DART+ WEST - MCA Stage 1

Blakestown Level Crossing Assessment

	Parameter		Criteria	Sub-Criteria (Quantitative/ Qualitative)	Do Nothing	Do Minimum	Option 1
					Leave the current level crossings in place.	Closure of the existing crossings with no alternative provided. All traffic would be diverted to alternative routes around the crossing location.	Proposed Pedestrian and Cycle Bridge with nested ramps.
1	Economy	1.1	**Construction and Land Cost**	Assessment of cost of construction of option, land costs, acquisition costs and temporary works	**Significant comparative advantage over other options** The level crossing is currently under CCTV control. To maintain the level crossing, the furniture and signalling associate with it will need replacement	**Significant comparative advantage over other options** Cost of removing crossing is low in comparison to provision of road crossing.	**Significant comparative disadvantage over other options** Construction costs of this option will be comparative to other options as the provision of a pedestrian cycle bridge within the canal environs will require significant temporary and permanent works. The cost to acquire land will be lower than other options providing full access
		1.2	**Long Term Maintenance costs**	Ongoing annual maintenance costs associated with varied options moving them	**Significant comparative disadvantage over other options** The do-nothing scenario would maintain the existing maintenance costs of the level crossing.	**Significant comparative advantage over other options** The closure of the level crossing would remove the maintenance requirement of the level crossing.	**Significant comparative advantage over other options** An overbridge would increase decrease maintenance requirements and operating costs over a level crossing.
		1.3	**Traffic Functionality /economic benefit**	Benefits to vehicular traffic through reduction in journey time lengths and delays through removal of level crossings. Consideration of potentially longer routes for traffic.	**Some comparative disadvantage over other options** Existing connectivity maintained but with reduced capacity as train frequencies increase; resulting in increase in journey times for local residents.	**Some comparative advantage over other options** Displacement of traffic onto alternative routes; increase in journey times for local residents.	**Some comparative advantage over other options** Displacement of traffic onto alternative routes; increase in journey times for local residents.
		2.1	**Transport Integration**	Impact on scope for and ease of interchange between modes. Impact on the operation of other transport services both during construction and in operation. New interchange nodes and facilities; Reduced walking and wait times associated with interchanges. Modal shift figures during construction and operations. Changes to journey times to transport nodes.	**Some comparative advantage over other options** Existing connectivity maintained, albeit with increased disruption from increased train frequencies. There is no cycle route proposed on Blakestown Road in the GDA Cycle Network Plan.	**Some comparative disadvantage over other options** Reduction in local permeability. Reduced access to Royal Canal Cycle Route.	**Some comparative disadvantage over other options** Reduction in local permeability. Access to Royal Canal Cycle Route maintained

DART+ WEST - MCA Stage 1

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2	Integration	2.2	Land Use Integration	Impact on land use strategies and local plans. Assessment of support for land use factors local land use and planning. Inclusion of project in relevant local planning documents.	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options
					Would not support KCDP Transport Objective PT07 which seeks to promote and support the upgrading of the Maynooth Rail line. Leixlip LAP 2020-2023 recognises the level crossings will be required to be removed therefore this option would not support these objectives or the DART Expansion project.	Supports the KCDP 2017-2023 particularly Movement and transport objective PT07 KCDP Transport Objective PT07 which seeks to promote and support the upgrading of the Maynooth Rail line. . Leixlip LAP 2020-2023 recognises the level crossings will be required to be removed. Collinstown Masterplan is to be developed. The future Masterplan is required to include the associated transportation studies. Therefore, based on existing land use patterns and the existing policy context (in support of DART Exp), neither the closure of the level crossing or the provision of pedestrian access at the level crossing is likely to significantly influence this comparative assessment in terms of planning/ integration factors at this stage in the assessment.	Supports the KCDP 2017-2023 particularly Movement and transport objective PT07 KCDP Transport Objective PT07 which seeks to promote and support the upgrading of the Maynooth Rail line. . Leixlip LAP 2020-2023 recognises the level crossings will be required to be removed. Collinstown Masterplan is to be developed. The future Masterplan is required to include the associated transportation studies. Therefore, based on existing land use patterns and the existing policy context (in support of DART Exp), neither the closure of the level crossing or the provision of pedestrian access at the level crossing is likely to significantly influence this comparative assessment in terms of planning/ integration factors at this stage in the assessment.
		2.3	Geographical Integration	Alternative level crossing options are mostly neutral in respect of Geographical Integration due to localised nature of the level crossings. As a consequence all options are rated comparable to one another.	Comparable to other options	Comparable to other options	Comparable to other options
					No impact on Geographical Integration	No impact on Geographical Integration	No impact on Geographical Integration
		2.4	Other Government Policy Integration	Integration with the other Government policy such as the NPF and RSES.	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options
					This option would not support the delivery of the higher level national and regional planning policies regarding the DART Expansion programme (NPF- (NS04), RSES & GDA Transport Strategy).	This option would support the delivery of the higher level national and regional planning policies regarding the DART Expansion programme (NPF- (NS04), RSES & GDA Transport Strategy). However would not meet Smarter Travel policy.	This option would support the delivery of the higher level national and regional planning policies regarding the DART Expansion programme (NPF- (NS04), RSES & GDA Transport Strategy). However would not meet Smarter Travel policy.
		3.1	Noise and Vibration	Estimated number of sensitive properties within 100m of the works. Options closer to more sensitive locations will have an increased risk of generating a noise impact. However, qualative criteria are also used where necessary to differentiate between the options.	Comparable to other options	Comparable to other options	Comparable to other options
					No significant impacts predicted at this stage.	Removes vehicle traffic emissions. Likely to have some short-term construction impacts.	Removes vehicle traffic emissions Likely to have some short term construction impacts.
		3.2	Air Quality and Climate	Local air quality effects. No of number of receptors within 50m.	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
					No significant impacts predicted at this stage.	Removes vehicle traffic therefore requiring longer trips on alternative routes for some traffic, however removes localised traffic impacts. Some short-term construction impacts.	Removes vehicle traffic therefore requiring longer trips on alternative routes for some traffic, however removes localised traffic impacts. Some short-term construction impacts.
		3.3	Landscape and Visual (including light)	Key landscape characteristics affected; Impact on landscape character; Impacts on landscape features, protected landscapes. Key visual characteristics affected; Impacts on properties, amenities, protected views, key views.	Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options
					No impact on existing landscape or visual characteristics.	Loss of local connectivity. Minimal impact on existing landscape or visual characteristics - no likely significant landscape or visual impacts.	Significant visual impact on setting of 13th Lock / Deey Bridge (a protected structure and protected view in Kildare Development Plan) and on residential property north of lock.

DART+ WEST - MCA Stage 1

Blakestown Level Crossing Assessment

	Parameter		Criteria	Sub-Criteria (Quantitative/ Qualitative)	Do Nothing	Do Minimum	Option 1
3	Environment	3.4	**Biodiversity (flora and fauna)**	Potential compliance/conflict with biodiversity objectives; Indirect impacts on protected species, designated sites; Overall effect on nature conservation resource.	**Some comparative advantage over other options** No direct impacts.	**Some comparative advantage over other options** No direct impacts.	**Some comparative disadvantage over other options** Hydrologically connected to South Dublin Bay and River Tolka Estuary SPA. No risk of LSE. Potential impacts to Royal Canal pNHA arising from the construction of new pedestrian bridge.
		3.5	**Cultural, Archaeological and Architectural Heritage**	Overall effect on cultural, archaeological and architecture heritage resource. Likely effects on RPS, National Monuments, SMRs, Conservation areas, etc. Number of designated sites/structures (by level of designation) directly impacted by scheme (landtake)	**Some comparative advantage over other options** No direct impacts.	**Some comparative advantage over other options** No direct impacts likely positive effects to Deey bridge and 13th Lock due to removal of traffic.	**Some comparative disadvantage over other options** Potential indirect impacts on Deey Bridge (and Lock) (RPS No. B06-14). Potential to encounter unknown archaeological deposits that may survive in undeveloped areas.
		3.6	**Water Resources**	Overall potential significant effects on water resource attributes likely to be affected during construction and operation.	**Some comparative disadvantage over other options** Potential negative impact on surface water quality during operational phase. Has some comparative disadvantage over other options.	**Some comparative advantage over other options** Removes vehicular traffic borne pollutants. Minimal construction phase impacts are likely. Some comparative advantages over other options.	**Some comparative disadvantage over other options** Potential negative impact on surface and groundwater quality during construction phase.
		3.7	**Agriculture and Non-Agricultural**	Overall impact on land take & property. Number of properties to be impacted/acquired. Likely temporary or permanent severance effects, etc.	**Some comparative advantage over other options** There is no impact on agricultural or non-agricultural property.	**Some comparative advantage over other options** There is no impact on agricultural or non-agricultural property.	**Some comparative disadvantage over other options** There will be a limited direct impact on both agricultural and non-agricultural property. There is no impact on access to lands though there will be increased travel for vehicular journeys to / from R148.
		3.8	**Geology and Soils (including Waste)**	Soils and Geology and likely impact on geological resources based on preliminary/likely construction details. Soil resources to be developed/removed. Existing information relating to potential to encounter contaminated land. High-level assessment based on the likely structures/ works required and the potential for ground contamination due to historic landfills, pits and quarries.	**Some comparative advantage over other options** No significant direct impacts.	**Some comparative advantage over other options** No significant direct impacts.	**Some comparative disadvantage over other options** No significant direct impacts as minimal earthworks are required.
		3.9	**Radiation and Stray Current**	Overall likely impact on existing sources of electromagnetic radiation.	**Some comparative advantage over other options** No change from an EMI perspective therefore advantage over other options.	**Some comparative advantage over other options** No change from an EMI perspective therefore advantage over other options.	**Some comparative disadvantage over other options** It is assumed that the routing of the cabling, the location of existing substations, hubs etc. along the line will be changed or impacted by the selection of any of the options over the entire project. All Do-Something options are comparable from an EMI perspective at this stage in the assessment.
		4.1	**Impact on Vulnerable Groups**	Impacts on low income groups, non-car owners, mobility impaired, visually impaired and people with a disability.	**Some comparative disadvantage over other options** With the level crossing becoming effectively closed on implementation of the proposed working timetable and with no provision for supplementary infrastructure for vulnerable groups, the majority of users will be diverted onto the adjacent road network. This relates to a small number of uses of the level crossing	**Some comparative disadvantage over other options** With the level crossing closed on implementation of the proposed working timetable and with no provision for supplementary infrastructure for vulnerable groups, the majority of users will be diverted onto the adjacent road network. This relates to a small number of uses of the level crossing	**Some comparative advantage over other options** Provision of a pedestrian / cycle bridge addresses any local disruption caused by closing the level crossing. Usage is, however low.

DART+ WEST - MCA Stage 1							
Blakestown Level Crossing Assessment							
	Parameter		**Criteria**	**Sub-Criteria (Quantitative/ Qualitative)**	**Do Nothing**	**Do Minimum**	**Option 1**
4	**Accessibility & Social inclusion**	4.2	**Stations Accessibility**	Quantification of increased service levels to the vulnerable groups.	**Comparable to other options** It is considered that alterations at Blakestown will not significantly affect access to stations in the locality	**Comparable to other options** It is considered that alterations at Blakestown will not significantly affect access to stations in the locality	**Comparable to other options** It is considered that alterations at Blakestown will not significantly affect access to stations in the locality
		4.3	**Social Inclusion**	Quantification of service levels impacts including severance to all groups (Severance of local communities through removal of level crossings without connection would fair worst under this heading).	**Comparable to other options** Cross Railway journey = nil as crossing remains in place; Inaccessible when crossing is closed. Diversion for cars, pedestrians and cyclists when level crossing closed 0.7km to ease, 1.6km to west. The principal affected amenities in the vicinity of the level crossing include JM Motors south of the railway, the Business Barn, Intel and Jones Engineering Group, north of the railway	**Comparable to other options** Cross Railway journey = nil as crossing remains in place; Inaccessible when crossing is closed. Diversion for cars, pedestrians and cyclists when level crossing closed 0.7km to ease, 1.6km to west. The principal affected amenities in the vicinity of the level crossing include JM Motors south of the railway, the Business Barn, Intel and Jones Engineering Group, north of the railway	**Comparable to other options** Cross Railway journey = nil as crossing remains in place; Inaccessible when crossing is closed. Diversion for cars, pedestrians and cyclists when level crossing closed 0.7km to ease, 1.6km to west. The principal affected amenities in the vicinity of the level crossing include JM Motors south of the railway, the Business Barn, Intel and Jones Engineering Group, north of the railway
5	**Safety**	5.1	**Rail Safety**	Safety for Rail users – removal of LC positive in this respect	**Significant comparative disadvantage over other options** This Option leaves the railway level crossing in place, a characteristic which is considered negative from the perspective of railway safety. This option will require construction activity associated with signalling along the live railway associated with the level crossing	**Significant comparative advantage over other options** This option removes the railway level crossing, a characteristic which is considered positive from the perspective of railway safety. There is no significant construction activity along the railway associated with the level crossing	**Significant comparative advantage over other options** This option removes the railway level crossing, a characteristic which is considered positive from the perspective of railway safety. There is no significant construction activity along the railway associated with the level crossing
		5.2	**Vehicular Traffic Safety**	Quality of Access for these road users, lengths of diversions, removal of interface with rail and other modes of transport	**Comparable to other options** Effective Closure of the level crossing with no replacement infrastructure will divert traffic onto the local road network resulting in diversions of between 0.7km and 1.6km. These are considered incidental for road traffic	**Comparable to other options** Closing the level crossing with no replacement infrastructure will divert traffic onto the local road network resulting in diversions of between 0.7km and 1.6km. These are considered incidental for road traffic	**Comparable to other options** Closing the level crossing with no replacement infrastructure will divert traffic onto the local road network resulting in diversions of between 0.7km and 1.6km. These are considered incidental for road traffic
		5.3	**Pedestrian, Cyclist and Vulnerable Road user Safety**	Quality of Access for these road users. removal of interfaces	**Some comparative disadvantage over other options** This option effectively results in pedestrians, cyclists and vulnerable road users onto the local road network. If the railway remains open, interface issues remain. The low level of usage and rural setting is noted	**Some comparative disadvantage over other options** No cycle tracks on the immediately surrounding road network, but the closure of the level crossing would reduce access to the Royal Canal Greenway. See also Transport Integration above.	**Some comparative advantage over other options** Original Distance from access to farm to R148 junction 270m retained.

DART+ WEST - MCA Stage 1

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	Parameter		Criteria	Sub-Criteria (Quantitative/ Qualitative)	Do Nothing	Do Minimum	Option 1
6	Physical Activity	6.1	Connectivity to adjoining cycling facilities	Analysis of the extent that the scheme connects with cycle tracks.	Some comparative disadvantage over other options No cycle tracks currently present on the immediately surrounding road network, but increased closures of the level crossing would reduce access to the Royal Canal Greenway. See also Transport Integration above.	Some comparative disadvantage over other options No cycle tracks on the immediately surrounding road network, but the closure of the level crossing would reduce access to the Royal Canal Greenway. See also Transport Integration above.	Some comparative advantage over other options Severance overcome by provision of direct replacement.
		6.2	Permeability and local access opportunity	Journey Time and lengths of diversions for active modes and numbers affected. Analysis of the connectivity between level crossing and green areas/key attractions related to active mode	Some comparative disadvantage over other options Cross Railway journey = nil as crossing remains in place; Inaccessible when crossing is closed. Diversion for cars, pedestrians and cyclists when level crossing closed 0.6km East and 1.6km West The principal affected amenities in the vicinity of the level crossing include the Royal canal north of the level crossing. Removal of the level crossing will require detour for access.	Some comparative disadvantage over other options Cross Railway journey = nil as crossing remains in place; Inaccessible when crossing is closed. Diversion for cars, pedestrians and cyclists when level crossing closed 0.6km East and 1.6km West The principal affected amenities in the vicinity of the level crossing include the Royal canal north of the level crossing. Removal of the level crossing will require detour for access.	Some comparative advantage over other options Severance overcome by provision of direct replacement.

	Criteria		Do Nothing	Do Minimum	Option 1
1	Economy		Significant comparative disadvantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options
2	Integration		Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative advantage over other options
3	Environment		Significant comparative advantage over other options	Significant comparative advantage over other options	Significant comparative disadvantage over other options
4	Accessibility and social inclusion		Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
5	Safety		Significant comparative disadvantage over other options	Some comparative advantage over other options	Significant comparative advantage over other options
6	Physical Activity		Significant comparative disadvantage over other options	Significant comparative disadvantage over other options	Significant comparative advantage over other options
	Progress To Stage 2		No	Yes	Yes