

Appendix J. Multi Criteria Analysis (MCA) Tables

MCA for the Red Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 3 (Red)]
Environment	Air Quality and Climate (Refer also to Air Quality Appraisal Report, AWN, 2018)	The calculated Index of Overall Change in Exposure for this route has been determined: NOx Exposure Index: 28,085 PM10 Exposure Index: 724	Background levels of NO2 and PM10 in the region of the proposed scheme, based on EPA data from representative locations are predicted to be 6 µg/m3 for NO2 and 12 µg/m3 for PM10. The proposed route will improve air quality at receptors along the existing alignment as traffic is diverted away from these areas. Some minor increases in background pollutant concentrations are predicted at receptors along the proposed Red Route.	Overall Impact Level: 3
	Noise (Refer also to Noise Appraisal Report, AWN, 2018)	PIR: 127 /Noise Mitigation Requirement: 7	Based upon the assessment of properties within the various distance bands and the rating factors associated with each band, the calculated PIR for the Red Route Option is 127. This is the third highest PIR count compared to the other routes. This route option has the highest number of properties likely to require noise mitigation and has the greatest overall magnitude of change compared to the do minimum scenario. This route is ranked as least preferred	Overall Impact Level: 2
	Landscape and Visual (including light) (Refer also to Landscape & Visual Report, EBLA, 2019)		Landscape Impact The proposed route follows on or generally in close proximity and parallel to the existing N53 Road. Circa. 2.55km of carriageway will cross through greenfield land within this character area. Visibility of the route from within the surrounding landscape is limited by intervening topography and vegetation. There would be some disruption to local landform from cutting and filling required to fit this route into the landscape. There would be limited loss of rural tranquillity due to location of the route either online of the existing N53 Road or in close proximity to the existing N53 Road corridor. The route will bypass Annaghvacky leading to an improvement to the setting of Annaghvacky. There will be slight to moderate adverse effects on pasture/ arable farmland, hedgerows and trees to accommodate proposed carriageways, embankments and cuttings. There would be some loss of woodland at ch. 2400-2600 and at ch.1275. Overall Landscape Impact: Slight adverse (negative) effect Visual Impact Significance of effect No. of dwellings/ community buildings Very Large Beneficial 0 Large Beneficial 0 Moderate Beneficial 0 Slight Beneficial 2 Neutral 68 Slight Adverse 10 Moderate Adverse 13 Large Adverse 4 Very Large Adverse 0 Overall Visual Impact: Neutral to Slight Adverse	Overall Impact Level: 3
	Biodiversity – Flora and Fauna (Refer also to Ecology Appraisal Report, Atkins, 2018)	Intersects with: •Annaghvacky (Hackballscross) Wet Woodlands. •Annaghvacky Stream. •Hedgerows	Near certain significant impact on: •Annaghvacky (Hackballscross) Wet Woodlands. Ca. 8000m2 to be lost. •Ca. 2000m of hedgerow to be lost. Probable Significant negative impact on: •Annaghvacky Stream, route intersects with origin / source if stream in Annaghvacky (Hackballscross) Wet Woodland).	Overall Impact Level: 2
	Waste	Estimated Disposal (Class U1): 7,650cu.m Estimated Importation (earthwork fill and capping): 22,400cu.m	This Route is estimate to have a minor negative impact with regards to waste, as the importation of suitable engineering fill material will be required in large volumes, and the disposal of unsuitable material off-site. No quantities of Class U2 material are known of at this stage, however for cost purposes have been estimated at 10% of U1 volumes. Based on available information, the risk of encountering significant volumes of contaminated soil / waste materials beneath any of the route options is considered to be relatively low.	Overall Impact Level: 3
	Soils and Geology (Refer also to Soils & Geology Appraisal Report, Atkins, 2019)		This route has been ranked 1st of the preferred routes with respect to Soils and Geology with two minor negative impacts (loss of well drained, highly fertile soils over small proportion of the route and excavation of peat). It should be noted however due to unsafe ground conditions, access to carry out hand probes in the wet woodlands at the eastern end of the route was not possible during the site walkover and therefore there is no indication of depth of soft material present. A pond/body of water is noted in this area on the 25-inch Historical Map (1888-1913) along with anecdotal evidence from public consultation indicates there may be significant volumes of peat/poor ground may be present.	Overall Impact Level: 3

MCA for the Red Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 3 (Red)]
Environment	Hydrology (Refer also to Hydrology & Hydrogeology Appraisal Report, Atkins, 2019)		<p>The route will have moderate negative impact via temporary indirect impact to surface water quality (on small proportion of attribute) at Dundalk Bay SAC / SPA / pHNA.</p> <p>The route will have minor negative impacts via flood risk (pluvial sources) and associated permanent effects on the small proportion of attribute.</p> <p>The route will have an imperceptible impact via temporary direct impact on Annaghvacky Stream (on small proportion of attribute)</p>	<p>The results of the hydrology appraisal for this route option have determined that the route is ranked 3rd in terms of preference and has been identified as the Intermediate Route, based on the qualitative assessment undertaken.</p> <p>Overall Impact Level: 3</p>
	Hydrogeology (Refer also to Hydrology & Hydrogeology Appraisal Report, Atkins, 2019)		<p>The route will have a moderate negative impact via temporary impact to the surface water quality (small proportion of attribute) at Dundalk Bay SAC / SPA / pHNA via. Groundwater pathway.</p> <p>The route will have a minor negative impact via. permanent loss of large portion of groundwater dependant terrestrial ecosystem of Annaghvacky (Hackballscross).</p> <p>The route will have a minor negative impact via permanent impact to poor bedrock aquifer along the route (small portion of attribute).</p> <p>The route will have a minor negative impact via. potential permanent impacts to 46no. private well supplies and 5no. GSI wells (on significant portion of attribute).</p>	<p>The results of the hydrogeology appraisal for this route option have determined that the route is ranked 2nd in terms of preference and has been identified as an Preferred Route, based on the qualitative assessment undertaken</p> <p>Overall Impact Level: 3</p>
	Architectural Heritage (Refer also to Cultural Heritage and Archaeology Appraisal Report, Rubicon, 2019)		<p>Impacts on vernacular buildings (CH009; CH038) <i>Minor or Slightly Negative (3)</i></p> <p>Impacts on vernacular buildings (CH019) <i>Not significant or neutral (4)</i></p>	Overall Impact Level: 3
	Archaeological and Cultural Heritage (Refer also to Cultural Heritage and Archaeology Appraisal Report, Rubicon, 2019)		<p>Visual impact on ringfort (CH003)</p> <p>Impacts on AAP (CH058) and townland boundary (CH067) <i>Moderately Negative (2)</i></p> <p>Impacts on sites of vernacular buildings (CH010–011; CH036–037; CH039–043) <i>Minor or Slightly Negative (3)</i></p>	Overall Impact Level: 3
	Non- agricultural properties	<p><u>Comparable Impacts</u> Profound Negative Impact: 0 Significant Negative Impact: 3 Moderate Negative Impact: 3 Slightly Negative Impact: 3</p>	<p>A number of residential/commercial lands and properties (as shown in the Quantitative Assessment) are directly impacted by each Route Option, however it is noted that potential impacts to non-agricultural properties in some cases may be mitigated during Phase 3 of the scheme.</p> <p>Other non-agricultural properties (community, educational, etc) were deemed to be unaffected by all Route Options.</p>	Overall Impact Level: 3
	Agriculture (Refer also to Agricultural Appraisal Report, Philip Farelly, 2019)	<p>Impact on 22 agricultural parcels , The route is 3km long, Severance is classified as 8 Not significant, 5 Minor, 7 Moderate, 2 Major, Overall impacts are classified as 5 very low Impact,8 low impact,9 medium impact, No high impacts</p>	<p>There are no high impacts on agricultural holdings on this route. The medium impacts are as result of landtake and severance. No farm buildings are impacted by this route option</p>	<p>Overall Impact Level: Score = 2</p>
	Environment Sub-Total Score			
Safety	Collision Reduction	<p>COBA-LT Safety Analysis Benefits = € 3.12 M</p>	<p>The COBA-LT Safety Analysis indicated benefits as shown associated with this route - this route attained marginally higher benefits in monetary terms compared to the other Options; however all are deemed similar in this regard due to the minor differences in benefits.</p> <p>The routes were assessed in terms of compliance with Technical Standards (i.e. geometric alignment) and overtaking provision. All routes performed similarly in this regard.</p> <p>The route ranked 5th (lowest) in the Stage F (Part 1) Road Safety Audit, carried out in compliance with the requirements of TII's GE-STY-01024.</p>	Overall Impact Level: 5
	Security of Road Users		<p>The proposed Route will result in the majority of the existing section of National Road being reclassified as a Regional/Local Road, with a greatly reduced volume of traffic. This will improve the opportunities for non-motorised road users wishing to utilise this road, particularly in and around the settlement of Annaghvacky which the existing N53 currently passes through, where it can be expected that only local traffic will travel through.</p> <p>Additionally the proposed Route will incorporate hardshoulders which will facilitate cyclists and emergency stops by vehicles - a significant improvement on the existing scenario where the provision of hardshoulders is non-existent.</p> <p>As such the Route is given a positive ranking for this sub-criterion.</p>	Overall Impact Level: 6
	Safety Sub-Total Score			

MCA for the Red Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 3 (Red)]
Economic	Efficiency and Effectiveness	Opening Year (2023) PVB = € 8.04 M PVC = € 9.66 M Residual Benefits (30yrs) = € 4.49 M BCR = 1.30	The scheme results in the improvement of journey times along the length of that section of the N53 under consideration, with average speeds increasing from 77kph (existing) to 100kph (forecast), which will have a positive impact on transport providers, hauliers and road users in general (with journey time benefits of € 9.73 M).	This Route ranked 5th in terms of PVB and 5th in terms of BCR, when compared to the other Route Options and it therefore has been considered Least Preferred in this regard. Overall Impact Level: 4
	Wider Economic Impacts	-	The proposed Route provides a realigned version of the existing National Secondary road in a majority rural area, and thus does not result in a marked change in the Wider Economy; in terms of changes in competition in the market, agglomeration, inward investment, labour supply or urban regeneration. Notwithstanding this there are potential productivity benefits to be derived from the journey time savings as outlined above, and as such the Route is given a slightly positive ranking.	Overall Impact Level: 5
	Transport Quality and Reliability	Reduction in average travel journey times saving in the order of 23.9 seconds (a 16% reduction).	The bulk of the benefits, as expected, are experienced by motorised road users where journey times will reduce from 152 seconds (existing, averaging WB and EB) to 128 seconds (forecast, averaging WB and EB). This will benefit users of private, commercial and public transport motor vehicles particularly in terms of journey time reliability. The proposed Route will bring much improvement to the quality of transportation for strategic traffic and local road users, through the replacement of the existing National Road with one which will have an alignment, road surface and safety features compliant with current standards.	This Route ranked last in terms of journey time saving, when compared to the other Route Options. Overall Impact Level: 5
	Funding Impacts	-	All route options are considered similar in terms of funding impacts and are therefore considered to be neutral.	Overall Impact Level: 4
	Economy Sub-Total Score			
Physical Activity	Ambience	-	The possibility for an increase in physical activity will be improved as the proposed Route incorporates hard shoulders along the scheme's length, and promote the use of the existing N53 as a result of reduced traffic volumes along its length. With these will come an improved user experience with a better quality of journey and a safer alternative to that currently available along the existing N53, particularly in settlements within which the N53 currently passes through, including Annaghvackey. This Route will pass within a close distance of the local school, and although the Route will generally bring positive impacts in terms of Ambience, the impact on the ambience adjacent to the school may offset other positives.	Overall Impact Level: 4
	Absenteeism	-	Due to the nature of the scheme, all route options are considered similar in terms of Absenteeism impacts and are considered to be not significant.	Overall Impact Level: 4
	Reduced Health Risk	-	The health benefits associated with the proposed Route will be generated as follows: • Increased levels of physical exercise as the general public utilise the improvements in pedestrian and cyclist facilities associated with the new scheme through the inclusion of a hard shoulder; • Improvements in the general ambience of the settlement environments through which the existing N53 currently passes through, arising as a direct result of reduced through-traffic and the usage of the proposed improvements, currently non-existent on the existing N53. Especially through-traffic passing by the local shop.	Overall Impact Level: 5
	Physical Activity Sub-Total Score			
Accessibility & Social Inclusion	Deprived Geographical Areas	-	Accessibility and Social Inclusion is measured in terms of Deprived Geographical Areas and Vulnerable Areas and therefore the most recent information on The Pobal HP Deprivation Index 2016 was referenced. The results show all the townlands within the study area as marginally below average. Accessibility will be improved by the proposed scheme for businesses and residences within the towns served by the N53, as a result of improved journey times, as it facilitates traffic from Dundalk to the east and Crossmaglen and Castleblayney to the west.	Overall Impact Level: 5
	Vulnerable Groups	-	Accessibility to key centres of employment, education, healthcare and social facilities will be improved by the proposed scheme for those communities within the Study Area, through improved road safety and journey times (for private/commercial vehicles and public transport users) and safety and accessibility improvements for non-motorised users, who will benefit from reduced traffic through Annaghvackey. This Route will pass within a close distance of the local school - with the Route located between the school and Annaghvackey, and although the Route will generally bring positive impacts in terms of Vulnerable Groups, the impact on those using the school may offset other positives.	Overall Impact Level: 3
	Accessibility & Social Inclusion Sub-Total Score			

MCA for the Red Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 3 (Red)]
Integration	Transport Integration	-	<p>The N53 provides a link between the northeastern and north-midlands regions and to the M1 and N2. This proposed scheme will improve this strategic link for traffic commuting from regions such as Dundalk, Castleblayney and Carrickmacross. This improvement of connectivity to the National Network will aid road safety and journey times through the study area.</p> <p>The proposed Route will improve connectivity between existing transport modes, noting Irish Rail services in Dundalk.</p> <p>Sustainable transport modes (i.e. cycling and walking) will be improved by the proposed routes through the provision of hard shoulders on the new carriageway and the reduction of traffic on the existing N53, particularly in Annaghvacky where through-traffic will be significantly reduced.</p>	Overall Impact Level: 5
	Land Use Integration	-	<p>The improvement of the N53 aligns with the Policies laid out in the National Development Plan, Building on Recovery: Infrastructure and Capital Investment and the Louth County Development Plan (7.3.10 - Policy TC 20). The N53 has been identified as a "Priority 2" scheme within the National Secondary Road Needs Study. Therefore a positive rating is given in considering compatibility with local development planning frameworks.</p> <p>The N53 has been highlighted as being Strategic Link in the Border Regional Authority Planning Guidelines (5.2.2.2), and the proposed Route will improve journey times and safety for long distance trips along the overall route.</p> <p>The proposed Route provides a strategic corridor through predominantly rural areas, with relatively short links to existing local roads, and thus the risk of urban sprawl as a result of the scheme is considered to rank as "Neutral" at this time.</p>	Overall Impact Level: 5
	Geographical Integration	-	<p>The N53 provides a link between the Northwest and Northeast, and is an important source of cross-border movements. This scheme will improve north-south transport links, as well as links between local urban centres and peripheral/adjacent regions. Reduced journey times as a result of the proposed Route will therefore improve RoI-NI transport links, as well as links between local urban centres and peripheral/adjacent regions. As such the Route achieves a positive rating in this regard.</p>	Overall Impact Level: 5
	Other Government Policy Integration	-	As covered above by Deprived Geographical Areas, Land Use Integration and Geographical Integration.	Overall Impact Level: 5
	Integration Sub-Total Score			
Total Score				103 (Average: 3.96)

MCA for the Green Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 2 (Green)]
Environment	Air Quality and Climate (Refer also to Air Quality Appraisal Report, AWN, 2018)	The calculated Index of Overall Change in Exposure for this route has been determined: NOx Exposure Index: 31,528 PM10 Exposure Index: 804	Background levels of NO2 and PM10 in the region of the proposed scheme, based on EPA data from representative locations are predicted to be 6 µg/m3 for NO2 and 12 µg/m3 for PM10. The proposed route will improve air quality at receptors along the existing alignment as traffic is diverted away from these areas. Some minor increases in background pollutant concentrations are predicted at receptors along the proposed Green Route.	Overall Impact Level: 3
	Noise (Refer also to Noise Appraisal Report, AWN, 2018)	PIR: 119 / Noise Mitigation Requirement: 3	Based upon the assessment of properties within the various distance bands and the rating factors associated with each band, the calculated PIR for the Green Route Option is 119. This is the second lowest PIR count compared to the other routes. All of the residential properties within the 50m band are those located along the existing N53 Road with the exception of 1 where the alignment veers south of Annaghvacky. Mitigation is likely required at a small number of properties in the vicinity of Shanmullagh and Roachdale. The overall impacts of this route is comparable to the purple, blue and brown route options. The impact raking is determined to be minor/slight negative. This route option is ranked as intermediate	Overall Impact Level: 3
	Landscape and Visual (including light) (Refer also to Landscape & Visual Report, EBLA, 2018)		Landscape Impact The proposed route follows on or generally in close proximity and parallel to the existing N53 Road. Circa. 2.4km of carriageway will cross through greenfield land within this character area. Visibility of the route from within the surrounding landscape is limited by intervening topography and vegetation, however there would be some views of the road sited on embankment south of Annaghvacky. There would be some disruption to local landform from cutting and filling required to fit this route into the landscape in particular from large cuttings of two small picturesque hills including a hill with a prominent tree group on top (ch. 2150). There would be limited loss of rural tranquility due to location of the route either online of the existing N53 Road or in close proximity to the existing N53 Road corridor. The route will bypass Annaghvacky leading to an improvement to the setting of Annaghvacky. There will be slight to moderate adverse effects on pasture/ arable farmland, hedgerows and trees to accommodate proposed carriageways, embankments and cuttings. There would be some loss of bog at ch.450-800. Overall Landscape Impact: Moderate adverse (negative) effect Visual Impact Significance of effect No. of dwellings/ community buildings Very Large Beneficial 0 Large Beneficial 0 Moderate Beneficial 0 Slight Beneficial 6 Neutral 64 Slight Adverse 10 Moderate Adverse 15 Large Adverse 2 Very Large Adverse 0 Overall Visual Impact: Neutral to Slight Adverse	Overall Impact Level: 2
	Biodiversity – Flora and Fauna (Refer also to Ecology Appraisal Report, Atkins, 2018)	Intersects with: •Annaghvacky West Wetlands. •Clonaleenaghan Wetland. •Hedgerows	Near certain significant impact on: Annaghvacky West Wetlands. Ca. 7000m ² to be lost. Clonleeanaghan Wetland, corner of wetland site to be lost. Ca. 1800m of hedgerow to be lost.	Overall Impact Level: 1
	Waste	Estimated Disposal (Class U1): 8,300cu.m Estimated Importation (earthwork fill and capping): 21,680cu.m	This Route is estimate to have a minor negative impact with regards to waste, as the importation of suitable engineering fill material will be required in large volumes, and the disposal of unsuitable material off-site. No quantities of Class U2 material are known of at this stage, however for cost purposes have been estimated at 10% of U1 volumes. Based on available information, the risk of encountering significant volumes of contaminated soil / waste materials beneath any of the route options is considered to be relatively low.	Overall Impact Level: 3

MCA for the Green Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 2 (Green)]
Environment	Soils and Geology (Refer also to Soils & Geology, Hydrology & Hydrogeology Appraisal Report, Atkins, 2018)		This route has been ranked 3rd of the preferred routes with respect to Soils and Geology. It has three minor negative impacts each (loss of well drained, highly fertile soils over small proportion of the route, excavation of peat and alluvium and infill of inert clay waste arisings) which are comparable to the remaining 4 no. routes and therefore was ranked based on a review of the estimated percentage of poor soils present under the route.	Overall Impact Level: 3
	Hydrology (Refer also to Hydrology & Hydrogeology Appraisal Report, Atkins, 2019)		The route will have moderate negative impact via temporary indirect impact to surface water quality (on small proportion of attribute) at Dundalk Bay SAC / SPA / pHNA. The route will have minor negative impacts via flood risk (pluvial sources) and associated permanent effects on the small proportion of attribute.	The results of the hydrology appraisal for this route option have determined that the route is ranked 1st in terms of preference and has been identified as the Preferred Route, based on the qualitative assessment undertaken. Overall Impact Level: 3
	Hydrogeology (Refer also to Hydrology & Hydrogeology Appraisal Report, Atkins, 2019)		The route will have a moderate negative impact via temporary impact to the surface water quality (small proportion of attribute) at Dundalk Bay SAC / SPA / pHNA via. Groundwater pathway. The route will have a moderate negative impact via. permanent loss of large portion of groundwater dependant terrestrial ecosystem at Annaghvacky West. The route will have a minor negative impact via. permanent loss of a small portion of groundwater dependant terrestrial ecosystem at Clonaleenaghan The route will have a minor negative impact via. permanent impact on groundwater flow to wetland and wet woodlands. The route will have a minor negative impact via permanent impact to poor bedrock aquifer along the route (small portion of attribute). The route will have a minor negative impact via. potential permanent impacts to 60no. private well supplies and 7no. GSI wells (on significant portion of attribute).	The results of the hydrology appraisal for this route option have determined that the route is ranked 4th in terms of preference and has been identified as the Least Preferred Route, based on the qualitative assessment undertaken. Overall Impact Level: 2
	Architectural Heritage (Refer also to Cultural Heritage and Archaeology Appraisal Report, Rubicon, 2019)		Impacts on vernacular buildings (CH009; CH013; CH038; CH045) <i>Minor or Slightly Negative (3)</i> Impacts on vernacular buildings (CH034) <i>Not significant or neutral (4)</i>	Overall Impact Level: 3
	Archaeological and Cultural Heritage (Refer also to Cultural Heritage and Archaeology Appraisal Report, Rubicon, 2019)		Impacts on AAPs (CH058; CH073-074) and townland boundary (CH068) <i>Moderately Negative (2)</i> Impacts on sites of vernacular buildings (CH010-011; CH014-015; CH035-037; CH039-041) Impacts on AAPs (CH055-057) <i>Minor or Slightly Negative (3)</i>	Overall Impact Level: 2
	Non- agricultural properties	<u>Comparable Impacts</u> Profound Negative Impact: 1 Significant Negative Impact: 5 Moderate Negative Impact: 1 Slightly Negative Impact: 4	A number of residential/commercial lands and properties (as shown in the Quantitative Assessment) are directly impacted by each Route Option, however it is noted that potential impacts to non-agricultural properties in some cases may be mitigated during Phase 3 of the scheme. Other non-agricultural properties (community, educational, etc) were deemed to be unaffected by all Route Options.	Overall Impact Level: 2
	Agriculture (Refer also to Agricultural Appraisal Report, Philip Farelly, 2019)	Impact on 17 agricultural parcels, The route is 2.9km long, Severance is classified as 7 Not Significant,3 Minor, 5 Moderate, and 2 Major, Overall Impacts are classified as 3 very low,6 low, 7 medium, and 1 high impact	The high impact is a result of land take and severance. The high impact is on an intensive mixed livestock and tillage farm with horses present. The route alignment runs in close proximity to the stables.	Overall Impact Level: Score = 2
	Environment Sub-Total Score			
Safety	Collision Reduction	COBA-LT Safety Analysis Benefits = € 2.96 M	The COBA-LT Safety Analysis indicated benefits as shown associated with this route - all are deemed similar in this regard due to the minor differences in benefits. The routes were assessed in terms of compliance with Technical Standards (i.e. geometric alignment) and overtaking provision . All routes performed similarly in this regard. The route ranked 3rd in the Stage F (Part 1) Road Safety Audit, carried out in compliance with the requirements of TII's GE-STY-01024.	Overall Impact Level: 6

MCA for the Green Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 2 (Green)]
Safety	Security of Road Users		<p>The proposed Route will result in the majority of the existing section of National Road being reclassified as a Regional/Local Road, with a greatly reduced volume of traffic. This will improve the opportunities for non-motorised road users wishing to utilise this road, particularly in and around the settlement of Annaghvackey which the existing N53 currently passes through, where it can be expected that only local traffic will travel through.</p> <p>Additionally the proposed Route will incorporate hardshoulders which will facilitate cyclists and emergency stops by vehicles - a significant improvement on the existing scenario where the provision of hardshoulders is non-existent.</p> <p>As such the Route is given a positive ranking for this sub-criterion.</p>	Overall Impact Level: 6
	Safety Sub-Total Score			12 (Average: 6)
Economic	Efficiency and Effectiveness	Opening Year (2023) PVB = € 9.50 M PVC = € 10.24 M Residual Benefits (30yrs) = € 5.11 M BCR = 1.43	The scheme results in the improvement of journey times along the length of that section of the N53 under consideration, with average speeds increasing from 77kph (existing) to 100kph (forecast), which will have a positive impact on transport providers, hauliers and road users in general (with journey time benefits of € 10.72 M).	This Route ranked 3rd in terms of PVB and 3rd in terms of BCR, when compared to the other Route Options and it therefore has been considered Preferred in this regard. Overall Impact Level: 6
	Wider Economic Impacts	-	The proposed Route provides a realigned version of the existing National Secondary road in a majority rural area, and thus does not result in a marked change in the Wider Economy; in terms of changes in competition in the market, agglomeration, inward investment, labour supply or urban regeneration. Notwithstanding this there are potential productivity benefits to be derived from the journey time savings as outlined above, and as such the Route is given a slightly positive ranking.	Overall Impact Level: 5
	Transport Quality and Reliability	Reduction in average travel journey times saving in the order of 28.2 seconds (a 19% reduction).	The bulk of the benefits, as expected, are experienced by motorised road users where journey times will reduce from 152 seconds (existing, averaging WB and EB) to 123 seconds (forecast, averaging WB and EB). This will benefit users of private, commercial and public transport motor vehicles particularly in terms of journey time reliability. The proposed Route will bring much improvement to the quality of transportation for strategic traffic and local road users, through the replacement of the existing National Road with one which will have an alignment, road surface and safety features compliant with current standards.	This Route ranked joint-first in terms of journey time saving, when compared to the other Route Options. Overall Impact Level: 6
	Funding Impacts	-	All route options are considered similar in terms of funding impacts and are therefore considered to be neutral.	Overall Impact Level: 4
	Economy Sub-Total Score			21 (Average: 5.25)
Physical Activity	Ambience	-	The possibility for an increase in physical activity will be improved as the proposed Route incorporates hard shoulders along the scheme's length, and promote the use of the existing N53 as a result of reduced traffic volumes along its length. With these will come an improved user experience with a better quality of journey and a safer alternative to that currently available along the existing N53, particularly in settlements within which the N53 currently passes through, including Annaghvackey.	Overall Impact Level: 5
	Absenteeism	-	Due to the nature of the scheme, all route options are considered similar in terms of Absenteeism impacts and are considered to be not significant.	Overall Impact Level: 4
	Reduced Health Risk	-	The health benefits associated with the proposed Route will be generated as follows: • Increased levels of physical exercise as the general public utilise the improvements in pedestrian and cyclist facilities associated with the new scheme through the inclusion of a hard shoulder; • Improvements in the general ambience of the settlement environments through which the existing N53 currently passes through, arising as a direct result of reduced through-traffic and the usage of the proposed improvements, currently non-existent on the existing N53. Especially through-traffic passing by the local shop.	Overall Impact Level: 5
	Physical Activity Sub-Total Score			14 (Average: 4.67)
Accessibility & Social Inclusion	Deprived Geographical Areas	-	Accessibility and Social Inclusion is measured in terms of Deprived Geographical Areas and Vulnerable Areas and therefore the most recent information on The Pobal HP Deprivation Index 2016 was referenced. The results show all the townlands within the study area as marginally below average. Accessibility will be improved by the proposed scheme for businesses and residences within the towns served by the N53, as a result of improved journey times, as it facilitates traffic from Dundalk to the east and Crossmaglen and Castleblayney to the west.	Overall Impact Level: 5
	Vulnerable Groups	-	Accessibility to key centres of employment, education, healthcare and social facilities will be improved by the proposed scheme for those communities within the Study Area, through improved road safety and journey times (for private/commercial vehicles and public transport users) and safety and accessibility improvements for non-motorised users, who will benefit from reduced traffic through Annaghvackey.	Overall Impact Level: 5
	Accessibility & Social Inclusion Sub-Total Score			10 (Average: 5)

MCA for the Green Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 2 (Green)]
Integration	Transport Integration	-	<p>The N53 provides a link between the northeastern and north-midlands regions and to the M1 and N2. This proposed scheme will improve this strategic link for traffic commuting from regions such as Dundalk, Castleblayney and Carrickmacross. This improvement of connectivity to the National Network will aid road safety and journey times through the study area.</p> <p>The proposed Route will improve connectivity between existing transport modes, noting Irish Rail services in Dundalk.</p> <p>Sustainable transport modes (i.e. cycling and walking) will be improved by the proposed routes through the provision of hard shoulders on the new carriageway and the reduction of traffic on the existing N53, particularly in Annaghvack where through-traffic will be significantly reduced.</p>	Overall Impact Level: 5
	Land Use Integration	-	<p>The improvement of the N53 aligns with the Policies laid out in the National Development Plan, Building on Recovery: Infrastructure and Capital Investment and the Louth County Development Plan (7.3.10 - Policy TC 20). The N53 has been identified as a "Priority 2" scheme within the National Secondary Road Needs Study. Therefore a positive rating is given in considering compatibility with local development planning frameworks.</p> <p>The N53 has been highlighted as being Strategic Link in the Border Regional Authority Planning Guidelines (5.2.2.2), and the proposed Route will improve journey times and safety for long distance trips along the overall route.</p> <p>The proposed Route provides a strategic corridor through predominantly rural areas, with relatively short links to existing local roads, and thus the risk of urban sprawl as a result of the scheme is considered to rank as "Neutral" at this time.</p>	Overall Impact Level: 5
	Geographical Integration	-	<p>The N53 provides a link between the Northwest and Northeast, and is an important source of cross-border movements. This scheme will improve north-south transport links, as well as links between local urban centres and peripheral/adjacent regions. Reduced journey times as a result of the proposed Route will therefore improve RoI-NI transport links, as well as links between local urban centres and peripheral/adjacent regions. As such the Route achieves a positive rating in this regard.</p>	Overall Impact Level: 5
	Other Government Policy Integration	-	As covered above by Deprived Geographical Areas, Land Use Integration and Geographical Integration.	Overall Impact Level: 5
	Integration Sub-Total Score			
Total Score				106 (Average: 4.08)

MCA for the Blue Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 4 (Blue)]
Environment	Air Quality and Climate (Refer also to Air Quality Appraisal Report, AWN, 2018)	The calculated Index of Overall Change in Exposure for this route has been determined: NOx Exposure Index: 25,223 PM10 Exposure Index: 645	Background levels of NO2 and PM10 in the region of the proposed scheme, based on EPA data from representative locations are predicted to be 6 µg/m3 for NO2 and 12 µg/m3 for PM10. The proposed route will improve air quality at receptors along the existing alignment as traffic is diverted away from these areas. Some minor increases in background pollutant concentrations are predicted at receptors along the proposed Blue Route.	Overall Impact Level: 3
	Noise (Refer also to Noise Appraisal Report, AWN, 2018)	PIR: 142 / Noise Mitigation Requirement: 2	Based upon the assessment of properties within the various distance bands and the rating factors associated with each band, the calculated PIR for the Blue Route Option is 142. This is the highest PIR count compared to the other routes. Mitigation is likely required at a number of properties along the existing N53 and at 1 property set back from existing traffic currently. This route provides the least level of improvement in noise levels at existing properties along the N53 compared to the other Route Options. This route option is ranked as Least Preferred.	Overall Impact Level: 3
	Landscape and Visual (including light) (Refer also to Landscape & Visual Report, EBLA, 2018)		Landscape Impact The proposed route follows on or generally in close proximity and parallel to the existing N53 Road. Circa. 1.6km of carriageway will cross through greenfield land within this character area. Visibility of the route from within the surrounding landscape is limited by intervening topography and vegetation. There would be some disruption to local landform from cutting and filling required to fit this route into the landscape, in particular a large fill embankment between chainage 2070 and 2720. There would be limited loss of rural tranquillity due to location of the route either online of the existing N53 Road or in close proximity to the existing N53 Road corridor. The route will bypass Annaghvackey leading to an improvement to the setting of Annaghvackey. There will be slight to moderate adverse effects on pasture/ arable farmland, hedgerows and trees to accommodate proposed carriageways, embankments and cuttings. There would be some loss of woodland and loss of woodland edge at ch. 2300-2500 and loss of bog at ch. 500-800. Overall Landscape Impact: Slight adverse (negative) effect. Visual Impact Significance of effect No. of dwellings/ community buildings Very Large Beneficial 0 Large Beneficial 0 Moderate Beneficial 0 Slight Beneficial 0 Neutral 65 Slight Adverse 18 Moderate Adverse 12 Large Adverse 2 Very Large Adverse 1 Overall Visual Impact: Neutral to Slight Adverse	Overall Impact Level: 3
	Biodiversity – Flora and Fauna (Refer also to Ecology Appraisal Report, Atkins, 2018)	Intersects with: •Annaghvackey West Wetlands. •Clonaleenaghan Wetland. •Hedgerows	Near Certain significant impact on: Annaghvackey West Wetlands with ca. 7000m2 to be lost, Annaghvackey (Hackballscross) Wet Woodland with ca. 3000m2 to be lost, Hedgerows with ca. 3000m to be lost	Overall Impact Level: 1
	Waste	Estimated Disposal (Class U1): 8,400cu.m Estimated Importation (earthwork fill and capping): 38,700cu.m	This Route is estimate to have a minor negative impact with regards to waste, as the importation of suitable engineering fill material will be required in large volumes, and the disposal of unsuitable material off-site. No quantities of Class U2 material are known of at this stage, however for cost purposes have been estimated at 10% of U1 volumes. Based on available information, the risk of encountering significant volumes of contaminated soil / waste materials beneath any of the route options is considered to be relatively low.	Overall Impact Level: 3
	Soils and Geology (Refer also to Soils & Geology, Hydrology & Hydrogeology Appraisal Report, Atkins, 2018)		This route has been ranked 5th with respect to Soils and Geology. It has three minor negative impacts each (loss of well drained, highly fertile soils over small proportion of the route, excavation of peat and alluvium and infill of inert clay waste arisings) which are comparable to the remaining 4 no. routes and therefore was ranked based on a review of the estimated percentage of poor soils present under the route.	Overall Impact Level: 3

MCA for the Blue Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 4 (Blue)]	
Environment	Hydrology (Refer also to Hydrology & Hydrogeology Appraisal Report, Atkins, 2019)		<p>The route will have moderate negative impact via temporary indirect impact to surface water quality (on small proportion of attribute) at Dundalk Bay SAC / SPA / pHNA.</p> <p>The route will have minor negative impacts via flood risk (pluvial sources) and associated permanent effects on the small proportion of attribute.</p> <p>The route will have an imperceptible impact via temporary direct impact on Annaghvacky Stream (on small proportion of attribute)</p>	<p>The results of the hydrology appraisal for this route option have determined that the route is ranked 3rd in terms of preference and has been identified as the Intermediate Route, based on the qualitative assessment undertaken.</p> <p>Overall Impact Level: 3</p>	
	Hydrogeology (Refer also to Hydrology & Hydrogeology Appraisal Report, Atkins, 2019)		<p>The route will have a moderate negative impact via temporary impact to the surface water quality (small proportion of attribute) at Dundalk Bay SAC / SPA / pHNA via. Groundwater pathway.</p> <p>The route will have a moderate negative impact via. permanent loss of a large portion of groundwater dependant terrestrial ecosystem at Annaghvacky West.</p> <p>The route will have a minor negative impact via. permanent loss of a minor portion of groundwater dependant terrestrial ecosystem at Annaghvacky (Hacksballcross).</p> <p>The route will have a minor negative impact via. permanent impact on groundwater flow to wetland and wet woodlands.</p> <p>The route will have a minor negative impact via permanent impact to poor bedrock aquifer along the route (small portion of attribute).</p> <p>The route will have a minor negative impact via. potential permanent impacts to 62no. private well supplies and 7no. GSI wells (on significant portion of attribute).</p>	<p>The results of the hydrology appraisal for this route option have determined that the route is ranked 5th in terms of preference and has been identified as the Least Preferred Route, based on the qualitative assessment undertaken.</p> <p>Overall Impact Level: 2</p>	
	Architectural Heritage (Refer also to Cultural Heritage and Archaeology Appraisal Report, Rubicon, 2019)		Impacts on vernacular buildings (CH009; CH013; CH038; CH045)	<i>Minor or Slightly Negative (3)</i>	Overall Impact Level: 3
	Archaeological and Cultural Heritage (Refer also to Cultural Heritage and Archaeology Appraisal Report, Rubicon, 2019)		Impacts on AAP (058) and townland boundary (CH068)	<i>Moderately Negative (2)</i>	Overall Impact Level: 3
			Impacts on sites of vernacular buildings (CH010–011; CH014–015; CH035–037; CH039–041)	<i>Minor or Slightly Negative (3)</i>	
	Non- agricultural properties		<p><u>Comparable Impacts</u> Profound Negative Impact: 0 Significant Negative Impact: 9 Moderate Negative Impact: 2 Slightly Negative Impact: 3</p>	<p>A number of residential/commercial lands and properties (as shown in the Quantitative Assessment) are directly impacted by each Route Option, however it is noted that potential impacts to non-agricultural properties in some cases may be mitigated during Phase 3 of the scheme.</p> <p>Other non-agricultural properties (community, educational, etc) were deemed to be unaffected by all Route Options.</p>	Overall Impact Level: 2
	Agriculture (Refer also to Agricultural Appraisal Report, Philip Farelly, 2018)		Impact on 23 agricultural parcels, route is 2.9km long, Severance is classified as 15 Not significant, 2 Minor, 4 Moderate, and 2 Major, Overall Impacts are classified as 8 Very low, 9 low, 6 Medium, No high impacts	There are no high impacts on agricultural holdings on this route. The medium impacts are as a result of landtake and severance . No farm buildings are impacted by this route.	Overall Impact Level: 3 Score = 3
Environment Sub-Total Score				32 (Average: 2.67)	

MCA for the Blue Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 4 (Blue)]
Safety	Collision Reduction	COBA-LT Safety Analysis Benefits = € 2.97 M	The COBA-LT Safety Analysis indicated benefits as shown associated with this route - all are deemed similar in this regard due to the minor differences in benefits. The routes were assessed in terms of compliance with Technical Standards (i.e. geometric alignment) and overtaking provision . All routes performed similarly in this regard. The route ranked 4th (2nd lowest) in the Stage F (Part 1) Road Safety Audit, carried out in compliance with the requirements of TII's GE-STY-01024.	Overall Impact Level: 5
	Security of Road Users		The proposed Route will result in approximately half of the existing section of National Road being reclassified as a Regional/Local Road, with a greatly reduced volume of traffic. This will improve the opportunities for non-motorised road users wishing to utilise this road, particularly in and around the settlement of Annaghvackey which the existing N53 currently passes through, where it can be expected that only local traffic will travel through. Additionally the proposed Route will incorporate hardshoulders which will facilitate cyclists and emergency stops by vehicles - a significant improvement on the existing scenario where the provision of hardshoulders is non-existent. As such the Route is given a positive ranking for this sub-criterion.	Overall Impact Level: 6
	Safety Sub-Total Score			11 (Average: 5.5)
Economic	Efficiency and Effectiveness	Opening Year (2023) PVB = € 9.29 M PVC = € 10.66 M Residual Benefits (30yrs) = € 5.02 M BCR = 1.34	The scheme results in the improvement of journey times along the length of that section of the N53 under consideration, with average speeds increasing from 77kph (existing) to 100kph (forecast), which will have a positive impact on transport providers, hauliers and road users in general (with journey time benefits of € 10.56 M).	This Route ranked 4th in terms of PVB and 4th in terms of BCR, when compared to the other Route Options and it therefore has been considered Intermediate in this regard. Overall Impact Level: 5
	Wider Economic Impacts	-	The proposed Route provides a realigned version of the existing National Secondary road in a majority rural area, and thus does not result in a marked change in the Wider Economy; in terms of changes in competition in the market, agglomeration, inward investment, labour supply or urban regeneration. Notwithstanding this there are potential productivity benefits to be derived from the journey time savings as outlined above, and as such the Route is given a slightly positive ranking.	Overall Impact Level: 5
	Transport Quality and Reliability	Reduction in average travel journey times saving in the order of 28.6 seconds (a 19% reduction).	The bulk of the benefits, as expected, are experienced by motorised road users where journey times will reduce from 152 seconds (existing, averaging WB and EB) to 123 seconds (forecast, averaging WB and EB). This will benefit users of private, commercial and public transport motor vehicles particularly in terms of journey time reliability. The proposed Route will bring much improvement to the quality of transportation for strategic traffic and local road users, through the replacement of the existing National Road with one which will have an alignment, road surface and safety features compliant with current standards.	This Route ranked joint-first in terms of journey time saving, when compared to the other Route Options. Overall Impact Level: 6
	Funding Impacts	-	All route options are considered similar in terms of funding impacts and are therefore considered to be neutral.	Overall Impact Level: 4
	Economy Sub-Total Score			20 (Average: 5)
Physical Activity	Ambience	-	The possibility for an increase in physical activity will be improved as the proposed Route incorporates hard shoulders along the scheme's length, and promote the use of the existing N53 as a result of reduced traffic volumes along its length. With these will come an improved user experience with a better quality of journey and a safer alternative to that currently available along the existing N53, particularly in settlements within which the N53 currently passes through, including Annaghvackey.	Overall Impact Level: 5
	Absenteeism	-	Due to the nature of the scheme, all route options are considered similar in terms of Absenteeism impacts and are considered to be not significant.	Overall Impact Level: 4
	Reduced Health Risk	-	The health benefits associated with the proposed Route will be generated as follows: • Increased levels of physical exercise as the general public utilise the improvements in pedestrian and cyclist facilities associated with the new scheme through the inclusion of a hard shoulder; • Improvements in the general ambience of the settlement environments through which the existing N53 currently passes through, arising as a direct result of reduced through-traffic and the usage of the proposed improvements, currently non-existent on the existing N53. Especially through-traffic passing by the local shop.	Overall Impact Level: 5
Physical Activity Sub-Total Score			14 (Average: 4.67)	
Accessibility & Social Inclusion	Deprived Geographical Areas	-	Accessibility and Social Inclusion is measured in terms of Deprived Geographical Areas and Vulnerable Areas and therefore the most recent information on The Pobal HP Deprivation Index 2016 was referenced. The results show all the townlands within the study area as marginally below average. Accessibility will be improved by the proposed scheme for businesses and residences within the towns served by the N53, as a result of improved journey times, as it facilitates traffic from Dundalk to the east and Crossmaglen and Castleblayney to the west.	Overall Impact Level: 5
	Vulnerable Groups	-	Accessibility to key centres of employment, education, healthcare and social facilities will be improved by the proposed scheme for those communities within the Study Area, through improved road safety and journey times (for private/commercial vehicles and public transport users) and safety and accessibility improvements for non-motorised users, who will benefit from reduced traffic through Annaghvackey.	Overall Impact Level: 5
	Accessibility & Social Inclusion Sub-Total Score			10 (Average: 5)

MCA for the Blue Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 4 (Blue)]
Integration	Transport Integration	-	<p>The N53 provides a link between the northeastern and north-midlands regions and to the M1 and N2. This proposed scheme will improve this strategic link for traffic commuting from regions such as Dundalk, Castleblayney and Carrickmacross. This improvement of connectivity to the National Network will aid road safety and journey times through the study area.</p> <p>The proposed Route will improve connectivity between existing transport modes, noting Irish Rail services in Dundalk.</p> <p>Sustainable transport modes (i.e. cycling and walking) will be improved by the proposed routes through the provision of hard shoulders on the new carriageway and the reduction of traffic on the existing N53, particularly in Annaghvackey where through-traffic will be significantly reduced.</p>	Overall Impact Level: 5
	Land Use Integration	-	<p>The improvement of the N53 aligns with the Policies laid out in the National Development Plan, Building on Recovery: Infrastructure and Capital Investment and the Louth County Development Plan (7.3.10 - Policy TC 20). The N53 has been identified as a "Priority 2" scheme within the National Secondary Road Needs Study. Therefore a positive rating is given in considering compatibility with local development planning frameworks.</p> <p>The N53 has been highlighted as being Strategic Link in the Border Regional Authority Planning Guidelines (5.2.2.2), and the proposed Route will improve journey times and safety for long distance trips along the overall route.</p> <p>The proposed Route provides a strategic corridor through predominantly rural areas, with relatively short links to existing local roads, and thus the risk of urban sprawl as a result of the scheme is considered to rank as "Neutral" at this time.</p>	Overall Impact Level: 5
	Geographical Integration	-	<p>The N53 provides a link between the Northwest and Northeast, and is an important source of cross-border movements. This scheme will improve north-south transport links, as well as links between local urban centres and peripheral/adjacent regions. Reduced journey times as a result of the proposed Route will therefore improve RoI-NI transport links, as well as links between local urban centres and peripheral/adjacent regions. As such the Route achieves a positive rating in this regard.</p>	Overall Impact Level: 5
	Other Government Policy Integration	-	As covered above by Deprived Geographical Areas, Land Use Integration and Geographical Integration.	Overall Impact Level: 5
	Integration Sub-Total Score			
Total Score				107 (Average: 4.12)

MCA for the Purple Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 2a (Purple)]
Environment	Air Quality and Climate (Refer also to Air Quality Appraisal Report, AWN, 2018)	The calculated Index of Overall Change in Exposure for this route has been determined: NOx Exposure Index: 22,347 PM10 Exposure Index: 618	Background levels of NO2 and PM10 in the region of the proposed scheme, based on EPA data from representative locations are predicted to be 6 µg/m3 for NO2 and 12 µg/m3 for PM10. The proposed route will improve air quality at receptors along the existing alignment as traffic is diverted away from these areas. Some minor increases in background pollutant concentrations are predicted at receptors along the proposed Purple Route.	Overall Impact Level: 3
	Noise (Refer also to Noise Appraisal Report, AWN, 2018)	PIR: 108 /Noise Mitigation Requirement: 3	Based upon the assessment of properties within the various distance bands and the rating factors associated with each band, the calculated PIR for the Purple Route Option is 108. This is the lowest PIR count compared to the other routes. All of the residential properties within the 50m band are those located along the existing N53 Road with the exception of 1 where the alignment veers south of Annaghvacky. Mitigation is likely required at a small number of properties along the existing N53 and at 1 property set back from existing traffic currently. This route provides the greatest level of improvement in noise levels at existing properties along the N53 compared to the other Route Options . This route option is ranked as preferred	Overall Impact Level: 3
	Landscape and Visual (including light) (Refer also to Landscape & Visual Report, EBLA, 2018)		Landscape Impact The proposed route follows on or generally in close proximity and parallel to the existing N53 Road. Circa. 3km of carriageway will cross through greenfield land within this character area. Visibility of the route from within the surrounding landscape is limited by intervening topography and vegetation, however there would be some views of the road on embankment south and west of Annaghvacky. There would be some disruption to local landform from cutting and filling required to fit this route into the landscape in particular from a large cutting of two small picturesque hills (at Ch. 2500 and Ch. 2880) including a hill with a prominent tree group on top. There would be limited loss of rural tranquillity due to location of the route either online of the existing N53 Road or in close proximity to the existing N53 Road corridor. The route will bypass Annaghvacky leading to an improvement to the setting of Annaghvacky. There will be slight to moderate adverse effects on pasture/ arable farmland, hedgerows and trees to accommodate proposed carriageways, embankments and cuttings. There would be loss of a pond and tree group at ch. 2500. Loss of the edge to bog at ch.850-1150 and some impact on bog from the link road at Annaghvacky. Overall Landscape Impact: Moderate adverse (negative) effect Visual Impact Significance of effect No. of dwellings/ community buildings Very Large Beneficial 0 Large Beneficial 0 Moderate Beneficial 0 Slight Beneficial 5 Neutral 67 Slight Adverse 10 Moderate Adverse 11 Large Adverse 2 Very Large Adverse 0 Overall Visual Impact: Neutral to Slight Adverse	Overall Impact Level: 2
	Biodiversity – Flora and Fauna (Refer also to Ecology Appraisal Report, Atkins, 2018)	Intersects with: •Annaghvacky West Wetlands. •Clonaleenaghan Wetland. •Hedgerows	Near certain significant impact on: Clonaleenaghan Wetland, small corner of wetland site to be lost. Ca. 1300m of hedgerow to be lost. Probable significant negative impact on Annaghvacky West Wetlands through interruption of groundwater to wetland site	Overall Impact Level: 2
	Waste	Estimated Disposal (Class U1): 8,300cu.m Estimated Importation (earthwork fill and capping): 23,500cu.m	This Route is estimate to have a minor negative impact with regards to waste, as the importation of suitable engineering fill material will be required in large volumes, and the disposal of unsuitable material off-site. No quantities of Class U2 material are known of at this stage, however for cost purposes have been estimated at 10% of U1 volumes. Based on available information, the risk of encountering significant volumes of contaminated soil / waste materials beneath any of the route options is considered to be relatively low.	Overall Impact Level: 3
	Soils and Geology (Refer also to Soils & Geology, Hydrology & Hydrogeology Appraisal Report, Atkins, 2018)		This route has been ranked 2nd of the preferred routes with respect to Soils and Geology. It has three minor negative impacts each (loss of well drained, highly fertile soils over small proportion of the route, excavation of peat and alluvium and infill of inert clay waste arisings) which are comparable to the remaining 4 no. routes and therefore was ranked based on a review of the estimated percentage of poor soils present under the route.	Overall Impact Level: 3

MCA for the Purple Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 2a (Purple)]
Environment	Hydrology (Refer also to Hydrology & Hydrogeology Appraisal Report, Atkins, 2019)		The route will have moderate negative impact via temporary indirect impact to surface water quality (on small proportion of attribute) at Dundalk Bay SAC / SPA / pHNA. The route will have minor negative impacts via flood risk (pluvial sources) and associated permanent effects on the small proportion of attribute.	The results of the hydrology appraisal for this route option have determined that the route is ranked 1st in terms of preference and has been identified as the Preferred Route, based on the qualitative assessment undertaken. Overall Impact Level: 3
	Hydrogeology (Refer also to Hydrology & Hydrogeology Appraisal Report, Atkins, 2019)		The route will have a moderate negative impact via temporary impact to the surface water quality (small proportion of attribute) at Dundalk Bay SAC / SPA / pHNA via. Groundwater pathway. The route will have a minor negative impact via. permanent impact on groundwater flow to Annaghvackey (West) wetland habitat. The route will have a minor negative impact via. permanent loss of a small portion of groundwater dependant terrestrial ecosystem at Clonaleenaghan. The route will have a minor negative impact via permanent impact to poor bedrock aquifer along the route (small portion of attribute). The route will have a minor negative impact via. potential permanent impacts to 48no. private well supplies and 7no. GSI wells (on significant portion of attribute).	The results of the hydrogeology appraisal for this route option have determined that the route is ranked 1st in terms of preference and has been identified as an Preferred Route, based on the qualitative assessment undertaken Overall Impact Level: 3
	Architectural Heritage (Refer also to Cultural Heritage and Archaeology Appraisal Report, Rubicon, 2019)		Impacts on vernacular buildings (CH038; CH045) <i>Minor or Slightly Negative (3)</i> Impacts on vernacular buildings (CH034) <i>Not significant or neutral (4)</i>	Overall Impact Level: 3
	Archaeological and Cultural Heritage (Refer also to Cultural Heritage and Archaeology Appraisal Report, Rubicon, 2019)		Visual impact on Ring Barrow (CH001) Impacts on AAPs (CH058; CH060-061; CH073-074) and townland boundary (CH068) <i>Moderately Negative (2)</i> Impacts on sites of vernacular buildings (CH035-037; CH039-040; CH047-048; CH052; CH062-064) <i>Minor or Slightly Negative (3)</i>	Overall Impact Level: 2
	Non- agricultural properties	<u>Comparable Impacts</u> Profound Negative Impact: 0 Significant Negative Impact: 3 Moderate Negative Impact: 1 Slightly Negative Impact: 4	A number of residential/commercial lands and properties (as shown in the Quantitative Assessment) are directly impacted by each Route Option, however it is noted that potential impacts to non-agricultural properties in some cases may be mitigated during Phase 3 of the scheme. Other non-agricultural properties (community, educational, etc) were deemed to be unaffected by all Route Options.	Overall Impact Level: 3
	Agriculture (Refer also to Agricultural Appraisal Report, Philip Farely, 2018)	Impact on 19 agricultural holdings, 3.3km long, Severance is classified as 9 Not Significant, 4 Minor, 4 Moderate, and 2 Major, Overall Impacts are classified as 3 very low, 6 low, 7 Medium, and 1 high Impact	The high impact is a result of land take and severance. The high impact is on an intensive mixed livestock and tillage farm with horses present. The route alignment runs in close proximity to the stables.	Overall Impact Level: Score = 2
	Environment Sub-Total Score			32 (Average: 2.67)

MCA for the Purple Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 2a (Purple)]
Safety	Collision Reduction	COBA-LT Safety Analysis Benefits = € 2.96 M	The COBA-LT Safety Analysis indicated benefits as shown associated with this route - all are deemed similar in this regard due to the minor differences in benefits. The routes were assessed in terms of compliance with Technical Standards (i.e. geometric alignment) and overtaking provision . All routes performed similarly in this regard. The route ranked 1st in the Stage F (Part 1) Road Safety Audit, carried out in compliance with the requirements of TII's GE-STY-01024.	Overall Impact Level: 6
	Security of Road Users		The proposed Route will result in the majority of the existing section of National Road being reclassified as a Regional/Local Road, with a greatly reduced volume of traffic. This will improve the opportunities for non-motorised road users wishing to utilise this road, particularly in and around the settlement of Annaghvacky which the existing N53 currently passes through, where it can be expected that only local traffic will travel through. Additionally the proposed Route will incorporate hardshoulders which will facilitate cyclists and emergency stops by vehicles - a significant improvement on the existing scenario where the provision of hardshoulders is non-existent. As such the Route is given a positive ranking for this sub-criterion.	Overall Impact Level: 6
	Safety Sub-Total Score			12 (Average: 6)
Economic	Efficiency and Effectiveness	Opening Year (2023) PVB = € 10.70 M PVC = € 10.39 M Residual Benefits (30yrs) = € 5.74 M BCR = 1.58	The scheme results in the improvement of journey times along the length of that section of the N53 under consideration, with average speeds increasing from 77kph (existing) to 100kph (forecast), which will have a positive impact on transport providers, hauliers and road users in general (with journey time benefits of € 12.03 M).	This Route ranked 1st in terms of PVB and 1st in terms of BCR, when compared to the other Route Options and it therefore has been considered Preferred in this regard. Overall Impact Level: 6
	Wider Economic Impacts	-	The proposed Route provides a realigned version of the existing National Secondary road in a majority rural area, and thus does not result in a marked change in the Wider Economy; in terms of changes in competition in the market, agglomeration, inward investment, labour supply or urban regeneration. Notwithstanding this there are potential productivity benefits to be derived from the journey time savings as outlined above, and as such the Route is given a slightly positive ranking.	Overall Impact Level: 5
	Transport Quality and Reliability	Reduction in average travel journey times saving in the order of 28.5 seconds (a 19% reduction).	The bulk of the benefits, as expected, are experienced by motorised road users where journey times will reduce from 152 seconds (existing, averaging WB and EB) to 123 seconds (forecast, averaging WB and EB). This will benefit users of private, commercial and public transport motor vehicles particularly in terms of journey time reliability. The proposed Route will bring much improvement to the quality of transportation for strategic traffic and local road users, through the replacement of the existing National Road with one which will have an alignment, road surface and safety features compliant with current standards.	This Route ranked joint-first in terms of journey time saving, when compared to the other Route Options. Overall Impact Level: 6
	Funding Impacts	-	All route options are considered similar in terms of funding impacts and are therefore considered to be neutral.	Overall Impact Level: 4
	Economy Sub-Total Score			21 (Average: 5.25)
Physical Activity	Ambience	-	The possibility for an increase in physical activity will be improved as the proposed Route incorporates hard shoulders along the scheme's length, and promote the use of the existing N53 as a result of reduced traffic volumes along its length. With these will come an improved user experience with a better quality of journey and a safer alternative to that currently available along the existing N53, particularly in settlements within which the N53 currently passes through, including Annaghvacky.	Overall Impact Level: 5
	Absenteeism	-	Due to the nature of the scheme, all route options are considered similar in terms of Absenteeism impacts and are considered to be not significant.	Overall Impact Level: 4
	Reduced Health Risk	-	The health benefits associated with the proposed Route will be generated as follows: • Increased levels of physical exercise as the general public utilise the improvements in pedestrian and cyclist facilities associated with the new scheme through the inclusion of a hard shoulder; • Improvements in the general ambience of the settlement environments through which the existing N53 currently passes through, arising as a direct result of reduced through-traffic and the usage of the proposed improvements, currently non-existent on the existing N53. Especially through-traffic passing by the local shop.	Overall Impact Level: 5
	Physical Activity Sub-Total Score			14 (Average: 4.67)

MCA for the Purple Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 2a (Purple)]
Accessibility & Social Inclusion	Deprived Geographical Areas	-	Accessibility and Social Inclusion is measured in terms of Deprived Geographical Areas and Vulnerable Areas and therefore the most recent information on The Pobal HP Deprivation Index 2016 was referenced. The results show all the townlands within the study area as marginally below average. Accessibility will be improved by the proposed scheme for businesses and residences within the towns served by the N53, as a result of improved journey times, as it facilitates traffic from Dundalk to the east and Crossmaglen and Castleblayney to the west.	Overall Impact Level: 5
	Vulnerable Groups	-	Accessibility to key centres of employment, education, healthcare and social facilities will be improved by the proposed scheme for those communities within the Study Area, through improved road safety and journey times (for private/commercial vehicles and public transport users) and safety and accessibility improvements for non-motorised users, who will benefit from reduced traffic through Annaghvacky.	Overall Impact Level: 5
	Accessibility & Social Inclusion Sub-Total Score			10 (Average: 5)
Integration	Transport Integration	-	The N53 provides a link between the northeastern and north-midlands regions and to the M1 and N2. This proposed scheme will improve this strategic link for traffic commuting from regions such as Dundalk, Castleblayney and Carrickmacross. This improvement of connectivity to the National Network will aid road safety and journey times through the study area. The proposed Route will improve connectivity between existing transport modes, noting Irish Rail services in Dundalk. Sustainable transport modes (i.e. cycling and walking) will be improved by the proposed routes through the provision of hard shoulders on the new carriageway and the reduction of traffic on the existing N53, particularly in Annaghvacky where through-traffic will be significantly reduced.	Overall Impact Level: 5
	Land Use Integration	-	The improvement of the N53 aligns with the Policies laid out in the National Development Plan, Building on Recovery: Infrastructure and Capital Investment and the Louth County Development Plan (7.3.10 - Policy TC 20). The N53 has been identified as a "Priority 2" scheme within the National Secondary Road Needs Study. Therefore a positive rating is given in considering compatibility with local development planning frameworks. The N53 has been highlighted as being Strategic Link in the Border Regional Authority Planning Guidelines (5.2.2.2), and the proposed Route will improve journey times and safety for long distance trips along the overall route. The proposed Route provides a strategic corridor through predominantly rural areas, with relatively short links to existing local roads, and thus the risk of urban sprawl as a result of the scheme is considered to rank as "Neutral" at this time.	Overall Impact Level: 5
	Geographical Integration	-	The N53 provides a link between the Northwest and Northeast, and is an important source of cross-border movements. This scheme will improve north-south transport links, as well as links between local urban centres and peripheral/adjacent regions. Reduced journey times as a result of the proposed Route will therefore improve RoI-NI transport links, as well as links between local urban centres and peripheral/adjacent regions. As such the Route achieves a positive rating in this regard.	Overall Impact Level: 5
	Other Government Policy Integration	-	As covered above by Deprived Geographical Areas, Land Use Integration and Geographical Integration.	Overall Impact Level: 5
	Integration Sub-Total Score			20 (Average: 5)
Total Score				109 (Average: 4.19)

MCA for the Brown Route

Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 4a (Brown)]
Environment	Air Quality and Climate (Refer also to Air Quality Appraisal Report, AWN, 2018)	The calculated Index of Overall Change in Exposure for this route has been determined: NOx Exposure Index: 17,637 PM10 Exposure Index: 450	Background levels of NO2 and PM10 in the region of the proposed scheme, based on EPA data from representative locations are predicted to be 6 µg/m3 for NO2 and 12 µg/m3 for PM10. The proposed route will improve air quality at receptors along the existing alignment as traffic is diverted away from these areas. Some minor increases in background pollutant concentrations are predicted at receptors along the proposed Brown Route.	Overall Impact Level: 3
	Noise (Refer also to Noise Appraisal Report, AWN, 2018)	PIR: 131 / Noise Mitigation Requirement: 2	Based upon the assessment of properties within the various distance bands and the rating factors associated with each band, the calculated PIR for the Brown Route Option is 131. This is the second highest PIR count compared to the other routes. All of the residential properties within the 50m band are those located along the existing N53 Road with the exception of 1 where the alignment veers south of Annaghvackey. Mitigation is likely required at a small number of properties along the existing N53 and at 1 property set back from existing traffic currently. The overall impacts of this route is comparable to the purple, blue and green route options. The impact rating is determined to be minor/slight negative. This route option is ranked as intermediate.	Overall Impact Level: 3
	Landscape and Visual (including light) (Refer also to Landscape & Visual Report, EBLA, 2018)		Landscape Impact The proposed route follows on or generally in close proximity and parallel to the existing N53 Road. Circa. 2.14km of carriageway will cross through greenfield land within this character area. Visibility of the route from within the surrounding landscape is limited by intervening topography and vegetation. There would be some disruption to local landform from cutting and filling required to fit this route into the landscape, in particular a large fill embankment between chainage 2420 and 3070. There would be limited loss of rural tranquillity due to location of the route either online of the existing N53 Road or in close proximity to the existing N53 Road corridor. The route will bypass Annaghvackey leading to an improvement to the setting of Annaghvackey. There will be slight to moderate adverse effects on pasture/ arable farmland, hedgerows and trees to accommodate proposed carriageways, embankments and cuttings. There would be some loss of woodland edge at ch. 2650-2850 and edge of the bog at ch. 800-1100. Overall Landscape Impact: Slight adverse (negative) effect. Visual Impact Significance of effect No. of dwellings/ community buildings Very Large Beneficial 0 Large Beneficial 0 Moderate Beneficial 0 Slight Beneficial 2 Neutral 70 Slight Adverse 17 Moderate Adverse 11 Large Adverse 2 Very Large Adverse 1 Overall Visual Impact: Neutral to Slight Adverse	Overall Impact Level: 3
	Biodiversity – Flora and Fauna (Refer also to Ecology Appraisal Report, Atkins, 2018)	Intersects with: •Annaghvackey West Wetlands. •Clonaleenaghan Wetland. •Hedgerows	Near Certain significant impact on: , Annaghvackey (Hackballscross) Wet Woodland with ca. 3000m2 to be lost, Hedgerows with ca. 3500m to be lost. Probable significant negative impact on Annaghvackey West Wetlands through interruption of groundwater to wetland site	Overall Impact Level: 2
	Waste	Estimated Disposal (Class U1): 6,300cu.m Estimated Importation (earthwork fill and capping): 70,000cu.m	This Route is estimate to have a moderate negative impact with regards to waste, as the importation of suitable engineering fill material will be required in significant volumes, and the disposal of unsuitable material off-site. No quantities of Class U2 material are known of at this stage, however for cost purposes have been estimated at 10% of U1 volumes. Based on available information, the risk of encountering significant volumes of contaminated soil / waste materials beneath any of the route options is considered to be relatively low.	Overall Impact Level: 2
	Soils and Geology (Refer also to Soils & Geology, Hydrology & Hydrogeology Appraisal Report, Atkins, 2018)		This route has been ranked 4th with respect to Soils and Geology. It has three minor negative impacts each (loss of well drained, highly fertile soils over small proportion of the route, excavation of peat and alluvium and infill of inert clay waste arisings) which are comparable to the remaining 4 no. routes and therefore was ranked based on a review of the estimated percentage of poor soils present under the route.	Overall Impact Level: 3

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Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 4a (Brown)]
Environment	Hydrology (Refer also to Hydrology & Hydrogeology Appraisal Report, Atkins, 2019)		<p>The route will have moderate negative impact via temporary indirect impact to surface water quality (on small proportion of attribute) at Dundalk Bay SAC / SPA / pHNA.</p> <p>The route will have minor negative impacts via flood risk (pluvial sources) and associated permanent effects on the small proportion of attribute.</p> <p>The route will have an imperceptible impact via temporary direct impact on Annaghvacky Stream (on small proportion of attribute)</p>	<p>The results of the hydrology appraisal for this route option have determined that the route is ranked 4th in terms of preference and has been identified as the Intermediate Route, based on the qualitative assessment undertaken.</p> <p>Overall Impact Level: 3</p>
	Hydrogeology (Refer also to Hydrology & Hydrogeology Appraisal Report, Atkins, 2019)		<p>The route will have a moderate negative impact via temporary impact to the surface water quality (small proportion of attribute) at Dundalk Bay SAC / SPA / pHNA via. Groundwater pathway.</p> <p>The route will have a minor negative impact via. permanent loss of a small portion of groundwater dependant terrestrial ecosystem at Annaghvacky (Hackballscross) .</p> <p>The route will have a minor negative impact via. permanent impact on groundwater flow to Annaghvacky (West) wetland habitat.</p> <p>The route will have a minor negative impact via permanent impact to poor bedrock aquifer along the route (small portion of attribute).</p> <p>The route will have a minor negative impact via. potential permanent impacts to 52no. private well supplies and 7no. GSI wells (on significant portion of attribute).</p>	<p>The results of the hydrogeology appraisal for this route option have determined that the route is ranked 3rd in terms of preference and has been identified as an Intermediate Route, based on the qualitative assessment undertaken</p> <p>Overall Impact Level: 3</p>
	Architectural Heritage (Refer also to Cultural Heritage and Archaeology Appraisal Report, Rubicon, 2019)		<p>Impacts on vernacular buildings (CH009; CH038; CH045)</p> <p><i>Minor or Slightly Negative (3)</i></p> <p>Impacts on vernacular buildings (CH034)</p> <p><i>Not significant or neutral (4)</i></p>	Overall Impact Level: 3
	Archaeological and Cultural Heritage (Refer also to Cultural Heritage and Archaeology Appraisal Report, Rubicon, 2019)		<p>Visual impact on Ring Barrow (CH001)</p> <p>Impacts on AAPs (CH058; CH060) and townland boundary (CH068)</p> <p><i>Moderately Negative (2)</i></p> <p>Impacts on sites of vernacular buildings (CH029; CH032-033; CH035-037; CH039-041; CH047-048; CH052; CH062-064)</p> <p><i>Minor or Slightly Negative (3)</i></p>	Overall Impact Level: 2
	Non- agricultural properties	<p><u>Comparable Impacts</u></p> <p>Profound Negative Impact: 0</p> <p>Significant Negative Impact: 5</p> <p>Moderate Negative Impact: 3</p> <p>Slightly Negative Impact: 2</p>	<p>A number of residential/commercial lands and properties (as shown in the Quantitative Assessment) are directly impacted by each Route Option, however it is noted that potential impacts to non-agricultural properties in some cases may be mitigated during Phase 3 of the scheme.</p> <p>Other non-agricultural properties (community, educational, etc) were deemed to be unaffected by all Route Options.</p>	Overall Impact Level: 3
	Agriculture (Refer also to Agricultural Appraisal Report, Philip Farelly, 2018)	<p>Impact on 22 agricultural holdings, 3.3km long, Severance is classified as 13 Not Significant, 4 Minor, 3 Moderate, and 2 Major, Overall Impacts are classified as 8 very low, 8 low, 6 Medium, and 0 high Impact</p>	<p>There are no high impacts on agricultural holdings on this route. The medium impacts are as a result of landtake and severance . No farm buildings are impacted by this route.</p>	Overall Impact Level: 3
	Environment Sub-Total Score			
Safety	Collision Reduction	<p>COBA-LT Safety Analysis Benefits = € 3.08 M</p>	<p>The COBA-LT Safety Analysis indicated benefits as shown associated with this route - all are deemed similar in this regard due to the minor differences in benefits.</p> <p>The routes were assessed in terms of compliance with Technical Standards (i.e. geometric alignment) and overtaking provision . All routes performed similarly in this regard.</p> <p>The route ranked 2nd in the Stage F (Part 1) Road Safety Audit, carried out in compliance with the requirements of TII's GE-STY-01024.</p>	Overall Impact Level: 6
	Security of Road Users		<p>The proposed Route will result in the majority of the existing section of National Road being reclassified as a Regional/Local Road, with a greatly reduced volume of traffic. This will improve the opportunities for non-motorised road users wishing to utilise this road, particularly in and around the settlement of Annaghvacky which the existing N53 currently passes through, where it can be expected that local traffic and traffic for Crossmaglen will travel through (thus having comparably more traffic than the other Route Options).</p> <p>Additionally the proposed Route will incorporate hardshoulders which will facilitate cyclists and emergency stops by vehicles - a significant improvement on the existing scenario where the provision of hardshoulders is non-existent.</p> <p>As such the Route is given a positive ranking for this sub-criterion.</p>	Overall Impact Level: 6
	Safety Sub-Total Score			

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Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 4a (Brown)]
Economic	Efficiency and Effectiveness	Opening Year (2023) PVB = € 10.49 M PVC = € 10.73 M Residual Benefits (30yrs) = € 5.66 M BCR = 1.51	The scheme results in the improvement of journey times along the length of that section of the N53 under consideration, with average speeds increasing from 77kph (existing) to 100kph (forecast), which will have a positive impact on transport providers, hauliers and road users in general (with journey time benefits of € 11.89 M).	This Route ranked 2nd in terms of PVB and 2nd in terms of BCR, when compared to the other Route Options and it therefore has been considered Intermediate in this regard. Overall Impact Level: 6
	Wider Economic Impacts	-	The proposed Route provides a realigned version of the existing National Secondary road in a majority rural area, and thus does not result in a marked change in the Wider Economy; in terms of changes in competition in the market, agglomeration, inward investment, labour supply or urban regeneration. Notwithstanding this there are potential productivity benefits to be derived from the journey time savings as outlined above, and as such the Route is given a slightly positive ranking.	Overall Impact Level: 5
	Transport Quality and Reliability	Reduction in average travel journey times saving in the order of 28.2 seconds (a 19% reduction).	The bulk of the benefits, as expected, are experienced by motorised road users where journey times will reduce from 152 seconds (existing, averaging WB and EB) to 123 seconds (forecast, averaging WB and EB). This will benefit users of private, commercial and public transport motor vehicles particularly in terms of journey time reliability. The proposed Route will bring much improvement to the quality of transportation for strategic traffic and local road users, through the replacement of the existing National Road with one which will have an alignment, road surface and safety features compliant with current standards.	This Route ranked joint-first in terms of journey time saving, when compared to the other Route Options. Overall Impact Level: 6
	Funding Impacts	-	All route options are considered similar in terms of funding impacts and are therefore considered to be neutral.	Overall Impact Level: 4
	Economy Sub-Total Score			
Physical Activity	Ambience	-	The possibility for an increase in physical activity will be improved as the proposed Route incorporates hard shoulders along the scheme's length, and promote the use of the existing N53 as a result of reduced traffic volumes along its length. With these will come an improved user experience with a better quality of journey and a safer alternative to that currently available along the existing N53, particularly in settlements within which the N53 currently passes through, including Annaghvackey.	Overall Impact Level: 5
	Absenteeism	-	Due to the nature of the scheme, all route options are considered similar in terms of Absenteeism impacts and are considered to be not significant.	Overall Impact Level: 4
	Reduced Health Risk	-	The health benefits associated with the proposed Route will be generated as follows: • Increased levels of physical exercise as the general public utilise the improvements in pedestrian and cyclist facilities associated with the new scheme through the inclusion of a hard shoulder; • Improvements in the general ambience of the settlement environments through which the existing N53 currently passes through, arising as a direct result of reduced through-traffic and the usage of the proposed improvements, currently non-existent on the existing N53. Especially through-traffic passing by the local shop.	Overall Impact Level: 5
	Physical Activity Sub-Total Score			
Accessibility & Social Inclusion	Deprived Geographical Areas	-	Accessibility and Social Inclusion is measured in terms of Deprived Geographical Areas and Vulnerable Areas and therefore the most recent information on The Pobal HP Deprivation Index 2016 was referenced. The results show all the townlands within the study area as marginally below average. Accessibility will be improved by the proposed scheme for businesses and residences within the towns served by the N53, as a result of improved journey times, as it facilitates traffic from Dundalk to the east and Crossmaglen and Castleblayney to the west.	Overall Impact Level: 5
	Vulnerable Groups	-	Accessibility to key centres of employment, education, healthcare and social facilities will be improved by the proposed scheme for those communities within the Study Area, through improved road safety and journey times (for private/commercial vehicles and public transport users) and safety and accessibility improvements for non-motorised users, who will benefit from reduced traffic through Annaghvackey.	Overall Impact Level: 5
	Accessibility & Social Inclusion Sub-Total Score			

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Criterion	Sub Criteria	Quantitative Assessment	Qualitative Assessment	Score [Route 4a (Brown)]
Integration	Transport Integration	-	<p>The N53 provides a link between the northeastern and north-midlands regions and to the M1 and N2. This proposed scheme will improve this strategic link for traffic commuting from regions such as Dundalk, Castleblayney and Carrickmacross. This improvement of connectivity to the National Network will aid road safety and journey times through the study area.</p> <p>The proposed Route will improve connectivity between existing transport modes, noting Irish Rail services in Dundalk.</p> <p>Sustainable transport modes (i.e. cycling and walking) will be improved by the proposed routes through the provision of hard shoulders on the new carriageway and the reduction of traffic on the existing N53, particularly in Annaghvacky where through-traffic will be significantly reduced.</p>	Overall Impact Level: 5
	Land Use Integration	-	<p>The improvement of the N53 aligns with the Policies laid out in the National Development Plan, Building on Recovery: Infrastructure and Capital Investment and the Louth County Development Plan (7.3.10 - Policy TC 20). The N53 has been identified as a "Priority 2" scheme within the National Secondary Road Needs Study. Therefore a positive rating is given in considering compatibility with local development planning frameworks.</p> <p>The N53 has been highlighted as being Strategic Link in the Border Regional Authority Planning Guidelines (5.2.2.2), and the proposed Route will improve journey times and safety for long distance trips along the overall route.</p> <p>The proposed Route provides a strategic corridor through predominantly rural areas, with relatively short links to existing local roads, and thus the risk of urban sprawl as a result of the scheme is considered to rank as "Neutral" at this time.</p>	Overall Impact Level: 5
	Geographical Integration	-	<p>The N53 provides a link between the Northwest and Northeast, and is an important source of cross-border movements. This scheme will improve north-south transport links, as well as links between local urban centres and peripheral/adjacent regions. Reduced journey times as a result of the proposed Route will therefore improve RoI-NI transport links, as well as links between local urban centres and peripheral/adjacent regions. As such the Route achieves a positive rating in this regard.</p>	Overall Impact Level: 5
	Other Government Policy Integration	-	As covered above by Deprived Geographical Areas, Land Use Integration and Geographical Integration.	Overall Impact Level: 5
	Integration Sub-Total Score			
Total Score				110 (Average: 4.23)