

Consolidated MCA Criteria

Economic

Number	Economic Criteria	Key Attributes	Red	Yellow	Blue	Score	Ranking	Comment
Ec1	Cost of Construction	<ul style="list-style-type: none"> • Scope and methods (bridges, tunnels, standard of roads) applicable? • External economic conditions (available funds) • Materials as per existing standards • On-ground construction versus above ground construction • Length of road project • Cost of upgrading other roads vs building RHE • Type of construction (eg Bridge vs embankments) • Cost of construction now to avoid environmental damage with relocation of proposed port. • Cost of construction netting across wetlands • Managing run-off in the wetlands • Need for the link not proven • What are the traffic congestion causes (eg freight/normal traffic) • Road should be designed to its ultimate Freeway configuration & not compromised in terms of its traffic function, leading to greater economic value to broader region. • Cost of construction of RHE vs rail to freight goods (ie increase upgrading rail freight from 15% to say 40% to reduce trucks on existing roads). • Does the budget take into consideration the cost of building to a high standard • Use of wire road barriers or road safety barriers to reduce cost associated with accident trauma/fatalities • Is the total resourcing package sufficient for all needs ie. Fauna and pedestrian underpasses • Environmental and access compromise on promises/needs when money runs out • Is the budget sufficient for world's best practice? • Pervious pavement - may increase construction costs but reduce drainage infrastructure, reduce impact on environment • Maintenance costs (formerly criteria name of Ec9) • Damage to roads due to road trains • Offsets (formerly criteria name of Ec11) • Cost of offsets • Economic considerations of alternative options • Construction (formerly criteria name of Ec12) • Cost of construction • Cost of operation/maintenance • Collateral cost i.e. upgrade of other routes (maybe additional LGA/local resident's costs • Cost of bridge/interchange design • Design (formerly criteria name of Ec20) • Truck route - higher standard • Design life of 50 yrs vs 10 yrs • Impact • Tunnel - not discounted due to cost • Completion of a ring road for transport planning in Perth • Consider the overall impact on Perth 	21	10	87	170	1	Consolidated with Ec9 (Maintenance costs), Ec11 (Offsets), Ec12 (Construction) Ec20 (Design), and Ec27 (Cost of planning)

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Ec2	Traffic Congestion	<ul style="list-style-type: none"> • Decreasing waiting time - where? • Congestion at the Mac • Congestion in the local area • Maintaining road connections • Maintaining short cuts/rat runs • Stop/start movements • Traffic diversion • Lowering fuel consumption • Limit number of stops/formal intersections (formerly criteria name of Ec19) • Stop start • Traffic • Access points • Local Traffic (formerly criteria name of Ec36) • Balance or separating out of impact on local traffic movements and needs of regional freight movements 	8	2	45	73	6	Consolidated with Ec19 (Limit number of stops/formal intersections) and Ec36 (Local Traffic)
Ec4	Efficient freight and vehicle movement (formerly Efficient feight movement)	<ul style="list-style-type: none"> • Load sizes • Number of lanes (already set in standards) • Suitability for heavy vehicles (aren't they getting larger). • Stop-start movements • Use of air brakes • Ability to maximise use of loaded vehicles/full use of return journeys • See Point 7 • Efficient automobile movements • Access costs need to be considered • Economic importance of moving freight • Efficiency (formerly criteria name of Ec25) • Attractive to freight vehicles • Reduce use of Leach Highway 	6	9	72	108	3	Consolidated with Ec25 (Efficiency)

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Ec5	Accessibility	<ul style="list-style-type: none"> • Access to schools • Access to industrial areas • Access to shopping centres • Access to Murdoch Activity Centre (Fiona Stanley Hospital) all private vehicles? • Access to Jandakot Airport • Access to Fremantle Port • Access to Inner and Proposed Outer Harbour • Access to Latitude 32 • Access to Cockburn Coast and other major roads/ areas • Movement at intersections and interchanges • Access to social amenities (footpaths, public open spaces etc) • Latitude 32, Cockburn Coast and other major roads/ areas • Provision for flexibility ie. improvements in moving traffic • Need for link? (formerly criteria name of Ec6) • Connectivity (formerly criteria name of Ec8) • Funding for road not yet obtained • Smooth connections • Roundabouts vs intersections vs traffic lights • More volume of trucks & traffic using/hitting stock • Road (North and South) • More transport to and from Fremantle Port • High St status not determined. No confirmation from Council to be upgraded. • A road to nowhere • Integrate roads to local needs/ traffic/transport network planning • Connecting Roe to coast - construction and transport planning • Accessibility (formerly criteria name of Ec10) • RHE does have/provide accessibility to MAC, Jandakot Airport, Fremantle Port, Proposed Outer Harbour etc • Pedestrian and cyclist & cost saved from this • Scout Group • Cockburn Wetlands Centre • Yangebup & Kardinya to Bibra Lake & Wetlands Centre • Cost of accessibility for children to schools and recreation 	7	11	108	151	2	<p>Consolidated with Ec6 (Need for link), Ec8 (Connectivity) and Ec10 (Accessibility). Note: accessibility exists as part of economic as well as social categories. SMC team recommend further rationalisation to decide split.</p>
Ec7	Freight vehicles versus private transport		0	0	1	1	12	
Ec11	Offsets	<ul style="list-style-type: none"> • Cost of offsets • Economic considerations of alternative options 	0	0	3	3	11	

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Ec13	Future Costs	<ul style="list-style-type: none"> • Consider cost of ultimate needs ie. 6 lanes/light rail and its role in overall freight network • Maintenance cost of ongoing impact n environment and heritage • Retrofitting cost of noise reduction in adjacent residential areas ie Roe 7 (east of Kwinana • Cost of grade or road surface for minimising noise • Suggestion that potential users will not prefer the route (ie they will use Russell Road) • Cost of getting potential users to use Roe over other routes (marketing it as an option) • Design for future development - population needs Impact to wider network • Future costs associated with road (formerly criteria name of Ec3) • Operations • Maintenance • Upgrades • Work in process when and if it is built,(should be known by experience). • Savings to road users & transport (truck) operators & the community by designing to a high standard to reduce maintenance costs on vehicles (eg brakes, tyres etc.) • Extension will help community by moving goods & services in the least cost and most efficient way • Toll road? • Costs associated with time delays in approval process - depending on option could become Federal issue eg indigenous/environmental approval • Heritage listing of Hope Road • Consider cost savings for other gvt agencies in bldg or not bldg road • Effects on local business • Economic impact on the Port - container freight, efficient freight movement • Reduction of future cost (formerly criteria name of Ec21) • Maintenance of other roads and generally • Design for larger volume & no need to retrofit later • Economic evaluation to ensure a 'life cost' is reduced • Use of existing roads to reduce costs • Cost of managing flow-on effects from Stock Road (formerly criteria name of Ec22) • Access to Port - impact to wider network • Safety • Increase in rates/tax associated with infrastructure - knock on effects of new road increase existing LGA rates • Planning for tomorrow (formerly criteria name of Ec24) 	4	5	78	100	4	Consolidated with Ec3 (Future costs associated with road), Ec21 (Reduction of future cost) Ec22 (Cost of managing flow-on effects from Stock Road) and Ec 24 (Planning for tomorrow)
Ec14	Tourism Opportunities	<ul style="list-style-type: none"> • More tourists to Bibra Lake/Water Park • Access • Moving people, bringing in money • Indigenous Ecotourism (formerly criteria name of Ec33) 	0	0	7	7	9	
Ec15	Alternative methods of transport (renamed from Alternate methods of travel)	<ul style="list-style-type: none"> • Will cut two suburbs • Utilise alternate methods eg. Cyclist paths, pedestrian • Encourage less cars, less car use or public transport • Freight by rail (formerly criteria name of Ec 31) • Should be emphasis • Define route 	3	7	40	63	8	Consolidated with Ec31 (Freight by rail) Note: SMC team recommend considering moving this to the social category.

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Ec16	Land Value	<ul style="list-style-type: none"> • Will it devalue existing residential areas? • Commercial land may increase due to increased access/mobility • Property devalue (formerly criteria name of Ec29) • Bibra Lake property values - Forrest Road • Noise pollution - cost to residents • Noise/Air pollution - cost to residents, surrounding areas • Compensation to residents - damage due to vibration during construction and operation of RHE 	3	5	55	74	5	Consolidated with Ec29 (Property devalue)
Ec17	Outsourcing to foreign companies		0	0	0	0	14	
Ec18	Quality	<ul style="list-style-type: none"> • Need to accommodate wetlands • Is it the most cost efficient way of using the space in terms of needs of community (may miss commercial, go through residential areas)? 	0	0	4	4	10	
Ec23	Resumption of Land	<ul style="list-style-type: none"> • Cost of resuming property • Murdoch University 	0	0	0	0	14	
Ec28	Cost Benefit	<ul style="list-style-type: none"> • Reduce congestion on other roads (eg. Leach Hwy, South St) • Compromise leads to additional cost to the community • Environmentally & socially sound, particularly the lake • Cost benefit analysis in terms of the needs of the state vs constructing RHE eg. should we spend money on teachers, nurses, hospitals etc? • Cost of constructing a tunnel below the wetlands • Economic cost in the loss of ecotourism (formerly criteria name of Ec30) • Wetlands centre • Value of pristine environment • Impact on species • Economic impact of not having the road (Formerly criteria name of Ec34) • Industrial areas • Infrastructure (access to) • Ports • Road • Efficiency • Spaghetti junction • Stock Road (formerly criteria name of Ec35) • Costs & impacts 	4	1	27	41	8	Consolidated with Ec30 (Economic cost in the loss of ecotourism), Ec34 (Economic impact of not having the road) and Ec35 (Stock Road)
Ec32	Infrastructure around the road	<ul style="list-style-type: none"> • Accessways • Cycleways • Cost beyond building of the road 	0	0	1	1	12	
		Total score	56	50	528	796		