

MCA DEPOT ACCESS

DART Maynooth & City Centre Enhancements. MCA Criteria and parameters								
Road Access Assessment								
Nº	Parameter	Criteria	Sub-Criteria	Option 1	Option 2	Option 3	Option 4	
1	Economy	1,1	Construction and Land Cost	Assessment of cost of construction of option, land costs, acquisition costs and temporary works	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options	
				Existing roads, rearrange to one direction roads.	Required new stretch up to depot within residential areas.	Required new stretch up to depot within residential areas.	Required new bridge within greenfield site.	
		1,2	Long Term Maintenance costs	Assessment of Long Term Maintenance	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
					Lower amounts of maintenance because this option is based on existing roads.	Maintenance and inspection of the new stretch is needed.	Maintenance and inspection of the new stretch is needed.	Higher amounts of maintenance and inspections are needed with the introduction of an overbridge.
		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.	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
					Longer journey time	Medium journey time	Medium journey time	North and South road network connection. Improvements in journey time
2	Integration	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 disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	
				No impact on transport integration	No impact on transport integration	No impact on transport integration	Link for road networks at both sides of the main line.	
		2,2	Land Use Integration	Impact on land use strategies and regional and local plans. Assessment of support for land use factors. Local land use and planning. Inclusion of project in relevant local and regional planning documents.	Some comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
					This option is supported in principle by the national and regional planning policy context. Kilcock LAP MTO 2 To maximise the use of public transport infrastructure, walking and cycling To maximise the use of public transport infrastructure, walking and cycling and minimise car". At local planning policy level, MTO 2 To maximise the use of public transport infrastructure, walking and cycling To maximise the use of public transport infrastructure, walking and cycling and minimise car". The Movement and Transport Objective MTO 24 of Kilcock LAP 2015-2021 aims "to avoid severance within local catchments". The one direction traffic flow proposed as part of Option 1 has the potential to cause severance at local level by creating diversions in the area.	This option is supported in principle by the national and regional planning policy context. At local planning policy level, this option will support the Kilcock LAP Road Objective MTO 25 To facilitate the future construction of the following roads and in the interim protect their routes from development: (indicated on Map 7: Transport Objectives Map (points E-F Indicative route) from "Mollyware Street (Royal Meadows) to the Braganstown Road". This option will construct a new road at this location therefore supporting this development objective.	This option is supported in principle by the national and regional planning policy context. Kilcock LAP MTO 2 To maximise the use of public transport infrastructure, walking and cycling To maximise the use of public transport infrastructure, walking and cycling and minimise car". A section of the new road proposed as part of Option 3 is located within unzoned agricultural lands. Option 3 is likely to have an impact on agricultural land use and could affect future development patterns.	This option is supported in principle by the national and regional planning policy context. Kilcock LAP MTO 2 To maximise the use of public transport infrastructure, walking and cycling To maximise the use of public transport infrastructure, walking and cycling and minimise car".

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3	Environment	3,1	Noise and Vibration	Estimated number of people likely to be affected by transport	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
					High number of sensitive receptors on this route. However, given the relatively small additional traffic volume on existing routes the overall noise and vibration impact will not be significant. Construction phase impacts will also be lower due to the use of existing road infrastructure.	Large number of sensitive receptors on this route. Furthermore the access route through a residential area would despite the low traffic volumes have the potential for a more significant noise impact. Construction phase impacts will also occur during the construction of the new access road which will lead to noise and vibration impacts.	Large number of sensitive receptors on this route. Furthermore the access route through a residential area would despite the low traffic volumes have the potential for a more significant noise impact. Construction phase impacts will also occur during the construction of the new access road which will lead to noise and vibration impacts.	High number of sensitive receptors on this route. However, given the relatively small additional traffic volume on existing routes the overall noise and vibration impact will not be significant. Construction phase impacts will also be lower due to the use of existing road infrastructure. Option 4 is considered to have lower potential for noise impacts than Options 2 or 3.
		3,2	Air Quality and Climate	Local air quality effects. Number of receptors within 50m.	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
					Air: High number of sensitive receptors on this route. However, impacts less than 1,000 AADT or 200 HGV per day and background air quality significantly below limit value. Therefore, no significant impacts on air quality. Climate: Preferable from a Climate Point of View due to lower construction materials required provided upgrades to roads were limited. Longer journey time noted in economy will likely result in higher emissions.	Air: High number of sensitive receptors in a highly suburban area on this route. However, impacts less than 1,000 AADT or 200 HGV per day and background air quality significantly below limit value. Therefore, no significant impacts on air quality. Climate: Required new road shorter than option 3 therefore option 2 preferable in comparison.	Air: High number of sensitive receptors in a highly suburban area on this route. However, impacts less than 1,000 AADT or 200 HGV per day and background air quality significantly below limit value. Therefore, no significant impacts on air quality. Climate: Required new road longer than option 2 therefore less preferable in comparison.	Air: Potential increased congestion in Maynooth and Kilcock towns which impacts vehicle emissions. High number of sensitive receptors in urban area on this route. However, impacts less than 1,000 AADT or 200 HGV per day and background air quality significantly below limit value. Therefore, no significant impacts on air quality. Climate: Required new bridge which will require significant embodied energy within constructing materials. Shorter journey time noted in economy will likely result in lower emissions if congestion not an issue.
		3,3	Landscape and Visual (including light)	Key landscape characteristics affected; Effects on listed/ key views; Impact on landscape character.	Significant comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Significant comparative disadvantage over other options
This Option assumes minimal physical intervention in existing environment and therefore, there are no likely significant impacts on existing landscape or visual characteristics. Likely Visual impacts to properties in the vicinity.	This Option has the potential to impact on 'High' and 'Moderate' Value hedgerows identified in the Kilcock LAP within the Branganstown area, where a new road is proposed. Likely Visual impacts to properties in the vicinity.				The proposed option is located within the 'Northern Lowlands' landscape character type as identified by the Kildare CDP. This landscape has low sensitivity, whereby it "has the capacity to generally accommodate a wide range of uses". However, the proposed option will have an impact on landscape at local level by introducing road infrastructure into an agricultural setting. The alignment of the new road is likely to have a moderate visual impact on residential properties at Newtown Hall Estate, Maynooth which are located in close proximity to the development. A slight visual impact on 3 residential properties located along the L5041 is also likely.	The development of a bridge structure is likely to have significant landscape and visual impact on the Royal Canal, a pNHA defined as a Area of High Amenity in the KCDP. It will result in a new landscape feature likely to obstruct scenic views along the Canal. Additionally, this option is likely to have a significant visual impact on Jackson's Bridge (and lock), a protected structure and a listed view. (Kildare County Development Plan Scenic view "RC8 Jackson's Bridge Laraghbryan East" and "RC9 Chambers Bridge Maw" views to and from /on the Royal Canal.		
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	Some comparative advantage over other options	Some comparative advantage over other options	Significant comparative disadvantage over other options		
			Route on existing roads but increasing in traffic over longer distance.	New road required but increase in traffic over shorter distance.	New road required but increase in traffic over shorter distance.	New bridge required over pNHA and land take on both sides of the pNHA.		
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 (land take)	Significant comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options		
			No impact as existing road network is being utilised	Potential for negative direct impacts on previously unrecorded archaeological sites where new road is required	Potential for negative direct impacts on previously unrecorded archaeological sites where new road is required	Potential for negative direct impacts on historic town of Maynooth (RMP), if road widening required, along with potential indirect impacts on Maynooth ACA. Potential for indirect impacts on Kilcock ACA		

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		3,6	Water Resources	Overall potential significant effects on water resource attributes likely to be affected during construction and operation.	Significant comparative advantage over other options	Significant comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options		
					Low risk to surface water if proper mitigation measures are followed during construction. No indicators of flood risk to the proposed route. Majority of route within Moderate groundwater vulnerability. limited threat to groundwater.	Low risk to surface water if proper mitigation measures are followed during construction. No indicators of flood risk to the proposed route. Majority of route within Moderate groundwater vulnerability. limited threat to groundwater.	Requires new crossing of River Lyreen and tributary. Additional crossing may pose risk to water quality during construction and operation. Extensive Flooding within the vicinity of Maynooth. Proposed road within River Lyreen floodplain. New road and crossing is proposed within area of high to extreme groundwater vulnerability. Threat to groundwater.	Requires new crossing of the Royal Canal. Additional crossing may pose risk to water quality during construction and operation. Extensive Flooding within the Vicinity of Maynooth and Kilcock. Proposed route in or directly adjacent to floodplain. Majority of route within Moderate groundwater vulnerability. limited threat to groundwater.		
		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.	Significant comparative advantage over other options	Significant comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options		
					Route 1a / 1b - Route option involves non-agricultural lands (public road) only. There are no direct impacts on agricultural or other non-agricultural property. Will not impact on access to property. Will not impact on agricultural & non-agricultural property.	Route 2 - Impact upon agricultural lands, non-agricultural (community / amenity) lands and public road. Existing adjoining land use consists of agricultural lands comprised of grassland used for livestock grazing and are subject to Planning for Residential Development (Ref. 2097). Non-agricultural property consists of Kilcock GAA Club and public road. Direct impacts on agricultural lands (subject to PP) include medium levels of landtake and severance. Direct impacts to non-agricultural property include landtake to community / amenity property (Kilcock GAA).	Route 3 - Impact upon agricultural lands and public road. Direct impacts on agricultural lands include low to medium level of landtake and severance. Route 3 will involve medium land severance on one property.	Impact upon agricultural lands and public road. Direct impacts on agricultural lands include low level of landtake and severance. Route will involve a low level of land severance on one property.		
		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	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options		
					No significant impacts of soils or geology	No significant impacts of soils or geology	New road will require removal of soil resources	New bridge structure required. No significant impacts on soils or geology resources.		
		3,9	Radiation and Stray Current	Overall likely impact on existing sources of electromagnetic radiation.	Comparable to other options	Comparable to other options	Comparable to other options	Comparable to other options		
					The main sources of EMI from the proposed development will be the traction supply system , MV ring, HV lines, substation and comms infrastructure. Assuming that routing of the cabling, the location of substations, hubs etc. along the line are not impacted by the selection of any of these options then all options are comparable from an EMI perspective.	The main sources of EMI from the proposed development will be the traction supply system , MV ring, HV lines, substation and comms infrastructure. Assuming that routing of the cabling, the location of substations, hubs etc. along the line are not impacted by the selection of any of these options then all options are comparable from an EMI perspective.	The main sources of EMI from the proposed development will be the traction supply system , MV ring, HV lines, substation and comms infrastructure. Assuming that routing of the cabling, the location of substations, hubs etc. along the line are not impacted by the selection of any of these options then all options are comparable from an EMI perspective.	The main sources of EMI from the proposed development will be the traction supply system , MV ring, HV lines, substation and comms infrastructure. Assuming that routing of the cabling, the location of substations, hubs etc. along the line are not impacted by the selection of any of these options then all options are comparable from an EMI perspective.		
		4	Accessibility & Social Inclusion	4,1	Impact on neighbours	Potential impacts (positive / negative) on neighbours	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
							Neighbours are affected by a higher traffic density on existing local roads	Neighbours are affected by a higher traffic density on existing residential roads	Neighbours are affected by a higher traffic density on existing residential roads	There are no increase on the traffic density on local roads, only in the regional R148. Neighbours have better connectivity over the mainline and the Royal Canal.

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5	Safety	5,1	Vehicular Traffic Safety Quality of Access for these road users, lengths of diversions, removal of interface with rail and other modes of transport	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
				Interface with residential traffic. Existing narrow road.	Interface with residential traffic	Interface with residential traffic	Direct access from regional road
		5,2	Pedestrian, Cyclist and Vulnerable Road user Safety Quality of Access for these road users. removal of interfaces	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
				Interface with residential traffic. Existing narrow road.	Interface with residential traffic	Interface with residential traffic	Direct access from regional road
6	Physical Activity	6,1	Permeability and local connectivity 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	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
				No improvement on local connectivity	No improvement on local connectivity	No improvement on local connectivity	Increase local connectivity at both sides of mainline

Summary

Nº	Parameter	Option 1	Option 2	Option 3	Option 4
1	Economy	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
2	Integration	Some comparative disadvantage over other options	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
3	Environment	Some comparative advantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options
4	Accessibility & Social inclusion	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
5	Safety	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
6	Physical Activity	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative disadvantage over other options	Some comparative advantage over other options
	Preferred option	No	No	No	Yes