



Outline Transport Assessment for the Development of Lands at Confey, Leixlip

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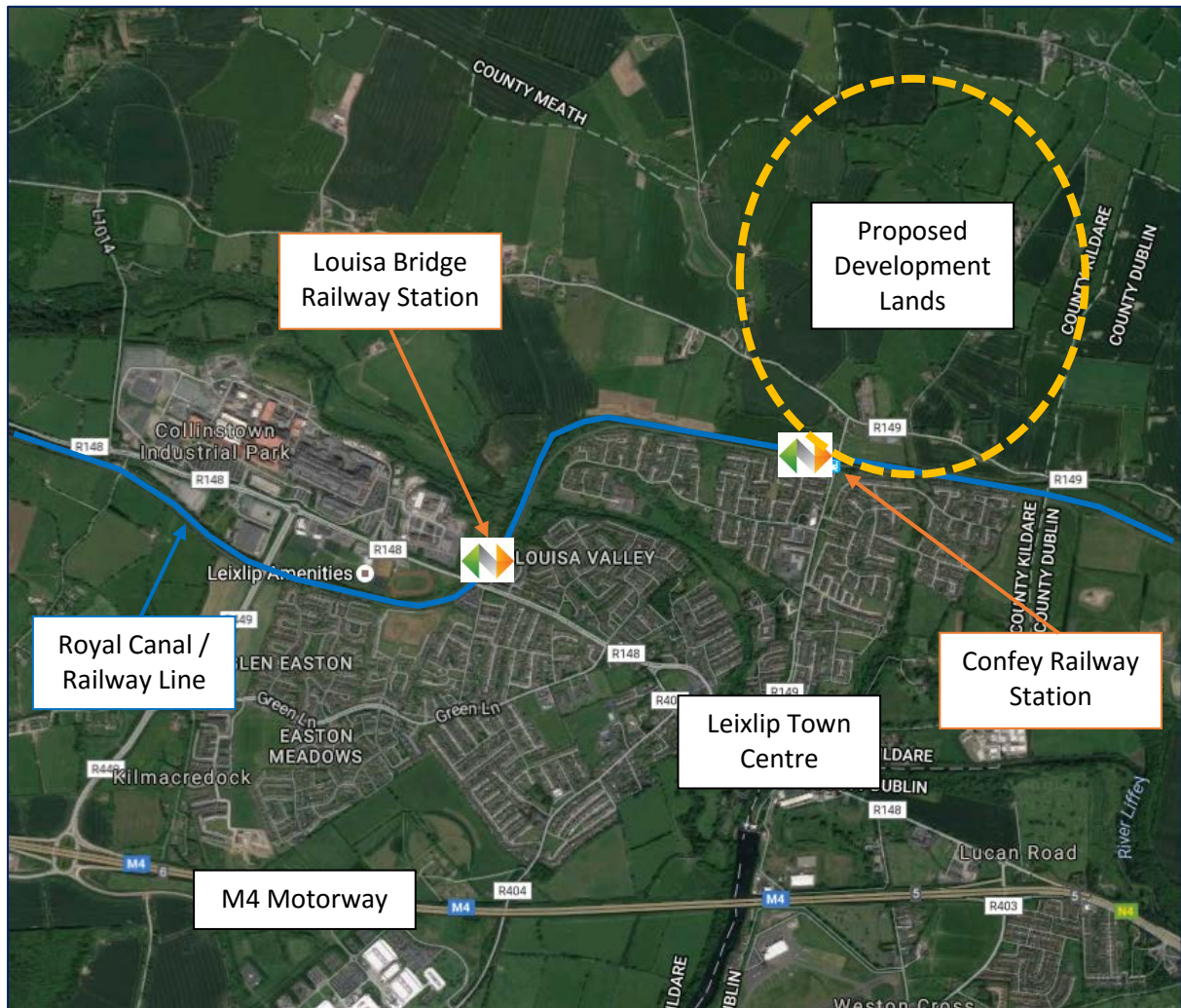
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1 INTRODUCTION

The purpose of this assessment is to determine the likely access requirements necessary to facilitate the proposed development of lands at Confey, Leixlip, Co. Kildare. The proposed development lands are located north of the Dublin – Sligo railway line and the Royal Canal, adjacent to Leixlip Confey railway station (Figure 1.1, below). The proposed development lands are approximately 1.1km from Leixlip Town Centre and 2.6km from the N4/M4 Dublin – Sligo Road.

Figure 1.1 – Proposed Development Lands and Surrounding Leixlip Area (Source: Google Maps)



2 TRIP GENERATION

In order to estimate the likely volume of trips that will be generated by the development of the Confey lands, the existing modal split of the areas of Leixlip adjacent to the proposed development lands was determined, using Census 2011 data. The modal split for car (drivers) was then applied to the proposed new population in the development lands in order to estimate the likely number of car trips that would be generated by the development lands.

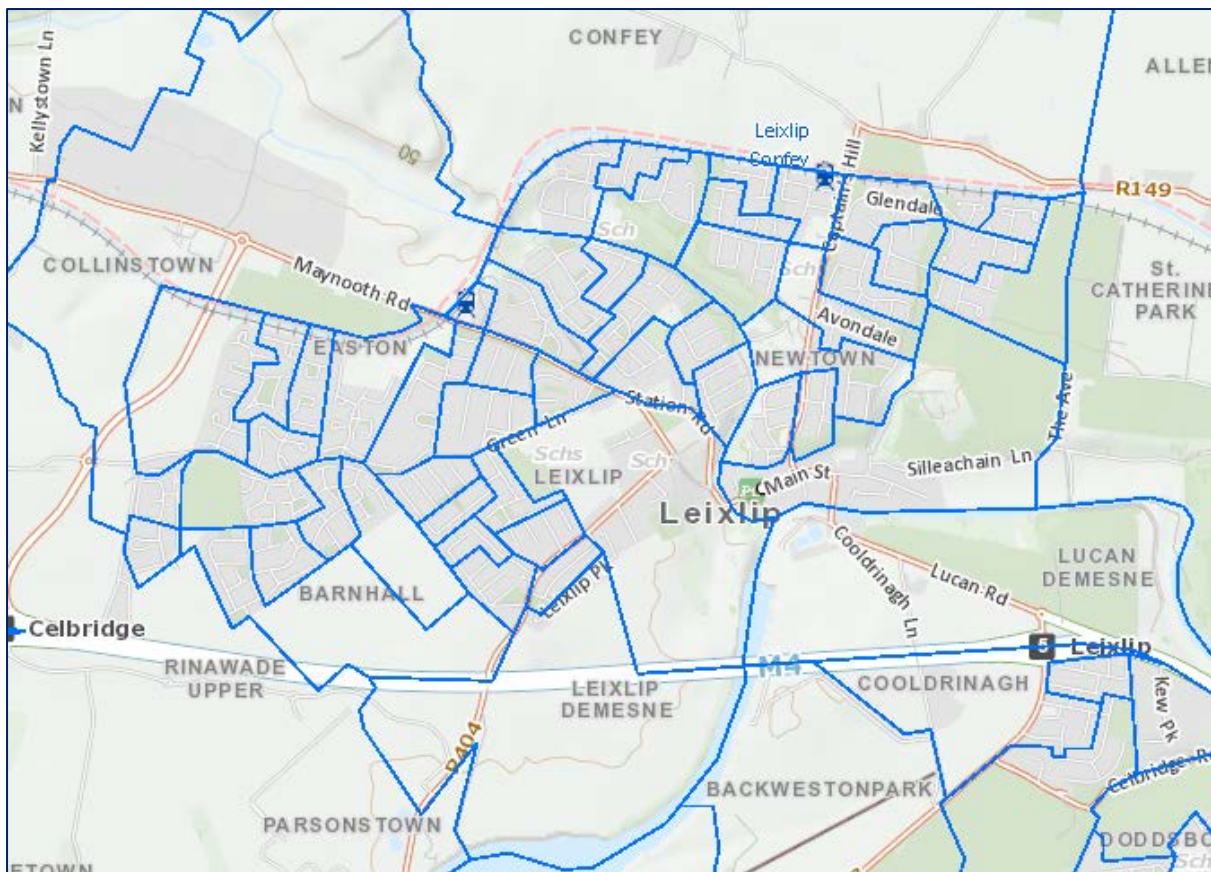
This process is described below.

2.1 CENSUS 2011 DATA USED

2.1.1 Small Area Population Statistics (SAPS)

Census 2011 data is available at a detailed 'Small Area' level within Leixlip, as illustrated in **Figure 2.1**, below.

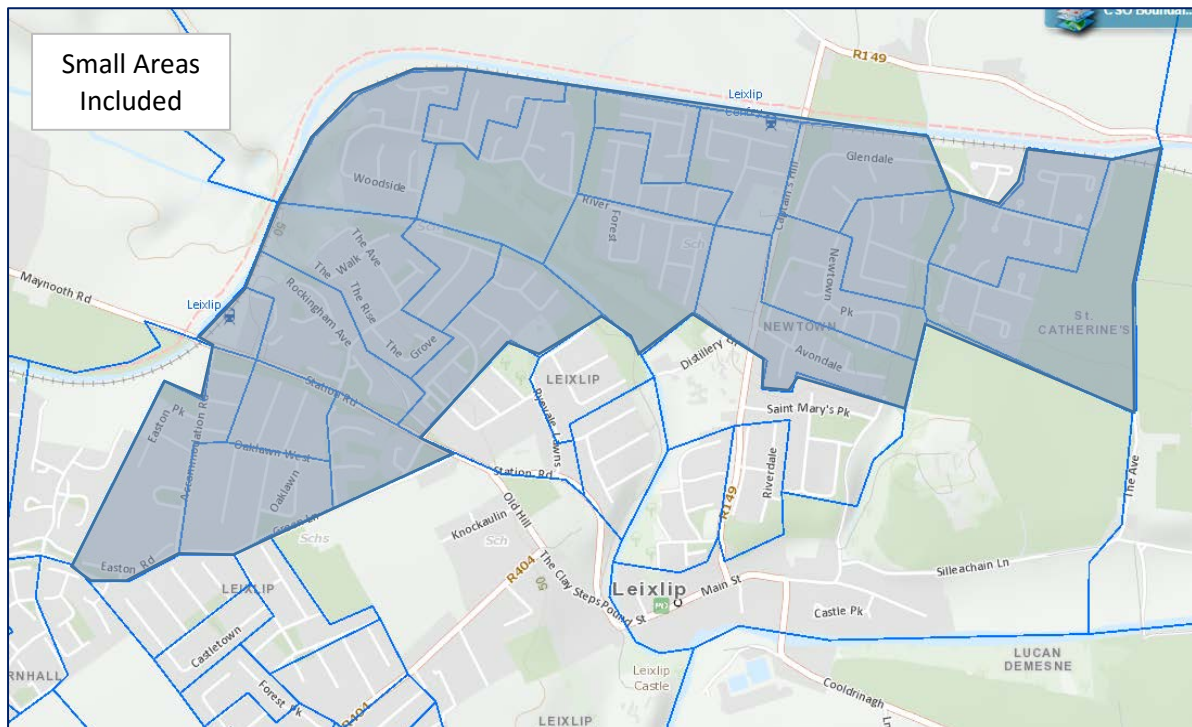
Figure 2.1 – CSO 'Small Areas' within Leixlip Town (Source: <http://census.cso.ie/sapmap>)



In order to determine the appropriate potential modal split for the development lands, modal split data was taken from the small areas in and around the proposed development lands at Confey, as well as the areas adjacent to Leixlip Louisa Bridge Train Station, as it was believed these areas would

have similar modal splits due to their similar proximity to a train station. The Small Areas used to determine the existing modal split are illustrated in **Figure 2.2**, below.

Figure 2.2 – Small Areas used to determine Existing Modal Split (Source: <http://census.cso.ie/sapmap>)



2.2 EXISTING MODAL SPLIT

While the proposed development will generate trips over the course of an entire day, the single-biggest concentration of trips generated will be during the morning peak period. As such, this will be the period that will provide the greatest demand on the internal and local road network

For each small area, the 'Population aged 5 years and over by means of travel to work, school or college' is detailed. Since most trips to work, school or college occur during the morning peak period, this information was used in order to calculate percentage modal split for each Small Area, as well as an overall aggregate modal split for all of the Small Areas combined. **Table 2.1**, below, details the overall modal split, while **Figure 2.3** illustrates the critical car / van driver modal split within each Small Area.

Table 2.1 – Overall Aggregate Modal Split for all Small Areas Combined

Mode	Number	Modal Split
Walking	966	20.2%
Bicycle	50	1.0%
Bus, Minibus or Coach	481	10.1%
Train, DART or Luas	588	12.3%
Motorcycle or Scooter	31	0.6%
Car / Van Driver	2071	43.4%
Car Passenger	413	8.7%
Other	92	1.9%
Not Stated	80	1.7%
Total	4772	100.0%

Table 2.1 indicates that the overall car / van driver modal split for the SAPS areas in the vicinity of the development lands is 43.4%. Figure 2.3 indicates that the car / van driver modal split in individual Small Areas ranges from 33.1% to 52.4%, although the majority are between 40% and 45%.

2.2.1 Modal Split Validation

In order to determine if the derived modal split was robust, it was checked against the Census 2011 modal split for the entire Leixlip town area, as well as against other towns in Kildare. **Table 2.2**, below, illustrates this comparison.

Table 2.2 – Modal Split Comparison

Mode	Modal Split						
	Study Area	Leixlip Town	Naas Town	Newbridge Town	Athy Town	Maynooth Town	Celbridge Town
Walking	20.2%	19.4%	17.9%	24.1%	19.5%	32.9%	12.7%
Bicycle	1.0%	1.4%	1.8%	2.3%	1.6%	2.3%	3.4%
Bus, Minibus or Coach	10.1%	9.9%	6.5%	5.2%	3.5%	5.6%	13.0%
Train, DART or Luas	12.3%	9.5%	2.9%	4.6%	3.2%	9.2%	3.1%
Motorcycle or Scooter	0.6%	0.5%	0.3%	0.3%	0.2%	0.5%	0.7%
Car / Van Driver	43.4%	43.9%	48.6%	42.7%	45.0%	36.4%	47.1%
Car Passenger	8.7%	8.7%	11.3%	18.4%	16.3%	21.5%	10.0%
Other	1.9%	1.9%	1.9%	1.9%	1.7%	1.7%	1.5%
Not Stated	1.7%	1.7%	2.0%	1.6%	2.8%	3.9%	1.6%

The information outlined in Table 2.2 indicates that the car / van modal split for the SAPS area included in the study is quite similar to the overall modal split for Leixlip town as a whole and in line with other Kildare towns. As such, it is considered to be a robust estimate of the likely modal split at for the development lands.

2.3 ESTIMATED TRIP GENERATION

2.3.1 Development Scenarios

For this Outline Transport Assessment a range of Development Scenarios are considered;

2.3.1.1 Scenario 1

In this scenario, it is estimated that approximately 3,600 residential units will be developed over a 10 to 15 year horizon at the proposed development lands at Confey, resulting in a new population of approximately 8,600. According to Census 2011 data¹, the population of the Leixlip Legal Town area is approximately 15,450, so the projected new population of the proposed development lands would equate to a significant increase in population of approximately 55%.

According to the Census 2011 data for Leixlip town there are 10,330 work/school/collage related trips. This equates to 67% of the total population of Leixlip.

Based on the overall modal split for the adjacent small areas, it is estimated that the proposed development lands will generate approximately 2,500 car / van trips (8,600 persons x 67% x 43.4% modal split) during the morning peak period. These trips would typically be generated over a morning peak from 07.00 to 10.00. Some trips are likely to be longer distance commuter type trips, which are likely to occur substantially before 08.00 and some are likely to be trips which would occur after 09.00. However, the majority of the morning peak trips will be between 08.00 and 09.00. For the purposes of this high level assessment, it is assumed that 80% of the morning trips out from the proposed development will be between 08.00 and 09.00, approx. 2,000 car/van trips for this scenario.

This level of trip generation is very high, benchmarked against the typical hourly capacity of an urban single carriageway road is of the order of 1,300 vehicles in one direction. Note this is a high level indicator of capacity. In urban areas, it is often the capacity of junctions which determines the actual capacity of a particular network.

2.3.1.2 Scenario 2

Another scenario to be considered is a reduced level of development at the proposed lands, of approximately 2,000 units. This would equate to a new population of approximately 4,800. Using the modal split as outlined above, this could generate approximately 1,400 car / van trips (4,800 persons x 67% x 43.4% modal split) during the morning peak period.

As per Scenario 1, it is assumed that 80% of these trips will occur between 08.00 and 09.00, giving a one-way peak hour traffic generation of 1,120 car/van trips.

2.3.1.3 Scenario 3

Scenario 3 is a limited development proposal which sets out a low growth proposal of approximately 200 units. This would equate to an estimated population of 480 persons. Utilising the methodology as per above, this population would generate approximately 140 morning trips.

¹ http://census.cso.ie/sapmap2011/Results.aspx?Geog_Type=ST&Geog_Code=06010

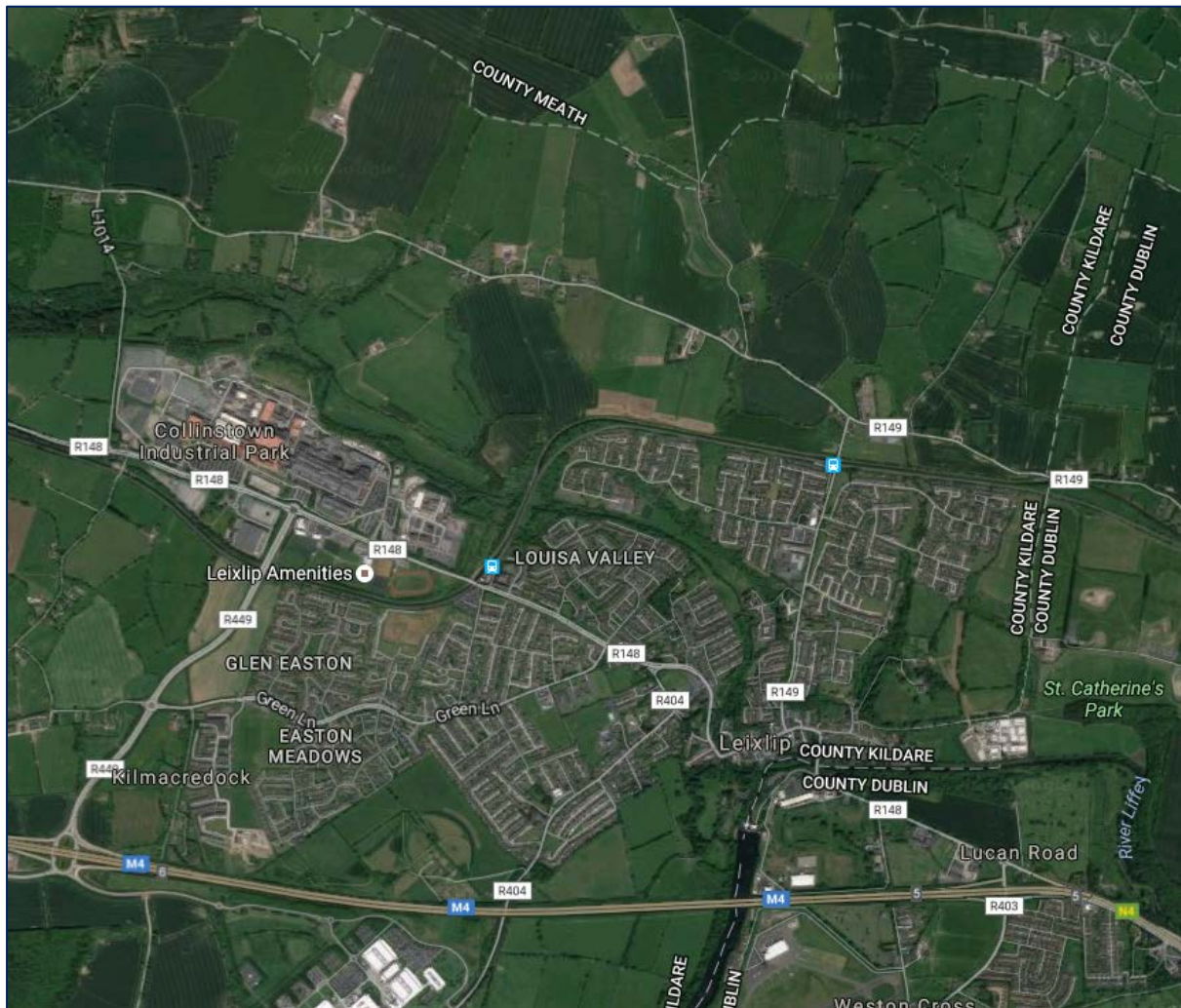
Again utilising the criteria that 80% of these trips would be generated between 08.00 and 09.00, this gives an additional 112 trips generated in the am peak hour.

3 OUTLINE OF EXISTING TRANSPORT ISSUES IN LEIXLIP

Leixlip is bounded by the Royal Canal and the Dublin-Sligo railway line to the north and west, the River Liffey to the south and east, and the River Rye Water which divides the town approximately east to west. These constraints serve to ‘funnel’ the vast majority of trips generated from the surrounding residential areas through Main Street, as the principal link to other parts of the town and further afield. With the exception of the R449 link to the M4 (servicing Intel), there is no other relief route to divert trips away from the town centre, particularly from the junction of Main Street and Captain’s Hill. The crossing of the River Liffey at Leixlip Bridge, and the Rye Water at Rye Bridge, are both close to the centre of the town.

The lands to the north of Leixlip are particularly constrained. A local route east to west is provided by the R149 and L1015 but neither of these routes link particularly well with the major routes in the locality. Thus the main route to/from the proposed development lands and the amenities in the town is via the restricted Cope bridge at Confey and the R149, Captain’s Hill.

Figure 3.1 – Outline of Road network – Leixlip and Environs



4 POTENTIAL OPTIONS FOR ACCESS TO NORTHERN LANDS

The purpose of this study is to review potential options to access the proposed development lands at Confey. It is not a Transport Impact Assessment. The study will identify existing constraints and will outline potential options which may be considered in support of development within the area of Confey. The feasibility of the proposed options will be reviewed and outline construction costs will be described.

Any future development proposal for the subject lands at Confey should be subject to a detailed Transport Impact Assessment to fully assess the impact on travel in the area.

A number of potential access options were identified and a high-level assessment of each option was carried out, as outlined in the following sections.

4.1 OPTION 1 – NO ADDITIONAL INFRASTRUCTURE

Option 1 entails the continued use of the existing bridge at Confey railway station (Cope Bridge) as the sole access to the development lands. The benefits / constraints of this option are summarised in **Table 4.1**, below.

Table 4.1 – Option 1 Benefits / Constraints

Benefits	Constraints
<ul style="list-style-type: none"> - No new physical bridge infrastructure required. - No impact on adjacent residential developments, landowners and green space. - Minimal costs associated. 	<ul style="list-style-type: none"> - There is limited capacity on the existing bridge, which currently operates a one-lane signalised shuttle system; - The bridge is unlikely to be able to adequately cater for any additional development traffic; - Development traffic would need to travel via Leixlip town centre

Figure 4.1 – Photos of existing Cope Bridge

South side of Cope Bridge



Crown of bridge



North side of Cope Bridge



Confey Station to west of bridge

4.1.1 Considerations

As described above, the existing Cope Bridge has limited capacity to cater for additional volumes of traffic that could be generated from additional development to the north.

The proposed lands at Confey are substantially land-locked from the rest of Leixlip town to the south, by the railway line and the Royal Canal. Currently the only access route from north to south is via Cope Bridge.

Without some level of intervention to improve the traffic arrangement at the bridge, this route is considered inadequate to cater for any level of development at the proposed Confey lands.

4.2 OPTION 2A – NEW PARALLEL BRIDGE (EAST OF EXISTING STRUCTURE)

Option 2A entails the provision of a new bridge, parallel and to the east of the existing Cope Bridge. Under the proposed arrangement, the new bridge would be one lane wide and would be one-way, north to south. Cope Bridge would be converted to one-way, south to north.

Option 2A is illustrated indicatively in **Figure 4.2** below. The benefits / constraints of this option are summarised in **Table 4.2**.

Figure 4.2 – Option 2A (Source: Google Maps)



Table 4.2 – Option 2A Benefits / Constraints

Benefits	Constraints
<ul style="list-style-type: none"> - Installing a single-lane bridge to work in tandem with the existing bridge would minimise the amount of new infrastructure required in order to provide access to the lands. 	<ul style="list-style-type: none"> - While there is space on the eastern side of the bridge, the area south of the canal is a green area in Glendale housing estate, while the area north of the canal is a GAA pitch. - Potential issues with land owners; - This option would still only provide one access to the proposed development lands from the south. As such, this option is unlikely to be able to adequately cater for significant additional development traffic; - Development traffic would need to travel via Leixlip town centre or use the R149 or L1015 as circuitous routes to/from the area. - This option would not support optimal pedestrian/cyclist facilities without sufficient width.

Figure 4.3 – View to the East of Cope Bridge



Eastern side of Cope Bridge, looking towards Glendale



Eastern side of Cope Bridge, looking towards GAA field

4.2.1 Considerations

This option would provide improved access via Cope Bridge with moderate cost implications, however the option would encroach on the local GAA grounds and Glendale estate green space.

Notwithstanding the above, it is recognised that Leixlip town centre itself, particularly along Captain’s Hill, experiences significant congestion at peak hours. Whilst the upgrading of Cope Bridge will improve the traffic arrangement crossing the canal and railway line, it will not solve the congestion problems further along the route. This option will still require all traffic relating to the development lands to utilise the town centre as its primary route from the site to the M4 and beyond. Alternative routes utilising the R149 and/or the L1014 are circuitous routes and would not in themselves have sufficient capacity to support significant development. Therefore, it is considered that such an option can only have limited benefit in isolation, and is likely to only cater for a minor level of development within the proposed lands.

A high level construction cost for this option is considered to be in the order of €2.5 to €3.5 million (inclusive of VAT). Note that costs relating to design/planning, lands etc, are not included in this.

4.3 OPTION 2B – NEW PARALLEL BRIDGE (WEST OF EXISTING STRUCTURE)

Option 2B entails the provision of a new bridge, parallel and to the west of the existing Cope Bridge. Under the proposed arrangement, the new bridge would be one lane wide and would be one-way, south to north. Cope Bridge would be converted to one-way, north to south.

Option 2B is illustrated, indicatively, in **Figure 4.4**. The benefits / constraints of this option are summarised in **Table 4.3**, below.

Table 4.3 – Option 2B Benefits / Constraints

Benefits	Constraints
<ul style="list-style-type: none"> - Installing a single-lane bridge to work in tandem with the existing bridge would minimise the amount of new infrastructure required in order to provide access to the LAP lands 	<ul style="list-style-type: none"> - The location of Confey train station, and associated access road, immediately west of the existing bridge makes this option unfeasible.

Figure 4.4 – Option 2B (Source: Google Maps)



4.3.1 Considerations

An option to include a parallel bridge to the west of the existing Cope Bridge would reduce the impact on the GAA grounds and green space to the east, however it is likely to be particularly constrained due to existing infrastructure within Confey train station. The adverse impact on the train station effectively renders this option unfeasible.

4.4 OPTION 2C – REPLACEMENT OF COPE BRIDGE (RAIL ELECTRIFICATION)

As part of plans to extend the DART to Maynooth, Irish Rail are currently considering the replacement of the existing Cope Bridge to allow for electrification of the line. In that regard, Option 2C considers this future scenario.

The replacement bridge would provide 2-way traffic along with pedestrian and cyclist facilities.

Option 2C is illustrated, indicatively, in **Figure 4.5**, below. The benefits / constraints of this option are summarised in **Table 4.4**.

Figure 4.5 – Option 2C (Source: Google Maps)

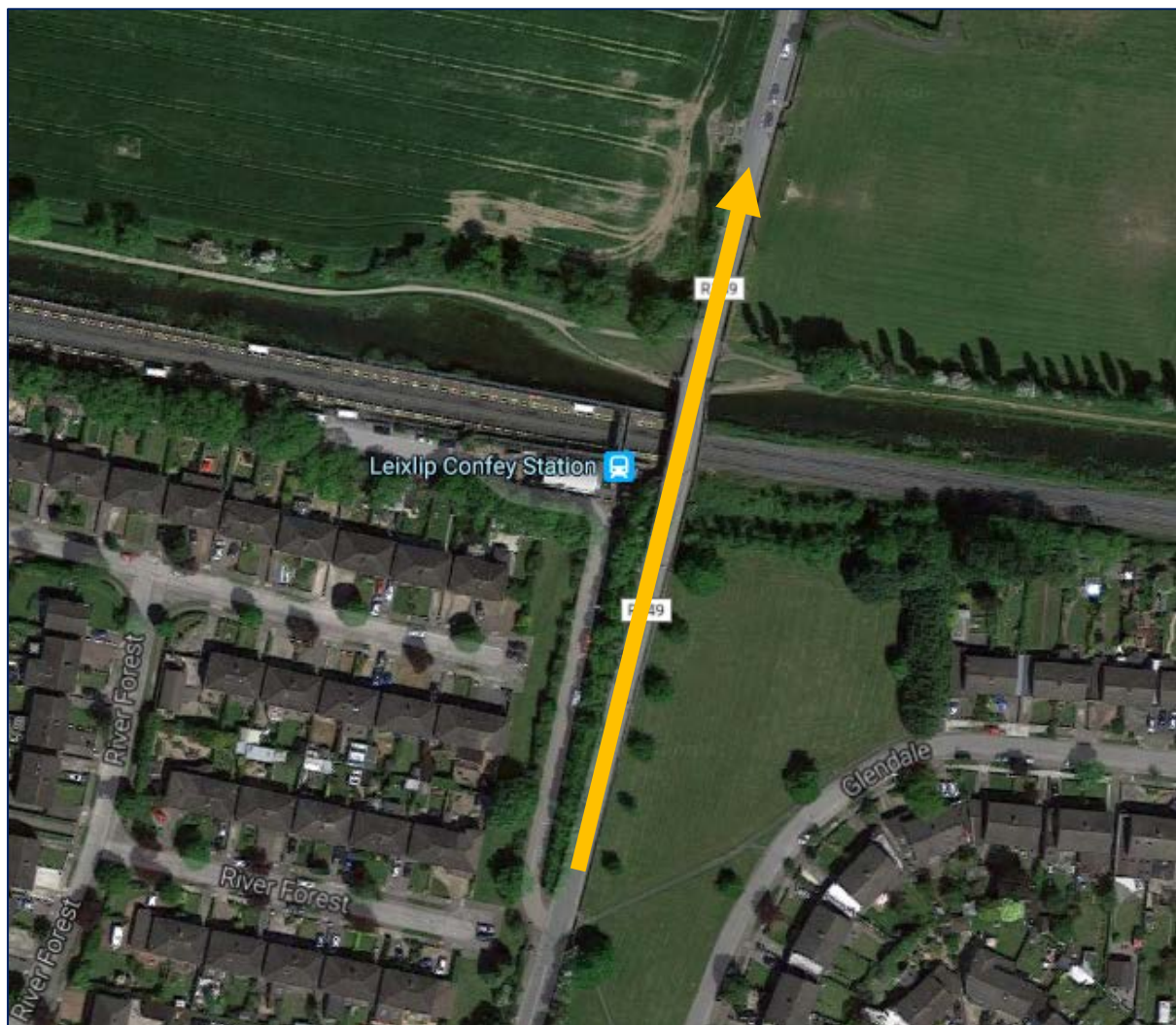


Table 4.4 – Option 2C Benefits / Constraints

Benefits	Constraints
<ul style="list-style-type: none"> - Replacement of the existing bridge would be the optimum solution of all 3no. bridge improvement options. - This option future proofs the area for future rail upgrades. - This option will improve access to the north and will provide improved pedestrian and cyclist facilities. 	<ul style="list-style-type: none"> - Potential issues with land owners; - This option would still only provide one access to the proposed Development lands from the south. As such, this option is unlikely to be able to adequately cater for significant additional development traffic; - Development traffic would need to travel via Leixlip town centre or use the R149 or L1015 as circuitous routes to/from the area.

4.4.1 Considerations

This option would be considered the optimal solution out of the three Cope Bridge options. It can be designed to meet Irish Rail's requirements and provide improved road access from north to south. The bridge can also be designed to provide optimal cyclist and pedestrian facilities.

However it still has limited capacity to provide for significant volumes of traffic that could potentially be generated from the proposed development lands as the constraints within the town centre will remain. This option is likely to affect adjacent lands including the GAA grounds and Glendale green space.

Indicative construction costs are likely to be in the order of €4 to €5 million (inclusive of VAT), with further costs to be considered for design/planning and land acquisition etc.

4.5 OPTION 3 – EASTERN ACCESS ROAD

Option 3 entails the development of a link road from the roundabout north of Junction 5 on the M4, to the east of Leixlip, crossing the River Liffey and tying in at the eastern edge of the proposed development lands. Option 3 is illustrated indicatively in **Figure 4.6** below. The benefits / constraints of this option are summarised in **Table 4.5**.

Figure 4.6 – Option 3 (Source: Google Maps)

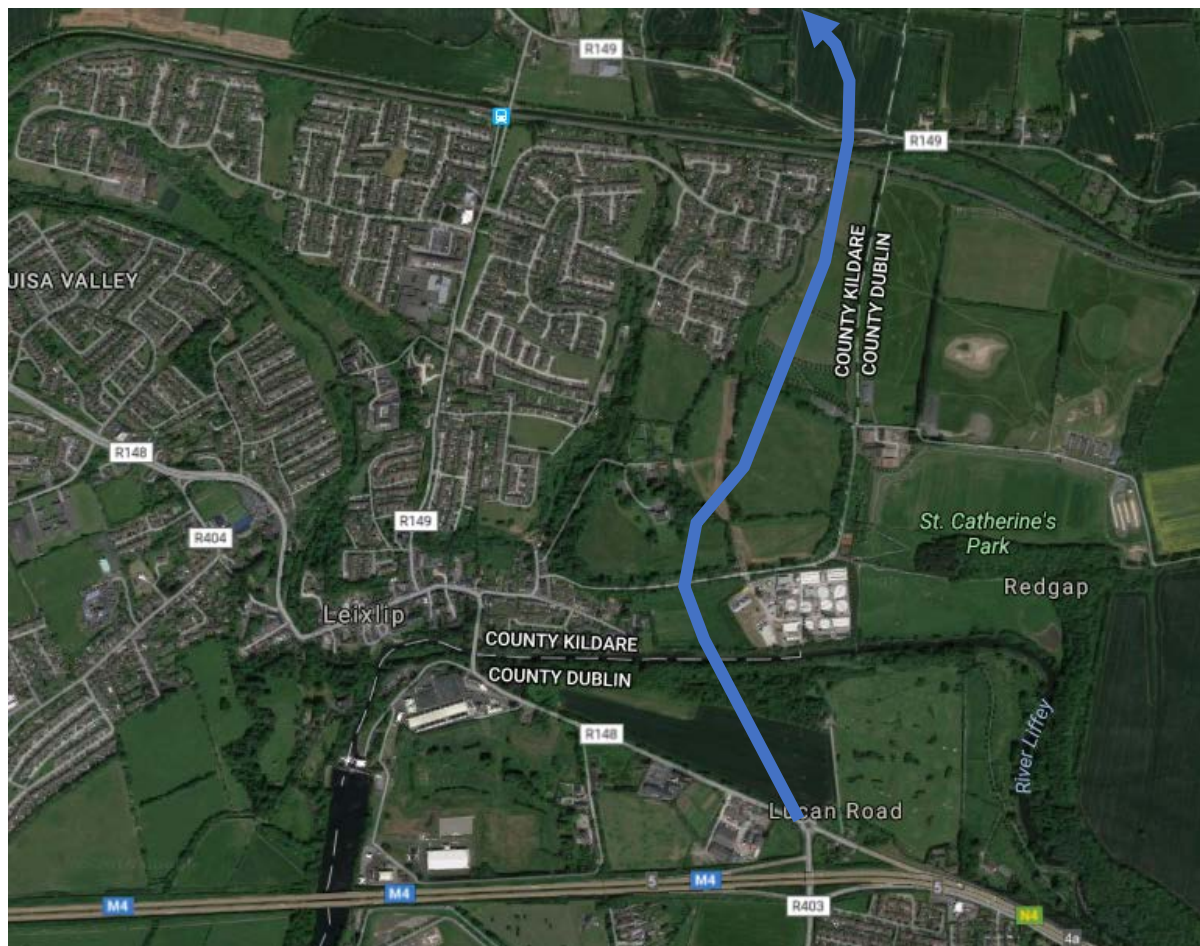


Table 4.5 – Option 3 Benefits / Constraints

Benefits	Constraints
<ul style="list-style-type: none"> - The link road would provide a second access route to the LAP lands; - The link road would effectively bypass Leixlip town centre, allowing travel from the Development lands to the N4 / M4, while minimising the impact of development traffic on town centre activities. - 	<ul style="list-style-type: none"> - A new bridge would be required for the link road to cross the River Liffey; - Likely environmental constraints involved with building near the River Liffey; - Development traffic to/from Leixlip town centre would still be required to use the existing bridge at Confey station, which has limited capacity; - The link road would run close to Leixlip Manor – possible archaeological / conservation constraints; - The route would run through / near to a number of community amenities such as St. Catherine’s Park, Liffey Valley Par 3 golf course and Confey football club.

Figure 4.7 – Photos from R148 roundabout and south side of St. Catherine’s Park



Roundabout on R148 at Junction 5



View of lands to the north of R148 roundabout, towards River Liffey



View of Wastewater Treatment Plant and River Liffey from Silleachain Lane



View from St. Catherine’s Chapel towards River Liffey and R148 roundabout



View from River Liffey pedestrian Bridge towards St. Catherine’s Chapel



Silleachain Lane, main vehicle and pedestrian access to St’ Catherine’s Park

4.5.1 Considerations

Strategically an eastern route as proposed can provide an additional crossing of the River Liffey, the Royal Canal and the railway line. This can open up vital access for both existing and future developments. It could also serve as a relief road for developments to the east of Leixlip Town.

A similar Road Proposal route is illustrated on the Fingal Development Plan, as a potential outer orbital route to the west of Blanchardstown.

The route itself is considered feasible from an engineering perspective, with a number of bridge crossings required at the River Liffey, and the railway line/canal. The topography of the Liffey valley may necessitate significant embankments on approaches.

There are a number of potentially significant environmental and archaeological/heritage constraints to consider with this option. The route would traverse the Liffey valley. It would run through or adjacent to St. Catherine's Park and heritage features and listed buildings therein.

A high level construction cost for this option is considered to be in the order of €12 to €15 million (inclusive of VAT). Note that costs relating to design/planning, lands, etc, are not included in this, and would be expected to be significant.

4.6 OPTION 4 – RIVER FOREST LINK

Option 4 entails the development of a link road through an existing green area in the River Forest estate. Option 4 is illustrated, indicatively, in **Figure 4.10**, below. The benefits / constraints of this option are summarised in **Table 4.6**.

Figure 4.10 – Option 4 (Source: Google Maps)

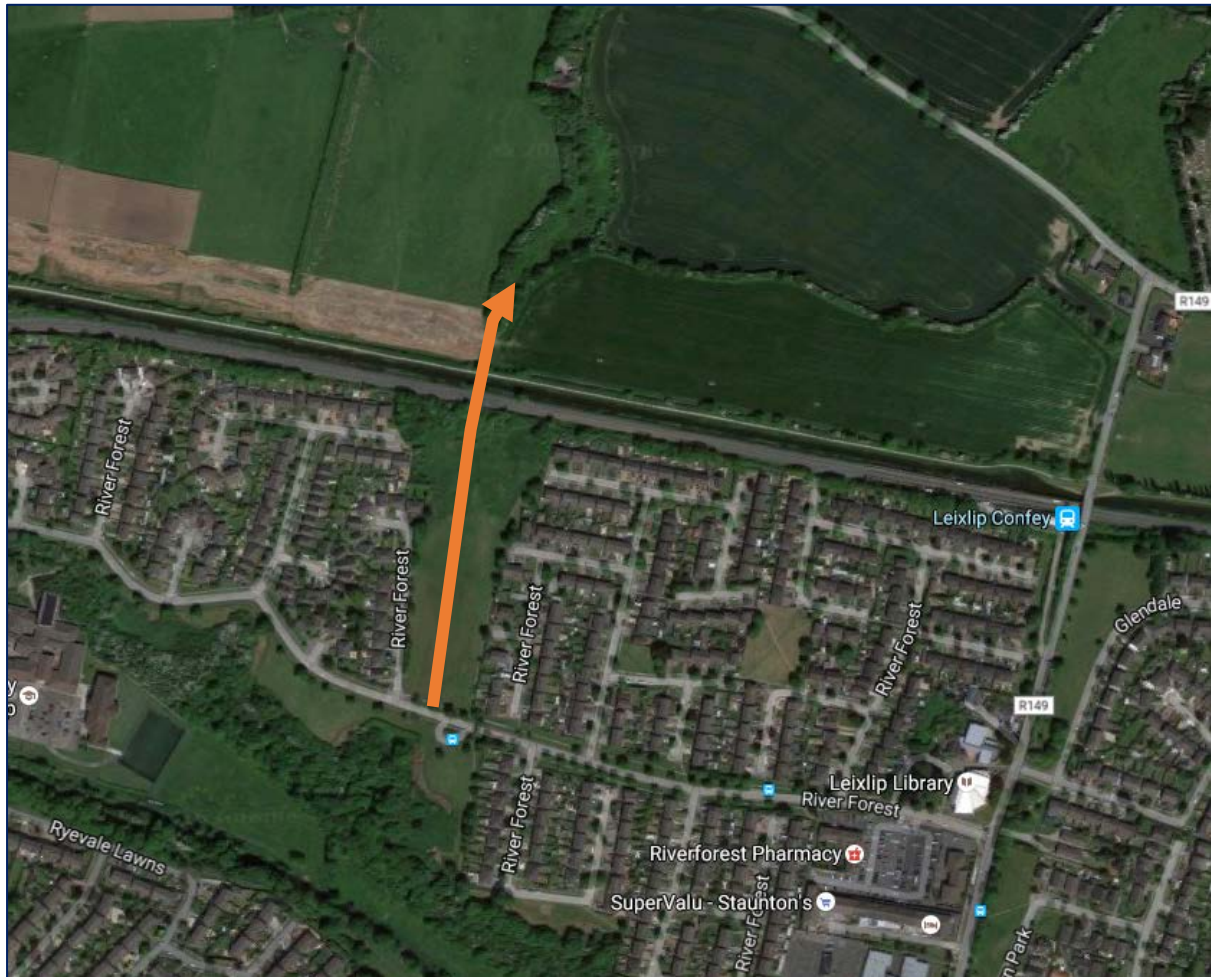


Table 4.6 – Option 4 Benefits / Constraints

Benefits	Constraints
<ul style="list-style-type: none"> - The link road would provide a second access route to the Development lands; 	<ul style="list-style-type: none"> - Development traffic would need to travel to/from the M4/N4 via Leixlip town centre; - The link road would tie-in to a housing area at the southern end; - The link road would run through a green amenity area within a housing estate; - This option would lead to increased traffic at the existing River Forest / R149 priority junction.

Figure 4.11 – Photos of River Forest Road

View of green area in River Forest estate



Dublin Bus turning bay adjacent to green area



Main road through River Forest



Junction of River Forest estate with R149 Captain's Hill

4.6.1 Considerations

This option can provide an additional crossing of the canal and railway line, which can alleviate pressure on Cope Bridge.

The route would link directly with River Forest road, which is an access route through a residential estate. In that regard, it is not considered adequate to cater for the potential volumes of traffic that would be created by development to the north. This road also serves Confey College, and is likely to see significant traffic at peak times.

This option will still require traffic to feed into Captain's Hill, and to use the town centre as the main access route.

This option offers little advantage in terms of traffic capacity. A pedestrian/cyclist link may be more appropriate at this location.

Indicative construction costs are likely to be in the order of €4.5 to €5.5 million (inclusive of VAT), with further costs to be considered for design/planning and land acquisition etc. these costs are likely to be less if a pedestrian/cyclist only option were to be provided at this location.

4.7 OPTION 5 – WESTERN LINK ROAD

Option 5 entails the development of a link road from the R148 west of Louisa Bridge Station (between the pedestrian access to the Royal Canal / Leixlip Spa and Intel) to the west of Leixlip, crossing the River Rye and tying in at the western edge of the LAP lands. Having regard to the proximity to the Rye Water SAC and Leixlip Spa, this option is not explored further at this time.

4.8 OPTION 6 – UPGRADED L1015 WESTERN ACCESS ROUTE

Option 6 does not entail a new road link to access the proposed development lands. Instead, it proposes to utilise the existing L1015 and R149 roads to the west of Leixlip / the development lands as a secondary access. In order to cater for the increased demand on these roads, the existing bridge over the Rye Water on the L1015, which is a single lane, operating on a stop-go basis, would need to be upgraded. Option 6 is illustrated, indicatively, in **Figure 4.14**, below. The benefits / constraints of this option are summarised in **Table 4.8**.

Figure 4.12 – Option 6 (Source: Google Maps)

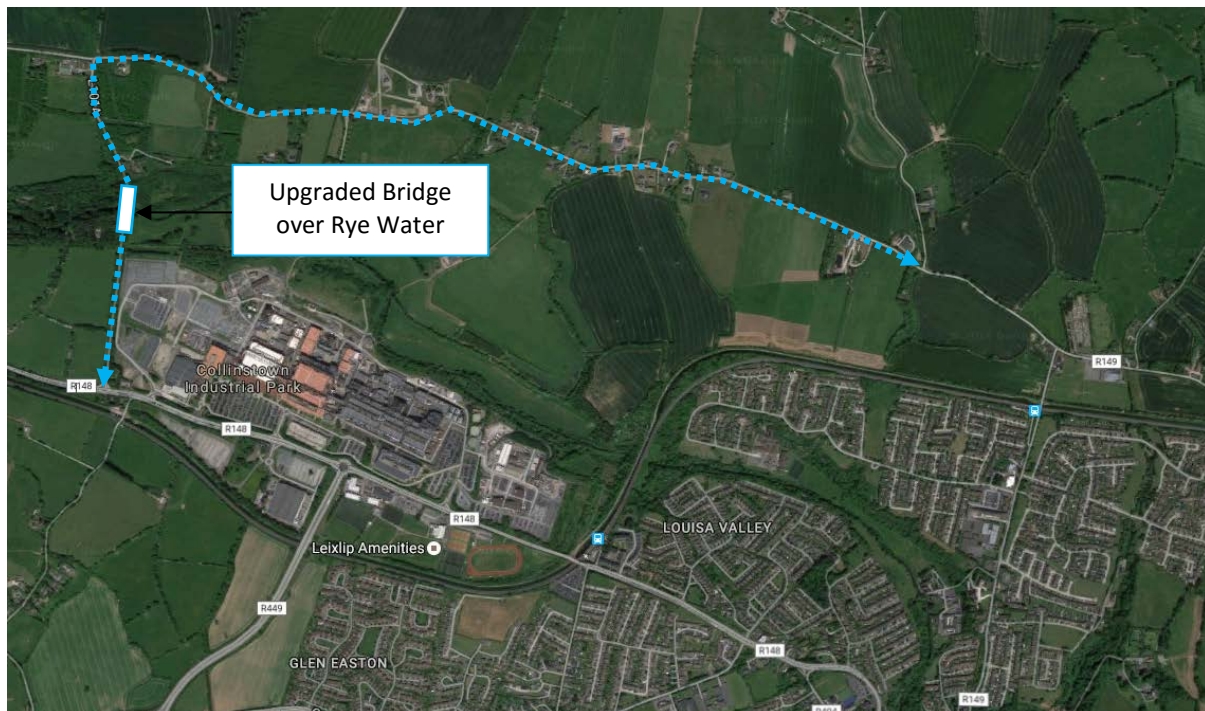


Table 4.7 – Option 6 Benefits / Constraints

Benefits	Constraints
<ul style="list-style-type: none"> - This option would improve a secondary access route to the Development lands; - No new crossing of the railway line / canal would be required, though a replacement of the existing bridge over the Rye Water would be required; - The link road would effectively bypass Leixlip town centre, allowing travel from the LAP lands to the M4, while mitigating the impact of LAP traffic on town centre activities. 	<ul style="list-style-type: none"> - Not the most direct route to/from the development lands - Development traffic to/from Leixlip town centre would still be required to use the bridge at Confey station. A longer route, however would be available via the upgraded roads and the R148; - A new bridge would be required to upgrade the crossing over the Rye Water; - Likely environmental constraints involved with building near the Rye Water and in proximity to Carton Demense;

Figure 4.13 – Existing route along L1015



Existing T-junction with R149 and L1015 at Confey (looking west)



Existing T-junction with R149 and L1015 at Confey (looking west)



View of restricted Sandford's Bridge - with 1-way Yield



Existing L1015 with tight bends and poor visibility

4.8.1 Considerations

The L1015 route currently acts as an unofficial bypass of Leixlip town as it provides access to the N4. However the road geometry has a sub-standard cross section and poor visibility along much of its length. In order for this route to be considered appropriate as a suitable access to the development lands, it would require significant upgrade and widening to cater for the likely traffic volumes involved. Given the number of dwellings etc which front out onto the existing road, it would likely be a significant task to develop such a route.

Indicative construction costs are likely to be in the order of €4 to €6 million (inclusive of VAT), with further costs to be considered for design/planning and land acquisition etc.

5 ASSESSMENT

The proposal to develop lands for residential development at Confey poses significant questions in relation to transport access. Three outline scenarios are considered;

Scenario 1 – 3,600 residential units – approx. 8,600 population increase – potential am peak hour traffic demand – 2,000 car/van trips out.

Scenario 2 – 2,000 residential units – approx. 4,800 population increase – potential am peak hour traffic demand – 1,120 car/van trips out.

Scenario 3 – 200 residential units – approx. 480 population increase – potential am peak hour traffic demand – 112 car/van trips out.

To support the development proposals a number of options to improve access were considered. Feasible options include;

- Option 2A – Extend the Confey Rail bridge on the east side
- Option 2C- Replace Confey Rail bridge with a structure with greater capacity as part of the Maynooth Line electrification project
- Option 3 – A proposed Eastern Access Road
- Option 4 – River Forest Link
- Option 6 – Upgraded L1015 western access route

Under Options 2A, 2C and 4, the principal route to/from the development lands is via Confey Rail bridge towards Leixlip town centre. The capacity of this route is limited and constrained by the capacity of the junction with the R148 in the town centre. There are limited alternative routes to/from the development via the L1015 and R149. These roads also have limited capacity and do not provide particularly good options to cater for additional traffic generated from the development lands. Option 4 offers no significant traffic benefit over Options 2A and 2C and is dropped from further consideration (though it may be a beneficial location for a pedestrian/cyclist only link).

Implementation of Option 2A or 2C will remove the particular bottleneck of the existing bridge over the railway/canal at Confey. The extent of development that could be supported by removal of this bottleneck would need to be subject to a more detailed traffic assessment to ascertain the effect on the town centre. Without mitigation, any additional peak hour traffic is likely to add to an already congested town centre. Subject to further more detailed traffic analysis, it may be possible for a very modest residential development of the order of 200 residential units to be supported by the improvement of the Confey Rail bridge by itself.

Any substantial residential development of the lands at Confey will require alternative access options over and above those existing. This is due principally to the limited capacity of Captain's Hill/Main Street in the town centre and also the limited capacity of the existing L1015 and R149 local east-west routes. Improvement of the L1015 and/or R149 would be welcome but this option, in itself would not bring significant benefit in terms of serving a major development within the lands in question.

To service a residential development as envisaged in Scenario 1 consideration should be given to providing both an eastern and western access route as outlined in Options 3 and 6 as well as an

improved Confey bridge as per Option 2. A peak hour demand of 2,000 cars/vans might require this level of access provision with improved western access to existing employment areas, schools on the south side of Leixlip and the M4, improvements to Confey Bridge to access schools, shops and other town centre employment/amenities, and an eastern access to the M4 towards Dublin.

To support a level of development envisaged in Scenario 2, it may be feasible to implement Options 2 and 3 to provide adequate access. Option 2 provides improved town centre access whilst Option 3 should also be considered as this route forms part of a strategic route already identified in the Fingal County Development Plan.

It is considered that only a modest development, such as Scenario 3 could be supported by Option 2 alone.

As stated previously, this transport assessment is at a high level and proposals should be subject to a more detailed traffic impact assessment before any final decision to include the proposed lands as residential development areas in the County Development Plan.

APPENDIX A

INDICATIVE ROUTE OPTIONS CONSTRAINTS MAP



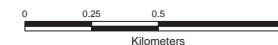
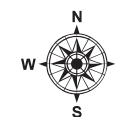
Kildare County Council
 Planning Department
 Áras Chill Dara,
 Devoy Park, Naas,
 Co Kildare

Leixlip Local Area Plan 2017-23
 Proposed Draft

Legend

- LAP Boundary
- Record of Protected Structures (RPS)
- Record of Monuments and Places (RMP)
- Proposed Natural Heritage Areas (pNHA)
- Special Areas of Conservation (SAC)
- Route Options:**
- Option 2A/B/C
- Option 3
- Option 4
- Option 5
- Option 6

Note: Record of Protected Structures (PRS) database is incomplete, 21/09/2016



**Outline Transport Assessment
 Route Options**

Scale: 1: 10,000 @ A1 Map Ref: X.X

Date: 21/09/2016 Drawing No.:
 MH16027arc1005D01

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This drawing is to be read in conjunction with the written statement

