

A1 in Northumberland: Morpeth to Ellingham

Scheme Number: TR010041

6.7 Environmental Statement – Appendix 5.1 Traffic Data

Part A

APFP Regulation 5(2)(a)

Planning Act 2008

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

June 2020

Infrastructure Planning

Planning Act 2008

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

**The A1 in Northumberland: Morpeth to Ellingham
Development Consent Order 20[xx]**

Environmental Statement - Appendix

Regulation Reference:	APFP Regulation 5(2)(a)
Planning Inspectorate Scheme Reference	TR010041
Application Document Reference	TR010041/APP/6.7
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Version	Date	Status of Version
Rev 0	June 2020	Application Issue

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TRAFFIC DATA

5.1 TRAFFIC FORECAST SCENARIOS

- 5.1.1. The following section from the **Case for the Scheme (Application Document Reference TR010041/APP/7.1)** describes the derivation of the forecast model for the do-minimum (DM) scenario and the two variants of the do-something (DS) Scheme: A1 M2F (DS2) and A1 M2E Cumulative Scenario (DS4).
- 5.1.2. The 2015 Stage 3 base networks for the North East were used as a starting point for the do-minimum networks. The following RIS and local authority schemes were represented in the do-minimum:
- a. A1 Coal House to Metro Centre (open);
 - b. A1 Scotswood to North Brunton;
 - c. A1 Birtley to Coal House;
 - d. A19 Coast Road;
 - e. A19 Testos; and
 - f. A19 Norton to Wynyard.
- 5.1.3. In addition, 'significant' local schemes within Northumberland and Tyne and Wear were also included in the do-minimum networks, including:
- a. Morpeth Northern Bypass (open);
 - b. Reopening of B6342 bridge over River Coquet in Rothbury (open);
 - c. Blyth Relief Road; and
 - d. Junction 12 A1 North Brunton roundabout improvements extra lanes and Rotary Way widening that has occurred since the Base Year model was developed.
- 5.1.4. The do-minimum networks were used as a starting point for the do-something model with the schemes then added on top.
- 5.1.5. These were created for the schemes:
- a. DS2 Morpeth to Felton (**Part A**);
 - b. DS3 Alnwick to Ellingham (**Part B**); and
 - c. DS4 Morpeth to Felton and Alnwick to Ellingham (**cumulative scenario (the Scheme)**).
- 5.1.6. TRAFFIC DATA FOR AFFECTED ROAD NETWORK**
- 5.1.7. Traffic data for the Affected Road Network (ARN) are included in **Table 5.1**. These data should be viewed in conjunction with the **Figure 5.1 Air Quality Affected Road Network, Volume 5** of this ES (**Application Document Reference: TR010041/APP/6.5**). The data presents traffic flows as an Annual Average Daily Traffic (AADT) and Heavy-Duty Vehicle (HDV) as a percentage.

Table 5-1 - Traffic Data

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
1204_1220	5120	11%	5580	10%	5159	10%
1204_27001	349	13%	381	12%	383	12%
1220_1246	4800	12%	5239	11%	4819	10%
1233_1744	78	6%	76	7%	75	7%
1246_1248	4614	12%	5049	11%	4636	10%
1246_1356	186	1%	191	1%	184	1%
1248_1344	2790	9%	2971	7%	2598	5%
1248_1306	1824	18%	2078	16%	2038	17%
1310_1421	3258	3%	3470	3%	3403	3%
1322_1366	146	4%	163	4%	160	4%
1327_1331	418	1%	473	1%	464	1%
1331_1344	357	5%	411	4%	402	5%
1331_1353	94	23%	97	22%	96	23%
1344_1356	536	1%	692	0%	444	0%
1344_1353	2968	8%	3252	6%	2640	5%
1353_1392	825	1%	917	1%	1734	0%
1353_1366	2221	10%	2415	8%	985	12%
1366_1393	150	7%	168	7%	165	7%
1366_1376	2216	10%	2410	8%	980	12%
1375_27032	3238	4%	3558	4%	3524	4%
1377_1375	1469	5%	1644	5%	1608	5%
1375_1376	1760	2%	1905	2%	1908	2%
1376_1377	3976	6%	4315	5%	2888	5%
1377_1378	5463	6%	5976	5%	4512	6%
1378_1379	4429	7%	4839	6%	3071	7%
1381_1379	650	5%	723	5%	688	5%
1379_1422	3779	7%	4116	6%	2383	7%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
1378_1381	1016	3%	1120	3%	1424	2%
1381_1460	1667	4%	1843	4%	2112	3%
1392_1395	825	1%	917	1%	1734	0%
1395_1457	975	2%	1085	2%	1899	1%
1423_1421	1519	3%	1638	3%	1573	3%
1422_1423	5512	6%	5944	5%	4209	5%
1421_1422	1739	3%	1832	3%	1830	3%
1423_1425	5797	6%	6309	5%	4505	5%
1426_1425	1952	2%	2087	2%	1894	3%
1425_1541	4816	6%	5188	5%	3317	6%
1423_1426	2163	3%	2318	3%	2309	3%
1426_1505	4115	3%	4405	3%	4203	3%
1457_1476	1133	2%	1115	2%	1436	2%
1457_1474	1661	1%	1714	1%	2856	1%
1460_1474	295	6%	274	7%	273	7%
1460_1497	1615	4%	1792	4%	2061	3%
1474_1497	1401	3%	1474	3%	2618	2%
1476_27033	1739	3%	1782	3%	2077	2%
1476_1604	760	3%	807	3%	783	3%
1497_1521	3016	4%	3266	3%	4678	2%
1506_1591	3249	3%	3582	3%	3652	3%
1521_1603	1210	5%	1334	5%	1330	5%
1521_1591	1806	2%	1932	2%	3348	1%
1541_27041	845	5%	945	5%	798	5%
1541_27031	5607	6%	6108	5%	4091	6%
1575_27031	6291	7%	6867	6%	4864	7%
1575_1580	6291	7%	6867	6%	4864	7%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
1580_1689	400	5%	405	6%	384	6%
1580_1601	6078	7%	6647	6%	4614	7%
1591_1676	2891	4%	3146	4%	3093	4%
1591_1675	2164	1%	2368	1%	3907	1%
1675_27005	0	-	0	-	0	-
1675_1717	2164	1%	2368	1%	3907	1%
1712_1810	1749	2%	1684	2%	2056	2%
1717_1914	4481	18%	4877	17%	5080	16%
1717_27037	6645	12%	7245	12%	8987	10%
1721_1793	2259	3%	2347	3%	2259	3%
1748_1722	6689	10%	7901	9%	8279	9%
4665_1723	6107	10%	6921	9%	7215	9%
1744_1748	83	34%	81	36%	80	36%
1749_1744	16	23%	17	22%	17	24%
1749_1748	6664	10%	7879	9%	8258	9%
1753_1749	6677	10%	7893	9%	8272	9%
1723_1750	6107	10%	6921	9%	7215	9%
1753_1887	12757	10%	14778	9%	15453	9%
1750_1753	6068	10%	6885	9%	7181	9%
1755_4665	1187	6%	1309	6%	1324	6%
1793_1796	1199	5%	1243	5%	1205	5%
1800_1793	10897	13%	12454	11%	14668	10%
1793_1795	11958	11%	13558	11%	15722	10%
1795_1798	729	2%	710	4%	879	4%
1798_1796	11971	9%	13604	8%	16235	7%
1816_1798	11078	10%	12664	9%	14909	8%
1798_1910	1628	2%	1656	4%	2211	3%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
1808_1800	10897	13%	12454	11%	14668	10%
1802_1805	18153	12%	20181	11%	0	-
1802_27043	18670	11%	20893	10%	0	-
1805_1807	18976	11%	21064	11%	13118	8%
1796_1806	10773	9%	12361	9%	15030	8%
1819_1808	10897	13%	12454	11%	14668	10%
1810_1857	1347	2%	1292	2%	1681	2%
1810_1856	405	0%	392	0%	375	0%
1795_1813	11229	12%	12847	11%	14843	10%
1813_1816	374	1%	388	1%	368	1%
1806_1814	10773	9%	12361	9%	15030	8%
1836_1816	11356	9%	12949	9%	15181	8%
1816_1910	658	2%	679	2%	645	2%
1856_1819	10897	13%	12454	11%	14668	10%
1821_1970	1810	4%	1929	5%	0	-
1814_1824	10773	9%	12361	9%	15030	8%
1829_27043	18670	11%	20893	10%	14154	10%
1860_1829	9454	10%	10590	10%	0	-
1813_1832	11603	12%	13236	11%	15210	10%
1832_1835	11603	12%	13236	11%	15210	10%
1839_1836	11356	9%	12949	9%	15181	8%
1851_1839	11356	9%	12949	9%	15181	8%
1835_1842	11603	12%	13236	11%	15210	10%
1875_1851	11356	9%	12949	9%	15181	8%
1829_1855	9216	12%	10303	11%	14154	10%
1855_1860	2270	11%	2655	10%	1434	8%
1857_1856	10843	13%	12359	12%	14714	10%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
1856_1861	1124	0%	1138	0%	1249	1%
1855_1857	11486	12%	12958	11%	15587	10%
1857_1865	704	2%	693	2%	808	2%
1862_1860	9454	10%	10590	10%	15783	7%
1860_1871	2270	11%	2655	10%	3200	5%
1824_1861	10773	9%	12361	9%	15030	8%
1861_2051	1954	2%	1914	1%	2135	2%
1865_1862	11245	9%	12851	8%	15798	7%
1861_1865	10541	9%	12157	9%	14990	8%
1842_1866	11603	12%	13236	11%	15210	10%
1866_1875	411	0%	446	0%	432	0%
1862_1871	1791	3%	2260	3%	15	100%
1871_27039	4061	7%	4915	7%	3215	6%
1866_1874	12014	11%	13682	10%	15642	9%
1874_27037	8957	7%	10269	6%	12092	5%
1874_1879	4090	4%	4675	4%	5813	3%
1879_1875	11827	9%	13451	8%	15668	8%
1875_2133	882	1%	948	1%	919	1%
2235_1879	8792	10%	10012	9%	11056	9%
1887_1888	13325	9%	15363	8%	16027	8%
1888_1901	13698	9%	15723	8%	16377	8%
1890_1888	772	6%	809	6%	789	6%
1890_2037	1523	5%	1577	5%	1544	5%
1897_1899	3430	4%	3718	4%	3666	4%
1902_1899	1431	4%	1534	5%	1509	5%
1901_1902	11683	10%	13536	9%	14217	9%
1899_1901	2005	4%	2191	5%	2163	5%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
1902_2231	10256	11%	12005	9%	12711	9%
1910_1913	2274	1%	2322	3%	2844	3%
1913_2066	805	1%	815	1%	779	1%
1913_2067	1475	2%	1513	4%	2071	4%
1970_2018	6037	6%	6984	6%	5387	5%
1970_2354	4918	6%	5860	6%	4102	4%
2018_27042	1587	3%	1633	3%	1668	3%
2018_27039	4064	7%	4918	7%	3218	6%
2025_2047	2030	5%	2312	6%	2517	6%
2047_2093	3577	4%	4034	4%	4326	4%
2101_2108	2212	4%	2489	5%	2691	4%
2119_2111	1130	3%	1270	3%	1354	2%
2116_2189	12387	9%	13307	9%	13409	9%
2119_2285	2442	4%	2772	4%	3066	3%
2161_2285	6334	11%	6859	11%	6753	11%
1874_2184	9585	13%	11041	11%	12154	11%
27146_2189	6938	9%	7477	8%	7526	8%
2200_2192	3006	9%	3186	9%	3169	9%
2194_2192	4151	3%	4523	4%	4651	4%
30157_2194	7005	6%	7557	6%	7654	6%
2196_2206	4973	15%	5525	14%	5796	14%
2184_2196	4926	15%	5475	14%	5748	14%
2194_2200	2854	9%	3034	9%	3003	9%
2200_27035	5869	9%	6229	9%	6181	9%
2184_2202	4659	10%	5566	8%	6405	8%
2196_2202	41	2%	44	2%	41	2%
2205_2203	2110	19%	2326	19%	2428	19%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
2203_27007	3421	23%	3730	22%	3893	21%
2207_2205	5108	15%	5667	14%	5929	14%
2212_2206	53	26%	56	24%	53	26%
2212_2207	182	2%	192	10%	181	11%
2206_2207	4938	15%	5488	15%	5761	14%
2205_2209	2998	11%	3341	11%	3501	10%
2203_2209	1273	26%	1366	24%	1428	22%
2215_2212	223	2%	236	9%	222	9%
2209_2214	4271	16%	4708	14%	4929	14%
2217_2215	0	-	0	-	0	-
2221_2215	223	2%	236	9%	222	9%
2214_2216	1273	26%	1366	24%	1427	22%
27153_2216	1481	7%	1762	9%	1934	8%
2216_2217	2754	16%	3128	15%	3361	14%
2221_2228	2978	15%	3364	15%	3583	14%
2217_2221	2754	16%	3128	15%	3361	14%
2228_2240	2621	16%	3015	15%	3248	14%
2228_2266	553	6%	588	12%	568	12%
2314_2231	5135	11%	6158	9%	6558	10%
2238_2235	6257	8%	7116	7%	7925	7%
2237_2235	2523	16%	2895	15%	3131	14%
2238_2237	98	7%	119	6%	116	6%
2237_2240	2621	16%	3015	15%	3247	14%
2309_2238	6355	8%	7236	7%	8041	7%
2231_2274	5120	11%	5847	10%	6153	9%
2274_2278	3938	11%	4513	10%	4853	9%
2290_2278	2417	4%	2722	3%	3188	4%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
2285_2288	8776	9%	9631	9%	9819	9%
2288_2310	9184	9%	10139	9%	10450	8%
2288_2308	3968	6%	4579	5%	4818	5%
2290_2310	3600	6%	4056	6%	4488	5%
2274_2290	1182	11%	1334	10%	1300	9%
2321_2308	1772	4%	2021	3%	2359	3%
2278_2309	6355	8%	7236	7%	8041	7%
2310_2346	10183	9%	11204	9%	11499	8%
2321_2314	2939	14%	3600	11%	4099	12%
2308_2314	2202	7%	2564	6%	2465	6%
2202_2321	4712	10%	5610	8%	6446	8%
2340_27035	5869	9%	6229	9%	6181	9%
2340_2454	5878	9%	6238	9%	6191	9%
2346_2360	8620	9%	9339	9%	9733	9%
2346_2454	1562	9%	1864	8%	1766	7%
2354_2466	831	4%	975	3%	815	2%
2354_27044	5149	7%	6004	6%	4093	4%
2360_2428	5988	8%	6585	8%	6849	8%
2360_2479	2628	11%	2750	11%	2880	11%
2417_27044	5466	6%	6333	6%	4434	4%
4246_4297	11195	10%	12902	9%	13046	9%
4268_4297	6673	9%	6982	9%	7061	9%
4297_4304	17868	10%	19884	9%	20107	9%
4304_4316	12700	11%	14384	11%	14622	10%
4316_4326	13076	12%	14822	11%	15066	11%
4326_4346	11647	11%	13271	10%	13516	10%
4346_4351	12006	11%	13670	11%	13917	10%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
4351_4377	10618	12%	12167	11%	12415	11%
4377_4406	8925	11%	10296	10%	10583	9%
4405_4404	167	0%	200	0%	204	0%
4407_4405	167	0%	200	0%	204	0%
4406_4407	9013	11%	10397	10%	10688	10%
4404_4406	88	21%	100	20%	105	19%
4407_27136	9180	11%	10597	10%	10892	9%
4437_4446	9647	11%	11128	10%	11426	10%
4437_27136	9299	11%	10740	10%	11038	10%
4446_4472	8922	12%	10321	11%	10622	11%
4472_4486	8757	12%	10142	11%	10445	11%
4486_4487	8881	12%	10272	11%	10574	11%
4487_27135	10251	12%	11827	11%	12267	11%
4508_4514	10541	12%	12172	10%	12626	10%
4508_27135	10760	11%	12412	10%	12866	10%
4514_4515	10586	12%	12228	10%	12684	10%
4515_4531	10725	11%	12400	10%	12863	10%
4518_4583	1185	8%	1289	8%	1284	8%
4531_4559	10725	11%	12400	10%	12863	10%
4546_4570	1727	8%	1925	7%	2033	8%
4559_4560	10725	11%	12400	10%	12863	10%
4560_4563	11006	11%	12707	10%	13170	10%
4563_4564	11006	11%	12707	10%	13170	10%
4564_4571	10271	11%	11975	10%	12423	10%
4570_4572	1689	5%	1887	5%	1995	6%
4571_4572	10269	11%	11972	10%	12421	10%
4572_4573	11958	10%	13860	9%	14416	9%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
4573_4574	11977	10%	13879	9%	14436	9%
4574_4581	11757	10%	13642	9%	14199	9%
4574_4575	1029	4%	1135	4%	1133	4%
4575_4603	1038	5%	1145	5%	1142	5%
4581_4583	12408	10%	14343	9%	14900	9%
4581_4603	2612	7%	2959	7%	2953	7%
4583_27138	11242	10%	13073	9%	13634	9%
4587_4592	683	12%	783	10%	784	10%
4592_4595	12059	10%	13878	9%	14425	9%
4592_27138	11550	10%	13297	9%	13843	9%
4595_4602	11894	10%	13768	9%	14353	9%
4595_4596	807	3%	1074	3%	1036	3%
4602_4613	11951	10%	13830	9%	14414	9%
4613_4646	11993	10%	13898	9%	14506	9%
4646_4658	12323	10%	14288	9%	14933	9%
4664_4658	6304	11%	7493	9%	7857	10%
1722_4664	6686	10%	7901	9%	8279	9%
4658_4665	6004	10%	6795	9%	7075	9%
27007_28000	125	82%	98	114%	96	110%
27007_27066	3259	19%	3595	19%	3760	18%
27031_27090	2353	8%	2523	7%	2517	8%
27037_27096	6212	10%	7399	8%	7469	8%
27151_27146	8673	8%	9289	7%	9388	7%
27146_27147	1735	3%	1811	3%	1861	3%
2189_27147	5410	8%	5791	9%	5843	9%
2192_27150	7157	6%	7709	6%	7820	6%
27150_27151	5675	6%	5947	6%	5886	6%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
27152_27151	2998	11%	3342	11%	3502	10%
27150_27152	1481	7%	1762	9%	1934	8%
27152_27153	4479	10%	5104	10%	5436	10%
2214_27153	2998	11%	3342	11%	3502	10%
27147_30156	7144	7%	7602	7%	7704	7%
30156_30157	3161	11%	3480	12%	3566	11%
30158_30157	3843	1%	4077	1%	4088	1%
30156_30158	3983	4%	4122	4%	4139	4%
30158_30159	7826	3%	8199	3%	8227	3%
1802_27166	0	-	0	-	2294	3%
29213_1805	0	-	4539	2%	14017	8%
1821_27165	0	-	7669	2%	2166	1%
1970_27165	0	-	5581	2%	2176	5%
29210_27043	0	-	9929	12%	14154	10%
27165_27167	0	-	3047	11%	3010	2%
27166_27167	0	-	5897	26%	3010	2%
1860_27170	0	-	587	9%	14017	8%
27170_27171	0	-	983	16%	14017	8%
29212_29210	0	-	0	-	14154	10%
27171_29211	0	-	0	-	14017	8%
1802_29212	0	-	0	-	14154	10%
29211_29213	0	-	0	-	14017	8%
1166_1204	4780	11%	5207	10%	4785	10%
1255_1601	0	-	183	1%	198	1%
27175_1753	0	-	0	-	0	-
27176_27175	0	-	0	-	0	-
40021_40020	0	-	0	-	0	-

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
29032_2037	0	-	0	-	0	-
27173_29031	0	-	0	-	0	-
29031_27174	0	-	0	-	0	-
27173_27174	0	-	0	-	0	-
27177_1887	0	-	0	-	0	-
1901_27176	0	-	0	-	0	-
1902_30200	0	-	0	-	0	-
30200_1901	0	-	0	-	0	-
1897_2025	2894	4%	3152	5%	3112	5%
1899_1648	0	-	0	-	0	-
27174_27172	0	-	0	-	0	-
1508_1787	2619	11%	3485	11%	3769	12%
1514_1611	883	1%	1005	1%	895	1%
1539_1621	740	7%	663	8%	283	0%
1601_1609	6078	7%	6823	6%	4805	6%
1609_1659	1101	0%	1346	0%	1323	0%
1609_1611	7010	6%	7760	5%	5867	5%
1611_27048	6156	6%	6755	6%	4971	6%
1621_27049	803	0%	772	0%	593	0%
1621_1639	1541	4%	1434	4%	874	0%
1639_27048	6483	6%	7113	5%	5330	6%
1639_1640	7406	6%	7974	6%	5378	6%
1640_1662	1250	4%	1182	5%	545	0%
1640_1725	6157	7%	6791	6%	4833	6%
1659_1802	976	0%	1206	0%	0	-
1659_1841	125	1%	141	1%	87	1%
1662_1933	903	6%	863	7%	185	1%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
1662_2107	353	2%	326	2%	366	2%
1681_1791	2940	8%	2428	9%	2627	8%
1724_1904	2259	1%	3215	3%	3182	3%
1725_2061	108	6%	95	7%	0	-
1725_1801	6055	7%	6703	6%	4636	7%
1787_2023	2856	10%	2901	14%	3110	13%
1791_1799	5	0%	0	-	27	0%
1791_1854	2946	8%	2428	9%	2600	8%
1799_1801	0	-	0	-	5	0%
1799_1815	5	0%	0	-	22	0%
1801_1815	6055	7%	6703	6%	4631	7%
1807_27045	19498	11%	21610	11%	0	-
1821_1807	747	3%	814	4%	1268	2%
1815_1854	6060	7%	6703	6%	4609	7%
1841_1937	20061	11%	22181	10%	0	-
1841_27045	20077	11%	22173	10%	0	-
1854_1858	9006	7%	9131	7%	7209	7%
1858_1918	7670	8%	8243	7%	6156	8%
1858_1985	1337	2%	888	3%	0	-
1904_27055	2773	2%	3707	2%	3768	2%
1920_1918	3920	11%	4584	8%	3564	9%
1941_1920	4394	13%	4584	8%	3564	9%
1920_1922	474	32%	0	-	0	-
1918_1922	3750	5%	3659	5%	2592	7%
1927_1934	4495	3%	3837	2%	3785	2%
1927_27055	5304	2%	3837	2%	3785	2%
1927_1931	810	0%	0	-	0	-

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
1931_1934	3644	7%	0	-	0	-
1943_1933	0	-	4122	4%	149	1%
1934_1944	8139	5%	3837	2%	3785	2%
1937_1943	19670	11%	21832	10%	688	5%
1933_1937	0	-	7557	6%	36	1%
3406_1938	4454	6%	0	-	0	-
1943_2040	19195	11%	21343	10%	547	6%
1944_1954	6654	6%	3840	2%	3788	2%
1954_1956	6651	6%	3837	2%	3785	2%
1954_1955	0	-	0	-	0	-
1944_1955	1491	1%	0	-	0	-
1956_1962	5667	6%	3837	2%	3785	2%
1960_1956	985	5%	0	-	0	-
1955_1959	1488	1%	0	-	0	-
1945_1959	5168	9%	0	-	0	-
1959_1960	6653	7%	0	-	0	-
1962_2213	11378	7%	0	-	0	-
1960_1962	5668	8%	0	-	0	-
1985_1990	20935	10%	22790	10%	0	-
1990_2059	19971	11%	22245	10%	0	-
1990_2185	2392	3%	1936	4%	0	-
2023_2183	2458	10%	1437	12%	1372	12%
2040_2107	19506	11%	21726	10%	889	5%
2040_2417	348	8%	408	6%	350	3%
2059_2344	389	1%	235	3%	152	1%
2059_2061	20290	11%	22481	10%	152	1%
2061_27047	20288	11%	22503	10%	0	-

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
2076_2313	688	1%	637	1%	747	1%
2076_27047	20703	11%	22775	10%	0	-
2076_2099	20688	11%	22773	10%	2436	4%
2117_2099	1574	2%	1534	2%	1329	3%
2099_2100	19990	11%	22149	10%	1663	4%
2100_2107	19853	11%	22045	10%	1241	4%
2117_2353	2732	2%	2657	2%	2257	2%
2100_2117	1157	2%	1122	2%	928	2%
2183_2213	10495	9%	8587	8%	8251	8%
2185_27054	1999	1%	2098	1%	2050	1%
2185_2413	2548	2%	2154	3%	3688	2%
2213_2251	20074	7%	17357	7%	18829	7%
2251_2272	3693	13%	2753	5%	2704	6%
2251_24021	16467	6%	17059	7%	18544	6%
2272_2289	3650	12%	2302	4%	2249	5%
2289_2400	12996	8%	11938	8%	11285	8%
2289_24032	9222	5%	10793	6%	10158	7%
2301_2292	11592	8%	11580	8%	11607	9%
2292_35011	22306	7%	22795	6%	22830	7%
2292_2297	10714	5%	11215	5%	11223	5%
2301_2297	5495	0%	6021	0%	6512	0%
2297_2299	16207	3%	17232	3%	17731	3%
2305_2301	17087	6%	17601	5%	18119	6%
2303_24021	28756	4%	29652	4%	30423	4%
2299_2303	13016	0%	13775	0%	14308	0%
2299_2304	3191	17%	3457	16%	3424	16%
2303_2304	15680	6%	15788	6%	16026	6%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
2304_2305	18870	8%	19241	8%	19446	8%
2305_2324	17994	9%	19559	8%	20443	9%
2319_2313	527	0%	502	0%	547	0%
2324_2352	8490	11%	8965	11%	9420	12%
2324_24112	9559	7%	10649	6%	11078	6%
2344_2350	2	1%	1	17%	0	0%
2352_2389	2130	24%	2346	23%	2640	21%
2353_2451	3052	2%	2925	2%	2512	2%
2361_27054	1361	0%	437	2%	337	3%
2403_2397	1387	4%	3212	3%	4108	3%
2400_2397	5853	11%	5499	11%	5155	12%
2397_2398	7178	9%	6496	9%	7139	8%
2403_2400	7143	6%	6439	5%	6130	5%
2401_2413	5719	4%	5538	4%	6731	3%
2398_2401	2693	4%	2388	4%	3190	3%
2405_2403	8468	5%	9589	4%	10176	4%
2398_2404	4486	12%	4876	11%	4701	12%
2401_2404	3026	4%	3150	4%	3541	4%
2409_2405	3974	4%	4361	3%	4122	4%
2415_2405	4556	7%	5290	5%	6116	5%
2404_2406	7512	9%	8026	9%	8242	8%
2410_2409	7198	9%	7810	9%	8163	8%
27132_2410	2143	4%	2223	4%	2234	4%
2406_2410	5056	12%	5587	11%	5929	10%
2413_27025	3323	5%	3464	5%	3124	5%
2415_2524	7842	12%	8801	10%	10218	9%
2409_2415	3286	19%	3511	17%	4102	15%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
2417_2446	5119	6%	5926	6%	4084	4%
2446_2451	7123	5%	7899	5%	5915	4%
2446_2623	2396	3%	2431	3%	2334	3%
2451_27050	870	1%	821	1%	853	1%
2451_27017	5264	6%	6163	6%	3870	5%
2476_27052	3660	5%	3874	5%	3548	5%
2494_2656	775	1%	487	2%	380	1%
2530_2524	4494	6%	5228	4%	6054	4%
2527_2526	5343	14%	5654	14%	6369	12%
2530_2527	2119	12%	2204	11%	2328	10%
2524_2527	3224	16%	3449	15%	4041	13%
2532_2530	6613	8%	7433	6%	8382	5%
27130_2531	1986	4%	1995	4%	1997	4%
2526_2531	3225	16%	3451	15%	4042	13%
2537_2532	6613	8%	7433	6%	8382	5%
2531_2534	5211	12%	5446	11%	6039	10%
2534_2536	0	-	0	-	0	-
2539_2536	6613	8%	7433	6%	8382	5%
2536_2537	6613	8%	7433	6%	8382	5%
2534_2539	5211	12%	5446	11%	6039	10%
2539_2760	11947	11%	13001	9%	14545	8%
2570_27052	4809	3%	5039	4%	4714	4%
2570_2607	7023	6%	7716	6%	5302	5%
2570_2654	4068	6%	4546	6%	2515	4%
2607_2634	6522	6%	7407	6%	5008	5%
2607_2678	501	0%	309	1%	294	1%
2622_2846	8733	13%	9977	12%	9361	12%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
2622_2826	8142	14%	9333	12%	8688	13%
2622_2623	592	1%	643	1%	673	1%
2633_27017	6367	6%	7355	6%	5057	5%
2633_2640	1889	5%	2539	4%	2151	5%
2633_2634	4478	6%	4816	6%	2906	5%
2634_2640	2044	6%	2591	5%	2103	6%
2640_2671	3933	6%	4586	5%	4253	5%
2654_2918	91	23%	60	34%	61	33%
2654_2656	4139	6%	4586	6%	2555	4%
2656_2760	4773	5%	4993	5%	2854	3%
2671_2713	3477	6%	3802	6%	3568	6%
2671_2684	456	0%	784	0%	686	0%
2713_2799	2180	6%	2470	5%	2255	5%
2760_27024	16596	8%	17871	7%	17276	7%
2803_2799	1356	5%	1502	5%	1371	5%
2799_2800	818	6%	963	5%	878	5%
2800_2802	4433	10%	5107	9%	4803	9%
2809_2803	4970	9%	5646	9%	5296	9%
2802_2806	4433	10%	5107	9%	4803	9%
2806_2832	9803	11%	11010	11%	10322	11%
2822_2808	676	1%	689	1%	686	1%
2808_27050	1478	1%	1514	1%	1474	1%
2812_2809	1356	5%	1502	5%	1371	5%
2819_2809	3614	11%	4144	10%	3925	10%
2806_2810	5358	12%	5890	12%	5507	12%
2810_2812	5358	12%	5890	12%	5507	12%
2814_2817	11639	8%	12690	7%	12066	6%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
2814_2830	11639	8%	12690	7%	12066	6%
2812_2819	4002	15%	4389	14%	4136	14%
2819_2902	7616	13%	8533	12%	8061	12%
2808_2821	803	1%	825	1%	787	1%
2825_27024	16596	8%	17871	7%	17276	7%
2825_2833	16016	5%	17514	5%	17351	5%
2830_2825	5248	15%	5680	13%	5259	11%
2833_2830	6514	4%	7133	4%	6930	4%
2833_2875	17392	5%	19230	5%	19223	5%
2844_2837	1275	1%	1304	1%	1300	1%
2838_2844	678	1%	708	1%	703	1%
2844_27051	1953	1%	2012	1%	2003	1%
2875_2881	11175	7%	12564	7%	12514	6%
2875_2931	7294	4%	7659	3%	7688	3%
2881_2930	7893	7%	8809	6%	8799	6%
1931_3406	4454	6%	0	-	0	-
23992_35011	19010	7%	19382	7%	19326	8%
23992_24085	12694	7%	12353	7%	12201	8%
23992_35023	4245	15%	5155	12%	5184	12%
24021_35009	16364	4%	18500	5%	17993	6%
24033_24032	4396	7%	5054	11%	4718	11%
24034_24033	4396	7%	5054	11%	4718	11%
24037_24034	0	-	0	-	0	-
24035_24034	4396	7%	5054	11%	4718	11%
24037_24035	4826	4%	5739	3%	5441	3%
24035_24050	9222	5%	10793	6%	10158	7%
24032_24036	4826	4%	5739	3%	5441	3%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
24033_24036	0	-	0	-	0	-
24036_24037	4826	4%	5739	3%	5441	3%
24041_35009	9222	5%	10793	6%	10158	7%
24049_24041	4826	4%	5739	3%	5441	3%
24049_24044	0	-	0	-	0	-
24041_24044	4397	7%	5054	11%	4717	11%
24044_24046	4396	7%	5054	11%	4718	11%
24051_24049	4826	4%	5739	3%	5441	3%
24046_24050	4396	7%	5054	11%	4718	11%
24050_24051	4826	4%	5739	3%	5441	3%
24046_24051	0	-	0	-	0	-
24083_24079	6662	3%	6782	3%	6652	3%
24080_24082	6662	3%	6782	3%	6652	3%
24079_24080	6662	3%	6782	3%	6652	3%
24082_24084	6662	3%	6782	3%	6652	3%
24080_24083	0	-	0	-	0	-
24084_24086	6662	3%	6782	3%	6652	3%
24085_24086	6662	3%	6782	3%	6652	3%
24085_24088	7621	13%	7457	14%	7396	15%
24086_24088	0	-	0	-	0	-
35000_24094	7621	13%	7457	14%	7396	15%
27048_27107	1570	1%	1582	1%	1580	1%
27054_27113	2084	0%	2105	0%	2123	0%
2526_27130	2118	12%	2203	11%	2327	10%
2406_27132	2456	3%	2439	4%	2313	4%
24088_35000	7621	13%	7457	14%	7396	15%
35009_35010	11714	9%	12408	8%	12409	8%

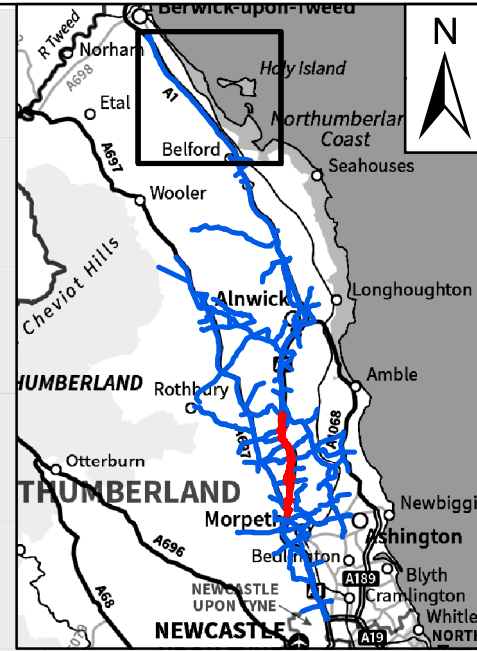
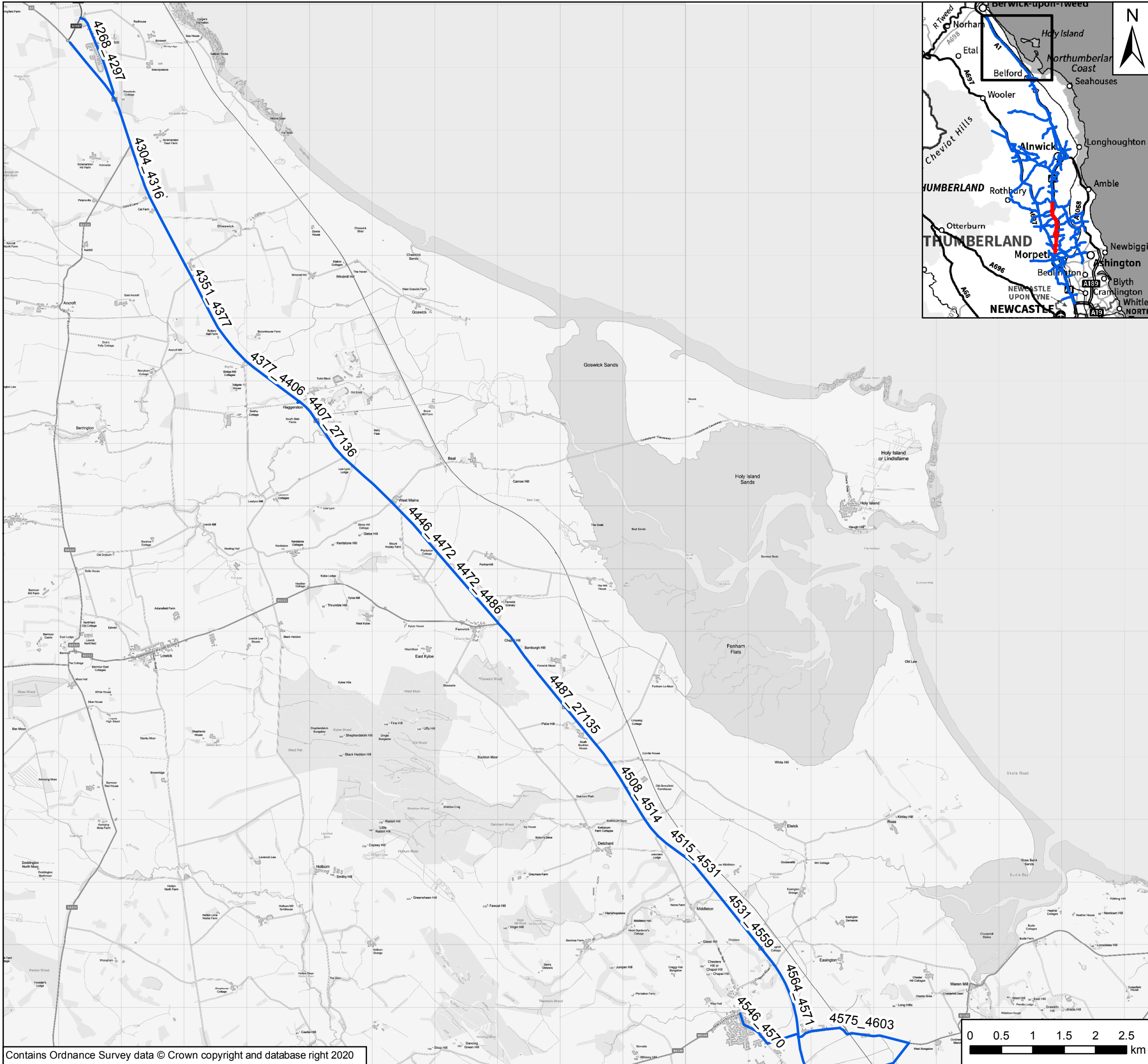
Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
35032_35033	1499	13%	1570	14%	1634	16%
24155_24101	16059	10%	18648	10%	19759	11%
24094_24151	16815	11%	19405	10%	20438	11%
24101_23907	9398	16%	11867	14%	13107	14%
23909_24094	9195	9%	11950	8%	13046	8%
24101_24083	6662	3%	6782	3%	6652	3%
23907_23848	9398	16%	11867	14%	13107	14%
23849_23909	9195	9%	11950	8%	13046	8%
23848_1938	9398	16%	0	-	0	-
1945_23849	9195	9%	0	-	0	-
1938_1941	13851	13%	15187	11%	17654	10%
1941_1951	9460	13%	10603	12%	14090	11%
1952_1945	14362	9%	14958	8%	17317	8%
1951_1952	10135	10%	11299	9%	0	-
1922_1952	4227	8%	3662	5%	2595	7%
1951_1985	19599	11%	21902	10%	14090	11%
1659_27166	0	-	0	-	1236	0%
1725_40009	0	-	0	-	21	0%
1787_29024	0	-	4071	10%	4769	10%
27045_1802	0	-	0	-	14472	10%
1841_29122	0	-	0	-	87	1%
1858_35147	0	-	0	-	1053	3%
1904_29024	0	-	2949	4%	3016	4%
1937_29120	0	-	0	-	723	5%
29027_1938	0	-	15187	11%	17654	10%
35146_1952	0	-	4122	4%	14726	8%
1962_29023	0	-	3837	2%	3785	2%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
1985_35147	0	-	0	-	1818	2%
40013_1990	0	-	7457	14%	15741	7%
1990_27148	0	-	10368	6%	1477	1%
2061_40010	0	-	0	-	2658	4%
2061_2076	0	-	12408	8%	2525	4%
2185_27148	0	-	13598	5%	3653	2%
2213_29023	0	-	9049	6%	10680	6%
29020_2398	0	-	768	7%	752	8%
29030_23849	0	-	11950	8%	13046	8%
40017_27045	0	-	0	-	14472	10%
27148_27149	0	-	1881	8%	2481	3%
27149_35147	0	-	0	-	2481	3%
35152_27160	0	-	984	6%	14472	10%
27164_27162	0	-	2702	10%	14386	8%
27162_27163	0	-	1048	2%	14386	8%
1807_27164	0	-	4470	8%	14386	8%
27165_29120	0	-	3865	5%	723	5%
27166_29122	0	-	0	-	1876	1%
40014_27169	0	-	984	16%	14386	8%
2397_29020	0	-	2153	2%	2062	2%
29020_29021	0	-	2921	3%	2814	4%
29022_29023	0	-	3102	3%	3066	3%
29023_29025	0	-	8312	7%	9961	6%
29024_29026	0	-	6221	8%	6996	8%
29025_29026	0	-	7517	6%	9044	5%
29028_29025	0	-	5164	6%	6395	6%
29029_29026	0	-	1738	22%	1746	22%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
29026_29027	0	-	5058	6%	6292	5%
29029_29027	0	-	10129	13%	11361	13%
1945_29028	0	-	14958	8%	17317	8%
23848_29029	0	-	11867	14%	13107	14%
29028_29030	0	-	9794	10%	10923	9%
29025_29030	0	-	2156	3%	2123	3%
27160_29104	0	-	2553	4%	14472	10%
1990_35146	0	-	0	-	14726	8%
40011_35152	0	-	0	-	15316	10%
35152_40009	0	-	0	-	1316	4%
27169_35153	0	-	0	-	14386	8%
35153_40010	0	-	0	-	1832	3%
40009_40010	0	-	0	-	1866	2%
1985_40011	0	-	0	-	15316	10%
35153_40012	0	-	0	-	15741	7%
40012_40013	0	-	0	-	15741	7%
40019_40014	0	-	6885	14%	14386	8%
29104_40015	0	-	0	-	14472	10%
27163_40016	0	-	2902	2%	14386	8%
40018_40017	0	-	0	-	14472	10%
40015_40018	0	-	0	-	14472	10%
40016_40019	0	-	6017	4%	14386	8%
7330_24214	14744	7%	16674	7%	17403	7%
7332_7330	18503	7%	21496	7%	22173	6%
24151_24168	16829	11%	19449	10%	20482	11%
24151_24173	0	-	0	-	0	0%
24157_24155	3960	32%	3747	38%	3880	37%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
24166_24155	12100	3%	14902	3%	15879	4%
24166_24168	3258	16%	3489	18%	3844	21%
24168_24180	16870	9%	19287	8%	20018	8%
24176_24180	12	0%	67	0%	67	0%
24180_24199	16882	9%	19354	8%	20085	8%
24184_24166	11660	0%	14362	0%	15144	0%
24190_35028	15295	7%	17601	7%	18393	7%
24195_24190	15295	7%	17601	7%	18393	7%
24199_24201	16882	9%	19354	8%	20085	8%
24201_24215	16882	9%	19354	8%	20085	8%
24202_24195	550	9%	927	7%	989	6%
24202_24210	0	-	0	-	0	-
24207_35027	1126	6%	1980	4%	2128	4%
24209_24204	0	-	0	-	0	-
24209_24207	576	4%	1053	2%	1139	2%
24210_24209	576	4%	1053	2%	1139	2%
24214_24195	14744	7%	16674	7%	17403	7%
24214_24210	576	4%	1053	2%	1139	2%
24215_24282	16306	9%	18301	9%	18946	8%
24333_35027	2939	10%	4560	7%	4685	7%
35022_35023	1854	19%	2431	15%	2501	15%
35023_35025	1871	12%	1891	9%	1871	10%
35025_35029	4410	8%	4848	9%	5160	8%
35026_35034	5687	7%	7022	6%	6992	6%
35026_35035	3875	5%	4443	5%	4436	5%
35026_35027	1813	12%	2580	9%	2556	10%
35028_35029	3635	29%	3239	37%	3249	37%

Link ID	Base 2015		Do-Minimum 2023		Do-Something 2023	
	AADT	HDV	AADT	HDV	AADT	HDV
35028_24184	11660	0%	14362	0%	15144	0%
35029_35030	6825	20%	6825	23%	7160	22%
35031_35032	1499	13%	1570	14%	1635	16%
1805_1821	1057	4%	1109	6%	898	1%
1787_1904	977	4%	0	-	0	-



Key

- Modelled Roads
- Part A

Rev	Date	Description	By	Chk'd	App'd
P03	June 2020	Third Issue	GH	LP	AT
P02	12/07/19	Second Issue	GH	LP	AT
P01	April 2019	First Issue	SC	LP	AT

Client

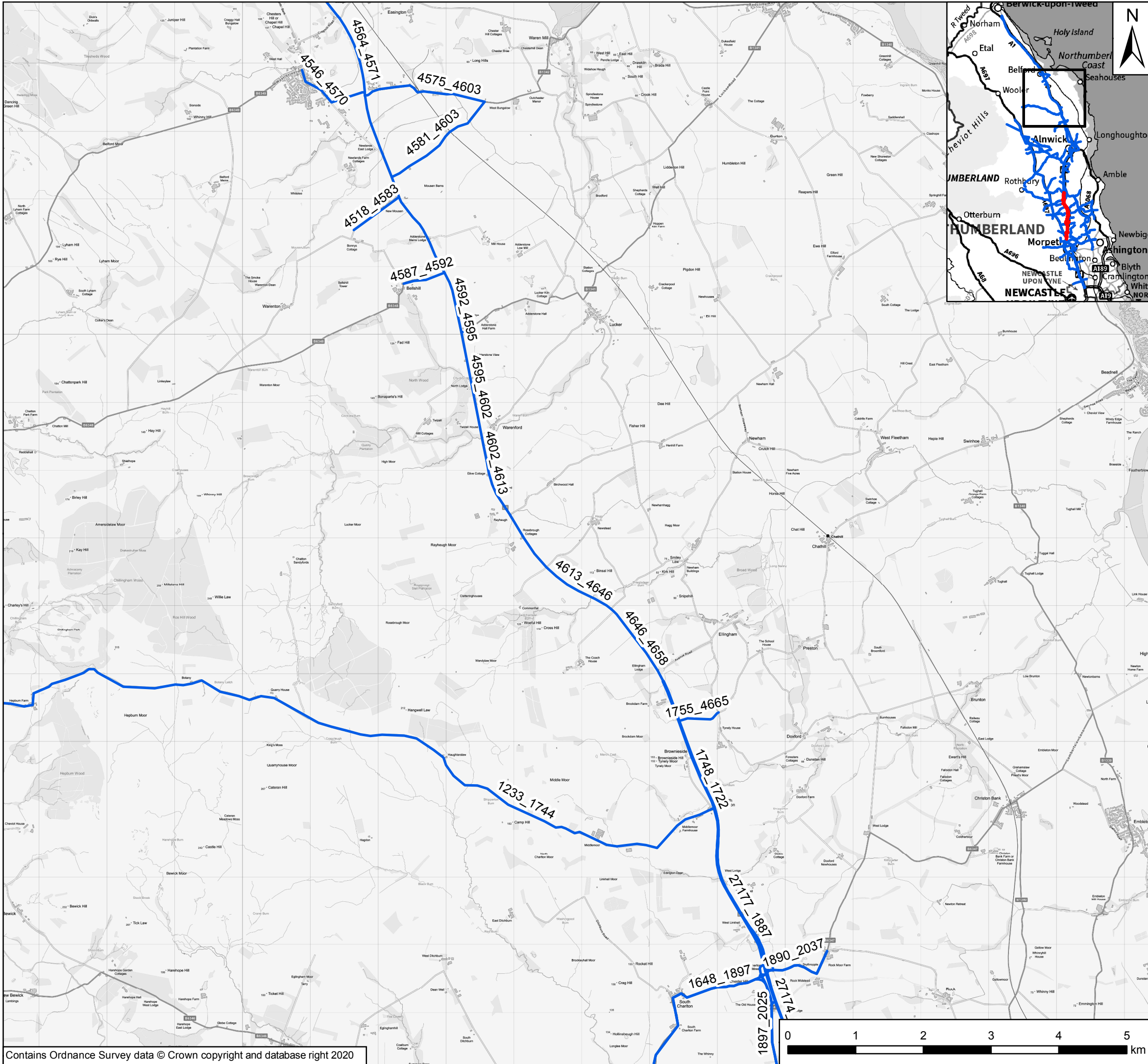
Project Title: A1 in Northumberland: Morpeth to Ellingham

Drawing Title: Appendix 5.1 Model Links
Page 1 of 6

Scale	Drawn	Checked	Approved	Authorised
1:59,118	SC	LP	AT	DM
Original Size	Date	Date	Date	Date
A3	April 2019	April 2019	April 2019	April 2019

Drawing Status: Third Issue
Suitability: S1

Drawing Number Project: HE551459	Originator: WSP	Volume: 6.3	Project Ref. No: 70044136
M2F Location:	Type:	Role:	Number: P03



Key

- Part A
- Modelled Roads

Rev	Date	Description	By	Chk'd	App'd
P03	June 2020	Third Issue	GH	LP	AT
P02	12/07/19	Second Issue	GH	LP	AT
P01	April 2019	First Issue	SC	LP	AT

Client

Project Title: A1 in Northumberland: Morpeth to Ellingham

Drawing Title: Appendix 5.1 Model Links
Page 2 of 6

Scale	Drawn	Checked	Approved	Authorised
1:54,632	SC	LP	AT	DM

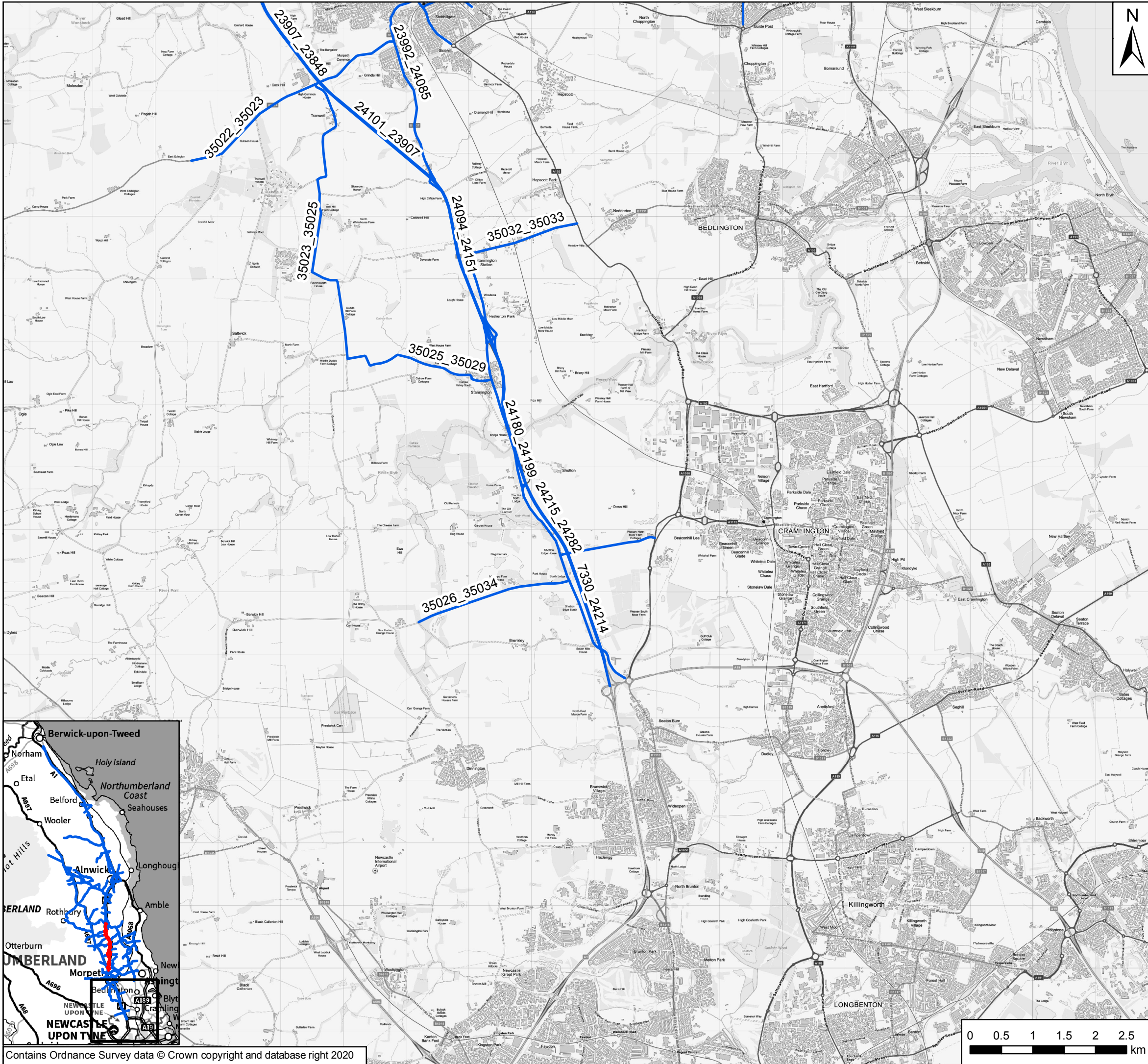
Original Size	Date	Date	Date	Date
A3	April 2019	April 2019	April 2019	April 2019

Drawing Status	Suitability
Third Issue	S1

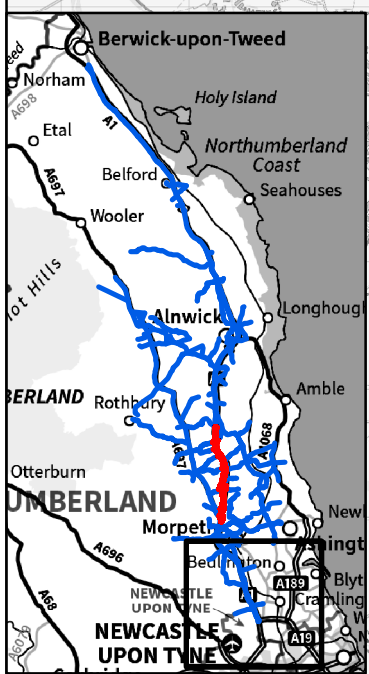
Drawing Number	Originator	Volume	Project Ref. No.
HE551459	WSP	6.3	70044136

M2F	Type	Role	Number
Location			P03





Key
 Modelled Roads
 Part A



P03	June 2020	Third Issue	GH	LP	AT
P02	12/07/19	Second Issue	GH	LP	AT
P01	April 2019	First Issue	SC	LP	AT
Rev	Date	Description	By	Chk'd	App'd

Client



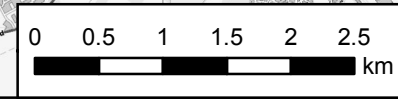
Project Title
A1 in Northumberland: Morpeth to Ellingham

Drawing Title
**Appendix 5.1 Model Links
 Page 6 of 6**

Scale	1:59,118	Drawn	SC	Checked	LP	Approved	AT	Authorised	DM
Original Size	A3	Date	April 2019	Date	April 2019	Date	April 2019	Date	April 2019

Drawing Status
Third Issue

Drawing Number	HE551459	Originator	WSP	Volume	6.3	Project Ref. No.	70044136
M2F	Location	Type	Role	Number		Revision	P03



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