

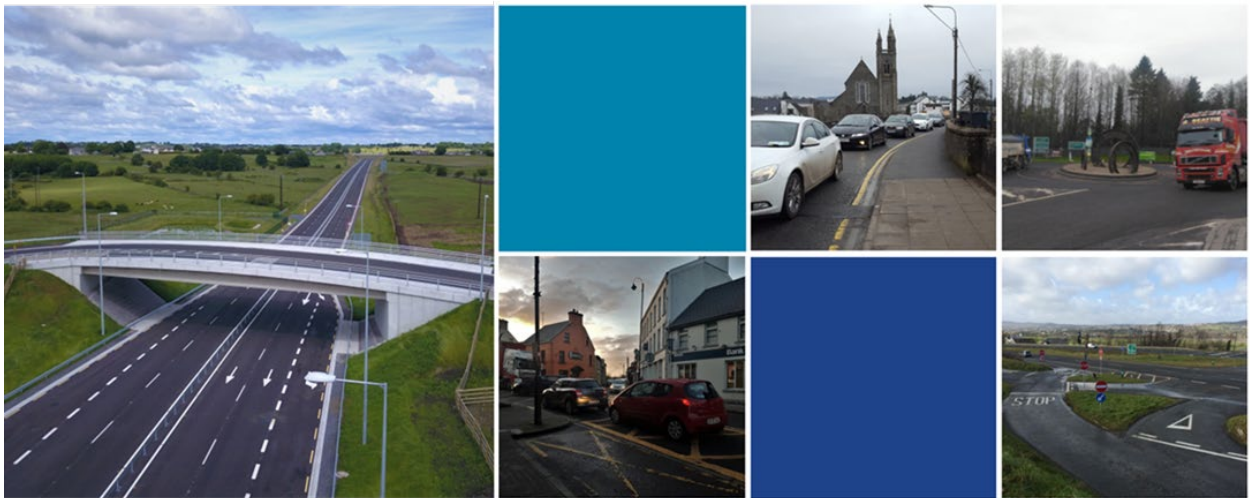


Comhairle Contae  
Dhún na nGall  
Donegal County Council



# TEN-T Priority Route Improvement Project, Donegal

## Phase 2, Option Selection Report Volume G2- Section 2 Stage 1 Option Selection Matrices



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# Document Control Sheet

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**SECTION 2 N56 N13 LETTERKENNY TO MANORCUNNINGHAM**  
**Stage 1 Option Assessment Matrix**

Option Reference	Option 2.1	Option 2.2	Option 2.3	Option 2.4	Option 2.5	Option 2.6	Option 2.7	Option 2.8	Option 2.9	Option 2.10	Option 2.11	Option 2.12	Option 2.13	Option 2.14	Option 2.15	Option 2.16	Option 2.17	Option 2.18	Option 2.19
Option + Links	Orange+C1	Purple	Purple+A	Purple+B	Purple+C1+C2	Purple+D	Purple+F	White	Pink	Pink+A	Pink+B	Pink+D	Red	Red+A	Red+B	Red+C1+C2	Red+D	Green	Green+C1+C2+C3
Engineering																			
Road Length (Mainline - m)	6797		6193	6193	6193	6193	6193			6526	6526	6526		5991	5991	5991	5991		5255
Number of road crossings	3		8	8	8	8	8			3	3	3		7	7	7	7		3
Length of Link Roads (m)	1415		2822	2304	2126	1696	2706			2822	2304	1696		2822	2304	2126	1696		2541
Connections to Primary / Regional roads	4		5	5	5	5	5			5	5	5		5	5	5	5		5
Number of strategic services crossed	3		3	3	3	3	4			3	3	3		3	3	3	3		2
Major River Crossings	1		1	1	1	1	1			1	1	1		1	1	1	1		2
Length of Road in flood plain (m) (1:100 year)	90		220	170	90	90	140			220	170	90		220	170	90	90		90
Other Watercourse Crossings	4		5	3	3	2	3			5	3	2		5	3	3	2		5
Road Safety Assessment																			
Earthworks - Cut / Fill balance (cubic metres)	467,098		1,082,591	903,936	1,121,740	982,650	2,347,507			702,780	524,125	602,839		642,878	464,224	682,028	542,937		571,112
Alignment Constraints																			
Green	3		2	2	3	5	1			2	2	5		2	2	3	5		6
Orange	7		7	7	6	4	8			7	7	4		7	8	6	4		2
Red	1		2	2	2	2	2			2	2	2		2	1	2	2		3
Average Score	2.182		2.000	2.000	2.091	2.273	1.909			2.000	2.000	2.273		2.000	2.091	2.091	2.273		2.273
Environmental																			
Planning and Development - length of road within zoned land (m)	1685		2618	3005	2827	2397	2820			1917	2304	1096		2408	2795	2617	2187		2248
Geology - length of road over peat/soft ground (m)	1561		2096	1502	1228	1113	675			2096	1502	1113		2096	1502	1228	1113		1451
Ecology - impact on SACs & SPA's	Medium indirect impact. No direct impact.		High indirect impact. Risk of direct impact.	High indirect impact. Risk of direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.			High indirect impact. Risk of direct impact.	High indirect impact. Risk of direct impact.	Medium indirect impact. No direct impact.		High indirect impact. Risk of direct impact.	High indirect impact. Risk of direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.		Medium indirect impact. No direct impact.
Ecology - impact on NHAs & pNHA's	Medium indirect impact. No direct impact.		High indirect impact. Risk of direct impact.	High indirect impact. Risk of direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.			High indirect impact. Risk of direct impact.	High indirect impact. Risk of direct impact.	Medium indirect impact. No direct impact.		High indirect impact. Risk of direct impact.	High indirect impact. Risk of direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.		Medium indirect impact. No direct impact.
Ecology - length of road within mature woodland (m)	0		0	0	0	0	0			0	0	0		0	0	0	0		0
Landscape and Visual - length of road within high landscape sensitivity (m)	2693		5247	4729	4551	4121	5131			2822	2304	1696		4333	3815	3637	3207		5026
Archaeology and Cultural Heritage - number of RHM / RMPs direct hits	0		0	0	0	0	0			0	0	0		0	0	0	0		0
Archaeology and Cultural Heritage - number of RHM / RMPs within 300m	2		1	1	2	2	1			1	1	2		1	1	2	2		3
Agriculture (m)	180		2708	1655	1780	1680	3095			1207	155	180		1983	931	1056	956		3999
Residential / Private Properties - direct hits	2		6	8	8	6	8			1	4	2		5	6	7	8		2
Air quality / noise / vibration - properties within 300m	187		143	156	157	147	157			202	215	206		142	155	156	146		84
Community impacts (schools, sports grounds, churches etc)	1		2	5	0	1	0			2	5	1		2	5	0	1		0
Communities severed	1		3	4	4	3	4			0	1	0		2	3	3	2		3
Green	4		2	3	4	3	4			5	5	6		3	3	4	3		4
Orange	9		5	3	5	7	4			4	3	6		4	4	6	8		4
Red	0		6	7	4	3	5			4	5	1		6	6	3	2		5
Average Score	2.308		1.692	1.692	2.000	2.000	1.923			2.077	2.000	2.385		1.769	1.769	2.077	2.077		1.923
Economy (Costs)																			
Total Scheme Cost (Land + Construction)	80		144	130	126	112	174			109	94	75		125	110	107	93		111
Green	1											1							
Orange				1	1	1				1	1			1	1	1	1		1
Red			1				1												
Average Score	3.000		1.000	2.000	2.000	2.000	1.000			2.000	2.000	3.000		2.000	2.000	2.000	2.000		2.000
<b>Total Average Score</b>	<b>7.490</b>	<b>N/A</b>	<b>4.692</b>	<b>5.692</b>	<b>6.091</b>	<b>6.273</b>	<b>4.832</b>	<b>N/A</b>	<b>N/A</b>	<b>6.077</b>	<b>6.000</b>	<b>7.657</b>	<b>N/A</b>	<b>5.769</b>	<b>5.860</b>	<b>6.168</b>	<b>6.350</b>	<b>N/A</b>	<b>6.196</b>
<b>Reason for elimination</b>		This option fails to meet the project objectives without a new link to Letterkenny.	Road crossings. Earthworks. Zoned Lands. Geology. Ecology; impact risks on SAC, SPA, NHA and pNHA sites. Landscape and Visual. Residential Property. Total Scheme Cost.	Road crossings. Earthworks. Zoned Lands. Ecology; impact risks on SAC, SPA, NHA and pNHA sites. Landscape and Visual. Residential Property. Community Impacts and Severance.		Road crossings. Earthworks. Zoned Lands. Landscape and Visual. Agriculture, Residential Property. Community Severance. Total Scheme Cost.		This option fails to meet the project objectives without a new link to Letterkenny.	This option fails to meet the project objectives without a new link to Letterkenny.	Earthworks. Alignment. Geology. Ecology; impacts and risks on SAC, SPA, NHA and pNHA sites. Air Quality/Noise.	Earthworks. Alignment. Zoned Lands. Ecology; impacts and risks on SAC, SPA, NHA and pNHA sites. Air Quality/Noise. Community Impacts.		This option fails to meet the project objectives without a new link to Letterkenny.	Road crossings. Earthworks. Zoned Lands. Geology. Ecology; impacts and risks on SAC, SPA, NHA and pNHA sites. Landscape and Visual. Residential Property.	Road crossings. Zoned Lands. Ecology; impacts and risks on SAC, SPA, NHA and pNHA sites. Landscape and Visual. Residential Property. Community Impacts.			This option fails to meet the project objectives without a new link to Letterkenny.	
<b>Routes retained for Stage 2 Options Assessment</b>	<b>Shortlisted to Stage 2</b>				<b>Shortlisted to Stage 2</b>	<b>Shortlisted to Stage 2</b>						<b>Shortlisted to Stage 2</b>				<b>Shortlisted to Stage 2</b>	<b>Shortlisted to Stage 2</b>		<b>Shortlisted to Stage 2</b>

Note: Average Scores were calculated based on the number of Greens, Orange and Reds. The average scores are not directly utilised in choosing options, but give an indication of the overall performance of each option for consideration during comparison and shortlisting. The significance of individual impacts is also a consideration in identifying options to be shortlisted.

**SECTION 2 N56 N13 LETTERKENNY TO MANORCUNNINGHAM  
Stage 1 Option Assessment Matrix**

Option Reference	Option 2.20	Option 2.21	Option 2.22	Option 2.23	Option 2.24	Option 2.25	Option 2.26	Option 2.27	Option 2.28	Option 2.29	Option 2.30	Option 2.31	Option 2.32	Option 2.33	Option 2.34	Option 2.35	Option 2.36	Option 2.37	Option 2.38	Option 2.39
Option + Links	Green+D	Green+E	BlueA	BlueA+D	BlueA+D+J	BlueA+F+J	BlueA+J	BlueB	BlueB+D	BlueB+D+J	BlueB+F+J	BlueB+J	YellowA	YellowA+D	YellowA+F	YellowA+G	YellowB	YellowB+D	YellowB+F	YellowB+G
Engineering																				
Road Length (Mainline - m)	5255	5255		4811	4811	4811			4766	4766	4766			4172	4172	4172		4127	4127	4127
Number of road crossings	7	9		5	6	7			6	7	8			6	6	6		7	7	7
Length of Link Roads (m)	1696	2518		1696	2545	3555			1696	2545	3555			1696	2706	2211		1696	2706	2211
Connections to Primary / Regional roads	5	5		5	5	5			4	4	5			4	4	4		3	3	3
Number of strategic services crossed	2	2		2	2	2			2	2	3			1	2	8		2	3	9
Major River Crossings	2	2		2	2	2			1	1	2			2	2	2		1	1	1
Length of Road in flood plain (m) (1:100 year)	90	90		90	90	140			90	90	140			90	140	55		90	140	55
Other Watercourse Crossings	4	5		4	5	6			4	5	6			4	5	1		4	5	1
Road Safety Assessment																				
Earthworks - Cut / Fill balance (cubic metres)	284,184	699,456		125,825	198,332	1,563,190			121,813	194,319	1,559,177			1,012,920	351,938	2,475,211		1,010,272	354,586	2,472,563
Alignment Constraints																				
Green	7	6		7	4	3			6	3	2			4	2	3		4	1	3
Orange	2	2		3	6	4			5	7	5			4	7	4		4	8	4
Red	2	3		1	1	4			0	1	4			3	2	4		3	2	4
Average Score	2.455	2.273		2.545	2.273	1.909			2.545	2.182	1.818			2.091	2.000	1.909		2.091	1.909	1.909
Environment																				
Planning and Development - length of road within zoned land (m)	1715	2002		1696	1715	2138			1696	1715	2138			1785	2208	1890		1785	2208	1890
Geology - length of road over peat/soft ground (m)	1337	1353		1338	1338	900			1113	1113	675			1338	900	0		1113	675	0
Ecology - Impact on SACs & SPA's	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.		Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.			Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.			Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.		Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.
Ecology - Impact on NHAs & pNHA's	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.		Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.			Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.			Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.	Low indirect impact. No direct impact.		Medium indirect impact. No direct impact.	Medium indirect impact. No direct impact.	Low indirect impact. No direct impact.
Ecology - length of road within mature woodland (m)	0	0		630	630	630			630	630	630			0	0	0		0	0	4
Landscape and Visual - length of road within high landscape sensitivity (m)	4219	5004		3493	3530	4540			3129	3166	4176			2935	3945	3450		2571	3581	3087
Archaeology and Cultural Heritage - number of RHM / RMPs direct hits	0	0		0	0	0			0	0	0			0	0	0		0	0	0
Archaeology and Cultural Heritage - number of RHM / RMPs within 300m	3	3		3	3	2			3	3	2			4	3	3		4	3	3
Agriculture (m)	3754	3484		3321	3696	5110			3564	3940	5355			3417	4852	4660		3683	5096	4865
Residential / Private Properties - direct hits	2	3		4	5	5			4	5	7			4	6	8		4	6	8
Air quality / noise / vibration - properties within 300m	74	102		51	52	62			45	46	56			43	53	48		37	47	42
Community impacts (schools, sports grounds, churches etc)	1	1		1	1	0			1	1	0			1	0	0		1	0	0
Communities severed	3	4		3	3	3			3	3	3			3	3	3		3	3	3
Green	3	2		2	2	4			2	2	4			3	5	6		3	5	6
Orange	7	6		7	6	4			7	6	4			8	3	3		8	3	3
Red	3	5		4	5	5			4	5	5			2	5	4		2	5	4
Average Score	2.000	1.769		1.846	1.769	1.923			1.846	1.769	1.923			2.077	2.000	2.154		2.077	2.000	2.154
Economy																				
Total Scheme Cost (Land and Construction) (Millions-Euros)	97	121		84	93	155			82	91	153			96	107	125		93	115	122
Green				1					1											
Orange	1	1			1					1				1		1		1		1
Red						1					1				1					
Average Score	2.000	2.000		3.000	2.000	1.000			3.000	2.000	1.000			2.000	1.000	2.000		2.000	2.000	2.000
<b>Total Average Score</b>	<b>6.455</b>	<b>6.042</b>	<b>N/A</b>	<b>7.392</b>	<b>6.042</b>	<b>4.832</b>	<b>N/A</b>	<b>N/A</b>	<b>7.392</b>	<b>5.951</b>	<b>4.741</b>	<b>N/A</b>	<b>N/A</b>	<b>6.168</b>	<b>5.000</b>	<b>6.063</b>	<b>N/A</b>	<b>6.168</b>	<b>5.909</b>	<b>6.063</b>
<b>Reason for elimination</b>		Road crossings. Major River Crossings. Earthworks. Zoned Lands. Landscape and Visual. Archaeology/Cultural Heritage. Agriculture. Community severance.	This option fails to meet the project objectives without a new link to Letterkenny.		Major River Crossings. Mature Woodland. Landscape and Visual. Archaeology/Cultural Heritage. Agriculture. Residential Property.	Road crossings. Major and Minor River Crossings. Earthworks. Zoned Lands. Mature Woodland. Landscape and Visual. Agriculture. Residential Property. Total Scheme Cost.	This option fails to meet the project objectives without a new link to Letterkenny.	This option fails to meet the project objectives without a new link to Letterkenny.		Road crossings. Mature Woodland. Landscape and Visual. Archaeology/Cultural Heritage. Agriculture. Residential Property.	Road crossings. Major and Minor River Crossings. Earthworks. Zoned Lands. Mature Woodland. Landscape and Visual. Agriculture. Residential Property. Total Scheme Cost.	This option fails to meet the project objectives without a new link to Letterkenny.	This option fails to meet the project objectives without a new link to Letterkenny.	Major River Crossings. Earthworks. Alignment. Archaeology / Cultural Heritage. Agriculture.	Major River Crossings. Alignment. Zoned Land. Landscape and Visual. Archaeology / Cultural Heritage. Agriculture. Residential Property. Total Scheme Cost.	Strategic Services crossed. Major River Crossings. Alignment. Landscape and Visual. Archaeology / Cultural Heritage. Agriculture. Residential Property.	This option fails to meet the project objectives without a new link to Letterkenny.	Road Crossings. Alignment. Earthworks. Agriculture.	Road Crossings. Alignment. Zoned Lands. Landscape and Visual. Archaeology / Cultural Heritage. Agriculture. Residential Property.	Road Crossings. Strategic Services crossed. Alignment. Landscape and Visual. Archaeology / Cultural Heritage. Agriculture. Residential Property.
<b>Routes retained for Stage 2 Options Assessment</b>	<b>Shortlisted to Stage 2</b>			<b>Shortlisted to Stage 2</b>					<b>Shortlisted to Stage 2</b>											

Note: Average Scores were calculated based on the number of Green, Orange and Red. The average scores are not directly utilised in choosing options, but give an indication of the overall performance of each option for consideration during comparison and shortlisting. The significance of individual impacts is also a consideration in identifying options to be shortlisted.