

# N2 Rath Roundabout to Kilmoon Cross

Option Selection Report Executive Summary

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## **Quality information**

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## Schedule of Revisions

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## **Distribution List**

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MEATH COUNTY COUNCIL



comhairle chontae na mí meath county council

## Prepared by:

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## 0. Executive Summary

Meath County Council is working in partnership with Fingal County Council and in association with Transport Infrastructure Ireland (TII), to develop a scheme along a section of the N2 between Rath Roundabout and Kilmoon Cross.

The purpose of this report is to outline the works undertaken within Phase 2 (Options Selection) of the TII Project Management Guidelines (PMG) 2020. These include the definition of a suitable study area, the identification of key natural and artificial constraints within that study area as well as external parameters, the development of feasible options, and finally the completion of systematic assessment of these options leading to the selection of a preferred option for the scheme.

The report also describes the non-statutory public consultations that were held during each stage of assessment and following the identification of an emerging preferred option.

#### 0.1 Scheme Location

The N2 Rath Roundabout to Kilmoon Cross scheme is located north of Ashbourne and forms part of the N2 National Primary route which links Dublin to Derry. The study area for the scheme is shown in both a regional and local context in Figure 0-1.

This existing 5.5km section of the N2 falls largely within County Meath under the administration of Meath County Council. Approximately 1km of the existing road is located within County Dublin under the administration of Fingal County Council.

Rath Roundabout is located at the southern end of the study area, to the north of Ashbourne where the M2 Motorway (Ashbourne Bypass) terminates and connects with the N2 and the R135 (the former N2 alignment prior to the construction of the Ashbourne Bypass).

Kilmoon Cross is located at the northern end of the study area, at the intersection between the N2 and the R152 (which connects to Drogheda and the M1 Motorway via Duleek).

The scheme passes through the townlands of Cookstown, Rath, Hammondtown, Crickstown, Ballymadun, Knavinstown, Borranstown, Baltrasna, Coolfore, Ballyhack, Primatestown, Cushinstown, Cushinstown (ED Rathleigh), Kilmoon, Curraghtown and Roadmain.

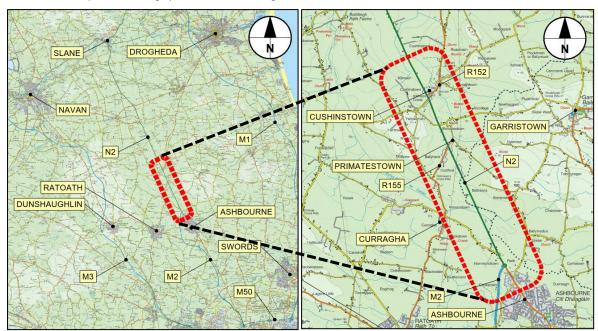


Figure 0-1 - Study Area in Regional and Local Context

## 0.2 Scheme Background

## 0.2.1 Policy Documents

The N2 Rath Roundabout to Kilmoon Cross scheme is compatible with several studies that have been carried out by Meath County Council along with other regional and national studies.

It is referenced in a number of policy documents including the National Planning Framework (Ireland 2040), the National Development Plan (2021-2030), the National Transport Authority's Transport Strategy for the Greater Dublin Area (2016 – 2035), as well as the Draft Transport Strategy for the Greater Dublin Area 2022-2042. Moreover, the scheme is referenced in the now superseded Meath County Development Plan 2013-2019, the recently adopted Meath County Development Plan (2021-2027), as well as the adopted Fingal County Development Plan (2017-2023).

## 0.2.2 TII PMG Phases 1-4

Roughan & O'Donovan – AECOM Alliance (ROD-AECOM) have been appointed by Meath County Council to progress the scheme development through Phases 1 to 4 of the TII Project Management Guidelines 2020, as detailed below:

- TII PMG Phase 1 Concept & Feasibility
- **TII PMG Phase 2** Option Selection
- TII PMG Phase 3 Design & Environmental Evaluation
- TII PMG Phase 4 Statutory Processes

ROD-AECOM were commissioned to begin work on the N2 Rath Roundabout to Kilmoon Cross scheme in September 2019. The scheme has been progressed by ROD-AECOM through Phase 1 (Concept and Feasibility) of the TII Project Management Guidelines 2020. During this phase, the feasibility of the project was developed and investigated in further detail and the project management structure was implemented.

Approval to proceed to Phase 2 (Options Selection) of the TII Project Management Guidelines 2020 was obtained from TII in January 2020. Phase 2 consists of a staged assessment of options in order to determine a preferred option. This forms the basis of this Option Selection Report which is the main deliverable of this phase.

## 0.2.3 Public Consultation Roadmap

Non-Statutory Public Consultations form a key part of the Option Selection process. These consultations are used to generate awareness of the proposed scheme, initiate participation of the public and stakeholders, and to obtain feedback for consideration by the Project Team as part of the project development.

As part of the Option Selection process, three non-statutory public consultations were undertaken between 2020 and 2021 as detailed below. The overall Public Consultation Roadmap for the scheme is shown in Figure 0-2.

- <u>Public Consultation 1</u> March / April 2020. This involved the publication of study area, constraints and Stage 1 scheme options.
- <u>Public Consultation 2</u> July / August 2020. This involved the publication of the Stage 2 scheme options which had progressed from the Stage 1 Preliminary Options Assessment.
- <u>Public Consultation 3</u> March / April 2021. This involved the publication of the Emerging Preferred Option which had progressed from the Stage 2 Project Appraisal Matrix.

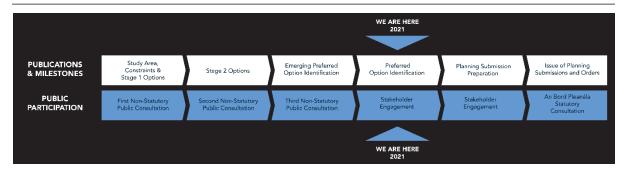


Figure 0-2 - Public Consultation Roadmap

#### 0.3 Need for the Scheme

In addition to the aims and objectives of the strategic policy documents referred to in Section 0.2, the need for the scheme has been broken down into the following components:

#### **Regional Connectivity**

The N2 National Primary Road is an important route between Dublin and Derry (via the A5). Improvements to this section of the N2 have the potential to improve access to Dublin (including the port and airport), as well as improving connectivity to the North West.

#### **Active Travel**

There are currently limited active travel facilities. The provision of a shared pedestrian & cycle facility as part of the scheme has the potential to facilitate an uptake in active travel, connecting the local communities of Curragha, Primatestown, and Cushinstown.

## Journey Time Reliability

This section of the N2 often experiences major delays of between 10 and 20 minutes, with poor journey time reliability as shown in Figure 0-3. This is primarily due to long tailbacks from the signalised junction at Primatestown Cross, as shown in Figure 0-4, in the morning and evening peak periods, with existing average peak speeds of 30km/h.

## **Public Transport**

The existing N2 causes significant reliability issues for bus services and additional operational costs due to congestion related delays. This is reducing the attractiveness of bus for existing car users.

#### Safety

This section of the N2 consists of a single carriageway cross-section which cannot safely accommodate the volume of traffic that currently uses it. The road is further compromised by a number of at-grade junctions and private accesses.

## Sustainability

Traffic congestion leads to an increase in carbon dioxide emissions and air pollution. Improvements to this section of the N2 have the potential to facilitate the sustainable development of the region, with an opportunity to improve amenity along the existing N2.

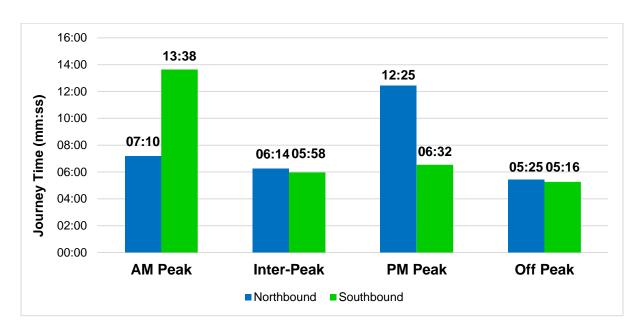


Figure 0-3 - Weekday Journey Times along the N2, December 2019. (Google API Data).



Figure 0-4 - Existing Primatestown Junction Layout. (Facing North towards Slane).

## 0.4 Scheme Objectives

The following objectives were developed for the scheme, these align with the multiple criteria headings outlined by the Department of Transport, Tourism and Sport's 'Common Appraisal Framework for Transport Projects and Programmes (March 2016)'.

## **Economy**

- To reduce journey times, improve journey time reliability and to improve the efficiency on the N2 corridor for all road users, including road based public transport.
- To support the economic performance of the wider region through the provision of improved transport infrastructure for all road users, including road based public transport which will reduce the cost of travel for communities, businesses, visitors and tourists and assist in reducing the overall cost of production thereby improving competitiveness.

#### Safety

- To reduce the collision rate along the National Road network between Rath roundabout and Kilmoon Cross to below the national average rate.
- To reduce the severity of collisions along the National Road network between Rath roundabout and Kilmoon Cross.
- To improve safety for all road users, including pedestrians, cyclists and public transport users along both the National Road network, and on the surrounding road network between Rath roundabout and Kilmoon Cross.
- To support the RSA Road Safety Strategy 2013-2020.

#### **Environment**

- To minimise the impact of greenhouse gas emissions.
- To improve air quality in the various settlements along the corridor.
- To reduce the level of noise in the various settlements along the corridor.
- To minimise the impacts on the significant positive landscape and visual quality of the surrounding area.
- To minimise the potential impacts on local watercourses.
- To support the delivery of the Climate Action Plan.
- · Preserve the vibrancy of existing local communities.

#### **Accessibility & Social Inclusion**

- To improve accessibility to key facilities, such as employment, education and healthcare for all N2 road users, but in particular vulnerable groups.
- To reduce travel costs in the region and thereby encourage and support investment and employment in the wider region.
- To support the accessibility and social inclusion objectives of national, regional and local planning policy.
- To improve road based public transport journey time and journey time reliability.
- To improve connectivity to Dublin Airport.

## Integration

- To improve connectivity on the national road network.
- To be compatible with adopted land use objectives.
- To support the integration objectives set out in European, National, Regional and Local Planning policy.
- To support the NTA Strategy for the Greater Dublin area, which aims to enhance bus services on the N2 corridor through improvements to the N2 Core Regional Bus Network serving Ashbourne and Slane.
- To consider the potential for bus-based park and ride locations close to the N2 corridor.

## **Physical Activity**

- To deliver infrastructure that supports low-carbon transport systems and emission reductions.
- To provide segregated facilities for pedestrians and cyclists to link local areas to Ashbourne and beyond.
- To improve the amenity value of the existing N2 corridor and provide a safe environment for vulnerable road users.
- To facilitate the uptake of active travel modes and reduce the overreliance on private cars for short journeys.

## 0.5 Overview of Option Selection Process

The methodology used for the Option Selection was based on the guidance set out in both the TII Project Management Guidelines 2020 and the TII Project Manager's Manual 2020 (*PE-PMG-02041* and *PE-PMG-02042* respectively). Option selection is a process which seeks to identify a preferred option through a structured appraisal process which can be referred to as a narrowing of options. This process is set out in the suite of TII Project Appraisal Guidelines and is set out in Figure 0-5.

A number of feasible options were developed within the study area based on the available constraints information, in accordance with *PE-PAG-02012-01 Unit 4.0 - Consideration of Alternatives and Options*. These options were then presented during the first period of non-statutory public consultation. The feedback received was considered during the Stage 1 Preliminary Options Assessment, where the options were assessed under three criteria; Engineering, Environment and Economy, in accordance with *PE-PAG-02031-01 Unit 7.0 - Multi Criteria Analysis*.

Following the Stage 1 Preliminary Options Assessment, the options which performed the most favourably were selected to proceed to the Stage 2 Project Appraisal. These options were refined further and presented again during the second period of non-statutory public consultation. This feedback was considered during the Stage 2 Project Appraisal, where the options were subject to a more detailed appraisal under the six criteria of Economy, Safety, Environment, Accessibility & Social Inclusion, Integration and Physical Activity, in accordance with the Common Appraisal Framework 2016.

Following the Stage 2 Project Appraisal, an emerging preferred option was identified. This emerging preferred option was presented during the third period of non-statutory public consultation. This feedback was then considered during the refinement of the emerging preferred option before it was finalised during the Stage 3 Selection of a Preferred Option.

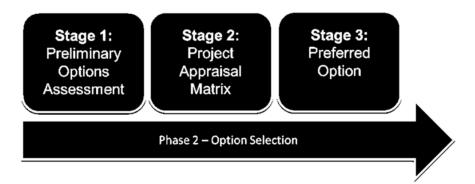


Figure 0-5 - TII Phase 2 Option Selection Stages (TII PAG Unit 4.0)

## 0.6 Constrains Study

The initial step in the Option Selection process is to identify the nature and extent of significant constraints within a defined study area. A constraint is a natural or artificial consideration that could affect, restrict, limit or constrain the location or an aspect of a project within the identified study area.

The TII Project Management Manual 2020 divides the constraints into three categories: natural constraints, artificial constraints and external parameters. Natural constraints are considered naturally occurring landscapes and features, artificial constraints are those that form part of the built environment while external parameters include design standards, policy and procedural and legal issues. These constraints are detailed in full within the Constraints Report which is included in Appendix 5.

The constraints study involves the definition of a suitable study area, following this, all artificial and natural constraints, at an appropriate level of detail, are identified therein. This process facilitates the development of feasible options, as well as the systematic assessment of the potential impacts associated with these options during Phase 2 of the TII Project Management Guidelines 2020.

Following the appraisal of the study area, a number of natural and artificial constraints have been identified as summarised below and shown in Figure 0-6.

- <u>Natural Constraints</u>: Hurley River floodplain which contains a flood zone, wet grassland habitat
  and compressible soils; as well as a Highly Sensitive Landscape located on the eastern side of
  the study area and a locally significant protected view at Windmill Hill.
- Artificial Constraints: Existing M2 Motorway, N2 National Road and a number of Regional Roads; masterplan areas zoned for employment use to the north of Ashbourne; utilities including a Gas Pipeline, the East-West Interconnector and a 110kV Overhead Line; various cultural heritage assets including recorded monuments and protected structures; St. Declan's Cemetery, as well as Tayto Park which is a nationally significant tourism site.

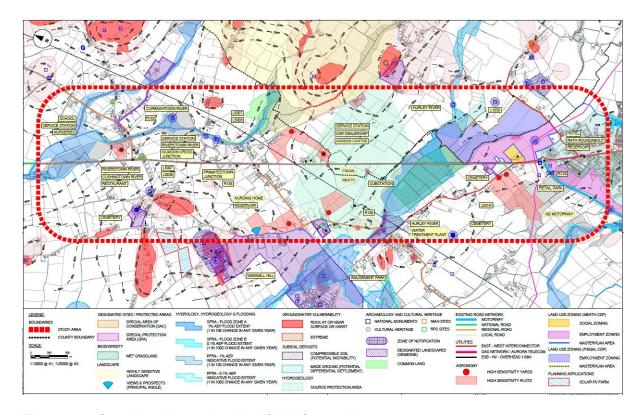


Figure 0-6 - Combined Natural and Artificial Constraints

## 0.7 Development of Alternatives

Following the definition of a suitable study area, the identification of key natural and artificial constraints within that study area as well as external parameters, a number of feasible options were developed, these included several alternatives as detailed below.

#### **Do-Nothing**

The Do-Nothing option has been developed to provide a baseline for establishing the economic, integration, safety, environmental and accessibility impacts of all options. This option assumes that there will be no investment in the transport network (other than regular maintenance).

#### **Traffic Management**

The Do Managed option consists traffic management measures which utilise the existing asset with no land take. This included the following components:

- Increased capacity at junctions.
- · Bus Priority and access control at junctions.
- Enabling the provision of further bus services along this corridor.
- Demand management of some form to help reduce general traffic volumes.

## **Public Transport**

The Public Transport option included the following components:

- Bus Lanes along the existing N2.
- Bus Priority improvements at Rath Roundabout to reduce delays at peak times.
- Park & Ride facility along the existing N2.

The N2/M2 corridor currently facilitates the lowest number of passenger trips compared to other radial motorways from Dublin, as shown in Figure 0-7. This is reflective of the population served by each corridor, although it suggests some potential for growth in bus share on the corridor.

Investment to increase the number of bus services alone will be unlikely to reduce car demand sufficiently to resolve the existing congestion issues, therefore sole investment in bus services would likely lead to continued congestion with associated environmental and safety issues for all road users.

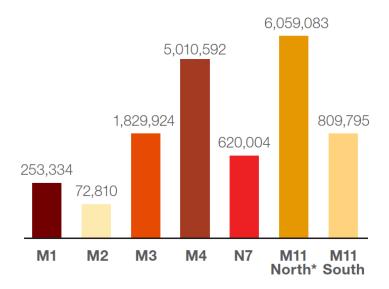


Figure 0-7 - Total PSO Passenger Trips by Corridor 2018

<sup>\*</sup> Includes services from N11 South

## 0.8 Development of Route Options

In addition to the alternatives, several route corridor options were developed within the study area based on the constraints information. These consisted of 3 Core Route Options:

- Online Route (Existing N2 corridor)
- East Route (Offline, east of the existing N2)
- West Route- (Offline, west of the existing N2)

Connecting these Core Route Options were a series of Route Links. The Core Route Options and Route Links were amalgamated to create a range of possible combinations:

- Route A (Online Route)
- Route B-1 / B-2 (East Route)
- Route C-1 / C-2 (West Route)
- Route D-1 / D-2 (Online Route Link East Route)
- Route E-1 / E-2 (Online Route Link West Route)
- Route F-1 / F-2 (East Route Link West Route)
- Route G-1 / G-2 (West Route Link East Route)

In total 13 route corridor options were developed, each 200m in width, with extensive sifting undertaken to ensure that these options were viable.

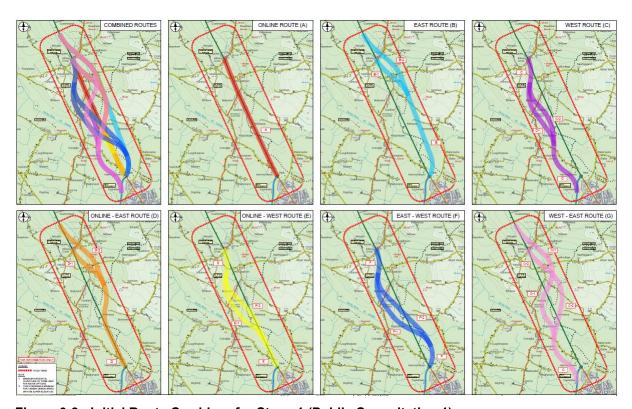


Figure 0-8 - Initial Route Corridors for Stage 1 (Public Consultation 1)

## 0.9 Stage 1 – Preliminary Options Assessment

Following the development of feasible alternatives and options, a systematic assessment of these options was completed to identify an emerging preferred option for the scheme. The first stage of this process is referred to as the Stage 1 – Preliminary Options Assessment.

## 0.9.1 Stage 1 – Multi Criteria Analysis

The Stage 1 Options and Alternatives were subject to a Multi Criteria Analysis (MCA), which was carried out against the assessment criteria of Engineering, Environment and Economy. Each of these main criteria comprised of a number of sub-criteria, as outlined in Table 0-1.

Table 0-1 - Stage 1 MCA Sub-Criteria

Engineering	Economy	Environment
Compliance with Design Standards	Option Comparison Estimates	Biodiversity
Earthworks		Water / Hydrology
Road Safety Impact Assessment		Land & Soil
Constructability		Geology, Geomorphology & Ground
Service Conflicts		Groundwater / Hydrogeology
Junction Strategy		Landscape & Visual
Structures		Noise & Vibration
Drainage		Air Quality
Land and Property		Climate
Traffic Assessment		Population & Human Health
		Cultural Heritage
		Material Assets – Agriculture
		Material Assets – Non-Agriculture

#### 0.9.2 Public Consultation 1

The first Public Consultation was held on 12<sup>th</sup> March 2020, however the submissions were accepted into April 2020. This consisted of an event at the Pillo Hotel in Ashbourne, which facilitated engagement between the project team, stakeholders, councillors and the public.

This involved the publication of the study area, constraints and Stage 1 scheme options. Feedback from this public consultation was considered as part of the Stage 1 Preliminary Options Assessment. A summary of the feedback from Public Consultation 1 is included in the post consultation report in Appendix 9.

## 0.9.3 Options Recommended for Stage 2

After analysing these results, seven of the options were chosen to progress to the Stage 2 as they performed the most favourably in all aspects of the assessment. These included the following:

#### **Route Options**

- Route Option D1
- Route Option E1
- Route Option E2
- Route Option F2

## **Alternative Options**

- Do-Nothing Option
- Do-Managed Option
- Public Transport Option

In terms of the route options, Routes D1, E1 and E2 performed favourably overall so were carried forward to the next stage of the assessment process, these options had short mainline lengths and involved sections of online widening so were more economical compared to the fully offline options.

The only fully offline route option to be carried forward was Route F2. This option performed favourably in terms of environment as it avoided the Hurley river floodplain. Therefore, it performed strongly in terms of the water sub-criterion due to this option avoiding the associated flood zone, as well as biodiversity and land & soil due this option avoiding the wet grassland and compressible ground in this area.

It is acknowledged that the three alternative options may not necessarily satisfy all the scheme specific objectives. Therefore, these alternative options are unlikely to be an optimum for solution for the scheme as a direct replacement for increasing capacity along this section of the N2.

However, these alternative options have been selected to progress to Stage 2 as they performed favourably against the Environmental and Economic criteria in the Stage 1 assessment and for the additional reasons outlined below:

- <u>Do-Nothing</u>: This will provide the baseline for establishing the economic, integration, safety, environmental and accessibility impacts of all options during the Stage 2 assessment.
- <u>Do-Managed & Public Transport</u>: These will be considered as a combination of components which are both feasible and satisfy some of the scheme specific objectives for the purposes of the Stage 2 assessment. It is noted that some individual components of these options may also be considered as standalone complementary measures to be incorporated with another Do-Something Option following the identification of an Emerging Preferred Option for the scheme at the conclusion of the Stage 2 assessment.

## 0.10 Stage 2 – Project Appraisal Matrix

Following on from the Preliminary Option Assessment, the options and alternatives which progressed to the second stage of the assessment process, referred to as the Stage 2 – Project Appraisal Matrix, were subject to another round of assessment to identify an emerging preferred option for the scheme.

## 0.10.1 Refinement of Route Options

The route options progressing from the Preliminary Option Assessment, shown in Figure 0-9, were further developed to facilitate a more detailed level of assessment.

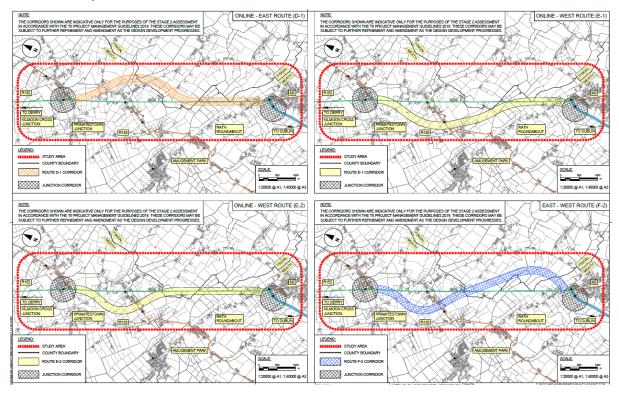


Figure 0-9 - Initial Route Corridors for Stage 2 (Public Consultation 2)

Initial mainline alignments were developed within the corridors of each route option to provide an early indication of the likely cross-section width including extent of earthwork footprint and an estimate of resulting material cut/fill for consideration in the Stage 2 assessment. Whilst the initial alignments were considered, the overall corridors were also assessed, as these initial alignments will continue to be adjusted and optimised within the corridors.

The assumed cross-section for the preliminary mainline alignments to be developed within the corridors of each route option was a Type 1 Dual Carriageway cross-section as shown in Figure 0-10.



Figure 0-10 - Type 1 Dual Carriageway Cross-Section (TII Publications CC-SCD-00006)

For the Stage 2 assessment the assumption was that for each route option there will be only two junctions, one at the southern tie-in at Rath and another at the northern tie-in at Kilmoon. There would be no intermediate junctions for any of the options, and all local and regional roads will be bridged over or under the mainline of the road.

As there were several potential junction options still under consideration at Rath and Kilmoon, junction corridors were developed at the northern and southern tie-ins of each route option. The junction corridors have been separated out as a separate option for appraisal at the Stage 2 assessment. These junction corridors are common to each route option, therefore by separating these areas out, this will allow for a more comparative assessment to be carried out on the remaining sections of the route options to inform the selection of an emerging preferred option.

## 0.10.2 Stage 2 - Multi Criteria Analysis

The Stage 2 Options and Alternatives were subject to another more detailed Multi Criteria Analysis carried out against the Common Appraisal Framework (CAF) criteria: Environment, Safety, Physical Activity, Economy, Accessibility & Social Inclusion, and Integration. Each of these main criteria comprised of a number of sub-criteria, as outlined in Table 0-2 - Stage 2 MCA Sub-Criteria.

Table 0-2 - Stage 2 MCA Sub-Criteria

Economy	Safety	Environment
Efficiency and Effectiveness     Wider Economic Impacts     Transport Quality and Reliability     Funding Impacts	<ul> <li>Collision Reduction</li> <li>Security</li> </ul>	Biodiversity     Water / Hydrology     Land & Soil     Geology, Geomorphology & Ground     Groundwater / Hydrogeology     Landscape & Visual     Noise & Vibration     Air Quality     Climate     Population & Human Health     Cultural Heritage     Material Assets – Agriculture     Material Assets – Non-Agriculture     Waste
Accessibility & Social Inclusion	Integration	Physical Activity
Deprived Geographical Areas     Vulnerable Groups	<ul> <li>Transport Integration</li> <li>Land use Integration</li> <li>Geographical Integration</li> <li>Other Government Policy Integration</li> </ul>	Ambience     Absenteeism     Reduced Health Risk

#### 0.10.3 Public Consultation 2

The second Public Consultation was held in July / August 2020. This consisted of the publication of documents on the project website (<a href="www.n2rath2kilmoon.ie">www.n2rath2kilmoon.ie</a>) due to Covid-19 restrictions. The brochure and questionnaire were delivered to all residential and commercial properties in the study area to generate awareness.

This involved the publication of the Stage 2 scheme options which had progressed from the Stage 1 Preliminary Options Assessment. Feedback from this public consultation was considered as part of the Stage 2 Project Appraisal Matrix. A summary of the feedback from Public Consultation 2 is included in the post consultation report in Appendix 9.

## 0.10.4 Localised Assessment of Route Options E-1 & E-2

Following the completion of the Stage 2 – Project Appraisal Matrix, Route Options E-1 and E-2 performed the most favourably. These two options were subject to a further detailed and localised environmental assessment to consider further refinement of their comparative impacts.

Based on the findings of this localised assessment, Route Option E-2 was preferred over Route Option E-1 when the diverged sections between the Hurley river floodplain and the agricultural lands to the north-west of the R155 were examined.

## 0.10.5 Emerging Preferred Option Recommended for Stage 3

#### Route Option E-2

Route Option E-2 was therefore confirmed as the Emerging Preferred Option for the N2 Rath Roundabout to Kilmoon Cross Scheme.

#### **Public Transport Option**

The alternative option which performed the most favourably during the Stage 2 assessment was the Public Transport option. Whilst the Public Transport Option was considered as a combination of components (bus lanes and Park & Ride facility) for the purposes of the assessment process, the individual components of the Public Transport Option were subsequently considered as standalone complementary measures to be incorporated with Route Option E-2 as the Emerging Preferred Option.

## • Public Transport Elements - Bus Lanes

The provision of a high-quality dual carriageway connection from the M2 at Rath to the existing N2 and R152 at Kilmoon would significantly improve journey time reliability for road based public transport, therefore the provision of bus lanes as a complementary measure to Route Option E-2 would not provide significant additional benefits.

## • Public Transport Elements - Park & Ride

However, the provision of a <u>Park & Ride facility as a complementary measure to Route Option E-2</u> has the potential to offer significant additional benefits to the local communities, as well as encouraging modal shift towards environmentally sustainable transport modes. Therefore, a Park & Ride facility will be considered in further detail during Phase 3 – Preliminary Design as a complementary measure alongside Route Option E-2.

## 0.11 Stage 3 – Preferred Option

Following on from the Project Appraisal Matrix, this stage represents the selection and refinement of a preferred option. It should be noted that a more detailed appraisal will be carried out on the preferred option during the next phase of the project development.

## 0.11.1 Refinement of Emerging Preferred Option

Following the conclusion of the Stage 2 Project Appraisal Matrix, a number of refinements were undertaken to the Emerging Preferred Option. These refinements included the consideration of how the proposed option will interact with the existing N2 for the section where the corridor follows the existing road, the development of the junction corridor strategy at the northern and southern tie-ins, as well as the active travel strategy for the residual road network.

A revised indicative layout of the Emerging Preferred Option was developed which incorporated these refinements, as shown in Figure 0-11, which are subject to consideration and will not be finalised until later in the next phase (Phase 3 Preliminary Design).

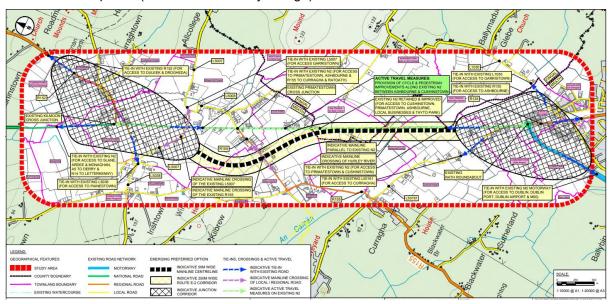
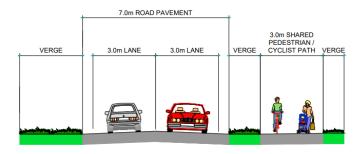


Figure 0-11 - Emerging Preferred Option for Stage 3 (Public Consultation 3)

In terms of the interaction of the Emerging Preferred Option with the existing N2, a hybrid parallel widening option was developed for consideration based on a review of potential access roads. This option consisted of retaining part of the existing N2 with a reduced single carriageway cross-section to provide local access. The proposed Dual Carriageway mainline could then be constructed partially offline, parallel to the existing N2 on the western side, and partially online using the western edge of the existing N2 including the verge.

As the existing N2 will be retained with a reduced single carriageway cross-section, this provided the required space for the implementation of a segregated 3m wide shared cycleway/footway on the eastern side of the existing N2 within the current road boundary. The eastern side of the existing N2 is further away from the proposed dual carriageway mainline, so will therefore provide a higher perceived level of safety and ambience. These proposals are shown indicatively in Figure 0-12.



INDICATIVE CROSS-SECTION OF IMPROVED EXISTING N2
(INCLUDING ACTIVE TRAVEL MEASURES)
(SUBJECT TO DEVELOPMENT IN PHASE 3 - PRELIMINARY DESIGN)

Figure 0-12 - Proposed Active Travel Measures on the Existing N2

#### 0.11.2 Public Consultation 3

The third Public Consultation was held in March / April 2021. This consisted of the development of a virtual consultation room accessed via the project website (<a href="www.n2rath2kilmoon.ie">www.n2rath2kilmoon.ie</a>) due to Covid-19 restrictions. The brochure and questionnaire were delivered to all residential and commercial properties in the study area to generate awareness.

This involved the publication of the Emerging Preferred Option following the completion of the Stage 2 Project Appraisal Matrix. Feedback from this public consultation was considered as part of the Stage 3 Preferred Option process. A summary of the feedback from Public Consultation 3 is included in the post consultation report in Appendix 9.

#### 0.11.3 Alternative Proposal

Following the consideration of the feedback received from Public Consultation 3, an alternative proposal to a section of the Emerging Preferred Option was identified for the scheme. This proposal diverged from the Emerging Preferred Option at the northern county boundary between Fingal and Meath and ran parallel to the existing N2 in a northerly direction through Primatestown Junction, while tapering slightly westwards before joining back into the Kilmoon Cross junction corridor.

This proposal ran parallel to the existing N2 for a further 1250m than the Emerging Preferred Option with a shorter offline section passing through agricultural lands before joining back up with the Kilmoon Cross junction corridor. This proposal would also necessitate the acquisition and demolition of two additional dwellings in the vicinity of the existing Primatestown Junction.

A localised environmental assessment was therefore undertaken on the alternative proposal and compared with the Emerging Preferred Option. It was considered by the Project Team that the current Emerging Preferred Option, Route Option E-2, performs more favourably with respect to the overall environmental impact, and should therefore remain as the Emerging Preferred Option and be progressed to Preferred Option status for the scheme.

## 0.11.4 Emerging Preferred Option Summary

The Emerging Preferred Option for the scheme (Route Option E-2) has been identified to provide the following benefits, aligning with the Common Appraisal Framework (CAF) criteria.

## **Economy**

- The provision of a more efficient transport network will assist in greater operational efficiencies as the regional population increases, thereby facilitating the sustainable development of the region.
- Improvements to the journey times and reliability of the N2 corridor will encourage an increased mode share for buses along the corridor.

## Safety

- The potential provision of a Dual Carriageway cross-section and the removal of direct accesses and sub-standard junctions will reduce the frequency and severity of collisions.
- This will improve safety for all road users.

#### **Environment**

- Improvements to air quality and a reduction in the level of noise in the various settlements along the corridor are anticipated.
- The online section will reduce landscape and visual effects, limit the area of direct habitat loss, and minimise impacts on groundwater by confining these impacts to the existing N2 corridor.

#### **Accessibility & Social Inclusion**

 Accessibility to employment, education, healthcare in Ashbourne and the wider Dublin region as well as Dublin Airport will be improved for all social groups, in particular vulnerable groups.

#### Integration

- Supports, or is consistent with, all 10 of the National Strategic Outcomes (NSO) from the National Planning Framework (NPF):
  - NSO 1 Compact Growth
  - NSO 2 Enhanced Regional Accessibility
  - NSO 3 Strengthened Rural Economies and Communities
  - NSO 4 Sustainable Mobility
  - NSO 5 A Strong Economy Supported by Enterprise, Innovation and Skills
  - NSO 6 High-Quality International Connectivity
  - NSO 7 Enhanced Amenity and Heritage
  - NSO 8 Transition to a Low Carbon and Climate Resilient Society
  - NSO 9 Sustainable Management of Water, Waste and other Environmental Resources
  - NSO 10 Access to Quality Childcare, Education and Health Services

## **Physical Activity**

- The provision of a shared pedestrian & cycle facility on the existing N2 will facilitate an uptake in active travel.
- This provides an opportunity to connect the local communities of Curragha, Primatestown, and Cushinstown with Ashbourne and enhance the amenity along the existing N2 corridor.

## 0.12 Recommendation of the Preferred Option

#### 0.12.1 Recommendation

Following completion of the Stage 3 Preferred Option process, where the Project Appraisal Balance Sheet (PABS) was undertaken and feedback was considered as part of the third Public Consultation on the Emerging Preferred Option, this completes the TII Phase 2 Option Selection Process. The Emerging Preferred Option, Route Option E-2, which was selected at Phase 2 Stage 2, was demonstrated as having met the project objectives under each of the CAF criteria.

In cognisance of this, as well as the further refinements and assessments made during Stage 3, the Emerging Preferred Option, Route Option E-2, is proposed as the Preferred Option for the scheme. It is noted that a Park & Ride facility will be considered in further detail during proceed to Phase 3 (Design and Environmental Evaluation) of the TII Project Management Guidelines 2020 as a complementary measure alongside Route Option E-2.

The Preferred Option Corridor for the N2 Rath Roundabout to Kilmoon Cross Scheme is illustrated in Figure 0-13. In summary, it is recommended that the Preferred Option, Route Option E-2, proceed to Phase 3 (Design and Environmental Evaluation) of the TII Project Management Guidelines 2020.

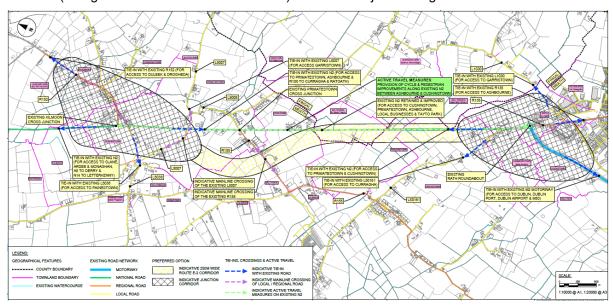


Figure 0-13 - Preferred Option Corridor

## 0.12.2 Next Steps

Subject to TII approvals, the process will culminate in the publication of the Statutory Orders and applicable Environmental Report(s) in accordance with relevant legislation.

