

APPENDIX 15:**VEHICLE TRAVELLERS****Annex A: Driver Stress Analysis (Central Growth)****Annex B: Driver Stress Analysis (High Demand Growth)**

APPENDIX 15: VEHICLE TRAVELLERS**Annex A: Driver Stress Analysis (Central Growth)**

Driver Stress Analysis - Central Growth

Existing Road Network						
Baseline 2012						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
104	1497.12	18.61	6.4	287.45	1401.30	1688.75
105	501.61	48.51	6.4	96.31	469.51	565.82
106	2074.81	26.14	6.4	398.36	1942.02	2340.39
108	2853.37	15.37	6.4	547.85	2670.75	3218.60
109	646.71	44.84	6.4	124.17	605.32	729.49
110	447.16	49.89	6.4	85.85	418.54	504.40
112	525.85	63.41	6.4	100.96	492.20	593.16
114	3653.77	35.00	6.4	701.52	3419.93	4121.45
115	3653.77	35.00	6.4	701.52	3419.93	4121.45
116	3979.19	43.71	6.4	764.00	3724.52	4488.53
117	3979.19	46.39	6.4	764.00	3724.52	4488.53
118	1015.61	22.80	6.4	195.00	950.61	1145.61
120	1818.95	27.78	6.4	349.24	1702.54	2051.78
121	1751.45	28.22	6.4	336.28	1639.36	1975.64
125	1818.95	29.74	6.4	349.24	1702.54	2051.78
126	2172.09	19.51	6.4	417.04	2033.08	2450.12
127	569.87	24.58	6.4	109.42	533.40	642.81
128	559.00	24.65	6.4	107.33	523.22	630.55
129	2171.33	16.60	6.4	416.90	2032.36	2449.26
130	2108.29	16.93	6.4	404.79	1973.36	2378.15
131	2004.92	15.34	6.4	384.94	1876.61	2261.55
132	968.01	22.33	6.4	185.86	906.06	1091.92
133	977.68	22.25	6.4	187.71	915.11	1102.82
134	951.16	22.47	6.4	182.62	890.29	1072.91
138	3824.74	42.81	6.4	734.35	3579.96	4314.31
140	1975.36	35.00	6.4	379.27	1848.94	2228.21
142	1849.38	47.79	6.4	355.08	1731.02	2086.10
144	2170.02	35.00	6.4	416.64	2031.14	2447.78
146	1028.44	28.46	6.4	197.46	962.62	1160.08
148	954.64	29.25	6.4	183.29	893.54	1076.83
149	964.96	29.14	6.4	185.27	903.20	1088.47
150	921.27	29.61	6.4	176.88	862.31	1039.19
151	1101.37	19.38	6.4	211.46	1030.88	1242.35
152	339.55	31.14	6.4	65.19	317.82	383.01
154	1401.79	18.83	6.4	269.14	1312.08	1581.22
155	1975.36	35.00	6.4	379.27	1848.94	2228.21
156	1075.18	23.92	6.4	206.43	1006.37	1212.80
157	2678.48	35.00	6.4	514.27	2507.06	3021.33
158	221.08	30.31	6.4	42.45	206.93	249.38
159	4848.51	35.00	6.4	930.91	4538.21	5469.12
160	4615.15	35.00	6.4	886.11	4319.78	5205.89
162	1506.57	20.79	6.4	289.26	1410.15	1699.41
164	1456.57	26.06	6.4	279.66	1363.35	1643.01
166	833.99	22.88	6.4	160.13	780.61	940.74
168	1210.06	15.26	6.4	232.33	1132.62	1364.95
169	1348.75	15.00	6.4	258.96	1262.43	1521.39
170	152.82	28.95	6.4	29.34	143.04	172.38
172	267.38	25.26	6.4	51.34	250.27	301.60

Existing Road Network						
Do-Minimum 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
104	1825.22	16.49	6.4	350.44	1708.41	2058.85
105	611.54	45.70	6.4	117.42	572.40	689.82
106	2529.52	23.21	6.4	485.67	2367.63	2853.30
108	3478.70	15.00	6.4	667.91	3256.06	3923.97
109	788.45	41.22	6.4	151.38	737.99	889.37
110	545.15	47.38	6.4	104.67	510.26	614.93
112	641.09	62.00	6.4	123.09	600.06	723.15
114	4454.52	35.00	6.4	855.27	4169.43	5024.70
115	4454.52	35.00	6.4	855.27	4169.43	5024.70
116	4851.26	35.00	6.4	931.44	4540.78	5472.22
117	4851.26	41.47	6.4	931.44	4540.78	5472.22
118	1238.19	21.60	6.4	237.73	1158.95	1396.68
120	2217.59	25.22	6.4	425.78	2075.66	2501.44
121	2135.30	25.75	6.4	409.98	1998.64	2408.62
125	2217.59	27.60	6.4	425.78	2075.66	2501.44
126	2648.12	17.59	6.4	508.44	2478.64	2987.08
127	694.76	23.77	6.4	133.39	650.30	783.69
128	681.51	23.86	6.4	130.85	637.89	768.74
129	2647.19	15.00	6.4	508.26	2477.77	2986.03
130	2570.33	15.00	6.4	493.50	2405.83	2899.33
131	2444.32	15.00	6.4	469.31	2287.88	2757.19
132	1180.15	20.62	6.4	226.59	1104.62	1331.21
133	1191.94	20.53	6.4	228.85	1115.66	1344.51
134	1159.61	20.79	6.4	222.65	1085.39	1308.04
138	4662.96	35.18	6.4	895.29	4364.53	5259.82
140	2408.27	35.00	6.4	462.39	2254.14	2716.53
142	2254.69	41.19	6.4	432.90	2110.39	2543.29
144	2645.60	35.00	6.4	507.96	2476.28	2984.24
146	1253.83	26.04	6.4	240.74	1173.58	1414.32
148	1163.85	27.01	6.4	223.46	1089.36	1312.82
149	1176.44	26.87	6.4	225.88	1101.15	1327.02
150	1123.17	27.44	6.4	215.65	1051.29	1266.94
151	1342.74	17.44	6.4	257.81	1256.80	1514.61
152	413.97	30.54	6.4	79.48	387.48	466.96
154	1709.01	15.53	6.4	328.13	1599.63	1927.76
155	2408.27	35.00	6.4	462.39	2254.14	2716.53
156	1310.81	22.97	6.4	251.68	1226.92	1478.59
157	3265.49	35.00	6.4	626.97	3056.50	3683.47
158	269.53	29.53	6.4	51.75	252.28	304.03
159	5911.09	35.00	6.4	1134.93	5532.78	6667.71
160	5626.59	35.00	6.4	1080.31	5266.49	6346.79
162	1836.75	19.02	6.4	352.66	1719.20	2071.85
164	1775.79	24.34	6.4	340.95	1662.14	2003.09
166	1016.76	21.70	6.4	195.22	951.69	1146.91
168	1475.26	15.00	6.4	283.25	1380.84	1664.09
169	1644.34	15.00	6.4	315.71	1539.10	1854.82
170	186.31	27.87	6.4	35.77	174.39	210.16
172	325.98	23.38	6.4	62.59	305.12	367.71

Proposed Road Network						
Do-Something 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
104	2538.00	15.00	6.4	487.30	2375.57	2862.86
105	611.54	45.70	6.4	117.42	572.40	689.82
106	2622.94	22.61	6.4	503.60	2455.07	2958.68
108	3478.70	15.00	6.4	667.91	3256.06	3923.97
109	788.45	41.22	6.4	151.38	737.99	889.37
110	545.15	47.38	6.4	104.67	510.26	614.93
112	641.09	62.00	6.4	123.09	600.06	723.15
118	1417.88	20.64	6.4	272.23	1327.14	1599.37
126	2487.25	18.24	6.4	477.55	2328.07	2805.62
130	2700.33	15.00	6.4	518.46	2527.51	3045.97
131	2574.18	15.00	6.4	494.24	2409.43	2903.68
132	1501.23	18.04	6.4	288.24	1405.15	1693.39
133	1513.68	17.94	6.4	290.63	1416.80	1707.43
134	1483.74	18.18	6.4	284.88	1388.78	1673.66
137	4628.64	39.88	6.4	888.70	4332.41	5221.11
138	4662.96	35.18	6.4	895.29	4364.53	5259.82
139	3265.49	35.00	6.4	626.97	3056.50	3683.47
141	2254.69	41.19	6.4	432.90	2110.39	2543.29
142	2254.69	41.19	6.4	432.90	2110.39	2543.29
144	2645.73	35.00	6.4	507.98	2476.40	2984.38
146	1578.08	22.56	6.4	302.99	1477.08	1780.07
147	1483.74	18.18	6.4	284.88	1388.78	1673.66
148	1489.83	23.51	6.4	286.05	1394.48	1680.53
149	1489.83	23.51	6.4	286.05	1394.48	1680.53
150	1436.43	24.08	6.4	275.79	1344.50	1620.29
151	1525.08	15.97	6.4	292.82	1427.47	1720.29
152	356.59	31.00	6.4	68.47	333.77	402.23
154	1503.75	17.73	6.4	288.72	1407.51	1696.23
155	2408.27	35.00	6.4	462.39	2254.14	2716.53
157	3265.49	35.00	6.4	626.97	3056.50	3683.47
159	5911.23	35.00	6.4	1134.96	5532.91	6667.87
160	5503.75	35.00	6.4	1056.72	5151.51	6208.23
162	2054.47	17.85	6.4	394.46	1922.98	2317.44
163	1959.72	16.25	6.4	376.27	1834.30	2210.56
164	1789.44	24.27	6.4	343.57	1674.92	2018.49
166	1263.50	20.11	6.4	242.59	1182.64	1425.23
195	241.30	29.99	6.4	46.33	225.86	272.19
197	267.14	29.57	6.4	51.29	250.04	301.33
220	3265.49	35.00	6.4	626.97	3056.50	3683.47
221	6071.83	59.97	6.4	1165.79	5683.23	6849.02
243	1413.11	18.70	6.4	271.32	1322.67	1593.99
244	58.04	33.41	6.4	11.14	54.33	65.47
245	90.51	32.42	6.4	17.38	84.72	102.10
246	181.41	30.95	6.4	34.83	169.80	204.63
247	1945.28	15.00	6.4	373.49	1820.78	2194.28
250	6860.94	35.00	6.4	1317.30	6421.84	7739.14
260	1357.19	54.00	6.4	260.58	1270.33	1530.91
262	1315.84	19.75	6.4	252.64	1231.63	1484.27

Existing Road Network						
Baseline 2012						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
173	942.79	18.13	6.4	181.02	882.45	1063.47
174	2978.04	35.00	6.4	571.78	2787.45	3359.23
176	1950.03	26.94	6.4	374.41	1825.23	2199.63
178	179.23	28.10	6.4	34.41	167.76	202.17
180	1602.33	15.00	6.4	307.65	1499.78	1807.43
186	2129.26	28.07	6.4	408.82	1992.99	2401.81
192	2129.26	28.07	6.4	408.82	1992.99	2401.81
194	228.80	26.51	6.4	43.93	214.16	258.09
195	250.75	29.84	6.4	48.14	234.70	282.85
197	272.05	29.49	6.4	52.23	254.64	306.87
198	4192.88	16.99	6.4	805.03	3924.54	4729.57
204	4192.88	16.99	6.4	805.03	3924.54	4729.57
206	464.98	28.88	6.4	89.28	435.22	524.50
208	105.00	30.49	6.4	20.16	98.28	118.44
210	1870.36	18.82	6.4	359.11	1750.66	2109.77
212	2787.50	21.55	6.4	535.20	2609.10	3144.30
214	1781.56	20.37	6.4	342.06	1667.54	2009.60
216	3175.96	15.00	6.4	609.78	2972.70	3582.48
218	3130.86	67.20	6.4	601.13	2930.48	3531.61
220	2678.48	35.00	6.4	514.27	2507.06	3021.33
221	4980.24	67.77	6.4	956.21	4661.50	5617.71
222	1936.77	15.00	6.4	371.86	1812.82	2184.68
224	1239.19	22.45	6.4	237.92	1159.88	1397.81
243	1226.91	20.70	6.4	235.57	1148.39	1383.95
244	0.65	33.87	6.4	0.12	0.61	0.73
245	174.88	31.06	6.4	33.58	163.69	197.26
246	1.20	33.86	6.4	0.23	1.12	1.35
247	1305.49	15.00	6.4	250.65	1221.94	1472.59
250	5627.50	35.00	6.4	1080.48	5267.34	6347.82
260	1012.35	58.40	6.4	194.37	947.56	1141.93
262	978.44	23.37	6.4	187.86	915.82	1103.68
263	227.93	32.04	6.4	43.76	213.34	257.11
264	33.91	33.33	6.4	6.51	31.74	38.25
265	115.32	32.02	6.4	22.14	107.94	130.08
266	469.66	30.09	6.4	90.17	439.60	529.78
267	444.44	26.72	6.4	85.33	416.00	501.33
268	503.46	28.47	6.4	96.66	471.24	567.90
270	191.73	30.79	6.4	36.81	179.46	216.27
272	1256.26	20.39	6.4	241.20	1175.86	1417.06
274	1226.91	20.70	6.4	235.57	1148.39	1383.95
276	29.35	32.93	6.4	5.64	27.47	33.11
278	5.43	33.70	6.4	1.04	5.08	6.13
304	2476.21	17.80	6.4	475.43	2317.73	2793.16
309	1561.57	15.68	6.4	299.82	1461.63	1761.45
310	1512.55	16.07	6.4	290.41	1415.75	1706.16
311	1430.27	19.04	6.4	274.61	1338.73	1613.34
316	1249.30	20.20	6.4	239.87	1169.34	1409.21
320	1798.19	22.29	6.4	345.25	1683.11	2028.36
324	572.04	27.73	6.4	109.83	535.43	645.26
326	617.69	23.93	6.4	118.60	578.16	696.75

Existing Road Network						
Do-Minimum 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
173	1149.41	15.91	6.4	220.69	1075.85	1296.53
174	3630.70	35.00	6.4	697.09	3398.34	4095.43
176	2377.40	24.19	6.4	456.46	2225.25	2681.71
178	218.51	26.84	6.4	41.95	204.53	246.48
180	1953.49	15.00	6.4	375.07	1828.47	2203.54
186	2595.91	25.57	6.4	498.41	2429.77	2928.19
192	2595.91	25.57	6.4	498.41	2429.77	2928.19
194	278.94	24.89	6.4	53.56	261.09	314.64
195	305.71	28.95	6.4	58.70	286.14	344.84
197	331.68	28.53	6.4	63.68	310.45	374.14
198	5111.78	15.00	6.4	981.46	4784.63	5766.09
204	5111.78	15.00	6.4	981.46	4784.63	5766.09
206	566.89	27.79	6.4	108.84	530.61	639.45
208	128.01	29.75	6.4	24.58	119.82	144.40
210	2280.27	15.52	6.4	437.81	2134.33	2572.14
212	3398.40	17.61	6.4	652.49	3180.90	3833.40
214	2172.00	16.18	6.4	417.02	2032.99	2450.02
216	3872.00	15.00	6.4	743.42	3624.19	4367.62
218	3817.01	57.39	6.4	732.87	3572.72	4305.59
220	3265.49	35.00	6.4	626.97	3056.50	3683.47
221	6071.70	59.98	6.4	1165.77	5683.11	6848.88
222	2361.23	15.00	6.4	453.36	2210.11	2663.47
224	1510.77	19.53	6.4	290.07	1414.08	1704.15
243	1495.79	17.82	6.4	287.19	1400.06	1687.25
244	0.80	33.87	6.4	0.15	0.75	0.90
245	213.21	30.44	6.4	40.94	199.56	240.50
246	1.46	33.85	6.4	0.28	1.37	1.65
247	1591.60	15.00	6.4	305.59	1489.74	1795.32
250	6860.81	35.00	6.4	1317.28	6421.72	7738.99
260	1234.22	55.56	6.4	236.97	1155.23	1392.20
262	1192.87	21.07	6.4	229.03	1116.53	1345.56
263	277.88	31.64	6.4	53.35	260.10	313.45
264	41.34	33.21	6.4	7.94	38.69	46.63
265	140.60	31.61	6.4	27.00	131.60	158.60
266	572.58	29.26	6.4	109.94	535.93	645.87
267	541.84	25.15	6.4	104.03	507.16	611.20
268	613.80	27.29	6.4	117.85	574.52	692.37
270	233.75	30.11	6.4	44.88	218.79	263.67
272	1531.57	17.43	6.4	294.06	1433.55	1727.61
274	1495.79	17.82	6.4	287.19	1400.06	1687.25
276	35.78	32.72	6.4	6.87	33.49	40.36
278	6.63	33.66	6.4	1.27	6.21	7.48
304	3018.89	15.00	6.4	579.63	2825.68	3405.31
309	1903.80	15.00	6.4	365.53	1781.96	2147.49
310	1844.04	15.00	6.4	354.06	1726.02	2080.08
311	1743.72	17.02	6.4	334.79	1632.12	1966.92
316	1523.09	18.44	6.4	292.43	1425.61	1718.05
320	2192.28	19.75	6.4	420.92	2051.97	2472.89
324	697.41	26.39	6.4	133.90	652.78	786.68
326	753.07	21.75	6.4	144.59	704.87	849.46

Proposed Road Network						
Do-Something 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
263	220.63	32.10	6.4	42.36	206.51	248.87
264	41.34	32.54	6.4	7.94	38.69	46.63
265	320.68	28.71	6.4	61.57	300.16	361.73
266	752.54	27.82	6.4	144.49	704.38	848.87
267	541.84	25.15	6.4	104.03	507.16	611.20
268	793.88	25.35	6.4	152.42	743.07	895.50
304	3018.89	15.00	6.4	579.63	2825.68	3405.31
309	2616.45	15.00	6.4	502.36	2449.00	2951.36
310	2144.44	15.00	6.4	411.73	2007.20	2418.93
311	2456.64	15.00	6.4	471.67	2299.42	2771.09
316	2235.87	15.00	6.4	429.29	2092.77	2522.06
324	697.41	26.39	6.4	133.90	652.78	786.68
326	753.07	21.75	6.4	144.59	704.87	849.46
328	1020.08	15.00	6.4	195.86	954.79	1150.65
330	2259.99	17.85	6.4	433.92	2115.35	2549.27
332	1007.62	17.65	6.4	193.46	943.13	1136.60
334	131.05	29.65	6.4	25.16	122.66	147.82
335	1383.42	19.34	6.4	265.62	1294.88	1560.50
336	1252.37	20.18	6.4	240.46	1172.22	1412.67
338	2108.93	16.86	6.4	404.91	1973.96	2378.87
339	2158.75	16.33	6.4	414.48	2020.59	2435.07
340	1987.55	25.00	6.4	381.61	1860.35	2241.96
342	2064.40	15.00	6.4	396.36	1932.28	2328.64
344	1990.06	15.00	6.4	382.09	1862.70	2244.79
345	1409.26	20.69	6.4	270.58	1319.07	1589.65
346	230.97	26.44	6.4	44.35	216.19	260.53
348	1178.16	21.93	6.4	226.21	1102.76	1328.96
355	2479.30	16.84	6.4	476.03	2320.62	2796.65
356	2330.89	17.53	6.4	447.53	2181.71	2629.24
357	2655.54	17.56	6.4	509.86	2485.59	2995.45
362	3055.59	19.82	6.4	586.67	2860.03	3446.71
364	314.32	31.34	6.4	60.35	294.20	354.55
366	1461.47	22.02	6.4	280.60	1367.94	1648.54
368	42.27	32.51	6.4	8.12	39.56	47.68
384	1683.83	15.00	6.4	323.30	1576.06	1899.36
386	1292.79	17.84	6.4	248.22	1210.05	1458.27
398	1599.15	16.46	6.4	307.04	1496.80	1803.84
399	390.91	21.04	6.4	75.05	365.89	440.95
400	4757.84	35.00	6.4	913.51	4453.34	5366.84
401	4757.84	38.46	6.4	913.51	4453.34	5366.84
402	4659.78	35.00	6.4	894.68	4361.55	5256.23
403	224.21	26.65	6.4	43.05	209.86	252.91
404	528.19	57.81	6.4	101.41	494.39	595.80
405	528.19	63.74	6.4	101.41	494.39	595.80
406	4229.65	35.00	6.4	812.09	3958.95	4771.05
407	1619.03	22.12	6.4	310.85	1515.41	1826.27
408	2950.91	35.00	6.4	566.57	2762.05	3328.63
409	1850.00	19.64	6.4	355.20	1731.60	2086.80
410	1708.87	35.00	6.4	328.10	1599.50	1927.61
411	35.78	32.72	6.4	6.87	33.49	40.36

Existing Road Network						
Baseline 2012						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
328	466.39	24.48	6.4	89.55	436.54	526.09
330	1660.04	20.61	6.4	318.73	1553.80	1872.53
332	768.01	21.51	6.4	147.46	718.86	866.32
334	95.54	30.80	6.4	18.34	89.43	107.77
335	987.46	21.89	6.4	189.59	924.26	1113.85
336	892.03	22.50	6.4	171.27	834.94	1006.21
338	1353.75	24.97	6.4	259.92	1267.11	1527.03
339	1329.95	25.22	6.4	255.35	1244.83	1500.18
340	1289.84	26.73	6.4	247.65	1207.29	1454.94
342	1373.42	15.00	6.4	263.70	1285.52	1549.22
344	1340.49	15.00	6.4	257.37	1254.70	1512.07
345	1008.66	22.84	6.4	193.66	944.11	1137.77
346	306.84	23.99	6.4	58.91	287.20	346.12
348	701.82	24.48	6.4	134.75	656.90	791.65
355	2165.68	18.29	6.4	415.81	2027.08	2442.89
356	1889.27	19.56	6.4	362.74	1768.36	2131.10
357	2310.13	18.95	6.4	443.54	2162.28	2605.83
358	1444.62	27.87	6.4	277.37	1352.16	1629.53
362	2506.10	22.34	6.4	481.17	2345.71	2826.88
364	304.88	31.42	6.4	58.54	285.37	343.90
366	1367.12	22.79	6.4	262.49	1279.62	1542.11
368	34.67	32.76	6.4	6.66	32.45	39.11
370	1314.84	21.82	6.4	252.45	1230.69	1483.14
372	191.73	27.70	6.4	36.81	179.46	216.27
374	29.35	32.93	6.4	5.64	27.47	33.11
384	1339.62	17.46	6.4	257.21	1253.88	1511.09
386	1047.89	19.81	6.4	201.19	980.83	1182.02
398	1048.76	22.37	6.4	201.36	981.64	1183.00
399	291.73	24.23	6.4	56.01	273.06	329.07

Existing Road Network						
Do-Minimum 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
328	568.61	21.19	6.4	109.17	532.22	641.39
330	2023.85	18.94	6.4	388.58	1894.32	2282.90
332	936.33	18.80	6.4	179.78	876.40	1056.18
334	116.48	30.12	6.4	22.36	109.03	131.39
335	1203.87	20.50	6.4	231.14	1126.82	1357.97
336	1087.53	21.25	6.4	208.81	1017.93	1226.73
338	1650.44	21.78	6.4	316.88	1544.81	1861.70
339	1621.42	22.09	6.4	311.31	1517.65	1828.96
340	1572.52	25.00	6.4	301.92	1471.88	1773.80
342	1674.42	15.00	6.4	321.49	1567.26	1888.75
344	1634.27	15.00	6.4	313.78	1529.68	1843.46
345	1229.71	21.65	6.4	236.10	1151.01	1387.11
346	374.08	21.83	6.4	71.82	350.14	421.96
348	855.63	23.66	6.4	164.28	800.87	965.15
355	2640.30	16.10	6.4	506.94	2471.32	2978.26
356	2303.32	17.65	6.4	442.24	2155.91	2598.14
357	2816.41	16.91	6.4	540.75	2636.16	3176.91
358	1761.22	25.32	6.4	338.15	1648.50	1986.66
362	3055.33	19.82	6.4	586.62	2859.79	3446.41
364	371.70	30.88	6.4	71.37	347.91	419.28
366	1666.74	20.36	6.4	320.01	1560.07	1880.08
368	42.27	32.51	6.4	8.12	39.56	47.68
370	1603.00	20.27	6.4	307.78	1500.41	1808.18
372	233.75	26.35	6.4	44.88	218.79	263.67
374	35.78	32.72	6.4	6.87	33.49	40.36
384	1633.21	15.10	6.4	313.58	1528.68	1842.26
386	1277.55	17.96	6.4	245.29	1195.79	1441.08
398	1278.61	19.90	6.4	245.49	1196.78	1442.27
399	355.66	22.17	6.4	68.29	332.90	401.18

Proposed Road Network						
Do-Something 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
412	1047.77	16.22	6.4	201.17	980.71	1181.88
413	2408.27	50.86	6.4	462.39	2254.14	2716.53
414	584.38	30.09	6.4	112.20	546.98	659.18
415	1575.96	15.00	6.4	302.58	1475.10	1777.68
416	1932.29	23.94	6.4	371.00	1808.62	2179.62
417	1356.79	15.00	6.4	260.50	1269.96	1530.46
418	214.40	26.97	6.4	41.16	200.68	241.84
419	699.40	62.34	6.4	134.28	654.64	788.92
420	584.38	20.68	6.4	112.20	546.98	659.18
421	584.11	15.06	6.4	112.15	546.73	658.88
422	2302.26	15.00	6.4	442.03	2154.92	2596.95
423	115.29	30.16	6.4	22.14	107.91	130.05
424	1254.62	15.00	6.4	240.89	1174.32	1415.21
425	2.92	33.78	6.4	0.56	2.73	3.29
426	2950.91	38.72	6.4	566.57	2762.05	3328.63
427	115.55	27.32	6.4	22.19	108.15	130.34
428	127.34	27.22	6.4	24.45	119.19	143.64
429	2777.05	15.47	6.4	533.19	2599.32	3132.51
431	35.78	32.76	6.4	6.87	33.49	40.36
432	1094.28	16.50	6.4	210.10	1024.25	1234.35
433	1355.73	15.00	6.4	260.30	1268.96	1529.26
436	1855.70	35.00	6.4	356.29	1736.94	2093.23
437	261.45	25.45	6.4	50.20	244.72	294.92
439	116.35	30.13	6.4	22.34	108.90	131.24
440	2373.95	38.57	6.4	455.80	2222.02	2677.82
441	224.21	26.65	6.4	43.05	209.86	252.91
443	160.34	28.71	6.4	30.79	150.08	180.86
444	1443.19	35.00	6.4	277.09	1350.83	1627.92
445	655.40	23.32	6.4	125.84	613.45	739.29
446	790.04	51.18	6.4	151.69	739.48	891.17
447	815.88	20.74	6.4	156.65	763.66	920.31
448	2238.26	41.55	6.4	429.75	2095.01	2524.76
449	802.76	15.00	6.4	154.13	751.38	905.51
450	712.65	53.14	6.4	136.83	667.04	803.87
457	1537.40	20.62	6.4	295.18	1439.01	1734.19
459	890.22	23.47	6.4	170.92	833.25	1004.17
460	21.47	33.18	6.4	4.12	20.10	24.22
461	1050.69	22.61	6.4	201.73	983.45	1185.18
462	94.75	30.82	6.4	18.19	88.69	106.88
463	516.93	17.23	6.4	99.25	483.85	583.10
465	79.77	32.59	6.4	15.32	74.66	89.98
467	596.70	24.27	6.4	114.57	558.51	673.08
469	560.92	15.81	6.4	107.70	525.02	632.72
471	560.92	24.84	6.4	107.70	525.02	632.72
473	1449.02	15.00	6.4	278.21	1356.28	1634.49
475	35.78	32.72	6.4	6.87	33.49	40.36
477	1413.11	15.00	6.4	271.32	1322.67	1593.99
479	6.63	33.66	6.4	1.27	6.21	7.48
487	1443.19	35.00	6.4	277.09	1350.83	1627.92

Single Carriageway
Dual Carriageway
Motorway

APPENDIX 15: VEHICLE TRAVELLERS**Annex B: Driver Stress Analysis (High Demand Growth)**

Driver Stress Analysis - High Demand Growth

Existing Road Network						
Baseline 2012						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
104	1497.12	18.61	6.4	287.45	1401.30	1688.75
105	501.61	48.51	6.4	96.31	469.51	565.82
106	2074.81	26.14	6.4	398.36	1942.02	2340.39
108	2853.37	15.37	6.4	547.85	2670.75	3218.60
109	646.71	44.84	6.4	124.17	605.32	729.49
110	447.16	49.89	6.4	85.85	418.54	504.40
112	525.85	63.41	6.4	100.96	492.20	593.16
114	3653.77	35.00	6.4	701.52	3419.93	4121.45
115	3653.77	35.00	6.4	701.52	3419.93	4121.45
116	3979.19	43.71	6.4	764.00	3724.52	4488.53
117	3979.19	46.39	6.4	764.00	3724.52	4488.53
118	1015.61	22.80	6.4	195.00	950.61	1145.61
120	1818.95	27.78	6.4	349.24	1702.54	2051.78
121	1751.45	28.22	6.4	336.28	1639.36	1975.64
125	1818.95	29.74	6.4	349.24	1702.54	2051.78
126	2172.09	19.51	6.4	417.04	2033.08	2450.12
127	569.87	24.58	6.4	109.42	533.40	642.81
128	559.00	24.65	6.4	107.33	523.22	630.55
129	2171.33	16.60	6.4	416.90	2032.36	2449.26
130	2108.29	16.93	6.4	404.79	1973.36	2378.15
131	2004.92	15.34	6.4	384.94	1876.61	2261.55
132	968.01	22.33	6.4	185.86	906.06	1091.92
133	977.68	22.25	6.4	187.71	915.11	1102.82
134	951.16	22.47	6.4	182.62	890.29	1072.91
138	3824.74	42.81	6.4	734.35	3579.96	4314.31
140	1975.36	35.00	6.4	379.27	1848.94	2228.21
142	1849.38	47.79	6.4	355.08	1731.02	2086.10
144	2170.02	35.00	6.4	416.64	2031.14	2447.78
146	1028.44	28.46	6.4	197.46	962.62	1160.08
148	954.64	29.25	6.4	183.29	893.54	1076.83
149	964.96	29.14	6.4	185.27	903.20	1088.47
150	921.27	29.61	6.4	176.88	862.31	1039.19
151	1101.37	19.38	6.4	211.46	1030.88	1242.35
152	339.55	31.14	6.4	65.19	317.82	383.01
154	1401.79	18.83	6.4	269.14	1312.08	1581.22
155	1975.36	35.00	6.4	379.27	1848.94	2228.21
156	1075.18	23.92	6.4	206.43	1006.37	1212.80
157	2678.48	35.00	6.4	514.27	2507.06	3021.33
158	221.08	30.31	6.4	42.45	206.93	249.38
159	4848.51	35.00	6.4	930.91	4538.21	5469.12
160	4615.15	35.00	6.4	886.11	4319.78	5205.89
162	1506.57	20.79	6.4	289.26	1410.15	1699.41
164	1456.57	26.06	6.4	279.66	1363.35	1643.01

Existing Road Network						
Do-Minimum 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
104	1930.18	15.82	6.4	370.59	1806.65	2177.24
105	646.71	44.81	6.4	124.17	605.32	729.49
106	2674.98	22.27	6.4	513.60	2503.78	3017.38
108	3678.74	15.00	6.4	706.32	3443.30	4149.62
109	833.78	40.07	6.4	160.09	780.42	940.50
110	576.50	46.59	6.4	110.69	539.60	650.29
112	677.96	61.56	6.4	130.17	634.57	764.74
114	4710.67	35.00	6.4	904.45	4409.19	5313.64
115	4710.67	35.00	6.4	904.45	4409.19	5313.64
116	5130.23	35.00	6.4	985.00	4801.90	5786.90
117	5130.23	39.95	6.4	985.00	4801.90	5786.90
118	1309.39	21.22	6.4	251.40	1225.59	1476.99
120	2345.11	24.39	6.4	450.26	2195.02	2645.28
121	2258.08	24.96	6.4	433.55	2113.56	2547.11
125	2345.11	26.91	6.4	450.26	2195.02	2645.28
126	2800.40	16.98	6.4	537.68	2621.17	3158.85
127	734.71	23.52	6.4	141.06	687.69	828.75
128	720.70	23.61	6.4	138.37	674.58	812.95
129	2799.41	15.00	6.4	537.49	2620.25	3157.73
130	2718.14	15.00	6.4	521.88	2544.18	3066.06
131	2584.87	15.00	6.4	496.30	2419.44	2915.73
132	1248.01	20.08	6.4	239.62	1168.14	1407.76
133	1260.49	19.98	6.4	242.01	1179.82	1421.83
134	1226.29	20.25	6.4	235.45	1147.81	1383.26
138	4931.10	35.00	6.4	946.77	4615.51	5562.28
140	2546.76	35.00	6.4	488.98	2383.77	2872.75
142	2384.34	38.34	6.4	457.79	2231.74	2689.54
144	2797.73	35.00	6.4	537.16	2618.68	3155.84
146	1325.93	25.27	6.4	254.58	1241.07	1495.65
148	1230.78	26.29	6.4	236.31	1152.01	1388.32
149	1244.09	26.14	6.4	238.87	1164.47	1403.33
150	1187.76	26.75	6.4	228.05	1111.74	1339.79
151	1419.96	16.82	6.4	272.63	1329.08	1601.71
152	437.77	30.35	6.4	84.05	409.75	493.80
154	1807.28	15.00	6.4	347.00	1691.61	2038.61
155	2546.76	35.00	6.4	488.98	2383.77	2872.75
156	1386.18	22.67	6.4	266.15	1297.46	1563.61
157	3453.27	35.00	6.4	663.03	3232.26	3895.29
158	285.03	29.29	6.4	54.73	266.79	321.51
159	6251.00	35.00	6.4	1200.19	5850.94	7051.13
160	5950.14	35.00	6.4	1142.43	5569.33	6711.76
162	1942.37	18.45	6.4	372.94	1818.06	2190.99
164	1877.91	23.80	6.4	360.56	1757.72	2118.28

Proposed Road Network						
Do-Something 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
104	2683.95	15.00	6.4	515.32	2512.18	3027.50
105	705.98	43.31	6.4	135.55	660.80	796.35
106	2773.77	21.63	6.4	532.56	2596.25	3128.81
108	3678.74	15.00	6.4	706.32	3443.30	4149.62
109	990.59	36.10	6.4	190.19	927.19	1117.39
110	950.37	37.12	6.4	182.47	889.55	1072.02
112	638.58	62.03	6.4	122.61	597.71	720.32
118	1499.41	20.20	6.4	287.89	1403.45	1691.33
126	2630.28	17.66	6.4	505.01	2461.94	2966.96
130	2855.61	15.00	6.4	548.28	2672.85	3221.13
131	2722.20	15.00	6.4	522.66	2547.98	3070.64
132	1587.55	17.34	6.4	304.81	1485.95	1790.76
133	1600.73	17.24	6.4	307.34	1498.28	1805.62
134	1569.06	17.49	6.4	301.26	1468.64	1769.90
137	5020.36	35.64	6.4	963.91	4699.06	5662.97
138	5021.49	35.00	6.4	964.13	4700.11	5664.24
139	3453.27	35.00	6.4	663.03	3232.26	3895.29
141	2384.34	38.34	6.4	457.79	2231.74	2689.54
142	2384.34	38.34	6.4	457.79	2231.74	2689.54
144	2895.97	35.00	6.4	556.03	2710.63	3266.65
146	1668.83	21.58	6.4	320.42	1562.02	1882.44
147	1569.06	17.49	6.4	301.26	1468.64	1769.90
148	1575.50	22.59	6.4	302.50	1474.67	1777.16
149	1575.50	22.59	6.4	302.50	1474.67	1777.16
150	1519.03	23.19	6.4	291.65	1421.81	1713.47
151	1612.78	15.26	6.4	309.65	1509.56	1819.22
152	377.09	30.84	6.4	72.40	352.96	425.36
154	1590.22	16.80	6.4	305.32	1488.45	1793.77
155	2637.14	35.00	6.4	506.33	2468.36	2974.69
157	3453.27	35.00	6.4	663.03	3232.26	3895.29
159	6349.23	35.00	6.4	1219.05	5942.88	7161.93
160	5976.20	35.00	6.4	1147.43	5593.72	6741.15
162	2172.60	17.21	6.4	417.14	2033.55	2450.69
163	2072.41	15.53	6.4	397.90	1939.78	2337.68
164	1892.34	23.72	6.4	363.33	1771.23	2134.56
166	1336.16	19.64	6.4	256.54	1250.65	1507.19
195	255.18	29.77	6.4	48.99	238.85	287.84
197	282.51	29.33	6.4	54.24	264.43	318.67
220	3453.27	35.00	6.4	663.03	3232.26	3895.29
221	6546.54	55.73	6.4	1256.94	6127.56	7384.50
243	1494.37	17.83	6.4	286.92	1398.73	1685.65
244	61.38	33.38	6.4	11.78	57.45	69.24
245	95.71	32.33	6.4	18.38	89.58	107.96

Existing Road Network						
Baseline 2012						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
166	833.99	22.88	6.4	160.13	780.61	940.74
168	1210.06	15.26	6.4	232.33	1132.62	1364.95
169	1348.75	15.00	6.4	258.96	1262.43	1521.39
170	152.82	28.95	6.4	29.34	143.04	172.38
172	267.38	25.26	6.4	51.34	250.27	301.60
173	942.79	18.13	6.4	181.02	882.45	1063.47
174	2978.04	35.00	6.4	571.78	2787.45	3359.23
176	1950.03	26.94	6.4	374.41	1825.23	2199.63
178	179.23	28.10	6.4	34.41	167.76	202.17
180	1602.33	15.00	6.4	307.65	1499.78	1807.43
186	2129.26	28.07	6.4	408.82	1992.99	2401.81
192	2129.26	28.07	6.4	408.82	1992.99	2401.81
194	228.80	26.51	6.4	43.93	214.16	258.09
195	250.75	29.84	6.4	48.14	234.70	282.85
197	272.05	29.49	6.4	52.23	254.64	306.87
198	4192.88	16.99	6.4	805.03	3924.54	4729.57
204	4192.88	16.99	6.4	805.03	3924.54	4729.57
206	464.98	28.88	6.4	89.28	435.22	524.50
208	105.00	30.49	6.4	20.16	98.28	118.44
210	1870.36	18.82	6.4	359.11	1750.66	2109.77
212	2787.50	21.55	6.4	535.20	2609.10	3144.30
214	1781.56	20.37	6.4	342.06	1667.54	2009.60
216	3175.96	15.00	6.4	609.78	2972.70	3582.48
218	3130.86	67.20	6.4	601.13	2930.48	3531.61
220	2678.48	35.00	6.4	514.27	2507.06	3021.33
221	4980.24	67.77	6.4	956.21	4661.50	5617.71
222	1936.77	15.00	6.4	371.86	1812.82	2184.68
224	1239.19	22.45	6.4	237.92	1159.88	1397.81
243	1226.91	20.70	6.4	235.57	1148.39	1383.95
244	0.65	33.87	6.4	0.12	0.61	0.73
245	174.88	31.06	6.4	33.58	163.69	197.26
246	1.20	33.86	6.4	0.23	1.12	1.35
247	1305.49	15.00	6.4	250.65	1221.94	1472.59
250	5627.50	35.00	6.4	1080.48	5267.34	6347.82
260	1012.35	58.40	6.4	194.37	947.56	1141.93
262	978.44	23.37	6.4	187.86	915.82	1103.68
263	227.93	32.04	6.4	43.76	213.34	257.11
264	33.91	33.33	6.4	6.51	31.74	38.25
265	115.32	32.02	6.4	22.14	107.94	130.08
266	469.66	30.09	6.4	90.17	439.60	529.78
267	444.44	26.72	6.4	85.33	416.00	501.33
268	503.46	28.47	6.4	96.66	471.24	567.90
270	191.73	30.79	6.4	36.81	179.46	216.27
272	1256.26	20.39	6.4	241.20	1175.86	1417.06
274	1226.91	20.70	6.4	235.57	1148.39	1383.95

Existing Road Network						
Do-Minimum 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
166	1075.23	21.32	6.4	206.44	1006.42	1212.86
168	1560.09	15.00	6.4	299.54	1460.24	1759.78
169	1738.90	15.00	6.4	333.87	1627.61	1961.48
170	197.03	27.53	6.4	37.83	184.42	222.25
172	344.72	22.77	6.4	66.19	322.66	388.84
173	1215.50	15.20	6.4	233.38	1137.71	1371.08
174	3839.47	35.00	6.4	737.18	3593.74	4330.92
176	2514.11	23.31	6.4	482.71	2353.21	2835.92
178	231.08	26.43	6.4	44.37	216.29	260.66
180	2065.82	15.00	6.4	396.64	1933.61	2330.24
186	2745.18	24.76	6.4	527.07	2569.49	3096.56
192	2745.18	24.76	6.4	527.07	2569.49	3096.56
194	294.98	24.37	6.4	56.64	276.10	332.74
195	323.28	28.67	6.4	62.07	302.59	364.66
197	350.75	28.23	6.4	67.34	328.30	395.65
198	5405.73	15.00	6.4	1037.90	5059.76	6097.66
204	5405.73	15.00	6.4	1037.90	5059.76	6097.66
206	599.48	27.44	6.4	115.10	561.11	676.21
208	135.37	29.52	6.4	25.99	126.71	152.70
210	2411.39	15.00	6.4	462.99	2257.06	2720.05
212	3593.82	16.35	6.4	690.01	3363.82	4053.83
214	2296.90	15.00	6.4	441.00	2149.90	2590.90
216	4094.65	15.00	6.4	786.17	3832.59	4618.77
218	4036.50	54.10	6.4	775.01	3778.16	4553.17
220	3453.27	35.00	6.4	663.03	3232.26	3895.29
221	6420.84	56.86	6.4	1232.80	6009.91	7242.71
222	2497.01	15.00	6.4	479.43	2337.20	2816.63
224	1597.64	18.60	6.4	306.75	1495.39	1802.14
243	1581.81	16.89	6.4	303.71	1480.57	1784.28
244	0.84	33.87	6.4	0.16	0.79	0.95
245	225.47	30.24	6.4	43.29	211.04	254.33
246	1.54	33.85	6.4	0.30	1.44	1.74
247	1683.12	15.00	6.4	323.16	1575.40	1898.56
250	7255.33	35.00	6.4	1393.02	6790.99	8184.01
260	1305.19	54.66	6.4	250.60	1221.66	1472.25
262	1261.47	20.33	6.4	242.20	1180.74	1422.94
263	293.86	31.51	6.4	56.42	275.05	331.47
264	43.72	33.17	6.4	8.39	40.92	49.32
265	148.68	31.48	6.4	28.55	139.16	167.71
266	605.51	29.00	6.4	116.26	566.76	683.02
267	573.00	24.65	6.4	110.02	536.33	646.34
268	649.09	26.91	6.4	124.63	607.55	732.17
270	247.19	29.89	6.4	47.46	231.37	278.83
272	1619.64	16.49	6.4	310.97	1515.98	1826.95
274	1581.81	16.89	6.4	303.71	1480.57	1784.28

Proposed Road Network						
Do-Something 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
246	191.84	30.79	6.4	36.83	179.56	216.40
247	2057.14	15.00	6.4	394.97	1925.48	2320.45
250	7411.43	35.00	6.4	1422.99	6937.10	8360.09
260	1435.23	53.02	6.4	275.56	1343.38	1618.94
262	1391.51	18.94	6.4	267.17	1302.45	1569.62
263	233.32	32.00	6.4	44.80	218.39	263.18
264	43.72	32.47	6.4	8.39	40.92	49.32
265	339.12	28.41	6.4	65.11	317.42	382.53
266	795.81	27.47	6.4	152.80	744.88	897.67
267	573.00	24.65	6.4	110.02	536.33	646.34
268	839.53	24.86	6.4	161.19	785.80	946.99
304	3192.48	15.00	6.4	612.96	2988.16	3601.12
309	2766.90	15.00	6.4	531.24	2589.82	3121.06
310	2267.75	15.00	6.4	435.41	2122.61	2558.02
311	2597.90	15.00	6.4	498.80	2431.63	2930.43
316	2364.45	15.00	6.4	453.97	2213.13	2667.10
324	737.51	25.96	6.4	141.60	690.31	831.91
326	796.37	21.05	6.4	152.90	745.40	898.31
328	1078.74	15.00	6.4	207.12	1009.70	1216.82
330	2389.95	17.25	6.4	458.87	2236.99	2695.86
332	1065.56	16.72	6.4	204.59	997.36	1201.95
334	138.59	29.41	6.4	26.61	129.72	156.33
335	1462.98	18.83	6.4	280.89	1369.35	1650.24
336	1324.39	19.72	6.4	254.28	1239.63	1493.91
338	2230.20	15.56	6.4	428.20	2087.47	2515.67
339	2282.89	15.00	6.4	438.31	2136.79	2575.10
340	2101.84	25.00	6.4	403.55	1967.32	2370.88
342	2183.11	15.00	6.4	419.16	2043.39	2462.55
344	2104.50	15.00	6.4	404.06	1969.81	2373.88
345	1490.30	20.25	6.4	286.14	1394.92	1681.06
346	244.25	26.01	6.4	46.90	228.62	275.51
348	1245.91	21.56	6.4	239.21	1166.17	1405.39
355	2621.87	16.19	6.4	503.40	2454.07	2957.47
356	2464.92	16.91	6.4	473.26	2307.17	2780.43
357	2808.24	16.94	6.4	539.18	2628.51	3167.69
362	3231.30	19.01	6.4	620.41	3024.50	3644.91
364	332.39	31.20	6.4	63.82	311.12	374.94
366	1545.51	21.34	6.4	296.74	1446.60	1743.34
368	44.70	32.44	6.4	8.58	41.84	50.42
384	1780.66	15.00	6.4	341.89	1666.70	2008.58
386	1367.13	17.24	6.4	262.49	1279.63	1542.12
398	1691.11	15.47	6.4	324.69	1582.88	1907.57
399	413.39	20.31	6.4	79.37	386.93	466.30
400	5255.09	35.00	6.4	1008.98	4918.76	5927.74
401	5255.09	35.00	6.4	1008.98	4918.76	5927.74

Existing Road Network						
Baseline 2012						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
276	29.35	32.93	6.4	5.64	27.47	33.11
278	5.43	33.70	6.4	1.04	5.08	6.13
304	2476.21	17.80	6.4	475.43	2317.73	2793.16
309	1561.57	15.68	6.4	299.82	1461.63	1761.45
310	1512.55	16.07	6.4	290.41	1415.75	1706.16
311	1430.27	19.04	6.4	274.61	1338.73	1613.34
316	1249.30	20.20	6.4	239.87	1169.34	1409.21
324	572.04	27.73	6.4	109.83	535.43	645.26
326	617.69	23.93	6.4	118.60	578.16	696.75
328	466.39	24.48	6.4	89.55	436.54	526.09
330	1660.04	20.61	6.4	318.73	1553.80	1872.53
332	768.01	21.51	6.4	147.46	718.86	866.32
334	95.54	30.80	6.4	18.34	89.43	107.77
335	987.46	21.89	6.4	189.59	924.26	1113.85
336	892.03	22.50	6.4	171.27	834.94	1006.21
338	1353.75	24.97	6.4	259.92	1267.11	1527.03
339	1329.95	25.22	6.4	255.35	1244.83	1500.18
340	1289.84	26.73	6.4	247.65	1207.29	1454.94
342	1373.42	15.00	6.4	263.70	1285.52	1549.22
344	1340.49	15.00	6.4	257.37	1254.70	1512.07
345	1008.66	22.84	6.4	193.66	944.11	1137.77
346	306.84	23.99	6.4	58.91	287.20	346.12
348	701.82	24.48	6.4	134.75	656.90	791.65
355	2165.68	18.29	6.4	415.81	2027.08	2442.89
356	1889.27	19.56	6.4	362.74	1768.36	2131.10
357	2310.13	18.95	6.4	443.54	2162.28	2605.83
358	1444.62	27.87	6.4	277.37	1352.16	1629.53
362	2506.10	22.34	6.4	481.17	2345.71	2826.88
364	304.88	31.42	6.4	58.54	285.37	343.90
366	1367.12	22.79	6.4	262.49	1279.62	1542.11
368	34.67	32.76	6.4	6.66	32.45	39.11
370	1314.84	21.82	6.4	252.45	1230.69	1483.14
372	191.73	27.70	6.4	36.81	179.46	216.27
374	29.35	32.93	6.4	5.64	27.47	33.11
384	1339.62	17.46	6.4	257.21	1253.88	1511.09
386	1047.89	19.81	6.4	201.19	980.83	1182.02
398	1048.76	22.37	6.4	201.36	981.64	1183.00
399	291.73	24.23	6.4	56.01	273.06	329.07

Existing Road Network						
Do-Minimum 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
276	37.84	32.66	6.4	7.27	35.42	42.68
278	7.01	33.65	6.4	1.35	6.56	7.91
304	3192.48	15.00	6.4	612.96	2988.16	3601.12
309	2013.27	15.00	6.4	386.55	1884.42	2270.97
310	1950.08	15.00	6.4	374.42	1825.27	2199.69
311	1844.00	16.37	6.4	354.05	1725.98	2080.03
316	1610.68	17.88	6.4	309.25	1507.60	1816.85
324	737.51	25.96	6.4	141.60	690.31	831.91
326	796.37	21.05	6.4	152.90	745.40	898.31
328	601.31	20.13	6.4	115.45	562.83	678.28
330	2140.23	18.40	6.4	410.92	2003.26	2414.18
332	990.17	17.93	6.4	190.11	926.80	1116.91
334	123.18	29.91	6.4	23.65	115.30	138.95
335	1273.10	20.05	6.4	244.44	1191.62	1436.06
336	1150.06	20.84	6.4	220.81	1076.46	1297.27
338	1745.34	20.76	6.4	335.11	1633.64	1968.74
339	1714.65	21.09	6.4	329.21	1604.91	1934.13
340	1662.94	25.00	6.4	319.28	1556.51	1875.80
342	1770.71	15.00	6.4	339.98	1657.38	1997.36
344	1728.25	15.00	6.4	331.82	1617.64	1949.47
345	1300.42	21.27	6.4	249.68	1217.19	1466.87
346	395.59	21.13	6.4	75.95	370.27	446.23
348	904.83	23.39	6.4	173.73	846.92	1020.65
355	2792.13	15.40	6.4	536.09	2613.43	3149.52
356	2435.77	17.04	6.4	467.67	2279.88	2747.55
357	2978.36	16.26	6.4	571.85	2787.74	3359.59
358	1862.49	24.50	6.4	357.60	1743.29	2100.89
362	3231.02	19.01	6.4	620.36	3024.23	3644.59
364	393.07	30.71	6.4	75.47	367.91	443.38
366	1762.58	19.58	6.4	338.42	1649.77	1988.19
368	44.70	32.44	6.4	8.58	41.84	50.42
370	1695.18	19.78	6.4	325.47	1586.69	1912.16
372	247.19	25.91	6.4	47.46	231.37	278.83
374	37.84	32.66	6.4	7.27	35.42	42.68
384	1727.13	15.00	6.4	331.61	1616.59	1948.20
386	1351.01	17.37	6.4	259.39	1264.55	1523.94
398	1352.13	19.11	6.4	237.04	1155.55	1392.58
399	376.11	21.51	6.4	72.21	352.04	424.25

Proposed Road Network						
Do-Something 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
402	5174.09	35.00	6.4	993.43	4842.95	5836.37
403	237.10	26.24	6.4	45.52	221.93	267.45
404	558.57	57.05	6.4	107.25	522.82	630.07
405	558.57	63.72	6.4	107.25	522.82	630.07
406	4696.52	35.00	6.4	901.73	4395.94	5297.67
407	1712.13	21.12	6.4	328.73	1602.55	1931.28
408	3276.70	35.00	6.4	629.13	3066.99	3696.12
409	1956.38	18.50	6.4	375.62	1831.17	2206.80
410	1897.53	35.00	6.4	364.33	1776.09	2140.41
411	37.84	32.66	6.4	7.27	35.42	42.68
412	1108.02	15.21	6.4	212.74	1037.11	1249.85
413	2637.14	48.93	6.4	506.33	2468.36	2974.69
414	617.98	29.55	6.4	118.65	578.43	697.08
415	1666.59	15.00	6.4	319.99	1559.93	1879.91
416	2043.40	23.05	6.4	392.33	1912.62	2304.96
417	1434.81	15.00	6.4	275.48	1342.98	1618.47
418	226.73	26.57	6.4	43.53	212.22	255.75
419	739.62	61.83	6.4	142.01	692.28	834.29
420	617.98	19.60	6.4	118.65	578.43	697.08
421	617.70	15.00	6.4	118.60	578.17	696.77
422	2434.65	15.00	6.4	467.45	2278.83	2746.29
423	121.91	29.95	6.4	23.41	114.11	137.51
424	1326.77	15.00	6.4	254.74	1241.86	1496.60
425	3.08	33.78	6.4	0.59	2.88	3.47
426	3276.70	35.00	6.4	629.13	3066.99	3696.12
427	122.19	27.27	6.4	23.46	114.37	137.83
428	134.67	27.17	6.4	25.86	126.05	151.91
429	2936.74	15.00	6.4	563.85	2748.79	3312.64
431	37.84	32.69	6.4	7.27	35.42	42.68
432	1157.21	15.83	6.4	222.18	1083.15	1305.33
433	1433.69	15.00	6.4	275.27	1341.93	1617.20
436	2060.50	35.00	6.4	395.62	1928.63	2324.24
437	276.48	24.97	6.4	53.08	258.79	311.87
439	123.04	29.91	6.4	23.62	115.17	138.79
440	2636.02	35.00	6.4	506.12	2467.31	2973.43
441	237.10	26.24	6.4	45.52	221.93	267.45
443	169.56	28.41	6.4	32.56	158.71	191.26
444	1526.18	35.00	6.4	293.03	1428.50	1721.53
445	693.09	22.71	6.4	133.07	648.73	781.81
446	835.47	50.03	6.4	160.41	782.00	942.41
447	862.79	19.98	6.4	165.66	807.57	973.23
448	2522.93	35.36	6.4	484.40	2361.46	2845.87
449	848.92	15.00	6.4	162.99	794.59	957.58
450	753.63	52.10	6.4	144.70	705.40	850.09
457	1625.81	20.15	6.4	312.16	1521.76	1833.91

Single Carriageway
Dual Carriageway
Motorway

Existing Road Network						
Baseline 2012						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			

Existing Road Network						
Do-Minimum 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			

Proposed Road Network						
Do-Something 2035						
Link	Peak Flow Data			HDV Flow Units	Car & Van Flow Units	Total Flow
	Peak Hourly Flow	Speed Km/hr	Total % HDV			
459	941.41	23.20	6.4	180.75	881.16	1061.91
460	22.70	33.14	6.4	4.36	21.25	25.61
461	1111.11	22.29	6.4	213.33	1040.00	1253.33
462	100.19	30.65	6.4	19.24	93.78	113.01
463	546.65	16.27	6.4	104.96	511.66	616.62
465	84.36	32.52	6.4	16.20	78.96	95.16
467	631.01	23.71	6.4	121.15	590.63	711.78
469	593.18	15.00	6.4	113.89	555.22	669.11
471	593.18	24.32	6.4	113.89	555.22	669.11
473	1532.34	15.00	6.4	294.21	1434.27	1728.48
475	37.84	32.66	6.4	7.27	35.42	42.68
477	1494.37	15.00	6.4	286.92	1398.73	1685.65
479	7.01	33.65	6.4	1.35	6.56	7.91
487	1526.18	35.00	6.4	293.03	1428.50	1721.53

Do Minimum 2035 High Demand Growth Scenario

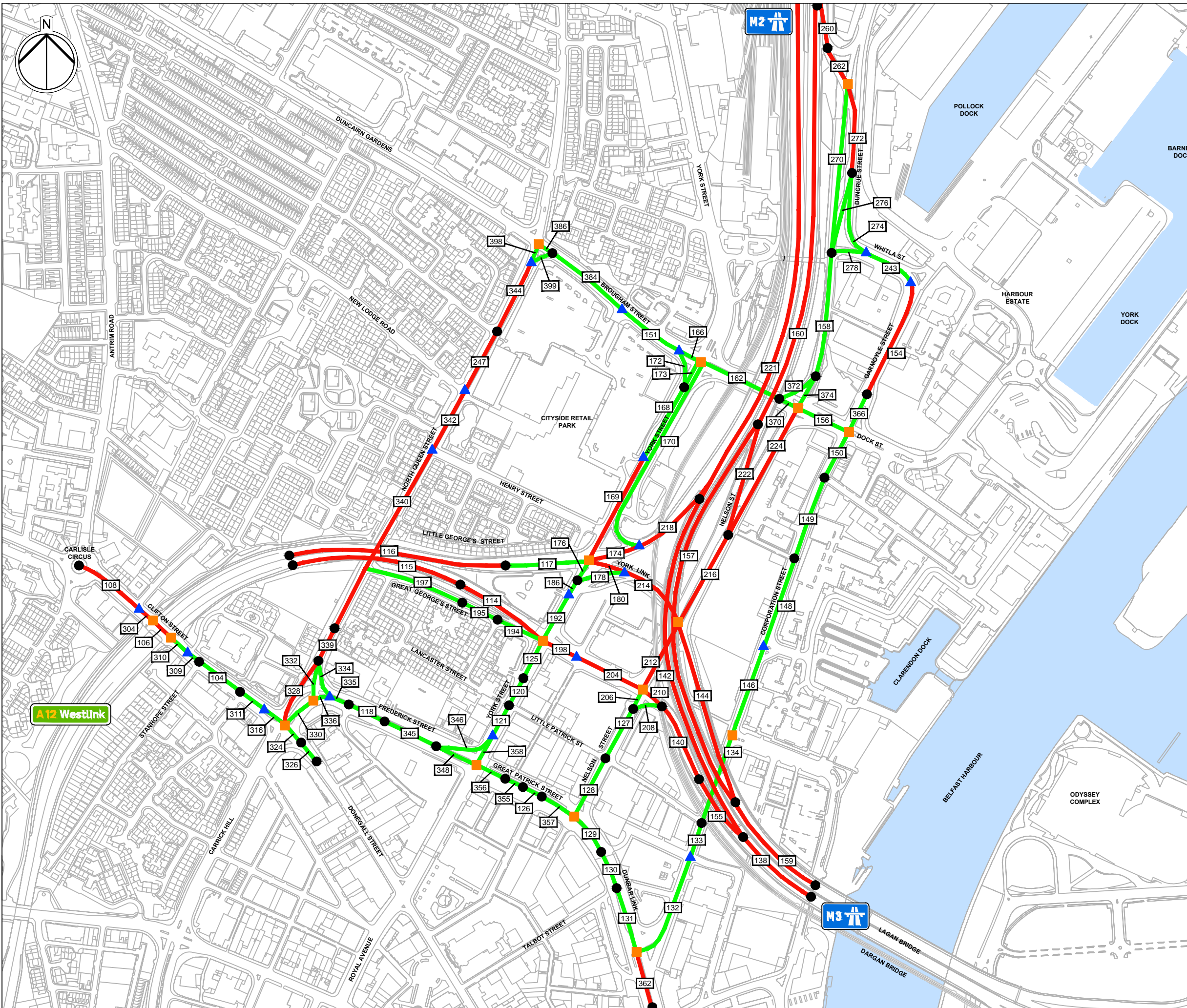
Link Nos.	Road Section	Hourly Flow Category (vph)	Speed Category (km/h)	Driver Stress Level
M2 - Westlink				
160	M2 (southbound)	>1600	<75	High
222	Nelson Street offslip	1200-1600	<75	High
216, 212	Nelson Street – M3 onslip - Great George's Street	>800	<50	High
204, 198	Great George's Street - Westlink	>800	<50	High
114, 115	Westlink	>1600	<60	High
Westlink - M2				
116	Westlink	>1600	<60	High
117	Westlink –York Street	<1200	<60	Moderate
174	M2 onslip	>800	<50	High
218, 221	M2 onslip - M2	1200-1600	<75	High
Westlink - M3				
116	Westlink	>1600	<60	High
117	Westlink - York Street	<1200	<60	Moderate
180, 214	York Link – Nelson Street	>800	<50	High
144	M3 onslip	1200-1600	<75	High
159	M3	>1600	<75	High
M3 - Westlink				
138, 155	M3 - M3 offslip	1200-1600	<75	High
140	Great George's Street offslip	<1200	<75	High
210	Great George's Street offslip	600-800	<50	High
204, 198	Great George's Street - Westlink	>800	<50	High
114, 115	Westlink	>1600	<60	High
York Street (south) - York Street (north)				
358, 121, 120, 125, 192, 186, 176	Great Patrick Street junction - Great George's Street junction- York Street (end of Westlink) - M2 onslip	<600	<50	Moderate
169	York Street - Cityside Retail Park	>800	<50	High
168, 173	Cityside Retail Park - Dock Street / Brougham Street junction	<600	<50	Moderate
York Street (south) - M2				
358, 121, 120, 125, 192, 186, 176	Great Patrick Street junction - Great George's Street junction - York Street (signalised junction) - M2 onslip	<600	<50	Moderate
174	M2 onslip	>800	<50	High
218, 221	M2 onslip	1200-1600	<75	High
Westlink – York Street				
116	Westlink	>1600	<60	High
117	Westlink -York Street	<1200	<60	Moderate
169	York Street - Cityside Retail Park	>800	<50	High
168, 173	Cityside Retail Park - Dock Street / Brougham Street junction	<600	<50	Moderate
Duncrue Street – Dunbar Link (via Corporation Street)				
262	Duncrue Street	<1200	<75	High
272	Whitla Street	600-800	<50	High
274, 243	Whitla Street - Garmoyle Street	<600	<50	Moderate
154	Garmoyle Street	600-800	<50	High
366	Garmoyle Street - Garmoyle Street / Dock Street junction	<600	<50	Moderate
150, 149, 148, 146, 134, 133, 132	Garmoyle Street / Dock Street junction – Corporation Street - Dunbar Link	<600	<50	Moderate
Brougham Street – M2 (northbound)				
384, 151, 166, 170	Brougham Street - York Street (southbound)	<600	<50	Moderate
218, 221	M2 onslip - M2	1200-1600	<75	High

Link Nos.	Road Section	Hourly Flow Category (vph)	Speed Category (km/h)	Driver Stress Level
Dunbar Link - Westlink				
131, 130, 129, 357, 126, 355, 356, 358, 121, 120, 125	Dunbar Link – York Street (south)	<600	<50	Moderate
114, 115	Westlink	>1600	<60	High
Frederick Street				
348, 345, 118, 335, 336, 330	York Street – Frederick Street – Donegall Street	<600	<50	Moderate
Donegall Street – Clifton Street				
326, 324, 316, 311, 104, 309, 310	Donegall Street – junction at Clifton Street overbridge	<600	<50	Moderate
106	Clifton Street overbridge	600-800	<50	High
304	Junction on Clifton Street overbridge - Henry Place	600-800	<50	High
108	Henry Place - Carlisle Circus	>800	<50	High
Dock Street - M3				
162, 370	Dock Street	<600	<50	Moderate
224	Nelson Street	600-800	<50	High
216	Nelson Street	>800	<50	High
144	M3 onslip	1200-1600	<75	High
159	M3	>1600	<75	High
M3 – York Street				
138, 155	M3 - M3 offslip	1200-1600	<75	High
140	M3 offslip	<1200	<75	High
210	Great George's Street offslip	600-800	<50	High
204, 198	Great George's Street - Westlink	>800	<50	High
192, 186, 176	Great George's Street junction – York Link	<600	<50	Moderate
169	York Street/end of Westlink - Cityside Retail Park	>800	<50	High
168, 173	Cityside Retail Park - Dock Street / Brougham Street junction	<600	<50	Moderate
North Queen Street / Brougham Street junction – Clifton Street				
398	North Queen Street / Brougham Street junction	<600	<50	Moderate
344, 247, 342, 340	North Queen Street – Entrance to former PSNI station	>800	<50	High
339, 328	Entrance to former PSNI station - Clifton Street	600-800	<50	High

Do Something 2035 High Demand Growth Scenario

Link Nos.	Road Section	Hourly Flow Category (vph)	Speed Category (km/h)	Driver Stress Level
M2 - Westlink				
160	M2 (southbound)	>1600	<75	High
448, 426	M2 offslip-Westlink (in cutting) - Westlink (westbound)	1200-1600	<60	High
408, 402	Westlink (westbound)	>1600	<60	High
Westlink - M2				
400	Westlink (eastbound)	>1600	<60	High
401	Westlink (eastbound)	1200-1600	<60	High
406	Westlink (eastbound)	>1600	<60	High
440	Westlink (eastbound) - M2	1200-1600	<60	High
137, 221	M2 (northbound)	1200-1600	<75	High
Westlink - M3				
400	Westlink (eastbound)	>1600	<60	High
401	Westlink (eastbound)	1200-1600	<60	High
406, 436	Westlink (eastbound) - Link to M3	>1600	<60	High
144, 159	M3 onslip (southbound) - M3 (southbound)	>1600	<75	High
M3 - Westlink				
138, 155	M3 (northbound) - Great George's Street offslip	1200-1600	<75	High
413	Great George's Street offslip	<1200	<75	High
410, 402	Westlink (westbound)	>1600	<60	High
York Street (south) - York Street (north)				
407, 409	York Street / Great Patrick Street junction - York Street / Little Patrick Street junction	600-800	<50	High
416	York Street / Little Patrick Street junction - York Street / Great Patrick George's Street junction	<600	<50	Moderate
422, 412	Great George's Street / Westlink junction - York Street overbridge (A2 bound)	600-800	<50	High
415	York Street - Cityside Retail Park	>800	<50	High
417, 433, 432	Cityside Retail Park - Dock Street/Brougham Street junction	<600	<50	Moderate
York Street - M2				
407, 409	Great Patrick Street junction - York Street / Little Patrick Street junction	600-800	<50	High
416	York Street / Little Patrick Street junction - York Street / Great Patrick George's Street junction	<600	<50	Moderate
422, 424	Great George's Street / Westlink junction - York Street overbridge (M2 bound)	600-800	<50	High
487	M2 onslip	<1200	<75	High
444	M2 onslip	>1600	<75	High
221	M2 (northbound)	1200-1600	<75	High
Westlink - York Street				
400	Westlink (eastbound)	>1600	<60	High
401	Westlink (eastbound)	1200-1600	<60	High
404	Westlink (York Street slip)	600-800	50-70	Moderate
405	Westlink (York Street slip) - junction with York Street	<600	50-70	Moderate
415	York Street - Cityside Retail Park	>800	<50	High
417, 433, 432	Cityside Retail Park - Dock Street / Brougham Street junction	<600	<50	Moderate
Corporation Street				
150, 149, 148, 146, 147, 134, 133, 132	Dock Street - Dunbar Link	<600	<50	Moderate

Link Nos.	Road Section	Hourly Flow Category (vph)	Speed Category (km/h)	Driver Stress Level
Duncrue/Garmoyle Street - Westlink				
450	Duncrue Street to Westlink (westbound)	<1200	<60	Moderate
426	Westlink (westbound) (on bridge)	1200-1600	<60	High
408, 402	Westlink (westbound)	>1600	<60	High
Brougham Street - M2 (northbound)				
384, 151, 166, 460, 439, 441, 403	Brougham Street - York Street (southbound)	<600	<50	Moderate
444	M2 onslip	>1600	<75	High
221	M2 (northbound)	1200-1600	<75	High
Dunbar Link – Donegall Street				
131	Dunbar Link	600-800	<50	High
130, 429, 357, 126, 355, 356, 348, 345, 118, 335, 336, 330	Dunbar Link - York Street – Frederick Street – Donegall Street	<600	<50	Moderate
Donegall Street – Clifton Street				
326, 324, 316, 311, 104	Donegall Street – Stanhope Street	<600	<50	Moderate
309, 310, 106, 304	Stanhope Street – Clifton Street overbridge - Westlink (eastbound) offslip	600-800	<50	High
108	Westlink (eastbound) offslip – Carlisle Circus	>800	<50	High
Dock Street - M3				
163, 162, 457, 445, 447, 449	Dock Street, junction with York Street –Nelson Street access road	<600	<50	Moderate
446	Nelson Street – M3	<1200	<60	Moderate
144, 159	M3 onslip (southbound) - M3 (southbound)	>1600	<75	High
M3 – York Street				
138, 155	M3 (northbound) - Great George's Street offslip	1200-1600	<75	High
413	Great George's Street offslip	<1200	<75	High
419	Great George's Street offslip	<600	50-70	Moderate
421, 420	Great George's Street	600-800	<50	High
414	Great George's Street	<600	<50	Moderate
422, 412	Great George's Street / York Street junction -York Street overbridge (A2 bound)	600-800	<50	High
415	York Street - Cityside Retail Park	>800	<50	High
417, 433, 432	Cityside Retail Park - Dock Street / Brougham Street junction	<600	<50	Moderate
North Queen Street – Clifton Street				
398	North Queen Street – Brougham Street slip	600-800	<50	High
344, 247, 342, 340, 338, 339, 328	Brougham Street slip - Clifton Street junction	>800	<50	High

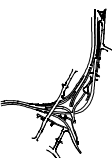








Project Title
YORK STREET INTERCHANGE

Client
transportni

Drawing Title
**DRIVER STRESS
 HIGH DEMAND GROWTH SCENARIO
 Do-Minimum (2035)**

KEY

-  Proposed Scheme
-  'High' Stress Link
-  'Moderate' Stress Link
-  Node Point
-  Signalised Junction
-  Priority Junction
-  Traffic Model Link Number

Scale @ A3
 1:5000

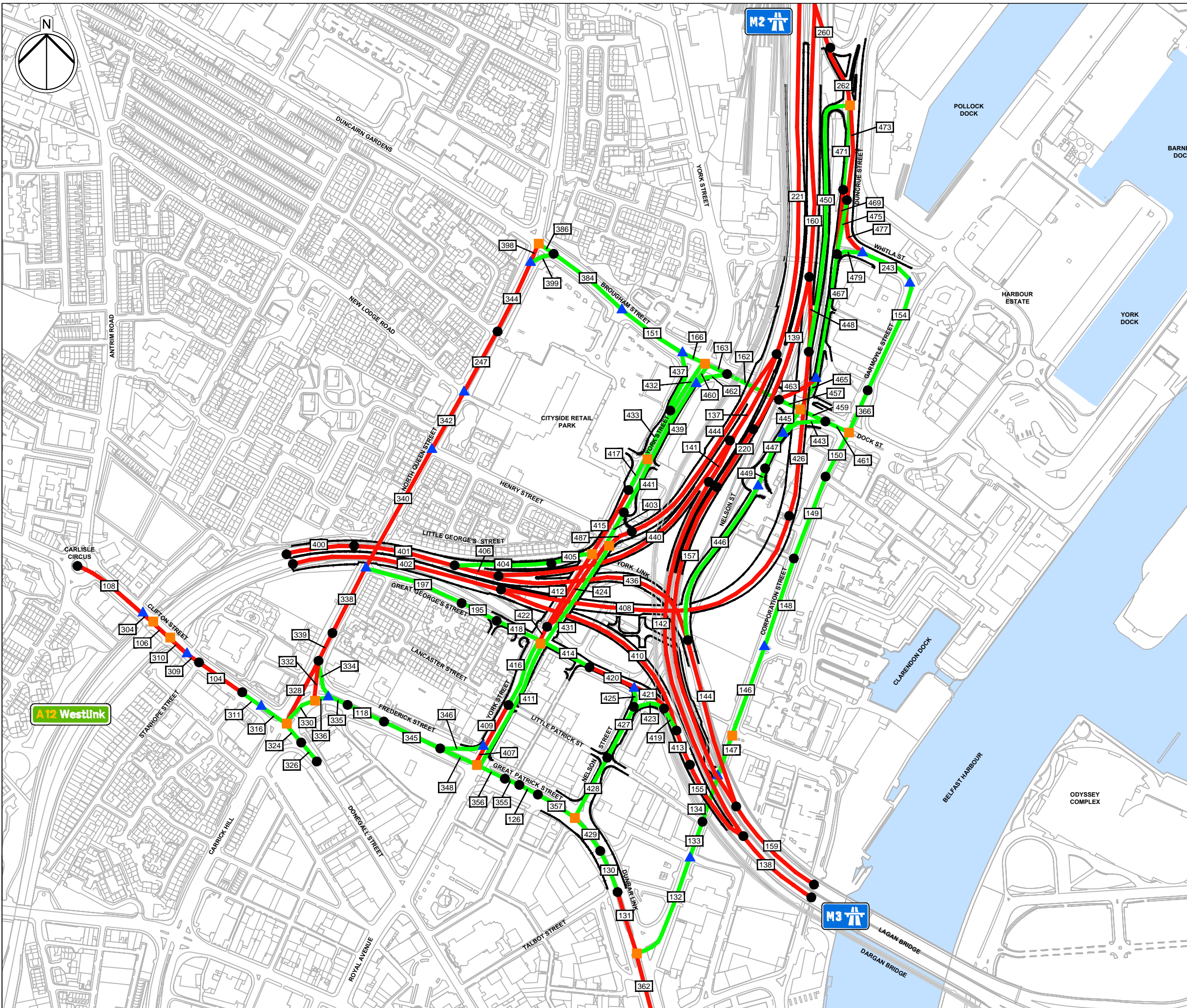
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FIGURE 15.B1

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


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FIGURE 15.B2

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