Veitch Lister Consulting Pty Ltd







Redland City Council:
Road Infrastructure Planning

TRAFFIC FORECASTS AND ASSESSMENTS (2014)

APPENDIX A: FIGURES

October 2014

Redland CITY COUNCIL

PREPARED FOR
Redland City Council

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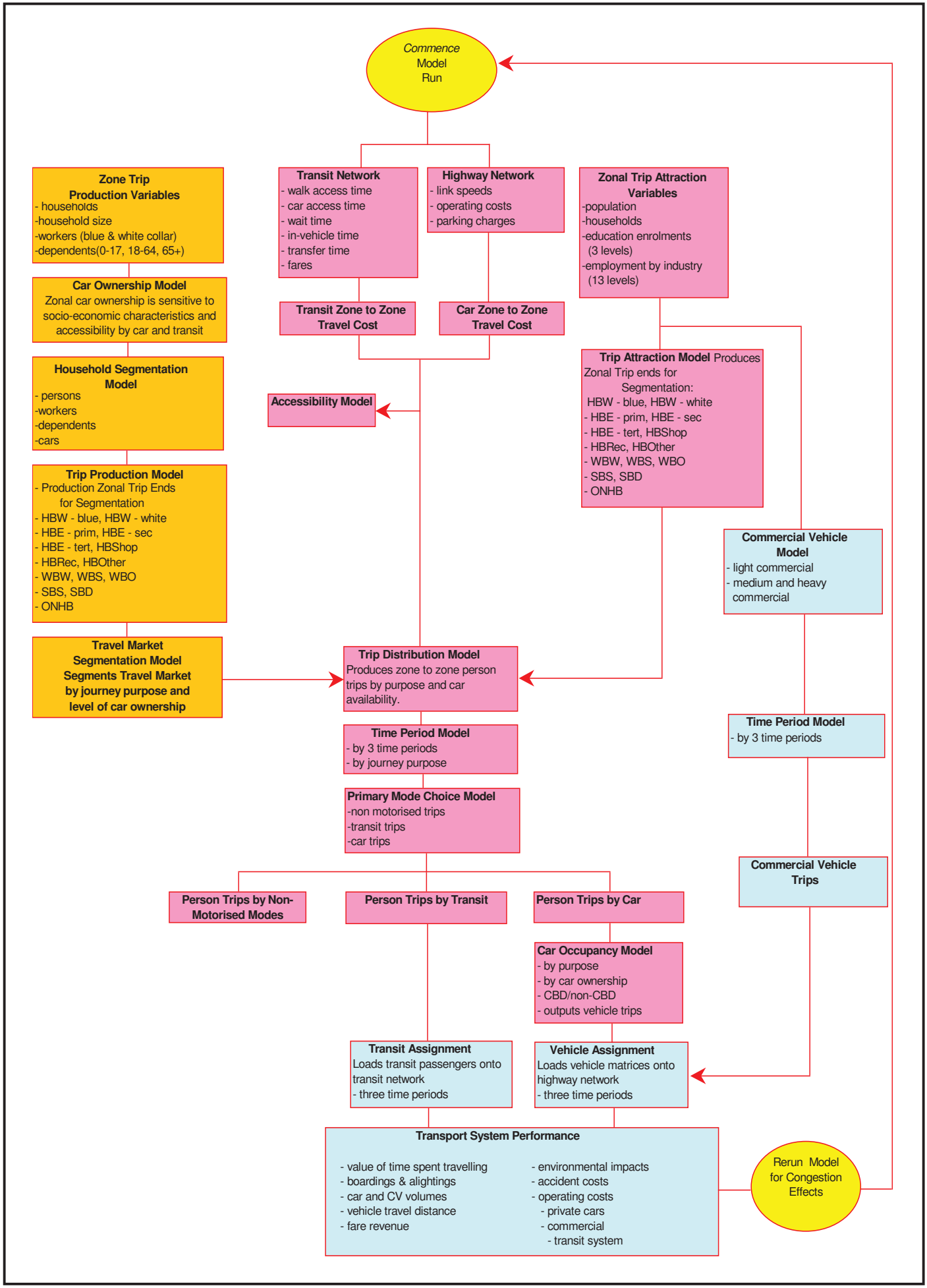
(12-043)

REDLAND CITY COUNCIL
- ROAD INFRASTRUCTURE PLANNING

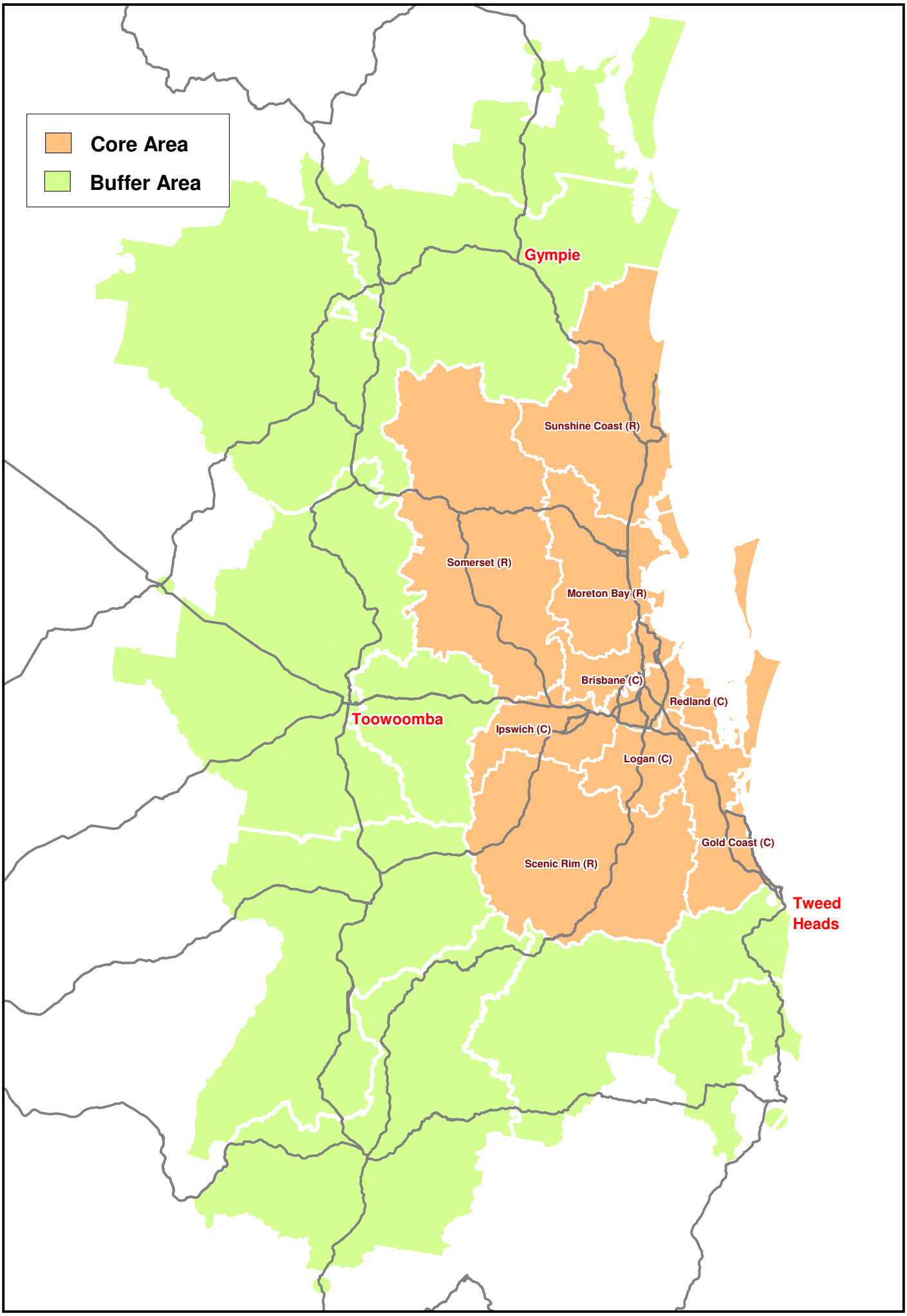
TRAFFIC FORECASTS
AND ASSESSMENTS (2014)

(APPENDIX A: Figures)

Project Name	Project No.	Report Name	Version	Date	1º Author
Redland City Council: Road Infrastructure Planning	12-043	Traffic Forecasts and Assessments, 2014 (Appendix A)	V.3	October 2014	G. Hunter

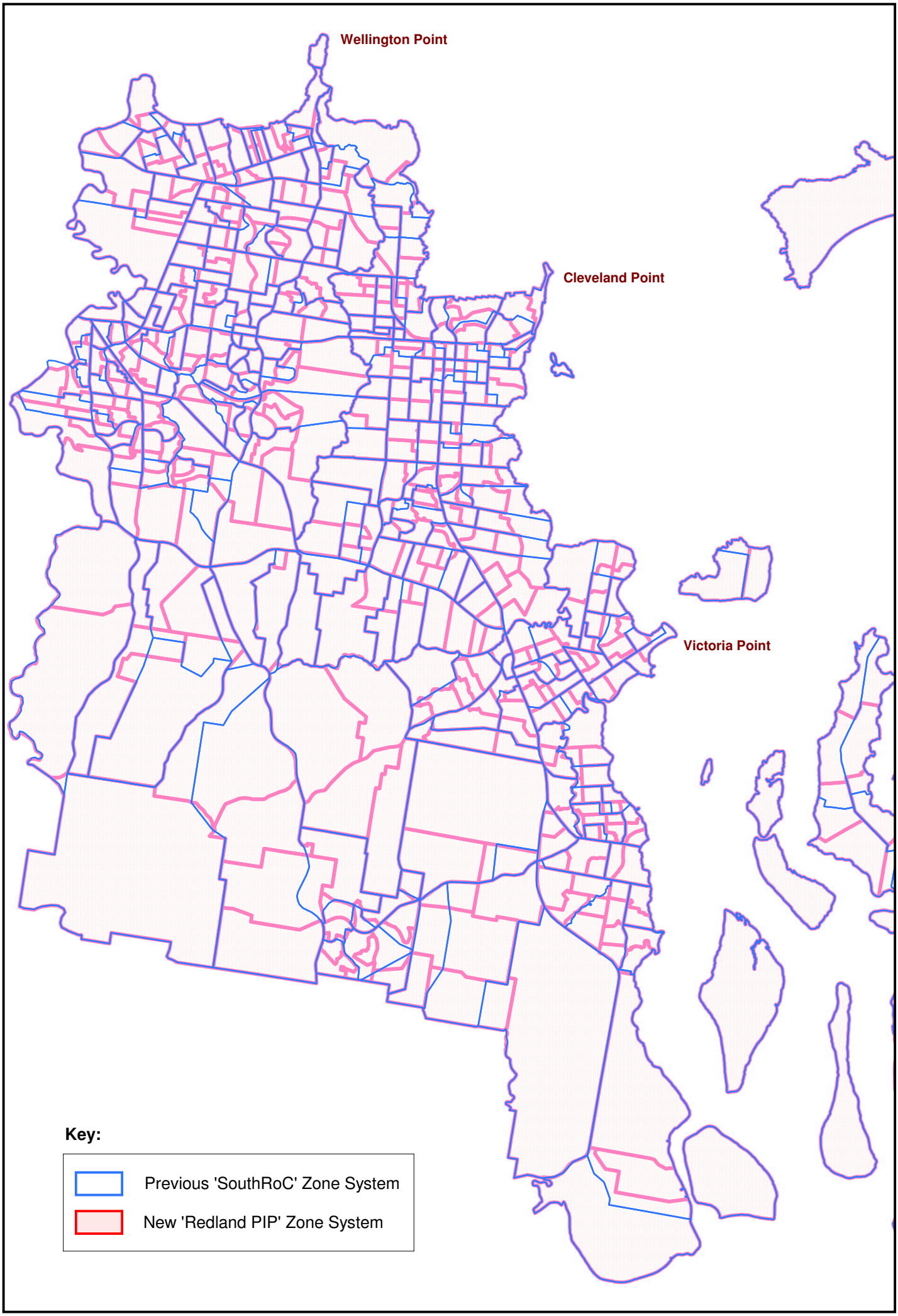


Structure of the ZENITH Integrated Travel Demand Forecasting Model **Figure 2.1**



Extent of VLC's Models of SEQ

Figure 2-2



New Zone System within Redland City

Figure 2-3



LOS A



LOS B



LOS C



LOS D

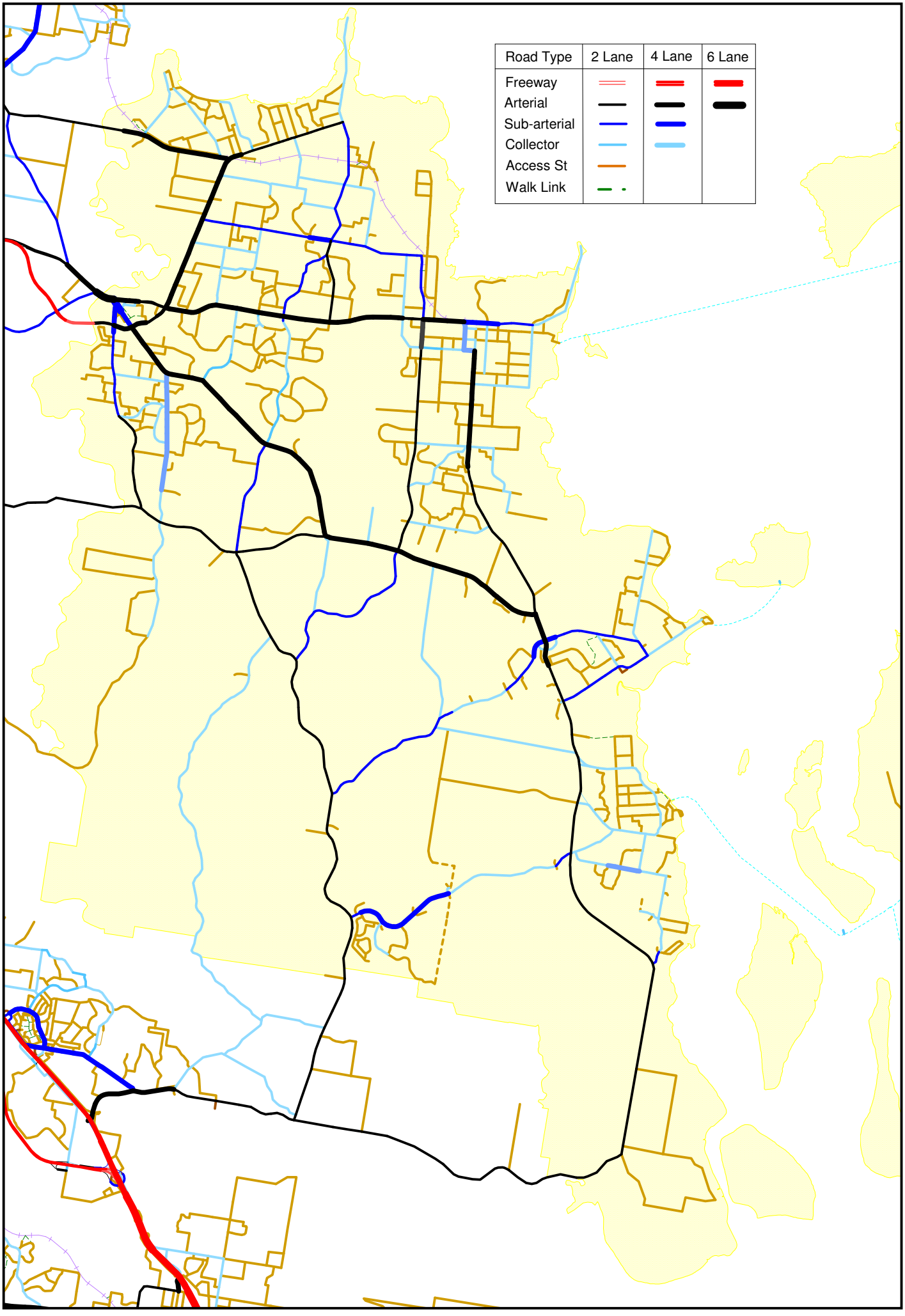


LOS E



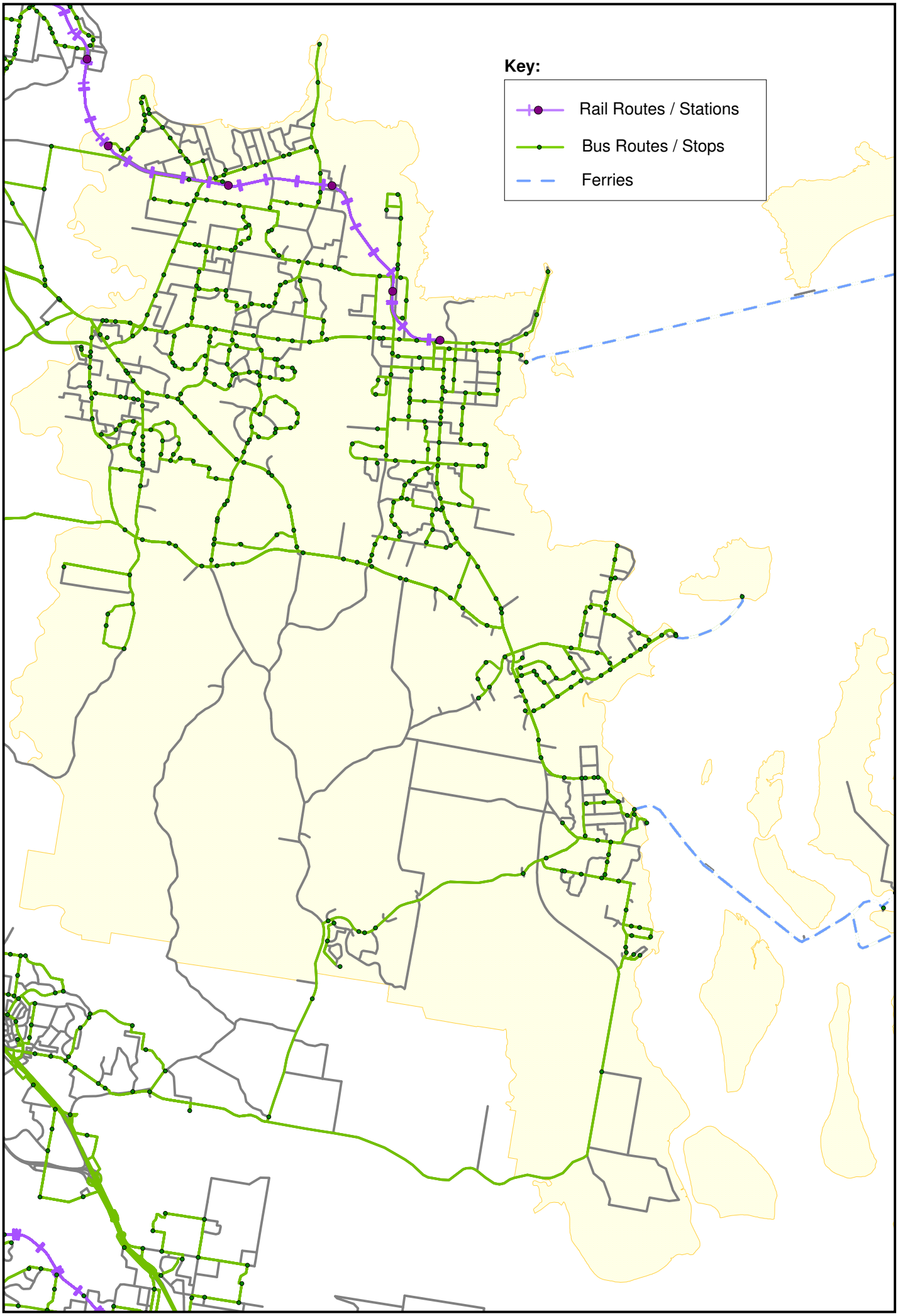
LOS F

Examples of Level of Service on Freeways **Figure 2-4**



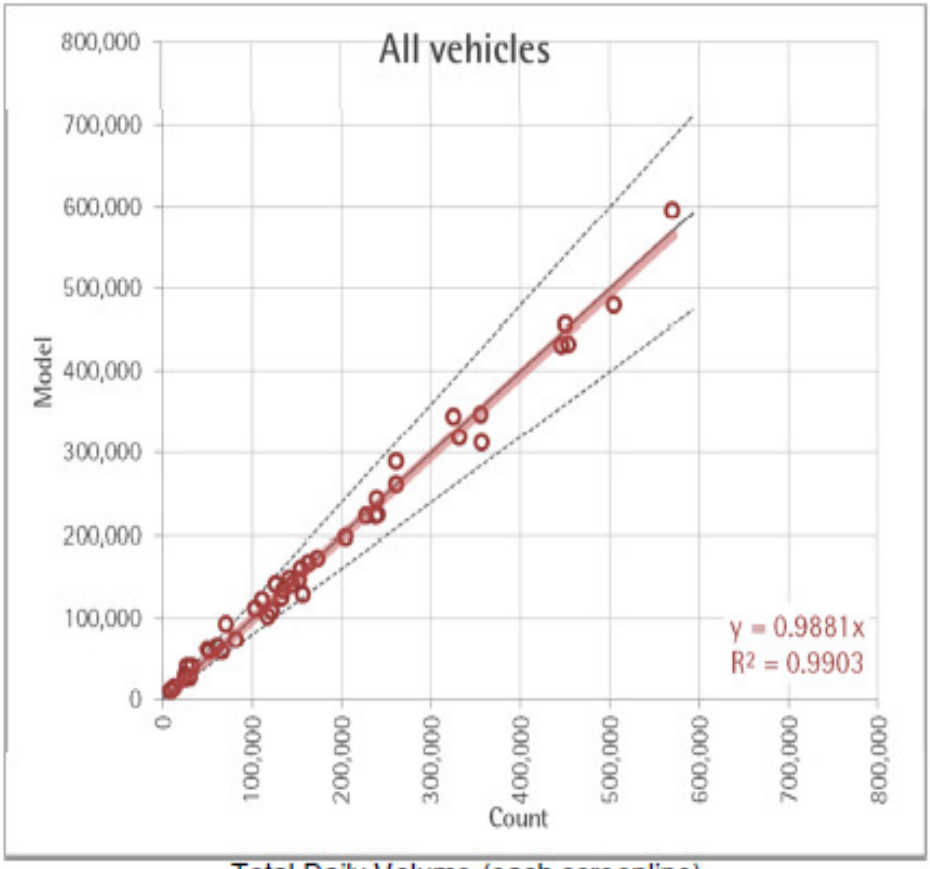
Modelled Road Hierarchy - 2011

Figure 3-1

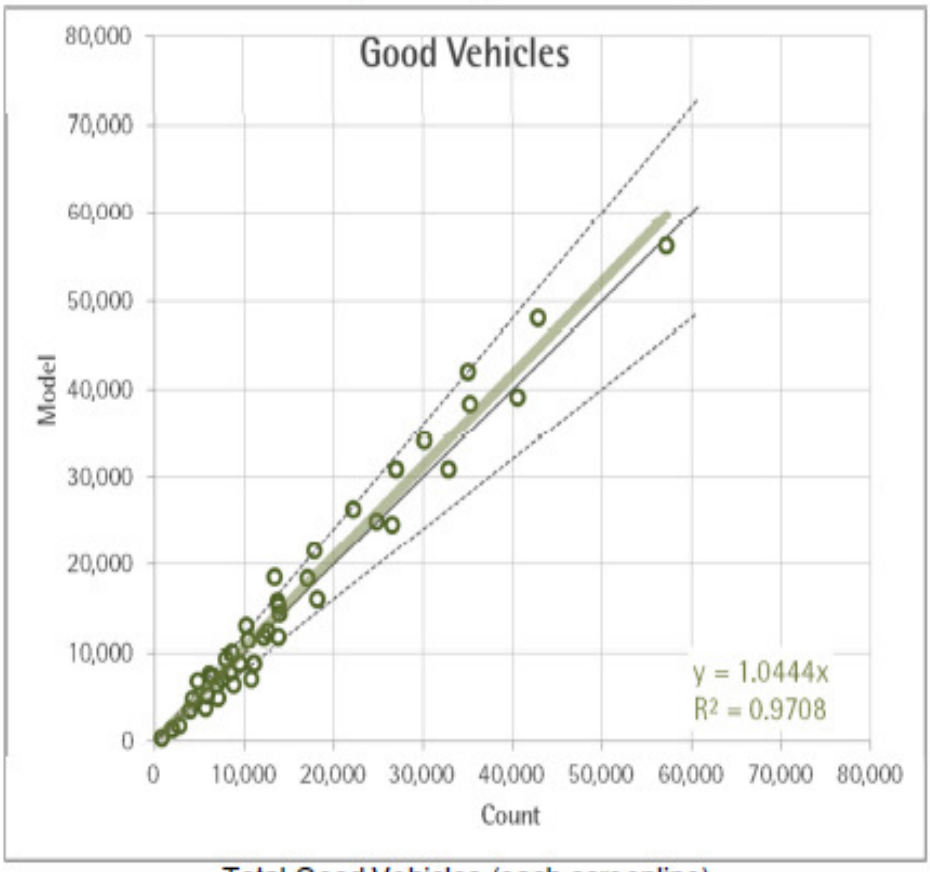


Modelled 2011 PT System

Figure 3-2



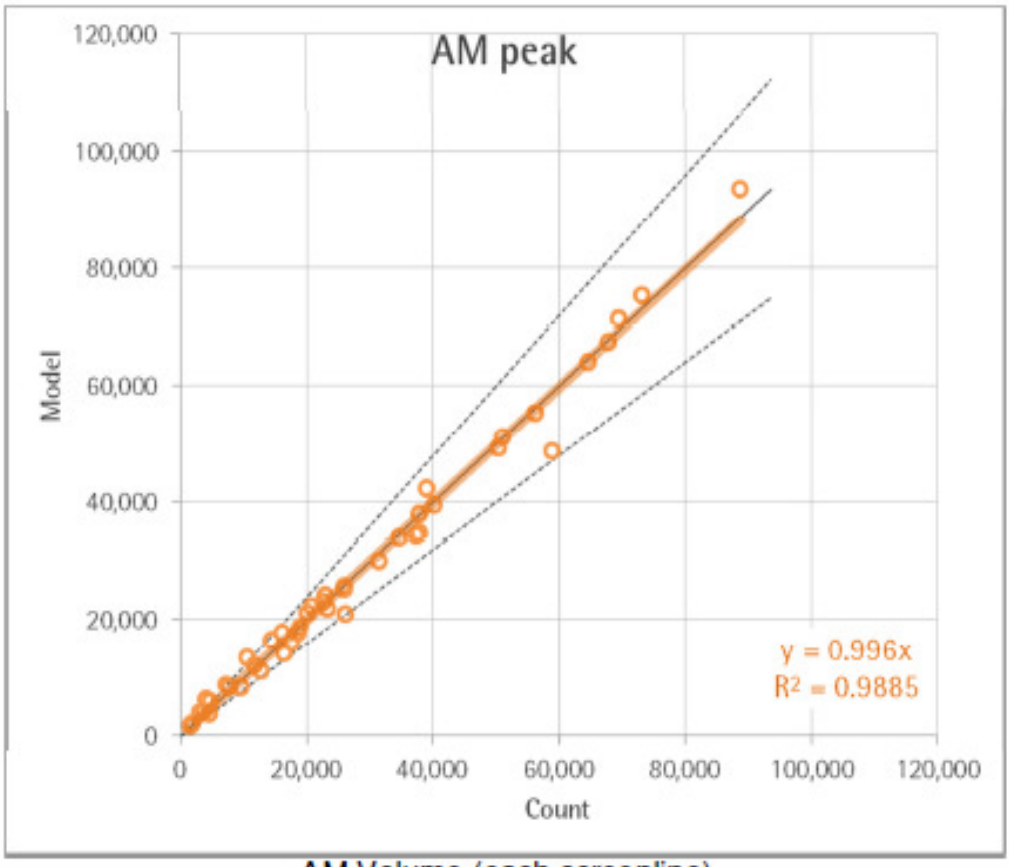
Total Daily Volume (each screenline)



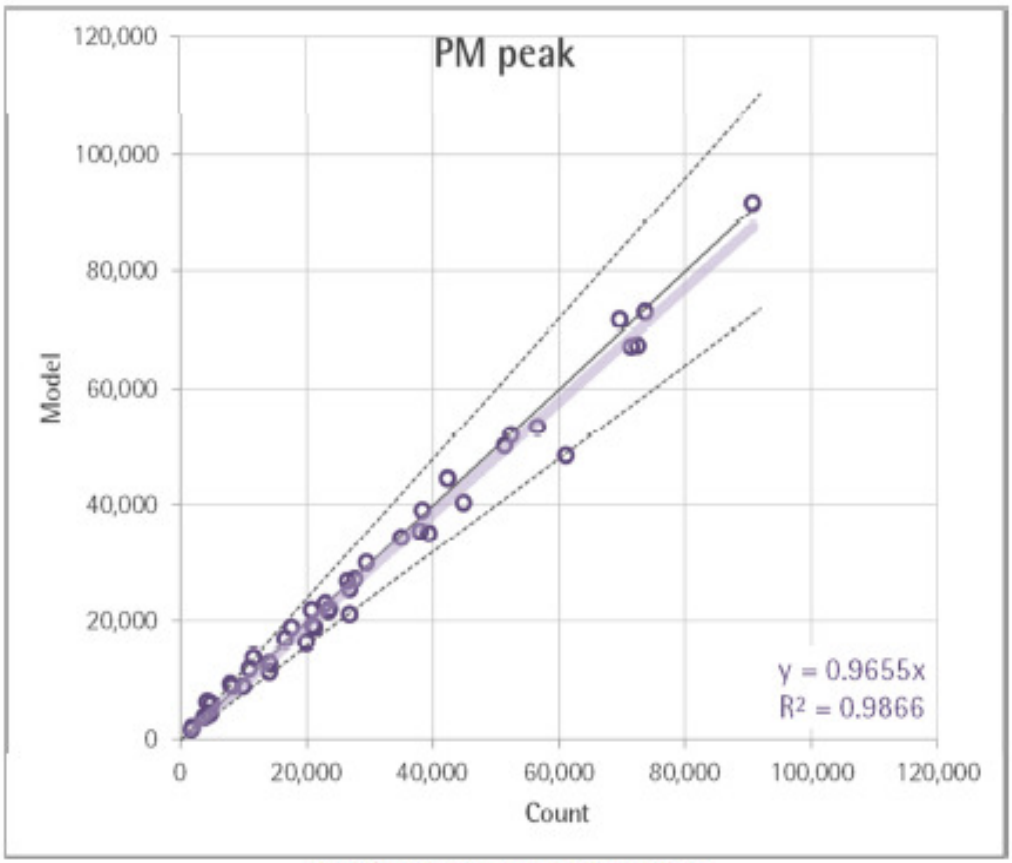
Total Good Vehicles (each screenline)

SEQ-wide Validation (Daily)

Figure 3-3a



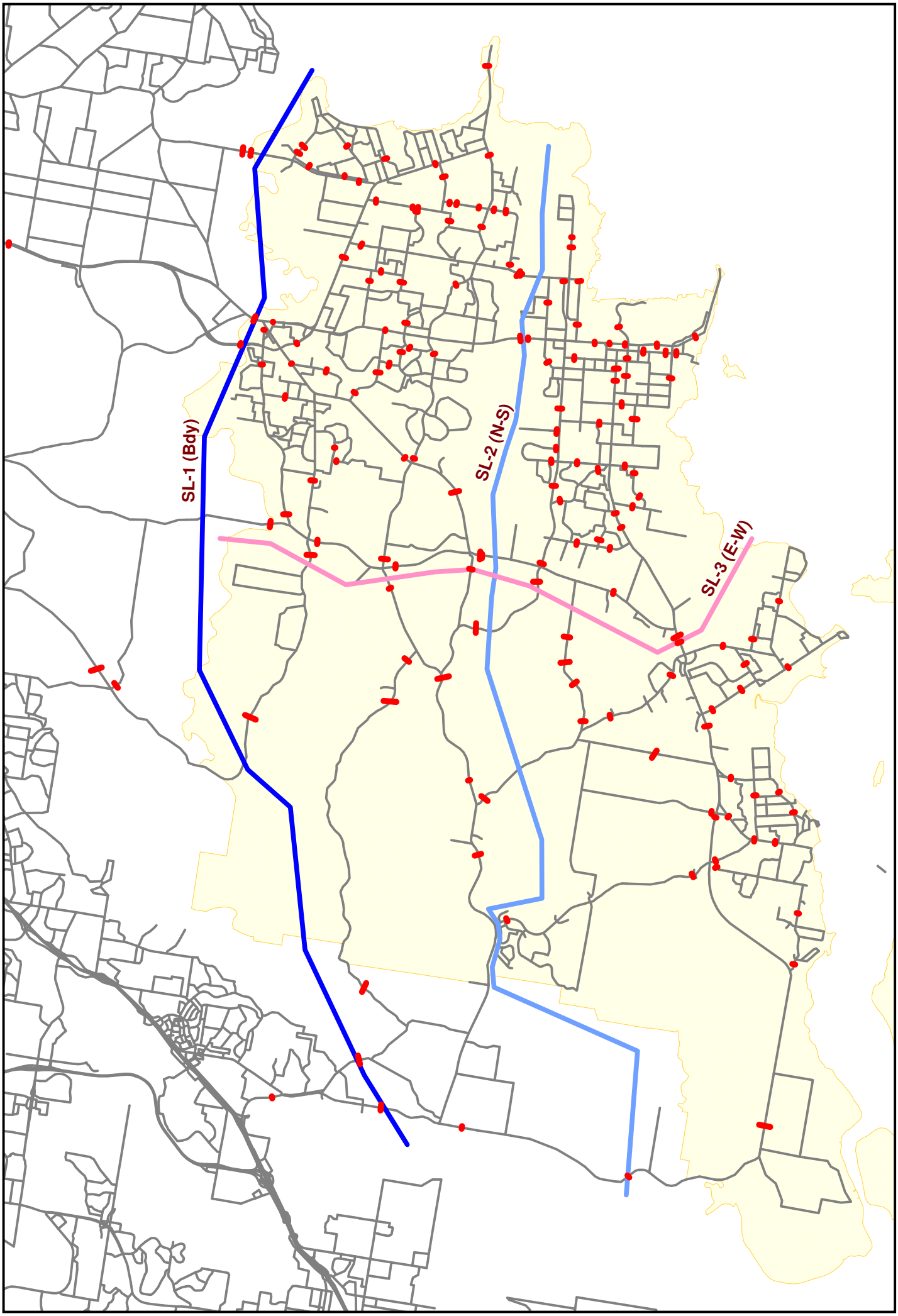
AM Volume (each screenline)



PM Volume (each screenline)

SEQ-wide Validation (Peaks)

Figure 3-3b

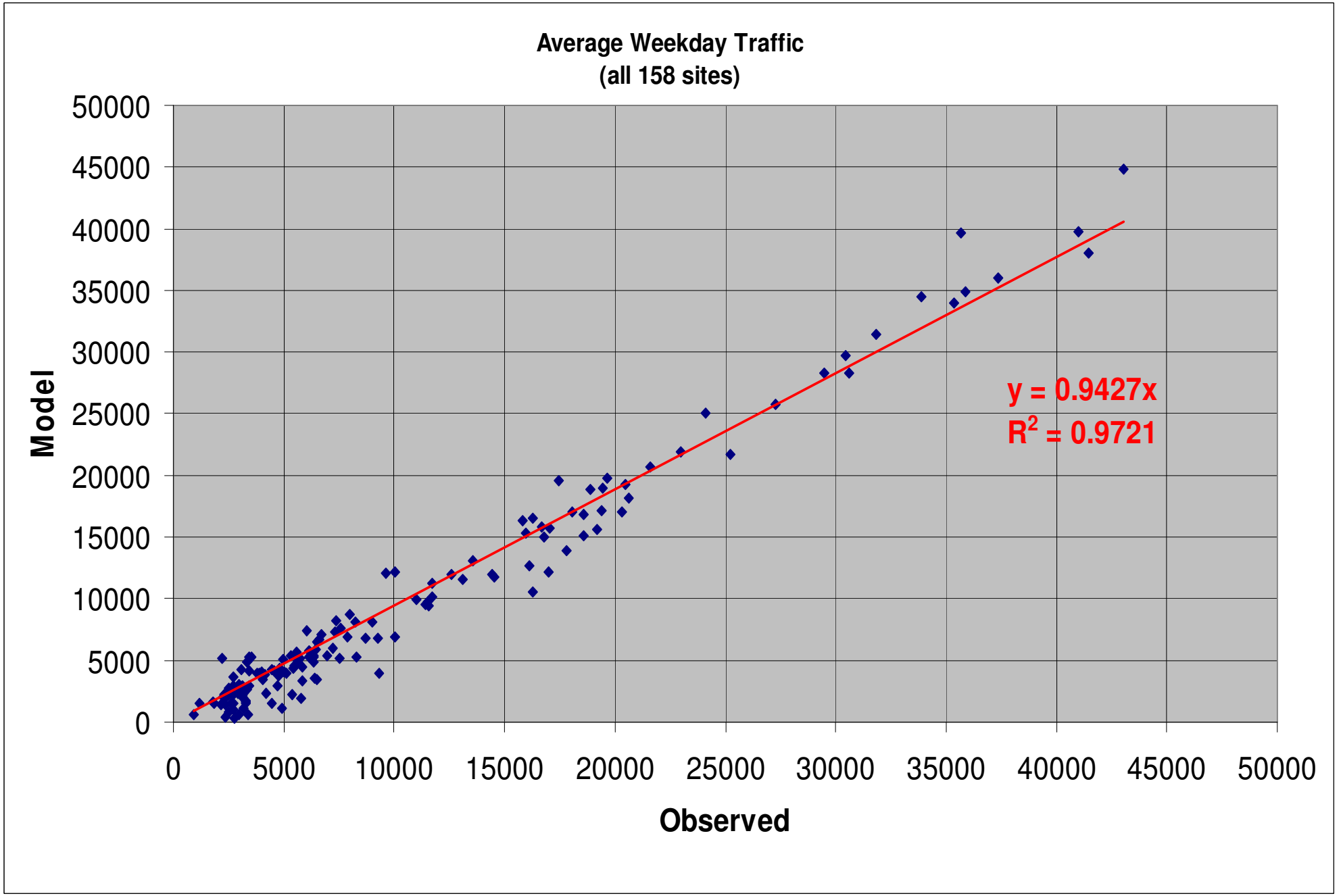


Location of Count Sites and Screen-lines in Redland City

Figure 3-4

VLC_SL_ID	Road_Name	Dirn	Count Yr	Count Period	Source	No.	AWDT (Counted)	AWDT (2011)	AWDT Modelled	Difference (M-C)	% difference	MAD	MAWD
8.01	Rickertt Road	2way	2011	22 Sep - 27 Sep	Redland City	1	18,880	18,880	18,880	0	0.0%		
8.02	Old Cleveland Rd	2way	2012	02/03 - 08/03	MDAC	1	43,032	42,171	44,810	2,639	6.3%		
08.03a	Moreton Bay Rd	Eb	2012	02/03 - 08/03	MDAC	1	19,467	19,078	18,961	-117	-0.6%		
08.03b	Moreton Bay Rd	Wb	2012	02/03 - 08/03	MDAC	1	19,658	19,265	19,731	466	2.4%		
8.04	Mt Cotton Rd	2way	2012	26/04 - 02/05	MDAC	1	17,462	17,113	19,584	2,471	14.4%		
8.05	Avalon Rd	2way	2012	02/03 - 08/03	MDAC	1	3,287	3,221	1,564	-1,657	-51.4%		
8.06	California Creek Rd	2way	2012	02/03 - 08/03	MDAC	1	9,629	9,436	12,068	2,632	27.9%		
8.07	Beenleigh-Redland Bay Rd	2way	2012	02/03 - 08/03	MDAC	1	20,638	20,225	18,188	-2,037	-10.1%		
8	**EXT: Redland City Boundary**					8		149,390	153,786	4,396	2.9%	14.1%	8.0%
9.01	Sturgeon Street	2way	2011	09 Sep - 14 Sep	Redland City	1	17,825	17,825	13,880	-3,945	-22.1%		
9.02	112 Finucane Rd	2way	2011	22 Nov - 28 Nov	Road System Ops.	1	35,856	35,856	34,894	-962	-2.7%		
9.03	110 Boundary Rd	2way	2011	10 Nov - 16 Nov	Road System Ops.	1	35,359	35,359	33,928	-1,431	-4.0%		
9.04	Woodlands Dr	2way	2012	09/03 - 15/03	MDAC	1	5,410	5,302	4,342	-960	-18.1%		
9.05	Double Jump Road	2way	2011	26 Aug - 01 Sep	Redland City	1	5,336	5,336	5,360	24	0.4%		
9.06	Valley Way	2way	2011	26 Aug - 01 Sep	Redland City	1	7,997	7,997	8,691	694	8.7%		
9.07	108 Beenleigh Redland Bay Rd	2way	2011	13 Feb - 22 Feb	Road System Ops	1	4,974	4,974	5,116	142	2.9%		
9	**N-S: Hilliards Crk - Native Dog Crk**					7		112,649	106,211	-6,438	-5.7%	8.4%	7.2%
10.01	109 Cleveland-Redland Bay Rd	2way	2011	09 Nov - 16 Nov	Road System Ops.	1	41,459	41,459	38,043	-3,416	-8.2%		
10.02	Springacre Road	2way	2010	?	Redland City	1	4,826	4,923	4,071	-852	-17.3%		
10.03	Woodlands Drive	2way	2011	12 Oct - 18 Oct	Redland City	1	5,606	5,606	5,019	-587	-10.5%		
10.04	Taylor Road	2way	2011	12 Oct - 18 Oct	Redland City	1	3,126	3,126	2,933	-193	-6.2%		
10.05	111 Mt Cotton Road	2way	2011	03 Feb - 28 Feb	Road System Ops.	1	11,503	11,503	9,753	-1,750	-15.2%		
10.06	Avalon Road	2way	2011	22 Sep - 28 Sep	Redland City	1	2,984	2,984	3,077	93	3.1%		
10	**E-W: South of Boundary Rd**					6		69,601	62,896	-6,705	-9.6%	10.1%	9.9%
	All 3 Screenlines					21		331,639	322,893	-8,746	-2.6%		

Validation (Daily 2-way Traffic) on Redland Screenlines **Figure 3-5**



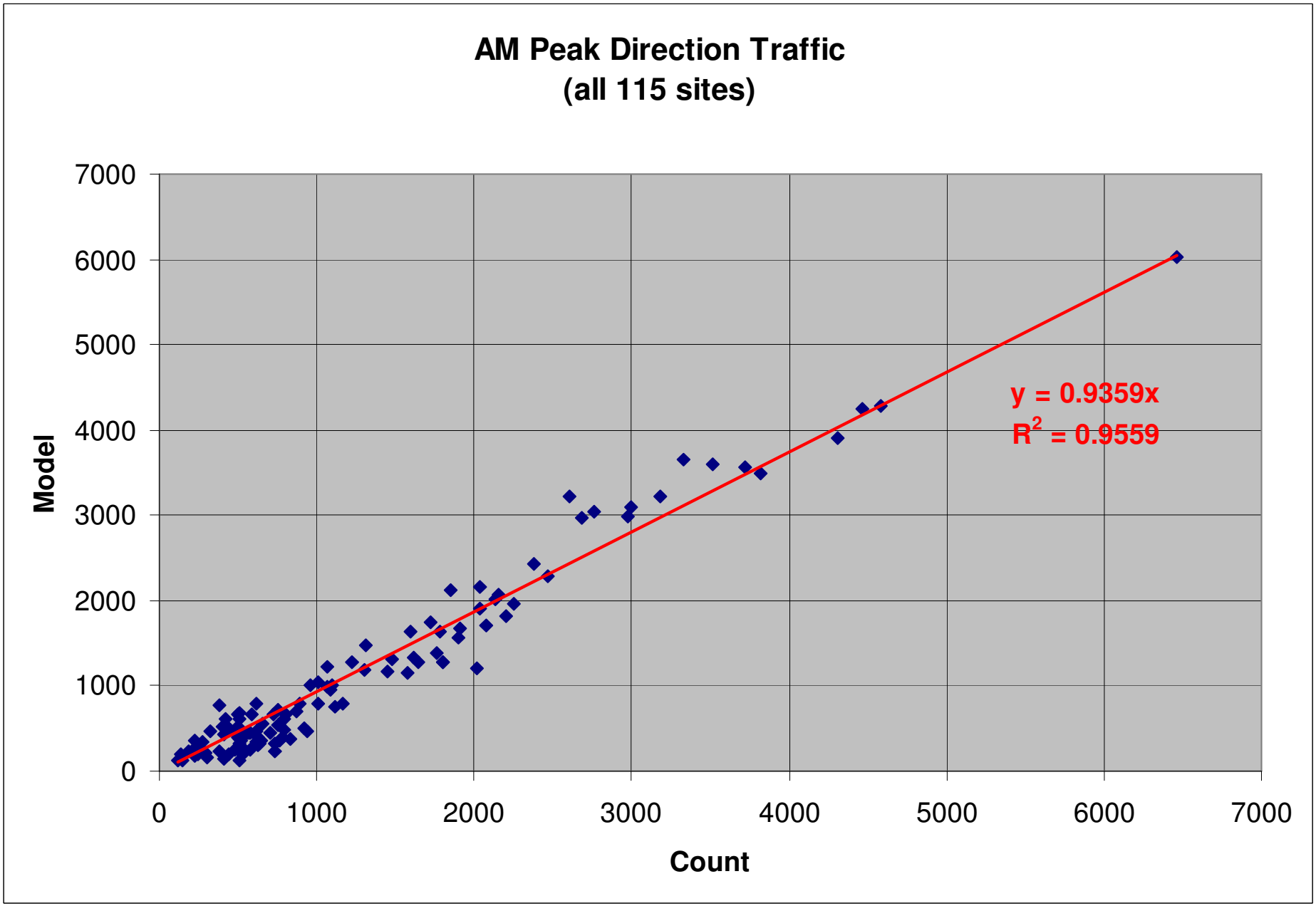
Total Daily Traffic (Model vs Observed) – All Redland Sites **Figure 3-6**

VLC_SL_ID	Road_Name	Dirn	Count Yr	Count Period	Source	No.	AM2hr (Counted)	AM2hr (2011)	AM2hr Modelled	Difference (M-C)	% difference	MAD	MAWD
8.01	Rickertt Road	wb	2011	22 Sep - 27 Sep	Redland City	1	2,034	2,034	2,153	119	5.9%		
8.02	Cleveland Sub-Arterial Rd	WB	2012	02/03 - 08/03	MDAC	1	4,579	4,487	4,275	-212	-4.7%		
08.03b	Brisbane - Redland Rd	WB	2012	02/03 - 08/03	MDAC	1	4,463	4,374	4,246	-128	-2.9%		
8.04	Mt Cotton Road	WB	2012	26/04 - 02/05	MDAC	1	2,038	1,997	1,902	-95	-4.8%		
8.05	Avalon Road	wB	2012	02/03 - 08/03	MDAC	1	227	222	14	-208	-93.7%		
8.06	California Creek Road	WB	2012	02/03 - 08/03	MDAC	1	1,071	1,050	1,227	177	16.9%		
8.07	Beenleigh-Redland Rd	WB	2012	02/03 - 08/03	MDAC	1	2,206	2,162	1,825	-337	-15.6%		
8	**EXT: Redland City Boundary**	Wb				7		16,326	15,642	-684	-4.2%	20.6%	7.8%
9.01	Sturgeon Street	Wb	2011	09 Sep - 14 Sep	Redland City	1	1,611	1,611	1,326	-285	-17.7%		
9.02	112 Finucane Rd	wb	2011	22 Nov - 28 Nov	Road System Ops.	1	2,996	2,996	3,102	106	3.5%		
9.03	110 Boundary Rd	wb	2011	10 Nov - 16 Nov	Road System Ops.	1	3,721	3,721	3,561	-160	-4.3%		
9.04	Woodlands Dr	WB	2012	09/03 - 15/03	MDAC	1	633	620	327	-293	-47.3%		
9.05	Double Jump Road	Wb	2011	26 Aug - 01 Sep	Redland City	1	510	510	608	98	19.2%		
9.06	Valley Way	wb	2011	26 Aug - 01 Sep	Redland City	1	1,085	1,085	959	-126	-11.6%		
9.07	108 Beenleigh Redland Bay Rd	Wb	2011	13 Feb - 22 Feb	Road System Ops	1	612	612	794	182	29.7%		
9	**N-S: Hilliards Crk - Native Dog Crk**					7		11,155	10,677	-478	-4.3%	19.1%	11.2%
10.01	109 Cleveland-Redland Bay Rd	nb	2011	09 Nov - 16 Nov	Road System Ops.	1	3,815	3,815	3,493	-322	-8.4%		
10.02	Kingfisher Road	NB	2012	09/03 - 15/03	MDAC	1	867	850	696	-154	-18.1%		
10.03	Woodlands Drive	nb	2011	12 Oct - 18 Oct	Redland City	1	582	582	443	-139	-23.9%		
10.04	Taylor Road	Nb	2011	12 Oct - 18 Oct	Redland City	1	538	538	250	-288	-53.5%		
10.05	111 Mt Cotton Road	nb	2011	03 Feb - 28 Feb	Road System Ops.	1	1,446	1,446	1,163	-283	-19.6%		
10.06	Avalon Road	nb	2011	22 Sep - 28 Sep	Redland City	1	251	251	264	13	5.2%		
10	**E-W: South of Boundary Rd**	Nb				6		7,482	6,309	-1,173	-15.7%	21.4%	16.0%
	All 3 Screenlines					20		34,963	32,628	-2,335	-6.7%		

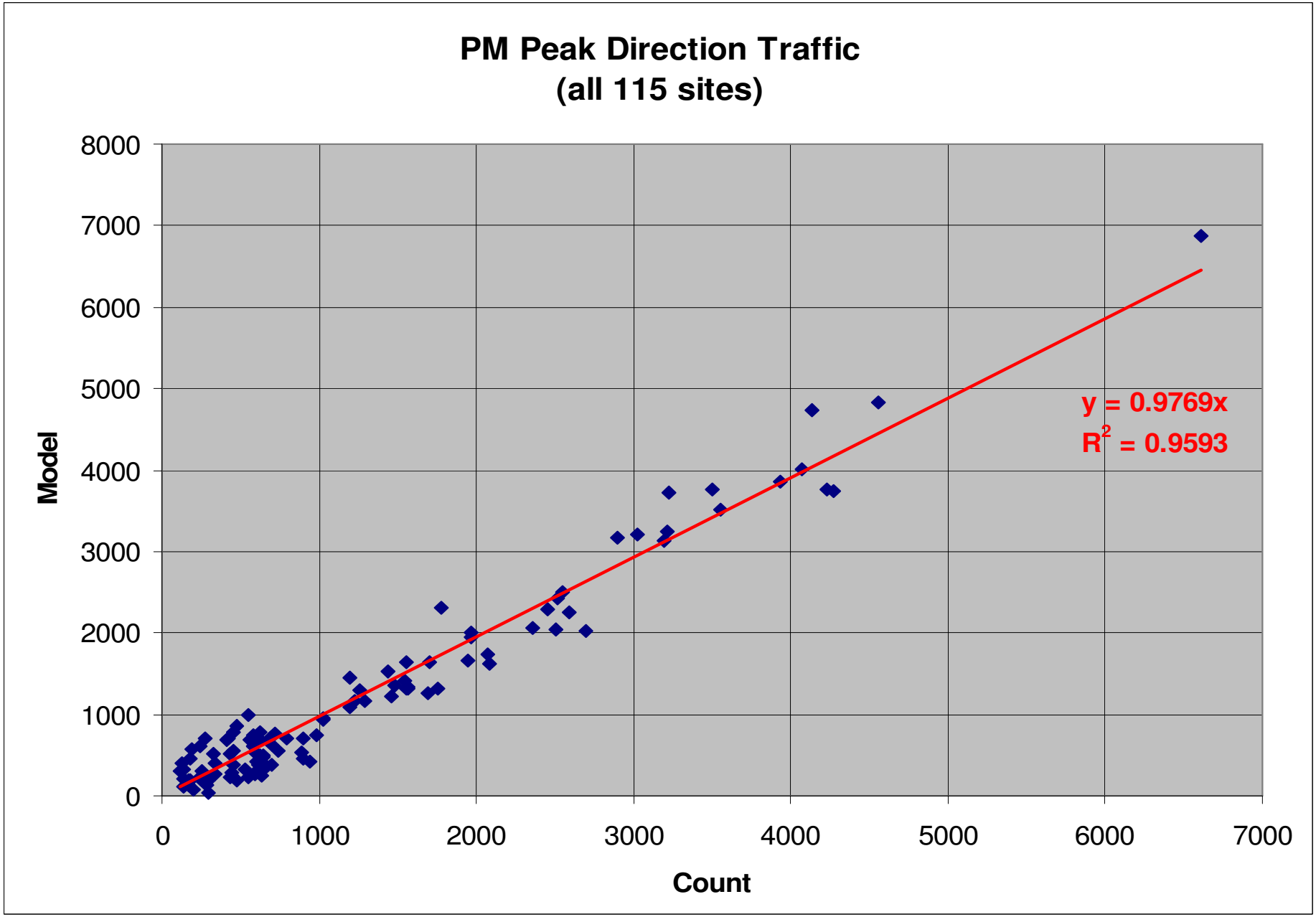
Validation (AM Peak Direction Traffic) on Redland Screenlines **Figure 3-7a**

VLC_SL_ID	Road_Name	Dirn	Count Yr	Count Period	Source	No.	PM2hr (Counted)	PM2hr (2011)	PM2hr Modelled	Difference (M-C)	% difference	MAD	MAWD
8.01	Rickertt Road	Eb	2011	22 Sep - 27 Sep	Redland City	1	2,457	2,457	2,299	-158	-6.4%		
8.02	Cleveland Sub-Arterial Rd	EB	2012	02/03 - 08/03	MDAC	1	4,562	4,471	4,830	359	8.0%		
08.03a	Brisbane - Redland Rd	EB	2012	02/03 - 08/03	MDAC	1	4,130	4,047	4,741	694	17.1%		
8.04	Mt Cotton Road	EB	2012	26/04 - 02/05	MDAC	1	2,355	2,308	2,068	-240	-10.4%		
8.05	Avalon Road	eB	2012	02/03 - 08/03	MDAC	1	414	406	34	-372	-91.6%		
8.06	California Creek Road	EB	2012	02/03 - 08/03	MDAC	1	1,194	1,170	1,450	280	23.9%		
8.07	Beenleigh-Redland Rd	EB	2012	02/03 - 08/03	MDAC	1	1,962	1,923	2,004	81	4.2%		
8	**EXT: Redland City Boundary**	**Eb**				7		16,782	17,426	644	3.8%	23.1%	13.0%
9.01	Sturgeon Street	Eb	2011	09 Sep - 14 Sep	Redland City	1	1,561	1,561	1,327	-234	-15.0%		
9.02	112 Finucane Rd	eb	2011	22 Nov - 28 Nov	Road System Ops.	1	3,212	3,212	3,240	28	0.9%		
9.03	110 Boundary Rd	eb	2011	10 Nov - 16 Nov	Road System Ops.	1	4,225	4,225	3,762	-463	-11.0%		
9.04	Woodlands Dr	EB	2012	09/03 - 15/03	MDAC	1	497	487	382	-105	-21.6%		
9.05	Double Jump Road	Eb	2011	26 Aug - 01 Sep	Redland City	1	620	620	682	62	10.0%		
9.06	Valley Way	eb	2011	26 Aug - 01 Sep	Redland City	1	1,024	1,024	937	-87	-8.5%		
9.07	108 Beenleigh Redland Bay Rd	Eb	2011	13 Feb - 22 Feb	Road System Ops	1	551	551	989	438	79.5%		
9	**N-S: Hilliards Crk - Native Dog Crk**					7		11,680	11,319	-361	-3.1%	20.9%	12.1%
10.01	109 Cleveland-Redland Bay Rd	sb	2011	09 Nov - 16 Nov	Road System Ops.	1	4,267	4,267	3,744	-523	-12.3%		
10.02	Kingfisher Road	SB	2012	09/03 - 15/03	MDAC	1	621	609	774	165	27.2%		
10.03	Woodlands Drive	sb	2011	12 Oct - 18 Oct	Redland City	1	490	490	498	8	1.6%		
10.04	Taylor Road	Sb	2011	12 Oct - 18 Oct	Redland City	1	308	308	241	-67	-21.8%		
10.05	111 Mt Cotton Road	sb	2011	03 Feb - 28 Feb	Road System Ops.	1	1,257	1,257	1,293	36	2.9%		
10.06	Avalon Road	sb	2011	22 Sep - 28 Sep	Redland City	1	275	275	275	0	0.0%		
10	**E-W: South of Boundary Rd**	**Sb**				6		7,206	6,825	-381	-5.3%	10.9%	11.1%
	All 3 Screenlines					20		35,667	35,570	-97	-0.3%		

Validation (PM Peak Direction Traffic) on Redland Screenlines **Figure 3-7b**



Peak Direction Traffic (Model vs Observed) – AM 2-hours **Figure 3-8a**



Peak Direction Traffic (Model vs Observed) – PM 2-hours **Figure 3-8b**

Population Forecasts

REDLAND CITY COUNCIL - SUBURBS

	2011	2016			2021			2026			2031		
		Population Growth		Total	Population Growth		Total	Population Growth		Total	Population Growth		Total
	Total	Detached	Attached & Semi-detached		Detached	Attached & Semi-detached		Detached	Attached & Semi-detached		Detached	Attached & Semi-detached	
Mount Cotton	4,937	1,246	0	6,183	589	0	6,772	160	0	6,932	160	0	7,092
Alexandra Hills	17,307	200	113	17,620	191	126	17,937	172	145	18,254	111	160	18,525
Amity	359	47	0	406	44	0	450	38	0	488	20	0	507
Birkdale	14,383	633	107	15,123	600	124	15,847	525	149	16,521	292	168	16,981
Capalaba	17,198	511	173	17,882	483	220	18,585	421	777	19,783	226	854	20,862
Cleveland	15,046	297	517	15,861	284	1,154	17,299	255	1,205	18,759	162	1,441	20,361
Coochiemudlo Island	735	117	20	872	112	47	1,030	101	49	1,180	68	50	1,299
Lamb Island	444	50	0	494	50	0	544	50	0	595	50	0	645
North Stradbroke/Peel Island	119	23	13	155	23	13	191	23	13	227	23	13	263
Ormiston	5,925	329	64	6,318	310	74	6,702	268	89	7,058	135	100	7,294
Point Lookout	702	28	18	748	28	18	795	28	18	841	28	18	888
Macleay/Perulpa Island	2,671	311	0	2,982	311	0	3,293	311	0	3,603	311	0	3,914
Sheldon	1,728	0	0	1,728	0	0	1,728	0	0	1,728	0	0	1,728
Thorneside	3,669	57	13	3,738	54	15	3,807	49	17	3,874	34	19	3,927
Thornlands	13,249	920	88	14,257	1,428	342	16,027	1,796	552	18,375	1,777	656	20,807
Victoria Point	15,280	226	208	15,714	360	275	16,350	661	715	17,727	637	785	19,148
Redland Bay	14,006	883	223	15,112	830	371	16,313	712	384	17,409	341	409	18,158
Karragarra Island	167	18	0	185	18	0	204	18	0	222	18	0	240
Wellington Point	12,214	426	95	12,734	404	109	13,247	357	129	13,732	207	144	14,083
Russell Island	2,570	671	0	3,241	671	0	3,911	671	0	4,582	671	0	5,253
Dunwich	919	82	2	1,003	76	2	1,081	64	2	1,147	26	2	1,176
Total	**143,628**	**7,073**	**1,653**	**152,354**	**6,869**	**2,889**	**162,113**	**6,681**	**4,244**	**173,038**	**5,296**	**4,818**	**183,152**

Source: ABS Estimated Resident Population; Urbis

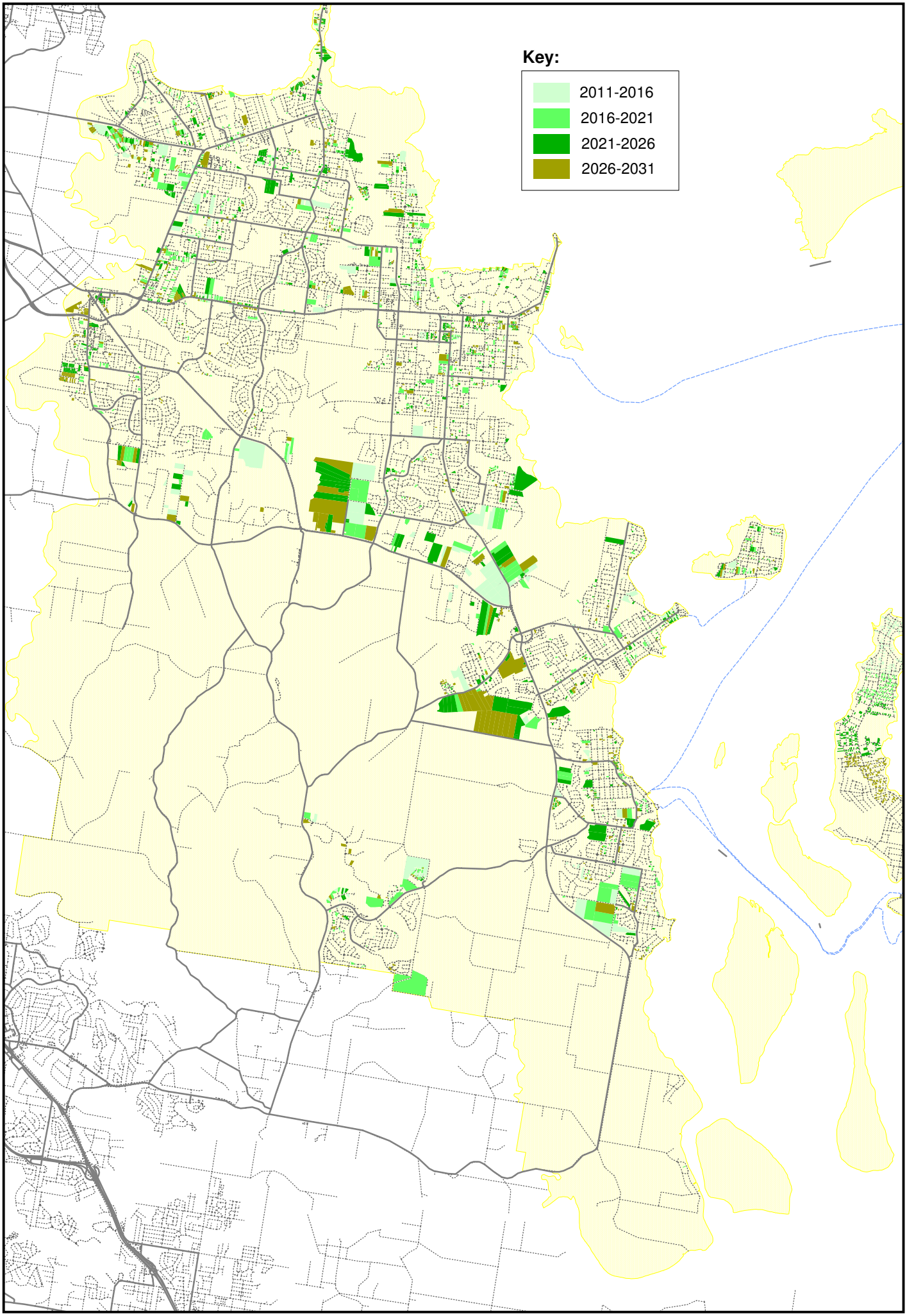
Suburb Level Population Forecasts **Figure 4-1a**

Occupied Private Dwelling Forecasts

REDLAND CITY COUNCIL - SUBURBS

	2011			2016			2021			2026			2031		
	Detached	Attached & Semi-detached	Total	Detached	Attached & Semi-detached	Total	Detached	Attached & Semi-detached	Total	Detached	Attached & Semi-detached	Total	Detached	Attached & Semi-detached	Total
Mount Cotton	1,489	3	1,492	1,951	3	1,954	2,169	3	2,172	2,228	3	2,231	2,287	3	2,290
Alexandra Hills	5,369	320	5,689	5,443	386	5,829	5,514	461	5,974	5,577	546	6,124	5,618	640	6,259
Amity	145	5	150	162	5	167	179	5	184	193	5	198	200	5	205
Birkdale	4,104	544	4,648	4,338	607	4,945	4,560	680	5,240	4,755	768	5,523	4,863	867	5,730
Capalaba	4,835	1,106	5,941	5,024	1,208	6,232	5,203	1,337	6,541	5,359	1,794	7,153	5,442	2,297	7,739
Cleveland	3,802	1,970	5,772	3,912	2,274	6,186	4,017	2,953	6,971	4,112	3,662	7,774	4,172	4,510	8,681
Coochiemudlo Island	310	6	316	353	18	371	395	45	440	432	74	506	458	103	561
Lamb Island	198	3	201	222	3	225	246	3	249	270	3	273	294	3	297
North Stradbroke/Peel Island	17	19	36	26	26	52	34	34	68	43	41	84	52	49	101
Ormiston	1,659	445	2,104	1,781	482	2,263	1,896	526	2,422	1,995	578	2,573	2,045	637	2,682
Point Lookout	194	79	273	205	90	294	215	100	315	226	111	336	236	121	357
Macleay/Perulpa Island	1,093	3	1,096	1,241	3	1,244	1,389	3	1,392	1,537	3	1,540	1,685	3	1,688
Sheldon	531	9	540	531	9	540	531	9	540	531	9	540	531	9	540
Thorneside	981	469	1,450	1,002	477	1,478	1,022	485	1,507	1,040	495	1,536	1,053	507	1,560
Thornlands	3,896	204	4,100	4,237	256	4,492	4,766	457	5,222	5,431	782	6,212	6,089	1,167	7,256
Victoria Point	4,510	747	5,257	4,594	869	5,463	4,727	1,031	5,758	4,972	1,452	6,424	5,208	1,914	7,122
Redland Bay	4,351	85	4,436	4,678	216	4,894	4,985	434	5,420	5,249	660	5,909	5,375	901	6,276
Karragarra Island	86	0	86	95	0	95	103	0	103	112	0	112	121	0	121
Wellington Point	3,631	280	3,911	3,789	336	4,124	3,938	400	4,338	4,070	475	4,546	4,147	560	4,707
Russell Island	1,071	0	1,071	1,390	0	1,390	1,710	0	1,710	2,029	0	2,029	2,349	0	2,349
Dunwich	303	12	315	333	13	346	361	14	376	385	16	401	395	17	412
Total	**42,575**	**6,309**	**48,884**	**45,306**	**7,281**	**52,587**	**47,961**	**8,981**	**56,942**	**50,547**	**11,478**	**62,024**	**52,619**	**14,312**	**66,931**

Source: ABS Census of Population and Housing; Urbis



Anticipated Residential Sequencing **Figure 4-2**

Employment Forecast Review

REDLAND CITY, 2006-2031 TABLE 5.6

Industry	2011 Actual No.	2031 Employment Forecasts 2010 Strategy No.	Revised Strategy No.	Difference No.
Health Care & Social Assistance	5,067	5,944	7,454	1,510
Professional, Scientific & Technical Services [1]	1,958	2,939	3,426	487
Accommodation & Food Services	2,914	3,709	3,894	185
Education & Training	3,569	4,870	5,060	190
Construction	2,998	4,567	4,149	-418
Other Services	1,641	2,728	2,183	-545
Retail Trade	5,689	7,548	7,413	-135
Manufacturing	3,149	3,289	3,390	101
Transport, Postal & Warehousing	1,109	1,776	1,754	-22
Information Media & Telecommunications	466	603	669	66
Electricity, Gas, Water & Waste Services	281	247	341	94
Financial & Insurance Services	669	986	1,022	36
Arts & Recreational Services	443	1,439	744	-695
Mining	255	232	281	49
Public Administration & Safety	1,507	2,560	1,875	-685
Inadequately Described	368	373	368	-5
Administrative & Support Services [1]	1,140	2,487	1,841	-647
Agriculture, Forestry & Fishing	313	373	312	-61
Rental, Hiring & Real Estate Services [1]	755	1,859	1,455	-404
Wholesale Trade	1,284	1,458	1,275	-183
Redland Total	**35,575**	**49,987**	**48,908**	**-1,079**

1 Forecasts for Property and Business Services under the 2010 Strategy have been split between 3 industry sectors as a pro rata share

Source: Census of Population and housing 2006 and 2011; Urbis

2031 Employment Projections - by Industry **Figure 4-3a**

Employment Change By SA2

REDLAND CITY AREAS — TABLE 6.1

SA2	Actual 2006 No.	Actual 2011 No.	2006-11 Growth No.	2006-11 Growth %	Forecast Growth 2006-31 No.	5 Year Take-up of Forecast Growth % of Forecast Emp Demanded
Alexandra Hills	2,415	2,169	-246	-10%	3,317	902	-27%
Birkdale	1,743	1,890	147	8%	2,712	969	15%
Capalaba	8,033	9,517	1,484	18%	13,021	4,988	30%
Thorneside	382	310	-72	-19%	522	140	-51%
Wellington Point	1,379	1,548	169	12%	2,162	783	22%
Cleveland	8,231	8,744	513	6%	12,726	4,495	11%
Ormiston	1,088	1,119	31	3%	1,671	583	5%
Redland Bay	1,417	1,725	308	22%	2,717	1,300	24%
Redland Islands	1,308	1,541	233	18%	2,187	879	27%
Sheldon - Mount Cotton	1,342	1,583	241	18%	1,828	486	50%
Thornlands	1,810	1,733	-77	-4%	2,351	541	-14%
Victoria Point	2,945	3,714	769	26%	4,794	1,849	42%
Redland Total	**32,095**	**35,593**	**3,498**	**11%**	**50,008**	**17,913**	**20%**

Source: Census of Population and housing 2006 and 2011, Urbis

2031 Employment Projections - by Locality

Figure 4-3b

Suburb	Population (2011)			Occupied Private Dwellings (2011)									
	URBIS	VLC	Difference	Urbis (Fig 2-1b)			VLC (Census Night or URP)				Difference (VLC - Urbis)		
	(Fig 2-1a)	(ERP)	(VLC - Urbis)	Detached	Attached	Total	Detached	Attached[1]	Other[2]	Total	Detached	Attached	Total
Alexandra Hills	17,307	17,286	-21	5,369	320	5,689	5,368	294	0	5,662	-1	-26	-27
Amity	359	359	0	145	5	150	141	6	9	156	-4	1	6
Birkdale	14,383	14,953	570	4,104	544	4,648	4,282	531	79	4,892	178	-13	244
Capalaba	17,198	17,483	285	4,835	1,106	5,941	4,889	1,179	82	6,150	54	73	209
Cleveland	15,046	15,046	0	3,802	1,970	5,772	3,797	1,982	4	5,783	-5	12	11
Coochiemudlo Island	735	735	0	310	6	316	314	3	0	317	4	-3	1
Dunwich	919	919	0	303	12	315	305	10	34	349	2	-2	34
Karragarra Island	167	167	0	86	0	86	85	0	0	85	-1	0	-1
Lamb Island	444	444	0	198	3	201	199	0	0	199	1	-3	-2
Macleay/Perulpa Island	2,671	2,671	0	1,093	3	1,096	1,094	0	0	1,094	1	-3	-2
Mount Cotton	4,937	4,937	0	1,489	3	1,492	1,492	3	0	1,495	3	0	3
North Stradbroke/Peel Island	119	119	0	17	19	36	17	18	28	63	0	-1	27
Ormiston	5,925	5,925	0	1,659	445	2,104	1,662	437	0	2,099	3	-8	-5
Point Lookout	702	702	0	194	79	273	196	79	17	292	2	0	19
Redland Bay	14,006	14,006	0	4,351	85	4,436	4,355	84	0	4,439	4	-1	3
Russell Island	2,570	2,570	0	1,071	0	1,071	1,068	0	3	1,071	-3	0	0
Sheldon	1,728	1,728	0	531	9	540	539	0	0	539	8	-9	-1
Thorneside	3,669	3,669	0	981	469	1,450	974	477	6	1,457	-7	8	7
Thornlands	13,249	13,249	0	3,896	204	4,100	3,909	203	0	4,112	13	-1	12
Victoria Point	15,280	15,280	0	4,510	747	5,257	4,507	738	10	5,255	-3	-9	-2
Wellington Point	12,214	11,380	-834	3,631	280	3,911	3,381	286	0	3,667	-250	6	-244
Total	**143,628**	**143,628**	**0**	**42,575**	**6,309**	**48,884**	**42,574**	**6,330**	**272**	**49,176**	**-1**	**21**	**292**

Notes:
1. Includes semi-detached, terrace houses, townhouses, flats, units or apartments
2. Includes Caravans, cabins, houseboats, tents and 'Not Stated'

Comparison of 2011 Residential Data

Figure 4-4

Alternate Populations

SUBURBS	Population in Existing Dwellings				Population in Future Dwellings (By 2031)				Total Population (At 2031)			
	2011	estimated change VLC		2031 VLC	Urbis	VLC	Difference (VLC-Urbis)		Urbis	VLC	Difference (VLC-Urbis)	
Alexandra Hills	17,307	-4%	-692	16,615	1,218	1,275	57	4.7%	18,525	17,890	-635	-3.4%
Amity	359	-3%	-11	348	148	124	-25	-16.7%	507	472	-36	-7.0%
Birkdale	14,383	-6%	-863	13,520	2,598	2,934	336	12.9%	16,981	16,454	-527	-3.1%
Capalaba	17,198	-4%	-688	16,510	3,664	3,844	180	4.9%	20,862	20,354	-508	-2.4%
Cleveland	15,046	-4%	-602	14,444	5,315	5,606	291	5.5%	20,361	20,050	-311	-1.5%
Coochiemudlo Island	735	-3%	-22	713	564	507	-57	-10.1%	1,299	1,220	-79	-6.1%
Dunwich	919	-3%	-28	891	257	239	-18	-7.0%	1,176	1,131	-45	-3.9%
Karragarra Island	167	-3%	-5	162	73	73	0	0.0%	240	235	-5	-2.1%
Lamb Island	444	-3%	-13	431	201	215	14	7.1%	645	646	1	0.2%
Macleay/Perulpa Island	2,671	-4%	-107	2,564	1,243	1,332	89	7.1%	3,914	3,896	-18	-0.5%
Mount Cotton	4,937	-8%	-395	4,542	2,155	2,475	319	14.8%	7,092	7,017	-76	-1.1%
North Stradbroke/Peel Island	119	-3%	-4	115	144	132	-13	-8.8%	263	247	-16	-6.2%
Ormiston	5,925	-4%	-237	5,688	1,369	1,426	58	4.2%	7,294	7,114	-179	-2.5%
Point Lookout	702	-3%	-21	681	186	171	-15	-8.0%	888	852	-36	-4.0%
Redland Bay	14,006	-7%	-980	13,026	4,152	4,643	491	11.8%	18,158	17,669	-489	-2.7%
Russell Island	2,570	-3%	-77	2,493	2,683	2,875	192	7.1%	5,253	5,367	115	2.2%
Sheldon	1,728	-3%	-52	1,676	0	0	0		1,728	1,676	-52	-
Thorneside	3,669	-3%	-110	3,559	258	248	-11	-4.1%	3,927	3,806	-121	-3.1%
Thornlands	13,249	-7%	-927	12,322	7,558	8,532	973	12.9%	20,807	20,853	46	0.2%
Victoria Point	15,280	-4%	-611	14,669	3,868	4,055	186	4.8%	19,148	18,724	-425	-2.2%
Wellington Point	12,214	-4%	-489	11,725	1,869	2,052	183	9.8%	14,083	13,777	-306	-2.2%
Total	**143,628**	**-4.8%**	**-6,934**	**136,694**	**39,524**	**42,756**	**3,232**	**+8.2%**	183,152	**179,450**	-3,702	-2.0%

Alternative 2031 Population Estimates

Figure 4-5

Comparison of Dwelling Forecasts

SUBURBS	Urbis OPD Forecasts 2011	2021	2031	OPD Growth (2011-2021) Urbis[1]	Lot-based GIS File[2]	Difference [2]-[1] No.	%	OPD Growth (2021-2031) Urbis[1]	Lot-based GIS File[2]	Difference [2]-[1] No.	%	OPD Growth (2011-2031) Urbis[1]	Lot-based GIS File[2]	Difference [2]-[1] No.	%
Alexandra Hills	5,689	5,974	6,259	285	341	55	19%	284	185	-100	-35%	570	525	-44	-8%
Amity	150	184	205	34	39	5	16%	21	16	-5	-24%	55	55	0	1%
Birkdale	4,648	5,240	5,730	592	530	-63	-11%	489	465	-24	-5%	1,082	995	-87	-8%
Capalaba	5,941	6,541	7,739	600	654	54	9%	1,199	1,187	-12	-1%	1,798	1,841	42	2%
Cleveland	5,772	6,971	8,681	1,199	1,201	2	0%	1,710	1,593	-118	-7%	2,909	2,794	-116	-4%
Coochiemudlo Island	316	440	561	124	129	5	4%	121	147	26	22%	245	276	31	13%
Dunwich	315	376	412	61	119	58	96%	36	19	-17	-48%	97	138	41	42%
Karragarra Island	86	103	121	17	18	1	3%	17	18	1	3%	35	36	1	3%
Lamb Island	201	249	297	48	50	2	5%	48	50	2	5%	96	100	4	5%
Macleay/Perulpa Island	1,096	1,392	1,688	296	298	2	1%	296	296	0	0%	592	594	2	0%
Mount Cotton	1,492	2,172	2,290	680	351	-329	-48%	119	45	-74	-62%	798	396	-403	-50%
North Stradbroke/Peel Island	36	68	101	32	1	-31	-97%	32	0	-32	-100%	65	1	-64	-98%
Ormiston	2,104	2,422	2,682	318	323	5	2%	260	292	32	12%	578	615	37	6%
Point Lookout	273	315	357	42	0	-42	-100%	42	0	-42	-100%	84	0	-84	-100%
Redland Bay	4,436	5,420	6,276	984	1,383	399	41%	856	956	99	12%	1,840	2,338	498	27%
Russell Island	1,071	1,710	2,349	639	639	0	0%	639	638	-1	0%	1,278	1,277	-1	0%
Sheldon	540	540	540	0	0	0		0	0	0		0	0	0	
Thorneside	1,450	1,507	1,560	57	53	-4	-7%	52	38	-15	-28%	110	91	-19	-17%
Thornlands	4,100	5,222	7,256	1,122	1,967	844	75%	2,034	1,489	-545	-27%	3,156	3,455	299	9%
Victoria Point	5,257	5,758	7,122	501	485	-17	-3%	1,363	1,461	98	7%	1,865	1,946	81	4%
Wellington Point	3,911	4,338	4,707	427	372	-55	-13%	369	417	48	13%	796	790	-6	-1%
Total	**48,884**	**56,942**	**66,931**	**8,058**	**8,951**	**893**	11%	**9,989**	**9,310**	**-679**	-7%	**18,047**	**18,262**	**215**	1%

Comparison with the Lot-based Projections

Figure 4-6

Housing Component	Housing Attribute	Population	Blue Collar Workers	White Collar Workers	Dependents Aged 0-17yrs	Dependents Aged 18-64yrs	Dependents Aged 65 & over
Base (2011) Housing Stock:							
Existing Dwellings	Persons (2011)	**143,622**	23,270	46,428	32,736	22,300	18,888
(51,863 No.)[(Note: see text)]	Persons/dwelling	2.769	0.449	0.895	0.631	0.430	0.364
at 2011	% of Population	100%	16.2%	32.3%	22.8%	15.5%	13.2%
Existing Dwellings	Persons/dwelling	2.769	0.428	0.855	0.596	0.383	0.507
(51,863 No.)[(Note: see text)]	Persons (2021)	**143,622**	**22,223**	**44,339**	**30,936**	**19,847**	**26,278**
at 2021	% of Population	100%	15.5%	30.9%	21.5%	13.8%	18.3%
Future Growth in Dwellings (2011-2021):							
Detached Dwellings	Persons/dwelling (on 1st Occ.)	2.70	0.438	0.873	0.615	0.419	0.355
on Mainland & Nth Stradbroke	Persons/dwelling (at **2021**)	2.70	0.418	0.833	0.582	0.373	0.494
(4,301 No.)	Persons	**11,613**	**1,741**	**3,472**	**2,488**	**1,785**	**2,127**
	% of Population	100%	15.0%	29.9%	21.4%	15.4%	18.3%
Attached Dwellings	Persons/dwelling (on 1st Occ.)	1.70	0.173	0.327	0.192	0.298	0.711
on Mainland & Nth Stradbroke	Persons/dwelling (at **2021**)	1.70	0.165	0.312	0.182	0.265	0.777
(2,633 No.)	Persons	**4,476**	**421**	**795**	**475**	**776**	**2,008**
	% of Population	100%	9.4%	17.8%	10.6%	17.3%	44.9%
Detached Dwellings	Persons/dwelling (on 1st Occ.)	2.10	0.264	0.365	0.406	0.619	0.446
on South Moreton Bay Islands	Persons/dwelling (at **2021**)	2.10	0.252	0.349	0.383	0.551	0.565
(1,085 No.)	Persons	**2,279**	**265**	**367**	**414**	**665**	**569**
	% of Population	100%	11.6%	16.1%	18.2%	29.2%	25.0%
Attached Dwellings	Persons/dwelling (on 1st Occ.)	1.70	0.214	0.296	0.329	0.501	0.361
on South Moreton Bay Islands	Persons/dwelling (at **2021**)	1.70	0.204	0.282	0.310	0.446	0.457
(39 No.)	Persons	**66**	**8**	**11**	**12**	**19**	**17**
	% of Population	100%	11.6%	16.1%	18.2%	29.2%	25.0%
City Total (at 2021):							
All Dwellings	Persons	**162,056**	**24,658**	**48,983**	**34,325**	**23,092**	**30,998**
(59,921 No.)	Persons/Dwelling	2.704	0.412	0.817	0.573	0.385	0.517
at 2021	% of Population	100%	15.2%	30.2%	21.2%	14.2%	19.1%
				v	v		v
Targets:		162,113	46%		21%		20%

Summary Derivation of Community Profile at 2021 **Figure 4-7a**

Housing Component	Housing Attribute	Population	Blue Collar Workers	White Collar Workers	Dependents Aged 0-17yrs	Dependents Aged 18-64yrs	Dependents Aged 65 & over
Base (2011) Housing Stock:							
Existing Dwellings	Persons (2011)	**143,622**	23,270	46,428	32,736	22,300	18,888
(51,863 No.)[(Note: see text)]	Persons/dwelling	2.769	0.449	0.895	0.631	0.430	0.364
at 2011	% of Population	100%	16.2%	32.3%	22.8%	15.5%	13.2%
Existing Dwellings	Persons/dwelling	2.769	0.408	0.815	0.562	0.335	0.649
(51,863 No.)[(Note: see text)]	Persons (2031)	**143,622**	**21,176**	**42,249**	**29,135**	**17,394**	**33,668**
at 2031	% of Population	100%	14.7%	29.4%	20.3%	12.1%	23.4%
Future Growth in Dwellings (2011-2031):							
Detached Dwellings	Persons/dwelling (on 1st Occ.)	2.70	0.438	0.873	0.615	0.419	0.355
on Mainland & Nth Stradbroke	Persons/dwelling (at **2031**)	2.70	0.398	0.794	0.548	0.327	0.633
(7,897 No.)	Persons	**21,322**	**3,145**	**6,272**	**4,325**	**2,582**	**4,998**
	% of Population	100%	13.8%	27.5%	20.1%	15.2%	23.5%
Attached Dwellings	Persons/dwelling (on 1st Occ.)	1.70	0.173	0.327	0.192	0.298	0.711
on Mainland & Nth Stradbroke	Persons/dwelling (at **2031**)	1.70	0.157	0.297	0.171	0.232	0.842
(7,906 No.)	Persons	**13,440**	**1,244**	**2,349**	**1,352**	**1,836**	**6,659**
	% of Population	100%	8.6%	16.3%	9.9%	17.2%	47.9%
Detached Dwellings	Persons/dwelling (on 1st Occ.)	2.10	0.264	0.365	0.406	0.619	0.446
on South Moreton Bay Islands	Persons/dwelling (at **2031**)	2.10	0.240	0.332	0.361	0.483	0.684
(2,147 No.)	Persons	**4,509**	**515**	**714**	**775**	**1,036**	**1,468**
	% of Population	100%	11.4%	15.8%	17.2%	23.0%	32.6%
Attached Dwellings	Persons/dwelling (on 1st Occ.)	1.70	0.214	0.296	0.329	0.501	0.361
on South Moreton Bay Islands	Persons/dwelling (at **2031**)	1.70	0.194	0.269	0.292	0.391	0.554
(97 No.)	Persons	**165**	**19**	**26**	**28**	**38**	**54**
	% of Population	100%	11.4%	15.8%	17.2%	23.0%	32.6%
City Total (at 2031):							
All Dwellings	Persons	**183,058**	**26,099**	**51,610**	**35,615**	**22,886**	**46,847**
(69,910 No.)	Persons/Dwelling	2.62	0.373	0.738	0.509	0.327	0.670
at 2031	% of Population	100%	14.3%	28.2%	**19.5%**	12.5%	**25.6%**
				v	v		v
Targets:		183,152	43%		19.8%		26.6%

Summary Derivation of Community Profile at 2031 **Figure 4-7b**

	(1. compare jobs with 'stated' locations)			(2. add jobs of unspecified location)			(3. impact of URP > ERP adjustment)	
ANZSIC 2006 Industry Category	**Urbis Job No's**	**VLC Job No's (PoW 'stated')**	**difference (Urbis - VLC)**	**Redland portion of 'unspecified'**	**VLC Job No's (URP)**	**% increase**	**VLC Job No's (ERP)**	**difference (ERP - URP)**
A. Agriculture, Forestry & Fishing	313	292	+21	45	337	15%	350	+13
B. Mining	255	254	+1	56	310	22%	321	+11
C. Manufacturing	3,149	3,122	+27	364	3,486	12%	3,611	+125
D. Electricity, Gas, Water & waste Services	281	297	-16	29	326	10%	338	+12
E. Construction	2,998	2,985	+13	1,535	4,520	**51%**	4,682	+162
F. Wholesale Trade	1,284	1,286	-2	125	1,411	10%	1,461	+50
G. Retail Trade	5,689	5,691	-2	589	6,280	10%	6,505	+225
H. Accommodation & Food Services	2,914	2,859	+55	378	3,237	13%	3,353	+116
I. Transport, Postal & Warehousing	1,109	1,088	+21	215	1,303	20%	1,350	+47
J. Information Media & Telecommunications	466	455	+11	49	504	11%	522	+18
K. Financial & Insurance Services	669	655	+14	39	694	6%	719	+25
L. Rental, Hiring & Real Estate Services	755	762	-7	55	817	7%	846	+29
M. Professional, Scientific & Technical Services	1,958	1,957	+1	152	2,109	8%	2,185	+76
N. Administrative & Support Services	1,140	1,132	+8	345	1,477	30%	1,530	+53
O. Public Administration & Safety	1,507	1,519	-12	127	1,646	8%	1,705	+59
P. Education & Training	3,569	3,568	+1	253	3,821	7%	3,957	+136
Q. Health Care & Social Assistance	5,067	5,066	+1	465	5,531	9%	5,730	+199
R. Arts & Recreation	443	443	0	63	506	14%	524	+18
S. Other Services	1,641	1,650	-9	221	1,871	13%	1,938	+67
. Inadequately Described / Not Stated	368	379	-11	615	994	**162%**	1,029	+35
TOTAL	**35,575**	**35,460**	**+115**	**5,720**	**41,180**	**16%**	**42,656**	**+1,476**

Comparison of 2011 Employment - by Industry

Figure 4-8a

	(1. compare data with 'stated' locations)			(2. after factoring for 'unspecified' locations)			(3. impact of URP > ERP adjustment)		(4. estimate of 'Fixed' employment)	
Statistical Area 2	**Urbis (Table 6.1)**	**VLC Job No's (POW 'Stated')**	**difference (Urbis - VLC)**	**VLC Job No's (URP)**	**increase (URP - 'stated')**		**VLC Job No's (ERP)**	**difference (ERP-URP)**	**Transient Jobs (Construction)**	**Fixed Employment (ERP - Transient)**
					No.	**%**				
Alexandra Hills	2,169	2,171	-2	2,488	+317	+14.6%	2,556	+68	57	2,499
Birkdale	1,890	1,894	-4	2,203	+309	+16.3%	2,293	+90	109	2,184
Capalaba	9,517	9,513	+4	11,112	+1,599	+16.8%	11,241	+129	206	11,035
Cleveland	8,744	8,741	+3	9,950	+1,209	+13.8%	10,223	+273	126	10,097
Ormiston	1,119	1,119	0	1,300	+181	+16.2%	1,349	+49	50	1,299
Redland Bay	1,725	1,726	-1	2,077	+351	+20.3%	2,208	+131	210	1,998
Sheldon - Mt Cotton	1,583	1,575	+8	1,869	+294	+18.7%	1,994	+125	160	1,834
Thorneside	310	311	-1	373	+62	+19.9%	376	+3	13	363
Thornlands	1,733	1,734	-1	2,044	+310	+17.9%	2,201	+157	198	2,003
Victoria Point	3,714	3,715	-1	4,298	+583	+15.7%	4,505	+207	153	4,352
Wellington Point	1,548	1,548	0	1,783	+235	+15.2%	1,876	+93	88	1,788
Redland Islands	1,541	1,413	+128	1,683	+270	+19.1%	1,834	+151	166	1,668
TOTAL	**35,593**	**35,460**	**+133**	**41,180**	**+5,720**	**+16.1%**	**42,656**	**+1,476**	**1,535**	**41,121**

Comparison of 2011 Employment - by Locality

Figure 4-8b

	(Sub-table 1)		(Sub-table 2)			(Sub-table 3)		(Sub-table 4)		
	Urbis Job Numbers		**Growth 2011-2031**			**% of employment**		**Jobs per 1000 population**		
Industry Category (ANZSIC 2006)	**2,011**	**2,031**	**Increase**	**% growth**	**% pa.**	**@2011**	**of growth**	**2011**	**2031**	**% change**
A. Agriculture, Forestry & Fishing	313	312	-1	0%	0	0.9%	0%	2.2	1.7	-22%
B. Mining	255	281	**26**	10%	1%	0.7%	0%	1.8	1.5	-14%
C. Manufacturing	3,149	3,390	241	8%	0.4%	8.9%	**2%**	21.9	18.5	-16%
D. Electricity, Gas, Water & waste Services	281	341	60	21%	1.1%	0.8%	0%	2.0	1.9	-5%
E. Construction	2,998	4,149	1,151	38%	1.9%	8.4%	9%	20.9	22.7	**9%**
F. Wholesale Trade	1,284	1,275	-9	-1%	0%	3.6%	**0%**	8.9	7.0	-22%
G. Retail Trade	5,689	7,413	1,724	30%	1.5%	16.0%	13%	39.6	40.5	2%
H. Accommodation & Food Services	2,914	3,894	980	34%	1.7%	8.2%	7%	20.3	21.3	5%
I. Transport, Postal & Warehousing	1,109	1,754	645	58%	**2.9%**	3.1%	5%	7.7	9.6	**24%**
J. Information Media & Telecommunications	466	669	203	44%	2.2%	1.3%	2%	3.2	3.7	13%
K. Financial & Insurance Services	669	1,022	353	53%	2.6%	1.9%	3%	4.7	5.6	**20%**
L. Rental, Hiring & Real Estate Services	755	1,455	700	93%	**4.6%**	2.1%	**5%**	5.3	7.9	**51%**
M. Professional, Scientific & Technical Services	1,958	3,426	1,468	75%	**3.7%**	5.5%	**11%**	13.6	18.7	**37%**
N. Administrative & Support Services	1,140	1,841	701	61%	**3.1%**	3.2%	**5%**	7.9	10.1	**27%**
O. Public Administration & Safety	1,507	1,875	368	24%	1.2%	4.2%	3%	10.5	10.2	-2%
P. Education & Training	3,569	5,060	1,491	42%	2.1%	10.0%	11%	24.8	27.6	**11%**
Q. Health Care & Social Assistance	5,067	7,454	2,387	47%	2.4%	14.2%	18%	35.3	40.7	15%
R. Arts & Recreation	443	744	301	68%	**3.4%**	1.2%	**2%**	3.1	4.1	**32%**
S. Other Services	1,641	2,183	542	33%	1.7%	4.6%	4%	11.4	11.9	4%
T. Inadequately Described	368	368	0	0%	0%	1.0%	0%	2.6	2.0	-22%
Total Employment	**35,575**	**48,906**	**13,331**	**37%**	**1.9%**	**100.0%**	**100%**	**247.7**	**267.0**	**8%**
Population (Redland City)	143,628	183,152	39,524	28%	1.4%					

Review of Forecast Employment - By Category

Figure 4-9a

	(Sub-table 1)				(Sub-table 2)			(Sub-table 3)	
	SGS, 2010 (Table 13)				Urbis Review, 2013 (Table 6.1)			Forecast Growth (rebased to 2011)	
	No. of Jobs		Growth (2006-2031)		No. of Jobs	Job Growth	as % of SGS	Growth (2011-2031)	
Statistical Area 2	**2006 (actual)**	**2031**	**No. of Jobs**	**% growth**	**2011 (actual)**	**(2006-2011)**	**2006-2031**	**No. of Jobs**	**% growth**
Alexandra Hills	**2,415**	3,317	+902	**37%**	2,169	**-246**	**-27%**	+1,148	**53%**
Birkdale	1,743	2,712	+969	56%	1,890	+147	15%	+822	43%
Capalaba	8,033	13,021	+4,988	62%	9,517	+1,484	30%	+3,504	37%
Cleveland	8,231	12,726	+4,495	55%	8,744	+513	11%	+3,982	46%
Ormiston	1,088	1,671	+583	54%	1,119	+31	5%	+552	49%
Redland Bay	1,417	2,717	+1,300	**92%**	1,725	+308	24%	+992	**58%**
Sheldon - Mt Cotton	1,342	1,828	+486	**36%**	1,583	+241	50%	+245	**15%**
Thorneside	382	522	+140	**37%**	310	**-72**	**-51%**	+212	**68%**
Thornlands	1,810	2,351	+541	**30%**	1,733	**-77**	**-14%**	+618	36%
Victoria Point	2,945	4,794	+1,849	63%	3,714	+769	42%	+1,080	**29%**
Wellington Point	1,379	2,162	+783	57%	1,548	+169	22%	+614	40%
Redland Islands	1,308	2,187	+879	67%	1,541	+233	27%	+646	42%
TOTAL	**32,093**	**50,008**	**+17,915**	**56%**	**35,593**	**+3,500**	**20%**	**+14,415**	**40%**

Review of Forecast Employment - by Locality

Figure 4-9b

Industry Category (ANZSIC 2006)	Urbis (Table 5.6) 2011 Jobs (actual) ('stated')	2031 Jobs (revised forecast)	Forecast Job Growth (2011-2031)		VLC Targets VLC Target Job Growth (2011-2031)
A. Agriculture, Forestry & Fishing	313	312	-1		-1
B. Mining	255	281	26	#	**-134**
C. Manufacturing	3,149	3,390	241		241
D. Electricity, Gas, Water & waste Services	281	341	60		60
E. Construction	2,998	4,149	1,151		1,151
F. Wholesale Trade	1,284	1,275	-9		-9
G. Retail Trade	5,689	7,413	1,724		1,724
H. Accommodation & Food Services	2,914	3,894	980		980
I. Transport, Postal & Warehousing	1,109	1,754	645		645
J. Information Media & Telecommunications	466	669	203		203
K. Financial & Insurance Services	669	1,022	353		353
L. Rental, Hiring & Real Estate Services	755	1,455	700		700
M. Professional, Scientific & Technical Services	1,958	3,426	1,468		1,468
N. Administrative & Support Services	1,140	1,841	701		701
O. Public Administration & Safety	1,507	1,875	368		368
P. Education & Training	3,569	5,060	1,491		1,491
Q. Health Care & Social Assistance	5,067	7,454	2,387		2,387
R. Arts & Recreation	443	744	301		301
S. Other Services	1,641	2,183	542		542
T. Inadequately Described	368	368	0		0
Total Employment	**35,575**	**48,906**	**13,331**		**13,171**

Statistical Area 2	Urbis (from Table 6.1) Forecast Growth (2006-2031)	Actual Growth (2006-2011)	Rebased Growth (2011-2031)		VLC Targets VLC Target Job Growth (2011-2031)
Alexandra Hills	**902**	**-246**	1,148	x	**702**
Birkdale	969	147	822	=	799
Capalaba	4,988	1,484	3,504	=	3,408
Cleveland	4,495	513	3,982	=	3,873
Ormiston	583	31	552	=	537
Redland Bay	1,300	308	992	=	965
Sheldon - Mt Cotton	486	241	245	=	238
Thorneside	140	**-72**	212	x	**109**
Thornlands	541	**-77**	618	x	**421**
Victoria Point	1,849	769	1,080	=	1,050
Wellington Point	783	169	614	=	597
Redland Islands	879	233	646	v	**473**
Total Employment	**17,915**	**3,500**	**14,415**		**13,171**

Derivation of Job Growth Targets

Figure 4-10

sub-table 1

SA2	Job Growth (2011-2031) Target Growth	as % of VLC 2011
Alexandra Hills	702	27%
Birkdale	799	35%
Capalaba	3,408	30%
Cleveland	3,873	38%
Ormiston	537	40%
Redland Bay	965	44%
Sheldon - Mt Cotton	238	12%
Thorneside	109	29%
Thornlands	421	19%
Victoria Point	1,050	23%
Wellington Point	597	32%
Redland Islands	473	26%
TOTAL	**13,171**	**31%**

sub-table 2

'As Modelled' Job Growth	difference (VLC - Target)
716	14
722	**-77**
3,342	-66
3,825	-48
511	-26
1,169	**204**
257	19
136	27
499	**78**
1,012	-38
530	**-67**
457	-16
13,176	**5**

sub-table 3a

VLC (ERP-based) 2011	2031
2,556	3,272
2,293	3,015
11,241	14,583
10,223	14,048
1,349	1,860
2,208	3,377
1,994	2,251
376	512
2,201	2,700
4,505	5,517
1,876	2,406
1,834	2,291
42,656	**55,832**

sub-table 3b

% Growth 2011-2031	% p.a.
28%	1.4%
31%	1.6%
30%	1.5%
37%	1.9%
38%	1.9%
53%	2.6%
13%	0.6%
36%	1.8%
23%	1.1%
22%	1.1%
28%	1.4%
25%	1.2%
31%	1.5%

	sub-table 4a		sub-table 4b	
Population	143,628	183,152	28%	1.4%
Workforce	69,698	77,709	11%	0.6%
Jobs / Worker	0.61	0.72	17%	0.9%

sub-table 5

ANZSIC Category (2006)	Target Job Growth (2011-2031)
A. Agriculture, Forestry & Fishing	-1
B. Mining	-134
C. Manufacturing	241
D. Electricity, Gas, Water & waste Services	60
E. Construction	1,151
F. Wholesale Trade	-9
G. Retail Trade	1,724
H/R/S. Accom/Food/Recreation/Other	1,823
I. Transport, Postal & Warehousing	645
J. Information Media & Telecommunications	203
K/L/M/N. Finance & Business	3,222
O. Public Administration & Safety	368
P. Education & Training	1,491
Q. Health Care & Social Assistance	2,387
Total	**13,171**

sub-table 6

'As Modelled' Job Growth (2011-2031)	Difference (VLC - Target)
-6	-5
-155	-21
275	34
77	17
1,117	-34
322	**331**
1,726	2
1,855	32
653	8
206	3
3,221	-1
495	**127**
1,069	**-422**
2,315	-72
13,170	**-1**

sub-table 7a

VLC Job Numbers (ERP-based) 2011	2031
359	353
329	174
3,700	3,975
346	423
4,798	5,915
1,497	1,819
6,666	8,392
5,959	7,814
1,383	2,036
535	741
5,411	8,632
1,747	2,242
4,055	5,124
5,872	8,187
42,656	**55,826**

sub-table 7b

VLC Job Numbers (Jobs / 1000 pop.) 2011	2031
2.5	1.9
2.3	0.9
25.8	21.7
2.4	2.3
33.4	32.3
10.4	9.9
46.4	45.8
41.5	42.7
9.6	11.1
3.7	4.0
37.7	**47.1**
12.2	12.2
28.2	28.0
40.9	44.7
297.0	**304.8**

VLC 'As Modelled' Employment - 2031

Figure 4-11a

sub-table 1

SA2	Target Job Growths 2011-2031	Target Job Growths 2011-2021
Alexandra Hills	702	351
Birkdale	799	400
Capalaba	3,408	1,704
Cleveland	3,873	1,936
Ormiston	537	268
Redland Bay	965	482
Sheldon - Mt Cotton	238	119
Thorneside	109	54
Thornlands	421	210
Victoria Point	1,050	525
Wellington Point	597	299
Redland Islands	473	236
TOTAL	**13,171**	**6,586**

sub-table 2

'As Modelled' Job Growth	Difference (VLC - Target)
358	7
361	-39
1,671	-33
1,913	-23
256	-12
584	102
125	6
68	14
246	36
506	-19
265	-34
229	-7
6,582	**-4**

sub-table 3a

VLC (ERP-based) 2011	VLC (ERP-based) 2021
2,556	2,914
2,293	2,654
11,241	12,912
10,223	12,136
1,349	1,605
2,208	2,792
1,994	2,119
376	444
2,201	2,447
4,505	5,011
1,876	2,141
1,834	2,063
42,656	**49,238**

sub-table 3b

% Growth 2011-2021	% Growth % p.a.
14%	1.4%
16%	1.6%
15%	1.5%
19%	1.9%
19%	1.9%
26%	2.6%
6%	0.6%
18%	1.8%
11%	1.1%
11%	1.1%
14%	1.4%
12%	1.2%
15%	1.5%

	sub-table 4a	sub-table 4b	
Population	143,628	162,113	13% 1.3%
Workforce	69,698	73,641	6% 0.6%
Jobs / Worker	0.61	0.67	9% 0.9%

sub-table 5

ANZSIC Category (2006)	Target Job Growth (2011-2021)
A. Agriculture, Forestry & Fishing	-1
B. Mining	-67
C. Manufacturing	121
D. Electricity, Gas, Water & waste Services	30
E. Construction	576
F. Wholesale Trade	-5
G. Retail Trade	862
H/R/S. Accom/Food/Recreation/Other	912
I. Transport, Postal & Warehousing	323
J. Information Media & Telecommunications	102
K/L/M/N. Finance & Business	1,611
O. Public Administration & Safety	184
P. Education & Training	746
Q. Health Care & Social Assistance	1,194
Total	**6,586**

sub-table 6

'As Modelled' Job Growth (2011-2021)	Difference (VLC - Target)
-7	-7
-77	-10
134	14
38	8
559	-17
163	168
863	1
927	16
330	8
103	2
1,610	-1
248	64
535	-211
1,158	-36
6,584	**-2**

sub-table 7a

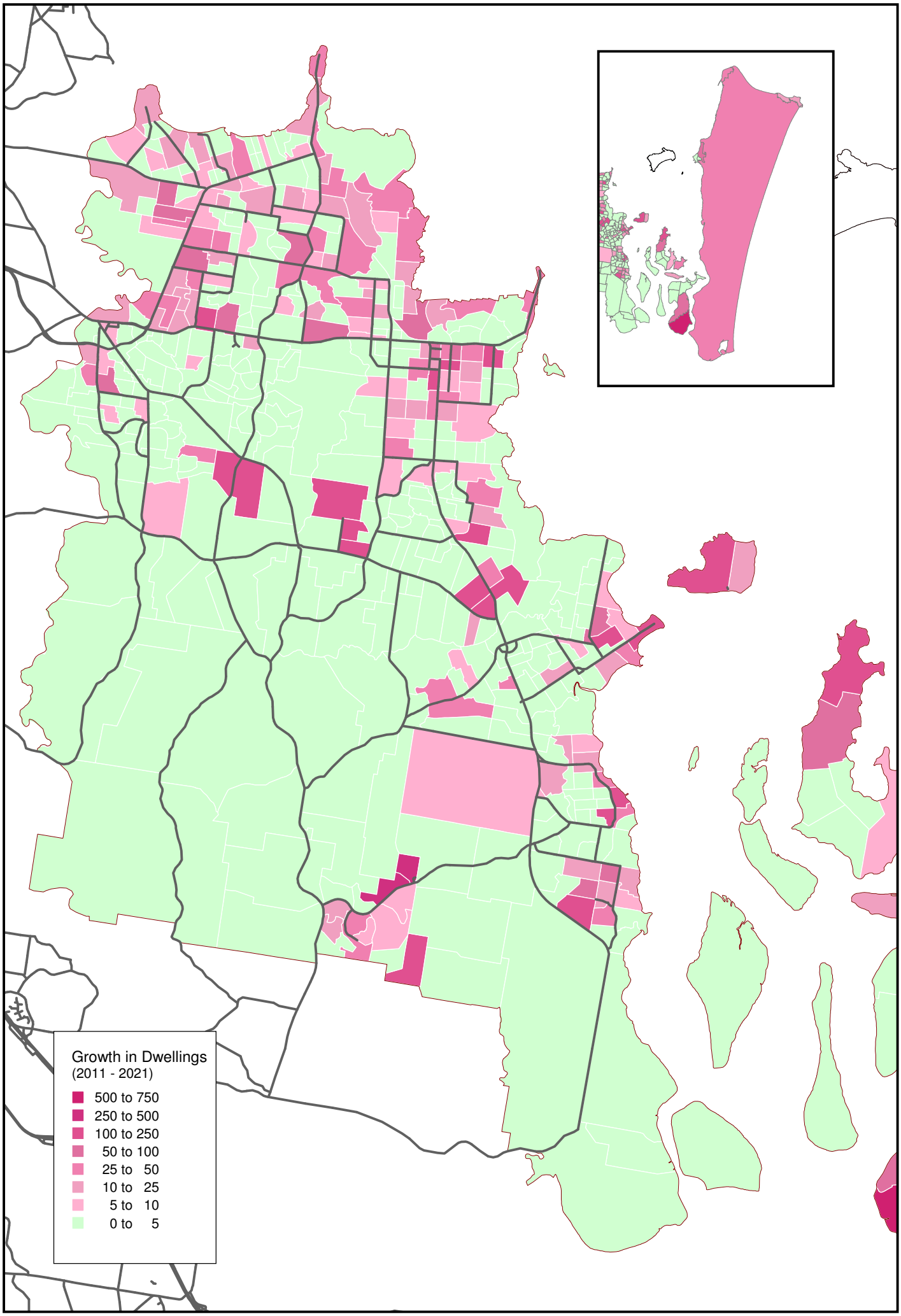
VLC Job Numbers (ERP-based) 2011	VLC Job Numbers (ERP-based) 2021
359	352
329	252
3,700	3,834
346	384
4,798	5,357
1,497	1,660
6,666	7,529
5,959	6,886
1,383	1,713
535	638
5,411	7,021
1,747	1,995
4,055	4,590
5,872	7,030
42,656	**49,240**

sub-table 7b

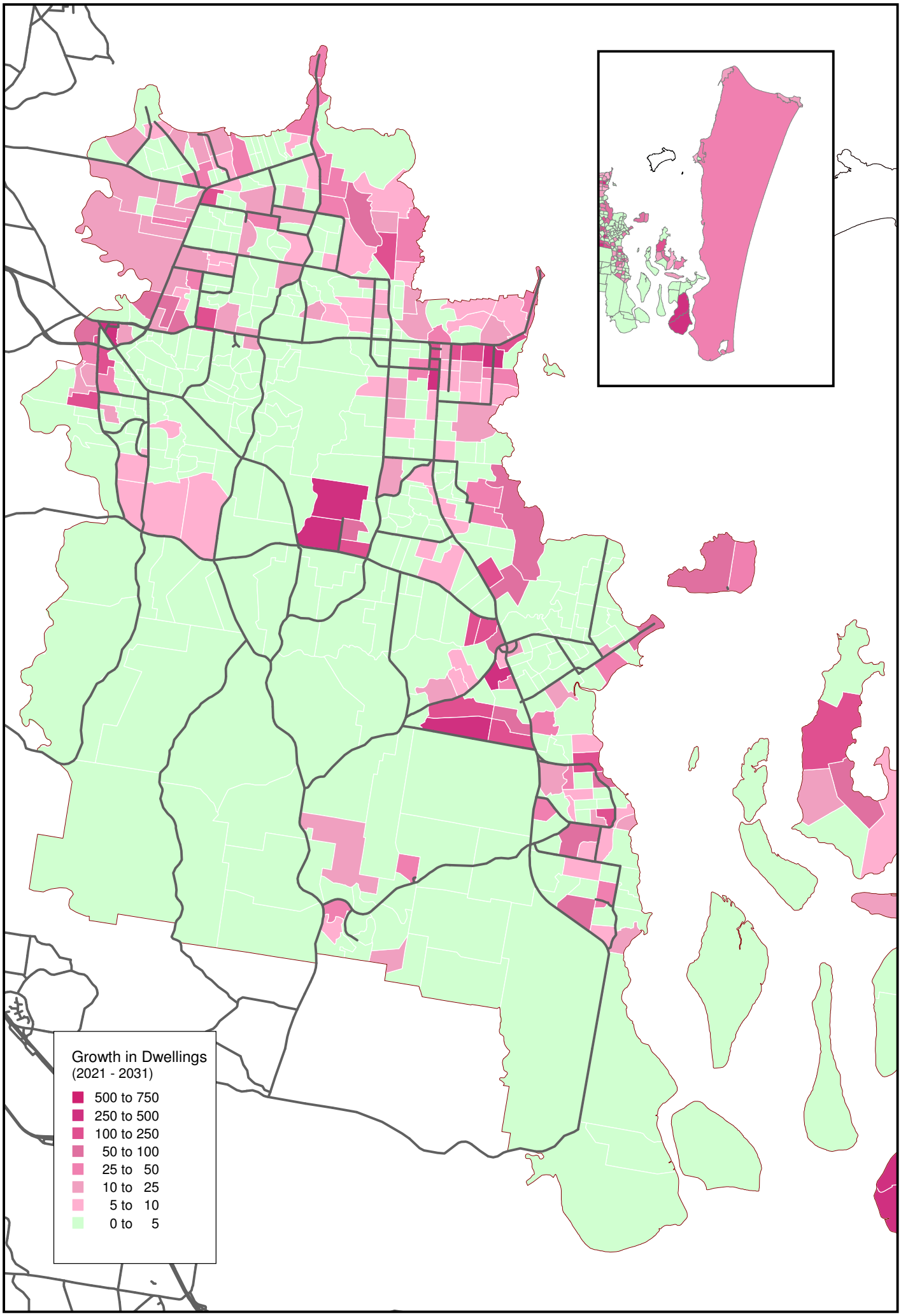
VLC Job Numbers (Jobs / 1000 pop.) 2011	VLC Job Numbers (Jobs / 1000 pop.) 2021
2.5	2.2
2.3	1.6
25.8	23.7
2.4	2.4
33.4	33.0
10.4	10.2
46.4	46.4
41.5	42.5
9.6	10.6
3.7	3.9
37.7	43.3
12.2	12.3
28.2	28.3
40.9	43.4
297.0	**303.7**

VLC 'As Modelled' Employment - 2021

Figure 4-11b

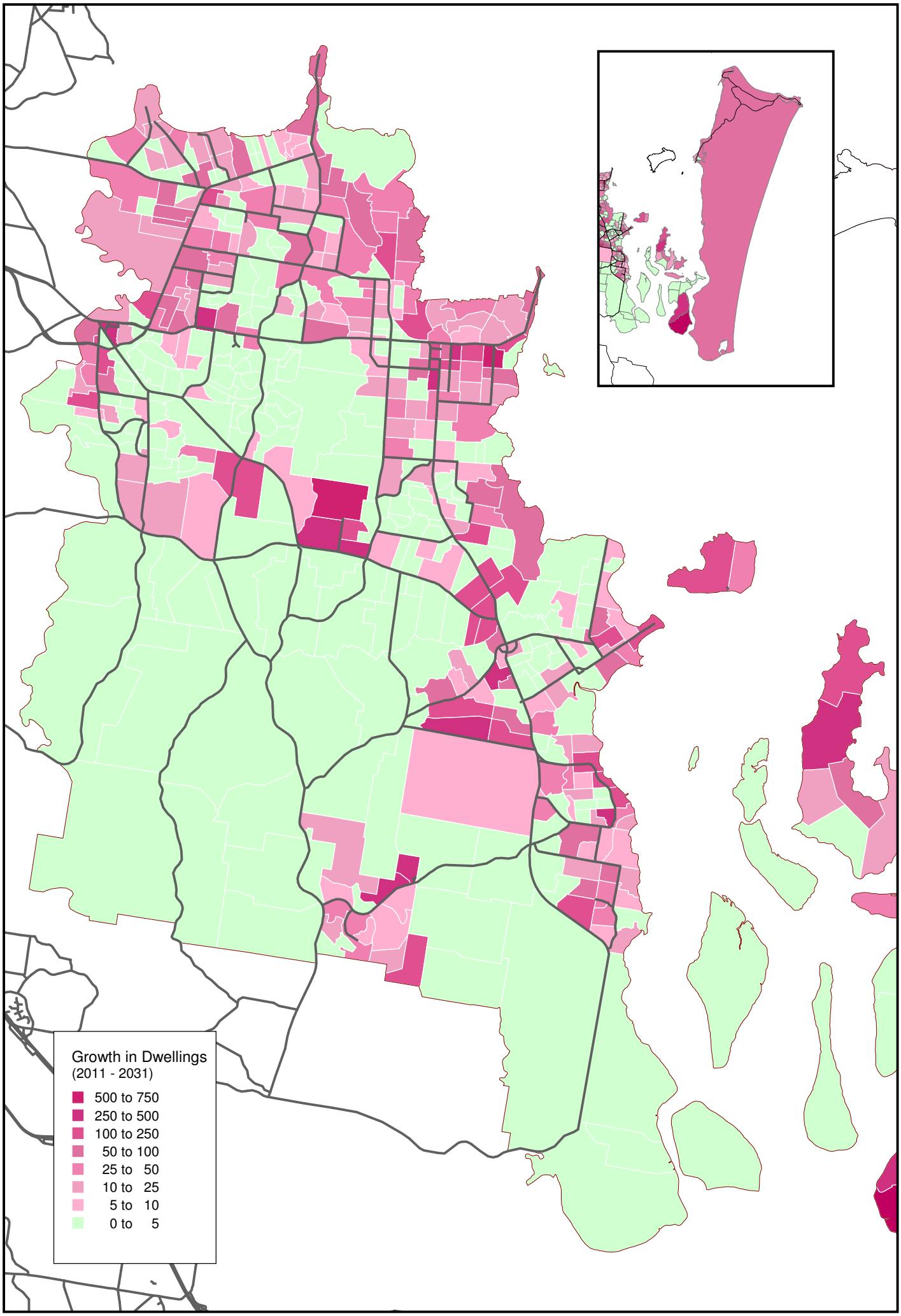


'As Modelled' Residential Growth Pattern (2011-2021) **Figure 4-12a**



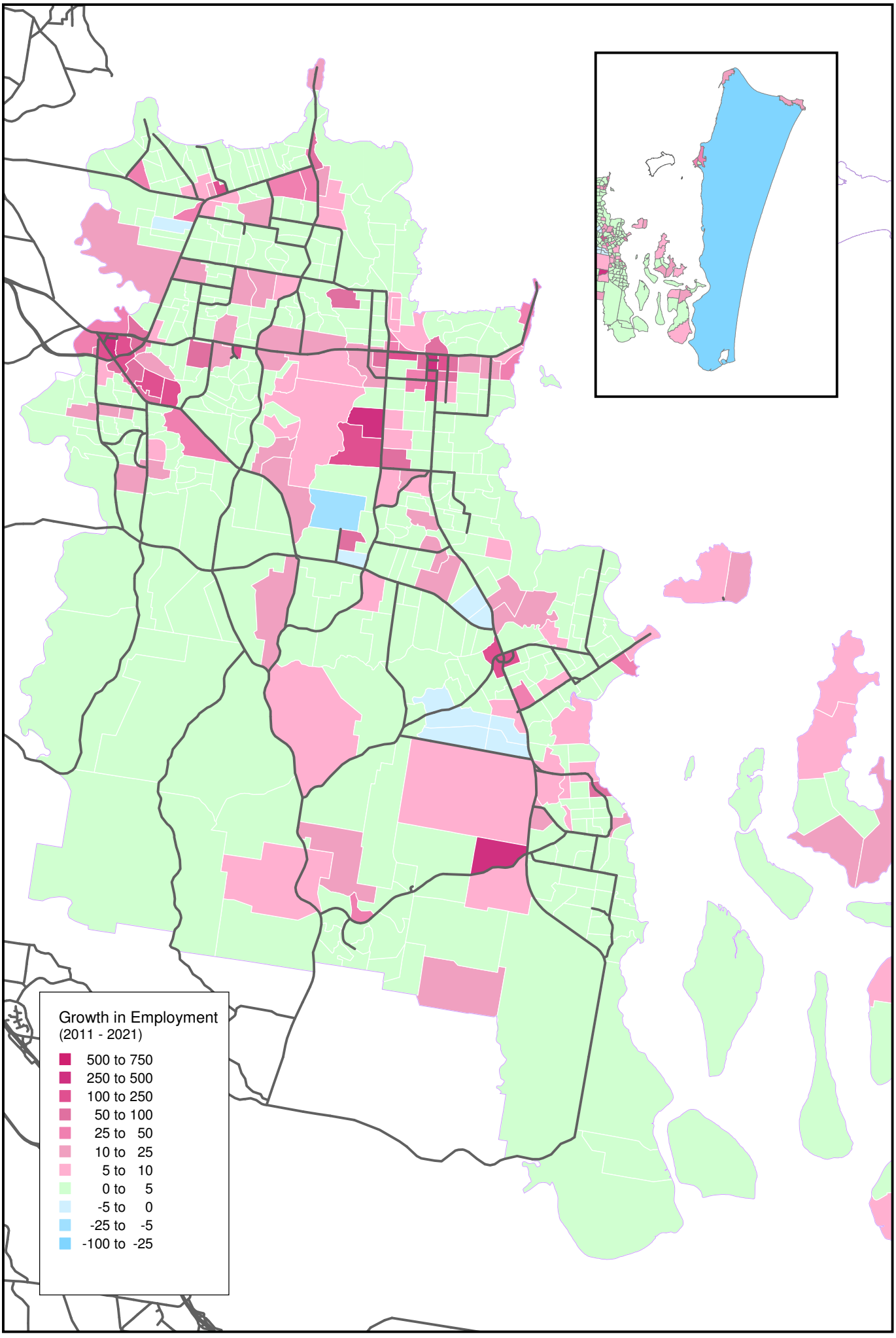
'As Modelled' Residential Growth Pattern (2021-2031)

Figure 4-12b

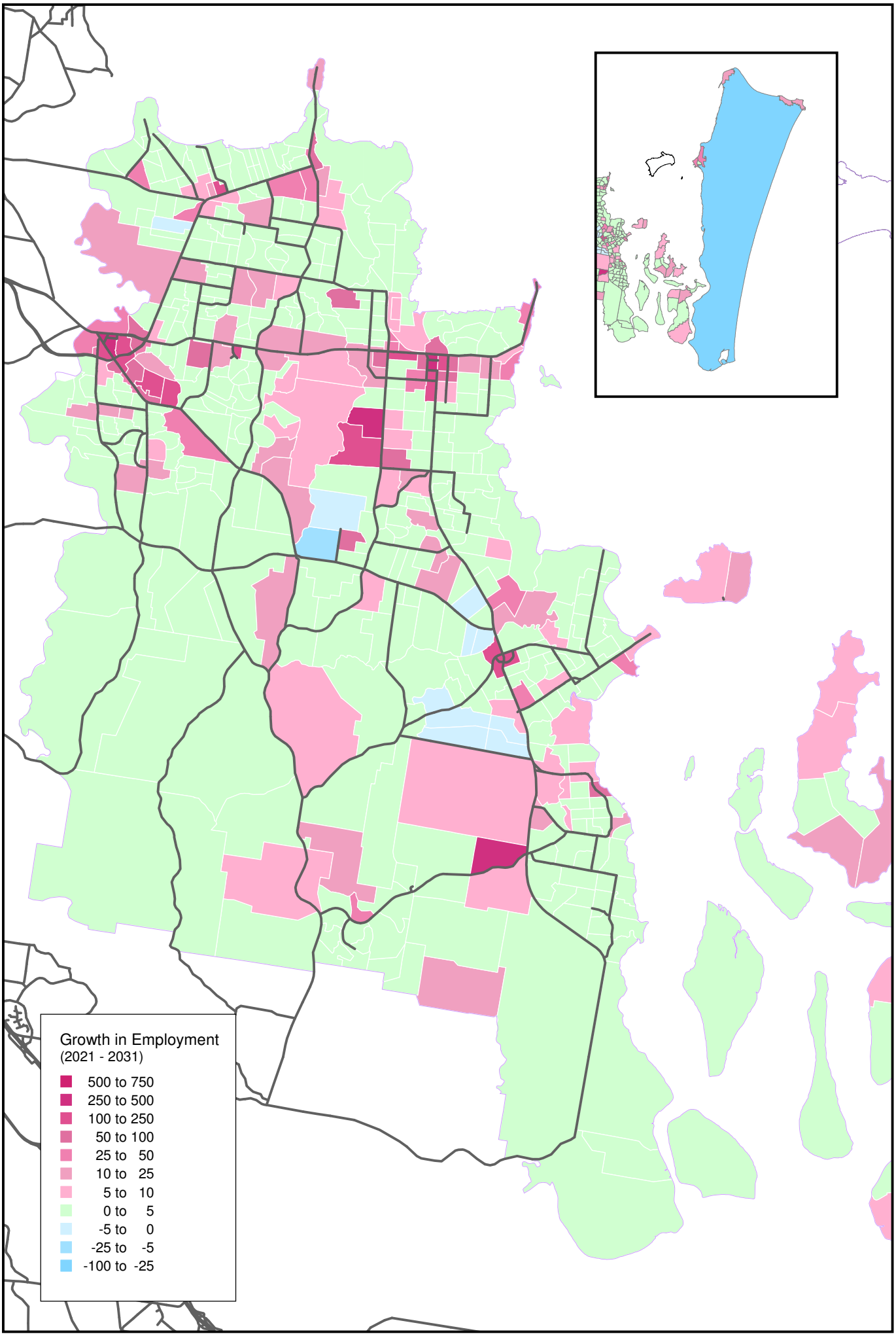


'As Modelled' Residential Growth Pattern (2011-2031)

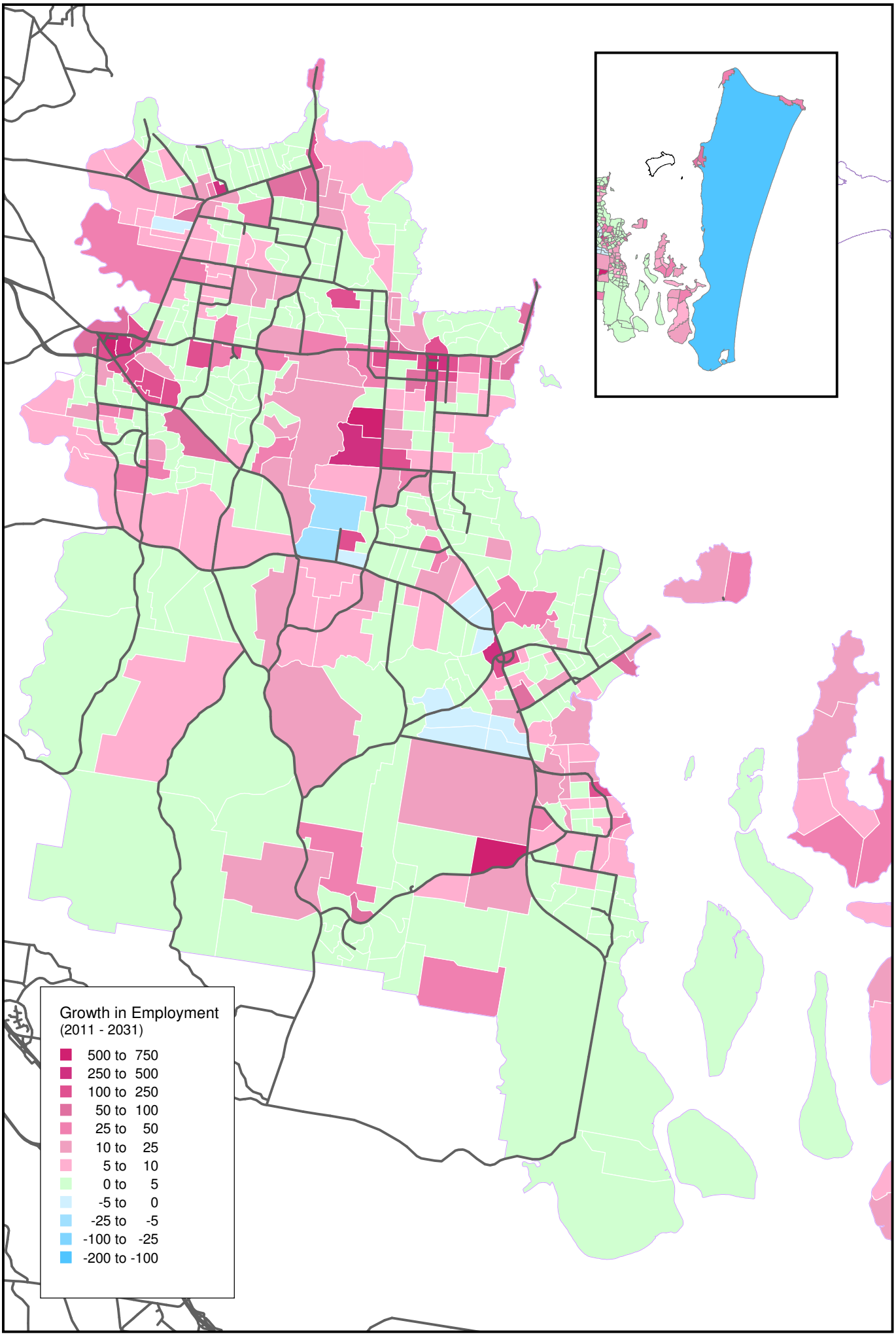
Figure 4-12c



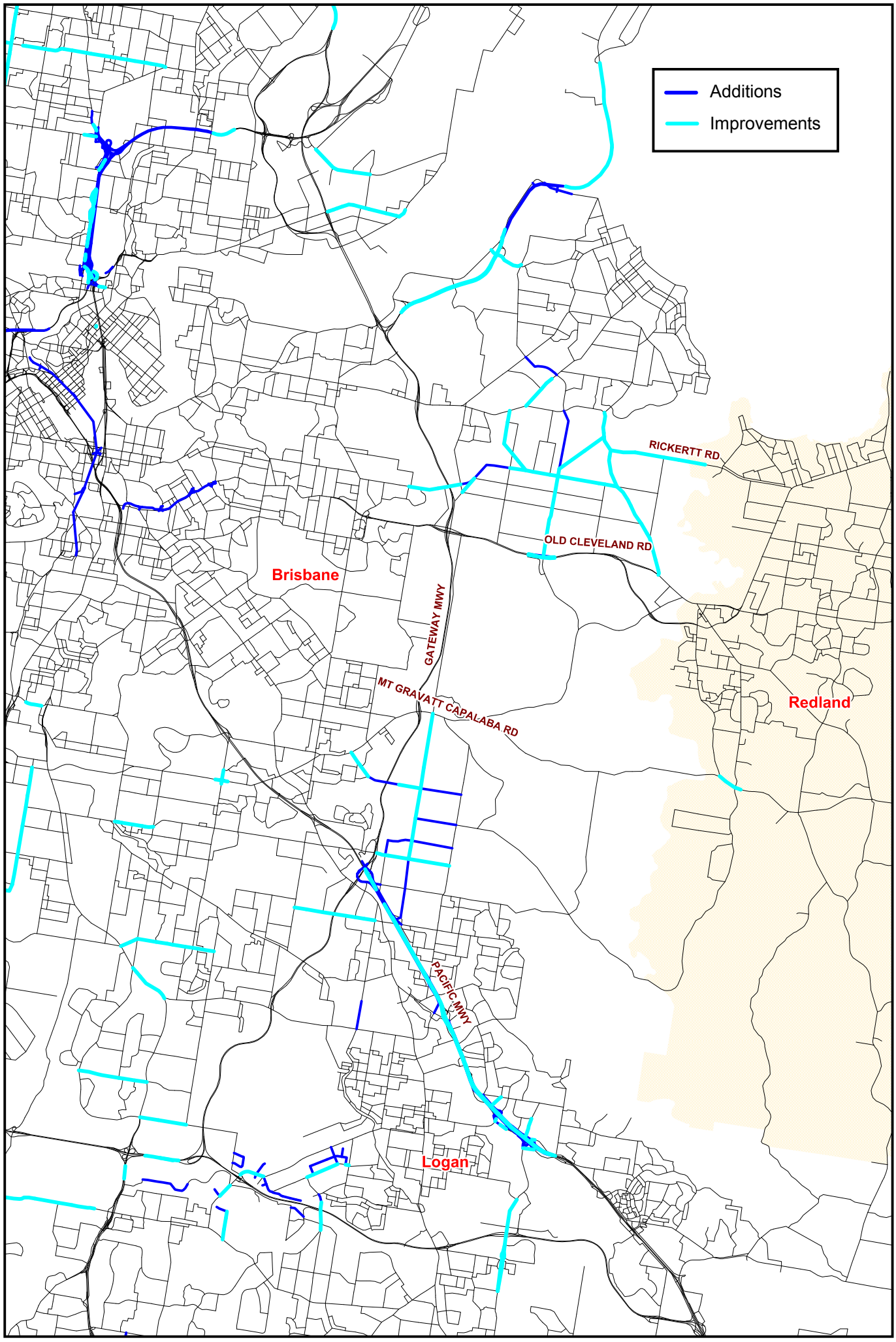
'As Modelled' Employment Growth Pattern (2011-2021) **Figure 4-13a**



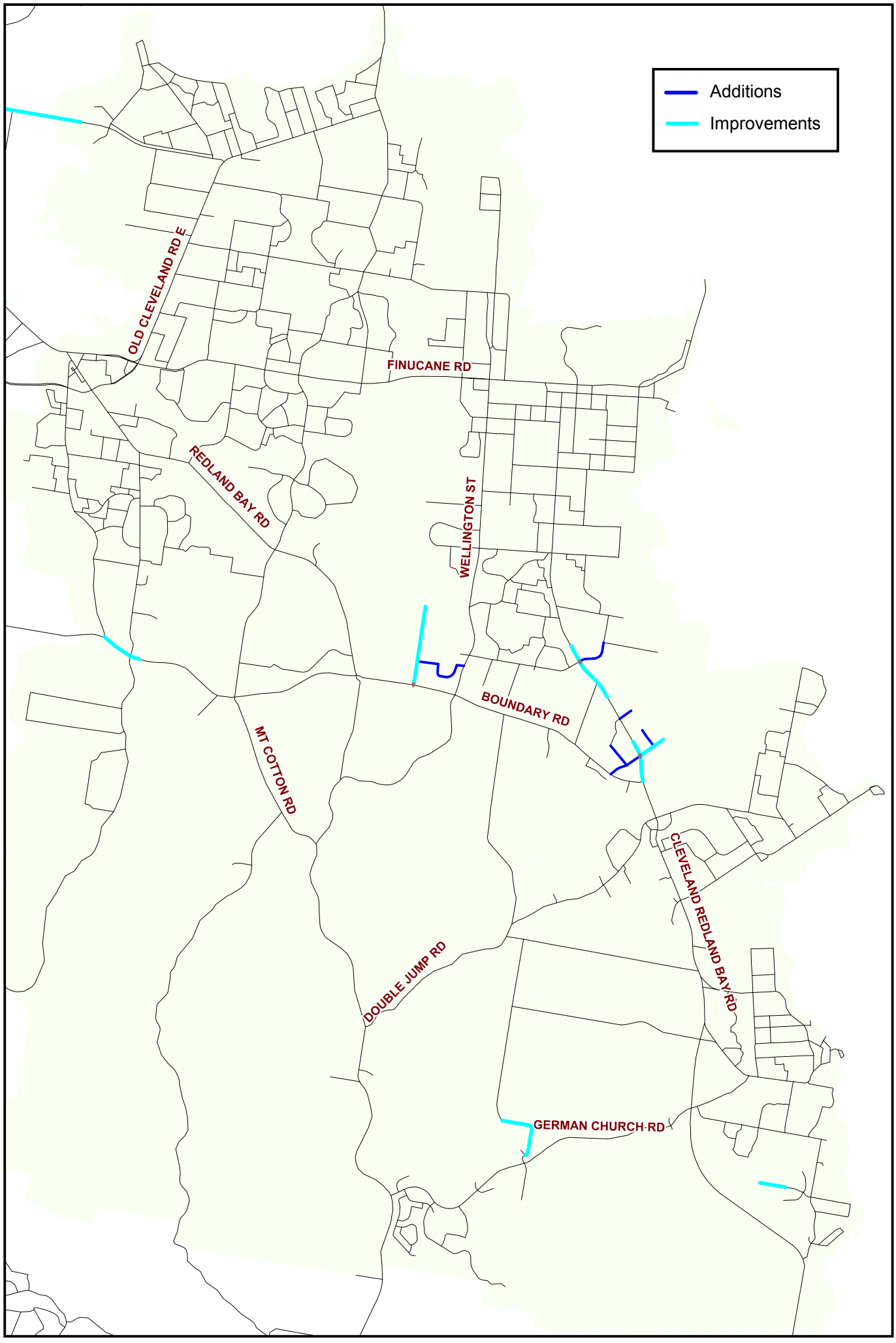
'As Modelled' Employment Growth Pattern (2021-2031) **Figure 4-13b**



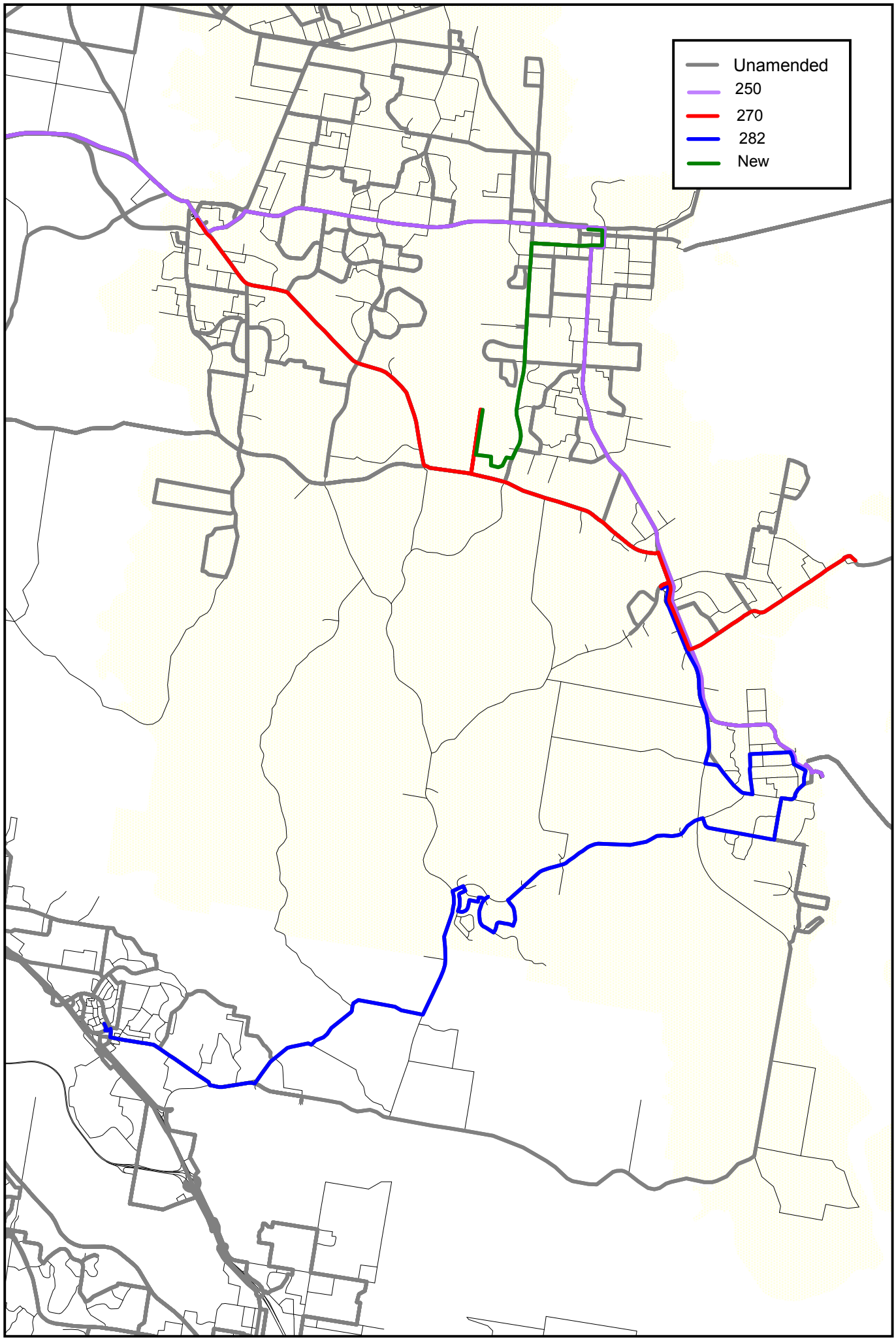
'As Modelled' Employment Growth Pattern (2011-2031) **Figure 4-13c**



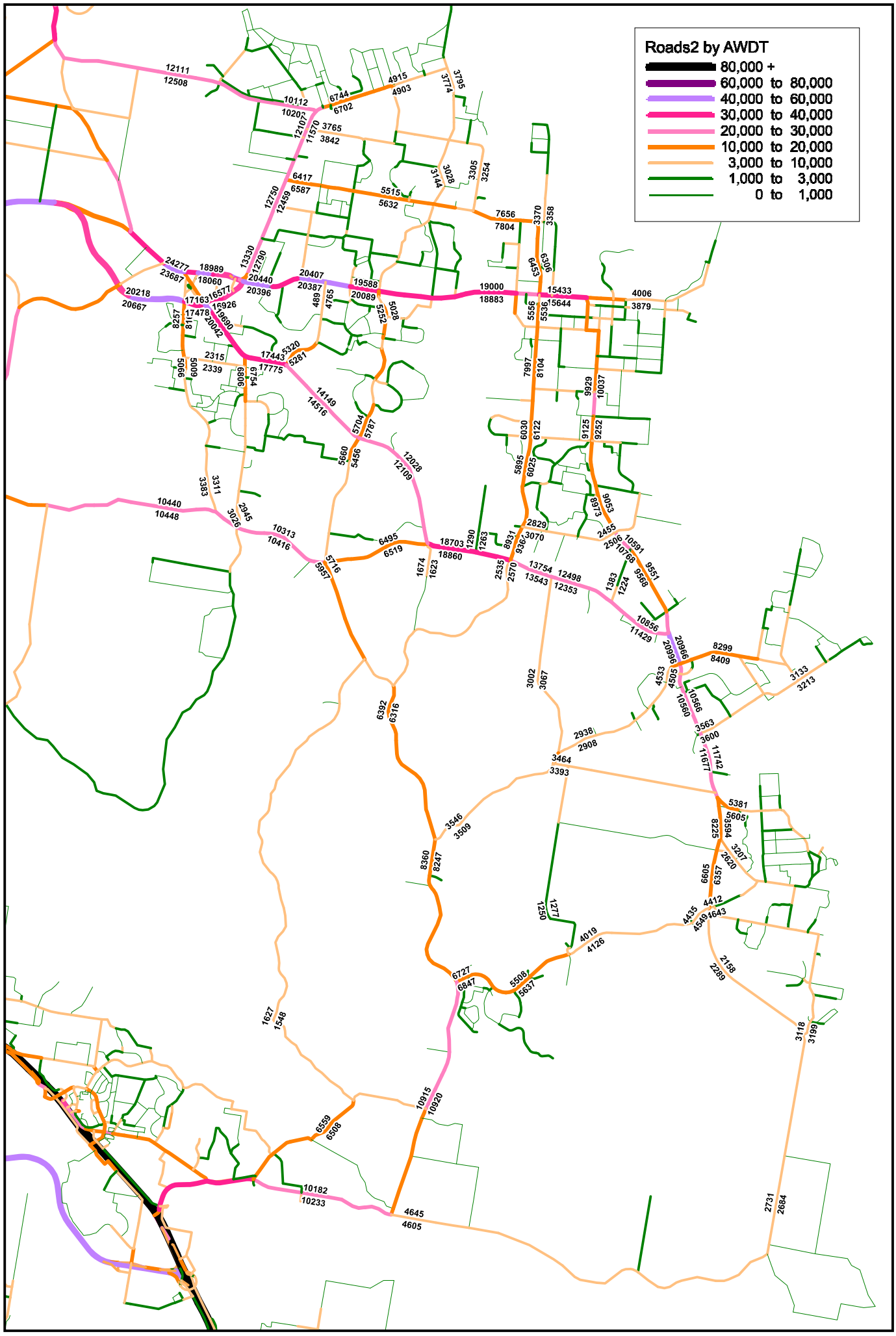
External Road Network Improvements (2011-2021) **Figure 5-1**



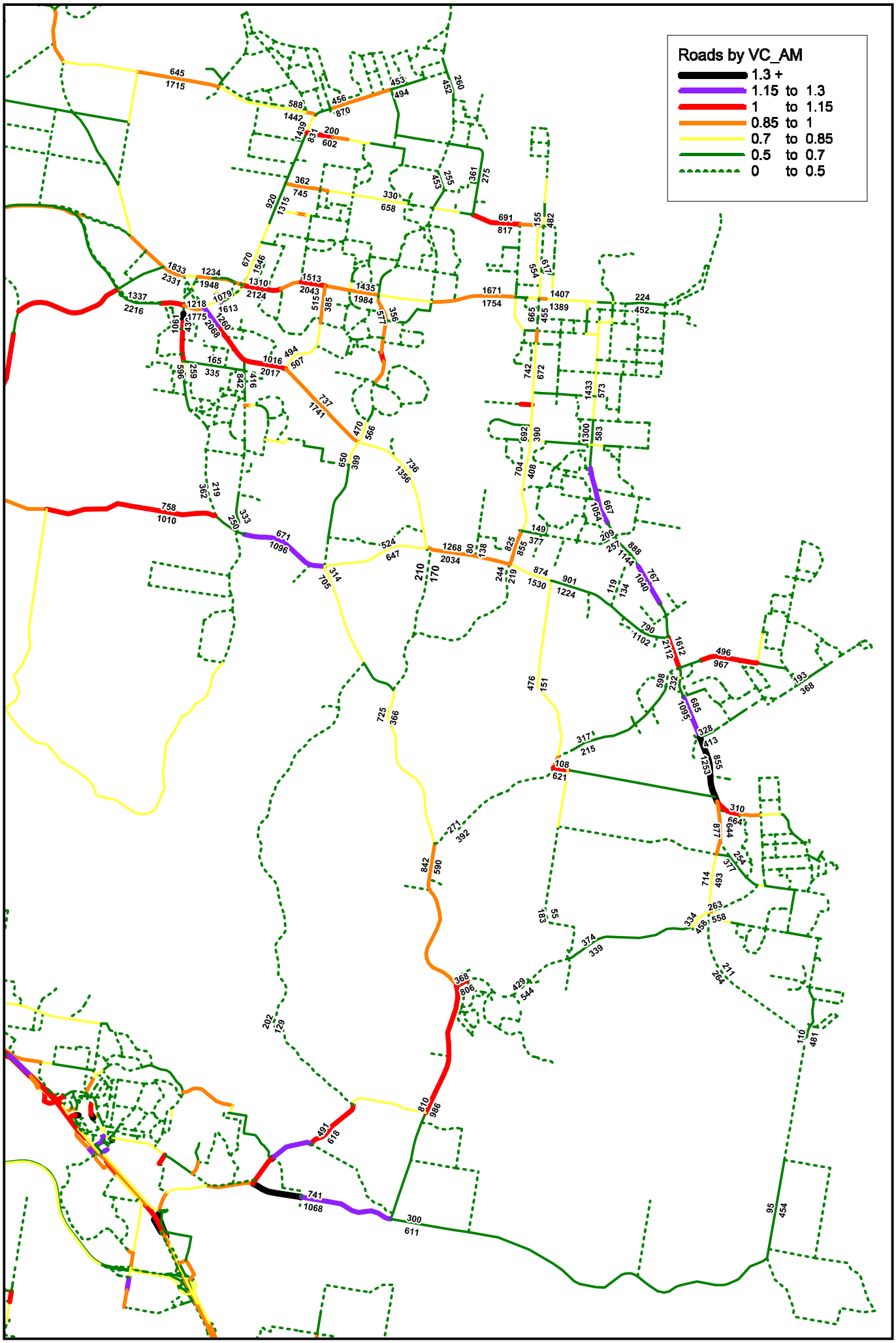
Internal Road Network Improvements (2011-2021) **Figure 5-2**



Amended Bus Routes (2011-2021) **Figure 5-3**

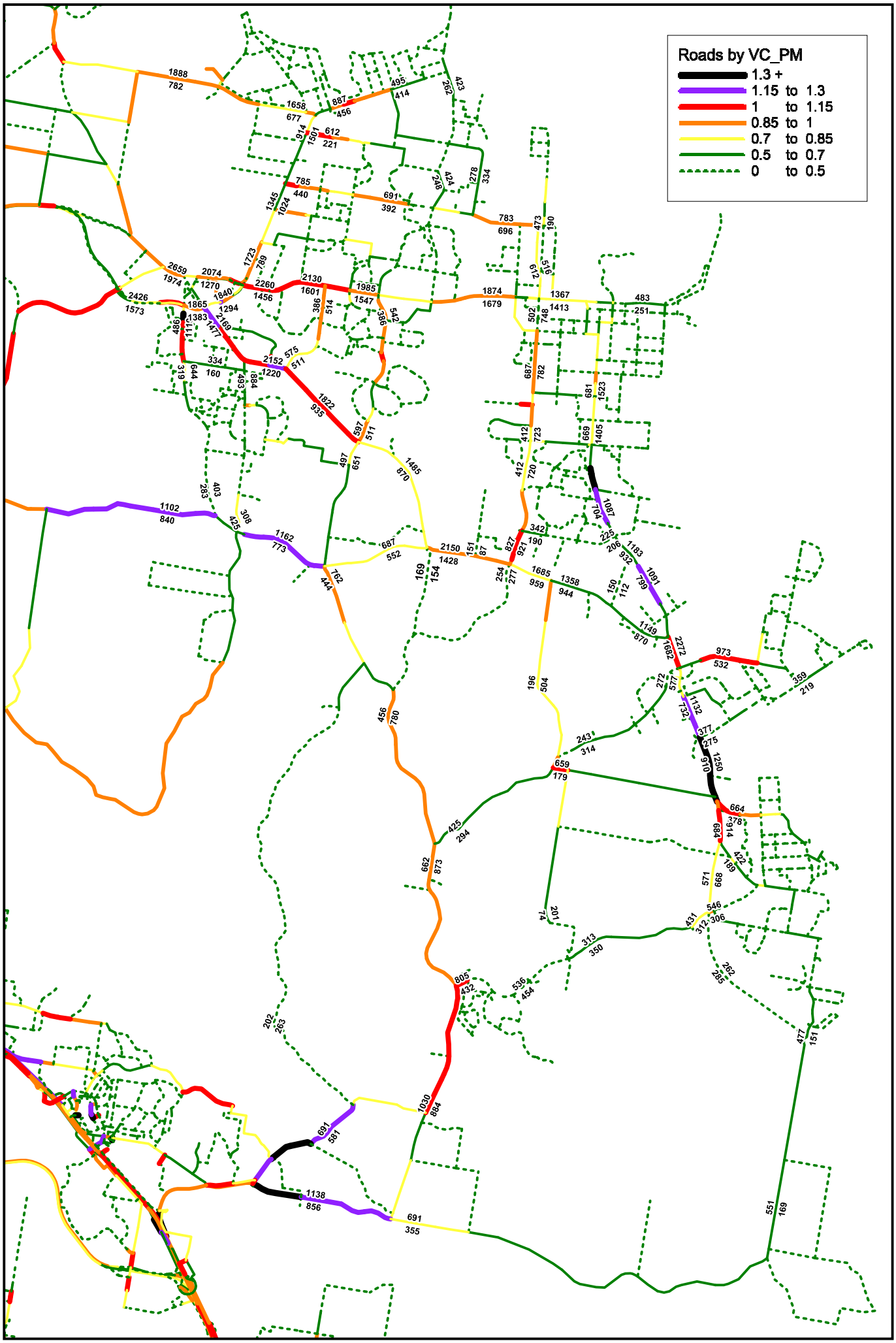


Average Weekday Traffic Volumes - 2021 Base Network **Figure 5-4**



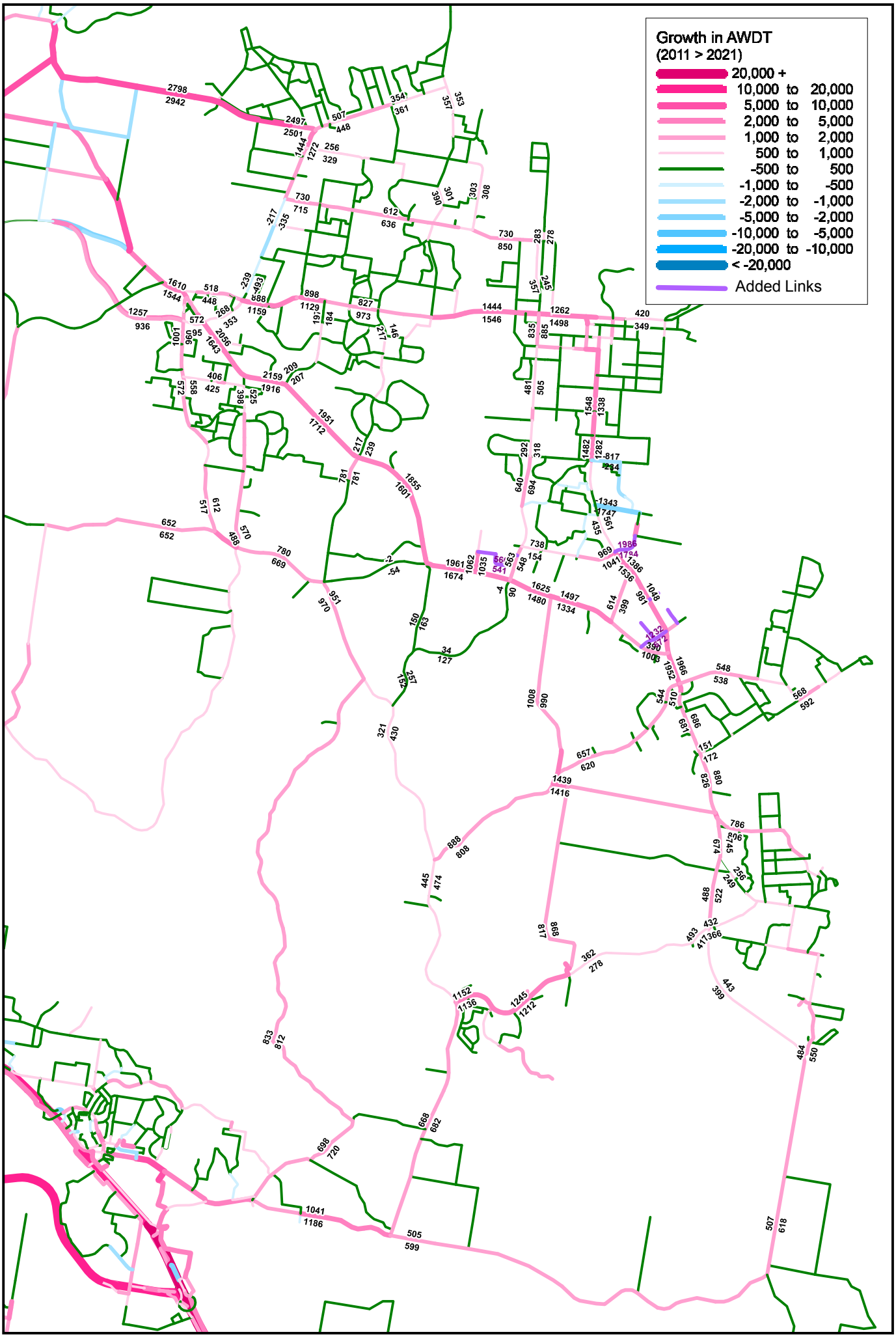
AM Peak Hour Volumes & V/C Ratios - 2021 Base Network

Figure 5-4a



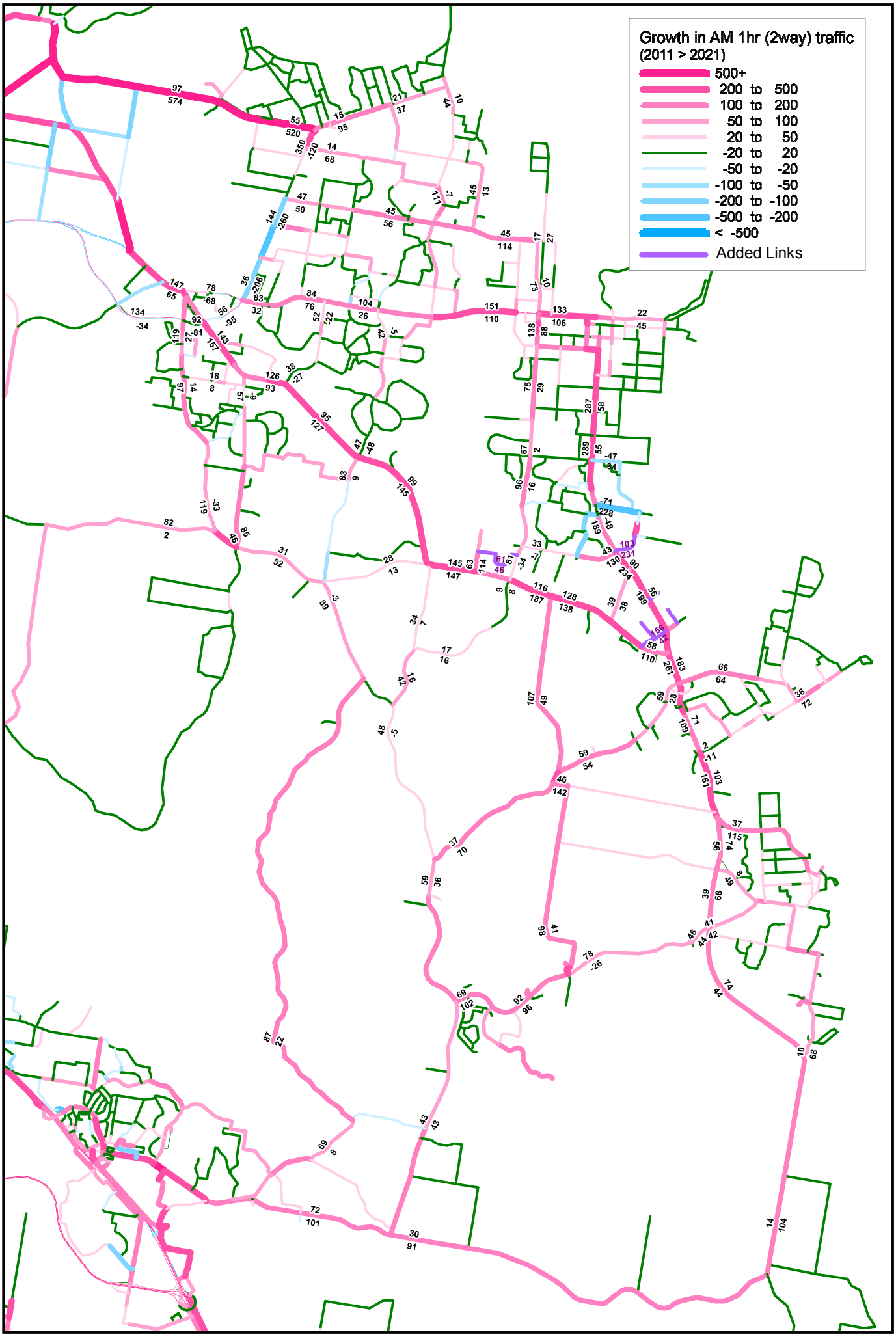
PM Peak Hour Volumes & V/C Ratios - 2021 Base Network

Figure 5-4b

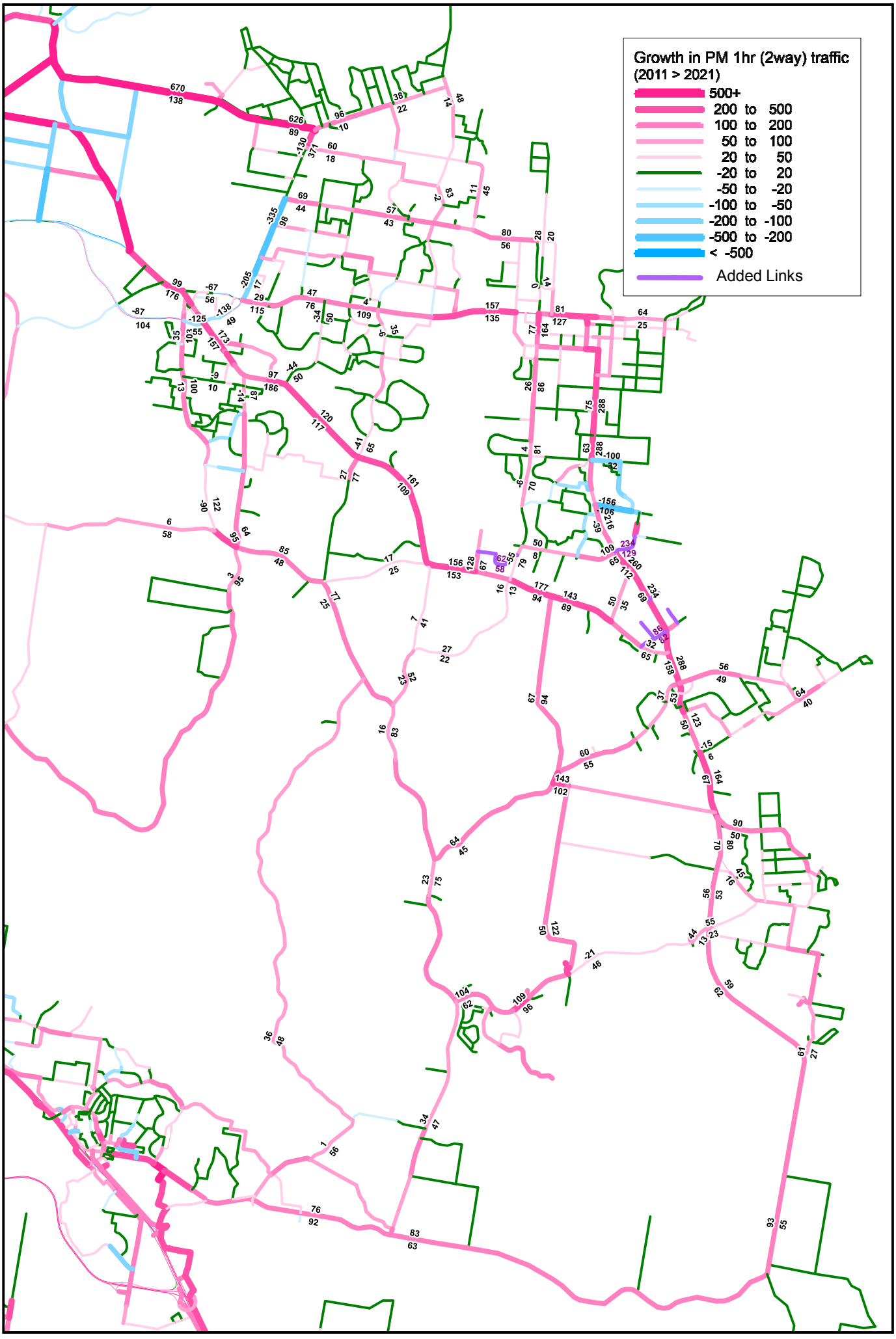


Growth in AWDT - 2021 Base vs. 2011

Figure 5-5



Growth in AM Peak Hour Traffic - 2021 Base vs. 2011 **Figure 5-5a**



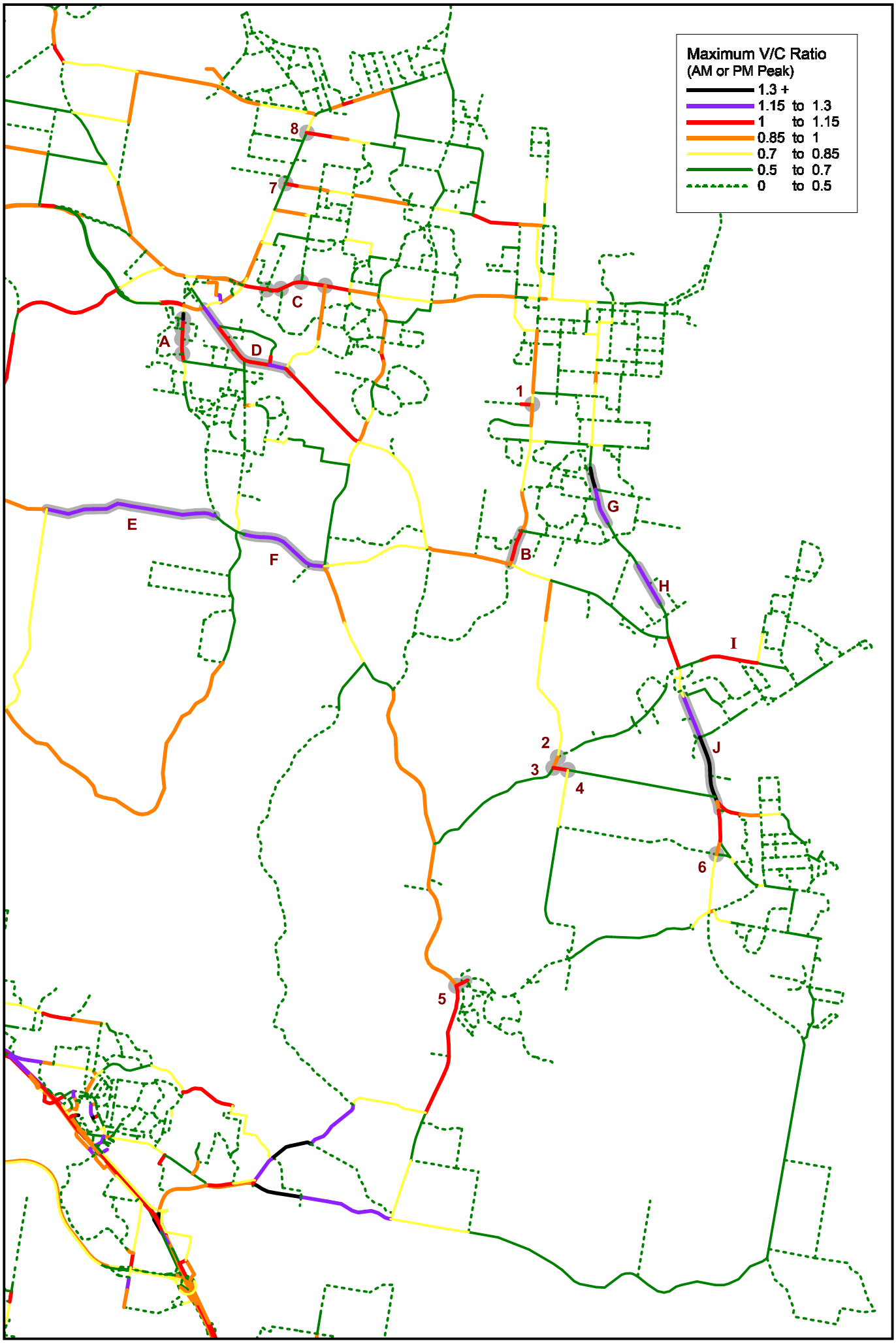
Growth in PM Peak Hour Traffic - 2021 Base vs. 2011 **Figure 5-5b**

RCC Ref_No.	Road Name	From (or at)	To	Length (km)	Proposed Standard	Constr. Period	Grounds
P02	Baythorn Drive	King Street	Cleveland-Redland Bay Rd	0.473	2 lane trunk collector	_Done	Dev. Access
P12	Heinemann Road	Last 1 km	German Church Road	0.989	2 lane sub-arterial	_Done	geometrics
P27	Government Road	Gordon Road	Meissner Street	0.241	2 lane trunk collector	_Done	geometrics
P31b	Collins Street	Penzance Drive	Donald/Torquay	0.488	2 lane trunk collector	_Done	urbanisation
P47	Bay Street	At Smith Street				_Done	safety / LOS
P51	Baythorn Drive	At King Street				_Done	Dev. Access
P53	Baythorn Drive	At Thornland Road				_Done	Dev. Access
P03a	New Collector - SE Thornlands	Boundary Road	Cleveland-Redland Bay Rd	0.500	2 lane trunk collector	2021 Base	Dev. Access
P03b	Beveridge Road	Redland Bay Road	Rachow Street	0.710	2 lane trunk collector	2021 Base	Dev. Access
P57a	Kinross Road	Boundary Road	1st future roundabout	0.345	2 lane trunk collector	2021 Base	Dev. Access
P57b	Kinross Road	1st future roundabout	3rd future roundabout	0.470	2 lane trunk collector	2021 Base	Dev. Access
P01	Kingfisher Road	south of Worthing Road	Double Jump Rd realignment	0.320	2 lane rural sub-arterial	2021	capacity / LOS
P04a	Panorama Drive	Boundary Road	Ziegenfusz Road	0.630	4 lane urban arterial	2021	capacity / LOS
P13a	Main Road	Plumer Street	Duncan Street	0.910	2 lane urban sub-arterial	2021	urbanisation
P13b	Main Road	At Nelson Road				2021	TMS
P18	Double Jump Road	Heinemann Road	Kingfisher realignment	0.380	2 lane rural sub-arterial	2021	capacity / LOS
P29b	German Church Road	School of Arts Road	New alignment	0.065	2 lane trunk collector	2021	safety
P30a	School of Arts Road	German Church Road	Collins Street	1.323	2 lane sub-arterial	2021	geometrics
P30b	School of Arts Road	German Church Road	New alignment	0.127	2 lane sub-arterial	2021	safety
P31a	Collins Street	School of Arts Road	Penzance Drive	0.420	2 lane sub-arterial	2021	urbanisation
P36	Collingwood Road	At Spoonbill Street				2021	safety / LOS
P37	Collingwood Road	At Lorna Street				2021	safety / LOS
P38	Pitt Road	At Nelson Street				2021	safety / LOS
P39	Long Street	At Smith Street				2021	safety
P50	Broadwater Terrace	Stradbroke Street				2021	Safety / LOS
P52	Old Cleveland Road East	Entrance to Refuse Transfer Station				2021	safety / LOS
P54	Passage Street	At Princess Street				2021	safety
P56	Heinemann Road	At Double Jump Road				2021	capacity / LOS
P58	Meissner Street	Government Road	Weinam Street	0.224	2 lane trunk collector	2021	urbanisation
P11a	Mount Cotton Road	Moreton Bay Road	Howlett Road			2021	capacity / LOS
P11b	Mount Cotton Road	Moreton Bay Road	Howlett Road	1.653	2 lane urban arterial	2021	capacity / LOS
P24	Dinwoodie Road	Cleveland-Redland Bay Road	Boundary Road	1.024	2 lane trunk collector	2021	geometrics
P26	Gordon Road	Cleveland Redland Bay Road	Government Road	1.759		2021	urbanisation
P28	Weinam Street	Meissner Street	Pitt Street	0.277	2 lane sub-arterial	2021	urbanisation
P29a	German Church Road	Cleveland Redland Bay Road	Gordon Road	1.044	2 lane trunk collector	2021	geometrics
P34	Pitt Street	Weinam Street	Hamilton Street	0.215	2 lane trunk collector	2021	urbanisation
P35	Hamilton Street	Pitt Street	Peel Street	0.242	2 lane trunk collector	2021	urbanisation
P41	Ziegenfusz Road	At Trundle Street				2021	TMS
P44	Hardy Road	At Collingwood				2021	safety / LOS
P55	Mount Cotton Road	At Redland Bay Road				2021	TMS

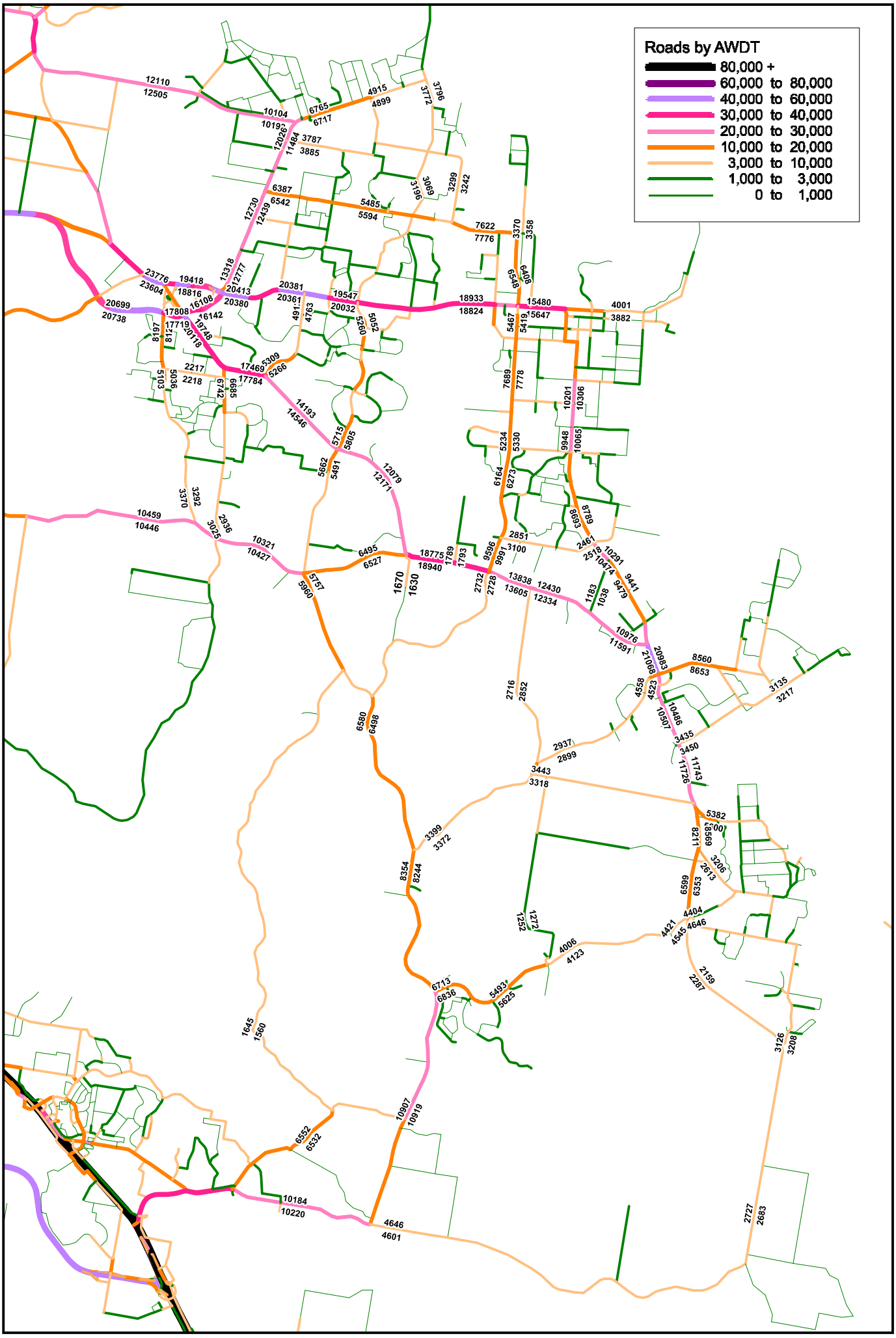
TMS = Traffic Management Strategy

Road Network Improvements desired by 2021

Figure 5-6

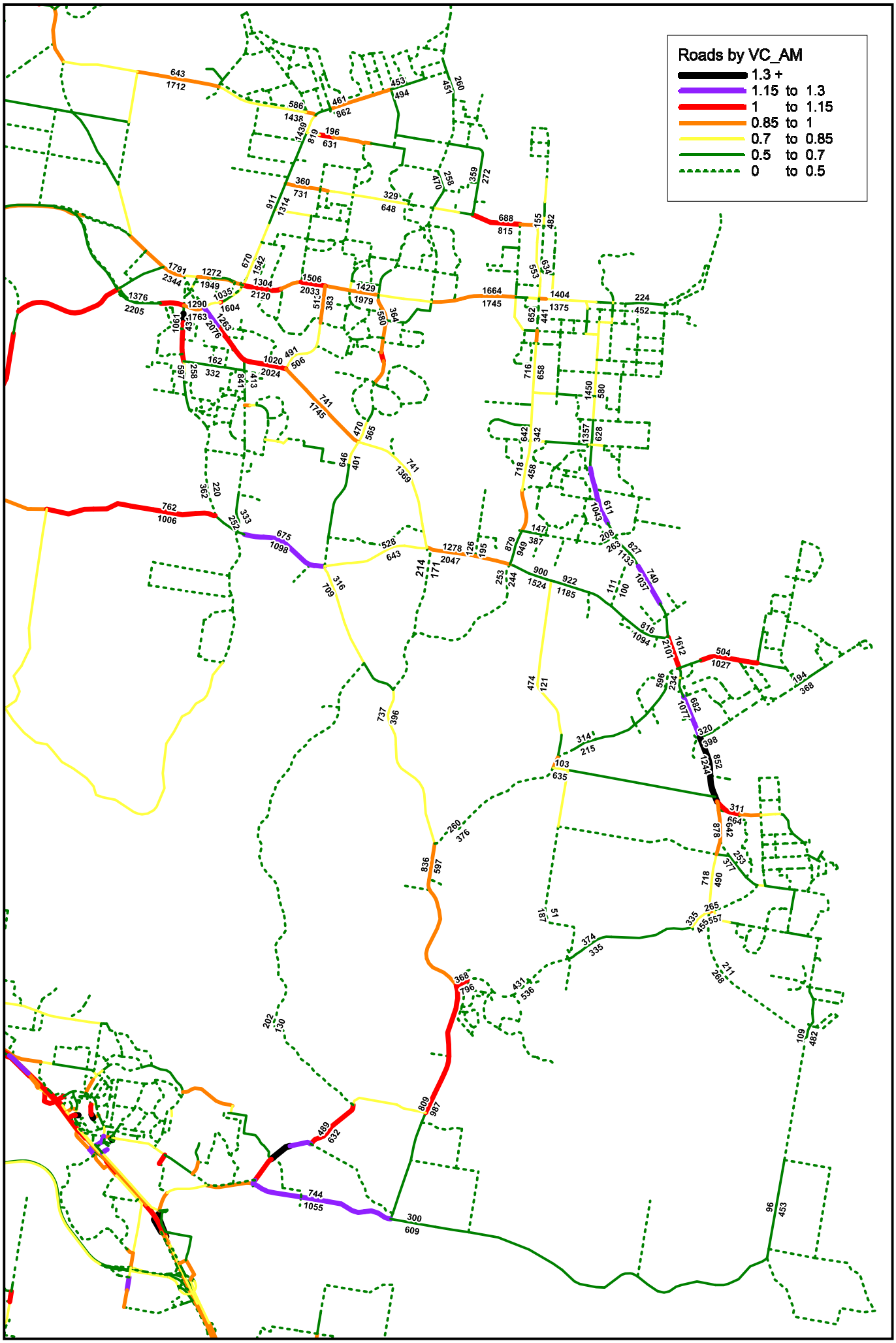


2021 Base Network - Performance Issues and Potential Improvements **Figure 5-7**

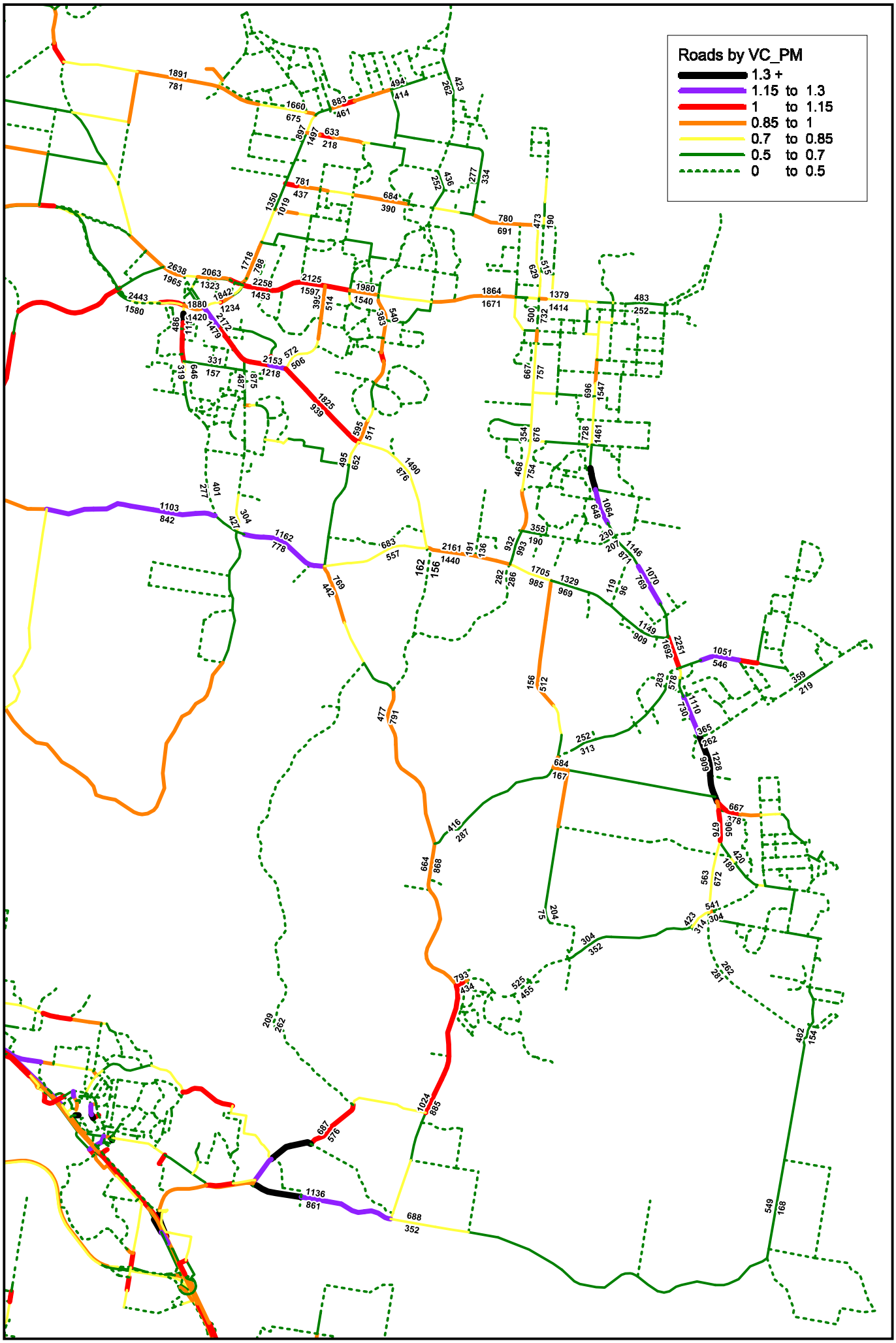


Average Weekday Traffic Volumes - Improved 2021 Network

Figure 5-8

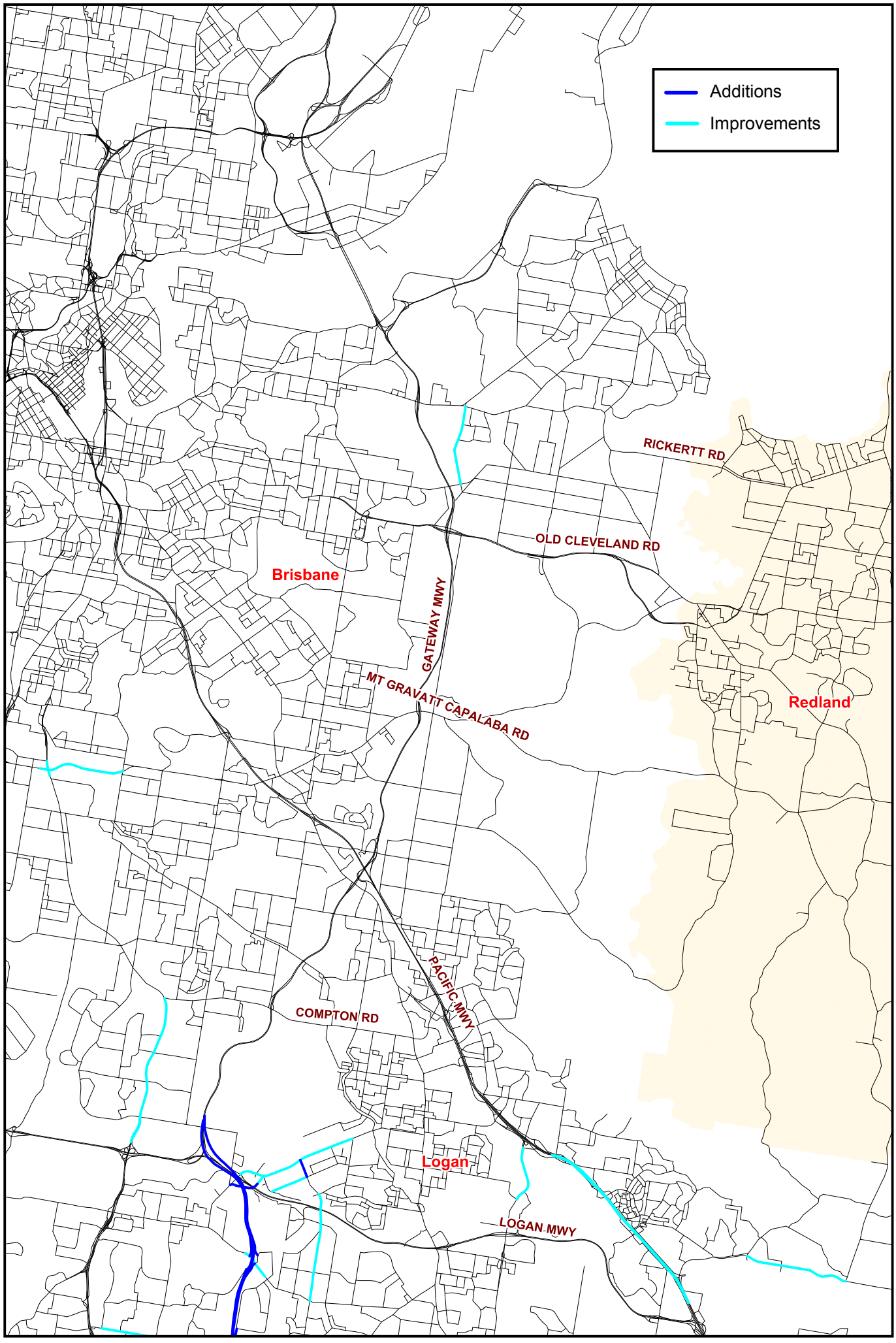


AM Peak Hour Volumes & V/C Ratios - Improved 2021 Network **Figure 5-8a**

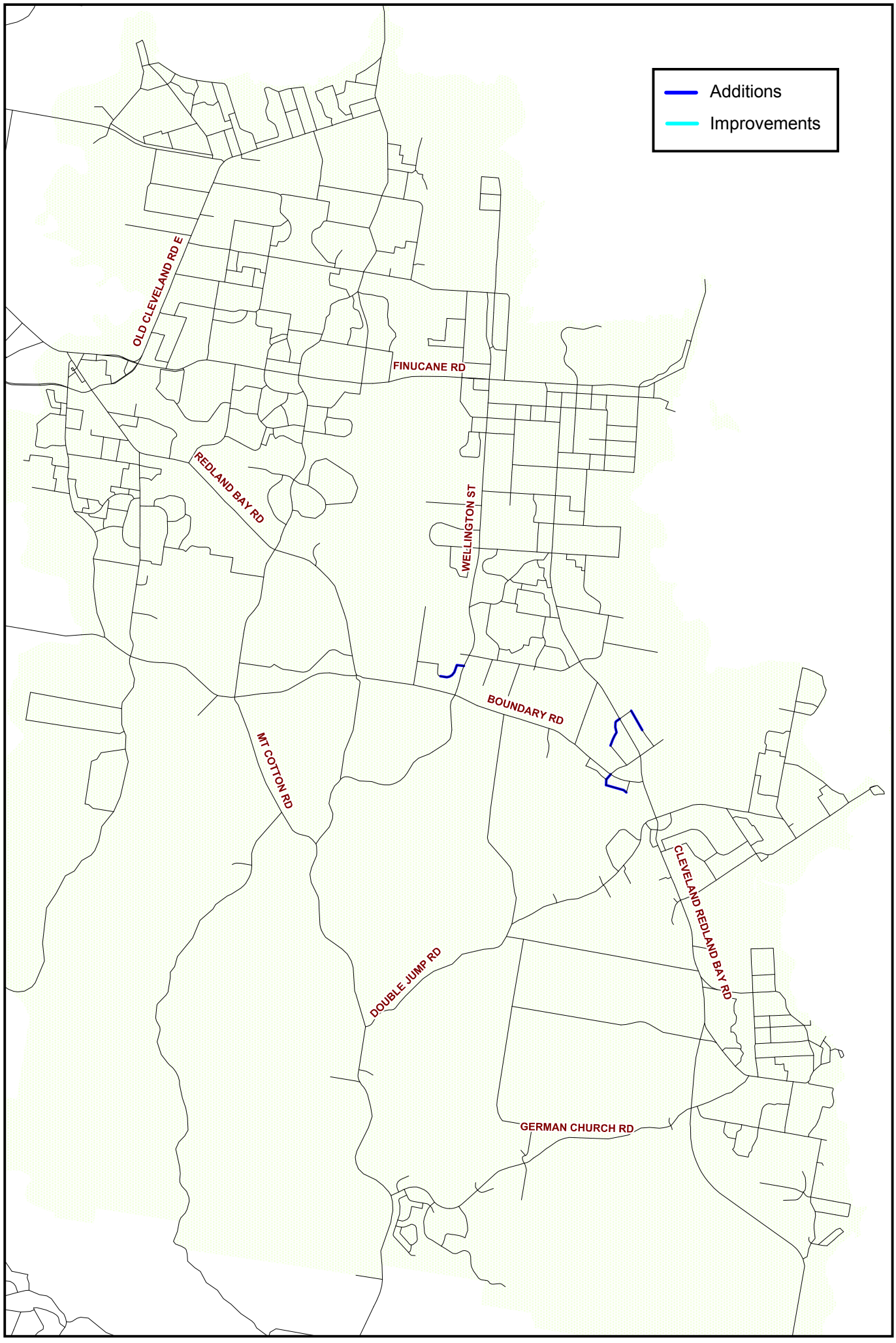


PM Peak Hour Volumes & V/C Ratios - Improved 2021 Network

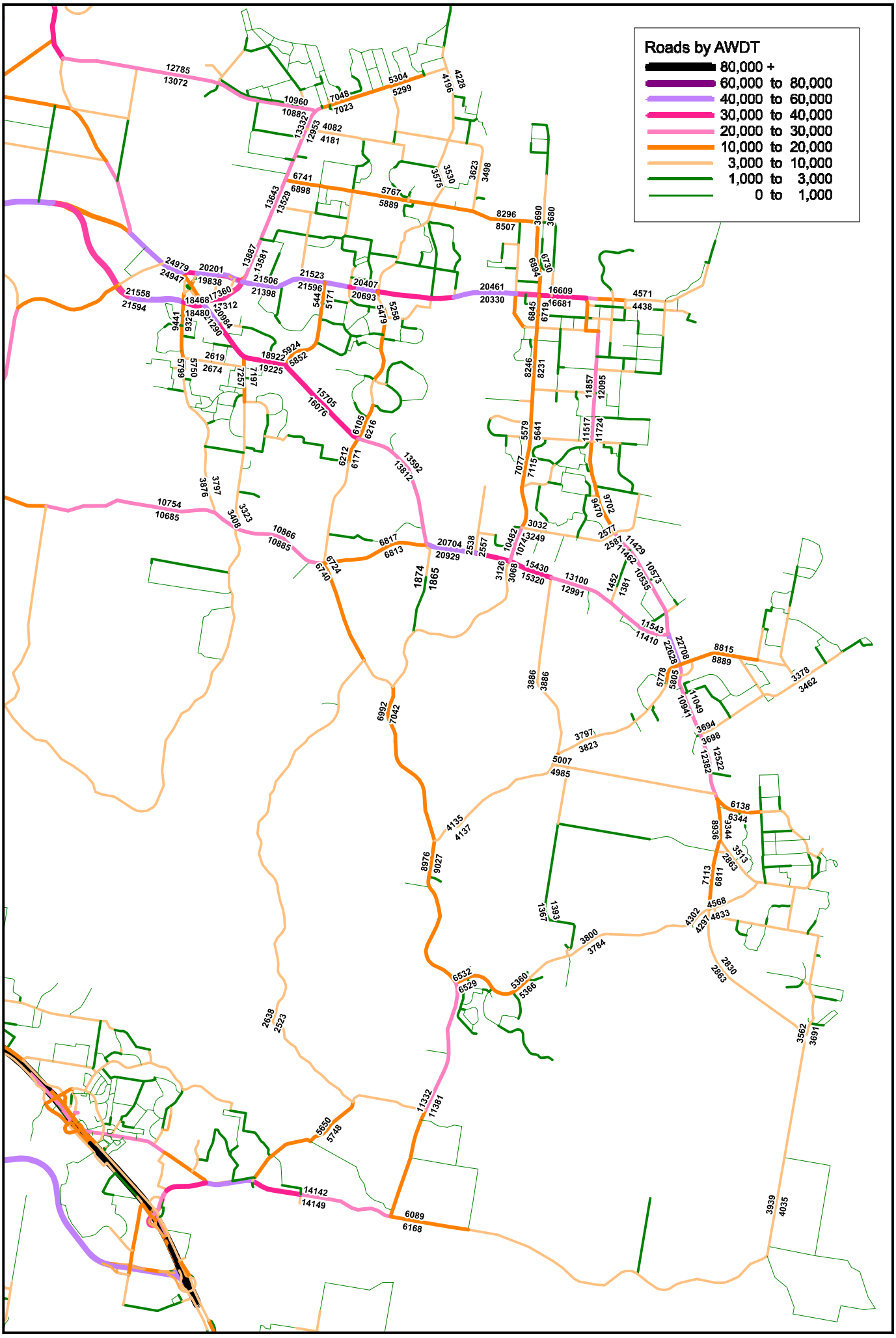
Figure 5-8b



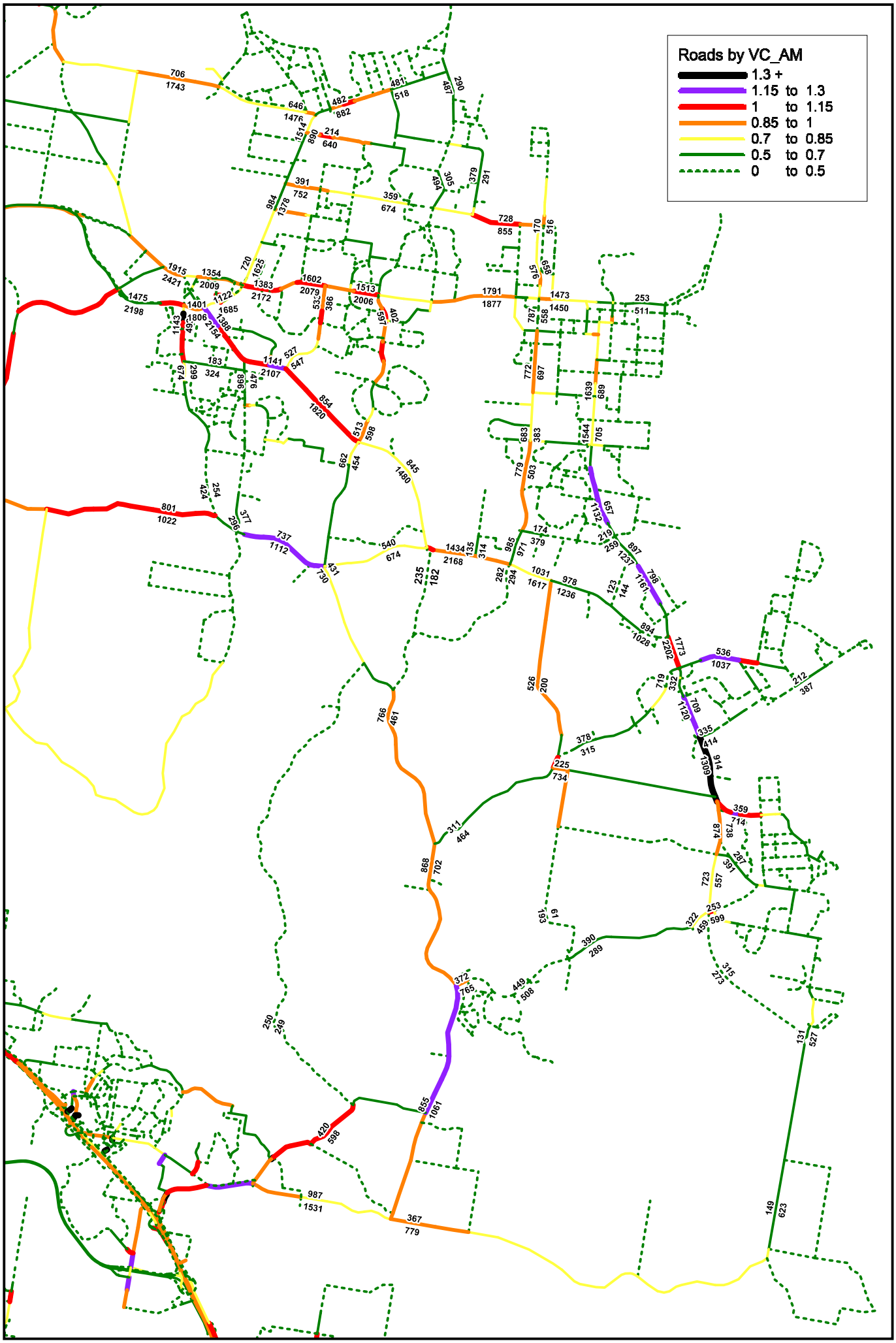
External Road Network Improvements (2021-2031) **Figure 6-1**



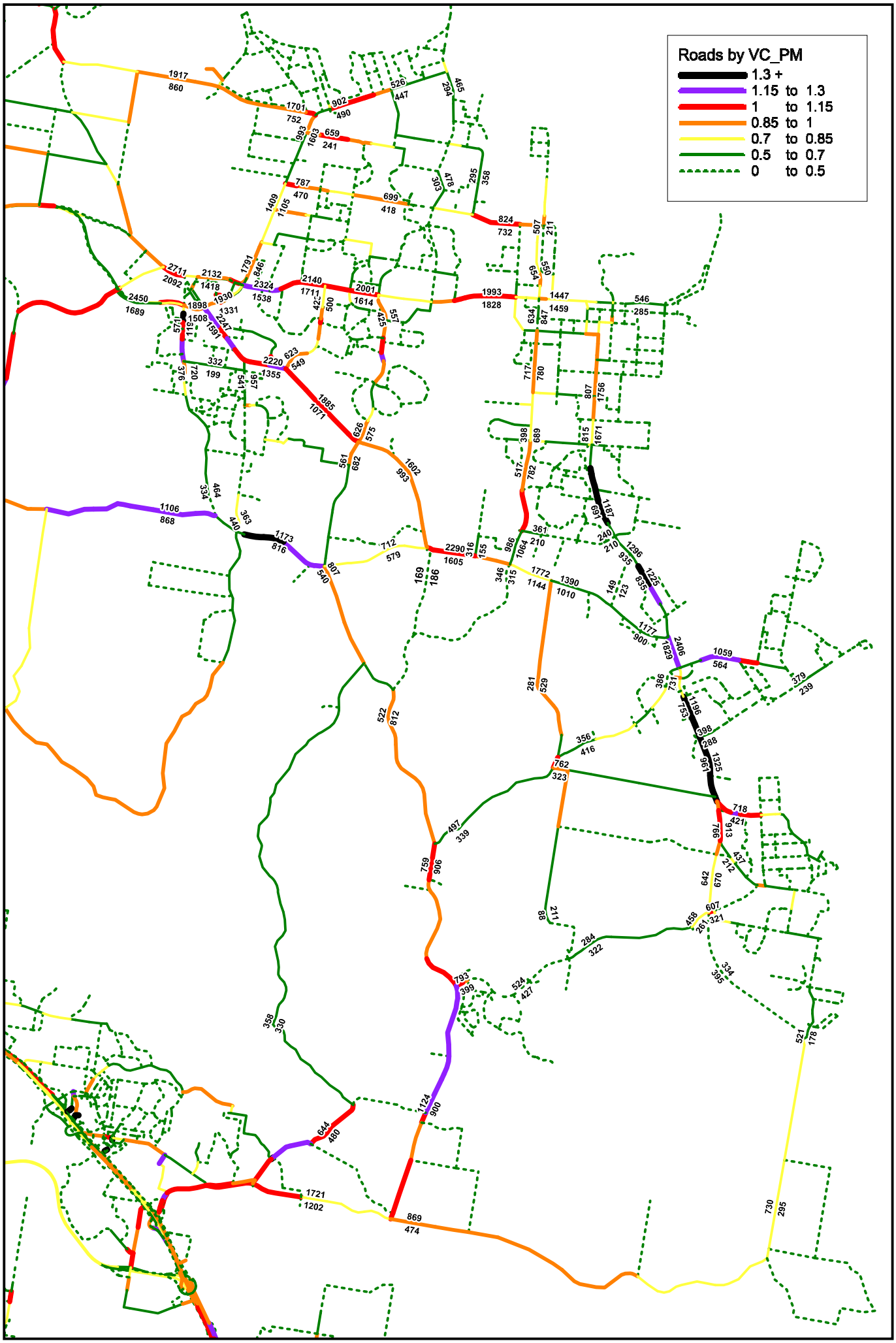
Internal Road Network Improvements (2021-2031) **Figure 6-2**



Average Weekday Traffic Volumes - 2031 Base Network **Figure 6-3**

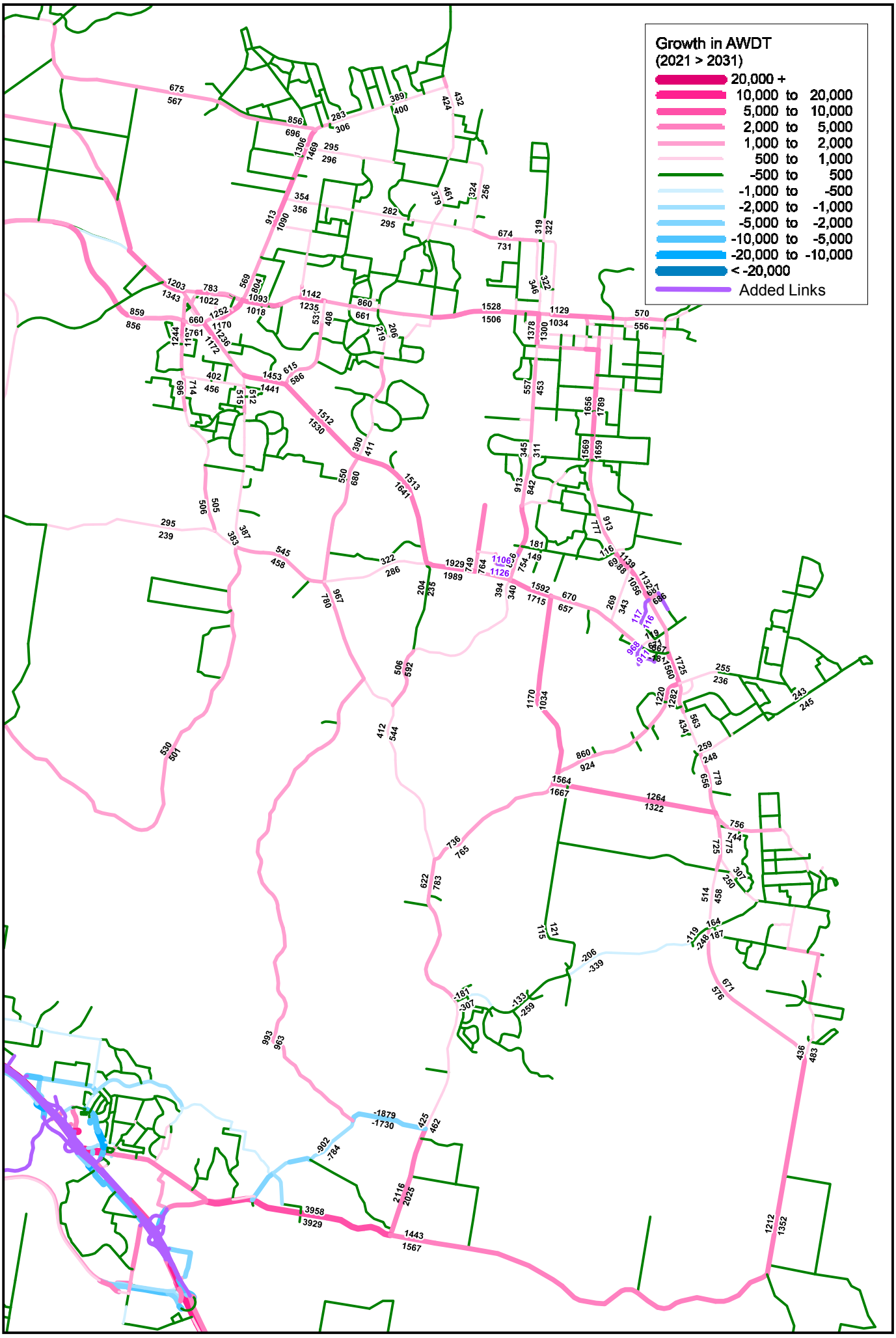


AM Peak Hour Volumes & V/C Ratios - 2031 Base Network **Figure 6-3a**



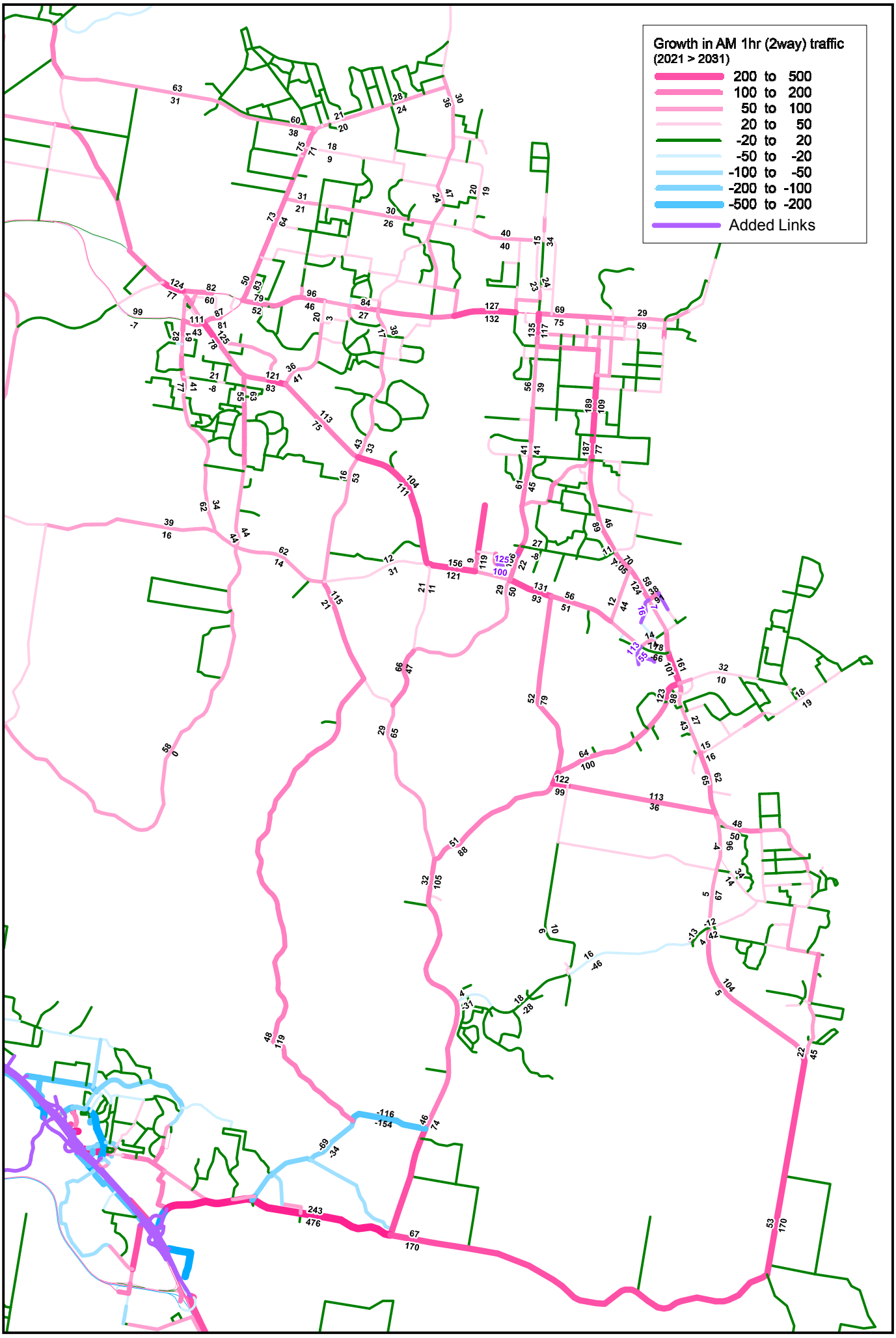
PM Peak Hour Volumes & V/C Ratios - 2031 Base Network

Figure 6-3b



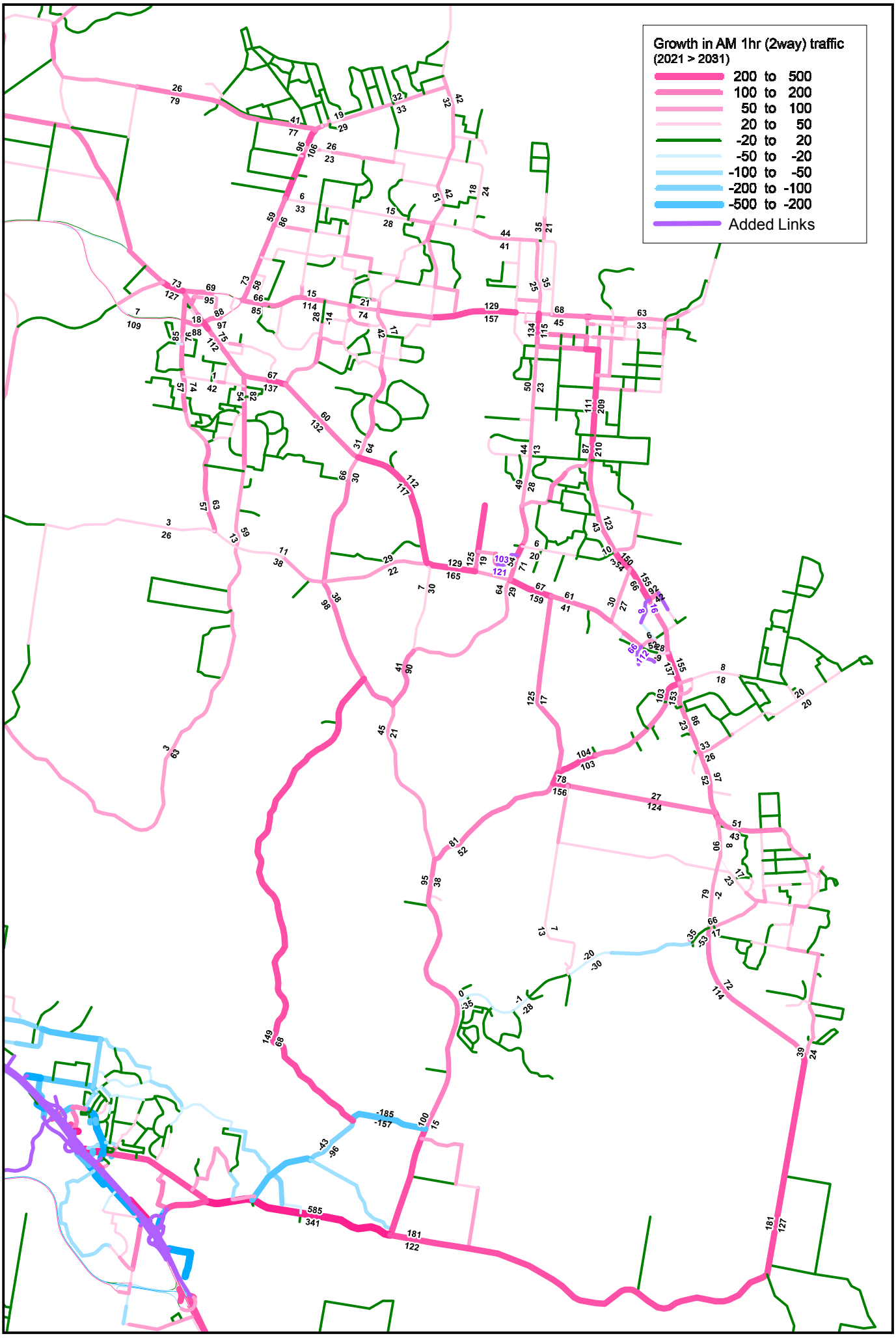
Growth in AWDT - 2031 Base vs. 2021 (Improved)

Figure 6-4



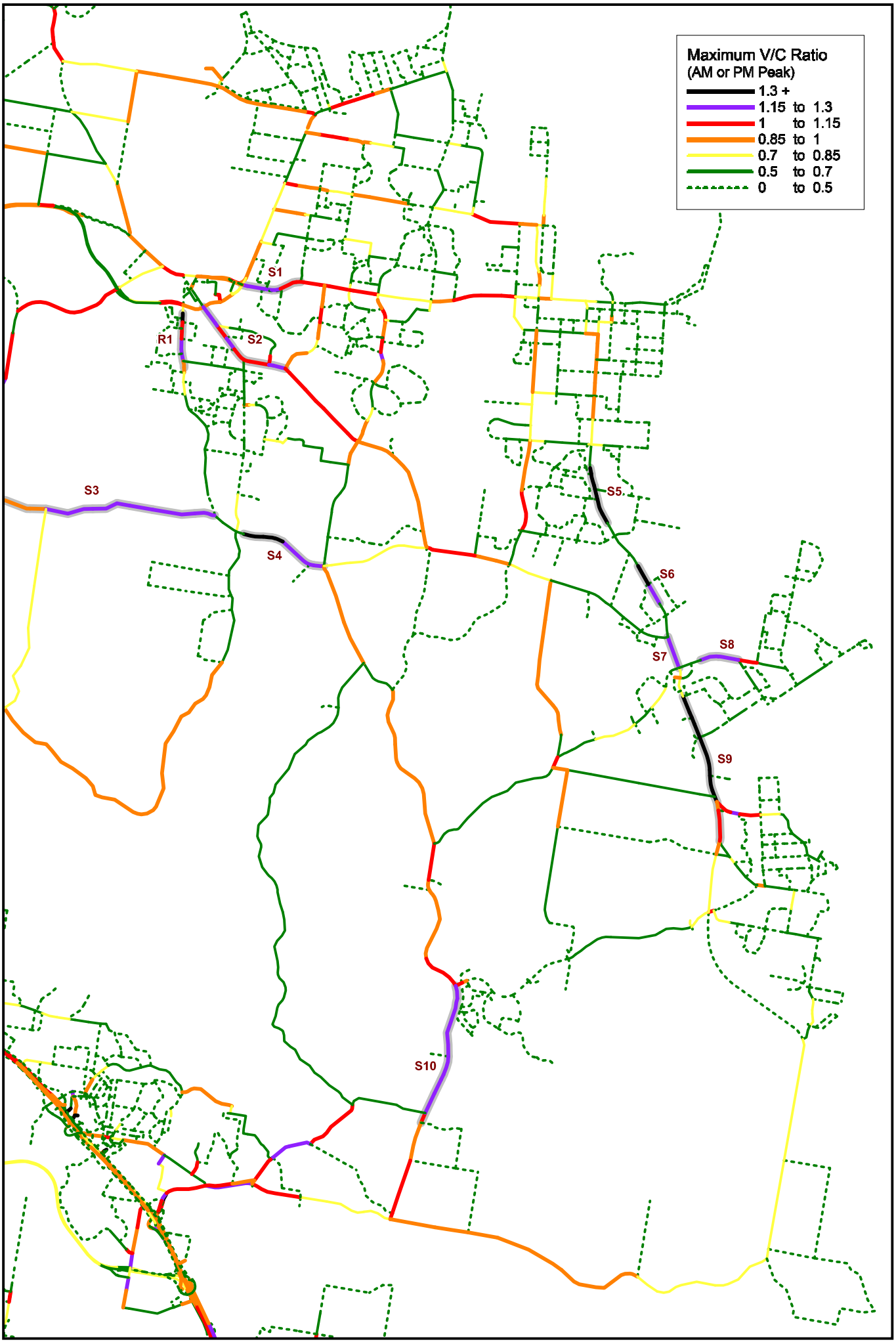
Growth in AM Peak Hour Traffic - 2031 Base vs. 2021 (Improved)

Figure 6-4a



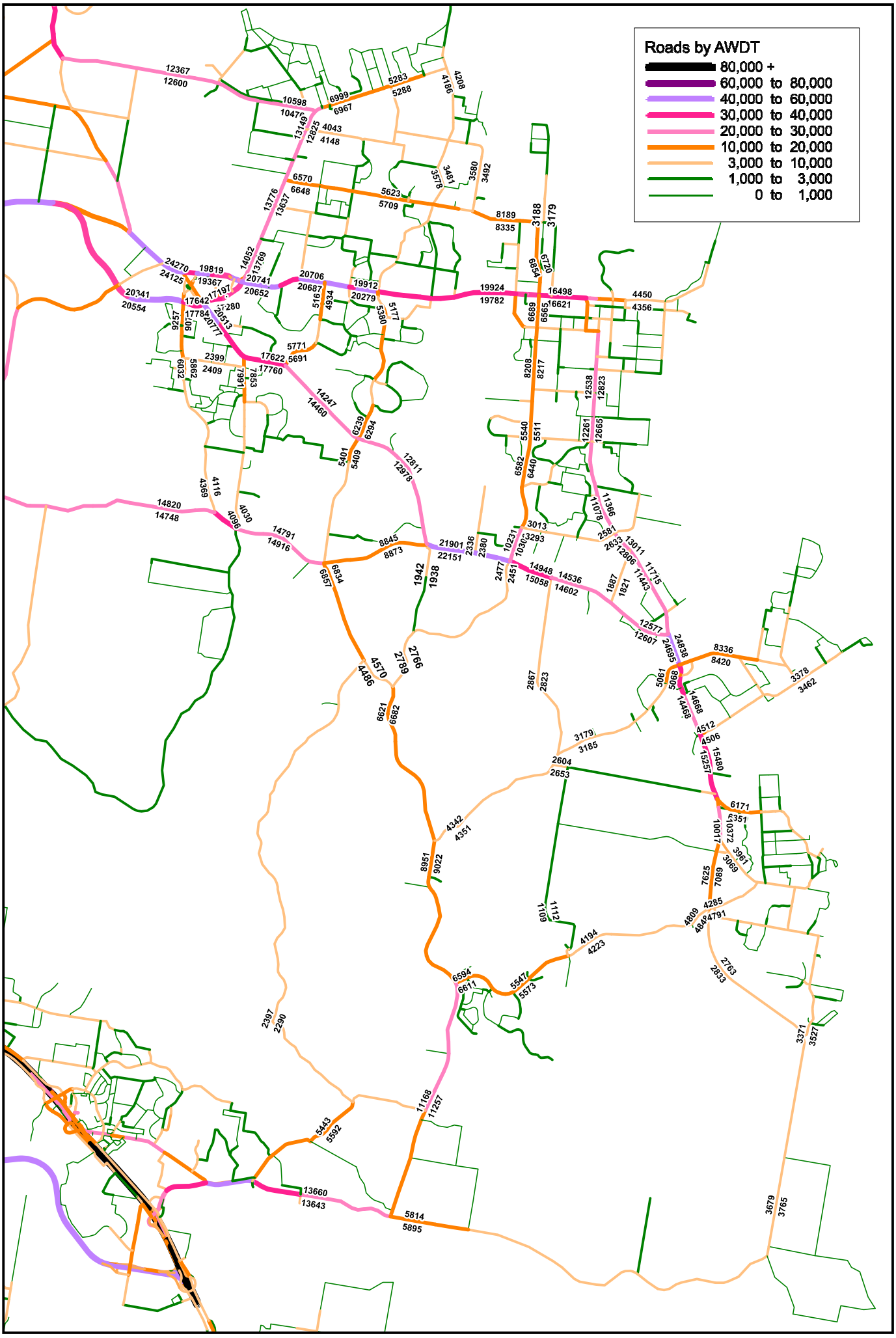
Growth in PM Peak Hour Traffic - 2031 Base vs. 2021 (Improved)

Figure 6-4b

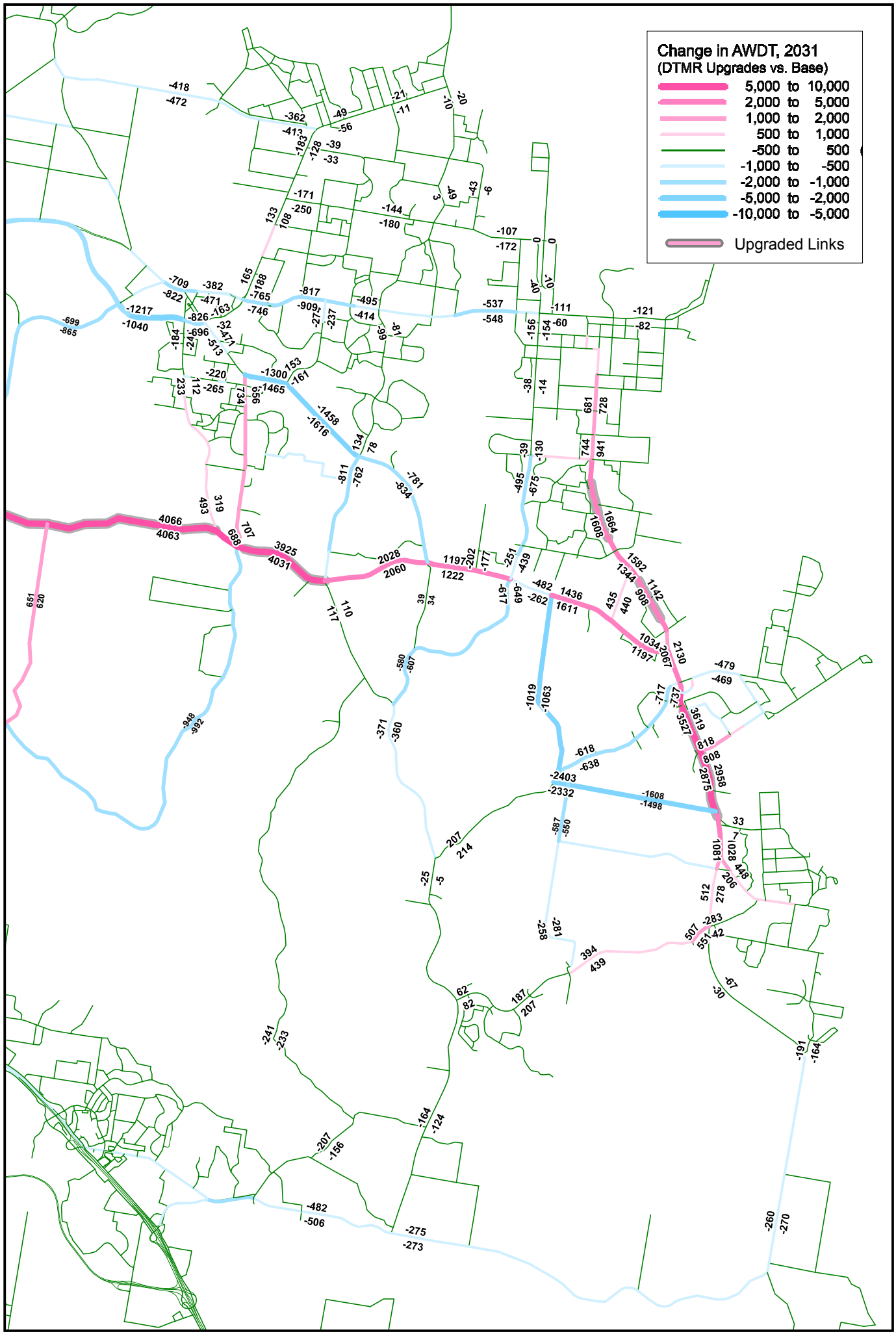


2031 Base Network - Performance Review (max. V/C)

Figure 6-5

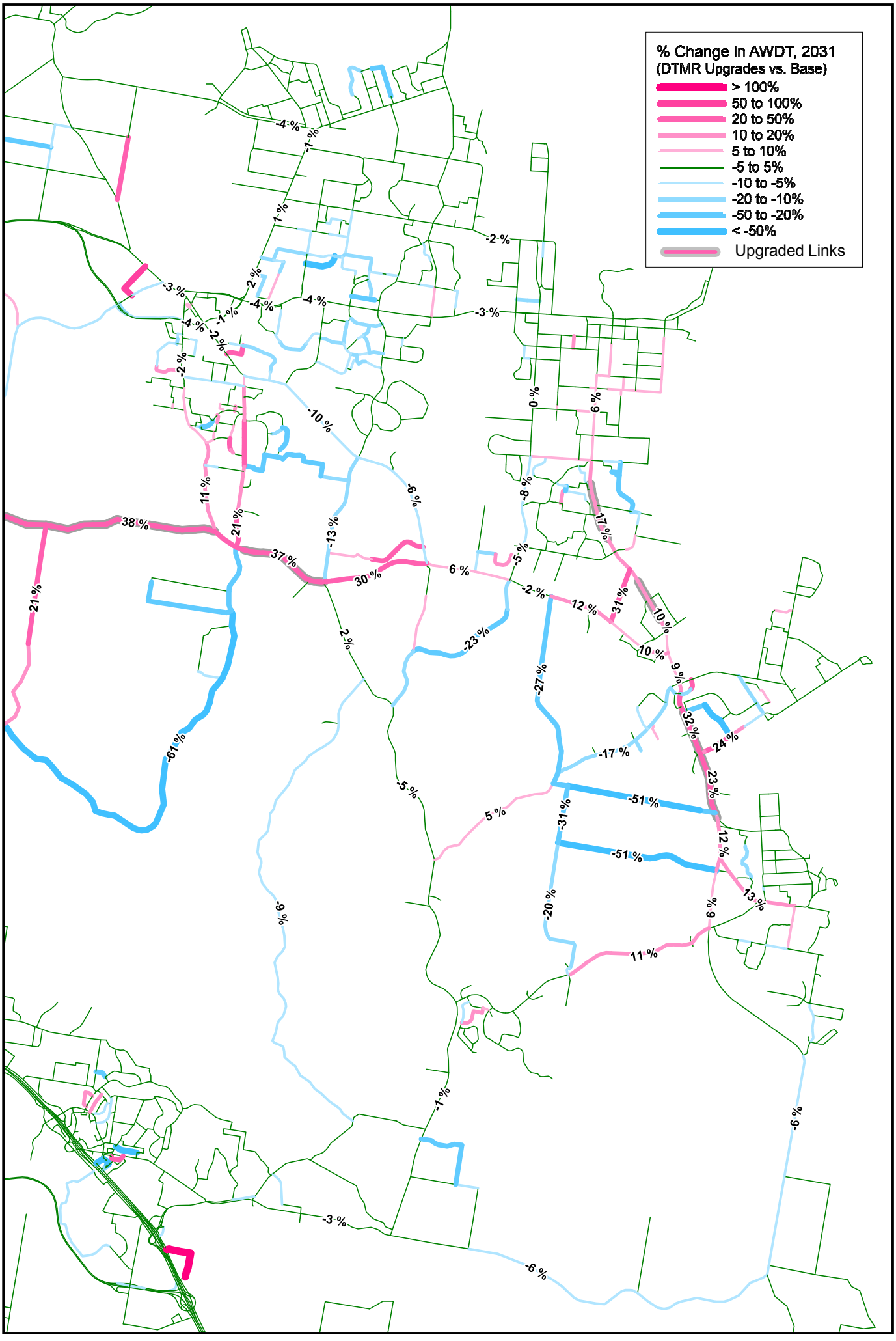


Average Weekday Traffic Volumes, 2031 - Improved DTMR Network **Figure 6-6**



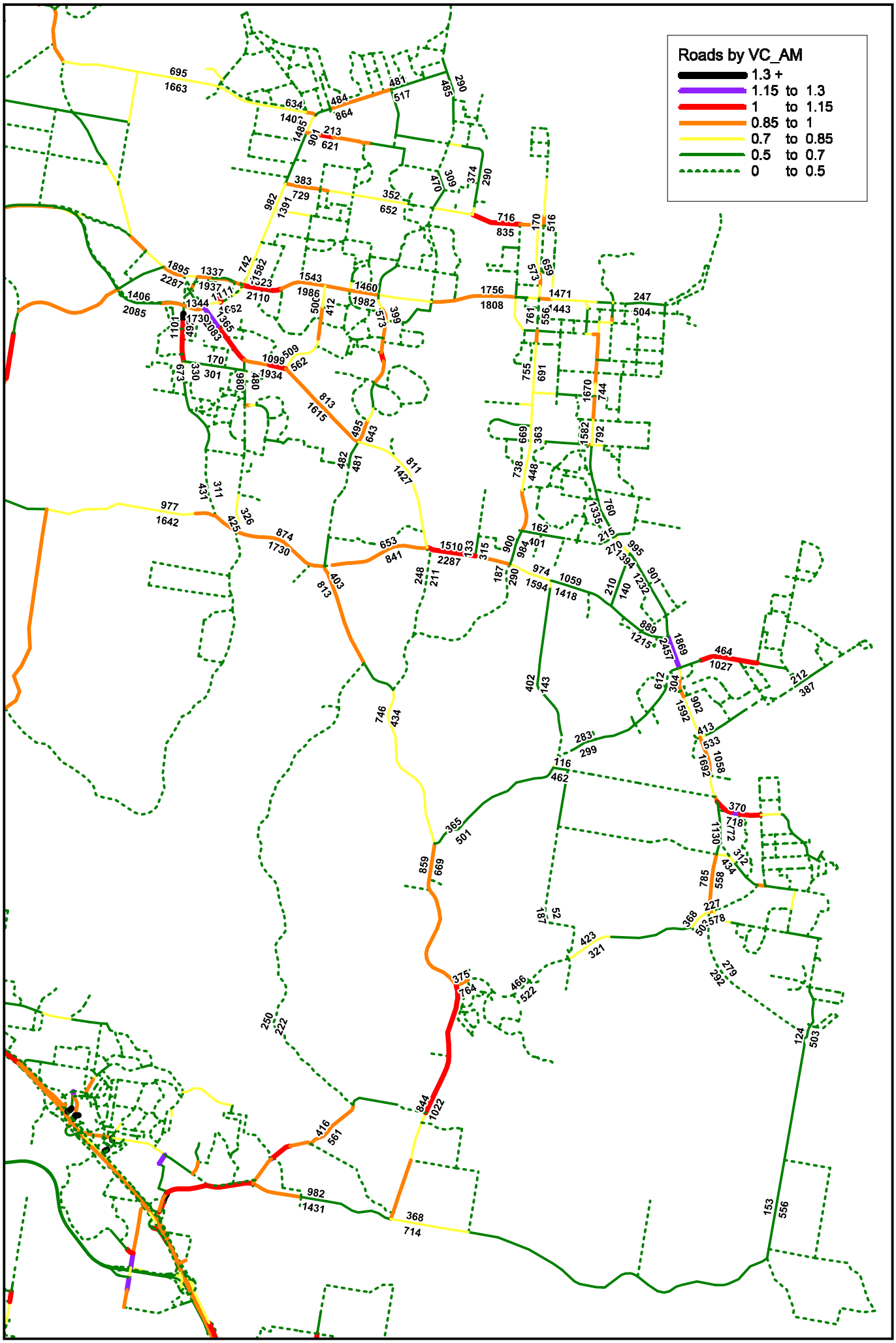
Change in AWDT, 2031 - DTMR Improvements vs. Base Network

Figure 6-6a



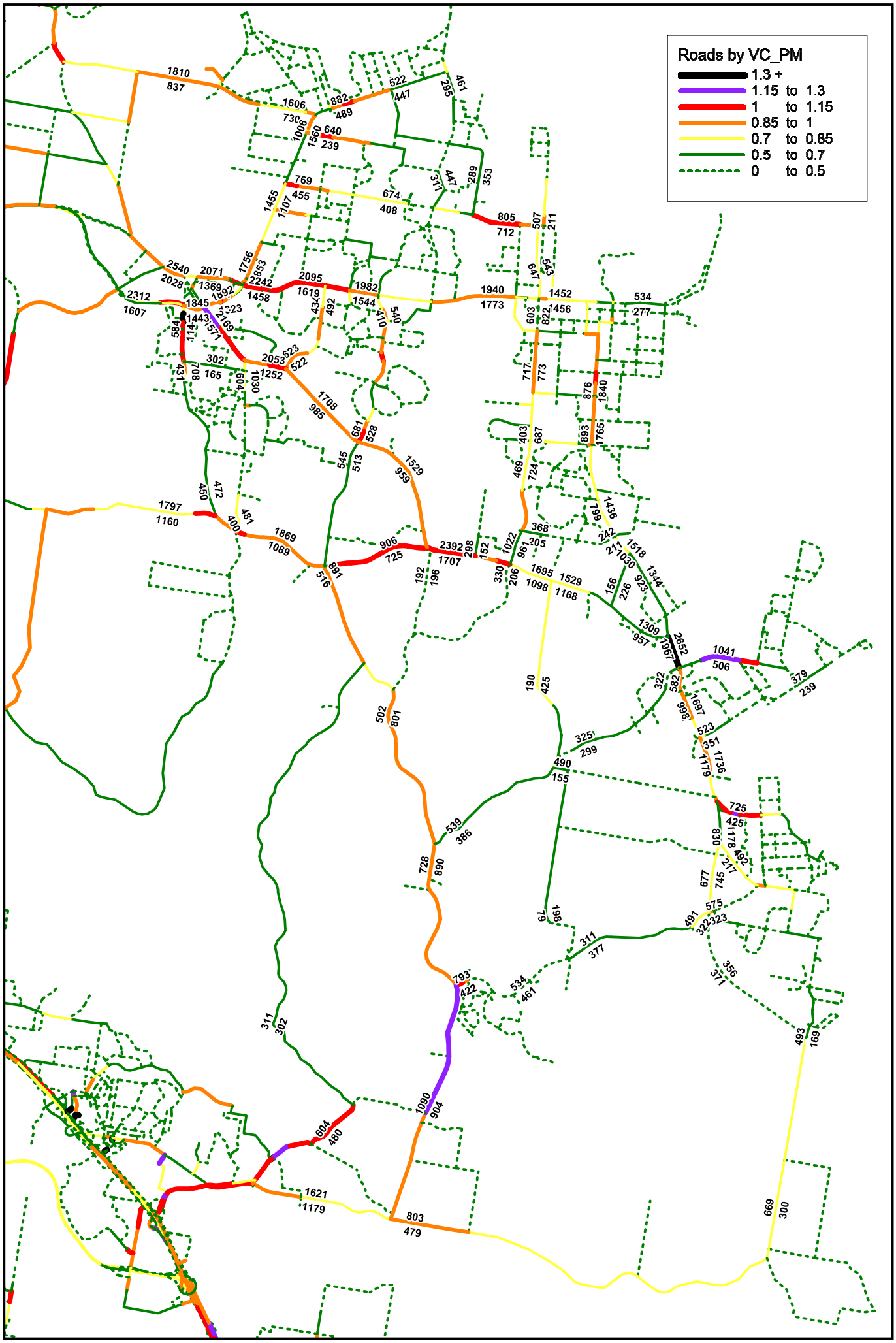
% Change in AWDT, 2031 - DTMR Improvements vs. Base Network

Figure 6-6b

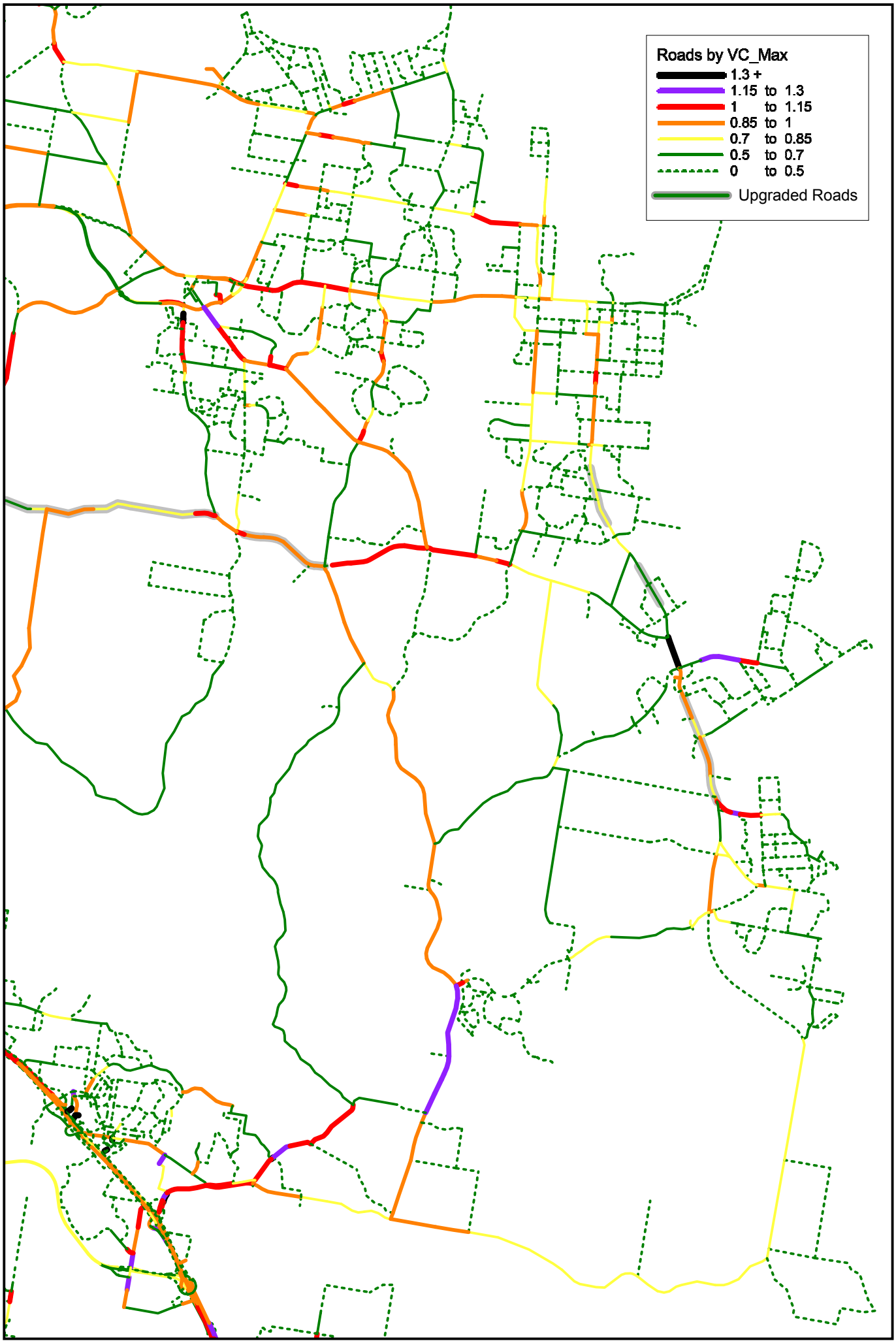


AM Peak Hour Volumes & V/C Ratios, 2031 - Improved DTMR Network

Figure 6-7a



PM Peak Hour Volumes & V/C Ratios, 2031 - Improved DTMR Network **Figure 6-7b**



Maximum V/C Ratios, 2031 - Improved DTMR Network

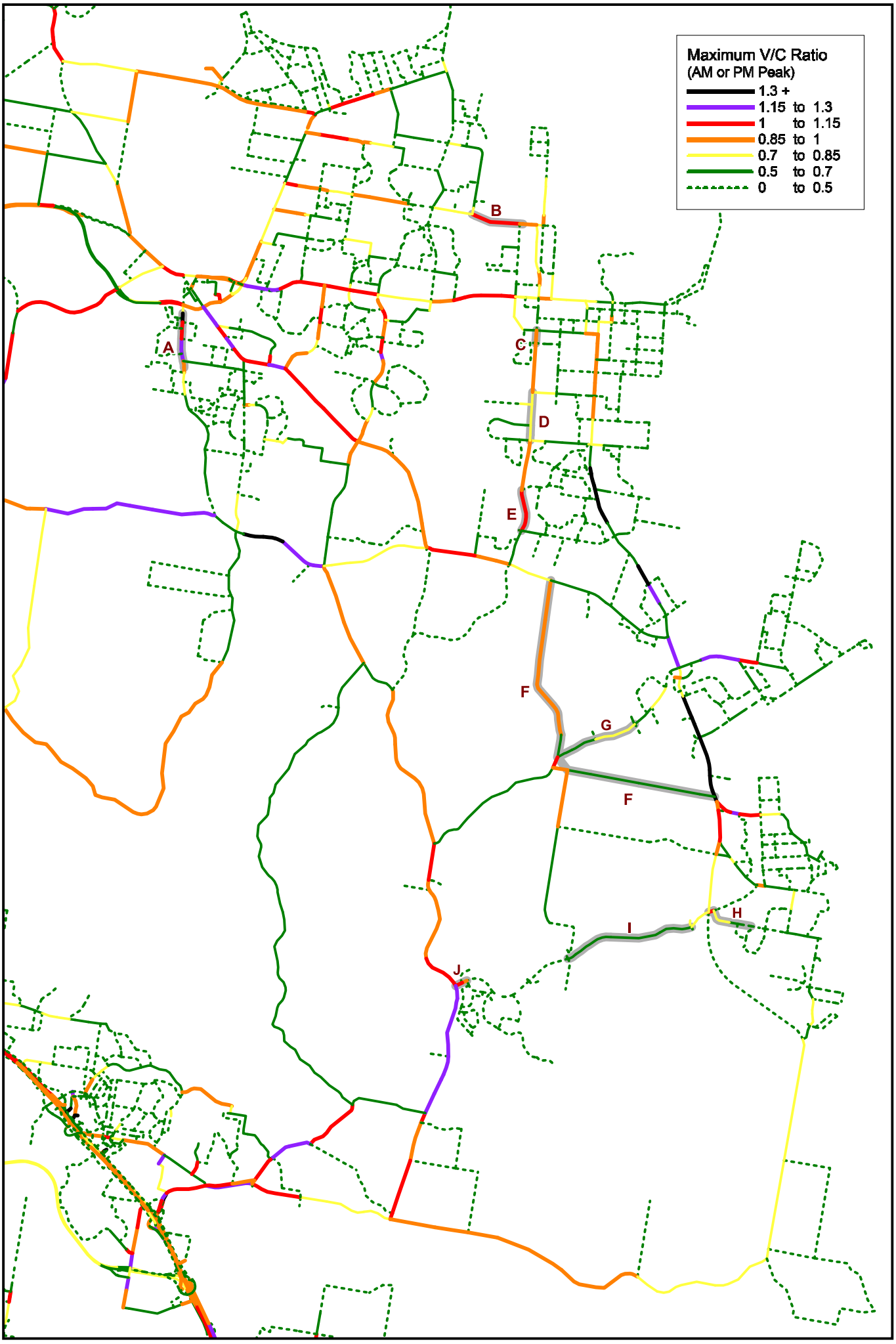
Figure 6-7c

RCC Ref_No.	Road Name	From (or at)	To	Length (km)	Proposed Standard	Constr. Period	Grounds
P11a	Mount Cotton Road	Moreton Bay Road	Howlett Road			2021-2026	capacity / LOS
P11b	Mount Cotton Road	Moreton Bay Road	Howlett Road	1.653	2 lane urban arterial	2021-2026	capacity / LOS
P24	Dinwoodie Road	Cleveland-Redland Bay Road	Boundary Road	1.024	2 lane trunk collector	2021-2026	geometrics
P26	Gordon Road	Cleveland Redland Bay Road	Government Road	1.759		2021-2026	urbanisation
P28	Weinam Street	Meissner Street	Pitt Street	0.277	2 lane sub-arterial	2021-2026	urbanisation
P29a	German Church Road	Cleveland Redland Bay Road	Gordon Road	1.044	2 lane trunk collector	2021-2026	geometrics
P34	Pitt Street	Weinam Street	Hamilton Street	0.215	2 lane trunk collector	2021-2026	urbanisation
P35	Hamilton Street	Pitt Street	Peel Street	0.242	2 lane trunk collector	2021-2026	urbanisation
P41	Ziegenfusz Road	At Trundle Street				2021-2026	TMS
P44	Hardy Road	At Collingwood				2021-2026	safety / LOS
P55	Mount Cotton Road	At Redland Bay Road				2021-2026	TMS
P05	Wellington Street	Enterprise Street	Russell Street	2.023	4 lane urban arterial	2026	capacity / LOS
P06	Rickertt-Quarry Road	Tingalpa Creek	Charles Steet		4 lane urban/rural arterial	2026	capacity / LOS
P10b	Northern Arterial Road	At Wellington Street				2026	safety / LOS
P14	Bunker Road	Brookvale Drive	Realignment	1.265	2 lane rural sub-arterial	2026	urbanisation
P15	Springacre Road	Boundary Road	Eprapah Road	1.600	2 lane rural sub-arterial	2026	geometrics
P16	Springacre Road	Eprapah Creek	Eprapah Road	0.180	2 lane rural sub-arterial	2026	geometrics
P17	Kingfisher Road	Eprapah Creek	Realignment	1.200	2 lane rural sub-arterial	2026	geometrics
P19	Double Jump Road	Cleveland-Redland Bay Road	Heinemann Road	2.568	2 lane rural sub-arterial	2026	geometrics
P20	German Church Road	Cleveland-Redland Bay Road	Heinemann Road	2.795	2 lane rural sub-arterial	2026	geometrics
P21a	Sturgeon Street	Northern Arterial	Starkey Street	1.214	2 lane urban sub-arterial	2026	capacity / LOS
P21b	Starkey Street	At Old Cleveland Road				2026	capacity / LOS
P22	McDonald Road	Finucane Road	McMillan Road	0.577	2 lane urban sub-arterial	2026	urbanisation
P33	Serpentine Creek Road	Collins Street	Cleveland-Redland Bay Rd	1.043	2 lane trunk collector	2026	urbanisation
P57c	Kinross Road	Panorama	stub	0.085	2 lane trunk collector	2026	Dev. Access
P04b	Panorama Drive	Ziegenfusz Road	Wellington Street	0.757	4 lane urban arterial	2031	capacity / LOS
P07	Wellington Street	South Street	Panorama Drive	0.964	4 lane urban arterial	2031	geometrics
P08	Woodlands Drive	Mt Cotton Road	Taylor Road	1.188	2 lane rural arterial	2031	geometrics
P09	Woodlands Drive	Taylor Road	Boundary Road	2.702	2 lane rural arterial	2031	geometrics
P10a	Northern Arterial Road	At Sturgeon Street				2031	capacity / LOS
P23	Ney Road	Wildflower Street	Mt Cotton Road	0.977	2 lane rural sub-arterial	2031	geometrics
P25	Giles Road	Heinemann Road	Cleveland-Redland Bay Rd	2.988	2 lane trunk collector	2031	geometrics
P43	Benfer Road	At Link Road				2031	capacity / LOS
P45	Old Cleveland Road East	At Randall Road				2031	capacity / LOS
P46	Old Cleveland Road East	At Barron Street				2031	capacity / LOS

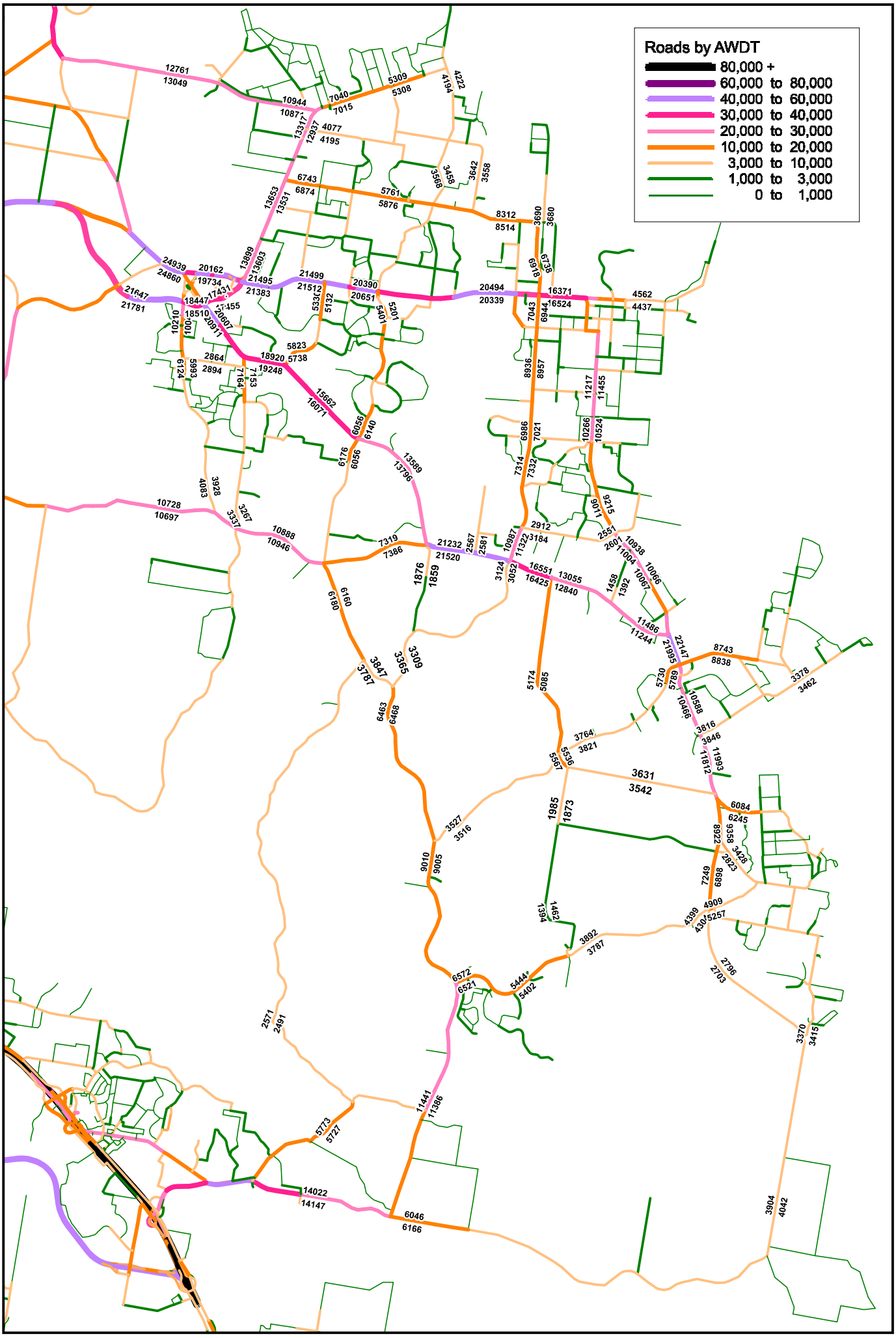
TMS = Traffic Management Strategy

Road Network Improvements between 2031 2031

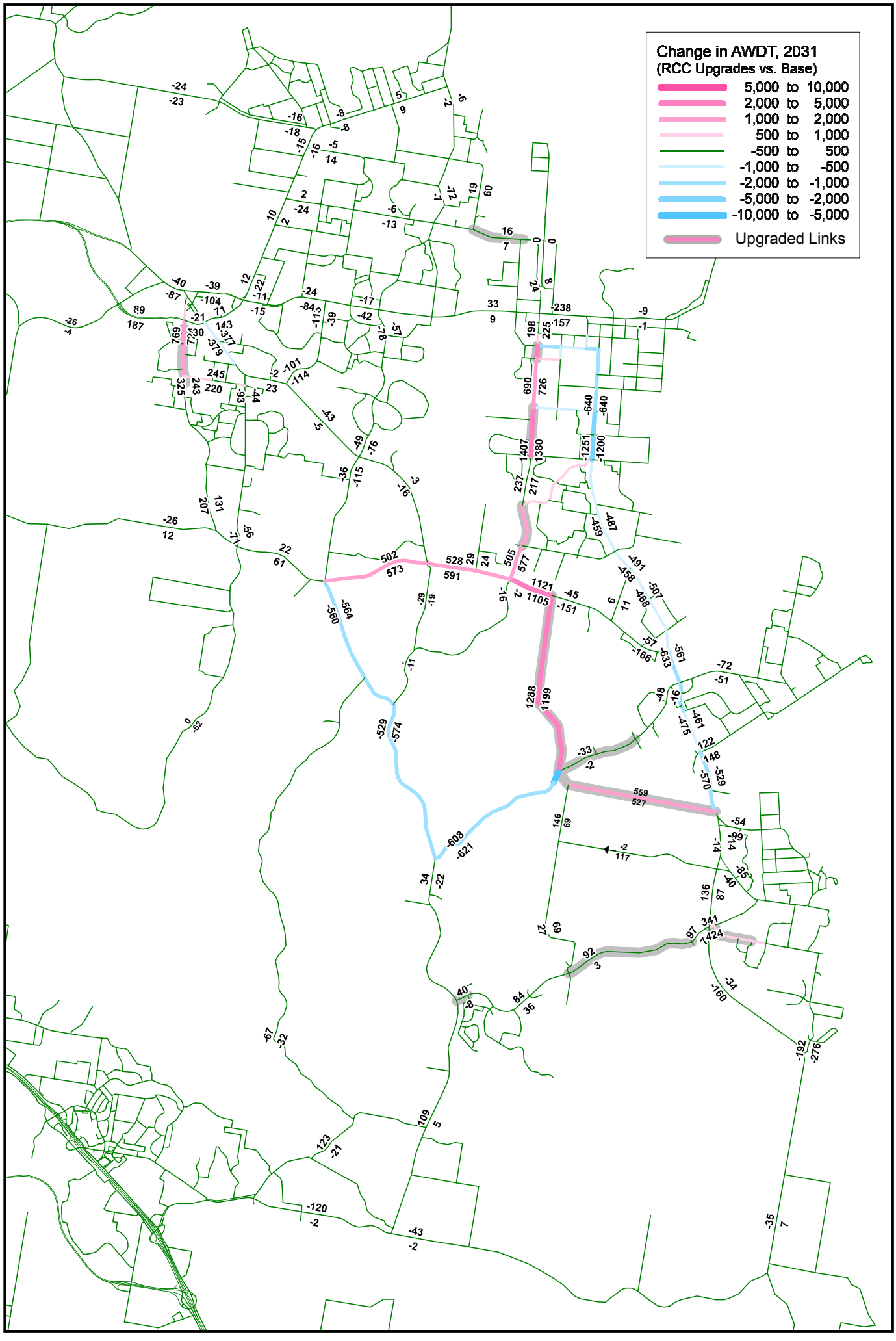
Figure 6-8



Potential RCC Capacity Improvements (relative to 2031 Base Conditions) **Figure 6-9**

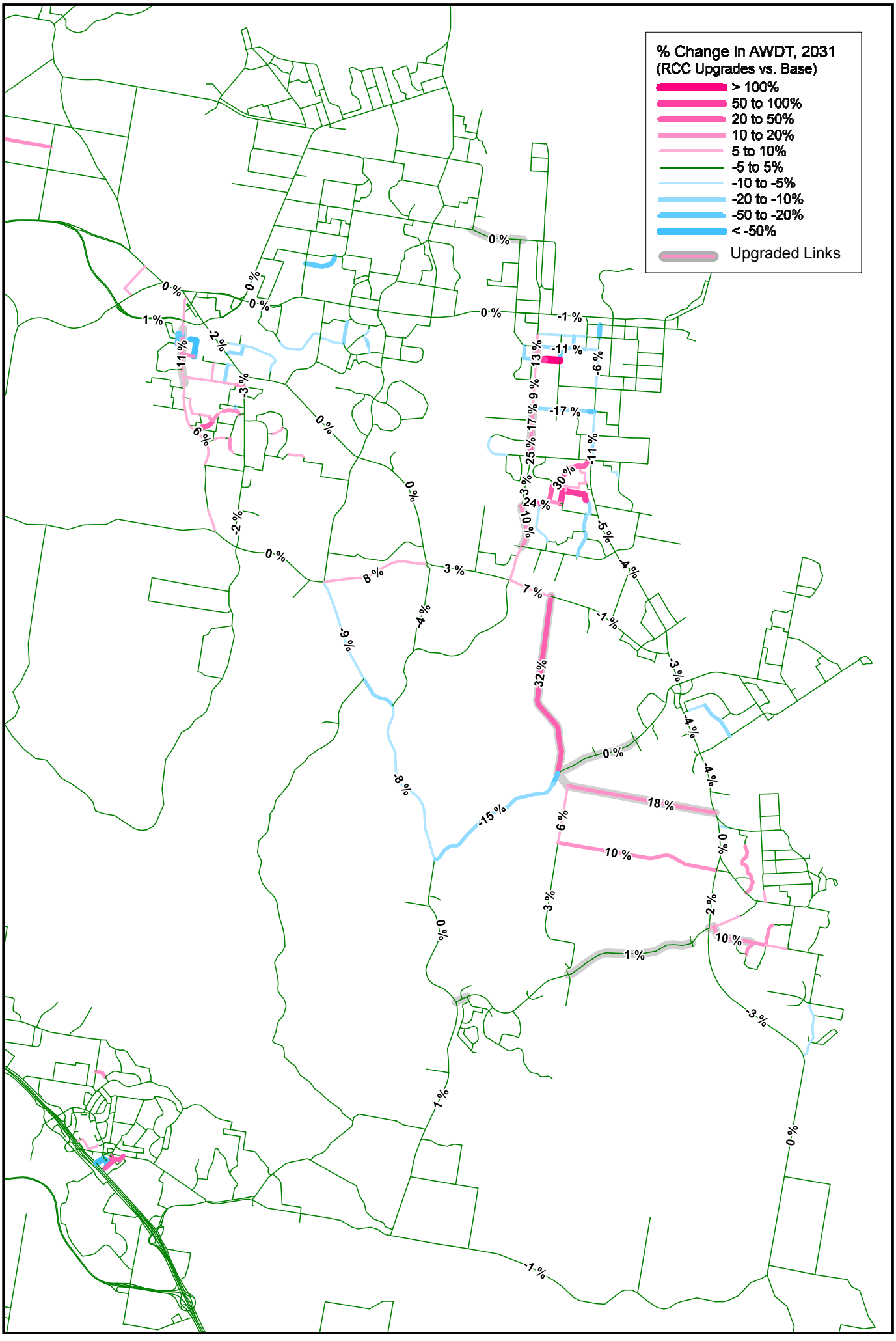


Average Weekday Traffic Volumes, 2031 - Improved RCC Network **Figure 6-10**

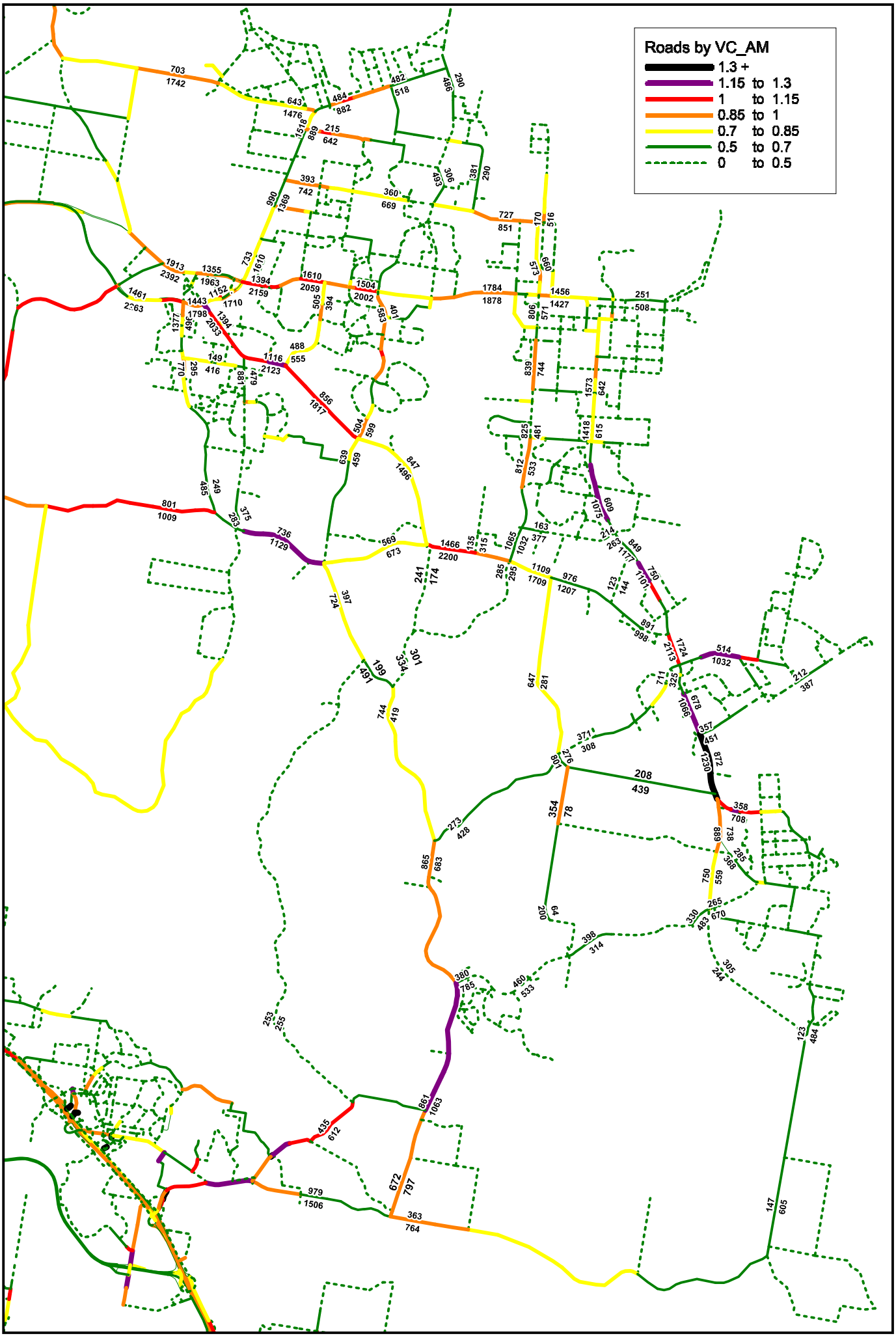


Change in AWDT, 2031 - RCC Improvements vs. Base Network

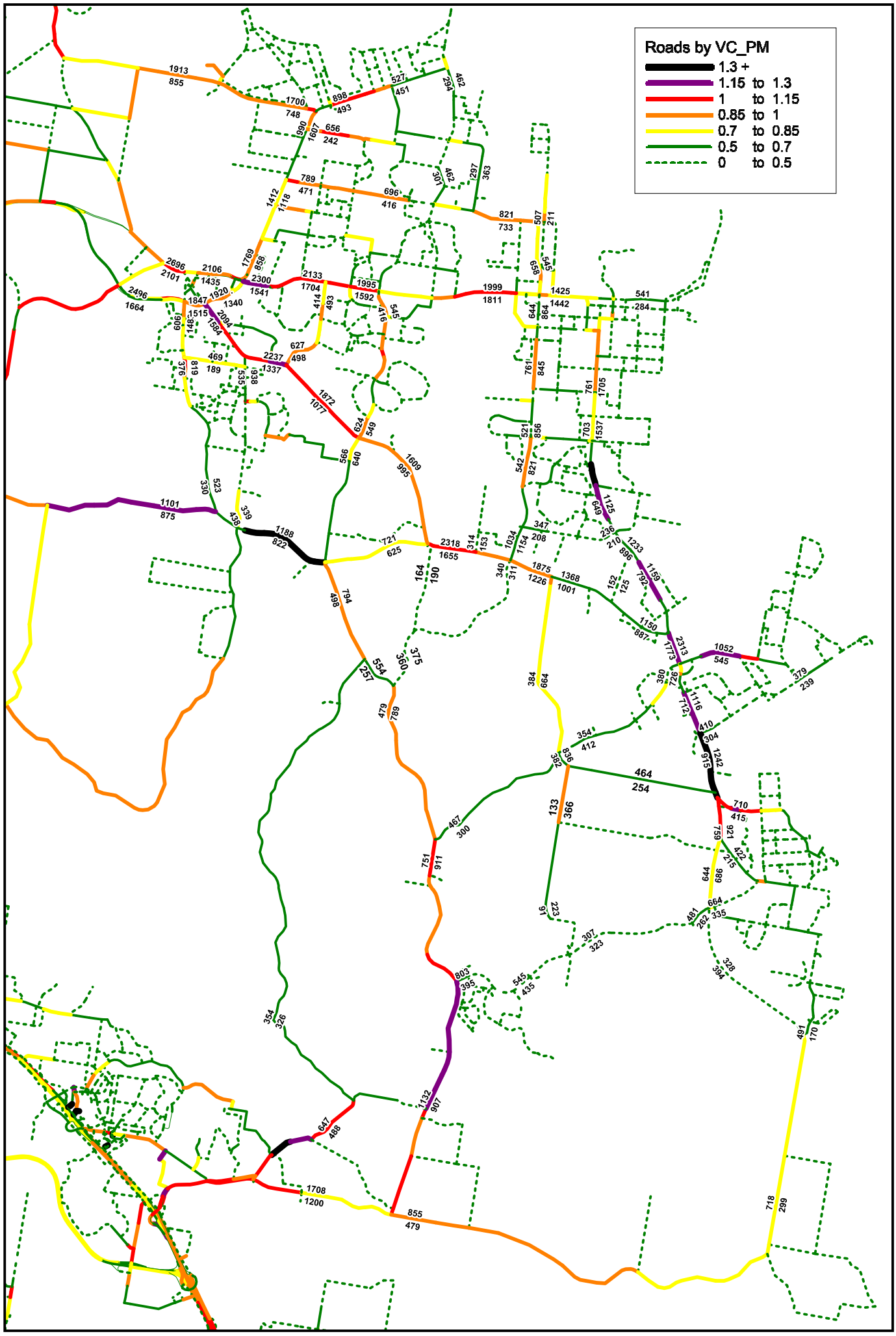
Figure 6-10a



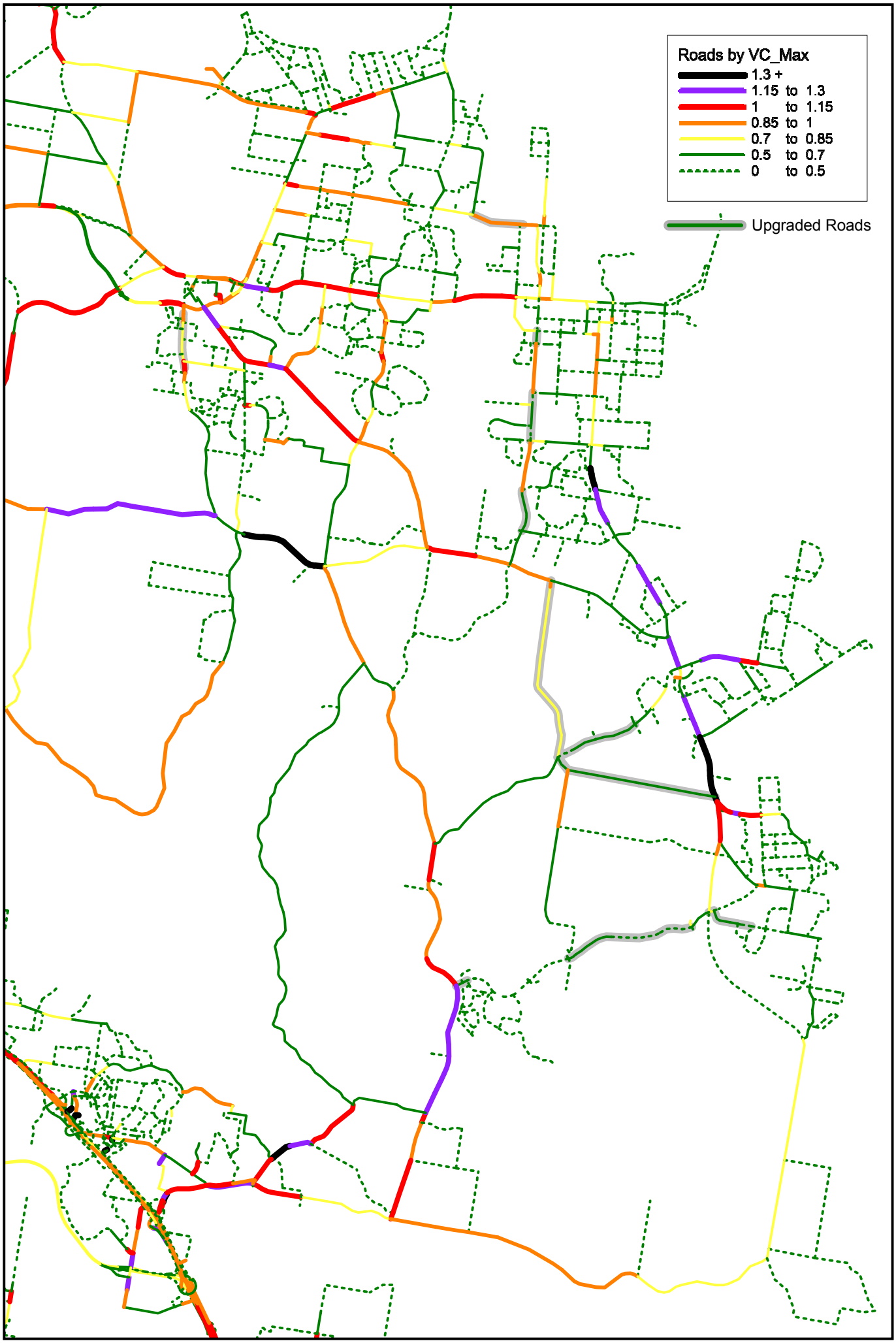
% Change in AWDT, 2031 - RCC Improvements vs. Base Network **Figure 6-10b**



AM Peak Hour Volumes & V/C Ratios, 2031 - Improved RCC Network **Figure 6-11a**



PM Peak Hour Volumes & V/C Ratios, 2031 - Improved RCC Network **Figure 6-11b**



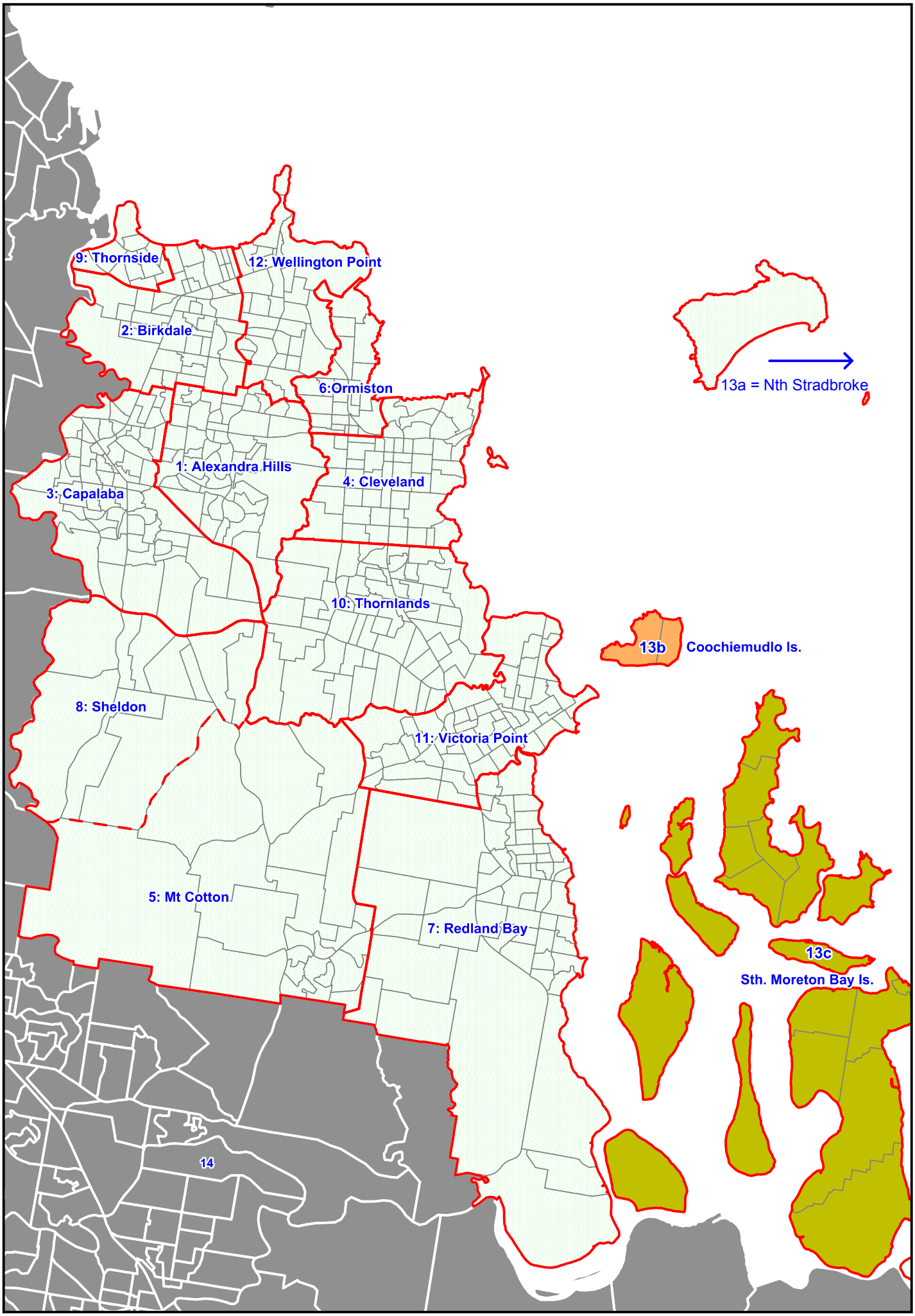
Maximum V/C Ratios, 2031 - Improved RCC Network

Figure 6-11c

Ref_No.	Road Name	From (or at)	To	Upgrade Type	(km) (km)	Proposed Standard	Cost ($m)	Implement By
P02	Baythorn Drive	King Street	Cleveland-Redland Bay Rd	2 lane divided trunk collector	0.473	2 lane trunk collector	$ 3.72	Done
P12	Heinemann Road	Last 1 km	German Church Road	Seal existing gravel road and reconstruct existing formation in the road	0.989	2 lane sub-arterial	$1.09	Done
P27	Government Road	Gordon Road	Meissner Street	Upgrade to divided 2 lane trunk collector	0.241	2 lane trunk collector	$ 2.08	Done
P31b	Collins Street	Penzance Drive	Donald/Torquay	Upgrade from 2 to 4 lanes	0.488	2 lane trunk collector	$ 3.79	Done
P47	Bay Street	At Smith Street		Single lane roundabout			$ 0.79	Done
P51	Baythorn Drive	At King Street		Intersection upgrade			$ 0.79	Done
P53	Baythorn Drive	At Thornland Road		Roundabout			$ 0.79	Done
P01	Kingfisher Road	south of Worthing Road	Double Jump Rd realignment	New alignment	0.320	2 lane rural sub-arterial	$ 2.19	2021
P04a	Panorama Drive	Boundary Road	Ziegenfusz Road	Upgrade from 2 to 4 lanes	0.630	4 lane urban arterial	$ 5.37	2021
P13a	Main Road	Plumer Street	Duncan Street	Seal widening to divided 2 x lane sub arterial	0.910	2 lane urban sub-arterial	$ 1.76	2021
P13b	Main Road	At Nelson Road		Single lane roundabout			$ 1.53	2021
P18	Double Jump Road	Heinemann Road	Kingfisher realignment	New alignment, new intersection at Heinemann, new single lane roundabout at Bunker	0.380	2 lane rural sub-arterial	$ 3.44	2021
P29b	German Church Road	School of Arts Road	New alignment	Realignment	0.065	2 lane trunk collector	$ 0.35	2021
P30a	School of Arts Road	German Church Road	Collins Street	Seal widening and channelisation	1.323	2 lane sub-arterial	$ 5.82	2021
P30b	School of Arts Road	German Church Road	New alignment	Realignment	0.127	2 lane sub-arterial	$ 0.93	2021
P31a	Collins Street	School of Arts Road	Penzance Drive	Seal widening and intersection upgrade	0.420	2 lane sub-arterial	$ 1.95	2021
P36	Collingwood Road	At Spoonbill Street		Intersection upgrade			$ 0.54	2021
P37	Collingwood Road	At Lorna Street		Intersection upgrade			$ 0.54	2021
P38	Pitt Road	At Nelson Street		Intersection upgrade (channelisation)			$ 0.54	2021
P39	Long Street	At Smith Street		Intersection upgrade			$ 1.18	2021
P50	Broadwater Terrace	Stradbroke Street		Intersection upgrade (Signals / Ped. Xings)			$ 1.02	2021
P52	Old Cleveland Road East	Entrance to Refuse Transfer Station		Entrance channelisation			$ 0.54	2021
P54	Passage Street	At Princess Street		Intersection upgrade			$ 0.06	2021
P56	Heinemann Road	At Double Jump Road		Intersection upgrade			$ 0.60	2021
P58	Meissner Street	Government Road	Weinam Street	Seal widening and intersection upgrade at Weinam Street	0.224	2 lane trunk collector	$ 0.86	2021
P03a	New Collector - SE Thornlands	Boundary Road	Cleveland-Redland Bay Rd	2 lane trunk collector and trunk drainage (SET catchment A)	0.500	2 lane trunk collector	$ 5.45	2021
P03b	Beveridge Road	Redland Bay Road	Rachow Street	Upgraded 2 lane trunk collector and new 3-way and upgraded 3 way intersection with upgraded Rachow stub	0.710	2 lane trunk collector	$ 2.15	2021
P57a	Kinross Road	Boundary Road	1st future roundabout	Divided trunk collector, breakdowns and new roundabout	0.345	2 lane trunk collector	$ 3.03	2021
P57b	Kinross Road	1st future roundabout	3rd future roundabout	Trunk collector, breakdowns and 2 x new roundabouts	0.470	2 lane trunk collector	$ 4.40	2021
P11a	Mount Cotton Road	Moreton Bay Road	Howlett Road	Intersection upgrades			$ 8.48	2021-2026
P11b	Mount Cotton Road	Moreton Bay Road	Howlett Road	Upgrade to 2 lanes with breakdowns	1.653	2 lane urban arterial	$ 10.74	2021-2026
P24	Dinwoodie Road	Cleveland-Redland Bay Road	Boundary Road	Upgrade to 2 lane urban trunk collector	1.024	2 lane trunk collector	$ 6.70	2021-2026
P26	Gordon Road	Cleveland Redland Bay Road	Government Road	Intersection upgrades	1.759		$ 2.58	2021-2026
P28	Weinam Street	Meissner Street	Pitt Street	Seal widening and channelisation	0.277	2 lane sub-arterial	$ 1.01	2021-2026
P29a	German Church Road	Cleveland Redland Bay Road	Gordon Road	Seal widening	1.044	2 lane trunk collector	$ 2.56	2021-2026
P34	Pitt Street	Weinam Street	Hamilton Street	Seal widening and channelisation	0.215	2 lane trunk collector	$ 1.60	2021-2026
P35	Hamilton Street	Pitt Street	Peel Street	Seal widening and channelisation	0.242	2 lane trunk collector	$ 1.48	2021-2026
P41	Ziegenfusz Road	At Trundle Street		New single lane roundabout			$ 0.79	2021-2026
P44	Hardy Road	At Collingwood		Intersection upgrade			$ 0.54	2021-2026
P55	Mount Cotton Road	At Redland Bay Road		Change priority at existing signalised intersection			$ 1.02	2021-2026
P05	Wellington Street	Enterprise Street	Russell Street	Upgrade from 2 to 4 lanes	2.023	4 lane urban arterial	$ 19.20	2026
P06	Rickertt-Quarry Road	Tingalpa Creek	Charles Steet	Half of bridge widening and intersection upgrades		4 lane urban/rural arterial	$ 7.74	2026
P10b	Northern Arterial Road	At Wellington Street		Roundabout			$ 0.79	2026
P14	Bunker Road	Brookvale Drive	Realignment	Seal widening / urbanisation	1.265	2 lane rural sub-arterial	$ 1.83	2026
P15	Springacre Road	Boundary Road	Eprapah Road	Seal widening and intersection upgrade	1.600	2 lane rural sub-arterial	$ 2.86	2026
P16	Springacre Road	Eprapah Creek	Eprapah Road	Seal widening and intersection upgrade	0.180	2 lane rural sub-arterial	$ 0.80	2026
P17	Kingfisher Road	Eprapah Creek	Realignment	Seal widening and intersection upgrade	1.200	2 lane rural sub-arterial	$ 2.28	2026
P19	Double Jump Road	Cleveland-Redland Bay Road	Heinemann Road	Seal widening	2.568	2 lane rural sub-arterial	$ 3.72	2026
P20	German Church Road	Cleveland-Redland Bay Road	Heinemann Road	Seal widening	2.795	2 lane rural sub-arterial	$ 4.05	2026
P21a	Sturgeon Street	Northern Arterial	Starkey Street	Upgrade with aux lanes	1.214	2 lane urban sub-arterial	$ 8.08	2026
P21b	Starkey Street	At Old Cleveland Road		Channelisation improvements			$ 1.04	2026
P22	McDonald Road	Finucane Road	McMillan Road	Seal widening	0.577	2 lane urban sub-arterial	$ 0.98	2026
P33	Serpentine Creek Road	Collins Street	Cleveland-Redland Bay Rd	Seal widening and channelisation	1.043	2 lane trunk collector	$ 3.88	2026
P57c	Kinross Road	Panorama	stub	2 lane undivided trunk collector	0.085	2 lane trunk collector	$ 0.51	2026
P04b	Panorama Drive	Ziegenfusz Road	Wellington Street	Upgrade from 2 to 4 lanes	0.757	4 lane urban arterial	$ 5.41	2031
P07	Wellington Street	South Street	Panorama Drive	Upgrade to 2 lanes plus breakdowns	0.964	4 lane urban arterial	$ 8.46	2031
P08	Woodlands Drive	Mt Cotton Road	Taylor Road	Seal widening and intersection upgrade	1.188	2 lane rural arterial	$ 2.26	2031
P09	Woodlands Drive	Taylor Road	Boundary Road	Seal widening and intersection upgrade	2.702	2 lane rural arterial	$ 4.45	2031
P10a	Northern Arterial Road	At Sturgeon Street		Signals			$ 1.02	2031
P23	Ney Road	Wildflower Street	Mt Cotton Road	Seal widening	0.977	2 lane rural sub-arterial	$ 1.25	2031
P25	Giles Road	Heinemann Road	Cleveland-Redland Bay Rd	Road improvement and upgraded intersection	2.988	2 lane trunk collector	$ 2.46	2031
P43	Benfer Road	At Link Road		Signals			$ 1.02	2031
P45	Old Cleveland Road East	At Randall Road		Signals			$ 2.66	2031
P46	Old Cleveland Road East	At Barron Street		Signals			$ 2.66	2031
							$ 184.20	

Complete Road Infrastructure Improvement Schedule

Figure 7-1



Definition of the Transport Infrastructure Sector System **Figure 8-1**

		Value of Road Network Consumed in 2031 ($m)						Value of Road Network Consumed per Trip-end in 2031 ($)				
		Redland City (Trunk Roads Only)				State	Vehicular Trip-ends	Redland City (Trunk Roads Only)				State
Sector	**Sector Name**	Existing Rds	Upgraded Rds	Upgraded Ints.	**TOTAL**	**Roads**	(2031)	Existing Rds	Upgraded Rds	Upgraded Ints.	**TOTAL**	**Roads**
1	Alexandra Hills	$22.13	$2.55	$0.57	$25.26	$18.83	68,756	$321.92	$37.08	$8.34	$367.34	$273.91
2	Birkdale	$18.36	$4.87	$1.52	$24.74	$12.41	59,476	$308.67	$81.81	$25.50	$415.99	$208.74
3	Capalaba	$35.26	$12.81	$0.79	$48.87	$36.77	156,342	$225.54	$81.96	$5.08	$312.57	$235.20
4	Cleveland	$37.94	$17.48	$2.00	$57.42	$40.14	119,425	$317.67	$146.39	$16.77	$480.84	$336.14
5	Mt Cotton	$14.59	$4.04	$0.12	$18.75	$15.43	23,448	$622.22	$172.27	$5.18	$799.67	$657.86
6	Ormiston	$14.43	$5.55	$1.47	$21.44	$8.37	27,628	$522.16	$200.78	$53.26	$776.20	$302.86
7	Redland Bay	$37.77	$19.17	$0.75	$57.69	$38.62	55,579	$679.63	$344.89	$13.47	$1,037.99	$694.79
8	Sheldon	$5.55	$1.39	$0.03	$6.97	$2.89	7,901	$702.70	$175.56	$3.61	$881.87	$365.80
9	Thorneside	$4.06	$0.72	$0.12	$4.90	$1.20	10,516	$385.69	$68.66	$11.52	$465.87	$114.32
10	Thornlands	$25.92	$14.80	$1.07	$41.80	$37.73	62,353	$415.72	$237.44	$17.20	$670.37	$605.15
11	Victoria Point	$27.06	$6.93	$0.71	$34.70	$51.73	89,402	$302.67	$77.49	$7.98	$388.14	$578.66
12	Wellington Point	$24.46	$5.02	$1.82	$31.30	$11.37	43,624	$560.76	$115.06	$41.65	$717.48	$260.66
13a	North Stradbroke Is.	$0.49	$0.07	$0.01	$0.57	$0.27	9,383	$52.12	$7.02	$1.27	$60.41	$29.00
13b	Coochiemudlo Is.	$0.27	$0.06	$0.01	$0.34	$1.06	2,108	$127.68	$28.83	$6.55	$163.07	$502.65
13c	Sth Moreton Bay Is.	$1.65	$0.61	$0.08	$2.34	$0.77	19,374	$85.42	$31.38	$4.16	$120.96	$39.78
Totals / Averages :		$269.94	$96.06	$11.09	$377.10	$277.60	**755,314**	**$357.39**	**$127.18**	**$14.68**	**$499.26**	**$367.53**

Total Network Value (**$m**)	$498.00	$163.74	$19.97	$681.71	$330.00
Value of Spare Capacity (**$m**)	$228.06	$67.68	$8.88	$304.61	$52.40
% spare	46%	41%	44%	45%	16%

Note: all values are in 2013$

Values of Road Space Consumed in 2031

Figure 8-2