

Appendix K. Project Appraisal Balance Sheet (PABS)

Project Appraisal Balance Sheet - (Minor Projects costing €5m to €20m)					
Scheme	Description		Problems Identified		TSB
N53 Hackballscross to Rassan	The scheme is a 3.35km long realignment scheme to Type 1 Single Carriageway Standard which commences at an appropriate tie-in point just west of Hackballscross (N53/L3125), and extends to an appropriate tie-in point in the townland of Rassan to the west of the scheme.		The existing N53 is narrow and undulating in character thereby providing limited overtaking opportunities along its length. This in turn tends to lead to driver frustration and potentially hazardous driving manoeuvres. The existing carriageway is a single carriageway, generally 6.0m wide with grass verge widths varying between 0.5m and 2.5m. There are no hard shoulders present. There is no formal surface water drainage system present. These factors, and others, lead to unreliable journey times. Road safety is a particular concern along the route given the poor alignment, mix of regional and local traffic, observed traffic speeds and the general lack of facilities / space for vulnerable road users.		€15.84M
Objective	Sub-objective	Qualitative impacts	Quantitative assessment	Monetised (€million over 30yrs.)	Score
Environmental	Air Quality	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 Route.	The calculated Index of Overall Change in Exposure for this route has been determined: NOx Exposure Index: 17,637 PM10 Exposure Index: 450	Air Pollution	3

	Noise and vibration	<p>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.</p> <p>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. The overall impacts of this route is comparable to the purple, blue and green route options. The impact raking is determined to be minor/slight negative. This route option is ranked as intermediate.</p>	Noise	3
	Landscape & Visual Quality	<p>Overall Landscape Impact: Slight adverse (negative) effect.</p> <p>Overall Visual Impact: Neutral to Slight Adverse</p>		3
	Biodiversity	<p>Near Certain significant impact on: Annaghvacky (Hackballscross) Wet Woodland with ca. 3000m² to be lost, Hedgerows with ca. 3500m to be lost. Probable significant negative impact on Annaghvacky West Wetlands through interruption of groundwater to wetland site</p>		2
	Cultural Heritage	<p><i>Architectural Heritage:</i> Impacts on vernacular buildings (CH009; CH038; CH045): <i>Minor or Slightly Negative (3)</i></p> <p>Impacts on vernacular buildings (CH034): <i>Not significant or neutral (4)</i></p>		3
<p><i>Archaeological and Cultural Heritage:</i> Visual impact on Ring Barrow (CH001) and Impacts on AAPs (CH058; CH060) and townland boundary (CH068): <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): <i>Minor or Slightly Negative (3)</i></p>		2		

	Land Use	<p><i>Non-agricultural:</i> A number of residential/commercial lands and properties are directly impacted; 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><i>Agricultural:</i> 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>			3
	Water resources	<p><i>Hydrology:</i> 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 route will have an imperceptible impact via temporary direct impact on Annaghvacky Stream (on small proportion of attribute).</p> <p><i>Hydrogeology:</i> 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 loss of a small portion of groundwater dependant terrestrial ecosystem at Annaghvacky (Hackballscross). The route will have a minor negative impact via. permanent impact on groundwater flow to Annaghvacky (West) wetland habitat. 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 52no. private well supplies and 7no. GSI wells (on significant portion of attribute).</p>			3
Safety	Collision Reduction	<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. 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 achieved a Preferred Ranking under the heading of Safety.</p>	Value of change	€3.08M	6

	Security	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. 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.					6
Economy	Transport Efficiency and Effectiveness	Improvement of journey times with average speeds increasing from 77kph (existing) to 100kph (forecast)	-	Vehicle-hours per day in travel time savings	Non-Business	-	6
					Business	-	
			-	vehicle-km per day in travel distance savings	Active Travel	-	
					Residual Value	-	
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.					5	
Funding	It is considered to be neutral.				PVC	€ 10.73M	4
Accessibility and Social Inclusion	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.					5

	<p>Deprived Geographic Areas</p>	<p>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.</p>		<p>5</p>
<p>Integration</p>	<p>Transport Integration</p>	<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. 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.</p>		<p>5</p>
	<p>Land-Use integration</p>	<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>		<p>5</p>

	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.		5	
	Other Government Policy Integration	As covered above by Deprived Geographical Areas, Land Use Integration and Geographical Integration.		5	
Physical Activity	Physical Activity	<p><i>Ambience:</i> 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.</p> <p><i>Absenteeism:</i> 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.</p> <p><i>Reduced Health Risk:</i> The health benefits associated with the proposed Route will be generated as follows:</p> <ul style="list-style-type: none"> • 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. 		5	4
			PVB	€10.49M	
			BCR	1.51	