

## **APPENDIX D**

### **Growth Factors**



## D. Growth Factors

- D.1 2005 and 2006 count data was compared with 2004 data to establish whether there was any systematic growth in traffic across the study area that needed to be applied prior to the application of matrix estimation. Locations were chosen in such a way that it formed a cordon around the Bristol City area and both inbound and outbound traffic data were compared.
- D.2 The comparison for the AM Peak and Inter Peak periods are tabulated below. For consistency, the PM Peak growth factors were assumed to equate to the AM Peak.

**Table D.1 – Comparison of 2004, 2005 and 2006 Counts**

Location	Counts			Growth		
	2004	2005	2006	2004 - 2005	2005 - 2006	2004 - 2006
<b>AM Peak</b>						
Cotham Brow North Of Arley Hill	277	568	338	105%	-40%	10%
Cotham Brow North Of Arley Hill	600	351	593	-42%	69%	-1%
Redland Road South Of Zetland Road	113	105	134	-7%	28%	9%
Pembroke Road, North Of All Saints Road	342	422	417	23%	-1%	10%
Glenfrome Road North Of St Werburghs Park	407	459	504	13%	10%	11%
A38 West Street, South Of Argus Road	295	375	414	27%	10%	18%
A370 Coronation Road, West Of Dean Lane	672	650	677	-3%	4%	0%
Cumberland Road, West Of Mardyke Ferry Road	537	606	599	13%	-1%	6%
B3129 Victoria Square West Of Lansdown Place	304	294	242	-3%	-18%	-11%
Feeder Road West Of Atlas Street	853	982	677	15%	-31%	-11%
St Philips Causeway, North Of Albert Road	972	1574	1310	62%	-17%	16%
Albert Road, West Of St Philips Causeway	375	463	382	23%	-17%	1%
A432 Stapleton Road, North Of Warwick Road	269	289	286	7%	-1%	3%
A432 Stapleton Road, North Of Warwick Road	1013	982	989	-3%	1%	-1%
St Philips Causeway, North Of Albert Road	1313	893	921	-32%	3%	-16%
Redland Grove, North Of Meridian Road	93	299	251	222%	-16%	64%
Wedmore Vale North Of Weymouth Road	488	485	495	-1%	2%	1%
Hotwell Road East Of Dock Gate Lane	912	916	928	0%	1%	1%
Cumberland Road, West Of Mardyke Ferry Road	639	418	903	-35%	116%	19%

Location	Counts			Growth		
	2004	2005	2006	2004 - 2005	2005 - 2006	2004 - 2006
Feeder Road West Of Atlas Street	519	427	411	-18%	-4%	-11%
Albert Road, West Of St Philips Causeway	602	756	577	26%	-24%	-2%
Pembroke Road, North Of All Saints Road	580	637	612	10%	-4%	3%
B3129 Victoria Square West Of Lansdown Place	334	338	245	1%	-28%	-14%
Redland Grove, North Of Meridian Road	405	625	583	54%	-7%	20%
Redland Road South Of Zetland Road	420	395	329	-6%	-17%	-11%
Glenfrome Road North Of St Werburghs Park	474	472	460	0%	-3%	-1%
A4 Bath Road, East Of Totterdown Bridge	520	473	502	-9%	6%	-2%
Wedmore Vale North Of Weymouth Road	252	270	176	7%	-35%	-16%
A38 West Street, South Of Argus Road	679	619	601	-9%	-3%	-6%
A370 Coronation Road, West Of Dean Lane	741	592	559	-20%	-6%	-13%
A4 Bath Road, East Of Totterdown Bridge	645	727	827	13%	14%	13%
Hotwell Road East Of Dock Gate Lane	2060	1718	1533	-17%	-11%	-14%
<b>Total (Inbound &amp; Outbound)</b>	<b>18705</b>	<b>19180</b>	<b>18475</b>	<b>3%</b>	<b>-4%</b>	<b>-1%</b>
<b>Inter Peak</b>						
Cotham Brow North Of Arley Hill	189	350	242	85%	-31%	13%
Cotham Brow North Of Arley Hill	355	257	348	-28%	35%	-1%
Redland Road South Of Zetland Road	153	140	132	-8%	-6%	-7%
Pembroke Road, North Of All Saints Road	204	290	284	42%	-2%	18%
Glenfrome Road North Of St Werburghs Park	377	407	439	8%	8%	8%
A38 West Street, South Of Argus Road	426	450	409	6%	-9%	-2%
A370 Coronation Road, West Of Dean Lane	597	640	582	7%	-9%	-1%
Cumberland Road, West Of Mardyke Ferry Road	470	362	486	-23%	34%	2%
B3129 Victoria Square West Of Lansdown Place	298	301	280	1%	-7%	-3%
Feeder Road West Of Atlas Street	569	553	420	-3%	-24%	-14%
St Philips Causeway, North Of Albert Road	1003	1022	915	2%	-10%	-4%
Albert Road, West Of St Philips Causeway	418	420	423	0%	1%	1%

Location	Counts			Growth		
	2004	2005	2006	2004 - 2005	2005 - 2006	2004 - 2006
A432 Stapleton Road, North Of Warwick Road	454	507	517	12%	2%	7%
A432 Stapleton Road, North Of Warwick Road	525	507	592	-3%	17%	6%
St Philips Causeway, North Of Albert Road	923	1045	1073	13%	3%	8%
Redland Grove, North Of Meridian Road	122	207	185	70%	-11%	23%
Wedmore Vale North Of Weymouth Road	232	257	257	11%	0%	5%
Hotwell Road East Of Dock Gate Lane	NA	1009	920			
Cumberland Road, West Of Mardyke Ferry Road	392	412	493	5%	20%	12%
Feeder Road West Of Atlas Street	621	669	542	8%	-19%	-7%
Albert Road, West Of St Philips Causeway	534	486	528	-9%	9%	-1%
Pembroke Road, North Of All Saints Road	217	239	260	10%	9%	10%
B3129 Victoria Square West Of Lansdown Place	172	203	164	18%	-19%	-2%
Redland Grove, North Of Meridian Road	175	205	177	17%	-13%	1%
Redland Road South Of Zetland Road	179	172	147	-4%	-15%	-9%
Glenfrome Road North Of St Werburghs Park	356	367	426	3%	16%	9%
A4 Bath Road, East Of Totterdown Bridge	585	664	630	14%	-5%	4%
Wedmore Vale North Of Weymouth Road	274	296	249	8%	-16%	-5%
A38 West Street, South Of Argus Road	469	498	450	6%	-10%	-2%
A370 Coronation Road, West Of Dean Lane	758	790	744	4%	-6%	-1%
A4 Bath Road, East Of Totterdown Bridge	633	683	640	8%	-6%	1%
Hotwell Road East Of Dock Gate Lane	NA	953	893.5			
<b>Total (Inbound &amp; Outbound)</b>	<b>12680</b>	<b>13399</b>	<b>13033</b>	<b>6%</b>	<b>-3%</b>	<b>1%</b>

- D.3 The analysis shows that there has been a drop in traffic between 2004 and 2005 while there is a marginal growth between 2005 and 2006. Similarly, there is only a marginal change in traffic crossing the cordon between 2004 and 2005.
- D.4 No reliable and comprehensive dataset was available for counts outside the cordon for the AM and Inter peak period.
- D.5 TRADS data was extracted for M32 (Jct 1-2 and south of M4), M4 (Jct 18-19 and Jct 19-20) and A4 Keynsham bypass and are tabulated below.

**Table D.2 – Comparison of 2004, 2005 and 2006 Daily Traffic-TRADS Data**

Location	Counts			Growth		
	2004	2005	2006	2004 - 2005	2005 - 2006	2004 - 2006
SB, M32, Junction 1 - 2	35377	35347	34694	-0.08%	-0.97%	-1.85%
NB, M32, Junction 2 - 1	36628	36380	35216	-0.68%	-1.95%	-3.20%
SB, M32, South of M4	36576	36869	37052	0.80%	0.65%	0.50%
NB, M32, South of M4	36817	36572	36493	-0.67%	-0.44%	-0.22%
WB, M4, Junction 19 - 20	56968	57031	56354	0.11%	-0.54%	-1.19%
EB, M4, Junction 20 - 19	60419		58087		-1.95%	
EB, M4/M5, Junction 20 Main C/way Underpass	21421	21822	21756	1.87%	0.78%	-0.30%
EB, A4, Keynsham Bypass	12745	13091	12485	2.71%	-1.03%	-4.63%
WB, A4, Keynsham Bypass	12731	12990	12544	2.03%	-0.74%	-3.43%
WB, M4, Junction 18 - 19	43836	43231	42969	-1.38%	-0.99%	-0.61%
EB, M4, Junction 19 - 18	44719	44545	43701	-0.39%	-1.14%	-1.89%
SB, M32, Junction 1 - 2	35377	35347	34694	-0.08%	-0.97%	-1.85%
<b>Average Growth</b>				<b>0.43%</b>	<b>-0.76%</b>	<b>-1.68%</b>

D.6 The analysis shows that there wasn't any clear growth pattern between the years and it was assumed that there was no overall network-wide growth in traffic between 2004 and 2006 – any localised growth would be undertaken using matrix estimation.