

# Greater Norwich Infrastructure Needs & Funding Study

Final Report: Appendix A

Overview of Infrastructure Delivery Model

October 2009

Greater Norwich Infrastructure Study Cost / Income Analysis  
Summary Sheet [Based on current day prices]

SUMMARY INFRASTRUCTURE COSTS																									
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total	
<b>Strategic Infrastructure (Actual Costs)</b>																									
Education Costs	£0	£0	£540,000	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£226,025,000
Healthcare Costs	£0	£1,074,379	£4,425,161	£1,303,556	£1,442,284	£1,474,674	£2,252,633	£5,131,632	£1,851,746	£1,818,133	£1,650,071	£6,239,627	£2,522,956	£1,529,065	£1,455,729	£1,455,729	£3,462,618	£3,932,114	£1,599,346	£1,559,622	£1,559,622	£3,922,122	£7,150,511	£63,813,333	
Emergency Services Costs	£0	£584,331	£606,649	£642,227	£698,580	£712,949	£722,101	£613,281	£412,466	£364,502	£257,503	£1,149,847	£1,149,847	£252,347	£252,347	£252,347	£882,347	£882,347	£695,876	£695,876	£695,876	£972,126	£971,726	£14,467,500	
Community Facilities Costs	£0	£0	£0	£0	£0	£0	£0	£810,000	£4,800,000	£0	£0	£0	£3,000,000	£4,440,000	£0	£0	£3,610,000	£6,130,000	£0	£0	£0	£6,420,000	£9,320,000	£38,530,000	
Open Space Costs	£0	£12,954,472	£12,510,633	£13,629,583	£13,592,029	£13,890,657	£13,109,508	£12,286,795	£12,245,023	£12,153,879	£11,811,820	£12,163,061	£11,240,844	£10,748,995	£10,011,221	£10,011,221	£10,011,221	£9,427,150	£17,553,248	£17,226,383	£17,226,383	£17,226,383	£17,214,960	£288,245,472	
Waste Costs	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£225,000	£225,000	£0	£0	£0	£0	£0	£0	£0	£0	£160,000	£160,000	£770,000	
Utilities Costs	£0	£1,793,880	£1,793,880	£1,848,240	£0	£0	£0	£0	£338,764,000	£2,401,333	£2,401,333	£2,401,333	£2,401,333	£2,401,333	£2,401,333	£3,011,933	£3,011,933	£3,011,933	£4,194,933	£3,287,333	£3,287,333	£3,287,333	£3,287,333	£3,287,333	£507,269,000
Transport Costs	£0	£10,737,569	£10,830,821	£9,374,894	£51,002,413	£53,342,186	£54,647,782	£54,687,447	£4,378,790	£4,378,790	£4,378,790	£4,378,790	£4,378,790	£4,211,387	£4,211,387	£4,211,387	£4,211,387	£4,211,387	£4,211,387	£10,470,118	£10,433,604	£10,433,604	£10,433,604	£10,433,604	£89,100,000
Economic Development Costs	£7,446,667	£9,536,667	£9,536,667	£6,770,000	£1,000,000	£1,000,000	£1,000,000	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£36,290,000
Economic Development Costs	£7,446,667	£9,536,667	£9,536,667	£6,770,000	£1,000,000	£1,000,000	£1,000,000	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£1,564,510,305

Public/Private Sector Funding Sources																									
Infrastructure Funding by Source (Annual)																									
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total	
DP Identified Funding	£166,667	£3,873,333	£3,873,333	£3,706,667	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£11,620,000
AMP	£0	£1,255,980	£1,255,980	£1,294,040	£0	£0	£0	£338,764,000	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£3,287,333	£3,287,333	£3,287,333	£3,287,333	£3,287,333	£493,750,000
Community Infrastructure Fund	£0	£6,930,000	£6,930,000	£7,140,000	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£21,000,000
Regional Funding Allocation	£0	£0	£0	£15,940,000	£15,940,000	£15,940,000	£15,940,000	£15,940,000	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£79,700,000
Growth Point Funding	£0	£7,110,263	£7,110,263	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£14,220,526
<b>TOTAL INCOME</b>	<b>£166,667</b>	<b>£19,169,576</b>	<b>£19,169,576</b>	<b>£28,080,707</b>	<b>£15,940,000</b>	<b>£15,940,000</b>	<b>£15,940,000</b>	<b>£354,704,000</b>	<b>£1,137,333</b>	<b>£1,137,333</b>	<b>£1,137,333</b>	<b>£1,137,333</b>	<b>£1,137,333</b>	<b>£1,137,333</b>	<b>£1,137,333</b>	<b>£1,137,333</b>	<b>£1,137,333</b>	<b>£1,137,333</b>	<b>£3,081,133</b>	<b>£3,287,333</b>	<b>£3,287,333</b>	<b>£3,287,333</b>	<b>£3,287,333</b>	<b>£3,287,333</b>	<b>£620,290,526</b>

Land Value Capture Income																									
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total	
<b>High Land Value</b>																									
Land Value Capture: Residential	£0	£841,000	£841,000	£1,416,000	£1,991,000	£6,286,000	£15,249,000	£19,420,000	£22,672,000	£23,072,000	£23,432,000	£23,784,000	£22,584,000	£21,944,000	£20,984,000	£20,984,000	£20,980,500	£19,980,500	£24,688,500	£23,908,500	£23,908,500	£23,908,500	£23,905,000	£23,905,000	£386,780,000
Land Value Capture: Employment Land	£0	£0	£0	£0	£0	£0	£0	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£326,155	£5,218,485
<b>Low Land Value</b>																									
Land Value Capture: Residential	£0	£1,218,000	£1,218,000	£2,598,000	£3,978,000	£10,390,000	£24,831,000	£41,577,000	£48,613,000	£49,838,000	£51,188,000	£52,519,000	£49,669,000	£48,149,000	£45,869,000	£45,869,000	£45,854,500	£43,369,500	£52,158,500	£50,663,500	£50,663,500	£50,663,500	£50,649,000	£50,649,000	£821,546,000
Land Value Capture: Employment Land	£0	£0	£0	£0	£0	£0	£0	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£834,424	£13,350,789

COST / INCOME ANALYSIS																									
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total	
Total Infrastructure Cost	£7,446,667	£36,681,298	£40,243,811	£83,568,500	£67,735,306	£70,420,467	£72,542,024	£416,283,155	£21,289,358	£21,085,742	£20,314,137	£37,100,256	£160,185,105	£19,814,524	£24,076,003	£24,076,003	£56,132,330	£62,884,918	£33,605,922	£33,742,819	£33,742,819	£107,441,569	£114,097,573	£1,564,510,305	
Total Public / Private Funding	£166,667	£19,169,576	£19,169,576	£28,080,707	£15,940,000	£15,940,000	£15,940,000	£354,704,000	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£1,137,333	£3,081,133	£3,287,333	£3,287,333	£3,287,333	£3,287,333	£3,287,333	£620,290,526
Total Infrastructure Cost - High Market Value	£0	£841,000	£841,000	£1,416,000	£1,991,000	£6,286,000	£15,249,000	£19,746,155	£22,998,155	£23,398,155	£23,758,155	£24,110,155	£22,910,155	£22,270,155	£21,310,155	£21,310,155	£21,306,655	£20,306,655	£25,014,655	£24,234,655	£24,234,655	£24,234,655	£24,231,155	£24,231,155	£391,998,485
Total Infrastructure Cost - Low Market Value	£0	£1,218,000	£1,218,000	£2,598,000	£3,978,000	£10,390,000	£24,831,000	£42,411,424	£49,447,424	£50,672,424	£52,022,424	£53,353,424	£50,503,424	£48,983,424	£46,703,424	£46,703,424	£46,688,924	£44,203,924	£52,992,924	£51,497,924	£51,497,924	£51,497,924	£51,483,424	£51,483,424	£834,896,789

Funding Gap - High Market Value	7,280,000	16,670,721.3	20,233,234.3	54,071,793.8	49,804,306.0	48,194,467.0	41,353,024.1	41,832,999.4	-2,846,130.5	-3,449,747.0	-4,581,351.5	11,852,767.3	17,754,615.9	-4,353,764.8	867,714.1	867,714.1	32,927,541.2	39,497,129.5	5,303,933.7	6,220,830.6	6,220,830.6	79,919,580.6	86,579,084.3	552,221,294
Cumulative Funding Position	£7,280,000	£23,950,721	£44,183,956	£98,255,749	£148,060,055	£196,254,522	£237,607,547	£279,440,546	£276,594,415	£273,144,668	£268,563,317	£280,416,084	£298,170,700	£293,816,935	£294,684,649	£295,552,363	£328,479,905	£367,977,034	£373,280,968	£379,501,798	£385,722,629	£465,642,210	£552,221,294	

Funding Gap - Low Market Value	7,280,000.0	16,293,721.3	19,856,234.3	52,889,793.8	47,817,306.0	44,090,467.0	31,771,024.1	19,167,730.4	-29,295,399.5	-30,724,015.9	-32,845,620.5	-17,390,501.7	-9,838,651.1	-31,067,033.8	-24,525,554.9	-24,525,554.9	7,545,272.2	15,599,860.5	-22,674,335.3	-21,042,438.4	-21,042,438.4	52,656,311.6	59,326,815.3	£109,322,990
Cumulative Funding Position	£7,280,000	£23,573,721	£43,429,956	£96,319,749	£144,137,055	£188,227,522	£219,998,547	£239,166,277	£209,870,877	£179,146,861	£146,301,241	£128,910,739	£119,072,086	£88,005,052	£63,479,497	£38,953,943	£46,499,215	£62,099,075	£39,424,740	£18,382,301	£2,660,137	£49,996,175	£109,322,990	

Greater Norwich Infrastructure Study Cost / Income Analysis

STRATEGIC INFRASTRUCTURE PROJECTS					INFRASTRUCTURE COST ANALYSIS - %																							
TRANSPORT					2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	
<b>Public Transport</b>																												
1	Essential	Nonich	City Centre Bus Enhancements	2011-21				10%	10%	10%	10%	10%	10%	10%	10%	10%												
2	Essential	Spronston / Rackheath Growth Tr	BRT Corridor - Yarmouth Road	2021-26													20%	20%	20%	20%	20%							
3	Essential	Spronston / Rackheath Growth Tr	BRT Corridor - Salhouse Road, Guney Road	2011-16				20%	20%	20%	20%	20%																
4	Essential	Spronston / Rackheath Growth Tr	BRT Corridor - growth areas (junction end) via airport to A140 to City Centre	2011-26				7%	7%	7%	7%	7%	7%	7%	7%	7%												
5	Essential	South Norfolk Elsewhere	BRT Corridor - City Centre via Donham Road (BQP)	2011-21				10%	10%	10%	10%	10%	10%	10%	10%	10%												
6	Essential	Wymondham	Bus priority - Hebersett Lane / Hospital / NRP / UEA / City Centre (Wymondham associated costs)	2011-16				20%	20%	20%	20%	20%																
7	Essential	Hebersett	Bus priority - Hebersett Lane / Hospital / NRP / UEA / City Centre (Hebersett associated costs)	2011-16				20%	20%	20%	20%	20%																
7	Essential	Cringford	Bus priority - Hebersett Lane / Hospital / NRP / UEA / City Centre (Cringford associated costs)	2011-16				20%	20%	20%	20%	20%																
7	Essential	Wymondham	Bus priority - B1172 (Wymondham associated costs)	2011-16				20%	20%	20%	20%	20%																
8	Essential	Hebersett	Bus priority - B1172 (Hebersett associated costs)	2011-16				20%	20%	20%	20%	20%																
8	Essential	Wymondham	Rail station improvements	2011		50%	50%																					
9	Essential	Wymondham	Widening of rail bridge at station	2016						33%	33%	34%																
10	Essential	Long Stratton	Widening of rail bridge for bus priority	2016																								
11	Essential	Long Stratton	BRT Corridor - A140 to City Centre	TBA (assumed 2031)																		20%	20%	20%	20%	20%		
12	Essential	Long Stratton	Bus priority - approach to Harford Junction	2016							50%	50%																
12	Essential	Spronston / Rackheath Growth Tr	Rebuild / new rail station at Rackheath	TBA (assumed 2031)																								
14	Essential	GNCP Wide	Travel plans - travel awareness campaign and improved information	2011-31		3%	3%	4%	4%	4%	5%	5%	5%	5%	5%	5%	5%	4%	4%	4%	4%	5%	5%	5%	5%	5%		
<b>Roads and Highways</b>																												
15	Critical	Broadland Wide	NDR (Broadland costs only)	2011-16				20%	20%	20%	20%	20%																
15	Critical	Nonich	NDR (Nonich costs only)	2011-16				20%	20%	20%	20%	20%																
16	Critical	Spronston / Rackheath Growth Tr	Development link BPP to Salhouse Road	2011-26		3%	3%	4%	4%	4%	5%	5%	5%	5%	5%	5%	5%	4%	4%	4%	4%	5%	5%	5%	5%	5%		
17	Critical	Spronston / Rackheath Growth Tr	Prestwick Hub	2011		33%	33%	34%																				
18	Critical	South Norfolk Elsewhere	NRP transport infrastructure	2016				20%	20%	20%	20%	20%																
19	Critical	Long Stratton	A140 Long Stratton bypass	2016				20%	20%	20%	20%	20%																
19	Critical	South Norfolk Wide	Junction improvements - Long Water	2011-16				20%	20%	20%	20%	20%																
19	Critical	Wymondham	Junction improvements - Thedham - including bus priority, Park & Ride, and A11 off slip	2016				20%	20%	20%	20%	20%																
20	Critical	GNCP Wide	Local access improvements	2011-31		3%	3%	4%	4%	4%	5%	5%	5%	5%	5%	5%	5%	4%	4%	4%	4%	5%	5%	5%	5%	5%		
21	Essential	GNCP Wide	Village centre enhancements	2011-31				4%	4%	4%	5%	5%	5%	5%	5%	5%	4%	4%	4%	4%	5%	5%	5%	5%	5%	5%		
22	Essential	GNCP Wide	BRT A1067	2021-26																		20%	20%	20%	20%	20%		
23	Desirable	South Norfolk Wide	Pedestrian / Cycle link to longwater	2016				20%	20%	20%	20%	20%																
24	Desirable	Nonich	City Centre public realm enhancement	2011-2026		3%	3%	4%	4%	4%	5%	5%	5%	5%	5%	5%	5%	4%	4%	4%	4%	5%	5%	5%	5%	5%		
<b>INFRASTRUCTURE COST ANALYSIS - %</b>																												
<b>MAIN SERVICES / UTILITIES</b>																												
<b>Electricity, Power Supply, and Gas</b>																												
25	Critical	Nonich	Hurricane Way Primary - New primary substation on existing site	2009-12																								
26	Critical	Nonich	Nonich Airport North - new primary sub-station + 13kV circuits	2017-21		33%	33%	34%																				
27	Critical	Broadland Wide	Nonich Airport North - new primary sub-station + 13kV circuits	2022-26									20%	20%	20%	20%												
28	Critical	South Norfolk Wide	Hagton Primary - replacement of transformers and switchgear in existing site	2022-26													20%	20%	20%	20%	20%							
29	Critical	South Norfolk Wide	Wymondham Primary - Replacement of transformers and switchgear in existing site	2022-26													20%	20%	20%	20%	20%							
30	Critical	Nonich	New Grid Sub-station on existing site + 13kV cables	2017-2021									7%	7%	7%	7%	7%	7%	7%	7%								
31	Critical	Nonich	Reinforcement of existing sub-station + 13kV cables	2027-31																		20%	20%	20%	20%	20%		
<b>Water</b>																												
33	Critical	Nonich	Potable Water	2009-21								35%					65%											
34	Critical	Spronston / Rackheath Growth Tr	Potable Water - Rackheath	2009-21								72%					28%											
35	Critical	Spronston / Rackheath Growth Tr	Potable Water - Spronston Fringe	2009-21								67%					33%											
36	Critical	Broadland Wide	Potable Water - Thorpe St Andrew (Broadland Business Park)	2009-21								70%					30%											
37	Critical	Broadland Elsewhere	Potable Water - Broadland Sewaler Sites	2009-21								100%					0%											
38	Critical	Wymondham	Potable Water - Wymondham	2009-21								74%					26%											
39	Critical	Long Stratton	Potable Water - Long Stratton	2009-21								0%					100%											
40	Critical	Hebersett	Potable Water - Hebersett Cringford, Cokey (Hebersett Costs)	2009-21								61%					39%											
47	Critical	Cringford	Potable Water - Hebersett Cringford, Cokey (Cringford Costs)	2009-21								61%					39%											
47	Critical	South Norfolk Elsewhere	Potable Water - Hebersett Cringford, Cokey (Cokey Costs)	2009-21								61%					39%											
48	Critical	Easton	Potable Water - Easton and Condessey	2009-21								57%					43%											
48	Critical	South Norfolk Elsewhere	Potable Water - South Norfolk Smaller Sites	2009-26								100%					0%											
49	Critical	Nonich	Waste Water - Wymondham (Nonich only)	2009-16								67%					33%											
50	Critical	Spronston / Rackheath Growth Tr	Waste Water - Rackheath (new)	2009-16								100%					0%											
51	Critical	Spronston / Rackheath Growth Tr	Waste Water - Spronston Fringe (new)	2009-16								100%					0%											
52	Critical	Broadland Elsewhere	Waste Water - Thorpe St Andrew (new)	2009-16								100%					0%											
53	Critical	Wymondham	Waste Water - Wymondham (new)	2009-16								100%					0%											
54	Critical	Long Stratton	Waste Water - Long Stratton (new)	2009-16								100%					0%											
55	Critical	Hebersett	Waste Water - Hebersett area (new)	2009-26								100%					0%											
56	Critical	Easton	Waste Water - Easton area (new)	2009-26								100%					0%											
57	Critical	Broadland Elsewhere	Waste Water - Ryeham	2009-26								22%					4%											
58	Critical	Broadland Elsewhere	Waste Water - Aylsham	2009-26								12%					87%											
59	Critical	Broadland Elsewhere	Waste Water - Akenham	2009-26								90%					10%											
60	Critical	Broadland Elsewhere	Waste Water - Ake-Dungate	2009-26								96%					4%											
61	Critical	South Norfolk Elsewhere	Waste Water - Diss	2009-26								76%					12%											
62	Critical	South Norfolk Elsewhere	Waste Water - Helston	2009-26								87%					7%											
63	Critical	South Norfolk Elsewhere	Waste Water - Staland	2009-26								92%					3%											
<b>INFRASTRUCTURE COST ANALYSIS - %</b>																												
<b>Waste</b>																												
64	Essential	Spronston / Rackheath Growth Tr	HWRC - 1200 sq m	2021													50%	50%										
65	Essential	South Norfolk Wide	HWRC - extension of existing facility 1000 sq m	2031																						50%	50%	







Greater Norwich Infrastructure Study Cost / Income Analysis

STRATEGIC INFRASTRUCTURE PROJECTS			INFRASTRUCTURE COST ANALYSIS - ACTUAL COST (ANNUAL)																						
TRANSPORT INITIATIVES			2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
<b>Public Transport</b>																									
7	Essential	Norwich	City Centre Bus Enhancements																						
2	Essential	Sproston / Ra	BRT Corridor - Yarmouth Road																						
3	Essential	Sproston / Ra	BRT Corridor - Salhouse Road, Gurney Road																						
4	Essential	Sproston / Ra	BRT Corridor - growth areas (western end) via airport to A140 to City Centre																						
5	Essential	South Norfolk E	BRT Corridor - City Centre via Dereham Road (DP)																						
6	Essential	Wymondham	Bus priority - Hethersett Lane / Hospital / NRP / UEA / City Centre (Wymondham associated costs)																						
7	Essential	Hethersett	Bus priority - Hethersett Lane / Hospital / NRP / UEA / City Centre (Hethersett associated costs)																						
7	Essential	Cringleford	Bus priority - Hethersett Lane / Hospital / NRP / UEA / City Centre (Cringleford associated costs)																						
7	Essential	Wymondham	Bus priority - B1172 (Wymondham associated Costs)																						
8	Essential	Hethersett	Bus priority - B1172 (Hethersett associated Costs)																						
8	Essential	Wymondham	Rail station improvements																						
9	Essential	Wymondham	Widening of rail bridge at station																						
10	Essential	Long Stratton	Widening of rail bridge for bus priority																						
11	Essential	Long Stratton	BRT Corridor - A140 to City Centre																						
12	Essential	Long Stratton	Bus priority - approach to Harford Junction																						
13	Essential	Sproston / Ra	Relocate / new rail station at Rackheath																						
14	Essential	GNDP Wide	Travel plans - travel awareness campaign and improved information																						
<b>Roads and Highways</b>																									
15	Critical	Broadland Wdr	NDR (Broadland costs only)																						
15	Critical	Norwich	NDR (Norwich costs only)																						
16	Critical	Sproston / Ra	Development link BPP to Salhouse Road																						
17	Critical	Sproston / Ra	Postlock Hub																						
18	Critical	South Norfolk E	NRP transport infrastructure																						
19	Critical	Long Stratton	A140 Long Sutton bypass																						
19	Critical	South Norfolk W	Junction improvements - Long Water																						
19	Critical	Wymondham	Junction improvements - Thicketon - including bus priority, Park & Ride, and A11 off slip																						
20	Critical	GNDP Wide	Local access improvements																						
21	Essential	GNDP Wide	Village centre enhancements																						
22	Essential	GNDP Wide	BRT A1067																						
<b>Walking and Cycling</b>																									
23	Desirable	South Norfolk W	Pedestrian / Cycle link to longwater																						
24	Desirable	Norwich	City Centre public realm enhancement																						
<b>MAIN SERVICES / UTILITIES</b>																									
<b>Electricity and Power Supply</b>																									
25	Critical	Norwich	Hurricane Way Primary - New primary substation on existing site																						
26	Critical	Norwich	Norwich Airport North - new primary sub-station + 33kV circuits																						
27	Critical	Broadland Wdr	Norwich Airport North - new primary sub-station + 33kV circuits																						
28	Critical	South Norfolk W	Hapton Primary - replacement of transformers and switchgear in existing site																						
29	Critical	South Norfolk W	Wymondham Primary - Replacement of transformers and switchgear in existing site																						
30	Critical	Norwich	New Grid sub-station on existing site + 132kV cables																						
31	Critical	Norwich	Reinforcement of existing sub-station + 132kV cables																						
<b>Water</b>																									
33	Critical	Norwich	Potable Water																						
34	Critical	Sproston / Ra	Potable Water - Rackheath																						
35	Critical	Sproston / Ra	Potable Water - Sproston Fringe																						
36	Critical	Broadland Wdr	Potable Water - Thorpe St Andrew (Broadland Business Park)																						
37	Critical	Broadland E	Potable Water - Broadland Smaller Sites																						
38	Critical	Wymondham	Potable Water - Wymondham																						
39	Critical	Long Stratton	Potable Water - Long Stratton																						
40	Critical	Hethersett	Potable Water - Hethersett Cringleford, Colney (Hethersett Costs)																						
41	Critical	Cringleford	Potable Water - Hethersett Cringleford, Colney (Cringleford Costs)																						
42	Critical	South Norfolk E	Potable Water - Hethersett Cringleford, Colney (Colney Costs)																						
43	Critical	Easton	Potable Water - Easton and Colessey																						
44	Critical	South Norfolk E	Potable Water - South Norfolk Smaller Sites																						
45	Critical	Norwich	Waste Water - Whittingham (Norwich only)																						
46	Critical	Sproston / Ra	Waste Water - Rackheath (new)																						
47	Critical	Sproston / Ra	Waste Water - Sproston Fringe (new)																						
48	Critical	Broadland E	Waste Water - Thorpe St Andrew (new)																						
49	Critical	Wymondham	Waste Water - Wymondham (new)																						
50	Critical	Long Stratton	Waste Water - Long Stratton (new)																						
51	Critical	Hethersett	Waste Water - Hethersett area (new)																						
52	Critical	Easton	Waste Water - Easton area (new)																						
53	Critical	Broadland E	Waste Water - Resham																						
54	Critical	Broadland E	Waste Water - Aylsham																						
55	Critical	Broadland E	Waste Water - Balgath																						
56	Critical	Broadland E	Waste Water - Ache-Damgate																						
57	Critical	South Norfolk E	Waste Water - Diss																						
58	Critical	South Norfolk E	Waste Water - Harleston																						
59	Critical	South Norfolk E	Waste Water - Skland																						
<b>INFRASTRUCTURE COST ANALYSIS - %</b>																									
<b>Waste</b>																									
64	Essential	Sproston / Ra	FWRC - 1200 sq m																						
65	Essential	South Norfolk W	FWRC - extension of existing facility 1000 sq m																						



















Greater Norwich Infrastructure Study Cost / Income Analysis

LAND VALUE CAPTURE OPTION 1: Market Land Values																								
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total
<b>GROWTH SCENARIO ONE</b>																								
<b>Land Value Capture</b>																								
Housing Allocations	87	87	87	202	317	782	1,904	2,134	2,478	2,553	2,643	2,732	2,582	2,502	2,382	2,382	2,381	2,246	2,617	2,552	2,552	2,552	2,551	43,305
Total Land Value Capture Income (Annual) - High Market Value	£0	£841,000	£841,000	£1,416,000	£1,991,000	£6,286,000	£15,249,000	£19,420,000	£22,672,000	£23,072,000	£23,432,000	£23,784,000	£22,584,000	£21,944,000	£20,984,000	£20,984,000	£20,980,500	£19,980,500	£24,688,500	£23,908,500	£23,908,500	£23,908,500	£23,905,000	£386,780,000
Total Land Value Capture Income (Annual) - Low Market Value	£0	£1,218,000	£1,218,000	£2,598,000	£3,978,000	£10,390,000	£24,831,000	£41,577,000	£48,613,000	£49,838,000	£51,188,000	£52,519,000	£49,669,000	£48,149,000	£45,869,000	£45,869,000	£45,854,500	£43,369,500	£52,158,500	£50,663,500	£50,663,500	£50,663,500	£50,649,000	£821,546,000

	Developer Contribution (per sq m)			
	Low Land Value		High Land Value	
	Weak Market	Strong Market	Weak Market	Strong Market
Norwich	£16,000	£21,000	£13,500	£13,000
Sproston/Rackheath growth triangle	£12,000	£23,000	£5,000	£12,000
Broadland elsewhere	£12,000	£19,000	£9,000	£8,000
South Norfolk (Norwich housing market)	£12,000	£19,000	£4,000	£8,000
Mid South Norfolk	£11,000	£15,000	£7,500	£4,000
South Norfolk (rest of)	£14,000	£14,500	£6,500	£3,500





Housing Growth Completions, Commitments, and Allocations

	Total Number of Units per Year																													Total				
	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30		2030/31			
Past Completions	1,565	1,533	1,579	1,400	1,358	1,838	2,484																										11,757	
Commitments								1,801	1,671	1,837	1,931	2,043	1,631	1,053	769	552	422	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13,672	
Urban Capacity (Reference Only)								21	170	220	182	100	236	477	452	452	351	251	251	251	251	252	252	252	252	252	252	252	252	252	252	252	4,672	
Growth Scenario								0	0	0	115	230	230	1,352	1,582	1,926	2,001	2,091	2,180	2,030	1,950	1,830	1,830	1,829	1,694	65	0	0	0	0	0	22,935		
Windfall Assumptions								0	0	0	0	0	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465	465	8,370		
Additional 2,000 wrt RSS Review								87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	2,000	10,000	
Additional 10,000 2026-2031																																	10,000	
<b>Total Past Completions</b>	1,565	1,533	1,579	1,400	1,358	1,838	2,484																											
<b>Total Projected Completions</b>								1,888	1,758	1,924	2,133	2,360	2,413	2,957	2,903	3,030	2,975	2,700	2,732	2,582	2,502	2,382	2,382	2,381	2,246	2,617	2,552	2,552	2,552	2,551	2,551	2,551		
<b>Cumulative Completions</b>	1,565	3,098	4,677	6,077	7,435	9,273	11,757	13,645	15,403	17,327	19,460	21,820	24,233	27,190	30,093	33,123	36,098	38,798	41,530	44,112	46,614	48,996	51,378	53,759	56,005	58,622	61,174	63,726	66,278	68,829	71,380	73,931	76,482	43,305
<b>PLAN - Strategic Allocation (annualised)</b>	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	1,875	
<b>MONITOR - No dwellings above or below cumulative allocation</b>	-310	-652	-948	-1,423	-1,940	-1,977	-1,368	-1,355	-1,472	-1,423	-1,165	-680	-142	940	1,968	3,123	4,223	5,048	5,905	6,612	7,114	7,496	7,878	8,259	8,505	9,122	9,674	10,226	10,778	11,329	11,880	12,431		
<b>MANAGE - annual requirement tacking account of past-projected completions</b>	1,917	1,929	1,943	1,956	1,978	2,003	2,009	1,989	1,993	2,005	2,009	2,002	1,982	1,957	1,894	1,827	1,741	1,646	1,559	1,452	1,339	1,210	1,063	875	624	299	-281	-1,225	-3,113	-8,778				

**Completions**

Site Name	Total Number of Units per Year							Total Units	Average annual
	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/08		
Broadland	434	415	401	277	139	280	221	2,167	333
Norwich	599	629	693	690	879	954	1,040	5,484	698
South Norfolk	532	489	485	433	340	604	1,223	4,106	456
<b>TOTAL</b>	1,565	1,533	1,579	1,400	1,358	1,838	2,484	11,757	1,487

**Existing Housing Commitments**

Site Name	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total Units	annual build rate
Broadland	290	292	415	414	342	227	180	180	147	147	57	0	0	0	0	0	0	0	0	0	0	0	0	2,691	207
Norwich	564	464	611	669	933	789	516	396	375	275	0	0	0	0	0	0	0	0	0	0	0	0	0	5,592	430
South Norfolk	947	915	811	848	768	615	357	193	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,484	422
<b>TOTAL</b>	<b>1,801</b>	<b>1,671</b>	<b>1,837</b>	<b>1,931</b>	<b>2,043</b>	<b>1,631</b>	<b>1,053</b>	<b>769</b>	<b>552</b>	<b>422</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,767</b>	<b>1,059</b>

Urban Capacity (Reference Only)

District	Total Number of Units per Year																				Total Units	Average annual build rate				
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28			2028/29	2029/30	2030/31	
Broadland	21	96	135	135	100	200	225	200	200	100	0	0	0	0	0	0	0	0							1,412	78
Norwich		74	85	47	0	36	236	236	236	236	236	236	236	236	236	237	237	237							3,077	181
South Norfolk							16	16	16	15	15	15	15	15	15	15	15	15							183	15
<b>TOTAL</b>	<b>21</b>	<b>170</b>	<b>220</b>	<b>182</b>	<b>100</b>	<b>236</b>	<b>477</b>	<b>452</b>	<b>452</b>	<b>351</b>	<b>251</b>	<b>251</b>	<b>251</b>	<b>251</b>	<b>251</b>	<b>252</b>	<b>252</b>	<b>252</b>						<b>4,672</b>	<b>260</b>	

**Housing Allocations**

District	Strategic Allocation	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total Units	Average annual
Broadland	Rackheath Eco-Community				115	230	230	230	230	230	230	230	230	230	230	230	230	230	230	65					3,400	222
Broadland	Sprowston Fringe (inside NDR)							125	225	350	350	350	350	350	350	350	350	350	350						3,850	321
Broadland	Additional smaller sites around Broadland NPA							170	170	170	170	170	170	170	170	170	170	170	130						2,000	167
Broadland	Additional sites around rural Broadland							55	55	54	54	54	54	54	54	54	54	54	54						650	54
Norwich	Norwich							250	250	250	250	250	250	250	250	250	250	250	250						3,000	250
South Norfolk	Wymondham							185	185	185	185	185	185	185	185	185	185	185	165						2,200	183
South Norfolk	Long Stratton										50	140	230	230	230	230	230	230	230						1,800	200
South Norfolk	Heithersett							50	90	175	175	175	175	100	60										1,000	125
South Norfolk	Cringleford								50	100	125	125	125	125	125	125	125	125	50						1,200	109
South Norfolk	Easton							50	90	175	175	175	175	100	60										1,000	125
South Norfolk	Additional smaller sites around South Norfolk NPA							150	150	150	150	150	150	150	150	150	150	150	150						1,800	
South Norfolk	Additional sites around rural South Norfolk							81	81	81	81	81	81	81	81	81	81	80	80						970	
South Norfolk	Additional urban capacity in South Norfolk							6	6	6	6	6	5	5	5	5	5	5	5						65	
<b>TOTAL</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>115</b>	<b>230</b>	<b>230</b>	<b>1352</b>	<b>1582</b>	<b>1926</b>	<b>2001</b>	<b>2091</b>	<b>2180</b>	<b>2030</b>	<b>1950</b>	<b>1830</b>	<b>1830</b>	<b>1829</b>	<b>1694</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22,935</b>	<b>1,271</b>

Windfall assumptions / Development on Small Scale Sites

2001-2026

District	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	Total Number of Units per Year										Total Units	Average annual			
												2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31			
Broadland Windfall	0	0	0	0	0	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	135	4,300	106
Norwich Windfall	0	0	0	0	0	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	2,880	125
South Norfolk Windfall	0	0	0	0	0	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170	3,060	153
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>8,370</b>	<b>354</b>

Detailed Windfall assumptions

2001-2021

District	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	Total Units	Average annual	
Broadland Urban Windfall	0	0	0	0	0	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	1,380	57	
Broadland Rural Windfall	0	0	0	0	0	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	1,350	71
Norwich Windfall	0	0	0	0	0	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	2,880	152
South Norfolk Urban Windfall	0	0	0	0	0	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	74	1,332	70
South Norfolk Rural Windfall	0	0	0	0	0	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	96	1,728	91
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>465</b>	<b>8,370</b>	<b>441</b>

**SSS Review (2,000 Homes)**

District	Total Number of Units per Year																				Total Units	Average annual			
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31		
Broadland RDS Review	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	667	29
Norwich SSS Review	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	667	29
South Norfolk Review	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	666	29
<b>Total</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>87</b>	<b>86</b>	<b>2,000</b>	<b>87</b>

**Additional 10,000 Homes**

District	Total Number of Units per Year																				Total Units	Average annual			
	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31		
Broadland Broadland NPA Post 2026: NE Sector																			600	600	600	600	600	3,000	600
Broadland Broadland NPA Post 2026: Elsewhere																			150	150	150	150	150	750	150
Broadland Broadland Rural Post 2026																			80	80	80	80	80	400	80
Norwich Norwich Post 2026																			250	250	250	250	250	1,250	250
South Norfolk South Norfolk NPA Post 2026																			600	600	600	600	600	3,000	600
South Norfolk South Norfolk Rural Post 2026																			120	120	120	120	120	600	120
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	<b>10,000</b>	<b>435</b>