
The Norfolk County Council (Norwich Northern Distributor Road (A1067 to A47(T))) Order

NDR Option Comparative Table

Planning Act 2008

Infrastructure Planning

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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		119348	452747	590540	118431	472109	657063*	115270	541793*	802389	115270
<i>Other business Impacts</i>											
Developer contributions	0	0	0	0	0	0	0	0	0	0	0
NET BUSINESS IMPACT	267797		5683		-13299		827699*			700988	
TOTAL											
Present Value of Transport Economic Efficiency Benefits (TEE)	699584		998605		981370		919590*			117455	

Notes: All monetary values are expressed in 2010 prices discounted to 2010

* These values are affected by the unit error and incomplete capture of fares in the public transport analysis which are corrected in PT Option corrected columns

DCO: Table 5.1 of Document Ref 5.7; repeated in Appendix A NCC/EX/90

NDR + NATS PT: Table 8 of NCC/EX/72; repeated in Appendix A NCC/EX/90

NDR + NATS PT all measures/ops from 2017: Table 8 of NCC/EX/90

PT Option original: Table 1 of NCC/EX/90

PT Option corrected: Table 3 of NCC/EX/71; repeated in Appendix A NCC/EX/90

2. Analysis of Monetised Costs and Benefits Tables

Item	Accidents Included (£000)				
	DCO	NDR + NATS PT (NCC/EX/72)	NDR + NATS PT all improvements from 2017	PT Option original	PT Option corrected
Accidents (not assessed by TUBA)	41,219	36,186	36,186*	-11,718	-11,718
Greenhouse Gases	-22,756	-27,964	-27,984	-5,431	-5,431
Economic Efficiency: Consumer Users (Commuting)	51,164	113,632	112,109	-38,950	24,729
Economic Efficiency: Consumer Users (Other)	380,623	879,290	882,560	-52,941	558,804
Economic Efficiency: Business Users and Providers	267,797	5,683	-13,299	-827,699	-700,988
Wider Public Finances (Indirect Taxation Revenues)	55,270	109,352	109,419	20,803	43,478
Present Value of Benefits (PVB)	773,317	1,116,179	1,098,991	-915,936	-91,126
Broad Transport Budget Present Value of Costs (PVC)	185,542	186,544	186,315	26,611	26,611
OVERALL IMPACTS					
Net Present Value (NPV)	587,775	929,635	912,676	-942,547	-117,737
Benefit to Cost Ratio (BCR)	4.168	5.983	5.899	-34.419	-3.424

Notes: All monetary values are expressed in 2010 prices discounted to 2010

*Assumed similar to NDR + NATS PT (NCC/EX/72)

DCO: Table 5.3 of Document Ref 5.7; repeated in Table 7 of NCC/EX/90

NDR + NATS PT: Table 6 of NCC/EX/72; repeated in Table 7 of NCC/EX/90

NDR + NATS PT all measures/ops from 2017: Table 7 of NCC/EX/90

PT Option original: Table 10.9 of Appendix B of Document Ref 5.12

PT Option corrected: Table 1 of NCC/EX/71

3. Wider economic benefits and Journey time reliability

Wider Economic benefits:

	Year 2017 (£)	Year 2032 (£)	Full Appraisal Period (£)	Year 2017 (£)	Year 2032 (£)	Full Appraisal Period (£)	Year 2017 (£)	Year 2032 (£)	Full Appraisal Period (£)	Year 2017 (£)	Year 2032 (£)	Full Appraisal Period (£)
Agglomeration – manufacturing	376,864	218,217	12,099,287	373,874	215,690	11,968,637	-139,452	-125,914	-6,445,905	-139,452	-125,914	-6,445,905
Agglomeration – construction	308,611	190,741	10,433,028	306,365	188,615	10,324,901	-157,539	-162,540	-8,166,592	-157,539	-162,540	-8,166,592
Agglomeration - consumer services	946,115	724,016	38,054,835	938,458	714,885	37,604,220	-594,045	-887,759	-42,775,043	-594,045	-887,759	-42,775,043
Agglomeration - producer services	2,413,810	1,577,908	85,351,823	2,397,401	1,555,704	84,271,260	-2,378,999	-4,411,316	-208,618,191	-2,378,999	-4,411,316	-208,618,191
Agglomeration – Total	4,045,400	2,710,882	145,938,973	4,016,098	2,674,894	144,169,018	-3,270,035	-5,587,529	-266,005,731	-3,270,035	-5,587,529	-266,005,731
Labour supply impact	44,195	71,134	2,634,209	41,514	68,747	2,537,606	-40,160	-42,895	-1,681,254	-40,160	-42,895	-1,681,254
Increased output in imperfectly competitive market			38,775,300			37,477,500			-16,802,700			-16,802,700
The move to more/less productive jobs			Not assessed			Not assessed			Not assessed			Not assessed
Total	4,089,595	2,782,016	187,348,482	4,057,612	2,743,641	184,184,124	-3,310,195	-5,630,424	-284,489,685	-3,310,195	-5,630,424	-284,489,685

Notes: All entries are in £ in 2010 prices discounted to 2010

DCO: Table 8.1 of Document Ref 5.7

NDR + NATS PT: Overall figures - Section 5.1.5 of NCC/EX/72; supporting sub-entries added from existing data sheets

NDR + NATS PT all measures/ops from 2017: Not calculated due to limited timescale as explained in Section 4.6 of NCC/EX/90

PT Option original: Overall figures – Section 10.2.25 of Appendix B of Document Ref 5.12; supporting sub-entries added from existing data sheets

PT option corrected: Overall figures - Section 1.2.5 of NCC/EX/71; supporting sub-entries added from existing data sheets

Journey time reliability benefits

Full (60yrs) Appraisal	28,398	28,381	-29,620	-29,620
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Notes: Benefits are in 2010 prices and discounted to 2010

DCO: Table 9.1 of Document Ref 5.7

NDR + NATS PT: Overall figure - Section 5.1.5 of NCC/EX/72; detailed figure added from existing data sheet

NDR + NATS PT all measures/ops from 2017: Not calculated due to limited timescale as explained in Section 4.6 of NCC/EX/90

PT Option original: Overall figure – Section 10.2.25 of Appendix B of Document Ref 5.12; detailed figure added from existing data sheet

PT option corrected: Overall figures - Section 1.2.5 of NCC/EX/71

4. Costs - investment and other costs

Summary investment and other costs

Cost type	Cost (£m) in 2013Q1 prices			PT Option original/ corrected
	DCO Scheme	NDR + NATS PT strategy (NCC/EX/72)	NDR + NATS PT strategy all improvements from 2017	
<i>Investment costs</i>				
Construction	110.2	110.2	110.2	37.7
Land	22.0	22.0	22.0	2.4
Preparation	7.8	7.8	7.8	3.8
Supervision	1.3	1.3	1.3	0.4
Total investment Cost	141.3	141.3	141.3	44.3
<i>Other costs</i>				
Maintenance	27.8	27.8	27.8	5.5
Operation	15.9	15.9	15.9	1.4
Cost of PT (buses/operation/maintenance)	-	500.9	548.1	1,211.9

Notes: Highway investment costs are before adjusting for construction price inflation and optimism bias

DCO: Tables 4.1, 4.7, and 4.8 of Document Ref 5.7; collated in Table 6 of NCC/EX/90

NDR + NATS PT: Table 4 of NCC/EX/72; repeated in Table 6 of NCC/EX/90

NDR + NATS PT all measures/ops from 2017: Table 6 of NCC/EX/90

PT Option original: Table 10.3 of Document Ref 5.12

PT Option corrected: data not presented in NCC/EX/71 but same as PT Option original because no change to PT Option costs as explained in Section 1.2 of NCC/EX/71 and in Section 1.1 of NCC/EX/90

Allocation of discounted bus costs by cost element

Costs over a 60 year appraisal period	Cost (£m, 2010 prices discounted to 2010)		
	NDR + NATS PT	NDR + NATS PT all measures/ops from 2017	PT Option original/corrected
Cost of buying vehicles	20.8	22.8	49.5
Refurbishment cost of core buses	0.3	0.4	1.1
Vehicle operating costs	166.9	183.8	431.4
Total cost	188	207	482

DCO: N/A

NDR + NATS PT: Table 4 of NCC/EX/90 [NB the heading of Table 4 erroneously refers to the PT Option and should refer to the NDR + NATS PT]

NDR + NATS PT all measures/ops from 2017: Figures not presented in NCC/EX/90 but supplied from supporting data sheets

PT Option original: Data not presented in Document Ref 5.12 but same as PT Option corrected (see Table 3 of NCC/EX/90) because no change to PT Option costs as explained in Section 1.2 of NCC/EX/71 and in Section 1.1 of NCC/EX/90

PT Option corrected: Table 3 of NCC/EX/90

5. Public accounts tables

Item	Cost (£000s)				
	DCO	NDR + NATS PT (NCC/EX/72)	NDR + NATS PT all improvements from 2017	PT Option original	PT Option corrected
Local Government Funding					
Revenue	28,834	29,837	29,608	23,729	23,729
Operating Costs	17,806	17,806	17,806	2,882	2,882
Investment Costs	62,333	62,333	62,333	0	0
Developer Contributions	0	0	0	0	0
Grant/Subsidy Payments	0	0	0	0	0
NET IMPACT	108,974	109,976	109,747	26,611	26,611
Central Government Funding: Transport					
Revenue	0	0	0	0	0
Operating costs	0	0	0	0	0
Investment costs	76,568	76,568	76,568	0	0
Developer Contributions	0	0	0	0	0
Grant/Subsidy Payments	0	0	0	0	0
NET IMPACT	76,568	76,568	76,568	0	0
Central Government Funding: Non-Transport					
Indirect Tax Revenues	-55,270	-109,352	-109,419	-20,803	-43,478
TOTALS					
Broad Transport Budget	185,542	186,544	186,315	26,611	26,611
Wider Public Finances	-55,270	-109,352	109,419	-20,803	-43,478

Notes: All monetary values are expressed in 2010 prices discounted to 2010.

DCO: Table 5.2 of Document Ref 5.7 and repeated in Appendix A of NCC/EX/90

NDR + NATS PT: Appendix A of NCC/EX/90

NDR + NATS PT all measures/ops from 2017: Figures not presented in NCC/EX/90 but supplied from supporting data sheets and overall figures match Table 7 of NCC/EX/90

PT Option original: Figures not presented in Document Ref 5.12 but supplied from supporting data sheets and overall figures match Table 10.9 of Appendix B of Document Ref 5.12

PT Option corrected: Appendix A of NCC/EX/90

6. Description of Option contents – as per Table 10 of NCC/EX/90

Element included in the modelled scenario	DCO Scheme	NDR + NATS PT	NDR + NATS PT all measures/ops from 2017	PT Option original	PT Option corrected
Postwick Improvement	Y	Y	Y	Y	Y
NDR	Y	Y	Y	N	N
Developer link roads	Y*	Y*	Y*	Y*	Y*
Link between Hurricane Way and St Faiths Road (extending the developer link roads to Airport)	N	For PT element only	For PT element only	Y	Y
City centre measures	Y	Y	Y	Y	Y
BRT	N	Y**	Y**	Y**	Y**
Core bus improvements	N	Y**	Y**	Y**	Y**

* Assumptions for developer link roads are different in the DCO, NDR + NATS PT and NDR + NATS PT all measures/ops from 2017 scenarios to the PT Option original and the PT Option corrected scenarios. In all scenarios the developer link roads are included in the highway network but the costs of the developer link roads are only included in the scenarios which are alternatives to the NDR (rather than additions to the NDR), i.e. the PT Options, as explained in Sections 2.2 and 2.3 of NCC/EX/90. Even if the costs of the developer link roads were excluded it is expected that the BCR of the PT Options would remain negative.

**Assumptions for BRT and Core Bus improvements are different in the PT Option original and the PT Option corrected to the NDR + NATS PT and NDR + NATS PT all measures/ops from 2017. For the PT Options the assumptions are set out in Table 10.1 and Section 10.2.9 of Appendix B of Document Ref 5.12. For the NDR + NATS PT scenario the assumptions are set out in Table 1 and Section 2.1.2 of NCC/EX/72 and for the NDR + NATS PT all measures/ops from 2017 the assumptions are set out in Section 4.2 of NCC/EX/90.