Features such as the crenellated gable with carved pinnacles and ornate plaque further enliven the exterior and are representative of quality mid nineteenth-century craftsmanship and design.
Rating	Regional
Categories of special interest	Architectural, artistic, social
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	N/a
RPS No	N/a
NIAH No	N/a
Statutory protection	Architectural Conservation Area
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	ACA – Associated with the Franciscan Friary
Description	There are three ACAs defined in the Askeaton LAP. (Refer to Appendix 1, Map no.4 Protected Structure and Architectural Conservation Areas.) These are located at the Franciscan Friary, Desmond Castle and running along part of Main Street through to East and West Squares and part of Church Street. Only the ACA surrounding the Franciscan Friary is within the receiving environment of the proposed option. The designation of the ACA does not preclude future development, but the carrying out of works to the exterior of structures within the ACA shall not be considered as exempted development where those works would materially affect the character of the ACA. In assessing development proposals within the ACA, the Council shall take into account the material effect that the proposed development would be likely to have on the character of the ACA (pg 46).
Rating	N/a
Categories of special interest	N/a
Source	Askeaton Local Area Plan (2015-2021)

BH No	BH 7a
RPS No	909
NIAH No	21826007
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Thatched cottage
ITM Ref	533850, 650639
Description	Description Detached three-bay single-storey direct entry thatched house, built c. 1800, having recent two-bay single-storey extension to south elevation. Pitched thatched roof with render copings and rendered chimneystacks. Roughcast rendered walls. Square-headed openings having render surrounds, replacement uPVC windows and concrete sills. Square-headed opening with render surround and replacement uPVC door. Appraisal This traditional thatched house forms an important part of Askeaton's vernacular heritage. Despite its condition, the house presents an early aspect with much of its original form intact, including features such as the arrangement of the openings, which retain their informal quality.
Rating	Local

Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 7b
RPS No	910
NIAH No	21826008
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Thatched cottage
ITM Ref	533851, 650640
Description	Description Detached three-bay single-storey direct entry thatched house, built c. 1800, having two-bay single-storey extension to south and two-bay single-storey lean-to to north elevation. Pitched thatched roof with rendered chimneystacks. Single-pitched corrugated-iron roofs to extension and lean-to. Roughcast rendered walls. Square-headed openings with replacement uPVC windows and concrete sills. Square-headed opening having replacement uPVC door. Appraisal This modest-scale house forms an important element of the vernacular heritage of Askeaton, as indicated by the low massing and steeply thatched roof. The house retains early fabric throughout and, although the windows have been enlarged, they retain their informal rhythm, contributing to the traditional character of the façade.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 7c
RPS No	911
NIAH No	N/a
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Water pump
ITM Ref	533805, 650586
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 7d (Also AH 18)
RPS No	912, 913, 914
NIAH No	N/a
Statutory protection	RPS (National Monument, RMP)
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Franciscan Friary, boundary wall & former RC Church
ITM Ref	533956, 650747
Description	See AH 18
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 7e
RPS No	915, 916
NIAH No	21826014
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Askeaton Mill & sluice
ITM Ref	533979, 650676
Description	Description Detached rectangular-plan ten-bay four-storey corn mill, built in 1796, later used as a creamery, having multiple-bay single-storey extension and lean-to to north elevation. Now derelict. Three-bay four-storey block to east having single-storey lean-to to north elevation and taller projecting end-bay to south elevation. Hipped slate roof. Tooled coursed limestone walls. Square-headed window openings having brick block-and-start surrounds with remains of some timber sliding sash and cast-iron windows. Window openings to west elevation now blocked up. Square-headed opening to lean-to having double-leaf timber battened sliding doors. Hipped slate roof to east block and projecting end bay. Coursed rubble limestone walls with tooled limestone quoins. Square-headed window openings having brick block-and-start surrounds and remains of bipartite windows. Square-headed opening to east elevation with timber battened door. Square-headed opening to projecting end bay, north elevation having timber louvered vents. Mill race to west with round-headed arch having limestone voussoirs and keystone. Rubble limestone boundary walls to east and north. Appraisal This former mill is a reminder of the industrial heritage of Askeaton. Although now in disuse, the building largely retains its original form and features, including brick surrounds, timber battened door and slate roofs. Tooled limestone walls lend textural interest to the building. The Condensed Milk Company of Ireland acquired the mill in 1909 and it was used as a creamery from 1927 until recently.
Rating	Regional

Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 7f
RPS No	917
NIAH No	21826015
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Former nursing home
ITM Ref	534006, 650630
Description	Description Detached three-bay two-storey former miller's house, built c. 1810, having portico to front (south) elevation and recent multiple-bay single-storey extension to south and four-bay two-storey extension to west. Skirt slate roof with rendered chimneystacks. Rendered walls. Square-headed openings to front elevation having six-over-six pane timber sliding sash windows and painted stone sills. Those to west elevation having replacement uPVC windows. Portico comprising Doric style render pilasters supporting moulded entablature. Square-headed opening with timber panelled door. Pair of square-profile metal piers with ball finials and single-leaf metal gate to east and rubble limestone boundary walls having cut limestone copings. Appraisal This building retains much of its original form and character to the exterior, despite recent additions and alterations. Situated adjacent to the River Deel, south of Abbey Mills, the house was formerly part of the mill complex. It remains a prominent feature in the landscape of Askeaton and is enhanced by its good quality boundary walls.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 8
RPS No	608
NIAH No	N/A
Statutory protection	RPS
Townland	Moig South
Parish	Askeaton
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	533960, 650968
Description	None given
Rating	None given

Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 9
RPS No	907
NIAH No	N/A
Statutory protection	RPS
Townland	Moig South
Parish	Askeaton
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	534097, 651047
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 10
RPS No	906
NIAH No	N/A
Statutory protection	RPS
Townland	Moig South
Parish	Askeaton
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	534292, 651052
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 44
RPS No	88
NIAH No	N/a
Statutory protection	RPS
Townland	Ballyengland Lower
Parish	Askeaton
Barony	Connello Lower
Classification	Thatched house
ITM Ref	536943, 651640
Description	None given
Rating	None given
Categories of special interest	None given

Source	Limerick County Development Plan (2010-2016)
BH No	BH 11
RPS No	89
NIAH No	21901107
Statutory protection	RPS
Townland	Ballyengland Lower
Parish	Askeaton
Barony	Connello Lower
Classification	Stables
ITM Ref	537188, 650809
Description	Description Detached three-bay single-storey thatched stables, built c. 1810, having lean-to to south elevation. Pitched thatched roof, with render coping to north gable. Corrugated iron roof to lean-to. Rubble stone walls, rendered in places, whitewashed. Roughcast rendered walls to lean-to. Square-headed openings to front (east) elevation with timber doors. Appraisal This simple outbuilding is set within a farmyard. Its thatched roof and rubble stone walls are examples of the vernacular tradition of building which is fast disappearing from the Irish countryside.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 45
RPS No	293
NIAH No	N/a
Statutory protection	RPS
Townland	Cowpark
Parish	Kilcornan
Barony	Kenry
Classification	Kilcornan School
ITM Ref	539800, 651666
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 12
RPS No	348
NIAH No	21901122
Statutory protection	RPS
Townland	Dromlohan

Parish	Kilcornan
Barony	Kenry
Classification	School
ITM Ref	540335, 652176
Description	Description Detached three-bay two-storey former school, built c. 1830. Having recent single-storey extension to front (south) elevation and two-storey porch to first floor of east elevation, with external staircase. Remains of lean-to to west elevation. Pitched slate roof having rendered red brick chimneystacks and cast-iron rainwater goods. Corrugated-iron roof to extension. Roughcast rendered walls, rubble stone visible in places. Rendered walls to extension. Square-headed openings to south elevation with bipartite six-over-six pane timber sliding sash windows. Wire mesh over ground floor windows. Square-headed opening to north elevation, first floor of porch having timber fittings. Square-headed openings to south elevation of extension having timber framed windows with wire mesh. Square-headed opening to first floor, south elevation of porch with timber fittings. Rendered dog-leg staircase having half-pace landing and rendered wall to entrance. Square-headed opening to north elevation of extension with timber fittings and metal door. Rendered step to entrance. Square-headed opening to north elevation having metal door. Pair of rubble stone piers to west of building with double-leaf cast-iron gate. Appraisal Though it is quite overgrown and in a state of disrepair, this former school displays some interesting features, notably its two-storey entrance porch and external staircase. Its bipartite timber sliding sash windows are also significant.
Rating	Regional
Categories of special interest	Architectural, social
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 13
RPS No	304
NIAH No	21901123
Statutory protection	RPS
Townland	Currahchase North
Parish	Kilcornan
Barony	Kenry
Classification	Demesne walls/ gates/ railings
ITM Ref	540257, 652369
Description	Description Entrance gateway to Holly Park House, erected c. 1830, comprising two pairs of square-profile carved limestone piers with cut limestone plinths and caps having round-headed façades, with recessed panel and crest to each elevation. Piers flanking double-leaf cast-iron vehicular gate and single-leaf pedestrian gates. Foundry mark to pedestrian gate reads: 'Fielding / Greeks'. Cut limestone walls having dressed limestone coping flanking gateway. Appraisal This decorative gateway remains intact, preserving its original character and form and adding considerable artistic interest to the roadscape. Fine technical

	skill is evident in the stone and metal work.
Rating	Regional
Categories of special interest	Architectural, artistic, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 14
RPS No	349
NIAH No	21901201
Statutory protection	RPS
Townland	Curraheen
Parish	Kildimo
Barony	Kenry
Classification	Gate lodge
ITM Ref	542976, 653889
Description	Description Detached three-bay single-storey former gate lodge, built in 1883. Comprising gable-fronted end-bay to east and projecting gable-fronted end-bay to west having cat-slide roof over veranda. Pitched overhanging artificial slate roofs with timber bargeboards, finials, ornate brackets and limestone chimneystack. Snecked limestone walls with date stone to west gable, north elevation, plinth course, chamfered quoins, carved heraldic plaque to west gable front (south) elevation and carved plaque with quatrefoil motif to east gable. Square-headed opening to east gable, front elevation and west gable, north (rear) elevation having limestone transoms, block-and-start surrounds and timber casement windows. Square-headed bipartite openings to west gable, front elevation and east gable, north elevation with limestone transoms and mullions, block-and-start surrounds and timber casement windows. Square-headed openings to front and rear elevations having limestone block-and-start surrounds and timber panelled doors. Octagonal painted stone piers to west with replacement timber gates and rubble limestone boundary walls. Appraisal This gate lodge once formed an integral part of the Dromore Castle demesne and, as is typical for such structures, mirrors the Gothic Revival style of the main house. Its asymmetric form is well proportioned and displays fine attention to detail as seen in the chamfered corners and quality craftsmanship evident in the finely carved plaques. The gate lodge retains its decorative windows and elegant recessed entrance with cat-slide roof. The carved finials and simple bargeboards add further interest and rhythm to the façade. The site retains its stone piers, which further enhance the composition of the site.
Rating	Regional
Categories of special interest	Architectural, artistic
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 15 (Also AH 32)
RPS No	413
NIAH No	N/A

Statutory protection	RPS (National Monument, RMP)
Townland	Glennamade
Parish	Kildimo
Barony	Kenry
Classification	Church
ITM Ref	543404, 653423
Description	See AH 32
Rating	Regional
Categories of special interest	Architectural, artistic
Source	Limerick County Development Plan (2010-2016)

BH No	BH 16
RPS No	186
NIAH No	N/A
Statutory protection	RPS
Townland	Bolane
Parish	Kildimo
Barony	Kenry
Classification	Bolane House
ITM Ref	543861, 653393
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 46
RPS No	278
NIAH No	21901205
Statutory protection	RPS
Townland	Coolbeg
Parish	Kildimo
Barony	Kenry
Classification	Thatched house
ITM Ref	544982, 653402
Description	Description Detached four-bay single-storey lobby entry thatched house, built c. 1800. Hipped thatched roof with brick chimneystack. Roughcast render over rubble limestone walls. Square-headed openings having replacement uPVC windows and concrete sills. Square-headed opening with replacement uPVC door. Square-headed opening to rear (north) elevation having replacement uPVC door. Six-bay single-storey outbuilding to north with pitched slate roof. Roughcast render over rubble limestone walls. Square-headed window openings having red brick surrounds. Square-headed openings having red brick voussoirs and timber battened doors. Three-bay single-storey outbuilding to west with lean-to to east elevation. Pitched corrugated-iron roof and painted rubble stone walls. Square-

	headed door openings. Appraisal This traditional thatched house retains its original, simple footprint and forms an important part of Limerick's vernacular heritage. Features such as its single-storey massing and steeply pitched thatched roof are typical of its type. Overall, the house presents an early aspect, complete with typical attributes such as the arrangement of the openings, which retain an informal quality.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 17
RPS No	279
NIAH No	N/A
Statutory protection	RPS
Townland	Coolbeg
Parish	Kildimo
Barony	Kenry
Classification	School
ITM Ref	544902, 652835
Description	None given
Rating	None given
Categories of special interest	None given
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 47
RPS No	163
NIAH No	21901206
Statutory protection	RPS
Townland	Ballyvareen
Parish	Kildimo
Barony	Kenry
Classification	Slattery's Pub
ITM Ref	545005, 652791
Description	Description Semi-detached three-bay two-storey former house, built c. 1840, having recent extension to rear (south) elevation. Pitched slate roof with brick chimneystacks. Red brick walls with snecked limestone plinth course. Rendered walls to rear and west elevations. Paired round-headed openings to first floor with rounded brick surrounds, one-over-one pane timber sliding sash windows and painted stone sills. Paired round-headed openings to ground floor having chamfered brick surrounds, fixed windows, cast-iron sill guards and painted stone sills. Round-headed opening with glazed overlight over double-leaf half-glazed timber panelled doors having chamfered red brick surround.

	Appraisal This handsome building displays fine brick dressings, especially to the window and door surrounds, which enhance the balanced proportions of the façade. Prominently sited addressing the main street, the building presents a striking frontage to the streetscape. The house was situated adjacent to the former constabulary barracks in the late 19th century and may have historically been in use as a police barracks.
Rating	Regional
Categories of special interest	Architectural, social
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 48
RPS No	161
NIAH No	21901207
Statutory protection	RPS
Townland	Ballyvareen
Parish	Kildimo
Barony	Kenry
Classification	Thatched house
ITM Ref	545137, 652772
Description	Description Detached three-bay single-storey direct entry thatched house, built c. 1800, with single-bay single-storey extension to west and recent extension to rear (north) elevation. Pitched thatched roof with rendered chimneystacks and render copings. Rendered walls. Square-headed openings having replacement uPVC windows and concrete sills. Square-headed opening with replacement uPVC door. Appraisal This house forms an important element of the vernacular heritage of West Limerick, as identified by features such as the low massing and thatched roof. Reasonably well maintained, the cottage presents an early aspect with much of the original form intact, despite additions. The house remains an attractive feature in the village of Kildimo.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 49
RPS No	N/a
NIAH No	21901230
Statutory protection	N/a
Townland	Ballybrown
Parish	Kilkeedy
Barony	Pubblebrien

Classification	Gate Lodge
ITM Ref	550713, 653532
Description	Description Detached former gate lodge, built c. 1828, comprising single-bay two-storey slightly projecting centre-bay having lower, recessed single-bay two-storey wings to north and south elevations with single-bay single-storey entrance block to south wing, south elevation. Cut limestone crenellations to roofline with rendered chimneystacks. Projecting parapet to centre-bay. Ashlar limestone walls having limestone plinth course and buttresses to centre-bay. Blind cross loops to north wing, first floor and projecting parapet. Square-headed openings with replacement uPVC windows. Bipartite square-headed openings to centre-bay first floor having limestone mullions and replacement uPVC windows. Elliptical-headed former carriage arch with cut limestone voussoirs and inset segmental-headed opening with glazed overlight over timber panelled door with flanking sidelights. Shallow pointed arch opening to south block having rusticated limestone block-and-start surround and double-leaf timber battened doors. Sweeping crenellated limestone walls to north and south terminating in pair of crenellated round-profile limestone piers. Appraisal This handsome and impressive former gate lodge once gave access to the country house demesne of Elm Park, an important and historical estate, once the residence of Lord Clarina. The castellated country house is now demolished. This building was formerly one of two gate lodges built by James and George Richard Pain for the Massy family. Though no longer in use as an entrance, the gate lodge stands as a reminder of an era in Irish history and as an insight into the former status of the Elm Park estate. The use of Gothic Revival details and dressings as seen in the crenellated bays and cross loop details are a tribute to the craftsmen of the past. The gate lodge adds significantly to the architectural heritage of the village of Clarina.
Rating	Regional
Categories of special interest	Architectural, artistic
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 18
RPS No	360
NIAH No	21901231
Statutory protection	RPS
Townland	Ballycarney
Parish	Kilkeedy
Barony	Pubblebrien
Classification	Forge
ITM Ref	550999, 653064
Description	Description Detached two-bay single-storey former forge, built c. 1860. Pitched artificial slate roof with terracotta ridge crestings, brick chimneystack and render copings. Snecked limestone walls. Square-headed window opening having limestone sill and double-leaf timber battened shutters. Square-headed opening with timber battened door. Rubble limestone boundary walls, curved to north.

	Single-leaf cast-iron pedestrian gate to south boundary wall. Appraisal This is a well-preserved example of a forge, associated with the former Elm Park demesne. Though functional in construction, it presents a handsome façade to the roadside, with its decorative roofline and timber fittings. It retains its historic form and much of its fabric including the well preserved boundary walls. This building adds significantly to the social and cultural heritage of the area. (Note the building has since been renovated and extended).
Rating	Local
Categories of special interest	Architectural, social
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

Designed Landscapes

DL No	DL 1
RPS?	Associated with the ruins of Ballyclogh House, which is listed in the RPS
NIAH Survey No	LI-64-R-311484
Statutory protection	Associated with RPS
Name	Ballyclogh House demesne
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as ' Virtually no recognisable features. Principal building in ruins.' Formal gardens present to the east of the principal building on the 6" map are no longer present. Mature planting is present around the internal and external boundaries. Demesne features are degraded, now mainly arable fields.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 2
RPS?	Associated with the ruins of Currahchase House, which is listed in the RPS
NIAH Survey No	LI-65-R-409491
Statutory protection	Associated with RPS
Name	Currahchase House demesne
Townland	Currahchase, Currahchase North
Parish	Kilcornan
Barony	Kenry
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - peripheral features unrecognisable. Principal building is in ruins, one of the out buildings appears to be in use. Enclosure visible, now contains a separate house. The site contains two loughs one of which has nearly completely silted up'. Large areas of woodland are depicted on the 6" map surrounding an interior of planted parkland around the principal building. Large tracts of woodland still

	cover a large portion of the demesne but the areas of planted parkland have been returned to pasture.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 3
RPS?	No
NIAH Survey No	LI-65-R-426533
Statutory protection	No
Name	Ballynolan House demesne
Townland	Ballynolan
Parish	Kildimo
Barony	Kenry
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features unrecognisable - peripheral features visible. Remnants of mature planting visible near the principal building.' The 6" map shows planting along the field boundaries and adjacent to the principal structure. A belt of woodland is also depicted along the eastern boundary of the demesne. Some planting is still evident. By the time of the 25 inch edition the demesne has been extended to the southeast with additional planting added to the boundaries. Planting still evident today.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 4
RPS?	Associated with Bolane House, which is listed in the RPS
NIAH Survey No	LI-65-R-438534
Statutory protection	Associated with RPS
Name	Bolane House demesne
Townland	Bolane
Parish	Kildimo
Barony	Kenry
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Virtually no recognisable features'. However, the principal buildings remains and is a protected structure and the small demesne landscape retains much of its mature planting and character. Some modern outbuildings have been added to the north of the principal structure.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 5
RPS?	Associated with the ruins of Dromore Castle, which is listed in the RPS
NIAH Survey No	LI-65-R-438534
Statutory protection	Associated with RPS
Name	Dromore Castle demesne
Townland	Dromore

Parish	Kildimo
Barony	Kenry
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - peripheral features unrecognisable'. The principal buildings remains as a ruin in the northern part of the demesne and is a protected structure. The demesne is not shown on the first edition six inch map. However, the 25 inch mapping clearly shows the castle to the north and a demesne landscape that is covered by woodland for the most part. A walled garden and outbuildings are shown further north of the castle. Today the demesne remains covered by woodland and a number of associated features, such as the ruins of the castle and the walled garden survive. The remains of the castle are listed within the NIAH as being of national importance.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 6
RPS?	Associated with the Court House, which is listed in the RPS
NIAH Survey No	LI-65-R-466528
Statutory protection	Associated with RPS
Name	Court House demesne
Townland	Court
Parish	Kildimo
Barony	Kenry
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features unrecognisable - peripheral features visible'. The first edition OS map shows a group of three small buildings with some planting around the principal structure and gardens to the immediate west. Later editions show the buildings have been increased in size and amount but the demesne has lost most of its characteristics.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 7
RPS?	No
NIAH Survey No	LI-65-R-503528
Statutory protection	No
Name	Elm Park Demesne
Townland	Elm Park Demesne
Parish	Kilkeedy
Barony	Pubblebrien
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features unrecognisable - peripheral features visible'. The main house is no longer extant however the courtyard and stables and enclosed area labelled nursery are surviving in the western limits. Degraded, now mainly arable with only hedgerow trees remaining and woodland no longer present. Residential development along eastern edge of the site. Some smaller tertiary demesne features survive,

	including Clarina Lodge, which formed the gated entrance to the demesne (BH 49).
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

Appendix 1.2 Recorded Archaeological & Architectural Heritage Sites within the receiving environment of Route Option 2

Topographical Files

NMI No	Townland	Classification	Location (if recorded)
IA/12/64	Robertstown	Burials (AH 6)	AH 6
Site of human inhumations discovery. The site is a low gravel ridge (50' OD) used as a gravel pit, location 6" OS Sheet 10 39.5cm from W 5.8cm from S. Initially 5 skeletons were uncovered by mechanical excavator on the 28th January 1964, whilst a further 18 were discovered on 5th February. The remains had been removed to Foynes Garda Station by the authorities prior to Museum investigation. The top surface of the ridge had been stripped by bulldozer to a depth of 0.5m. Seven skeletons were uncovered by Peter Danagher of NMI. Two of these burials lay in shallow graves c. 0.90m below the surface, extended E-W, lying on fine gravel. The south side of one grave was lined with large spalls. Another burials, again E-W, was uncovered close to this, although only 0.6m below surface. A fourth burial, at a depth of 0.9m contained 4 skeletons 'lying on each other'. All the skeletons in this group were adult, average 1.75m height. No grave goods were present. Approximately 4m SE of the burials there were some large patches of burnt stone, although these failed to yield any archaeological objects. Determined to be Early Christian.			

NMI No	Townland	Classification	Location (if recorded)
1995:46	Moig South	Bronze binding strip	Not given
Decorated bronze binding strip. No dimensions given. Loan from Limerick Museum.			

NMI No	Townland	Classification	Location (if recorded)
1961:275-8	Cloonreask	Bronze chisel, 3 Glazed Potsherds (possibly Roman)	Not given
Small bronze chisel (1961:275) with narrow convex cutting edge and a sharp point at opposing end. Somewhat corroded. The section of the pointed end is round, with the section at cutting edge rectangular. L 7.35cm D (pointed end) 0.35 cm. Found in a group with ceramics in surface soil, probable habitation site. The NMI thought the chisel is of the same typology of objects from Bishopsland Hoard c. 500 BC, but smaller in dimensions. The pottery is said to be conventionally 'medieval' in look, but given the stratigraphy, it is possible that they are Roman (Ellen Prendergast and Etienne Rynne agreed).			

NMI No	Townland	Classification	Location (if recorded)
1995:47-66	Cloonreask	Bronze Ring, 7 Musket Balls, 12 Copper Coins	Not given
Bronze Ring (1995:47), Musket Balls (1995:48-54), Copper Coins (1995:55-66).			

NMI No	Townland	Classification	Location (if recorded)
Record only	Rathkeale	Gold band	Not given
The object was a thin gold band found in the neighbourhood of Rathkeale, Co. Limerick in 1855, and a note on the object was published (JRSAI) in 1857 by Capt. Edward Hoare. The object was described as a strip of gold 0.45m in length, maximum width 0.055m, tapering from mid-point to the ends. The terminals were rounded, and pierced with a central perforation. The edges were outlined in repousse decoration. A further decoration of repousse pellets at each end terminated in a cruciform pattern. Raghnaill O Floinn noted that the band represents an example of a small group of similar objects from Ireland and W. Scotland dated to the 11th/12th centuries AD. It is noted that a plausible function for such objects is moot, but it is almost certain that it is a			

personal ornament. Discovery of a similar band in 11th century deposits in Dublin would suggest a Scandinavian character, although the distributions noted would suggest an Irish Sea nucleus. It may well be that this type of ribbon band should be regarded as an ornament peculiar to Ireland during the Viking Age.

Archaeological Heritage

AH No	AH 1
RMP No	LI010-012
Statutory protection	RMP
Townland	Ardaneer
Parish	Shanagolden
Barony	Shanid
Classification	Ringfort
ITM Ref	526448, 650267
Description	In low-lying pasture, with frequent outcrops of limestone. Circular area (25.2m N-S; 24.6m E-W) enclosed by earth-and-stone bank (int. H 0.65m; ext. H 0.5m), with external bank (int. H 0.25m; ext. H 0.6m) NW->NE. No obvious entrance but cattle breaks at N and NE. Interior level and covered by tall grass. Enclosure abutted by earthen banks at NE (L-shaped: extends 15.8m to N and then returns W for 21m; Wth 0.95m; H 0.4m), at SW (L 0.45m; Wth 1.2m; H 0.6m) and at NW (L 15.3m; Wth 2.4m; H 0.45m). These are probably remnants of an ancient field system. Immediately NE of enclosure is area which has been surface quarried for limestone (22m N-S; 22m E-W; D c. 0.7m).
Source	www.archaeology.ie/ SMR file

AH No	AH 2
RMP No	LI010-106
Statutory protection	RMP
Townland	Sroolane North
Parish	Shanagolden
Barony	Shanid
Classification	Mill
ITM Ref	526896, 650065
Description	The 1840 OS six-inch map shows a rectangular structure in this location that is named 'Old Mill'. No structure is shown in this location on later editions of the OS map and there is now evident trace of such a structure on the ground.
Source	www.archaeology.ie/ SMR file

AH No	AH 121 (also BH 41)
RMP No	LI010-069001/2
Statutory protection	RMP (Also RPS)
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church and graveyard
ITM Ref	527018, 650000

Description	File not reviewed.
Source	www.archaeology.ie/ SMR file

AH No	AH 3
RMP No	LI010-068
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	526914, 649791
Description	In tillage, on local rise in generally flat low-lying terrain. Monument, depicted as embanked circular enclosure (diam. c. 30m) on 1841 OS 6-inch map, has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 4
RMP No	LI010-144
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	527057, 649798
Description	D Power, 2009, "According to Lar Dunne 'the landowner identified a number of coherent enclosure sites in the adjacent field some 150m east of SMR 10:68. These features were clearly visible on an aerial photograph obtained for the assessment'".
Source	SMR file

AH No	AH 5
RMP No	LI010-070
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	527376, 649346
Description	Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been removed. Area of site occupied by derelict gravel quarry.
Source	www.archaeology.ie/ SMR file

AH No	AH 6
RMP No	LI010-071
Statutory protection	No
Townland	Robertstown

Parish	Robertstown
Barony	Shanid
Classification	Burial ground
ITM Ref	527635, 649591
Description	In 1964 'over thirty skeletons were discovered, buried in a low gravel-ridge' (Dannaher 1964) during quarrying operations. Most of these were removed prior to the site being archaeologically investigated, and the topsoil removed so that 'it was impossible to ascertain if there had been any surface indications of the graves' (ibid.). Investigations revealed 'a further seven skeletons, all of adults, in four separate graves, close to one another and all orientated East-West' (ibid.). There were no grave goods. The conclusion was that these were burials 'from the Christian Period' and, because they were buried in unconsecrated ground, 'the result of a plague or famine in the area' (ibid.). This area is now part of an industrial complex.
Source	www.archaeology.ie/ SMR file

AH No	AH 7 (EX 3)
RMP No	LI010-140
Statutory protection	No
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Isolated pit and stakes
ITM Ref	528231, 649430
Description	An isolated pit and stakes excavated by Emer Dennehy (Licence Ref.: 02E0752) and described as 'a pit 0.3m deep. Five stakes, averaging 0.08m in diameter and with a maximum depth of 0.25m, were driven into the base of the pit. All of the stakes-holes were filled with the same charcoal-rich, silty peat, indicating that they were likely to have been burnt in situ. Subsequently the pit had been left open and filled naturally over time. Although there is no clear indication of function for this pit, it can be concluded that there was deliberate human action and forethought involved in the use of the site.'
Source	www.archaeology.ie/ SMR file

AH No	AH 8
RMP No	LI010-074
Statutory protection	RMP
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	528231, 649430
Description	On slight rise in undulating pasture. Roughly square area (23.5m N-S) enclosed by collapsed stone and earth wall (int. H 0.8m; ext. H 1m) incorporated into surrounding field-boundary system on E and S sides. Gap (Wth. 1.4m) on N side to NNE. Interior level but densely overgrown except for N end; strewn with stones from collapsing walls.
Source	www.archaeology.ie/ SMR file

AH No	AH 9
RMP No	LI010-081
Statutory protection	RMP
Townland	Craggs
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	528802, 649319
Description	In area of mixed pasture, scrub and quarrying. Site, marked as circular enclosure (diam. c. 25m) on 1923 OS 6-inch map, does not appear to be extant in area heavily modified by surface quarrying and covered by scrub overgrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 10
RMP No	LI010-087
Statutory protection	RMP
Townland	Craggs
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	529313, 649135
Description	In undulating pasture, on N-facing slope. Roughly rectangular area (31m N-S) enclosed by collapsed dry-stone wall (int. H 1.6m; ext. H 1.4m; Wth. 8m), but truncated on N side by E-W field boundary. Centre of interior and W side of enclosure covered by dense overgrowth of bush. Only apparent point of access gap in field boundary to N (Wth. 2m). Interior surface lower than that of surrounding terrain (D c. 0.2m). Immediately outside rounded SE corner is rectangular structure (7m N-S; 10.2m E-W) defined by collapsed dry-stone wall (H c. 0.6m; Wth. c. 3m); E side almost entirely removed; low wall (H 0.4m; Wth. 0.8m) divides interior on N-S axis. Collapsed wall (L 3.6m; Wth. 0.8m; H c. 0.3m) links both enclosures.
Source	www.archaeology.ie/ SMR file

AH No	AH 11
RMP No	LI0190-073
Statutory protection	RMP
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	528027, 649674
Description	Atop slight rise, in otherwise level terrain. Site is completely covered by dense overgrowth but as far as can be ascertained consists of circular area (diam. c. 25m) enclosed by earthen bank (int. H 0.5m; ext. H 0.6m) with external fosse (D 0.4m; Wth c. 2m).
Source	www.archaeology.ie/ SMR file

AH No	AH 12 (EX 4)
RMP No	LI010-141001-3
Statutory protection	No
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Burnt mound, pit, road way
ITM Ref	529743, 648955
Description	001 - A burnt mound excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a circular mound, 16m in diameter and 0.84m deep. It was composed of 70% limestone and 30% sandstone in a charcoal-enriched matrix. Six phases of activity were identified in the mound. A shallow rectangular trough was present at the base of the mound, measuring 4.3m north-south by 2.45m.' 002 - Pits excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a complex of six roasting pits excavated into the underlying gravel. The pits were subcircular, averaging 1.5m north-south by 1.2m, with an average depth of 0.4m. The roasting pits would not have retained water and were filled with burnt sandstone and limestone in a charcoal-enriched matrix.' 003 - A limestone trackway excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a trackway composed of two courses of fractured limestone bedrock, measuring 10m north-south by 15.5m. It served to connect the roasting pits of Area B to the debris mound of Area A. The need for the construction of the trackway arose during Phase 2 of the history of the site. It provided a secure, level footing to combat adverse weather conditions, the encroachment of peat and the seasonal flooding from the nearby stream.'
Source	www.archaeology.ie/ SMR file

AH No	AH 13
RMP No	LI010-099
Statutory protection	RMP
Townland	Mulderricksfield
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	530646, 649365
Description	In low-lying level area, newly planted with coniferous trees. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been levelled, except for arc of earth-and-stone bank (C 18m; H c. 0.65m; Wth c. 1.15m) NW->NE. Otherwise area of site covered by tall rough grass and newly planted trees.
Source	www.archaeology.ie/ SMR file

AH No	AH 14
RMP No	LI010-098
Statutory protection	RMP
Townland	Ballyclogh

Parish	Lismakeery
Barony	Connello Lower
Classification	Ringfort
ITM Ref	530634, 649059
Description	In woodland. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, could not be located due to impenetrable undergrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 15
RMP No	LI010-097
Statutory protection	RMP
Townland	Ballyclogh (Connello Lower By.)
Parish	Lismakeery
Barony	Connello Lower
Classification	Ringfort
ITM Ref	530633, 648974
Description	In woodland. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, could not be located in impenetrable undergrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 16 (EX 5)
RMP No	LI010-134
Statutory protection	No
Townland	Ballyellinan
Parish	Lismakeery
Barony	Connello Lower
Classification	Pit
ITM Ref	531140, 649523
Description	A 'fire-pit' excavated by Graham Hull (Licence Ref.: 02E0873)
Source	www.archaeology.ie/ SMR file

AH No	AH 17 (EX 6)
RMP No	LI010-149
Statutory protection	No
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	<i>Fulacht fia</i>
ITM Ref	531858, 649429
Description	Excavation by Brian Halpin (Licence Ref.: 02E0748) and described as 'heat-shattered stones and charcoal-rich material, typically associated with a fulacht fiadh.'
Source	www.archaeology.ie/ SMR file

AH No	AH 79
RMP No	LI019-059
Statutory protection	RMP
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	Castle
ITM Ref	531747, 648836
Description	A castle held by the Nash family from at least the 16th century; they built a country house on the site in 1740 (Westropp 1906-7, 208). This house is a '3 storey 18th century house with a tripartite fan-lighted doorway ... plasterwork of mid-18th century type in hall ceiling; staircase of good joinery with gallery.' (Bence-Jones 1978, 20). The house was restored in the 1970s (ibid.).
Source	www.archaeology.ie/ SMR file

AH No	AH 80
RMP No	LI019-060
Statutory protection	No
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	Redundant record
ITM Ref	531934, 648729
Description	Field report indicates that this was a natural mound of gravel which has been quarried- therefore made a 'redundant record'.
Source	www.archaeology.ie/ SMR file

AH No	AH 81 (EX 11)
RMP No	LI019-268/269
Statutory protection	No
Townland	Baunreagh
Parish	Askeaton
Barony	Connello Lower
Classification	<i>Fulachtaí fia</i>
ITM Ref	532803, 648790
Description	268 - Excavated by Brian Halpin (Licence Ref. 02E0750) when 'topsoil-stripping of Bord Gáis Éireann's Pipeline to the West uncovered a spread of burnt material associated with <i>fulacht fia</i> activity. This site, a thin spread of charcoal-rich material with heat-shattered stone, was partially exposed at the edge of the pipeline corridor and measured c. 10m in diameter. No trough or other features were encountered. A small stream lying c. 6m to the west of the site continually flooded the area, making excavation extremely difficult.' Grogan, E., O'Donnell, L. & Johnston, P. (2007) The Bronze Age Landscapes of the Pipeline to the West, Wordwell, p258. 269 - Discovered by Brian Halpin (Licence Ref. 02E0750) during 'topsoil-stripping of Bord Gáis Éireann's Pipeline to the West ... when a further small burnt spread

	was situated c. 17m west of the above site (LI019-268----), on the opposite side of the stream. After this area had been cordoned off, heavy machinery destroyed all trace of the possible archaeology.'
Source	www.archaeology.ie/ SMR file

AH No	AH 82 (EX 12)
RMP No	LI019-267
Statutory protection	No
Townland	Baunreagh
Parish	Askeaton
Barony	Connello Lower
Classification	Pit
ITM Ref	533114, 648488
Description	According to Graham Hull (Licence Ref. 02E0661) 'this site was examined as part of Bord Gáis Éireann's Pipeline to the West. An isolated bowl-shaped pit, 0.44m in diameter and 0.15m deep, was excavated. The fill was a fine, mid-brown silt with occasional charcoal inclusions. No artefacts were recovered, and it is not possible to date the feature. The presence of fire-oxidised clay to the south-west, however, suggests in situ burning.'
Source	www.archaeology.ie/ SMR file

AH No	AH 83 (EX 13)
RMP No	LI019-163001/2
Statutory protection	No
Townland	Baunreagh
Parish	Askeaton
Barony	Connello Lower
Classification	Excavation & <i>fulacht fia</i>
ITM Ref	533248, 648355
Description	001 - <i>fulacht fia</i> excavated by Brian Halpin (Licence Ref. 02E0741) when 'topsoil-stripping on Bord Gáis Éireann's Pipeline to the West uncovered a burnt spread in Baunreagh townland, Co. Limerick (BGE 3/51/1). The spread measured 5.2m north-west/south-east along the limit of excavation. It is estimated that it had a possible extent of 1.6m north-south. It was composed of a very thin deposit of charcoal-rich material and heat-shattered stones. The site was cleaned to reveal an irregular spread lying on a grey/white silty clay. Pipe-laying works disturbed large sections of the spread, with two large digger buckets of material being scooped out of the centre. Investigations at the site did not reveal any troughs or features associated with the burnt spread.' 002 - Excavated by Brian Halpin (02E0741; BGE 3/51/2) when 'Approximately 30m north-west of the above site (LI020-163001-) was BGE 3/51/2. Six shallow pits/depressions cut into the yellow/grey clay subsoil were excavated. These features were very irregular in shape, with no discernible cut. All contained heat-shattered stone and charcoal-rich material, indicating <i>fulacht fia</i> activity. All were fairly shallow, and the largest had a maximum length of 3.8m north-south. It is probable that they were contemporary with the adjacent <i>fulacht fia</i> activity. None shows any evidence of function, and they may be undulations in the natural, filled in with burnt material. The site is in very wet, boggy land.'
Source	www.archaeology.ie/ SMR file

AH No	AH 84
RMP No	LI020-002
Statutory protection	RMP
Townland	Ballynacaheragh
Parish	Askeaton
Barony	Connello Lower
Classification	Enclosure
ITM Ref	533471, 648136
Description	No detail given.
Source	www.archaeology.ie/ SMR file

AH No	AH 85 (EX 14)
RMP No	LI020-175/177
Statutory protection	No
Townland	Milltown North
Parish	Lismakeery
Barony	Connello Lower
Classification	<i>Fulacht fia</i>
ITM Ref	533814, 647719
Description	001 - <i>fulacht fia</i> excavated by Brian Halpin (02E0643) when 'topsoil-stripping on Bord Gáis Éireann's Pipeline to the West uncovered a <i>fulacht fia</i> in Milltown North townland, Co. Limerick. This site was the disturbed remains of a <i>fulacht fia</i>, with a trough and associated features. The site probably contained a large mound, lost through later agricultural activity. This was evident from traces of burnt material remaining in the baulk at the limit of excavation to the south of the site. The only visible remnants of the monument were the cut features that held the burnt material. Numerous natural undulations in the subsoil throughout the site also contained burnt material. A sub-oval trough measuring 2.3m east-west by 1.86m, with a maximum depth of 0.36m, was uncovered in the eastern area of the site. It had gently sloping sides and an unlined, flat base and contained numerous fills typically associated with a trough. All of the fills contained charcoal-rich material with heat-shattered stones throughout. Numerous other pits were excavated, all irregular in shape and containing frequent amounts of burnt material. The other features associated with the site do not seem to have a regular pattern or discernible function. In the centre of the site a highly irregular, sublinear feature emerged. It measured 10m north-south by 1.1m, with a maximum depth of 0.45m. It contained the same burnt material as the surrounding features and had a long channel running down its centre. Originally thought to have been a kiln, it was found to be a probable irrigation ditch on further investigation. Owing to the limit of excavation, this feature was only partially excavated.' 002 - Excavation by Graham Hull (02E0644) as part of Bord Gáis Éireann's Pipeline to the West. 'A single sherd of prehistoric pottery was recovered from the surface of a feature fill during monitoring by Kenneth Wiggins (No. 64 above, 02E0119). A discrete cut feature was subsequently excavated and revealed to be an irregular and shallow scoop or possibly two very small and truncated post-holes. The feature measured 0.9m (north-south) by 0.7m and had a maximum

	depth of 0.15m. The fill was a fine, light to mid-brown, silty clay with occasional charcoal flecking and very small fragments of decayed limestone. No artefacts were observed during excavation, but, as Bronze Age pottery had been found at the top of the fill during monitoring, it was decided to take a 100% sample of the fill. Sieving of the sample may produce further artefactual evidence that will facilitate interpretation of this isolated feature. The pottery sherd is Beaker, which has been documented in Ireland from c. 2500/2450 BC and remained in use for several centuries (A.L. Brindley, pers. comm.).'
Source	www.archaeology.ie/ SMR file

AH No	AH 86
RMP No	LI020-007
Statutory protection	RMP
Townland	Boolaglass
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	534778, 646746
Description	In area of outcropping limestone, completely covered by scrub and thorn bushes. Monument, depicted as roughly circular embanked enclosure (diam. c. 30m) on 1923 OS 6-inch map, is now completely covered by dense overgrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 87
RMP No	LI020-005
Statutory protection	RMP
Townland	Milltown North
Parish	Lismakeery
Barony	Connello Lower
Classification	Enclosure
ITM Ref	534346, 647273
Description	In pasture, on W bank of Deel River. Monument, depicted on 1923 OS 6-inch map as D-shaped enclosure with river bank forming straight E side (c. 25m N-S; c. 30m E-W), is no longer evident. This area now covered by dump of material dredged from river (H 2.75m; Wth 10m; L c. 30m) by OPW.
Source	www.archaeology.ie/ SMR file

AH No	AH 88
RMP No	LI020-004001/2 & 176
Statutory protection	RMP & Preservation Order
Townland	Milltown North
Parish	Lismakeery
Barony	Connello Lower
Classification	Tower house, cashel & souterrain
ITM Ref	534100, 647155
Description	Tower house In pasture, on limestone crag on gentle SE-facing slope. This L-shaped tower

	house stood in SW quadrant of cashel (LI020-004001-) has now been reduced to ground level. Westropp (1906-7, 208) described the remains here as 'fragment of an old house, with a tall chimney' but it seems most of its stone was used in the 18th century in the building of nearby Altavilla House (Donnelly 1994, vol. 2, 152). Cashel In pasture, atop limestone crag, on gentle SE-facing slope. Circular area (44m N-S; 43m E-W) defined by substantial dry-stone wall (ext. H 2.4m; int. H 2.4m; Wth 3.35m), best preserved along N arc where incorporated into field boundary system. Entrance (Wth 9.2m) SE->SSE, with boulders dumped against external face at either terminus. Uneven interior, under rough pasture, has scarp edge (H 1.01m) separating irregular lower area to NNW. No longer any evident trace of tower house (LI020-004002-) or souterrain (LI020-176----) in interior. Souterrain Discovered within a cashel (LI020-004001-) and then rediscovered in 1976 when it was 'covered in' (NMI top. files). A sword, now in the National Museum of Ireland, was discovered in this souterrain (Donnelly 1994, vol. 2, 152). There is no evident trace of the souterrain within the cashel.
Source	www.archaeology.ie/ SMR file

AH No	AH 89
RMP No	LI020-053
Statutory protection	RMP
Townland	Feeagh
Parish	Kilmeedy
Barony	Connello Lower
Classification	Ringfort
ITM Ref	534866, 645657
Description	In marshy ground, on E edge of break in E-facing hillside. Site occupies NW corner of small paddock, immediately E of farmyard. Roughly circular area (30m N-S; 28m E-W) enclosed by earth-and-stone bank (int. H 1m; ext. H 1.35m) best preserved at NW and S. Entrance at SW (Wth 5.4m) and cattle gap at N (Wth 2m). Interior, heavily masked by vegetation overgrowth, slopes down to E. There is an abandoned car in SE quadrant. Rubbish has been dumped against external bank face N->ENE.
Source	www.archaeology.ie/ SMR file

AH No	AH 90
RMP No	LI020-052
Statutory protection	RMP
Townland	Feeagh
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	534768, 645524
Description	In pasture, on gentle SSE-facing slope, below brow of hill. Monument, depicted as embanked circular enclosure on 1841 OS 6-inch map, has been levelled. However, it is still evident as circular area (22m E-W) defined by very gradual scarped edge NE->W (H 1m; Wth 11.5m), which is truncated by passageway

	leading to newly constructed house W->NE. A pump house stands on top edge of scarp at SSW. Interior, under pasture, has shallow drain (D 0.1m; Wth 0.6m) crossing it on E-W axis. There is a dump of quarry stones near centre.
Source	www.archaeology.ie/ SMR file

AH No	AH 91
RMP No	LI020-059
Statutory protection	RMP
Townland	Ballingarrane
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	536170, 644662
Description	In pasture, atop S end of low limestone ridge. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, has been levelled. No trace of monument evident when inspected. Field boundaries to E and W, shown on 1923 map, have been removed.
Source	www.archaeology.ie/ SMR file

AH No	AH 92
RMP No	LI020-058
Statutory protection	RMP
Townland	Ballingarrane
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	536137, 644447
Description	In pasture, on break in NNW-facing slope. Monument, depicted as embanked circular enclosure (diam. c. 25m) on 1923 OS 6-inch map, has been levelled. However, a low earthen bank (int. H 0.15m; ext. H 0.3m) survives W->NE (diam. 24m E-W). Interior level and under pasture. An ESB pole stands in SE quadrant.
Source	www.archaeology.ie/ SMR file

AH No	AH 93
RMP No	LI020-060
Statutory protection	RMP
Townland	Ballingarrane
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	536237, 644325
Description	In scrub, on S-facing slope in area of outcropping limestone. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, is now completely masked by dense overgrowth of trees and thorn bushes. Raised area of loose stone (H c. 1m) is visible at approximately S end of enclosure; according to local information this is remains of a lime kiln demolished in late 1970s.

Source	www.archaeology.ie/ SMR file

AH No	AH 94
RMP No	LI020-114
Statutory protection	RMP
Townland	Kyletaun
Parish	Askeaton
Barony	Connello Lower
Classification	Burial ground
ITM Ref	536726, 643397
Description	On W-facing slope; bounded by public road to W. Rectangular area (50m N-S; 22m E-W) enclosed by well-built stone wall along W and N sides (H1.5m) and by modern concrete block wall to E and S. Entrance is through two cut-stone piers near S end of W wall, from which pathway leads to celtic cross on pedestal. Interior is under grass with mature deciduous around edges. There are some 40 numbered metal crosses resting against inner face of W wall, immediately S of entrance. This was "a pauper's graveyard" according to local information; not marked on 1841 OS 6-inch map.
Source	www.archaeology.ie/ SMR file

AH No	AH 95
RMP No	LI020-113
Statutory protection	RMP
Townland	Kyletaun
Parish	Askeaton
Barony	Connello Lower
Classification	Crannóg
ITM Ref	536254, 642771
Description	In a low-lying area of marshy pasture, bounded by deep drainage dykes to the S and E and by the embankment of a disused railway line to the W. A roughly circular platform (26m N-S; 27.5m E-W) defined by a gradually sloping scarp edge (H 0.9m; Wth 6.7m). The surface of the platform is very uneven but generally slopes up towards the centre. Its surface is scattered with loose stones and the make-up of the platform appears to be a dump of stones. According to the landowner the mound formerly had a boat house standing on the top. The site is been subject to flooding (Anon 1901-4, 285-6).
Source	www.archaeology.ie/ SMR file

AH No	AH 97
RMP No	LI020-063
Statutory protection	RMP
Townland	Doohyle More
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	537518, 644333
Description	In pasture, on break in SW-facing hill slope. Circular area (diam. 30m) enclosed

	by earth-and-stone bank (int. H 0.9m; ext. H 0.45m). Bank, best preserved N->SE, incorporated into field boundary system SSE->W, where dry-stone wall runs along top of bank. Raised area of limestone outcrop adjoins to W. Boulders have been dumped against bank at SE and N. Level interior is covered by mature trees; limestone bedrock breaks surface in places.
Source	www.archaeology.ie/ SMR file

AH No	AH 98
RMP No	LI020-064
Statutory protection	RMP
Townland	Doohyle More
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	537576, 644202
Description	In pasture, on SW-facing slope. Circular area (diam. c. 20m) enclosed by earth-and-stone bank (int. H 0.3m; ext. H 0.55m). Bank, best preserved at W, is incorporated into field boundary system SE->SW. It has been denuded by cattle to a scarped edge at ESE. Level interior is masked by dense vegetation overgrowth, and littered with loose stone. Stones have been dumped against external bank face at WNW.
Source	www.archaeology.ie/ SMR file

AH No	AH 99
RMP No	LI020-070
Statutory protection	RMP
Townland	Doohyle More
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	537847, 644496
Description	In pasture, on E-facing slope. Circular area (diam. 24m) enclosed by earth-and-stone bank (int. H 0.7m; ext. H 1.05m). Bank, heavily masked by vegetation overgrowth, has greater internal height where built into down-slope S->N (int. H 1.05; ext. H 0.7m). Gap in bank (Wth 6m) at SE. Interior, under rough pasture but with cluster of briars near centre, slopes down to E. Field boundary, which is depicted on 1923 OS 6-inch map running tangentially to E arc, has been removed.
Source	www.archaeology.ie/ SMR file

AH No	AH 100
RMP No	LI020-076
Statutory protection	RMP
Townland	Curraheen South
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort

ITM Ref	538494, 644278
Description	In pasture, on gentle W-facing slope. Monument, depicted on 1841 OS 6-inch map as embanked circular enclosure (diam. c. 25m), has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 101 (EX 16)
RMP No	LI020-168
Statutory protection	No
Townland	Curraheen South
Parish	Nantinan
Barony	Connello Lower
Classification	Burial
ITM Ref	538856, 644410
Description	Excavated by Brian Halpin (Licence Ref. 02E0811) when 'topsoil-stripping on the Bord Gáis Éireann Pipeline to the West uncovered a series of pits and cut features in Curraheen South townland, Co. Limerick. The largest pit measured 3m by 0.8m, with a maximum depth of 0.33m. It contained three fills, all of which had minor amounts of charcoal and decayed stone. The pits had irregular cuts but were generally U-shaped, with gradually sloping sides to a flat base that reached the water table. They were post-medieval refuse pits and contained much post-medieval/ modern porcelain, animal bone and two horseshoes. Local knowledge of the field indicates that the site was abandoned after the Famine. At a distance of 8.5m north of the main site, a disarticulated human skeleton of post-medieval/modern date was found, partially exposed. Although most of the skull was not present, the remainder of the skeleton was recovered fairly intact, with the bones, though brittle, in a good state of preservation. The skeleton was found in a crouched position, roughly on its left side, with the right arm extended behind the spine, exposing the ribcage vertically. The grave-cut, oriented north-south, measured c. 1.12m and was extremely shallow, lying just under the topsoil, and no remnants of a coffin or shroud were noted. The orientation of the grave and its shallow cut indicate very quick deposition of the corpse. The skeleton appears, on preliminary inspection, to have been that of a late adolescent. The post-medieval date of the associated features, in association with the local knowledge of this site, may indicate that this was the grave of a Famine victim. No grave-goods were noted, nor were other skeletal remains found on the site. The immediate landscape appears to be an abandoned agricultural settlement of post-medieval/modern date.'
Source	www.archaeology.ie/ SMR file

AH No	AH 102
RMP No	LI020-080
Statutory protection	RMP
Townland	Cappagh
Parish	Cappagh
Barony	Connello Lower
Classification	Ringfort
ITM Ref	539762, 644700
Description	In pasture, on NE-facing slope, below brow of low hill. Oval area (30m N-S; 35m

	E-W) enclosed by earthen bank with external fosse (D 1.45m; Wth 1.9m). Bank (int. H 0.45m; ext. H 2m), best preserved along W arc, lowers to scarp-like edge (H 1m; Wth 5m) NNW->NNE. Fosse, cut by field boundary at NNE, has field boundary running along outer edge at E. Narrow causeway (Wth 2m) across fosse at NNW. Interior, under pasture, slopes down gently to E.
Source	www.archaeology.ie/ SMR file

AH No	AH 103
RMP No	LI020-081
Statutory protection	RMP
Townland	Cappagh
Parish	Cappagh
Barony	Connello Lower
Classification	Ringfort
ITM Ref	539981, 644800
Description	In pasture, on gentle S-facing slope. Monument, depicted as embanked circular enclosure (diam. c. 50m) on 1841 OS 6-inch map, has been levelled. However, in area of site a shallow circular (diam. c. 30m) depression is evident, though its edge is very indistinct NE->S.
Source	www.archaeology.ie/ SMR file

AH No	AH 104
RMP No	LI020-082001/2
Statutory protection	RMP
Townland	Cappagh
Parish	Cappagh
Barony	Connello Lower
Classification	Church & graveyard
ITM Ref	539979, 645274
Description	No detail given. Westropp mentions in PRIA 1904-5, 412-3
Source	www.archaeology.ie/ SMR file

AH No	AH 105
RMP No	LI020-090
Statutory protection	RMP
Townland	Ballinvira
Parish	Cappagh
Barony	Connello Lower
Classification	Ringfort
ITM Ref	541980, 645824
Description	In pasture, on gentle S-facing slope, immediately N of disused trackway and railway line. Oval area (40m N-S; 34.5m E-W) enclosed by earth-and-stone bank (int. H 0.4m; ext. H 0.8m), best preserved S->N. Bank incorporated into linear dry-stone field wall NNE->ESE. Gaps in bank at SE (Wth 10m) and N (Wth 3m). Field wall kinks around external base of bank W->N. Interior, covered with briars, nettles and thorn trees, is higher in N half where limestone outcrops at surface.

Source	www.archaeology.ie/ SMR file

AH No	AH 106
RMP No	LI020-089
Statutory protection	RMP
Townland	Ballinvira
Parish	Cappagh
Barony	Connello Lower
Classification	Ringfort
ITM Ref	541952, 646174
Description	In parkland pasture, on NE-facing slope. Circular area (42.6m N-S; 45.4m) enclosed by earthen bank. Bank (int. H 1m; ext. H 1.1m), best preserved SE->W, lowers along E side. Entrance (Wth 3.8m) at E. Field boundaries abut at ESE and SSW, another which abutted at WNW has been removed. Interior, under pasture, slopes down to E. Mature deciduous trees grow along bank and immediately N of centre in interior. New trees recently planted atop bank NE->E.
Source	www.archaeology.ie/ SMR file

AH No	AH 107
RMP No	LI020-091
Statutory protection	RMP
Townland	Ballinvira
Parish	Cappagh
Barony	Connello Lower
Classification	Cashel
ITM Ref	542100, 646113
Description	In pasture, on gentle S-facing slope. Ovoid area (32m N-S; 27m E-W) enclosed by stone bank (int. H 0.45m; ext. H 0.5m). Bank best preserved (int. H 1.65m) where incorporated into field boundary NE->SSE. Interior, covered by mature trees, is littered with loose stones; slopes down to SE.
Source	www.archaeology.ie/ SMR file

AH No	AH 108
RMP No	LI021-002
Statutory protection	RMP
Townland	Tuogh (Kenry By.)
Parish	Adare
Barony	Kenry
Classification	Mill
ITM Ref	543223, 646356
Description	There are no evident standing remains of mill which is depicted on 1840 OS map as "Tough Mill (in ruins)".
Source	www.archaeology.ie/ SMR file

AH No	AH 109
RMP No	LI021-005

Statutory protection	RMP
Townland	Tuogh (Kenry By.)
Parish	Adare
Barony	Kenry
Classification	Ringfort
ITM Ref	543866, 646407
Description	In gently undulating pasture, atop slight rise. Monument, depicted as circular enclosure (diam. c. 30m) on 1841 OS 6-inch map, now survives as wedge-shaped area (34m N-S; 23m E-W) enclosed NE->SW by arc of curving earthen bank (int. H 0.5m; ext. H 0.45m), and is defined on W and N sides by dry-stone field walls which meet at NW. Remains of a dry-stone wall runs along top of bank. Interior is level and covered by mature trees.
Source	www.archaeology.ie/ SMR file

AH No	AH 55
RMP No	LI021-118
Statutory protection	RMP
Townland	Islandea
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	545574, 647205
Description	Located in level pasture land. Moderate views in all directions. The site is defined as an ovoid rocky area as distinct from the surrounding land. There is no obvious enclosing element, possibly very damaged. Known locally as a 'sand pit'. Possibly quarried in past.
Source	SMR file

AH No	AH 57
RMP No	LI021-149
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546302, 647066
Description	The exact location of a 'Keiltanes Castle, stone house, meussage etc' mentioned in a document in 1621 AD are unknown. See Westropp 1906-7, 215
Source	SMR file

AH No	AH 58
RMP No	LI021-010
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma

Classification	Enclosure
ITM Ref	546322, 647176
Description	No detail given, but marked on the first edition OS map as a circular enclosure that appears to have been removed by the construction of the railway.
Source	SMR file

AH No	AH 59
RMP No	LI021-173
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	<i>Fulacht fia</i>
ITM Ref	546511, 647300
Description	No details given.
Source	SMR file

AH No	AH 60
RMP No	LI021-143
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546602, 647346
Description	Located in pasture land on top of a steep W facing slope. Moderate to good views in all directions. The site comprises a rocky ovoid area, 45m diameter, but no obvious defensible enclosure identified. Interior planted with conifers.
Source	SMR file

AH No	AH 61
RMP No	LI021-144
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546812, 647336
Description	In pasture land on a slight E facing slope. Views are good in all directions, except to W. No extant remains of an enclosure.
Source	SMR file

AH No	AH 62
RMP No	LI021-011001/2
Statutory protection	RMP

Townland	Mondellihy
Parish	Adare
Barony	Coshma
Classification	Two enclosures
ITM Ref	547207, 647332
Description	The features may be conjoined. Enclosure B measures 22-24m in diameter, surrounded by an earth and stone bank. The interior appears to have been artificially levelled to compensate for the natural slope. Noted as part of the 'Mondellihy Rings'.
Source	SMR file

AH No	AH 63
RMP No	LI021-145
Statutory protection	RMP
Townland	Mondellihy
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	547362, 647376
Description	Located in gently undulating pasture land. Moderate good views in all directions. No clear extant enclosing element visible.
Source	SMR file

AH No	AH 64
RMP No	LI021-146
Statutory protection	RMP
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	547619, 647521
Description	Located in undulating pasture, relatively level area. Views moderate in all directions. No extant trace of enclosing element.
Source	SMR file

AH No	AH 65
RMP No	LI021-147001/2
Statutory protection	RMP
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Two enclosures
ITM Ref	547752, 647516
Description	Located in undulating pasture on a low rise. Views moderate in all directions. No extant trace of enclosing elements.
Source	SMR file

AH No	AH 66 (EX 17)
RMP No	LI021-179
Statutory protection	No
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Group of pits
ITM Ref	548255, 647563
Description	Pits excavated by C MacManus (1999/508).
Source	SMR file

AH No	AH 67
RMP No	LI021-148
Statutory protection	RMP
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	551061, 648446
Description	Located in pasture land on slight W facing slope. Views moderate to poor in all directions. No extant trace of enclosing element. Described as possible rectangular enclosure. See Adare Bypass Constraints Study
Source	SMR file

AH No	AH 68
RMP No	LI021-014
Statutory protection	RMP
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	548482, 647846
Description	Located in low lying pasture land with poor views in all directions. The enclosure is described as roughly circular with possible scarp edges, situated on a low natural rise. The interior gently undulates, clear of undergrowth.
Source	SMR files

AH No	AH 69
RMP No	LI021-015
Statutory protection	RMP
Townland	Rineroe
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	548792, 647626
Description	No details given.

Source	www.archaeology.ie/ SMR file

AH No	AH 70
RMP No	LI021-121
Statutory protection	RMP
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	550571, 648426
Description	Located in pasture land on a slight S facing slope. Views moderate in all directions. No visible trace of enclosure.
Source	SMR file

AH No	AH 71 (EX 18)
RMP No	LI021-181001/2
Statutory protection	SMR
Townland	Ballycarrane
Parish	Croom
Barony	Pubblebrien
Classification	<i>Fulachtaí fia</i>
ITM Ref	549561, 647846
Description	Not details given within file – see EX 18.
Source	www.archaeology.ie/ SMR file

AH No	AH 72
RMP No	LI021-017, 187, 180
Statutory protection	RMP
Townland	Gorteen
Parish	Croom
Barony	Pubblebrien
Classification	Moated site, kilns
ITM Ref	549915, 647866
Description	The site appears to be a medieval moated site, enclosed by a ditch and external bank. Excavations were carried out by A Gahan in 1998 (Bennett 1998:399). The site, marked in the OS Memoirs as a possible ringfort had been uncovered during trial trenching. Only a portion of site was excavated within the road take area (60 x 15m area). The trench revealed part of a rectangular ditched enclosure, the longest extent of which ran SE for a distance of 31.5m. A smaller section of the ditch ran SW for 13.5m. The ditch was V to U shaped, and had a width of 2.38 to 3.72m. Parts of the inner face had been revetted with stone. Stone rubble in ditch fill suggested a possible internal bank. Mention is made of a possible external bank feature. Two earlier shallow truncated pits were also recorded. Sherds of 13th/14th century pottery recovered from topsoil. Enclosing elements and corn drying kilns were also excavated by L McKinstry (08E0174).
Source	SMR file

AH No	AH 73
RMP No	LI021-118
Statutory protection	RMP
Townland	Islandea
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	145612, 147159
Description	Located in level pasture land. Moderate views in all directions. The site is defined as an ovoid rocky area as distinct from the surrounding land. There is no obvious enclosing element, possibly very damaged. Known locally as a 'sand pit'. Possibly quarried in past.
Source	SMR file

AH No	AH 74
RMP No	LI021-121
Statutory protection	RMP
Townland	Monearla
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	149380, 147560
Description	Located in pasture land on a slight S facing slope. Views moderate in all directions. No visible trace of enclosure.
Source	SMR files

AH No	AH 75 (EX 20)
RMP No	LI021-167
Statutory protection	No
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Ring ditch
ITM Ref	551061, 648446
Description	The site was revealed during topsoil clearance associated with the Adare to Annacotty Road Improvement Scheme in 1999. The feature had been partially destroyed by machine excavation, but excavation of remainder revealed a penannular ditch of U shaped profile. An external diameter of 7m was recorded. Fourteen 'token' deposits of human cremated bone were recovered from the ditch fill, and one copper alloy artefact. The ditch fill and cremations have been interpreted as Iron Age in date. Licence Ref.: 99E0324.
Source	SMR file

AH No	AH 76 (EX 22)
RMP No	LI021-177
Statutory	No

protection	
Townland	Attyflin
Parish	Killonahan
Barony	Pubblebrien
Classification	<i>Fulacht fia</i>
ITM Ref	551305, 648480
Description	Monitoring of the topsoil strip along the N20/N21 Limerick bypass uncovered the site approximately 500m E of the N21. The site consisted of an elongated mound 17 x 9 x 0.35m, consisting of a mix of heat shattered limestone and charcoal rich soil. A small trough (2.1 x 1 x 0.28m) was found on SW quadrant under mound. To the north of the trough a substantial oval pit aligned NE-SW was recorded which contained mound deposits but also elements of worked animal bone. To the E of the pit edge some 12 stakeholes were excavated. These did not have an overall pattern but may have been part of a windbreak feature. C MacManus 99E0171.
Source	SMR file

AH No	AH 77 (EX 21)
RMP No	LI021-185
Statutory protection	No
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Hearth
ITM Ref	551109, 648387
Description	Excavated by R MacLeod (08E0171)
Source	SMR file

AH No	AH 78
RMP No	LI021-027
Statutory protection	Yes
Townland	Attyflin
Parish	Killonahan
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	551467, 648470
Description	In undulating pasture land, on a slight SW facing slope. Good vies in all directions. Probably a tree ring (still mature deciduous tree stand) on the Attyflin estate.
Source	SMR file

Built Heritage

BH No	BH 1
RPS No	18
NIAH No	N/A
Statutory protection	RPS

Townland	Ardaneer
Parish	Shanagolden
Barony	Shanid
Classification	Vernacular farm house
ITM Ref	526382, 650148
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 41 (Also AH 121)
RPS No	667
NIAH No	N/a
Statutory protection	RPS
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church and graveyard
ITM Ref	527018, 650000
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 42
RPS No	N/a
NIAH No	21901006
Statutory protection	N/a
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	House
ITM Ref	527301, 649171
Description	Description Detached two-storey T-plan house, built c. 1840, with gable-fronted extension to south, c. 1880, with canted bay window. Lean-to to west elevation. Pitched slate roofs, half-hipped to south gable of extension with rendered chimneystacks, cast-iron rainwater goods, terracotta ridge tiles and timber eaves course. Roughcast rendered walls having render plinth course. Fishscale hipped slate roof to bay window. Square-headed openings throughout, having concrete sills, one-over-one pane and two-over-two pane timber sliding sash windows. Tooled limestone sills to canted bay window and to first-floor window to south elevation of main block. Timber framed windows to north elevation. Square-headed opening to east elevation of end-bay with timber panelled door and overlight. Render step to entrance. Square-headed opening to north

	elevation having half-glazed timber panelled door. Square-headed opening to north elevation of lean-to with glazed timber battened door and overlight. Pair of square-profile limestone piers to east of house, flanking double-leaf cast-iron gate with foundry mark. Three-bay single-storey outbuilding to north of house. Pitched corrugated-iron roof having render copings and eaves course. Roughcast rendered walls. Square-headed openings with timber fittings. Square-headed vents. Pair of square-profile cut limestone piers to south of building, flanking double-leaf cast-iron gate. Appraisal The regular asymmetrical form of this house marks it out on the landscape. The form is enhanced by the canted bay and half-hipped roof. Artistic interest is added by subtle features such as its render plinth course and the timber sliding sash windows add to the architectural interest. The foundry mark, which reads: 'NEWSOM LIMK 181' is another notable feature and adds context to the site.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 2
RPS No	668
NIAH No	21901005
Statutory protection	RPS
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church
ITM Ref	527003, 649747
Description	Description Freestanding gable-fronted Roman Catholic church built in 1830. Comprising five-bay nave with two-bay single-storey flat-roofed porch to west elevation, three-bay single-storey sacristy to east elevation incorporating central single-bay crenellated porch to south elevation. Pitched slate roof having cut limestone copings and finial and cast-iron rainwater goods. Red brick chimneystack to sacristy. Render crenellations to west porch. Roughcast rendered walls, smooth render to west elevation, render plinth course to south, east and west elevations. Render platband to west elevation. Render platband to west porch and sacristy porch. Round-headed openings having painted sills, timber fittings and stained glazed panels to south and west elevations, and to south elevation of sacristy. Segmental-headed opening to west elevation of porch with painted sill and stained glass window. Square-headed opening to south elevation of porch to sacristy, having painted sill and stained glass window. Segmental-headed opening to west elevation of porch with recent timber panelled double doors. Segmental-headed openings to south elevation and interior north elevation of porch, with double-leaf timber panelled doors. Square-headed opening to interior south elevation of porch having timber panelled door. Square-headed opening to east elevation of porch to sacristy, with timber battened door. Step to entrance. Retains interior features including timber pews, marble altar table and timber gallery. Scissors brace roof supports to

	ceiling. Iron bell mounted on render base to south of church, bell supported on four iron columns. Appraisal The regular form of this church is enhanced by the restraint in the exterior ornamentation, which makes a strong impression on the landscape. The stained glass windows and the decorative Gothic styled reredos in the interior add considerably to the importance of this rural church.
Rating	Regional
Categories of special interest	Architectural, artistic, social
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 3
RPS No	75
NIAH No	N/A
Statutory protection	RPS
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	530532, 649267
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 43
RPS No	N/A but directly linked to BH 3, 4 and 5
NIAH No	N/A
Statutory protection	RPS
Townland	Mulderricksfield
Parish	Robertstown
Barony	Shanid
Classification	Concrete pill box
ITM Ref	530655, 649437
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 4
RPS No	74
NIAH No	N/A
Statutory protection	RPS

Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	530890, 649131
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 5
RPS No	73
NIAH No	N/A
Statutory protection	RPS
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	531229, 649261
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 19
RPS No	N/A
NIAH No	21901916
Statutory protection	No – but proposed for addition to the RPS
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	Country House
ITM Ref	531763, 6448818
Description	Description Detached three-storey country house, built c. 1760, with tripartite fanlight doorway. Restored in the 1970s. Appraisal Ballycullen House is an important country house both architecturally and historically within County Limerick. Features such as the doorway and the interior plasterwork and staircase joinery mark Ballycullen House out as a house of architectural importance.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 20
RPS No	N/A
NIAH No	21902005
Statutory protection	No
Townland	Ardgoul South
Parish	Nantinan
Barony	Connello Lower
Classification	House
ITM Ref	534949, 645473
Description	Description Detached three-bay single-storey villa style house, built c. 1810, having single-bay single-storey concrete lean-to to east elevation. Skirt slate roof with rendered chimneystacks. Rubble limestone walls. Square-headed openings having remains of tripartite one-over-one pane timber sliding sash windows and limestone sills. Elliptical-headed door opening with red brick voussoirs. Remains of plasterwork to interior hall ceiling. Single-bay single-storey with attic gable-fronted gate lodge to south. Hipped slate roof with rendered chimneystack. Roughcast rendered walls. Square-headed window and door openings. Pair of dressed limestone square-profile piers to south having carved caps and double-leaf cast-iron gates. Rubble limestone boundary walls to site. Appraisal The regular form of this villa style house is enhanced by simple detailing such as the modest entrance. The tripartite windows to the façade are interesting features, and some retain the remains of timber sliding sash windows. The house retains some modest plasterwork to the interior. The site retains a simple gate lodge, which adds context and interest to the composition.
Rating	Local
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 21
RPS No	45
NIAH No	N/A
Statutory protection	RPS
Townland	Ballingarrane
Parish	Nantinan
Barony	Connello Lower
Classification	Forge
ITM Ref	535727, 645257
Description	None given.
Rating	None given.
Categories of special interest	None given.
Source	Limerick County Development Plan 2010-2016

BH No	BH 22

RPS No	307
NIAH No	21902023
Statutory protection	RPS
Townland	Curraheen South
Parish	Nantinan
Barony	Connello Lower
Classification	Country House
ITM Ref	538388, 644710
Description	Description Detached five-bay two-storey house, built c. 1770, having two-bay two-storey return to rear (north) with bowed addition to north elevation and single-bay two-and-single-storey extensions to rear elevation. Pitched artificial slate roof with rendered chimneystacks to gable ends with external flues. Pitched artificial slate roof to return with rendered chimneystack having external flue to north elevation. Hipped slate roof to bowed addition. Flat roofs to extensions. Roughcast rendered walls. Square-headed openings having six-over-six pane timber sliding sash windows and painted stone sills. Those to ground floor having cast-iron spear-headed sill guards. Square-headed openings to return and rear with replacement uPVC windows. Square-headed window openings to bowed addition. Round-headed opening having recent red brick surround and two-pane glazed overlight over timber panelled door with flanking square-headed two-over-two pane timber sliding sash windows with cast-iron sill guards and limestone sills. Square-headed opening to bowed addition with timber battened door. Nine-bay single-storey outbuilding to east. No roof. Roughcast render over rubble limestone walls. Square-headed window openings. Square-headed openings having timber battened half-doors. Pair of square-profile rendered piers to east with recessed panels and double-leaf replacement metal gates. Appraisal Built by the Stephenson family, this Georgian house retains its elegant proportions as well as much of its original form and structure. The position of the chimneystacks, placed on the gable ends with external flues is typical of 18th-century architecture. The simple fanlight and flanking sidelights to the entrance enlivens the classically inspired façade. The extensions to rear and in particular the bowed addition are notable features and add context to the site.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 23 (Also AH 104)
RPS No	217
NIAH No	N/A
Statutory protection	RPS
Townland	Cappagh
Parish	Cappagh
Barony	Connello Lower
Classification	Church & graveyard

ITM Ref	539979, 645274
Description	None given.
Rating	None given.
Categories of special interest	None given.
Source	Limerick County Development Plan 2010-2016

BH No	BH 24
RPS No	528
NIAH No	21902026
Statutory protection	RPS
Townland	Knockdromin
Parish	Clonshire
Barony	Connello Lower
Classification	Vernacular farm house
ITM Ref	540295, 645203
Description	Description Detached five-bay single-storey direct entry thatched house, built c. 1790. Hipped thatched roof with rendered chimneystacks. Roughcast rendered battered walls having render plinth course. Square-headed openings with render surrounds, concrete sills and two-over-two pane timber sliding sash windows. Recessed square-headed opening having replacement timber battened door. Two-bay single-storey concrete outbuilding to north with pitched corrugated-iron roof. Rendered boundary walls to south having render copings. Appraisal This house forms an important element of the vernacular heritage of County Limerick, as identified by attributes such as the long, low massing and thatched roof. Reasonably well maintained, the house presents an early aspect with much of the original form intact. The arrangement of the openings retain an informal quality, while the battered walls add further interest.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 25
RPS No	N/A
NIAH No	21902032
Statutory protection	No
Townland	Ballinvira
Parish	Cappagh
Barony	Connello Lower
Classification	Bridge
ITM Ref	541635, 645691
Description	Description Single-arch limestone railway bridge, built in 1856, having dressed voussoirs to

	round-headed arches. Roughly dressed parapet walls and copings. Appraisal This simply proportioned bridge retains the original profile of its arch. High quality craftsmanship is evident in its robust construction.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 26
RPS No	N/A
NIAH No	21902102
Statutory protection	No
Townland	Clonshire Beg
Parish	Clonshire
Barony	Connello Lower
Classification	Bridge
ITM Ref	542948, 645920
Description	Description Single-arch limestone railway bridge, built c. 1856. Rubble stone walls having cut stone parapets and stringcourses. Rubble stone buttresses to east and west elevations and rusticated voussoirs to segmental-headed arch. Appraisal This handsome bridge is one of a group of structures which were once part of the Limerick to Tralee line built by the Great Southern and Western Railway company. Its skilfully executed stonework, which displays a variety of finishes is testament to high quality railway bridge building in the mid nineteenth century.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 27
RPS No	N/A
NIAH No	21902101
Statutory protection	No
Townland	Tuogh
Parish	Adare
Barony	Kenry
Classification	Bridge
ITM Ref	543176, 646309
Description	Description Double-arch humpback road bridge over the River Greanagh, built c. 1800. Rubble limestone walls with tooled limestone voussoirs to round-headed arches. Concrete U-cutwater to east and V-cutwater to west elevation. Appraisal This fine stone humpback bridge is a important component of the surrounding landscape. It is well detailed and located close to the former Tuogh Mills.

Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 28
RPS No	N/A
NIAH No	21902135
Statutory protection	No
Townland	Tuogh
Parish	Adare
Barony	Kenry
Classification	House
ITM Ref	544022, 646549 / 544026, 646648
Description	Description Detached four-bay two-storey irregular-plan house, built c. 1870, having projecting gable-fronted bays to front (south) elevation, west elevation and rear (north) elevation. Recent conservatory to front elevation and single-storey extension to west elevation. Pitched slate roofs with timber bargeboards and cut limestone chimneystacks with terracotta chimney pots. Snecked limestone walls with external flue to east elevation. Square-headed openings with limestone block-and-start surrounds and replacement uPVC windows. Square-headed opening with tooled limestone block-and-start surround and timber battened door to front projecting gable, east elevation. Six-bay single-storey outbuilding to west with pitched artificial slate roof and brick chimneystack. Rubble limestone walls. Square-headed openings having replacement uPVC window and red brick voussoirs. Multiple-bay single-storey outbuilding to north with pitched slate roof. Rubble limestone walls. Camber-headed window and door openings with limestone sills and red brick voussoirs. Pair of square-profile crenellated piers to south with double-leaf cast-iron gates and rubble limestone boundary walls. Appraisal This late 19th-century house displays good quality craftsmanship in its decorative limestone detailing, chimneystacks with terracotta chimneypots and timber bargeboards. Its asymmetric plan and irregular roofline is typical of late nineteenth-century architecture and affords numerous interesting vantage points. It is pleasantly situated in landscaped grounds and retains its outbuildings to rear.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 29
RPS No	N/A
NIAH No	21902105
Statutory protection	No
Townland	Kilknockan
Parish	Adare

Barony	Kenry
Classification	Bridge
ITM Ref	544288, 646365
Description	Description Single-arch limestone road bridge over the River Greanagh, built in 1887. Rusticated walls with rock-faced copings, cut stringcourse and rusticated voussoirs to segmental-headed arch. Inscribed limestone plaque to south parapet wall. Appraisal This solidly constructed road bridge was built in the late 19th century to replace an earlier structure by the Greanach Drainage Board. The inscribed plaque provides historical context and reads: 'Coolagh Bridge Erected by the Greanach Drainage Board 1887 Waller Esq. D. L. Charman Engineer Barrington A. M. Contractor M. Walshe.' The bridge serves as a reminder of the quality of the engineering and local craftsmen's skills in the late 19th century.
Rating	Regional
Categories of special interest	Architectural, technical.
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 30
RPS No	810
NIAH No	21902113
Statutory protection	RPS
Townland	Adare
Parish	Adare
Barony	Coshma
Classification	Gate lodge
ITM Ref	547523, 647198
Description	Description Detached octagonal-plan two-storey former gate lodge, built c. 1830, having gablets to front (east), north, south and rear (west) elevations and three-bay single-storey block to rear. Single-bay single-storey block to south with adjoining curtain wall having stepped pediment and inset pointed arch carriage arch with carved roll mouldings and double-leaf ornate wrought-iron gates. Hipped slate roof with carved limestone eaves course. Pitched slate roof to rear block with rendered chimneystack. Limestone copings with carved trefoil finials to gablets. Tooled snecked limestone walls having carved plinth course and buttresses to front, south and north elevations. Lancet openings to ground floor with fixed windows. Arrow slit windows to rear block, north elevation with fixed windows. Trefoil-headed lancet window openings to gablets having limestone transoms and fixed windows. Appraisal This handsome gate lodge once gave access to the demesne of Adare Manor, which was an important historical estate. Although no longer in use as an entrance, the gate lodge serves as a reminder of the wealth and vast size of many former Adare Manor. The use of the Gothic Revival style, as represented by features such as the gablets, lancet windows and buttresses, mirror the style of the main house, Adare Manor, and are testament to the skill of nineteenth-century craftsmen. The gate lodge makes an important architectural

	contribution to the heritage of Adare.
Rating	Regional
Categories of special interest	Architectural, artistic
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 50
RPS No	811
NIAH No	N/a
Statutory protection	RPS
Townland	Adare
Parish	Adare
Barony	Coshma
Classification	Demesne walls
ITM Ref	547523, 647198 – 546872, 646946
Description	Stone walls that define the demesne associated with Adare Manor
Rating	None given.
Categories of special interest	None given.
Source	Limerick County Development Plan 2010-2016

BH No	BH 31
RPS No	N/A
NIAH No	21902114
Statutory protection	No
Townland	Rineroe
Parish	Adare
Barony	Coshma
Classification	Fort Union House gate lodge
ITM Ref	548022, 647349
Description	Description Two-bay two-storey gate lodge to north-east having gable-fronted end-bay and extension to rear (east) elevation. Pitched artificial slate roof with red brick chimneystack. Roughcast rendered walls to first floor. Red brick walls to ground floor. Square-headed openings with replacement uPVC windows. Those to ground floor having red brick voussoirs. Square-headed opening having timber battened door with flanking square-headed fixed window. Pair of roughcast rendered square-profile piers with limestone caps and sweeping roughcast rendered walls with limestone cappings terminating in second pair of piers. Appraisal The complex form of this house, the front elevation of which is said to have changed from north to south, indicates various phases of building. It was previously named Rineroe. The present rear elevation incorporates an eighteenth-century Dutch oven to the interior. The present front elevation suggests a remodelling in the nineteenth century. The finely crafted limestone steps, tripartite windows and end-placed chimneystacks are all distinctive and pleasing elements of this building. The site retains its extensive range of

	outbuildings, which were of vital importance in the running of the estate.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 32
RPS No	N/A
NIAH No	21902121
Statutory protection	No
Townland	Ballyloughnaa
Parish	Croom
Barony	Pubblebrien
Classification	House
ITM Ref	548012, 647339
Description	Description Detached three-bay two-storey house, built c. 1840. Hipped slate roof with rendered chimneystacks. Roughcast rendered walls. Square-headed openings with one-over-one pane timber sliding sash windows and limestone sills. Square-headed opening having glazed overlight over timber panelled door. Rubble limestone boundary walls to site. Appraisal The regular form of this house, which may have been a Methodist manse, is enhanced by architectural detailing such as the simple doorcase. The different window sizes to the façade are interesting features retaining timber sliding sash windows, which enhance the building's appearance. Set back slightly from the road, the house forms a pleasing roadside feature.
Rating	Local
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 33
RPS No	N/a
NIAH No	21902120
Statutory protection	N/a
Townland	Ballyloughnaa
Parish	Croom
Barony	Pubblebrien
Classification	House
ITM Ref	547876, 647373
Description	Description Detached three-bay two-storey house, built c. 1820, with additions in the later 19th and 20th centuries. Pair of bay windows to ground floor and porch set within. Continuous roof over canted bay windows supported by timber uprights. Timber windows to bay windows with small pane toplights. Segmented headed window openings with timber sash windows to first floor. Square-headed window opening with hood-moulding to return. Pitched roof with rendered

	chimneystacks. Appraisal This house is of interest due to its close proximity to the former Methodist Church and may have had some associations with the church. The retention of the bay windows to the ground floor with the small pane toplights are notable additions to the house.
Rating	Regional
Categories of special interest	Architectural, artistic
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 40
RPS No	113
NIAH No	N/a
Statutory protection	Yes
Townland	Ballyloughnaa
Parish	Croom
Barony	Pubblebrien
Classification	House
ITM Ref	549105, 647929
Description	Former Methodist Church, now renovated and incorporated into a modern residence.
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	N/a
RPS No	N/a
NIAH No	N/a
Statutory protection	Architectural Conservation Area
Townland	Adare
Parish	Adare
Barony	Coshma
Classification	ACA – Associated with Adare and Adare Manor Demesne
Description	The collective arrangement of buildings within the village and within the grounds of Adare Manor is considered of significance to the built heritage of the village and contributes to the character and established street and townscape. It is the objective of the Council to preserve the character of this area and therefore it is designated as an Architectural Conservation Area (ACA). The ACA is defined in the Protected Structures and ACA Map 4. The designation of the ACA does not preclude future development, but the carrying out of works to the exterior of structures within the ACA shall not be considered as exempted development where those works would materially affect the character of the ACA. In assessing development proposals within the ACA, the Council shall take into account the material effect that the proposed

	development would be likely to have on the character of the ACA. Adare's Architectural Conservation Area is divided into 7 main areas of interest. These are listed below and a statement on the character of each area and identification of possible threats are also outlined. Adare A.C.A. 1 Adare Manor Demesne Adare A.C.A. 2 Terraced Cottages in Ornee Style Adare A.C.A. 3 19th and Early 20th Century Core of the Village Adare A.C.A. 4 19th Century Core - Southside of Main Street Adare A.C.A. 5 19th Century Core - Northside of Main Street Adare A.C.A. 6 Clifford Smith Village Hall and Housing Adare A.C.A. 7 The Avenue
Rating	N/a
Categories of special interest	N/a
Source	Adare Local Area Plan (2015-2021)

Designed Landscapes

DL No	DL 1
RPS?	Associated with the ruins of Ballyclogh House, which is listed in the RPS
NIAH Survey No	LI-64-R-311484
Statutory protection	Associated with RPS
Name	Ballyclogh House demesne
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as ' Virtually no recognisable features. Principal building in ruins.' Formal gardens present to the east of the principal building on the 6" map are no longer present. Mature planting is present around the internal and external boundaries. Demesne features are degraded, now mainly arable fields.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 8
RPS?	No
NIAH Survey No	LI-64-R-318488
Statutory protection	No – however house is proposed for inclusion in the RPS.
Name	Ballycullen House demesne
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features unrecognisable - peripheral features visible.' The pattern of planting and woodland belts is virtually unchanged from the pattern visible on the 6" map. The formal gardens

	present to the south-west of the principal building on the 6" map are no longer present in the modern landscape but their border is defined. The principal building is upstanding and its plan has not changed. Two farm buildings have been built to the north of the principal building. By the time of the 25 inch map the demesne has been extended to the southeast and many of the associated features remain intact.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 10
RPS?	No
NIAH Survey No	LI-64-R-350455
Statutory protection	No
Name	Wellmount House demesne
Townland	Ardgoul South
Parish	Nantinan
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Virtually no recognisable features.' Demesne features are degraded, now mainly arable fields. Modern farmyard now stands at site of principal building.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 11
RPS?	Associated with Nantinan House, which is listed in the RPS
NIAH Survey No	LI-64-R-354464
Statutory protection	Associated with RPS
Name	Nantinan House demesne
Townland	Nantinan
Parish	Nantinan
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - some loss of integrity.' The position of the drive has changed and modern farm buildings have been erected to the north of the demesne. Mature planting and lawns are present to the south of the house and the demesne character is largely intact.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 12
RPS?	Associated with Stoneville House, which is listed in the RPS
NIAH Survey No	LI-64-R-353438
Statutory protection	Associated with RPS
Name	Stoneville demesne
Townland	Stoneville

Parish	Nantinan
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - peripheral features unrecognisable.' Farm buildings now stand around the principal building. A small area of lawns and mature planting near the principal building. Areas of woodland present with mature planting also visible along the boundaries and lining the drive.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 13
RPS?	Associated with Curraheen House, which is listed in the RPS
NIAH Survey No	N/a
Statutory protection	Associated with RPS
Name	Curraheen House demesne
Townland	Curraheen South
Parish	Nantinan
Barony	Connello Lower
Classification	Demesne
Description	Not recorded in the NIAH garden survey. On the 6" map, two areas of planting, one to the north and one to the south of the principal building are present. Some planting along the drive and boundaries also visible. The principal building is still upstanding but is now surrounded by modern farm buildings. The demesne is now largely arable fields but most of the mature planting survives.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 14
RPS?	Associated with Hollywood House, which is listed in the RPS
NIAH Survey No	LI-65-R-422463
Statutory protection	Associated with RPS
Name	Hollywood House demesne
Townland	Ballinvira
Parish	Croagh
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - some loss of integrity. New entrance to the south of the old one. New drive around the perimeter of the site.' Area of planting shown on the 6" immediately east of the principle building with large belts of woodland and planting throughout the demesne. These woodland belts are largely intact. Aerial photographic coverage has shown that the original demesne has recently been extended to the south.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 15

RPS?	Associated with Curraghbridge House, which is listed in the RPS
NIAH Survey No	LI-65-R-452475
Statutory protection	Associated with RPS
Name	Curraghbridge House demesne
Townland	Curraghbridge
Parish	Adare
Barony	Kenry
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - peripheral features unrecognisable'. Whilst the principal structure survives with outbuildings, the landscape to the south has lost much of its demesne character. Mature planting survives to the west of the house some mature boundaries with specimen trees are present to the north of the house.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 16
RPS?	Associated with Adare Manor, which is listed in the RPS. The demesne is also listed as an Architectural Conservation Area in its own right.
NIAH Survey No	LI-65-R-473461
Statutory protection	Associated with RPS and also listed as an ACA
Name	Adare Manor demesne
Townland	Adare Demesne, Boulabally, Mountwilliam, Copay
Parish	Adare
Barony	Coshma
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - some loss of integrity'. Substantial demesne parkland to the east of Adare village. Partly degraded to include a golf course. Layout, lawns and mature planting visible near the principal building. The river runs through the site and there are also large ponds within the golf course area. Abbey and castle ruins in parkland area to the north and a detached Deer Park to the west. Principal building and associated stables, gatehouses and chapel all present.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 17
RPS?	No
NIAH Survey No	LI-65-R-498479
Statutory protection	No
Name	Ballycarrane House demesne
Townland	Ballycarrane
Parish	Croom
Barony	Pubblebrien
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Virtually no recognisable features'. Small parkland is marked on first edition OS map. This is still present by the 25

	inch mapping although truncated by the railway line. Recent construction of the N21 to the immediate south of the railway has resulted in further truncation of the demesne. Today, whilst the principal structure survives, the landscape has lost much of its original character. Several specimen trees survive in the ground, but no belts of planting.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 18
RPS?	No
NIAH Survey No	N/a
Statutory protection	No
Name	Un-named – within Ballybronoge South
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Demesne
Description	Not listed within the NIAH survey, this demesne landscape remains un-named on the first edition OS map and later OS editions. Shown on the first edition with a principal structure (now gone) and several outbuildings. The field boundaries are planted with trees and there is an orchard shown to the west. The demesne characteristics have gone by the time of the 25 inch. Today the main building has been removed and the demesne is truncated by the N21. Several specimen trees survive but for the most part the landscape has been subsumed back into agriculture.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

Appendix 1.3 Recorded Archaeological & Architectural Heritage Sites within the receiving environment of Route Option 3

Topographical Files

NMI No	Townland	Classification	Location (if recorded)
IA/12/64	Robertstown	Burials (AH 6)	AH 6
Site of human inhumations discovery. The site is a low gravel ridge (50' OD) used as a gravel pit, location 6" OS Sheet 10 39.5cm from W 5.8cm from S. Initially 5 skeletons were uncovered by mechanical excavator on the 28th January 1964, whilst a further 18 were discovered on 5th February. The remains had been removed to Foynes Garda Station by the authorities prior to Museum investigation. The top surface of the ridge had been stripped by bulldozer to a depth of 0.5m. Seven skeletons were uncovered by Peter Danagher of NMI. Two of these burials lay in shallow graves c. 0.90m below the surface, extended E-W, lying on fine gravel. The south side of one grave was lined with large spalls. Another burials, again E-W, was uncovered close to this, although only 0.6m below surface. A fourth burial, at a depth of 0.9m contained 4 skeletons 'lying on each other'. All the skeletons in this group were adult, average 1.75m height. No grave goods were present. Approximately 4m SE of the burials there were some large patches of burnt stone, although these failed to yield any archaeological objects. Determined to be Early Christian.			

NMI No	Townland	Classification	Location (if recorded)
1995:46	Moig South	Bronze binding strip	Not given
Decorated bronze binding strip. No dimensions given. Loan from Limerick Museum.			

NMI No	Townland	Classification	Location (if recorded)
1961:275-8	Cloonreask	Bronze chisel, 3 Glazed Potsherds (possibly Roman)	Not given
Small bronze chisel (1961:275) with narrow convex cutting edge and a sharp point at opposing end. Somewhat corroded. The section of the pointed end is round, with the section at cutting edge rectangular. L 7.35cm D (pointed end) 0.35 cm. Found in a group with ceramics in surface soil, probable habitation site. The NMI thought the chisel is of the same typology of objects from Bishopsland Hoard c. 500 BC, but smaller in dimensions. The pottery is said to be conventionally 'medieval' in look, but given the stratigraphy, it is possible that they are Roman (Ellen Prendergast and Etienne Rynne agreed).			

NMI No	Townland	Classification	Location (if recorded)
1995:47-66	Cloonreask	Bronze Ring, 7 Musket Balls, 12 Copper Coins	Not given
Bronze Ring (1995:47), Musket Balls (1995:48-54), Copper Coins (1995:55-66).			

NMI No	Townland	Classification	Location (if recorded)
Record only	Rathkeale	Gold band	Not given
The object was a thin gold band found in the neighbourhood of Rathkeale, Co. Limerick in 1855, and a note on the object was published (JRSAI) in 1857 by Capt. Edward Hoare. The object was described as a strip of gold 0.45m in length, maximum width 0.055m, tapering from mid-point to the ends. The terminals were rounded, and pierced with a central perforation. The edges were outlined in repousse decoration. A further decoration of repousse pellets at each end terminated in a cruciform pattern. Raghnaill O Floinn noted that the band represents an example of a small group of similar objects from Ireland and W. Scotland dated to the 11th/12th centuries AD. It is noted that a plausible function for such objects is moot, but it is almost certain that it is a			

personal ornament. Discovery of a similar band in 11th century deposits in Dublin would suggest a Scandinavian character, although the distributions noted would suggest an Irish Sea nucleus. It may well be that this type of ribbon band should be regarded as an ornament peculiar to Ireland during the Viking Age.

Archaeological Heritage

AH No	AH 1
RMP No	LI010-012
Statutory protection	RMP
Townland	Ardaneer
Parish	Shanagolden
Barony	Shanid
Classification	Ringfort
ITM Ref	526448, 650267
Description	In low-lying pasture, with frequent outcrops of limestone. Circular area (25.2m N-S; 24.6m E-W) enclosed by earth-and-stone bank (int. H 0.65m; ext. H 0.5m), with external bank (int. H 0.25m; ext. H 0.6m) NW->NE. No obvious entrance but cattle breaks at N and NE. Interior level and covered by tall grass. Enclosure abutted by earthen banks at NE (L-shaped: extends 15.8m to N and then returns W for 21m; Wth 0.95m; H 0.4m), at SW (L 0.45m; Wth 1.2m; H 0.6m) and at NW (L 15.3m; Wth 2.4m; H 0.45m). These are probably remnants of an ancient field system. Immediately NE of enclosure is area which has been surface quarried for limestone (22m N-S; 22m E-W; D c. 0.7m).
Source	www.archaeology.ie/ SMR file

AH No	AH 2
RMP No	LI010-106
Statutory protection	RMP
Townland	Sroolane North
Parish	Shanagolden
Barony	Shanid
Classification	Mill
ITM Ref	526896, 650065
Description	The 1840 OS six-inch map shows a rectangular structure in this location that is named 'Old Mill'. No structure is shown in this location on later editions of the OS map and there is now evident trace of such a structure on the ground.
Source	www.archaeology.ie/ SMR file

AH No	AH 121 (also BH 41)
RMP No	LI010-069001/2
Statutory protection	RMP (Also RPS)
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church and graveyard
ITM Ref	527018, 650000

Description	File not reviewed.
Source	www.archaeology.ie/ SMR file

AH No	AH 3
RMP No	LI010-068
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	526914, 649791
Description	In tillage, on local rise in generally flat low-lying terrain. Monument, depicted as embanked circular enclosure (diam. c. 30m) on 1841 OS 6-inch map, has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 4
RMP No	LI010-144
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	527057, 649798
Description	D Power, 2009, "According to Lar Dunne 'the landowner identified a number of coherent enclosure sites in the adjacent field some 150m east of SMR 10:68. These features were clearly visible on an aerial photograph obtained for the assessment'".
Source	SMR file

AH No	AH 5
RMP No	LI010-070
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	527376, 649346
Description	Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been removed. Area of site occupied by derelict gravel quarry.
Source	www.archaeology.ie/ SMR file

AH No	AH 6
RMP No	LI010-071
Statutory protection	No
Townland	Robertstown

Parish	Robertstown
Barony	Shanid
Classification	Burial ground
ITM Ref	527635, 649591
Description	In 1964 'over thirty skeletons were discovered, buried in a low gravel-ridge' (Dannaher 1964) during quarrying operations. Most of these were removed prior to the site being archaeologically investigated, and the topsoil removed so that 'it was impossible to ascertain if there had been any surface indications of the graves' (ibid.). Investigations revealed 'a further seven skeletons, all of adults, in four separate graves, close to one another and all orientated East-West' (ibid.). There were no grave goods. The conclusion was that these were burials 'from the Christian Period' and, because they were buried in un-consecrated ground, 'the result of a plague or famine in the area' (ibid.). This area is now part of an industrial complex.
Source	www.archaeology.ie/ SMR file

AH No	AH 7 (EX 3)
RMP No	LI010-140
Statutory protection	No
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Isolated pit and stakes
ITM Ref	528231, 649430
Description	An isolated pit and stakes excavated by Emer Dennehy (Licence Ref.: 02E0752) and described as 'a pit 0.3m deep. Five stakes, averaging 0.08m in diameter and with a maximum depth of 0.25m, were driven into the base of the pit. All of the stakes-holes were filled with the same charcoal-rich, silty peat, indicating that they were likely to have been burnt in situ. Subsequently the pit had been left open and filled naturally over time. Although there is no clear indication of function for this pit, it can be concluded that there was deliberate human action and forethought involved in the use of the site.'
Source	www.archaeology.ie/ SMR file

AH No	AH 8
RMP No	LI010-074
Statutory protection	RMP
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	528231, 649430
Description	On slight rise in undulating pasture. Roughly square area (23.5m N-S) enclosed by collapsed stone and earth wall (int. H 0.8m; ext. H 1m) incorporated into surrounding field-boundary system on E and S sides. Gap (Wth. 1.4m) on N side to NNE. Interior level but densely overgrown except for N end; strewn with stones from collapsing walls.
Source	www.archaeology.ie/ SMR file

AH No	AH 9
RMP No	LI010-081
Statutory protection	RMP
Townland	Craggs
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	528802, 649319
Description	In area of mixed pasture, scrub and quarrying. Site, marked as circular enclosure (diam. c. 25m) on 1923 OS 6-inch map, does not appear to be extant in area heavily modified by surface quarrying and covered by scrub overgrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 10
RMP No	LI010-087
Statutory protection	RMP
Townland	Craggs
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	529313, 649135
Description	In undulating pasture, on N-facing slope. Roughly rectangular area (31m N-S) enclosed by collapsed dry-stone wall (int. H 1.6m; ext. H 1.4m; Wth. 8m), but truncated on N side by E-W field boundary. Centre of interior and W side of enclosure covered by dense overgrowth of bush. Only apparent point of access gap in field boundary to N (Wth. 2m). Interior surface lower than that of surrounding terrain (D c. 0.2m). Immediately outside rounded SE corner is rectangular structure (7m N-S; 10.2m E-W) defined by collapsed dry-stone wall (H c. 0.6m; Wth. c. 3m); E side almost entirely removed; low wall (H 0.4m; Wth. 0.8m) divides interior on N-S axis. Collapsed wall (L 3.6m; Wth. 0.8m; H c. 0.3m) links both enclosures.
Source	www.archaeology.ie/ SMR file

AH No	AH 11
RMP No	LI0190-073
Statutory protection	RMP
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	528027, 649674
Description	Atop slight rise, in otherwise level terrain. Site is completely covered by dense overgrowth but as far as can be ascertained consists of circular area (diam. c. 25m) enclosed by earthen bank (int. H 0.5m; ext. H 0.6m) with external fosse (D 0.4m; Wth c. 2m).
Source	www.archaeology.ie/ SMR file

AH No	AH 12 (EX 4)
RMP No	LI010-141001-3
Statutory protection	No
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Burnt mound, pit, road way
ITM Ref	529743, 648955
Description	001 - A burnt mound excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a circular mound, 16m in diameter and 0.84m deep. It was composed of 70% limestone and 30% sandstone in a charcoal-enriched matrix. Six phases of activity were identified in the mound. A shallow rectangular trough was present at the base of the mound, measuring 4.3m north-south by 2.45m.' 002 - Pits excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a complex of six roasting pits excavated into the underlying gravel. The pits were subcircular, averaging 1.5m north-south by 1.2m, with an average depth of 0.4m. The roasting pits would not have retained water and were filled with burnt sandstone and limestone in a charcoal-enriched matrix.' 003 - A limestone trackway excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a trackway composed of two courses of fractured limestone bedrock, measuring 10m north-south by 15.5m. It served to connect the roasting pits of Area B to the debris mound of Area A. The need for the construction of the trackway arose during Phase 2 of the history of the site. It provided a secure, level footing to combat adverse weather conditions, the encroachment of peat and the seasonal flooding from the nearby stream.'
Source	www.archaeology.ie/ SMR file

AH No	AH 13
RMP No	LI010-099
Statutory protection	RMP
Townland	Mulderricksfield
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	530646, 649365
Description	In low-lying level area, newly planted with coniferous trees. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been levelled, except for arc of earth-and-stone bank (C 18m; H c. 0.65m; Wth c. 1.15m) NW->NE. Otherwise area of site covered by tall rough grass and newly planted trees.
Source	www.archaeology.ie/ SMR file

AH No	AH 14
RMP No	LI010-098
Statutory protection	RMP
Townland	Ballyclogh

Parish	Lismakeery
Barony	Connello Lower
Classification	Ringfort
ITM Ref	530634, 649059
Description	In woodland. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, could not be located due to impenetrable undergrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 15
RMP No	LI010-097
Statutory protection	RMP
Townland	Ballyclogh (Connello Lower By.)
Parish	Lismakeery
Barony	Connello Lower
Classification	Ringfort
ITM Ref	530633, 648974
Description	In woodland. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, could not be located in impenetrable undergrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 16 (EX 5)
RMP No	LI010-134
Statutory protection	No
Townland	Ballyellinan
Parish	Lismakeery
Barony	Connello Lower
Classification	Pit
ITM Ref	531140, 649523
Description	A 'fire-pit' excavated by Graham Hull (Licence Ref.: 02E0873)
Source	www.archaeology.ie/ SMR file

AH No	AH 17 (EX 6)
RMP No	LI010-149
Statutory protection	No
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	<i>Fulacht fia</i>
ITM Ref	531858, 649429
Description	Excavation by Brian Halpin (Licence Ref.: 02E0748) and described as 'heat-shattered stones and charcoal-rich material, typically associated with a fulacht fiadh.'
Source	www.archaeology.ie/ SMR file

AH No	AH 79
RMP No	LI019-059
Statutory protection	RMP
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	Castle
ITM Ref	531747, 648836
Description	A castle held by the Nash family from at least the 16th century; they built a country house on the site in 1740 (Westropp 1906-7, 208). This house is a '3 storey 18th century house with a tripartite fan-lighted doorway ... plasterwork of mid-18th century type in hall ceiling; staircase of good joinery with gallery.' (Bence-Jones 1978, 20). The house was restored in the 1970s (ibid.).
Source	www.archaeology.ie/ SMR file

AH No	AH 80
RMP No	LI019-060
Statutory protection	SMR
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	Redundant record
ITM Ref	531934, 648729
Description	Field report indicates that this was a natural mound of gravel which has been quarried- therefore made a 'redundant record'.
Source	www.archaeology.ie/ SMR file

AH No	AH 81 (EX 11)
RMP No	LI019-268/269
Statutory protection	No
Townland	Baunreagh
Parish	Askeaton
Barony	Connello Lower
Classification	<i>Fulachtaí fia</i>
ITM Ref	532803, 648790
Description	268 - Excavated by Brian Halpin (Licence Ref. 02E0750) when 'topsoil-stripping of Bord Gáis Éireann's Pipeline to the West uncovered a spread of burnt material associated with <i>fulacht fia</i> activity. This site, a thin spread of charcoal-rich material with heat-shattered stone, was partially exposed at the edge of the pipeline corridor and measured c. 10m in diameter. No trough or other features were encountered. A small stream lying c. 6m to the west of the site continually flooded the area, making excavation extremely difficult.' Grogan, E., O'Donnell, L. & Johnston, P. (2007) The Bronze Age Landscapes of the Pipeline to the West, Wordwell, p258. 269 - Discovered by Brian Halpin (Licence Ref. 02E0750) during 'topsoil-stripping of Bord Gáis Éireann's Pipeline to the West ... when a further small burnt spread

	was situated c. 17m west of the above site (LI019-268----), on the opposite side of the stream. After this area had been cordoned off, heavy machinery destroyed all trace of the possible archaeology.'
Source	www.archaeology.ie/ SMR file

AH No	AH 82 (EX 12)
RMP No	LI019-267
Statutory protection	No
Townland	Baunreagh
Parish	Askeaton
Barony	Connello Lower
Classification	Pit
ITM Ref	533114, 648488
Description	According to Graham Hull (Licence Ref. 02E0661) 'this site was examined as part of Bord Gáis Éireann's Pipeline to the West. An isolated bowl-shaped pit, 0.44m in diameter and 0.15m deep, was excavated. The fill was a fine, mid-brown silt with occasional charcoal inclusions. No artefacts were recovered, and it is not possible to date the feature. The presence of fire-oxidised clay to the south-west, however, suggests in situ burning.'
Source	www.archaeology.ie/ SMR file

AH No	AH 83 (EX 13)
RMP No	LI019-163001/2
Statutory protection	No
Townland	Baunreagh
Parish	Askeaton
Barony	Connello Lower
Classification	Pits & <i>fulacht fia</i>
ITM Ref	533248, 648355
Description	001 - <i>fulacht fia</i> excavated by Brian Halpin (Licence Ref. 02E0741) when 'topsoil-stripping on Bord Gáis Éireann's Pipeline to the West uncovered a burnt spread in Baunreagh townland, Co. Limerick (BGE 3/51/1). The spread measured 5.2m north-west/south-east along the limit of excavation. It is estimated that it had a possible extent of 1.6m north-south. It was composed of a very thin deposit of charcoal-rich material and heat-shattered stones. The site was cleaned to reveal an irregular spread lying on a grey/white silty clay. Pipe-laying works disturbed large sections of the spread, with two large digger buckets of material being scooped out of the centre. Investigations at the site did not reveal any troughs or features associated with the burnt spread.' 002 - Excavated by Brian Halpin (02E0741; BGE 3/51/2) when 'Approximately 30m north-west of the above site (LI020-163001-) was BGE 3/51/2. Six shallow pits/depressions cut into the yellow/grey clay subsoil were excavated. These features were very irregular in shape, with no discernible cut. All contained heat-shattered stone and charcoal-rich material, indicating <i>fulacht fia</i> activity. All were fairly shallow, and the largest had a maximum length of 3.8m north-south. It is probable that they were contemporary with the adjacent <i>fulacht fia</i> activity. None shows any evidence of function, and they may be undulations in the natural, filled in with burnt material. The site is in very wet, boggy land.'
Source	www.archaeology.ie/ SMR file

AH No	AH 84
RMP No	LI020-002
Statutory protection	RMP
Townland	Ballynacaheragh
Parish	Askeaton
Barony	Connello Lower
Classification	Enclosure
ITM Ref	533471, 648136
Description	No detail given.
Source	www.archaeology.ie/ SMR file

AH No	AH 85 (EX 14)
RMP No	LI020-175/177
Statutory protection	No
Townland	Milltown North
Parish	Lismakeery
Barony	Connello Lower
Classification	<i>Fulachta fia</i>
ITM Ref	533814, 647719
Description	001 - <i>Fulacht fia</i> excavated by Brian Halpin (02E0643) when 'topsoil-stripping on Bord Gáis Éireann's Pipeline to the West uncovered a <i>fulacht fia</i> in Milltown North townland, Co. Limerick. This site was the disturbed remains of a <i>fulacht fia</i>, with a trough and associated features. The site probably contained a large mound, lost through later agricultural activity. This was evident from traces of burnt material remaining in the baulk at the limit of excavation to the south of the site. The only visible remnants of the monument were the cut features that held the burnt material. Numerous natural undulations in the subsoil throughout the site also contained burnt material. A sub-oval trough measuring 2.3m east-west by 1.86m, with a maximum depth of 0.36m, was uncovered in the eastern area of the site. It had gently sloping sides and an unlined, flat base and contained numerous fills typically associated with a trough. All of the fills contained charcoal-rich material with heat-shattered stones throughout. Numerous other pits were excavated, all irregular in shape and containing frequent amounts of burnt material. The other features associated with the site do not seem to have a regular pattern or discernible function. In the centre of the site a highly irregular, sublinear feature emerged. It measured 10m north-south by 1.1m, with a maximum depth of 0.45m. It contained the same burnt material as the surrounding features and had a long channel running down its centre. Originally thought to have been a kiln, it was found to be a probable irrigation ditch on further investigation. Owing to the limit of excavation, this feature was only partially excavated.' 002 - Excavation by Graham Hull (02E0644) as part of Bord Gáis Éireann's Pipeline to the West. 'A single sherd of prehistoric pottery was recovered from the surface of a feature fill during monitoring by Kenneth Wiggins (No. 64 above, 02E0119). A discrete cut feature was subsequently excavated and revealed to be an irregular and shallow scoop or possibly two very small and truncated post-holes. The feature measured 0.9m (north-south) by 0.7m and had a maximum depth of 0.15m. The fill was a fine, light to mid-brown, silty clay with occasional

	charcoal flecking and very small fragments of decayed limestone. No artefacts were observed during excavation, but, as Bronze Age pottery had been found at the top of the fill during monitoring, it was decided to take a 100% sample of the fill. Sieving of the sample may produce further artefactual evidence that will facilitate interpretation of this isolated feature. The pottery sherd is Beaker, which has been documented in Ireland from c. 2500/2450 BC and remained in use for several centuries (A.L. Brindley, pers. comm.).'
Source	www.archaeology.ie/ SMR file

AH No	AH 86
RMP No	LI020-007
Statutory protection	RMP
Townland	Boolaglass
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	534778, 646746
Description	In area of outcropping limestone, completely covered by scrub and thorn bushes. Monument, depicted as roughly circular embanked enclosure (diam. c. 30m) on 1923 OS 6-inch map, is now completely covered by dense overgrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 87
RMP No	LI020-005
Statutory protection	RMP
Townland	Milltown North
Parish	Lismakeery
Barony	Connello Lower
Classification	Enclosure
ITM Ref	534346, 647273
Description	In pasture, on W bank of Deel River. Monument, depicted on 1923 OS 6-inch map as D-shaped enclosure with river bank forming straight E side (c. 25m N-S; c. 30m E-W), is no longer evident. This area now covered by dump of material dredged from river (H 2.75m; Wth 10m; L c. 30m) by OPW.
Source	www.archaeology.ie/ SMR file

AH No	AH 88
RMP No	LI020-004001/2 & 176
Statutory protection	RMP & Preservation Order
Townland	Milltown North
Parish	Lismakeery
Barony	Connello Lower
Classification	Tower house, cashel & souterrain
ITM Ref	534100, 647155
Description	Tower house In pasture, on limestone crag on gentle SE-facing slope. This L-shaped tower house stood in SW quadrant of cashel (LI020-004001-) has now been reduced to

	ground level. Westropp (1906-7, 208) described the remains here as 'fragment of an old house, with a tall chimney' but it seems most of its stone was used in the 18th century in the building of nearby Altavilla House (Donnelly 1994, vol. 2, 152). Cashel In pasture, atop limestone crag, on gentle SE-facing slope. Circular area (44m N-S; 43m E-W) defined by substantial dry-stone wall (ext. H 2.4m; int. H 2.4m; Wth 3.35m), best preserved along N arc where incorporated into field boundary system. Entrance (Wth 9.2m) SE->SSE, with boulders dumped against external face at either terminus. Uneven interior, under rough pasture, has scarp edge (H 1.01m) separating irregular lower area to NNW. No longer any evident trace of tower house (LI020-004002-) or souterrain (LI020-176----) in interior. Souterrain Discovered within a cashel (LI020-004001-) and then rediscovered in 1976 when it was 'covered in' (NMI top. files). A sword, now in the National Museum of Ireland, was discovered in this souterrain (Donnelly 1994, vol. 2, 152). There is no evident trace of the souterrain within the cashel.
Source	www.archaeology.ie/ SMR file

AH No	AH 89
RMP No	LI020-053
Statutory protection	RMP
Townland	Feeagh
Parish	Kilmeedy
Barony	Connello Lower
Classification	Ringfort
ITM Ref	534866, 645657
Description	In marshy ground, on E edge of break in E-facing hillside. Site occupies NW corner of small paddock, immediately E of farmyard. Roughly circular area (30m N-S; 28m E-W) enclosed by earth-and-stone bank (int. H 1m; ext. H 1.35m) best preserved at NW and S. Entrance at SW (Wth 5.4m) and cattle gap at N (Wth 2m). Interior, heavily masked by vegetation overgrowth, slopes down to E. There is an abandoned car in SE quadrant. Rubbish has been dumped against external bank face N->ENE.
Source	www.archaeology.ie/ SMR file

AH No	AH 90
RMP No	LI020-052
Statutory protection	RMP
Townland	Feeagh
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	534768, 645524
Description	In pasture, on gentle SSE-facing slope, below brow of hill. Monument, depicted as embanked circular enclosure on 1841 OS 6-inch map, has been levelled. However, it is still evident as circular area (22m E-W) defined by very gradual scarped edge NE->W (H 1m; Wth 11.5m), which is truncated by passageway leading to newly constructed house W->NE. A pump house stands on top edge

	of scarp at SSW. Interior, under pasture, has shallow drain (D 0.1m; Wth 0.6m) crossing it on E-W axis. There is a dump of quarry stones near centre.
Source	www.archaeology.ie/ SMR file

AH No	AH 91
RMP No	LI020-059
Statutory protection	RMP
Townland	Ballingarrane
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	536170, 644662
Description	In pasture, atop S end of low limestone ridge. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, has been levelled. No trace of monument evident when inspected. Field boundaries to E and W, shown on 1923 map, have been removed.
Source	www.archaeology.ie/ SMR file

AH No	AH 92
RMP No	LI020-058
Statutory protection	RMP
Townland	Ballingarrane
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	536137, 644447
Description	In pasture, on break in NNW-facing slope. Monument, depicted as embanked circular enclosure (diam. c. 25m) on 1923 OS 6-inch map, has been levelled. However, a low earthen bank (int. H 0.15m; ext. H 0.3m) survives W->NE (diam. 24m E-W). Interior level and under pasture. An ESB pole stands in SE quadrant.
Source	www.archaeology.ie/ SMR file

AH No	AH 93
RMP No	LI020-060
Statutory protection	RMP
Townland	Ballingarrane
Parish	Nantinan
Barony	Connello Lower
Classification	Ringfort
ITM Ref	536237, 644325
Description	In scrub, on S-facing slope in area of outcropping limestone. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, is now completely masked by dense overgrowth of trees and thorn bushes. Raised area of loose stone (H c. 1m) is visible at approximately S end of enclosure; according to local information this is remains of a lime kiln demolished in late 1970s.
Source	www.archaeology.ie/ SMR file

AH No	AH 95
RMP No	LI020-113
Statutory protection	RMP
Townland	Kyletaun
Parish	Askeaton
Barony	Connello Lower
Classification	Crannóg
ITM Ref	536254, 642771
Description	In a low-lying area of marshy pasture, bounded by deep drainage dykes to the S and E and by the embankment of a disused railway line to the W. A roughly circular platform (26m N-S; 27.5m E-W) defined by a gradually sloping scarped edge (H 0.9m; Wth 6.7m). The surface of the platform is very uneven but generally slopes up towards the centre. Its surface is scattered with loose stones and the make-up of the platform appears to be a dump of stones. According to the landowner the mound formerly had a boat house standing on the top. The site is been subject to flooding (Anon 1901-4, 285-6).
Source	www.archaeology.ie/ SMR file

AH No	AH 96
RMP No	LI029-029
Statutory protection	RMP
Townland	Rathkeale
Parish	Rathkeale
Barony	Connello Lower
Classification	Standing stone
ITM Ref	536500, 642323
Description	In pasture, on gentle NE-facing slope, in area of outcropping limestone. Squat deeply-fissured limestone boulder (H 0.95m; Wth 0.9m; girth 2.9m), with long axis N-S, inclining gently to E.
Source	www.archaeology.ie/ SMR file

AH No	AH 110
RMP No	LI020-156
Statutory protection	RMP
Townland	Rathkeale
Parish	Rathkeale
Barony	Connello Lower
Classification	Standing stone
ITM Ref	537164, 642547
Description	In pasture, on a break in a gentle E-facing slope. A rectangular limestone upright (H 1.06m; Wth 0.35m; T 0.16m), leaning slightly to the S, with its long axis aligned E-W. The edges of the stone have been rubbed smooth by cattle, who have also worn a shallow hollow around its base.
Source	www.archaeology.ie/ SMR file

AH No	AH 123

RMP No	LI020-152
Statutory protection	No
Townland	Rathkeale
Parish	Rathkeale
Barony	Connello Lower
Classification	Redundant record
ITM Ref	537148, 642526
Description	In report on the Rathkeale By-pass it was noted that a 'low lying marshy area ... may have Fulacht Fiadh.' This area is now covered by the By-pass road and there is no evidence that any archaeological monuments were discovered here during road construction so this record has been made a redundant record.
Source	www.archaeology.ie/ SMR file

AH No	AH 111
RMP No	LI020-115
Statutory protection	SMR
Townland	Wolfesburgess East
Parish	Rathkeale
Barony	Connello Lower
Classification	Redundant record
ITM Ref	537231, 642621
Description	Described as 'mounds; may be drainage clearance' in report on the Rathkeale By-pass. Inspection in 1998 confirmed that these were mounds produced by drainage of the river and of no archaeological significance (Denis Power Dec. 2008).
Source	www.archaeology.ie/ SMR file

AH No	AH 112
RMP No	LI029-037
Statutory protection	RMP
Townland	Blossomhill (Connello Lower By.)
Parish	Rathkeale
Barony	Connello Lower
Classification	Ringfort
ITM Ref	537819, 642453
Description	In pasture, on E edge of break in E-facing slope. Monument, depicted as embanked circular enclosure (diam. c. 35m) on 1841 OS 6-inch map, has been partially levelled. Curved section of earth-and-stone bank (int. H 0.5m; ext. H 0.7m) remains NW->NE. Bank, covered with mature bushes, is truncated S->NW by field boundary travelling on N-S axis. No surface trace of enclosing element NE->S. Interior, under pasture, slopes down towards centre.
Source	www.archaeology.ie/ SMR file

AH No	AH 113
RMP No	LI020-116
Statutory protection	RMP

Townland	Amogan Beg
Parish	Croagh
Barony	Connello Lower
Classification	Enclosure
ITM Ref	538614, 642547
Description	In pasture, in gently undulating terrain. Kink in field boundary W-NW suggests arc of enclosure; faint cropmark on aerial photograph (LAS) suggests continuation of line of enclosure from E-W (diam. c. 30m). No trace of enclosure evident when inspected on the ground.
Source	www.archaeology.ie/ SMR file

AH No	AH 114
RMP No	LI020-117
Statutory protection	RMP
Townland	Amogan Beg
Parish	Croagh
Barony	Connello Lower
Classification	Redundant record
ITM Ref	538729, 642506
Description	Site inspection showed this to be a natural feature and therefore made a redundant record.
Source	www.archaeology.ie

AH No	AH 115
RMP No	LI020-137
Statutory protection	RMP
Townland	Ballycannon
Parish	Croagh
Barony	Connello Lower
Classification	Ringfort
ITM Ref	539594, 643067
Description	In level pasture. Monument, depicted as semi-circular enclosure (diam. c. 20m) on N side of E-W field boundary on 1841 OS 6-inch map, has been levelled and field boundary removed. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 116
RMP No	LI020-120
Statutory protection	RMP
Townland	Amogan Beg
Parish	Croagh
Barony	Connello Lower
Classification	Ringfort
ITM Ref	538614, 642547
Description	In pasture, on S-facing slope. Monument, depicted as embanked circular enclosure (diam. c. 40m) on 1841 OS 6-inch map, has been levelled. No trace of monument evident when inspected.

Source	www.archaeology.ie/ SMR file

AH No	AH 117
RMP No	LI020-088
Statutory protection	RMP
Townland	Graigue
Parish	Clonshire
Barony	Connello Lower
Classification	Ringfort
ITM Ref	541677, 644522
Description	In pasture, on S-facing hill slope. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 118
RMP No	LI020-087
Statutory protection	RMP
Townland	Graigue
Parish	Clonshire
Barony	Connello Lower
Classification	Enclosure
ITM Ref	541629, 644636
Description	In pasture, on S-facing slope, in area of outcropping limestone. Roughly rectangular area (35m N-S; 34m E-W) enclosed by dry-stone wall (H 0.9m; Wth. 1m) NE->S and by recent linear boundary hedge WSW->NW. Cattle crush has been erected along the line of the removed enclosing wall S->WSW. Interior under pasture, slopes down to S.
Source	www.archaeology.ie/ SMR file

AH No	AH 119
RMP No	LI020-159
Statutory protection	RMP
Townland	Clonshire More
Parish	Clonshire
Barony	Connello Lower
Classification	Castle
ITM Ref	542310, 644701
Description	"This consists of a four storeyed rectangular keep with a five floored stair turret to the west and a three floored pointed opening to the stair turret in the west wall. There is also a spiral stairs in the south west angle of the room which originally led to the first floor but this is blocked with collapsed masonry. The first floor is now overgrown with trees. A round arched doorway led to the eastern addition, the north wall has two large round arched openings, probably windows; the west wall had a doorway to the south-west structure and there was a round arched window, a chimney and a wall cupboard in the south wall. The second floor was supported on corbels in the north and south walls. The

	east wall of this floor had a flat arched doorway leading to the east section, the south splay of which has a double splayed recess opening to the keep and to the east and holds a stone basin. The suggestion by the owner that there was a chapel in the castle would seem to be strengthened by the occurrence of this feature. There is a small wall cupboard to the south of the doorway. The south wall has twin-light ogee-headed window with hollow spandrels and window seats and there may have been similar windows in the north wall but they are now blocked and the jambs are missing. There is a fireplace in the south wall and a door opening to the south west structure. The third floor was supported on timbers set into putlog holes and the room was lit by small deeply splayed rectangular slits in the north, south and east walls. There may have been a fireplace in the south wall. Only the north and east walls of the eastern building survive: the south wall is represented by low footings and a section of masonry jutting out of the keep wall at second floor level. The ground floor was barrel vaulted and there appears to have been an opening in the north wall. The first floor appears to have been lit from the north by two openings; that on the east is round arched and splayed. The floor above was supported on tapering corbels and was lit from the north by a splayed opening and from the east by a flat lintelled cusped ogee-headed single-light window with hollow spandrels. The walls are broken above this level."
Source	www.archaeology.ie/ SMR file

AH No	AH 120
RMP No	LI020-095
Statutory protection	RMP
Townland	Clonshire More
Parish	Clonshire
Barony	Connello Lower
Classification	Ringfort
ITM Ref	542788, 645257
Description	In pasture, atop hill. Roughly circular area (32m E-W) enclosed by earth-and-stone bank (int. H 0.7m; ext. H 0.95m). Bank incorporated into field boundary system SW->NNW; continuation of field boundary to NNW now removed. Break in bank at ESE (Wth 3.5m). Interior, overgrown with bushes, is strewn with loose stones; it rises towards centre where there is rock outcropping. Four low (max. H 0.2m; L c. 14m) earth-and-stone banks, c. 5m apart, cross interior on N-S axis; these may be remains of cultivation beds.
Source	www.archaeology.ie/ SMR file

AH No	AH 109
RMP No	LI021-005
Statutory protection	RMP
Townland	Tuogh (Kenry By.)
Parish	Adare
Barony	Kenry
Classification	Ringfort
ITM Ref	543866, 646407
Description	In gently undulating pasture, atop slight rise. Monument, depicted as circular

	enclosure (diam. c. 30m) on 1841 OS 6-inch map, now survives as wedge-shaped area (34m N-S; 23m E-W) enclosed NE->SW by arc of curving earthen bank (int. H 0.5m; ext. H 0.45m), and is defined on W and N sides by dry-stone field walls which meet at NW. Remains of a dry-stone wall runs along top of bank. Interior is level and covered by mature trees.
Source	www.archaeology.ie/ SMR file

AH No	AH 55
RMP No	LI021-118
Statutory protection	RMP
Townland	Islandea
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	545574, 647205
Description	Located in level pasture land. Moderate views in all directions. The site is defined as an ovoid rocky area as distinct from the surrounding land. There is no obvious enclosing element, possibly very damaged. Known locally as a 'sand pit'. Possibly quarried in past.
Source	SMR file

AH No	AH 57
RMP No	LI021-149
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546302, 647066
Description	The exact location of a 'Keiltanes Castle, stone house, meussage etc' mentioned in a document in 1621 AD are unknown. See Westropp 1906-7, 215
Source	SMR file

AH No	AH 58
RMP No	LI021-010
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546322, 647176
Description	No detail given within the SMR file. However, the site is marked on the first edition OS map and appears to have been removed due to the construction of the railway.
Source	SMR file

AH No	AH 59

RMP No	LI021-173
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	<i>Fulacht fia</i>
ITM Ref	546511, 647300
Description	No details given.
Source	SMR file

AH No	AH 60
RMP No	LI021-143
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546602, 647346
Description	Located in pasture land on top of a steep W facing slope. Moderate to good views in all directions. The site comprises a rocky ovoid area, 45m diameter, but no obvious defensible enclosure identified. Interior planted with conifers.
Source	SMR file

AH No	AH 61
RMP No	LI021-144
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546812, 647336
Description	In pasture land on a slight E facing slope. Views are good in all directions, except to W. No extant remains of an enclosure.
Source	SMR file

AH No	AH 62
RMP No	LI021-011001/2
Statutory protection	RMP
Townland	Mondellihy
Parish	Adare
Barony	Coshma
Classification	Two enclosures
ITM Ref	547207, 647332
Description	The features may be conjoined. Enclosure B measures 22-24m in diameter, surrounded by an earth and stone bank. The interior appears to have been artificially levelled to compensate for the natural slope. Noted as part of the

	'Mondellihiy Rings'.
Source	SMR file

AH No	AH 63
RMP No	LI021-145
Statutory protection	RMP
Townland	Mondellihiy
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	547362, 647376
Description	Located in gently undulating pasture land. Moderate good views in all directions. No clear extant enclosing element visible.
Source	SMR file

AH No	AH 64
RMP No	LI021-146
Statutory protection	RMP
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	547619, 647521
Description	Located in undulating pasture, relatively level area. Views moderate in all directions. No extant trace of enclosing element.
Source	SMR file

AH No	AH 65
RMP No	LI021-147001/2
Statutory protection	RMP
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Two enclosures
ITM Ref	547752, 647516
Description	Located in undulating pasture on a low rise. Views moderate in all directions. No extant trace of enclosing elements.
Source	SMR file

AH No	AH 66 (EX 17)
RMP No	LI021-179
Statutory protection	No
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Excavation

ITM Ref	548255, 647563
Description	Pits excavated by C MacManus (1999/508).
Source	SMR file

AH No	AH 67
RMP No	LI021-148
Statutory protection	RMP
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	551061, 648446
Description	Located in pasture land on slight W facing slope. Views moderate to poor in all directions. No extant trace of enclosing element. Described as possible rectangular enclosure. See Adare Bypass Constraints Study
Source	SMR file

AH No	AH 68
RMP No	LI021-014
Statutory protection	RMP
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	548482, 647846
Description	Located in low lying pasture land with poor views in all directions. The enclosure is described as roughly circular with possible scarped edges, situated on a low natural rise. The interior gently undulates, clear of undergrowth.
Source	SMR files

AH No	AH 69
RMP No	LI021-015
Statutory protection	RMP
Townland	Rineroe
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	548792, 647626
Description	No details given.
Source	www.archaeology.ie/ SMR file

AH No	AH 70
RMP No	LI021-121
Statutory	RMP

protection	
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	550571, 648426
Description	Located in pasture land on a slight S facing slope. Views moderate in all directions. No visible trace of enclosure.
Source	SMR file

AH No	AH 71 (EX 18)
RMP No	LI021-181001/2
Statutory protection	SMR
Townland	Ballycarrane
Parish	Croom
Barony	Pubblebrien
Classification	<i>Fulachtaí fia</i>
ITM Ref	549561, 647846
Description	Not details given within file – see EX 18.
Source	www.archaeology.ie/ SMR file

AH No	AH 72
RMP No	LI021-017, 187, 180
Statutory protection	RMP
Townland	Gorteen
Parish	Croom
Barony	Pubblebrien
Classification	Moated site, kilns
ITM Ref	549915, 647866
Description	The site appears to be a medieval moated site, enclosed by a ditch and external bank. Excavations were carried out by A Gahan in 1998 (Bennett 1998:399). The site, marked in the OS Memoirs as a possible ringfort had been uncovered during trial trenching. Only a portion of site was excavated within the road take area (60 x 15m area). The trench revealed part of a rectangular ditched enclosure, the longest extent of which ran SE for a distance of 31.5m. A smaller section of the ditch ran SW for 13.5m. The ditch was V to U shaped, and had a width of 2.38 to 3.72m. Parts of the inner face had been revetted with stone. Stone rubble in ditch fill suggested a possible internal bank. Mention is made of a possible external bank feature. Two earlier shallow truncated pits were also recorded. Sherds of 13th/14th century pottery recovered from topsoil. Enclosing elements and corn drying kilns were also excavated by L McKinstry (08E0174).

Source	SMR file

AH No	AH 73
RMP No	LI021-118
Statutory protection	RMP
Townland	Islandea
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	145612, 147159
Description	Located in level pasture land. Moderate views in all directions. The site is defined as an ovoid rocky area as distinct from the surrounding land. There is no obvious enclosing element, possibly very damaged. Known locally as a 'sand pit'. Possibly quarried in past.
Source	SMR file

AH No	AH 74
RMP No	LI021-121
Statutory protection	RMP
Townland	Monearla
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	149380, 147560
Description	Located in pasture land on a slight S facing slope. Views moderate in all directions. No visible trace of enclosure.
Source	SMR files

AH No	AH 75 (EX 20)
RMP No	LI021-167
Statutory protection	No
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Ring ditch
ITM Ref	551061, 648446
Description	The site was revealed during topsoil clearance associated with the Adare to Annacoty Road Improvement Scheme in 1999. The feature had been partially destroyed by machine excavation, but excavation of remainder revealed a penannular ditch of U shaped profile. An external diameter of 7m was recorded. Fourteen 'token' deposits of human cremated bone were recovered from the ditch fill, and one copper alloy artefact. The ditch fill and cremations have been interpreted as Iron Age in date. Licence Ref.: 99E0324.
Source	SMR file

AH No	AH 76 (EX 22)
RMP No	LI021-177

Statutory protection	No
Townland	Attyflin
Parish	Killonahan
Barony	Pubblebrien
Classification	<i>Fulacht fia</i>
ITM Ref	551305, 648480
Description	Monitoring of the topsoil strip along the N20/N21 Limerick bypass uncovered the site approximately 500m E of the N21. The site consisted of an elongated mound 17 x 9 x 0.35m, consisting of a mix of heat shattered limestone and charcoal rich soil. A small trough (2.1 x 1 x 0.28m) was found on SW quadrant under mound. To the north of the trough a substantial oval pit aligned NE-SW was recorded which contained mound deposits but also elements of worked animal bone. To the E of the pit edge some 12 stakeholes were excavated. These did not have an overall pattern but may have been part of a windbreak feature. C MacManus 99E0171.
Source	SMR file

AH No	AH 77 (EX 21)
RMP No	LI021-185
Statutory protection	No
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Hearth
ITM Ref	551109, 648387
Description	Excavated by R MacLeod (08E0171)
Source	SMR file

AH No	AH 78
RMP No	LI021-027
Statutory protection	Yes
Townland	Attyflin
Parish	Killonahan
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	551467, 648470
Description	In undulating pasture land, on a slight SW facing slope. Good vies in all directions. Probably a tree ring (still mature deciduous tree stand) on the Attyflin estate.
Source	SMR file

Built Heritage

BH No	BH 1
RPS No	18
NIAH No	N/A
Statutory	RPS

protection	
Townland	Ardaneer
Parish	Shanagolden
Barony	Shanid
Classification	Vernacular farm house
ITM Ref	526382, 650148
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 41 (Also AH 121)
RPS No	667
NIAH No	N/a
Statutory protection	RPS
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church and graveyard
ITM Ref	527018, 650000
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 42
RPS No	N/a
NIAH No	21901006
Statutory protection	N/a
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	House
ITM Ref	527301, 649171
Description	Description Detached two-storey T-plan house, built c. 1840, with gable-fronted extension to south, c. 1880, with canted bay window. Lean-to to west elevation. Pitched slate roofs, half-hipped to south gable of extension with rendered chimneystacks, cast-iron rainwater goods, terracotta ridge tiles and timber eaves course. Roughcast rendered walls having render plinth course. Fishscale hipped slate roof to bay window. Square-headed openings throughout, having concrete sills, one-over-one pane and two-over-two pane timber sliding sash windows. Tooled limestone sills to canted bay window and to first-floor window to south elevation of main block. Timber framed windows to north elevation. Square-headed opening to east elevation of end-bay with timber panelled door

	and overlight. Render step to entrance. Square-headed opening to north elevation having half-glazed timber panelled door. Square-headed opening to north elevation of lean-to with glazed timber battened door and overlight. Pair of square-profile limestone piers to east of house, flanking double-leaf cast-iron gate with foundry mark. Three-bay single-storey outbuilding to north of house. Pitched corrugated-iron roof having render copings and eaves course. Roughcast rendered walls. Square-headed openings with timber fittings. Square-headed vents. Pair of square-profile cut limestone piers to south of building, flanking double-leaf cast-iron gate. Appraisal The regular asymmetrical form of this house marks it out on the landscape. The form is enhanced by the canted bay and half-hipped roof. Artistic interest is added by subtle features such as its render plinth course and the timber sliding sash windows add to the architectural interest. The foundry mark, which reads: 'NEWSOM LIMK 181' is another notable feature and adds context to the site.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 2
RPS No	668
NIAH No	21901005
Statutory protection	RPS
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church
ITM Ref	527003, 649747
Description	Description Freestanding gable-fronted Roman Catholic church built in 1830. Comprising five-bay nave with two-bay single-storey flat-roofed porch to west elevation, three-bay single-storey sacristy to east elevation incorporating central single-bay crenellated porch to south elevation. Pitched slate roof having cut limestone copings and finial and cast-iron rainwater goods. Red brick chimneystack to sacristy. Render crenellations to west porch. Roughcast rendered walls, smooth render to west elevation, render plinth course to south, east and west elevations. Render platband to west elevation. Render platband to west porch and sacristy porch. Round-headed openings having painted sills, timber fittings and stained glazed panels to south and west elevations, and to south elevation of sacristy. Segmental-headed opening to west elevation of porch with painted sill and stained glass window. Square-headed opening to south elevation of porch to sacristy, having painted sill and stained glass window. Segmental-headed opening to west elevation of porch with recent timber panelled double doors. Segmental-headed openings to south elevation and interior north elevation of porch, with double-leaf timber panelled doors. Square-headed opening to interior south elevation of porch having timber panelled door. Square-headed opening to east elevation of porch to sacristy, with timber battened door. Step to entrance. Retains interior features including timber

	pews, marble altar table and timber gallery. Scissors brace roof supports to ceiling. Iron bell mounted on render base to south of church, bell supported on four iron columns. Appraisal The regular form of this church is enhanced by the restraint in the exterior ornamentation, which makes a strong impression on the landscape. The stained glass windows and the decorative Gothic styled reredos in the interior add considerably to the importance of this rural church.
Rating	Regional
Categories of special interest	Architectural, artistic, social
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 3
RPS No	75
NIAH No	N/A
Statutory protection	RPS
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	530532, 649267
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 43
RPS No	N/A but directly linked to BH 3, 4 and 5
NIAH No	N/A
Statutory protection	RPS
Townland	Mulderricksfield
Parish	Robertstown
Barony	Shanid
Classification	Concrete pill box
ITM Ref	530655, 649437
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 4
RPS No	74
NIAH No	N/A
Statutory	RPS

protection	
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	530890, 649131
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 5
RPS No	73
NIAH No	N/A
Statutory protection	RPS
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	531229, 649261
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 19
RPS No	N/A
NIAH No	21901916
Statutory protection	No – but proposed for addition to the RPS
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	Country House
ITM Ref	531763, 6448818
Description	Description Detached three-storey country house, built c. 1760, with tripartite fanlight doorway. Restored in the 1970s. Appraisal Ballycullen House is an important country house both architecturally and historically within County Limerick. Features such as the doorway and the interior plasterwork and staircase joinery mark Ballycullen House out as a house of architectural importance.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 20
RPS No	N/A
NIAH No	21902005
Statutory protection	No
Townland	Ardgoul South
Parish	Nantinan
Barony	Connello Lower
Classification	House
ITM Ref	534949, 645473
Description	Description Detached three-bay single-storey villa style house, built c. 1810, having single-bay single-storey concrete lean-to to east elevation. Skirt slate roof with rendered chimneystacks. Rubble limestone walls. Square-headed openings having remains of tripartite one-over-one pane timber sliding sash windows and limestone sills. Elliptical-headed door opening with red brick voussoirs. Remains of plasterwork to interior hall ceiling. Single-bay single-storey with attic gable-fronted gate lodge to south. Hipped slate roof with rendered chimneystack. Roughcast rendered walls. Square-headed window and door openings. Pair of dressed limestone square-profile piers to south having carved caps and double-leaf cast-iron gates. Rubble limestone boundary walls to site. Appraisal The regular form of this villa style house is enhanced by simple detailing such as the modest entrance. The tripartite windows to the façade are interesting features, and some retain the remains of timber sliding sash windows. The house retains some modest plasterwork to the interior. The site retains a simple gate lodge, which adds context and interest to the composition.
Rating	Local
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 21
RPS No	45
NIAH No	N/A
Statutory protection	RPS
Townland	Ballingarrane
Parish	Nantinan
Barony	Connello Lower
Classification	Forge
ITM Ref	535727, 645257
Description	None given.
Rating	None given.
Categories of special interest	None given.
Source	Limerick County Development Plan 2010-2016

BH No	BH 36

RPS No	69
NIAH No	N/a
Statutory protection	RPS
Townland	Ballycannon
Parish	Croagh
Barony	Connello Lower
Classification	Duneeven House
ITM Ref	540711, 6433355
Description	None given.
Rating	None given.
Categories of special interest	None given.
Source	Limerick County Development Plan 2010-2016

BH No	BH 37
RPS No	298
NIAH No	21902035
Statutory protection	RPS
Townland	Croagh
Parish	Croagh
Barony	Connello Lower
Classification	Smithfield House
ITM Ref	541545, 643782
Description	Description Detached five-bay three-storey house, built c. 1780, having crenellated porch to front (south) elevation and two-storey recent extensions to rear (north) elevation. Pitched slate roof with rendered chimneystacks. Rendered walls, render quoins and plinth course. Square-headed openings having painted stone sills and replacement uPVC windows. Square-headed opening to porch with glazed overlight over timber panelled door having flanking sidelights. Pair of square-profile rubble limestone piers to south and rubble limestone boundary walls with limestone cappings. Appraisal The form of this handsome Georgian house is typical of higher status homes built in the 18th century. The classically inspired design, enhanced by the diminishing windows emphasises the façade's vertical nature. The use of diminishing windows is a common feature of such houses in Limerick.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 38
RPS No	N/a
NIAH No	21902034
Statutory protection	No

Townland	Graigue
Parish	Clonshire
Barony	Connello Lower
Classification	House
ITM Ref	541944, 644702
Description	Description Detached three-bay two-storey house, built c. 1880, having portico to front (east) elevation and extensions to rear (west) elevation. Hipped slate roof with rendered chimneystacks. Roughcast rendered walls and render plinth course. Square-headed openings to first floor having one-over-one pane timber sliding sash windows and concrete sills. Square-headed openings to ground floor with bipartite one-over-one pane timber sliding sash windows and concrete sills. Square-headed opening having glazed overlight over timber panelled door with flanking sidelights and timber risers. Portico comprising concrete columns and rendered entablature. Pair of square-profile rendered piers with pedimented caps and double-leaf metal gates. Rendered boundary walls to site having render plinth courses and copings. Appraisal This is an attractive and well-maintained house, which retains much of its original character despite additions to the rear. The different fenestration types distinguish the ground and first floors, as well as adding interest to the façade. Its setting, with garden and boundary walls, remains intact.
Rating	Local
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 39 (Also AH 119)
RPS No	266
NIAH No	N/a
Statutory protection	RPS
Townland	Clonshire More
Parish	Clonshire
Barony	Connello Lower
Classification	Castle
ITM Ref	542288, 644709
Description	See AH 119.
Rating	None given.
Categories of special interest	None given.
Source	Limerick County Development Plan 2010-2016

BH No	BH 26
RPS No	N/a
NIAH No	21902102
Statutory protection	No
Townland	Clonshire More
Parish	Clonshire

Barony	Connello Lower
Classification	Bridge
ITM Ref	542288, 644709
Description	Description Single-arch limestone railway bridge, built c. 1856. Rubble stone walls having cut stone parapets and stringcourses. Rubble stone buttresses to east and west elevations and rusticated voussoirs to segmental-headed arch. Appraisal This handsome bridge is one of a group of structures which were once part of the Limerick to Tralee line built by the Great Southern and Western Railway company. Its skilfully executed stonework, which displays a variety of finishes is testament to high quality railway bridge building in the mid-19th century.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 28
RPS No	N/A
NIAH No	21902135
Statutory protection	No
Townland	Tuogh
Parish	Adare
Barony	Kenry
Classification	House
ITM Ref	544022, 646549 / 544026, 646648
Description	Description Detached four-bay two-storey irregular-plan house, built c. 1870, having projecting gable-fronted bays to front (south) elevation, west elevation and rear (north) elevation. Recent conservatory to front elevation and single-storey extension to west elevation. Pitched slate roofs with timber bargeboards and cut limestone chimneystacks with terracotta chimney pots. Snecked limestone walls with external flue to east elevation. Square-headed openings with limestone block-and-start surrounds and replacement uPVC windows. Square-headed opening with tooled limestone block-and-start surround and timber battened door to front projecting gable, east elevation. Six-bay single-storey outbuilding to west with pitched artificial slate roof and brick chimneystack. Rubble limestone walls. Square-headed openings having replacement uPVC window and red brick voussoirs. Multiple-bay single-storey outbuilding to north with pitched slate roof. Rubble limestone walls. Camber-headed window and door openings with limestone sills and red brick voussoirs. Pair of square-profile crenellated piers to south with double-leaf cast-iron gates and rubble limestone boundary walls. Appraisal This late 19th-century house displays good quality craftsmanship in its decorative limestone detailing, chimneystacks with terracotta chimneypots and timber bargeboards. Its asymmetric plan and irregular roofline is typical of late 19th-century architecture and affords numerous interesting vantage points. It is pleasantly situated in landscaped grounds and retains its outbuildings to rear.
Rating	Regional

Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 29
RPS No	N/A
NIAH No	21902105
Statutory protection	No
Townland	Kilknockan
Parish	Adare
Barony	Kenry
Classification	Bridge
ITM Ref	544288, 646365
Description	Description Single-arch limestone road bridge over the River Greanagh, built in 1887. Rusticated walls with rock-faced copings, cut stringcourse and rusticated voussoirs to segmental-headed arch. Inscribed limestone plaque to south parapet wall. Appraisal This solidly constructed road bridge was built in the late 19th century to replace an earlier structure by the Greanach Drainage Board. The inscribed plaque provides historical context and reads: 'Coolagh Bridge Erected by the Greanach Drainage Board 1887 Waller Esq. D. L. Charman Engineer Barrington A. M. Contractor M. Walshe.' The bridge serves as a reminder of the quality of the engineering and local craftsmen's skills in the late 19th century.
Rating	Regional
Categories of special interest	Architectural, technical.
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 30
RPS No	810
NIAH No	21902113
Statutory protection	RPS
Townland	Adare
Parish	Adare
Barony	Coshma
Classification	Gate lodge
ITM Ref	547523, 647198
Description	Description Detached octagonal-plan two-storey former gate lodge, built c. 1830, having gablets to front (east), north, south and rear (west) elevations and three-bay single-storey block to rear. Single-bay single-storey block to south with adjoining curtain wall having stepped pediment and inset pointed arch carriage arch with carved roll mouldings and double-leaf ornate wrought-iron gates. Hipped slate roof with carved limestone eaves course. Pitched slate roof to rear block with rendered chimneystack. Limestone copings with carved trefoil finials to gablets. Tooled snecked limestone walls having carved plinth course and buttresses to

	front, south and north elevations. Lancet openings to ground floor with fixed windows. Arrow slit windows to rear block, north elevation with fixed windows. Trefoil-headed lancet window openings to gablets having limestone transoms and fixed windows. Appraisal This handsome gate lodge once gave access to the demesne of Adare Manor, which was an important historical estate. Although no longer in use as an entrance, the gate lodge serves as a reminder of the wealth and vast size of many former Adare Manor. The use of the Gothic Revival style, as represented by features such as the gablets, lancet windows and buttresses, mirror the style of the main house, Adare Manor, and are testament to the skill of 19th-century craftsmen. The gate lodge makes an important architectural contribution to the heritage of Adare.
Rating	Regional
Categories of special interest	Architectural, artistic
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 50
RPS No	811
NIAH No	N/a
Statutory protection	RPS
Townland	Adare
Parish	Adare
Barony	Coshma
Classification	Demesne walls
ITM Ref	547523, 647198 – 546872, 646946
Description	Stone walls that define the demesne associated with Adare Manor
Rating	None given.
Categories of special interest	None given.
Source	Limerick County Development Plan 2010-2016

BH No	BH 31
RPS No	N/A
NIAH No	21902114
Statutory protection	No
Townland	Rineroe
Parish	Adare
Barony	Coshma
Classification	Fort Union House gate lodge
ITM Ref	548022, 647349
Description	Description Two-bay two-storey gate lodge to north-east having gable-fronted end-bay and extension to rear (east) elevation. Pitched artificial slate roof with red brick chimneystack. Roughcast rendered walls to first floor. Red brick walls to ground floor. Square-headed openings with replacement uPVC windows. Those to

	ground floor having red brick voussoirs. Square-headed opening having timber battened door with flanking square-headed fixed window. Pair of roughcast rendered square-profile piers with limestone caps and sweeping roughcast rendered walls with limestone cappings terminating in second pair of piers. Appraisal The complex form of this house, the front elevation of which is said to have changed from north to south, indicates various phases of building. It was previously named Rineroe. The present rear elevation incorporates an 18th-century Dutch oven to the interior. The present front elevation suggests a remodelling in the 19th century. The finely crafted limestone steps, tripartite windows and end-placed chimneystacks are all distinctive and pleasing elements of this building. The site retains its extensive range of outbuildings, which were of vital importance in the running of the estate.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 32
RPS No	N/A
NIAH No	21902121
Statutory protection	No
Townland	Ballyloughnaa
Parish	Croom
Barony	Pubblebrien
Classification	House
ITM Ref	548012, 647339
Description	Description Detached three-bay two-storey house, built c. 1840. Hipped slate roof with rendered chimneystacks. Roughcast rendered walls. Square-headed openings with one-over-one pane timber sliding sash windows and limestone sills. Square-headed opening having glazed overlight over timber panelled door. Rubble limestone boundary walls to site. Appraisal The regular form of this house, which may have been a Methodist manse, is enhanced by architectural detailing such as the simple doorcase. The different window sizes to the façade are interesting features retaining timber sliding sash windows, which enhance the building's appearance. Set back slightly from the road, the house forms a pleasing roadside feature.
Rating	Local
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 33
RPS No	N/a
NIAH No	21902120
Statutory protection	N/a
Townland	Ballyloughnaa

Parish	Croom
Barony	Pubblebrien
Classification	House
ITM Ref	547876, 647373
Description	Description Detached three-bay two-storey house, built c. 1820, with additions in the later 19th and 20th centuries. Pair of bay windows to ground floor and porch set within. Continuous roof over canted bay windows supported by timber uprights. Timber windows to bay windows with small pane toplights. Segmented headed window openings with timber sash windows to first floor. Square-headed window opening with hood-moulding to return. Pitched roof with rendered chimneystacks. Appraisal This house is of interest due to its close proximity to the former Methodist Church and may have had some associations with the church. The retention of the bay windows to the ground floor with the small pane toplights are notable additions to the house.
Rating	Regional
Categories of special interest	Architectural, artistic
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 40
RPS No	113
NIAH No	N/a
Statutory protection	Yes
Townland	Ballyloughnaa
Parish	Croom
Barony	Pubblebrien
Classification	House
ITM Ref	549105, 647929
Description	Former Methodist Church, now renovated and incorporated into a modern residence.
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	N/a
RPS No	N/a
NIAH No	N/a
Statutory protection	Architectural Conservation Area
Townland	Adare
Parish	Adare
Barony	Coshma

Classification	ACA – Associated with Adare and Adare Manor Demesne
Description	The collective arrangement of buildings within the village and within the grounds of Adare Manor is considered of significance to the built heritage of the village and contributes to the character and established street and townscape. It is the objective of the Council to preserve the character of this area and therefore it is designated as an Architectural Conservation Area (ACA). The ACA is defined in the Protected Structures and ACA Map 4. The designation of the ACA does not preclude future development, but the carrying out of works to the exterior of structures within the ACA shall not be considered as exempted development where those works would materially affect the character of the ACA. In assessing development proposals within the ACA, the Council shall take into account the material effect that the proposed development would be likely to have on the character of the ACA. Adare's Architectural Conservation Area is divided into 7 main areas of interest. These are listed below and a statement on the character of each area and identification of possible threats are also outlined. Adare A.C.A. 1 Adare Manor Demesne Adare A.C.A. 2 Terraced Cottages in Ornee Style Adare A.C.A. 3 19th and Early 20th Century Core of the Village Adare A.C.A. 4 19th Century Core - Southside of Main Street Adare A.C.A. 5 19th Century Core - Northside of Main Street Adare A.C.A. 6 Clifford Smith Village Hall and Housing Adare A.C.A. 7 The Avenue
Rating	N/a
Categories of special interest	N/a
Source	Adare Local Area Plan (2015-2021)

Designed Landscapes

DL No	DL 1
RPS?	Associated with the ruins of Ballyclogh House, which is listed in the RPS
NIAH Survey No	LI-64-R-311484
Statutory protection	Associated with RPS
Name	Ballyclogh House demesne
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as ' Virtually no recognisable features. Principal building in ruins.' Formal gardens present to the east of the principal building on the 6" map are no longer present. Mature planting is present around the internal and external boundaries. Demesne features are degraded, now mainly arable fields.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 8

RPS?	No
NIAH Survey No	LI-64-R-318488
Statutory protection	No – principal structure is proposed for inclusion in the RPS
Name	Ballycullen House demesne
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features unrecognisable - peripheral features visible.' The pattern of planting and woodland belts is virtually unchanged from the pattern visible on the 6" map. The formal gardens present to the south-west of the principal building on the 6" map are no longer present in the modern landscape but their border is defined. The principal building is upstanding and its plan has not changed. Two farm buildings have been built to the north of the principal building. By the time of the 25 inch map the demesne has been extended to the southeast and many of the associated features remain intact.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 10
RPS?	No
NIAH Survey No	LI-64-R-350455
Statutory protection	No
Name	Wellmount House demesne
Townland	Ardgoul South
Parish	Nantinan
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Virtually no recognisable features.' Demesne features are degraded, now mainly arable fields. Modern farmyard now stands at site of principal building.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 11
RPS?	Associated with Nantinan House, which is listed in the RPS
NIAH Survey No	LI-64-R-354464
Statutory protection	Associated with RPS
Name	Nantinan House demesne
Townland	Nantinan
Parish	Nantinan
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - some loss of integrity.' The position of the drive has changed and modern farm buildings have been erected to the north of the demesne. Mature planting and

	lawns are present to the south of the house and the demesne character is largely intact.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 12
RPS?	Associated with Stoneville House, which is listed in the RPS
NIAH Survey No	LI-64-R-353438
Statutory protection	Associated with RPS
Name	Stoneville demesne
Townland	Stoneville
Parish	Nantinan
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - peripheral features unrecognisable.' Farm buildings now stand around the principal building. A small area of lawns and mature planting near the principal building. Areas of woodland present with mature planting also visible along the boundaries and lining the drive.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 19
RPS?	Associated with Smithfield House, which is listed in the RPS
NIAH Survey No	LI-65-R-415437
Statutory protection	Associated with RPS
Name	Smithfield House demesne
Townland	Croagh
Parish	Croagh
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features unrecognisable - peripheral features visible.' The majority of the demesne is taken up with pasture. Mature planting visible near the principal building. A modern entrance has been opened in the southeast of the demesne and two large farm buildings have been constructed to the northeast of the site.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 21
RPS?	Associated with Clonshire Lodge, which is listed in the RPS
NIAH Survey No	LI-65-R-435452
Statutory protection	Associated with RPS
Name	Clonshire Lodge demesne
Townland	Clonshire Beg
Parish	Clonshire
Barony	Connello Lower

Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - some loss of integrity'. Gate lodge visible as indicated on the 6" map. Industrial units in north west area of parkland. Significant area of mature woodland remain to the north and west of the principal building. A small area of pine plantation has been laid down in the south east of the demesne. Significant amounts of planting survive within the landscape.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 15
RPS?	Associated with Curraghbridge House, which is listed in the RPS
NIAH Survey No	LI-65-R-452475
Statutory protection	Associated with RPS
Name	Curraghbridge House demesne
Townland	Curraghbridge
Parish	Adare
Barony	Kenry
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - peripheral features unrecognisable'. Whilst the principal structure survives with outbuildings, the landscape to the south has lost much of its demesne character. Mature planting survives to the west of the house some mature boundaries with specimen trees are present to the north of the house.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 16
RPS?	Associated with Adare Manor, which is listed in the RPS. The demesne is also listed as an Architectural Conservation Area in its own right.
NIAH Survey No	LI-65-R-473461
Statutory protection	Associated with RPS and also listed as an ACA
Name	Adare Manor demesne
Townland	Adare Demesne, Boulabally, Mountwilliam, Copay
Parish	Adare
Barony	Coshma
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - some loss of integrity'. Substantial demesne parkland to the east of Adare village. Partly degraded to include a golf course. Layout, lawns and mature planting visible near the principal building. The river runs through the site and there are also large ponds within the golf course area. Abbey and castle ruins in parkland area to the north and a detached Deer Park to the west. Principal building and associated stables, gatehouses and chapel all present.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 17

RPS?	No
NIAH Survey No	LI-65-R-498479
Statutory protection	No
Name	Ballycarrane House demesne
Townland	Ballycarrane
Parish	Croom
Barony	Pubblebrien
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Virtually no recognisable features'. Small parkland is marked on first edition OS map. This is still present by the 25 inch mapping although truncated by the railway line. Recent construction of the N21 to the immediate south of the railway has resulted in further truncation of the demesne. Today, whilst the principal structure survives, the landscape has lost much of its original character. Several specimen trees survive in the ground, but no belts of planting.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 18
RPS?	No
NIAH Survey No	N/a
Statutory protection	No
Name	Un-named – within Ballybronoge South
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Demesne
Description	Not listed within the NIAH survey, this demesne landscape remains un-named on the first edition OS map and later OS editions. Shown on the first edition with a principal structure (now gone) and several outbuildings. The field boundaries are planted with trees and there is an orchard shown to the west. The demesne characteristics have gone by the time of the 25 inch. Today the main building has been removed and the demesne is truncated by the N21. Several specimen trees survive but for the most part the landscape has been subsumed back into agriculture.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

Appendix 1.4 Recorded Archaeological & Architectural Heritage Sites within the receiving environment of Route Option 4

Topographical Files

NMI No	Townland	Classification	Location (if recorded)
1985:83	Shanbally	Stone axe head	Not given
Polished stone axehead, recorded as a surface find, comprised of local basaltic rock (lower carboniferous). L 8.8 cm T 1.725 cm W (cutting edge) 5 cm.			

NMI No	Townland	Classification	Location (if recorded)
IA/12/64	Robertstown	Burials (AH 6)	AH 6
Site of human inhumations discovery. The site is a low gravel ridge (50' OD) used as a gravel pit, location 6" OS Sheet 10 39.5cm from W 5.8cm from S. Initially 5 skeletons were uncovered by mechanical excavator on the 28th January 1964, whilst a further 18 were discovered on 5th February. The remains had been removed to Foynes Garda Station by the authorities prior to Museum investigation. The top surface of the ridge had been stripped by bulldozer to a depth of 0.5m. Seven skeletons were uncovered by Peter Danagher of NMI. Two of these burials lay in shallow graves c. 0.90m below the surface, extended E-W, lying on fine gravel. The south side of one grave was lined with large spalls. Another burials, again E-W, was uncovered close to this, although only 0.6m below surface. A fourth burial, at a depth of 0.9m contained 4 skeletons 'lying on each other'. All the skeletons in this group were adult, average 1.75m height. No grave goods were present. Approximately 4m SE of the burials there were some large patches of burnt stone, although these failed to yield any archaeological objects. Determined to be Early Christian.			

NMI No	Townland	Classification	Location (if recorded)
1995:46	Moig South	Bronze binding strip	Not given
Decorated bronze binding strip. No dimensions given. Loan from Limerick Museum.			

NMI No	Townland	Classification	Location (if recorded)
1961:275-8	Cloonreask	Bronze chisel, 3 Glazed Potsherds (possibly Roman)	Not given
Small bronze chisel (1961:275) with narrow convex cutting edge and a sharp point at opposing end. Somewhat corroded. The section of the pointed end is round, with the section at cutting edge rectangular. L 7.35cm D (pointed end) 0.35 cm. Found in a group with ceramics in surface soil, probable habitation site. The NMI thought the chisel is of the same typology of objects from Bishopsland Hoard c. 500 BC, but smaller in dimensions. The pottery is said to be conventionally 'medieval' in look, but given the stratigraphy, it is possible that they are Roman (Ellen Prendergast and Etienne Rynne agreed).			

NMI No	Townland	Classification	Location (if recorded)
1995:47-66	Cloonreask	Bronze Ring, 7 Musket Balls, 12 Copper Coins	Not given
Bronze Ring (1995:47), Musket Balls (1995:48-54), Copper Coins (1995:55-66).			

NMI No	Townland	Classification	Location (if recorded)
IA/23/83	Ballyhomin	Polished Stone Axe	Not given
Symmetrical polished stone axe of sideritic iron stone. Tapers to the butt at about two thirds up from the cutting edge. The narrow butt is flat, whilst the cutting edge is blunted and slightly chipped. L 14.8cm W (max) 6.5cm W (min) 1.5cm T (max) 2.4cm.			

NMI No	Townland	Classification	Location (if recorded)
1995:45	Askeaton	Lead plump	Not given
No description given.			

NMI No	Townland	Classification	Location (if recorded)
1968:261	Askeaton	Bronze Spearhead	Not given
Bronze spearhead, socketed with circular cross section. The blade has bevelled edges, and projections at the base form basal loops. There is a possible patch or repair on one of the basal loops. L 16.5cm (tang 4.5cm) W (blade) 3cm.			

NMI No	Townland	Classification	Location (if recorded)
C 17:17/18	Askeaton	Horn Spoon	Not given
No details. Small drawing showing spoon bowl, with possible perforation at base.			

NMI No	Townland	Classification	Location (if recorded)
In private possession	Askeaton	Medieval wooden beam	Not given
Found in the ceiling joists of a house being renovated. The beam bears the date 1479. The beam is 12 feet in length and the full inscription is 'M.F. 1497 VIII I M'. Etienne Rynne inspected the beam and suggested that the beam may have been reused from the Great Hall of Desmond castle, with the date and initials suggesting that it was possibly a chimney or gate lintel, or even a rafter. Chamfered pine.			

NMI No	Townland	Classification	Location (if recorded)
WK.25	Askeaton	Iron sword	River near Askeaton
Iron sword in good condition. Double edged blade with bevelled edges and a flat cross section. Rounded tip. The upper and lower cross guards are similar, elliptical in plan with re curved ends, the upper towards the blade, the lower towards the pommel. Iron plates cover the tang. The pommel is flat, three lobed with re-curved extremities. Double grooved ornament on lobes, silver inlay. L 0.9m W (blade) 0.04m, W (cross bar upper) 0.11m. No known type. Double cross guards usually mean early medieval – Viking.			

NMI No	Townland	Classification	Location (if recorded)
2012:232	Rower More	'Bully Beef' Tin Opener	Not given.
Cast iron tin opener with decorative bull's head. The probable wooden handle is missing. The object is probably US in origin and produced in the 19th century, although such types were issued to US servicemen during WW1 to open ration cans.			

NMI No	Townland	Classification	Location (if recorded)
Not given	Kylevarraga	Bronze Javelin Head	Kylevarraga River
Found during drainage works near river in 1833. From enclosed photo looks to be 0.06m in length including tang, and 0.03m maximum blade width.			

NMI No	Townland	Classification	Location (if recorded)
IA/416/47	Curraghbridge/ Tuogh	Spearhead	Curragh Bridge, River Coillavaragh
Found on bed of river. Loaned by Limerick Museum. From photo looks to be 9cm in length with tang, 3cm maximum width blade.			

Archaeological Heritage

AH No	AH 1
RMP No	LI010-012
Statutory protection	RMP
Townland	Ardaneer
Parish	Shanagolden
Barony	Shanid
Classification	Ringfort
ITM Ref	526448, 650267
Description	In low-lying pasture, with frequent outcrops of limestone. Circular area (25.2m N-S; 24.6m E-W) enclosed by earth-and-stone bank (int. H 0.65m; ext. H 0.5m), with external bank (int. H 0.25m; ext. H 0.6m) NW->NE. No obvious entrance but cattle breaks at N and NE. Interior level and covered by tall grass. Enclosure abutted by earthen banks at NE (L-shaped: extends 15.8m to N and then returns W for 21m; Wth 0.95m; H 0.4m), at SW (L 0.45m; Wth 1.2m; H 0.6m) and at NW (L 15.3m; Wth 2.4m; H 0.45m). These are probably remnants of an ancient field system. Immediately NE of enclosure is area which has been surface quarried for limestone (22m N-S; 22m E-W; D c. 0.7m).
Source	www.archaeology.ie/ SMR file

AH No	AH 2
RMP No	LI010-106
Statutory protection	RMP
Townland	Sroolane North
Parish	Shanagolden
Barony	Shanid
Classification	Mill
ITM Ref	526896, 650065
Description	The 1840 OS six-inch map shows a rectangular structure in this location that is named 'Old Mill'. No structure is shown in this location on later editions of the OS map and there is no evident trace of such a structure on the ground.
Source	www.archaeology.ie/ SMR file

AH No	AH 121 (also BH 41)
RMP No	LI010-069001/2
Statutory protection	RMP (Also RPS)
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church and graveyard
ITM Ref	527018, 650000
Description	File not reviewed.
Source	www.archaeology.ie/ SMR file

AH No	AH 3

RMP No	LI010-068
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	526914, 649791
Description	In tillage, on local rise in generally flat low-lying terrain. Monument, depicted as embanked circular enclosure (diam. c. 30m) on 1841 OS 6-inch map, has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 4
RMP No	LI010-144
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	527057, 649798
Description	D Power, 2009, "According to Lar Dunne 'the landowner identified a number of coherent enclosure sites in the adjacent field some 150m east of SMR 10:68. These features were clearly visible on an aerial photograph obtained for the assessment'".
Source	SMR file

AH No	AH 5
RMP No	LI010-070
Statutory protection	RMP
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	527376, 649346
Description	Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been removed. Area of site occupied by derelict gravel quarry.
Source	www.archaeology.ie/ SMR file

AH No	AH 6
RMP No	LI010-071
Statutory protection	No
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Burial ground
ITM Ref	527635, 649591

Description	In 1964 'over thirty skeletons were discovered, buried in a low gravel-ridge' (Dannaher 1964) during quarrying operations. Most of these were removed prior to the site being archaeologically investigated, and the topsoil removed so that 'it was impossible to ascertain if there had been any surface indications of the graves' (ibid.). Investigations revealed 'a further seven skeletons, all of adults, in four separate graves, close to one another and all orientated East-West' (ibid.). There were no grave goods. The conclusion was that these were burials 'from the Christian Period' and, because they were buried in unconsecrated ground, 'the result of a plague or famine in the area' (ibid.). This area is now part of an industrial complex.
Source	www.archaeology.ie/ SMR file

AH No	AH 7 (EX 3)
RMP No	LI010-140
Statutory protection	No
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Isolated pit and stakes
ITM Ref	528231, 649430
Description	An isolated pit and stakes excavated by Emer Dennehy (Licence Ref.: 02E0752) and described as 'a pit 0.3m deep. Five stakes, averaging 0.08m in diameter and with a maximum depth of 0.25m, were driven into the base of the pit. All of the stakes-holes were filled with the same charcoal-rich, silty peat, indicating that they were likely to have been burnt in situ. Subsequently the pit had been left open and filled naturally over time. Although there is no clear indication of function for this pit, it can be concluded that there was deliberate human action and forethought involved in the use of the site.'
Source	www.archaeology.ie/ SMR file

AH No	AH 8
RMP No	LI010-074
Statutory protection	RMP
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	528231, 649430
Description	On slight rise in undulating pasture. Roughly square area (23.5m N-S) enclosed by collapsed stone and earth wall (int. H 0.8m; ext. H 1m) incorporated into surrounding field-boundary system on E and S sides. Gap (Wth. 1.4m) on N side to NNE. Interior level but densely overgrown except for N end; strewn with stones from collapsing walls.
Source	www.archaeology.ie/ SMR file

AH No	AH 9
RMP No	LI010-081
Statutory	RMP

protection	
Townland	Craggs
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	528802, 649319
Description	In area of mixed pasture, scrub and quarrying. Site, marked as circular enclosure (diam. c. 25m) on 1923 OS 6-inch map, does not appear to be extant in area heavily modified by surface quarrying and covered by scrub overgrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 10
RMP No	LI010-087
Statutory protection	RMP
Townland	Craggs
Parish	Robertstown
Barony	Shanid
Classification	Enclosure
ITM Ref	529313, 649135
Description	In undulating pasture, on N-facing slope. Roughly rectangular area (31m N-S) enclosed by collapsed dry-stone wall (int. H 1.6m; ext. H 1.4m; Wth. 8m), but truncated on N side by E-W field boundary. Centre of interior and W side of enclosure covered by dense overgrowth of bush. Only apparent point of access gap in field boundary to N (Wth. 2m). Interior surface lower than that of surrounding terrain (D c. 0.2m). Immediately outside rounded SE corner is rectangular structure (7m N-S; 10.2m E-W) defined by collapsed dry-stone wall (H c. 0.6m; Wth. c. 3m); E side almost entirely removed; low wall (H 0.4m; Wth. 0.8m) divides interior on N-S axis. Collapsed wall (L 3.6m; Wth. 0.8m; H c. 0.3m) links both enclosures.
Source	www.archaeology.ie/ SMR file

AH No	AH 11
RMP No	LI010-073
Statutory protection	RMP
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	528027, 649674
Description	Atop slight rise, in otherwise level terrain. Site is completely covered by dense overgrowth but as far as can be ascertained consists of circular area (diam. c. 25m) enclosed by earthen bank (int. H 0.5m; ext. H 0.6m) with external fosse (D 0.4m; Wth c. 2m).
Source	www.archaeology.ie/ SMR file

AH No	AH 12 (EX 4)
RMP No	LI010-141001-3
Statutory	No

protection	
Townland	Rincullia
Parish	Robertstown
Barony	Shanid
Classification	Burnt mound, pit, road way
ITM Ref	529743, 648955
Description	001 - A burnt mound excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a circular mound, 16m in diameter and 0.84m deep. It was composed of 70% limestone and 30% sandstone in a charcoal-enriched matrix. Six phases of activity were identified in the mound. A shallow rectangular trough was present at the base of the mound, measuring 4.3m north-south by 2.45m.' 002 - Pits excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a complex of six roasting pits excavated into the underlying gravel. The pits were subcircular, averaging 1.5m north-south by 1.2m, with an average depth of 0.4m. The roasting pits would not have retained water and were filled with burnt sandstone and limestone in a charcoal-enriched matrix.' 003 - A limestone trackway excavated by Emer Dennehy (Licence Ref.: 02E0670) and described as 'a trackway composed of two courses of fractured limestone bedrock, measuring 10m north-south by 15.5m. It served to connect the roasting pits of Area B to the debris mound of Area A. The need for the construction of the trackway arose during Phase 2 of the history of the site. It provided a secure, level footing to combat adverse weather conditions, the encroachment of peat and the seasonal flooding from the nearby stream.'
Source	www.archaeology.ie/ SMR file

AH No	AH 13
RMP No	LI010-099
Statutory protection	RMP
Townland	Mulderricksfield
Parish	Robertstown
Barony	Shanid
Classification	Ringfort
ITM Ref	530646, 649365
Description	In low-lying level area, newly planted with coniferous trees. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been levelled, except for arc of earth-and-stone bank (C 18m; H c. 0.65m; Wth c. 1.15m) NW->NE. Otherwise area of site covered by tall rough grass and newly planted trees.
Source	www.archaeology.ie/ SMR file

AH No	AH 14
RMP No	LI010-098
Statutory protection	RMP
Townland	Ballyclogh (Connello Lower By.)
Parish	Lismakeery
Barony	Connello Lower
Classification	Ringfort
ITM Ref	530634, 649059

Description	In woodland. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, could not be located due to impenetrable undergrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 15
RMP No	LI010-097
Statutory protection	RMP
Townland	Ballyclogh (Connello Lower By.)
Parish	Lismakeery
Barony	Connello Lower
Classification	Ringfort
ITM Ref	530633, 648974
Description	In woodland. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, could not be located in impenetrable undergrowth.
Source	www.archaeology.ie/ SMR file

AH No	AH 16 (EX 5)
RMP No	LI010-134
Statutory protection	No
Townland	Ballyellinan
Parish	Lismakeery
Barony	Connello Lower
Classification	Pit
ITM Ref	531140, 649523
Description	A 'fire-pit' excavated by Graham Hull (Licence Ref.: 02E0873)
Source	SMR file

AH No	AH 17 (EX 6)
RMP No	LI010-149
Statutory protection	No
Townland	Ballycullen
Parish	Lismakeery
Barony	Connello Lower
Classification	<i>Fulacht fia</i>
ITM Ref	531858, 649429
Description	Excavation by Brian Halpin (Licence Ref.: 02E0748) and described as 'heat-shattered stones and charcoal-rich material, typically associated with a fulacht fiadh.'
Source	www.archaeology.ie/ SMR file

AH No	AH 18 (Also BH 7d)
RMP No	LI011-092006-14
Statutory protection	National Monument, RMP, RPS
Townland	Moig South

Parish	Caherconlish
Barony	Clanwilliam
Classification	Franciscan Abbey, tombs, grave slabs, cross
ITM Ref	533931, 650731
Description	The first documentary mention of this friary occurs in 1400 when it is referred to as 'Inysgebryny', i.e. Inis Geightine (Gwynn and Hadcock 1970, 242). Its founder was probably Gerald, the 4th earl of Desmond. The friary survived the Dissolution and a provincial chapter was held here in 1564. During the Desmond Wars the friary was captured by Nicholas Malby and the friars were expelled. The exact date for this expulsion is unclear but it is variously given as 1579 and 1581 (ibid.). The friary is situated on the east bank of the Deel and it consists of a single aisled 14th/15th century church with a 14th/15th century cloister to the south flanked by an east and west range. Later 15th century additions include a sacristy to the north of the chancel, and a transept with western aisle to the north of the nave. On the south side of the cloister a two-storied refectory was added, oriented N-S, and a later barrel vaulted chamber was added to the west and extends beyond the west range. According to the 'Pacata Hibernia' drawing (Westropp 1903, 240) a large tower was also on the site but no trace of this remains. The insertion of carved stone doorways with Renaissance style decoration suggest repairs or refurbishments in the 16th century. The masonry is limestone throughout (Leask 1955-60, iii, 101-2). The church is a long undifferentiated nave and chancel with side walls and gables intact. It is lit by a five light window in the east wall, three triple-light windows in the south wall of the chancel, one in the west wall and one at the west end of the north wall, all "with switch line tracery. The east window in the south wall has cusps added to the tracery to give a flame-like effect and a later twin-light cusped window was inserted in the north wall of the nave. A pointed door opens from the chancel to the sacristy on the north which had two floors: the lower one was divided by a partition wall and was probably roofed with a barrel vault. The ground floor was lit by a twin-light window in the east wall and had a wall cupboard and fireplace in the north wall. There was a spiral stairs to the first floor at the west end. The first floor, which is only partly intact, was lit from the east and north by twin-light windows. The transept is entered through two large pointed arches resting on a drum shaped column. It is very ruined but was lit from the east by three twin-light windows - only the south one survives intact - and from the west by three twin-light ogee-headed windows. Much of the east and north walls have fallen and there are large pieces of masonry on the ground to the north east. The transept and aisle are separated by two pointed arches and one rounded arch supported on rectangular piers. The cloister is intact and consists of a pointed arcade of web shaped colonettes in groups of three (Leask 1955-60, iii, 137-8) and retains much of its plaster and wattle centering. The east range is two floored with a long barrel vaulted roof over the ground floor which is lit from the east by three splayed narrow loops with sloping sills. There is an inserted fireplace towards the north end of the wall; the north end of the chamber was cut off to form a small room which has a door opening externally to the east. The first floor, which is reached by spiral stairs on the south, extends over the ground floor chamber and the east ambulatory and was lit from the east by three single-light ogee headed windows and from the west by two single-light and one twin-light window. The south wall

	has a larger rectangular twin-light window with mullions and transoms and there is a small wall cupboard in the north wall. Covered passages open to the west range over the north and south ambulatories. The west range is also two storeyed. The ground floor has two rooms; the larger one at the northern end has a pointed barrel vault and is lit from the west by three widely splaying windows; the north one is a single-light cusped pointed window, the middle one a rectangular twinlight and the southern one is a single-light rectangular window. The room probably had a loft as there are two corbels in the north wall and a rectangular window looks into the nave just below the barrel vault. The south end of the ground floor (known as the prison), is entered from the south and the floor is at a lower level. It has a small garderobe and a narrow loop to the west. The first floor is a long room also extending over the west ambulatory. It was lit from the west and east by four single light pointed windows. There is another similar window in the north wall with a squint through the eastern splay which provides a view to the altar of the church. Beside this window are traces of mural decoration in the plaster. The south wall has, apart from the stairs on the east side, a tall twin-light ogee-headed window with window seats and a single-light window with wall cupboards in both splays. The refectory to the south is two storeyed; the ground level being c. 1.5m below the ground level of the cloister arcade. Much of the ground floor has been rebuilt but the west wall has a twin-light ogee headed window, a reader's recess flanked by rounded colonettes with moulded capitals and bases which extends to the west from the centre of the wall and a second twin-light window. The first floor was supported on corbels in the east, west and north walls and the room was lit by six or seven small rectangular windows in both east and west walls. There are three windows in the south wall; a large twin-light ogee-headed window flanked by two smaller single-light ogee-headed windows. Two doors open on the north to the south ambulatory. The two floored structure to the west of the south range was added at a later date as it blocks some of the windows of the south range. The ground floor has a pointed barrell vault with traces of wickerwork centering and is lit from the south by a rectangular loop and a gunloop near the east end. There is also a fireplace in the south wall and three wall cupboards in the west wall. The floor above has a long deep pit for a 'necessarium' at the west end and was lit from the south by three windows; two of which have stepped heads. There was a loft above this floor supported on corbels in the north wall and lit by a single light rectangular window which overlooks the south range. Architectural Fragments Over fifty fragments of window mouldings, a roof boss, door mouldings etc. are collected in the chapter house. Panel with St. Francis: A depiction of St. Francis is carved in deep false relief on a respond on the north side of the cloister arcade. Dims: H. 60cm W. 36cm Mural decoration As noted above there is painted decoration on the north wall of the first floor of the west range. In addition there are some consecration crosses in the plaster on the west wall of the first floor of the south range and there is a sun-dial incised on the north wall of the cloister ambulatory."
Source	www.archaeology.ie/ SMR file

AH No	AH 19

RMP No	LI011-042
Statutory protection	RMP
Townland	Ballyhomin
Parish	Askeaton
Barony	Connello Lower
Classification	Ringfort
ITM Ref	535608, 651032
Description	In paddock area, on W-facing slope below brow of low hill. Monument, depicted on 1841 OS 6-inch map as embanked circular enclosure (diam. c. 30m), has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 20
RMP No	LI011-045
Statutory protection	RMP
Townland	Ballyengland Lower
Parish	Askeaton
Barony	Connello Lower
Classification	Ringfort
ITM Ref	536397, 651194
Description	In farmyard, on break in W-facing slope. Monument, depicted as embanked circular enclosure on 1923 OS 6-inch map, has been engulfed within farmyard complex. A roughly circular area (diam. 28m E-W) can be discerned, defined S->N by scarped edge which appears to be natural break in slope. From NE->E area skirted by artificially raised horse-training paddock, from E->SE a fence defines area, and SE->S it is bordered by a farm shed. Interior area under grass and slopes down to W. It is unclear what if anything of original site survives.
Source	www.archaeology.ie/ SMR file

AH No	AH 21
RMP No	LI011-050
Statutory protection	RMP
Townland	Ballyengland Lower
Parish	Askeaton
Barony	Connello Lower
Classification	Ringfort
ITM Ref	537050, 651465
Description	In pasture, on gentle SW-facing slope. Roughly circular area (22.3m N-S; 20.6m E-W) defined by scarped edge (H 0.4m; Wth 4.6m), best preserved NNE->E and SW->NW. A slight dip (D 0.2m) immediately to W of scarp, with low rise (H 0.15m) running along its outer edge, is probably natural feature. Interior is under pasture except for S half which is covered with briars. Immediately N of enclosure is area of limestone outcrop.
Source	www.archaeology.ie/ SMR file

AH No	AH 22
RMP No	LI011-053

Statutory protection	RMP
Townland	Ballyengland Lower
Parish	Askeaton
Barony	Connello Lower
Classification	Ringfort
ITM Ref	537389, 651249
Description	In reclaimed pasture, on gentle S-facing slope, in area of outcropping limestone. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 23
RMP No	LI011-058
Statutory protection	RMP
Townland	Deegerty
Parish	Kilcornan
Barony	Kenry
Classification	Enclosure
ITM Ref	538071, 650875
Description	In pasture, on S-facing slope. Circular depression (32m N-S; 30m E-W) enclosed by earthen bank (int. H 0.6m; ext. H 0.15m) NE->SSE and SW->NW, and defined by scarped edge (H 0.9m) facing inwards SSE->SW and NW>NE. Interior, under pasture, lowest near centre.
Source	www.archaeology.ie/ SMR file

AH No	AH 24
RMP No	LI011-062
Statutory protection	RMP
Townland	Ballyvogue
Parish	Kilcornan
Barony	Kenry
Classification	Ringfort
ITM Ref	538926, 651521
Description	In pasture, atop low hill. Roughly circular area (34m N-S; 32m E-W) enclosed by earthen bank (int. H 0.5m; ext. H 2.2m), with external fosse (D 0.35m; Wth 1.2m) NE->SE. Bank denuded to scarped edge (H 0.45m; Wth 4m) SE->NNE from which there is a gradual slope down towards centre of enclosure. Dry-stone field boundary (H 0.9m) runs along outer edge of fosse NNE->SE. Interior under pasture.
Source	www.archaeology.ie/ SMR file

AH No	AH 25
RMP No	LI011-064
Statutory protection	RMP
Townland	Ballyvogue
Parish	Kilcornan

Barony	Kenry
Classification	Ringfort
ITM Ref	539113, 651650
Description	In pasture, on break in E-facing slope overlooking river valley. Oval area (38m N-S) enclosed by earth-and-stone bank (int. H 0.75m; ext. H 0.85m) NW->SW, but bank truncated by field boundary SW->NW. Bank is widened (Wth 3m) by boulders dumped atop it at NE->SE. Bank dips at SSW. Level interior covered with nettles.
Source	www.archaeology.ie/ SMR file

AH No	AH 47
RMP No	LI011-109
Statutory protection	RMP
Townland	Tinnacullia
Parish	Kilcornan
Barony	Kenry
Classification	Ringfort
ITM Ref	538604, 649806
Description	In pasture, atop hill. Monument, depicted as embanked circular enclosure on 1923 OS 6-inch map, has been partially levelled. However, it is still apparent as roughly circular area (33.5m E-W) defined by scarped edge (H 0.55m; Wth 6.2m) WNW->NW and NNE->ENE. A dry-stone field wall (H 0.9m) runs atop an older stone bank (int. H 0.6m; ext. H 0.55m) ENE->SSE, along line of enclosing element. No enclosing element apparent NW->NNE and SSE->WNW. Interior level and under pasture.
Source	www.archaeology.ie/ SMR file

AH No	AH 48
RMP No	LI011-113
Statutory protection	RMP
Townland	Ballynamona (Kenry By.)
Parish	Kilcornan
Barony	Kenry
Classification	Cashel
ITM Ref	539613, 649191
Description	In rough pasture, on break in W-facing slope, in area of outcropping limestone. Monument, depicted as circular enclosure (diam. c. 20m) on 1923 OS 6-inch map, is now largely inaccessible due to dense overgrowth of briars and bushes. Short arc of stone bank (ext. H 0.4m; Wth 1.8m) is evident at N.
Source	www.archaeology.ie/ SMR file

AH No	AH 49
RMP No	LI020-036
Statutory protection	RMP
Townland	Ballynamona
Parish	Kilcornan
Barony	Kenry

Classification	Ringfort
ITM Ref	539264, 648597
Description	In gently undulating pasture, atop low rise. Oval area (34m N-S; 38m E-W) enclosed by earthen bank (int. H 0.3m; ext. H 0.35m). Bank, best preserved along S arc, fades out at W where field boundary, which overlay it, has been removed. Interior, under pasture, dips down gently towards centre; outcropping limestone evident in places. Site is depicted as rectangular enclosure on 1841 OS 6-inch map, and is listed by Barry (1981, 84) as possible moated site.
Source	www.archaeology.ie/ SMR file

AH No	AH 50
RMP No	LI020-037
Statutory protection	RMP
Townland	Ballynamona (Kenry By.)
Parish	Kilcornan
Barony	Kenry
Classification	Ringfort
ITM Ref	539693, 647935
Description	In pasture, on SW-facing hill slope, in area of outcropping limestone. Monument, depicted as embanked circular enclosure (diam. c. 20m) on 1841 OS 6-inch map, has been levelled. No trace of monument evident when inspected.
Source	www.archaeology.ie/ SMR file

AH No	AH 51
RMP No	LI020-040
Statutory protection	RMP
Townland	Lisnamuck
Parish	Croagh
Barony	Connello Lower
Classification	Enclosure
ITM Ref	540188, 647609
Description	In pasture, on S-facing hill slope in area of outcropping limestone. D-shaped area (48m N-S; 34m E-W) enclosed by dry-stone wall (int. H 1m; ext. H 1.1), with vertical inner face and sod-covered sloping outer face SE->NNE, and by linear dry-stone field wall on NE side. Cattle trough inserted into inner wall face at N; interior used as paddock. Interior, under pasture, slopes down to S. Access to interior via gate in field wall.
Source	www.archaeology.ie/ SMR file

AH No	AH 52
RMP No	LI020-043
Statutory protection	RMP
Townland	Kilgrogan
Parish	Adare
Barony	Kenry
Classification	Ringfort
ITM Ref	542664, 647213

Description	Contained within lumber yard, on break in S-facing slope. Sub-circular area (diam. c. 38m) enclosed by earth-and-stone bank NE->SSW and by linear field boundary NW->NNE. Bank (int. H 0.8m; ext. H 1.55m) is poorly preserved and heavily masked by logs and wood shavings heaped against inner face and piled over top. Two trackways converge and directly open into interior at W, leading to hay-barn and woodworking area at centre of enclosure.
Source	www.archaeology.ie/ SMR file

AH No	AH 53
RMP No	LI021-004
Statutory protection	RMP
Townland	Tuogh (Kenry By.)
Parish	Adare
Barony	Kenry
Classification	Ringfort
ITM Ref	543790, 647043
Description	In gently undulating pasture, in area of limestone outcropping. Circular area (46m N-S; 44.5m E-W) defined by scarped edge (H 0.85m; Wth 6.1m). Scarp is best preserved SE->NW. A field boundary abuts scarp at E. Level interior is under pasture.
Source	www.archaeology.ie/ SMR file

AH No	AH 54
RMP No	LI021-007
Statutory protection	RMP
Townland	Tuogh (Kenry By.)
Parish	Adare
Barony	Kenry
Classification	Graveyard
ITM Ref	544168, 647109
Description	Atop low hill, overlooking Greanagh river to E; known locally as Greanagh graveyard. Sub-oval area (23m E-W; 33m N-S) enclosed by mortared stone wall (H c. 1.1m). Entered through recent style to SSW; earlier iron gate to NW now dilapidated. Much of interior covered by dense vegetation, especially to NE. Two headstones noted dating to mid-20th century; many low stones to S may be gravemarkers. Trackway, shown on 1923 OS 6-inch map leading to graveyard from road to S, now disused and overgrown.
Source	www.archaeology.ie/ SMR file

AH No	AH 56 (Also BH 35)
RMP No	LI021-070
Statutory protection	RMP
Townland	Garraunboy
Parish	Clonshire
Barony	Connello Lower
Classification	Tower house
ITM Ref	543575, 644414

Description	This is a five storey tower enclosed by a small rectangular bawn that had four D-shaped flankers at the corners, just one of which now survives, along with a section of the original bawn wall to the right (that on the left is not original). The castle was held by Hugh Wall in 1583, and then by the Stephensons of Dunmoylin from 1615 until the Cromwellian confiscations of 1655. Noted on 1923 3 rd Ed. Map as 'Garraunboy Castle (in ruins)'. Westropp mentions it in JRSAI 1907, 155.
Source	www.archaeology.ie/ SMR file/ www.geograph.org.uk/article/Castles-Ireland/10

AH No	AH 55
RMP No	LI021-118
Statutory protection	RMP
Townland	Islandea
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	545574, 647205
Description	Located in level pasture land. Moderate views in all directions. The site is defined as an ovoid rocky area as distinct from the surrounding land. There is no obvious enclosing element, possibly very damaged. Known locally as a 'sand pit'. Possibly quarried in past.
Source	SMR file

AH No	AH 57
RMP No	LI021-149
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546302, 647066
Description	The exact location of a 'Keiltanes Castle, stone house, meussage etc' mentioned in a document in 1621 AD are unknown. See Westropp 1906-7, 215
Source	SMR file

AH No	AH 58
RMP No	LI021-010
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546322, 647176
Description	No detail given. However, the site is marked as a circular enclosure on the first edition OS map and appears to have since been removed by the construction of the railway.
Source	SMR file

AH No	AH 59
RMP No	LI021-173
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	<i>Fulacht fia</i>
ITM Ref	546511, 647300
Description	No details given.
Source	SMR file

AH No	AH 60
RMP No	LI021-143
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546602, 647346
Description	Located in pasture land on top of a steep W facing slope. Moderate to good views in all directions. The site comprises a rocky ovoid area, 45m diameter, but no obvious defensible enclosure identified. Interior planted with conifers.
Source	SMR file

AH No	AH 61
RMP No	LI021-144
Statutory protection	RMP
Townland	Ardshanbally
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	546812, 647336
Description	In pasture land on a slight E facing slope. Views are good in all directions, except to W. No extant remains of an enclosure.
Source	SMR file

AH No	AH 62
RMP No	LI021-011001/2
Statutory protection	RMP
Townland	Mondellihy
Parish	Adare
Barony	Coshma
Classification	Two enclosures
ITM Ref	547207, 647332
Description	The features may be conjoined. Enclosure B measures 22-24m in diameter,

	surrounded by an earth and stone bank. The interior appears to have been artificially levelled to compensate for the natural slope. Noted as part of the 'Mondellihy Rings'.
Source	SMR file

AH No	AH 63
RMP No	LI021-145
Statutory protection	RMP
Townland	Mondellihy
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	547362, 647376
Description	Located in gently undulating pasture land. Moderate good views in all directions. No clear extant enclosing element visible.
Source	SMR file

AH No	AH 64
RMP No	LI021-146
Statutory protection	RMP
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	547619, 647521
Description	Located in undulating pasture, relatively level area. Views moderate in all directions. No extant trace of enclosing element.
Source	SMR file

AH No	AH 65
RMP No	LI021-147001/2
Statutory protection	RMP
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Two enclosures
ITM Ref	547752, 647516
Description	Located in undulating pasture on a low rise. Views moderate in all directions. No extant trace of enclosing elements.
Source	SMR file

AH No	AH 66 (EX 17)
RMP No	LI021-179
Statutory protection	No
Townland	Kilgobbin
Parish	Adare

Barony	Coshma
Classification	Group of pits
ITM Ref	548255, 647563
Description	Pits excavated by C MacManus (1999/508).
Source	SMR file

AH No	AH 67
RMP No	LI021-148
Statutory protection	RMP
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	551061, 648446
Description	Located in pasture land on slight W facing slope. Views moderate to poor in all directions. No extant trace of enclosing element. Described as possible rectangular enclosure. See Adare Bypass Constraints Study
Source	SMR file

AH No	AH 68
RMP No	LI021-014
Statutory protection	RMP
Townland	Kilgobbin
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	548482, 647846
Description	Located in low lying pasture land with poor views in all directions. The enclosure is described as roughly circular with possible scarp edges, situated on a low natural rise. The interior gently undulates, clear of undergrowth.
Source	SMR files

AH No	AH 69
RMP No	LI021-015
Statutory protection	RMP
Townland	Rineroe
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	548792, 647626
Description	No details given.
Source	www.archaeology.ie/ SMR file

AH No	AH 70
RMP No	LI021-121
Statutory protection	RMP

Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	550571, 648426
Description	Located in pasture land on a slight S facing slope. Views moderate in all directions. No visible trace of enclosure.
Source	SMR file

AH No	AH 71 (EX 18)
RMP No	LI021-181001/2
Statutory protection	SMR
Townland	Ballycarrane
Parish	Croom
Barony	Pubblebrien
Classification	<i>Fulachtaí fia</i>
ITM Ref	549561, 647846
Description	Not details given within file – see EX 18.
Source	www.archaeology.ie/ SMR file

AH No	AH 72
RMP No	LI021-017, 187, 180
Statutory protection	RMP
Townland	Gorteen
Parish	Croom
Barony	Pubblebrien
Classification	Moated site, kilns
ITM Ref	549915, 647866
Description	The site appears to be a medieval moated site, enclosed by a ditch and external bank. Excavations were carried out by A Gahan in 1998 (Bennett 1998:399). The site, marked in the OS Memoirs as a possible ringfort had been uncovered during trial trenching. Only a portion of site was excavated within the road take area (60 x 15m area). The trench revealed part of a rectangular ditched enclosure, the longest extent of which ran SE for a distance of 31.5m. A smaller section of the ditch ran SW for 13.5m. The ditch was V to U shaped, and had a width of 2.38 to 3.72m. Parts of the inner face had been revetted with stone. Stone rubble in ditch fill suggested a possible internal bank. Mention is made of a possible external bank feature. Two earlier shallow truncated pits were also recorded. Sherds of 13th/14th century pottery recovered from topsoil. Enclosing elements and corn drying kilns were also excavated by L McKinstry (08E0174).
Source	SMR file

AH No	AH 73
RMP No	LI021-118
Statutory protection	RMP
Townland	Islandea
Parish	Adare

Barony	Coshma
Classification	Enclosure
ITM Ref	145612, 147159
Description	Located in level pasture land. Moderate views in all directions. The site is defined as an ovoid rocky area as distinct from the surrounding land. There is no obvious enclosing element, possibly very damaged. Known locally as a 'sand pit'. Possibly quarried in past.
Source	SMR file

AH No	AH 74
RMP No	LI021-121
Statutory protection	RMP
Townland	Monearla
Parish	Adare
Barony	Coshma
Classification	Enclosure
ITM Ref	149380, 147560
Description	Located in pasture land on a slight S facing slope. Views moderate in all directions. No visible trace of enclosure.
Source	SMR files

AH No	AH 75 (EX 20)
RMP No	LI021-167
Statutory protection	No
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Ring ditch
ITM Ref	551061, 648446
Description	The site was revealed during topsoil clearance associated with the Adare to Annacoty Road Improvement Scheme in 1999. The feature had been partially destroyed by machine excavation, but excavation of remainder revealed a penannular ditch of U shaped profile. An external diameter of 7m was recorded. Fourteen 'token' deposits of human cremated bone were recovered from the ditch fill, and one copper alloy artefact. The ditch fill and cremations have been interpreted as Iron Age in date. Licence Ref.: 99E0324.
Source	SMR file

AH No	AH 76 (EX 22)
RMP No	LI021-177
Statutory protection	No
Townland	Attyflin
Parish	Killonahan
Barony	Pubblebrien
Classification	<i>Fulacht fia</i>
ITM Ref	551305, 648480
Description	Monitoring of the topsoil strip along the N20/N21 Limerick bypass uncovered

	the site approximately 500m E of the N21. The site consisted of an elongated mound 17 x 9 x 0.35m, consisting of a mix of heat shattered limestone and charcoal rich soil. A small trough (2.1 x 1 x 0.28m) was found on SW quadrant under mound. To the north of the trough a substantial oval pit aligned NE-SW was recorded which contained mound deposits but also elements of worked animal bone. To the E of the pit edge some 12 stakeholes were excavated. These did not have an overall pattern but may have been part of a windbreak feature. C MacManus 99E0171.
Source	SMR file

AH No	AH 77 (EX 21)
RMP No	LI021-185
Statutory protection	No
Townland	Ballybronoge South
Parish	Killonahan
Barony	Pubblebrien
Classification	Hearth
ITM Ref	551109, 648387
Description	Excavated by R MacLeod (08E0171)
Source	SMR file

AH No	AH 78
RMP No	LI021-027
Statutory protection	Yes
Townland	Attyflin
Parish	Killonahan
Barony	Pubblebrien
Classification	Enclosure
ITM Ref	551467, 648470
Description	In undulating pasture land, on a slight SW facing slope. Good vies in all directions. Probably a tree ring (still mature deciduous tree stand) on the Attyflin estate.
Source	SMR file

Built Heritage

BH No	BH 1
RPS No	18
NIAH No	N/A
Statutory protection	RPS
Townland	Ardaneer
Parish	Shanagolden
Barony	Shanid
Classification	Vernacular farm house
ITM Ref	526382, 650148
Description	None given
Rating	None given

Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 41 (Also AH 121)
RPS No	667
NIAH No	N/a
Statutory protection	RPS
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church and graveyard
ITM Ref	527018, 650000
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 42
RPS No	N/a
NIAH No	21901006
Statutory protection	N/a
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	House
ITM Ref	527301, 649171
Description	Description Detached two-storey T-plan house, built c. 1840, with gable-fronted extension to south, c. 1880, with canted bay window. Lean-to to west elevation. Pitched slate roofs, half-hipped to south gable of extension with rendered chimneystacks, cast-iron rainwater goods, terracotta ridge tiles and timber eaves course. Roughcast rendered walls having render plinth course. Fishscale hipped slate roof to bay window. Square-headed openings throughout, having concrete sills, one-over-one pane and two-over-two pane timber sliding sash windows. Tooled limestone sills to canted bay window and to first-floor window to south elevation of main block. Timber framed windows to north elevation. Square-headed opening to east elevation of end-bay with timber panelled door and overlight. Render step to entrance. Square-headed opening to north elevation having half-glazed timber panelled door. Square-headed opening to north elevation of lean-to with glazed timber battened door and overlight. Pair of square-profile limestone piers to east of house, flanking double-leaf cast-iron gate with foundry mark. Three-bay single-storey outbuilding to north of house. Pitched corrugated-iron roof having render copings and eaves course. Roughcast rendered walls. Square-headed openings with timber fittings. Square-headed vents. Pair of square-profile cut limestone piers to south of building, flanking double-leaf cast-iron gate.

	Appraisal The regular asymmetrical form of this house marks it out on the landscape. The form is enhanced by the canted bay and half-hipped roof. Artistic interest is added by subtle features such as its render plinth course and the timber sliding sash windows add to the architectural interest. The foundry mark, which reads: 'NEWSOM LIMK 181' is another notable feature and adds context to the site.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 2
RPS No	668
NIAH No	21901005
Statutory protection	RPS
Townland	Robertstown
Parish	Robertstown
Barony	Shanid
Classification	Church
ITM Ref	527003, 649747
Description	Description Freestanding gable-fronted Roman Catholic church built in 1830. Comprising five-bay nave with two-bay single-storey flat-roofed porch to west elevation, three-bay single-storey sacristy to east elevation incorporating central single-bay crenellated porch to south elevation. Pitched slate roof having cut limestone copings and finial and cast-iron rainwater goods. Red brick chimneystack to sacristy. Render crenellations to west porch. Roughcast rendered walls, smooth render to west elevation, render plinth course to south, east and west elevations. Render platband to west elevation. Render platband to west porch and sacristy porch. Round-headed openings having painted sills, timber fittings and stained glazed panels to south and west elevations, and to south elevation of sacristy. Segmental-headed opening to west elevation of porch with painted sill and stained glass window. Square-headed opening to south elevation of porch to sacristy, having painted sill and stained glass window. Segmental-headed opening to west elevation of porch with recent timber panelled double doors. Segmental-headed openings to south elevation and interior north elevation of porch, with double-leaf timber panelled doors. Square-headed opening to interior south elevation of porch having timber panelled door. Square-headed opening to east elevation of porch to sacristy, with timber battened door. Step to entrance. Retains interior features including timber pews, marble altar table and timber gallery. Scissors brace roof supports to ceiling. Iron bell mounted on render base to south of church, bell supported on four iron columns. Appraisal The regular form of this church is enhanced by the restraint in the exterior ornamentation, which makes a strong impression on the landscape. The stained glass windows and the decorative Gothic styled reredos in the interior add considerably to the importance of this rural church.
Rating	Regional

Categories of special interest	Architectural, artistic, social
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 3
RPS No	75
NIAH No	N/A
Statutory protection	RPS
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	530532, 649267
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 43
RPS No	N/A but directly linked to BH 3, 4 and 5
NIAH No	N/A
Statutory protection	RPS
Townland	Mulderricksfield
Parish	Robertstown
Barony	Shanid
Classification	Concrete pill box
ITM Ref	530655, 649437
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 4
RPS No	74
NIAH No	N/A
Statutory protection	RPS
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	530890, 649131
Description	None given
Rating	None given
Categories of special interest	None given

Source	Limerick County Development Plan 2010-2016

BH No	BH 5
RPS No	73
NIAH No	N/A
Statutory protection	RPS
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	531229, 649261
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	BH 6
RPS No	916
NIAH No	21826001
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	St. Mary's Church
ITM Ref	5334531, 650373
Description	Description Freestanding T-plan gable-fronted Roman Catholic church, built in 1851. Comprising three-bay nave, single-bay transepts, single-bay single-storey sacristy and single-bay single-storey lean-to to north. Ashlar limestone walls with ashlar plinth course, inscribed plaque having trefoil motifs, stringcourse to crenellated gable, carved pinnacles and open-work carved bellcote having cross finial to south elevation. Coursed rubble limestone walls with tooled quoins to north, east and west elevations. Pitched slate roof having limestone eaves course. Pitched slate roof to sacristy. Single-pitched slate roof to lean-to with tall rendered chimneystack. Pointed arch opening to south elevation with timber tracery, stained glass window and carved limestone hood-moulding. Pointed arch openings to nave, transepts and north elevation having timber Y-tracery, stained glass windows, limestone sills and cut limestone voussoirs. Pointed arch opening to south with carved limestone label moulding, carved limestone surround having roll moulding and double-leaf timber battened doors. Pointed arch openings to transepts, south elevation with painted limestone surrounds, cut voussoirs and double-leaf timber battened doors. Pointed arch opening to sacristy having brick voussoirs and spoked fanlight over timber battened door. Square-headed opening to lean-to with timber battened door. Vaulted ceiling to interior having moulded render ribs with ornate corbels. Recent timber porch to entrance. Recent timber panelled wall to altar. Timber galleries to transepts. Crenellated rubble limestone walls to east and west elevations. Limestone

	monument to east. Limestone high cross style grave marker to west. Rubble limestone boundary walls to south having carved limestone copings and pair of square-profile ashlar limestone piers with carved caps and quatrefoil motifs. Appraisal This attractive church, situated at the west end of Askeaton, is of a substantial size and scale making it an imposing building in the townscape. It was built in 1851 to replace an earlier church in Askeaton, which burnt down in 1847. There is evidence of fine craftsmanship in both the exterior and interior detailing, such as the decorative carved entrance front and the render rib vaults to the interior ceiling. Features such as the crenellated gable with carved pinnacles and ornate plaque further enliven the exterior and are representative of quality mid nineteenth-century craftsmanship and design.
Rating	Regional
Categories of special interest	Architectural, artistic, social
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	N/a
RPS No	N/a
NIAH No	N/a
Statutory protection	Architectural Conservation Area
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	ACA – Associated with the Franciscan Friary
Description	There are three ACAs defined in the Askeaton Local Area Plan. (Refer to Appendix 1, Map no.4 Protected Structure and Architectural Conservation Areas.) These are located at the Franciscan Friary, Desmond Castle and running along part of Main Street through to East and West Squares and part of Church Street. Only the ACA surrounding the Franciscan Friary is within the receiving environment of the proposed option. The designation of the ACA does not preclude future development, but the carrying out of works to the exterior of structures within the ACA shall not be considered as exempted development where those works would materially affect the character of the ACA. In assessing development proposals within the ACA, the Council shall take into account the material effect that the proposed development would be likely to have on the character of the ACA.
Rating	N/a
Categories of special interest	N/a
Source	Askeaton Local Area Plan (2015-2021)

BH No	BH 7a
RPS No	909
NIAH No	21826007
Statutory protection	RPS

Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Thatched cottage
ITM Ref	533850, 650639
Description	Description Detached three-bay single-storey direct entry thatched house, built c. 1800, having recent two-bay single-storey extension to south elevation. Pitched thatched roof with render copings and rendered chimneystacks. Roughcast rendered walls. Square-headed openings having render surrounds, replacement uPVC windows and concrete sills. Square-headed opening with render surround and replacement uPVC door. Appraisal This traditional thatched house forms an important part of Askeaton's vernacular heritage. Despite its condition, the house presents an early aspect with much of its original form intact, including features such as the arrangement of the openings, which retain their informal quality.
Rating	Local
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 7b
RPS No	910
NIAH No	21826008
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Thatched cottage
ITM Ref	533851, 650640
Description	Description Detached three-bay single-storey direct entry thatched house, built c. 1800, having two-bay single-storey extension to south and two-bay single-storey lean-to to north elevation. Pitched thatched roof with rendered chimneystacks. Single-pitched corrugated-iron roofs to extension and lean-to. Roughcast rendered walls. Square-headed openings with replacement uPVC windows and concrete sills. Square-headed opening having replacement uPVC door. Appraisal This modest-scale house forms an important element of the vernacular heritage of Askeaton, as indicated by the low massing and steeply thatched roof. The house retains early fabric throughout and, although the windows have been enlarged, they retain their informal rhythm, contributing to the traditional character of the façade.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 7c
RPS No	911
NIAH No	N/a
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Water pump
ITM Ref	533805, 650586
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 7d (Also AH 18)
RPS No	912, 913, 914
NIAH No	N/a
Statutory protection	RPS (National Monument, RMP)
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Franciscan Friary, boundary wall & former RC Church
ITM Ref	533956, 650747
Description	See AH 18
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 7e
RPS No	915, 916
NIAH No	21826014
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Askeaton Mill & sluice
ITM Ref	533979, 650676
Description	Description Detached rectangular-plan ten-bay four-storey corn mill, built in 1796, later used as a creamery, having multiple-bay single-storey extension and lean-to to north elevation. Now derelict. Three-bay four-storey block to east having single-storey lean-to to north elevation and taller projecting end-bay to south elevation. Hipped slate roof. Tooled coursed limestone walls. Square-headed window openings having brick block-and-start surrounds with remains of some

	timber sliding sash and cast-iron windows. Window openings to west elevation now blocked up. Square-headed opening to lean-to having double-leaf timber battened sliding doors. Hipped slate roof to east block and projecting end bay. Coursed rubble limestone walls with tooled limestone quoins. Square-headed window openings having brick block-and-start surrounds and remains of bipartite windows. Square-headed opening to east elevation with timber battened door. Square-headed opening to projecting end bay, north elevation having timber louvered vents. Mill race to west with round-headed arch having limestone voussoirs and keystone. Rubble limestone boundary walls to east and north. Appraisal This former mill is a reminder of the industrial heritage of Askeaton. Although now in disuse, the building largely retains its original form and features, including brick surrounds, timber battened door and slate roofs. Tooled limestone walls lend textural interest to the building. The Condensed Milk Company of Ireland acquired the mill in 1909 and it was used as a creamery from 1927 until recently.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 7f
RPS No	917
NIAH No	21826015
Statutory protection	RPS
Townland	Askeaton
Parish	Askeaton
Barony	Connello Lower
Classification	Former nursing home
ITM Ref	534006, 650630
Description	Description Detached three-bay two-storey former miller's house, built c. 1810, having portico to front (south) elevation and recent multiple-bay single-storey extension to south and four-bay two-storey extension to west. Skirt slate roof with rendered chimneystacks. Rendered walls. Square-headed openings to front elevation having six-over-six pane timber sliding sash windows and painted stone sills. Those to west elevation having replacement uPVC windows. Portico comprising Doric style render pilasters supporting moulded entablature. Square-headed opening with timber panelled door. Pair of square-profile metal piers with ball finials and single-leaf metal gate to east and rubble limestone boundary walls having cut limestone copings. Appraisal This building retains much of its original form and character to the exterior, despite recent additions and alterations. Situated adjacent to the River Deel, south of Abbey Mills, the house was formerly part of the mill complex. It remains a prominent feature in the landscape of Askeaton and is enhanced by its good quality boundary walls.
Rating	Regional

Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 8
RPS No	608
NIAH No	N/A
Statutory protection	RPS
Townland	Moig South
Parish	Askeaton
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	533960, 650968
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 9
RPS No	907
NIAH No	N/A
Statutory protection	RPS
Townland	Moig South
Parish	Askeaton
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	534097, 651047
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 10
RPS No	906
NIAH No	N/A
Statutory protection	RPS
Townland	Moig South
Parish	Askeaton
Barony	Connello Lower
Classification	Concrete pill box
ITM Ref	534292, 651052
Description	None given
Rating	None given
Categories of	None given

special interest	
Source	Limerick County Development Plan (2010-2016)

BH No	BH 44
RPS No	88
NIAH No	N/a
Statutory protection	RPS
Townland	Ballyengland Lower
Parish	Askeaton
Barony	Connello Lower
Classification	Thatched house
ITM Ref	536943, 651640
Description	None given
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan (2010-2016)

BH No	BH 11
RPS No	89
NIAH No	21901107
Statutory protection	RPS
Townland	Ballyengland Lower
Parish	Askeaton
Barony	Connello Lower
Classification	Stables
ITM Ref	537188, 650809
Description	Description Detached three-bay single-storey thatched stables, built c. 1810, having lean-to to south elevation. Pitched thatched roof, with render coping to north gable. Corrugated iron roof to lean-to. Rubble stone walls, rendered in places, whitewashed. Roughcast rendered walls to lean-to. Square-headed openings to front (east) elevation with timber doors. Appraisal This simple outbuilding is set within a farmyard. Its thatched roof and rubble stone walls are examples of the vernacular tradition of building which is fast disappearing from the Irish countryside.
Rating	Regional
Categories of special interest	Architectural, technical
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 34
RPS No	303 (within attendant grounds of Currahchase House)
NIAH No	21902018
Statutory protection	RPS

Townland	Currahchase
Parish	Kilcornan
Barony	Kenry
Classification	Gated demesne entrance
ITM Ref	539591, 658618
Description	Description Pair of square-profile ashlar limestone piers, erected c. 1850, having carved caps and acorn finials. Flanking sweeping rusticated limestone walls with cut limestone copings terminating in pair of smaller square-profile cut limestone piers with carved caps and plinths. Appraisal These piers and walls, which were once part of the Currah Chase demesne, are representative of the decorative entrances associated with country houses in Ireland. The channelled rustication, acorn finials and copings are all inspired by classical motifs and are used as to display status and style. The craftsmanship and skill involved in the design, carving and fitting of the blocks to create the sharp form of the piers is considerable.
Rating	Regional
Categories of special interest	Artistic
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan (2010-2016)

BH No	BH 35 (Also AH 56)
RPS No	390
NIAH No	N/a
Statutory protection	RPS
Townland	Garraunboy
Parish	Clonshire
Barony	Connello Lower
Classification	Tower house
ITM Ref	543575, 644414
Description	See AH 56
Rating	None given.
Categories of special interest	None given.
Source	Limerick County Development Plan (2010-2016)

BH No	BH 30
RPS No	810
NIAH No	21902113
Statutory protection	RPS
Townland	Adare
Parish	Adare
Barony	Coshma
Classification	Gate lodge
ITM Ref	547523, 647198
Description	Description

	Detached octagonal-plan two-storey former gate lodge, built c. 1830, having gablets to front (east), north, south and rear (west) elevations and three-bay single-storey block to rear. Single-bay single-storey block to south with adjoining curtain wall having stepped pediment and inset pointed arch carriage arch with carved roll mouldings and double-leaf ornate wrought-iron gates. Hipped slate roof with carved limestone eaves course. Pitched slate roof to rear block with rendered chimneystack. Limestone copings with carved trefoil finials to gablets. Tooled snecked limestone walls having carved plinth course and buttresses to front, south and north elevations. Lancet openings to ground floor with fixed windows. Arrow slit windows to rear block, north elevation with fixed windows. Trefoil-headed lancet window openings to gablets having limestone transoms and fixed windows. Appraisal This handsome gate lodge once gave access to the demesne of Adare Manor, which was an important historical estate. Although no longer in use as an entrance, the gate lodge serves as a reminder of the wealth and vast size of many former Adare Manor. The use of the Gothic Revival style, as represented by features such as the gablets, lancet windows and buttresses, mirror the style of the main house, Adare Manor, and are testament to the skill of nineteenth-century craftsmen. The gate lodge makes an important architectural contribution to the heritage of Adare.
Rating	Regional
Categories of special interest	Architectural, artistic
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 50
RPS No	811
NIAH No	N/a
Statutory protection	RPS
Townland	Adare
Parish	Adare
Barony	Coshma
Classification	Demesne walls
ITM Ref	547523, 647198 – 546872, 646946
Description	Stone walls that define the demesne associated with Adare Manor
Rating	None given.
Categories of special interest	None given.
Source	Limerick County Development Plan 2010-2016

BH No	BH 31
RPS No	N/A
NIAH No	21902114
Statutory protection	No
Townland	Rineroe
Parish	Adare

Barony	Coshma
Classification	Fort Union House gate lodge
ITM Ref	548022, 647349
Description	Description Two-bay two-storey gate lodge to north-east having gable-fronted end-bay and extension to rear (east) elevation. Pitched artificial slate roof with red brick chimneystack. Roughcast rendered walls to first floor. Red brick walls to ground floor. Square-headed openings with replacement uPVC windows. Those to ground floor having red brick voussoirs. Square-headed opening having timber battened door with flanking square-headed fixed window. Pair of roughcast rendered square-profile piers with limestone caps and sweeping roughcast rendered walls with limestone cappings terminating in second pair of piers. Appraisal The complex form of this house, the front elevation of which is said to have changed from north to south, indicates various phases of building. It was previously named Rineroe. The present rear elevation incorporates an eighteenth-century Dutch oven to the interior. The present front elevation suggests a remodelling in the nineteenth century. The finely crafted limestone steps, tripartite windows and end-placed chimneystacks are all distinctive and pleasing elements of this building. The site retains its extensive range of outbuildings, which were of vital importance in the running of the estate.
Rating	Regional
Categories of special interest	Architectural
Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 32
RPS No	N/A
NIAH No	21902121
Statutory protection	No
Townland	Ballyloughnaa
Parish	Croom
Barony	Pubblebrien
Classification	House
ITM Ref	548012, 647339
Description	Description Detached three-bay two-storey house, built c. 1840. Hipped slate roof with rendered chimneystacks. Roughcast rendered walls. Square-headed openings with one-over-one pane timber sliding sash windows and limestone sills. Square-headed opening having glazed overlight over timber panelled door. Rubble limestone boundary walls to site. Appraisal The regular form of this house, which may have been a Methodist manse, is enhanced by architectural detailing such as the simple doorcase. The different window sizes to the façade are interesting features retaining timber sliding sash windows, which enhance the building's appearance. Set back slightly from the road, the house forms a pleasing roadside feature.
Rating	Local
Categories of special interest	Architectural

Source	www.buildingsofireland.com (NIAH, Co. Limerick)

BH No	BH 33
RPS No	N/a
NIAH No	21902120
Statutory protection	N/a
Townland	Ballyloughnaa
Parish	Croom
Barony	Pubblebrien
Classification	House
ITM Ref	547876, 647373
Description	Description Detached three-bay two-storey house, built c. 1820, with additions in the later 19th and 20th centuries. Pair of bay windows to ground floor and porch set within. Continuous roof over canted bay windows supported by timber uprights. Timber windows to bay windows with small pane toplights. Segmented headed window openings with timber sash windows to first floor. Square-headed window opening with hood-moulding to return. Pitched roof with rendered chimneystacks. Appraisal This house is of interest due to its close proximity to the former Methodist Church and may have had some associations with the church. The retention of the bay windows to the ground floor with the small pane toplights are notable additions to the house.
Rating	Regional
Categories of special interest	Architectural, artistic
Source	www.buildingsofireland.com (NIAH, Co. Limerick) Limerick County Development Plan 2010-2016

BH No	BH 40
RPS No	113
NIAH No	N/a
Statutory protection	Yes
Townland	Ballyloughnaa
Parish	Croom
Barony	Pubblebrien
Classification	House
ITM Ref	549105, 647929
Description	Former Methodist Church, now renovated and incorporated into a modern residence.
Rating	None given
Categories of special interest	None given
Source	Limerick County Development Plan 2010-2016

BH No	N/a
RPS No	N/a

NIAH No	N/a
Statutory protection	Architectural Conservation Area
Townland	Adare
Parish	Adare
Barony	Coshma
Classification	ACA – Associated with Adare and Adare Manor Demesne
Description	The collective arrangement of buildings within the village and within the grounds of Adare Manor is considered of significance to the built heritage of the village and contributes to the character and established street and townscape. It is the objective of the Council to preserve the character of this area and therefore it is designated as an Architectural Conservation Area (ACA). The ACA is defined in the Protected Structures and ACA Map 4. The designation of the ACA does not preclude future development, but the carrying out of works to the exterior of structures within the ACA shall not be considered as exempted development where those works would materially affect the character of the ACA. In assessing development proposals within the ACA, the Council shall take into account the material effect that the proposed development would be likely to have on the character of the ACA. Adare's Architectural Conservation Area is divided into 7 main areas of interest. These are listed below and a statement on the character of each area and identification of possible threats are also outlined. Adare A.C.A. 1 Adare Manor Demesne Adare A.C.A. 2 Terraced Cottages in Ornee Style Adare A.C.A. 3 19th and Early 20th Century Core of the Village Adare A.C.A. 4 19th Century Core - Southside of Main Street Adare A.C.A. 5 19th Century Core - Northside of Main Street Adare A.C.A. 6 Clifford Smith Village Hall and Housing Adare A.C.A. 7 The Avenue
Rating	N/a
Categories of special interest	N/a
Source	Adare Local Area Plan (2015-2021)

Designed Landscapes

DL No	DL 1
RPS?	Associated with the ruins of Ballyclogh House, which is listed in the RPS
NIAH Survey No	LI-64-R-311484
Statutory protection	Associated with RPS
Name	Ballyclogh House demesne
Townland	Ballyclogh
Parish	Lismakeery
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as ' Virtually no recognisable features. Principal building in ruins.' Formal gardens present to the east of the principal building on the 6" map are no longer present. Mature planting is present around

	the internal and external boundaries. Demesne features are degraded, now mainly arable fields.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 2
RPS?	Associated with the ruins of Currahchase House, which is listed in the RPS
NIAH Survey No	LI-65-R-409491
Statutory protection	Associated with RPS
Name	Currahchase House demesne
Townland	Currahchase, Currahchase North
Parish	Kilcornan
Barony	Kenry
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - peripheral features unrecognisable. Principal building is in ruins, one of the out buildings appears to be in use. Enclosure visible, now contains a separate house. The site contains two loughs one of which has nearly completely silted up'. Large areas of woodland are depicted on the 6" map surrounding an interior of planted parkland around the principal building. Large tracts of woodland still cover a large portion of the demesne but the areas of planted parkland have been returned to pasture.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 20
RPS?	No
NIAH Survey No	LI-65-R-430474
Statutory protection	No
Name	Tuogh Cottage demesne
Townland	Tuogh
Parish	Adare
Barony	Kenry
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Virtually no recognisable features'. On the 6" map, a small area of planting is visible near the house which is still upstanding. The footprint of the demesne is still intact today, along with the principal structure. However, much of the demesne planting has been removed from the landscape.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 21
RPS?	Associated with Clonshire Lodge, which is listed in the RPS
NIAH Survey No	LI-65-R-435452
Statutory protection	Associated with RPS
Name	Clonshire Lodge demesne

Townland	Clonshire Beg
Parish	Clonshire
Barony	Connello Lower
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - some loss of integrity'. Gate lodge visible as indicated on the 6" map. Industrial units in north west area of parkland. Significant area of mature woodland remain to the north and west of the principal building. A small area of pine plantation has been laid down in the south east of the demesne. Significant amounts of planting survive within the landscape.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 22
RPS?	Associated with Adare Manor, which is listed in the RPS. No physical connection to the Adare Manor demesne
NIAH Survey No	LI-65-R-473461
Statutory protection	Associated with RPS but not physically connected
Name	Adare Deerpark
Townland	Adare
Parish	Adare
Barony	Kenry
Classification	Demesne
Description	The deer park is mentioned as a 'detached deer park to the west' of the main Adare Manor demesne (DL 16). It is shown on the historic mapping as a large area planted with individual and belts of trees, traversed by numerous path ways. A gate lodge flanks the main entrance into the park from the road that borders it to the south. Today a large part of the park has survived and retains much of its mature planting. Several modern structures have been erected at the centre of the landscape, amongst the trees.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 15
RPS?	Associated with Curraghbridge House, which is listed in the RPS
NIAH Survey No	LI-65-R-452475
Statutory protection	Associated with RPS
Name	Curraghbridge House demesne
Townland	Curraghbridge
Parish	Adare
Barony	Kenry
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - peripheral features unrecognisable'. Whilst the principal structure survives with outbuildings, the landscape to the south has lost much of its demesne character. Mature planting survives to the west of the house some mature boundaries with specimen trees are present to the north of the house.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey

	map viewer

DL No	DL 16
RPS?	Associated with Adare Manor, which is listed in the RPS. The demesne is also listed as an Architectural Conservation Area in its own right.
NIAH Survey No	LI-65-R-473461
Statutory protection	Associated with RPS and also listed as an ACA
Name	Adare Manor demesne
Townland	Adare Demesne, Boulabally, Mountwilliam, Copay
Parish	Adare
Barony	Coshma
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Main features substantially present - some loss of integrity'. Substantial demesne parkland to the east of Adare village. Partly degraded to include a golf course. Layout, lawns and mature planting visible near the principal building. The river runs through the site and there are also large ponds within the golf course area. Abbey and castle ruins in parkland area to the north and a detached Deer Park to the west. Principal building and associated stables, gatehouses and chapel all present.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 17
RPS?	No
NIAH Survey No	LI-65-R-498479
Statutory protection	No
Name	Ballycarrane House demesne
Townland	Ballycarrane
Parish	Croom
Barony	Pubblebrien
Classification	Demesne
Description	Recorded within the NIAH garden survey as 'Virtually no recognisable features'. Small parkland is marked on first edition OS map. This is still present by the 25 inch mapping although truncated by the railway line. Recent construction of the N21 to the immediate south of the railway has resulted in further truncation of the demesne. Today, whilst the principal structure survives, the landscape has lost much of its original character. Several specimen trees survive in the ground, but no belts of planting.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer

DL No	DL 18
RPS?	No
NIAH Survey No	N/a
Statutory protection	No
Name	Un-named – within Ballybronoge South
Townland	Ballybronoge South

Parish	Killonahan
Barony	Pubblebrien
Classification	Demesne
Description	Not listed within the NIAH survey, this demesne landscape remains un-named on the first edition OS map and later OS editions. Shown on the first edition with a principal structure (now gone) and several outbuildings. The field boundaries are planted with trees and there is an orchard shown to the west. The demesne characteristics have gone by the time of the 25 inch. Today the main building has been removed and the demesne is truncated by the N21. Several specimen trees survive but for the most part the landscape has been subsumed back into agriculture.
Source	NIAH Garden Survey, Co. Limerick, Google Earth, Bing Maps, Ordnance Survey map viewer