



VICTORIA GARDENS - FUTURE DEVELOPMENT INVESTIGATION

PDP Part 2

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TABLE OF CONTENTS

1. BACKGROUND & INTRODUCTION.....	1
2. THE PROPOSED OPTIONS	2
3. TRAFFIC GENERATION	6
3.1 Traffic Distribution	7
3.2 Impact	7
3.3 Other Development	8

LIST OF TABLES

Table 1	PDP– Summary of Traffic Generation	6
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LIST OF FIGURES

Figure 1	Locality Plan.....	3
Figure 2	Summary of Observed AM Commuter Peak Hour Flows – June 2006	4
Figure 3	Summary of PM Commuter Peak Hour Flows – June 2006.....	5
Figure 4	Summary of Previous Approved Development Flows – Stage 4 (FOR COMPARISON ONLY)	9
Figure 5	Development Traffic Flows – Option 1.....	10
Figure 6	Development Traffic Flows – Option 2.....	11
Figure 7	Change in Development Flows Compared to Stage 4* – Option 1	12
Figure 8	Change in Development Flows Compared to Stage 4* – Option 2	13
Figure 9	Summary of Post Development Flows – Option 1	14
Figure 10	Summary of Post Development Flows – Option 2	15

1. BACKGROUND & INTRODUCTION

Cardno Grogan Richards Pty Ltd (CGR), previously prepared traffic and car parking plans for the proposed office development associated with future development of Victoria Gardens. Reference should be made to the previous reports entitled, "Victoria Gardens, Stage 4 Office Development – Traffic Plan" and "Victoria Gardens, Stage 4 Office Development – Car Parking Plan", both dated 30 October 2001.

Stages 1-3 have been constructed and comprise office, 99 residential units and the shopping centre. The Stage 4 development was approved by Council in August 2002 and comprises 3 buildings with a total office floor area of 27,058sq.m, warehouse of 980sq.m. and a mail/printing facility of 1,900sq.m., plus parking for a total of about 1,259 spaces. In August 2007 a traffic report was prepared to address a proposed change to the previously approved Stage 4 development involving removal of the mail/printing facility and increase in warehouse floor area of 1,900sq.m. to 2,880sq.m..

Future work was planned to include the construction of further residential development (200-400 units) east of River Boulevard, however no application has yet been made for this stage.

This report is intended to consider the traffic engineering implications of possible changes to the future development composition on the site, in response to the Priority Development Panel's instructions from the Minister for Planning.

Traffic volume data was collected at the intersections of Victoria Street with Burnley Street and River Boulevard in June 2006, for both the AM and PM commuter peak periods. The peak hour data is summarised in Figure 2 and Figure 3.

The proposed office development is expected to generate its peak parking and traffic demand during business hours and demand on the weekends and after hours is expected to be limited. Consequently the traffic activity associated with a new office is expected to occur outside the peak of the adjacent shopping centre and not exacerbate conditions at that time.

Other development that is likely to occur in the vicinity of Victoria Gardens includes the development of 647 Victoria Street, and the proposed additional parking levels on the shopping centre, and, this was also taken into account when the traffic impact of the latest Stage 4 proposal was assessed.

Traffic associated with other possible development in the area has not been taken into account in this report because schemes for those sites have not been finalised. At this stage it is considered satisfactory to assume that the Stage 4/4A traffic flows will be significantly less than those that may be generated by the development of all sites previously considered by the Priority Development Panel and therefore it would be appropriate to consider that other development separately and assess its impact when details of those development approval applications are finalised. The work done by several parties including Grogan Richards Pty Ltd is summarised in the traffic report entitled, "Victoria Street East, Proposed Redevelopment – Traffic Considerations", dated July 2006.

2. THE PROPOSED OPTIONS

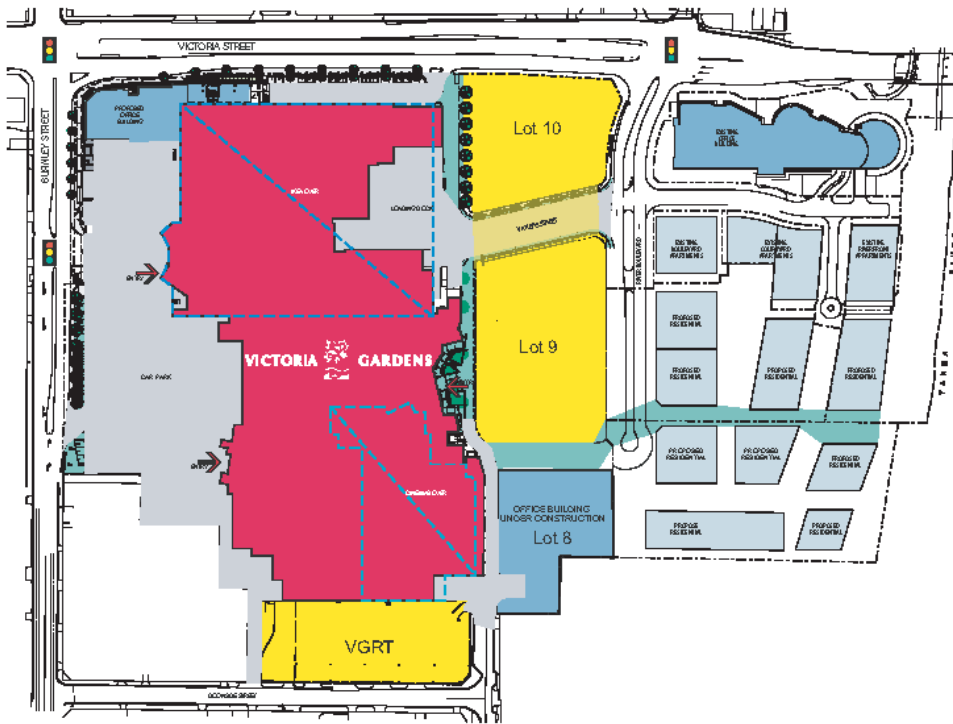
The next stage of development is planned to include 27,058sq.m. of office floor area plus 2,880sq.m. of warehouse use, with vehicle access via River Boulevard.

The two options are outlined below and represent an increase in floor area over that previously considered in traffic reports. The following sections review the implications of the increase in floor area

Location	Option 1		Option 2	
	Use	Floor Area (sq.m.)	Use	Floor Area (sq.m.)
Lot 8	Office (BAE building)	11,420	Office (BAE)	11,420
Lot 9	Office	11,690	Office	22,058
	Retail	13,000	Retail	0
Lot 10	Office	22,187.	Office	22,187
VGRT	Retail	7,500	Retail	7,500
Totals		65,797		63,165

Figure 1 shows the proposed development areas within the Victoria Gardens site.

In assessing the change in traffic flows it was assumed that a proportion of parking for Lot 8 and the retail component is to be provided with access from Doonside Street to a possible multi-level car park, as well as River Boulevard. Parking for Lot 10 is to be accessed from the shopping centre car park in a similar fashion to existing office parking in the lowest level.



■ Area under change

Victoria Gardens : Site Plan



Figure 1 Locality Plan

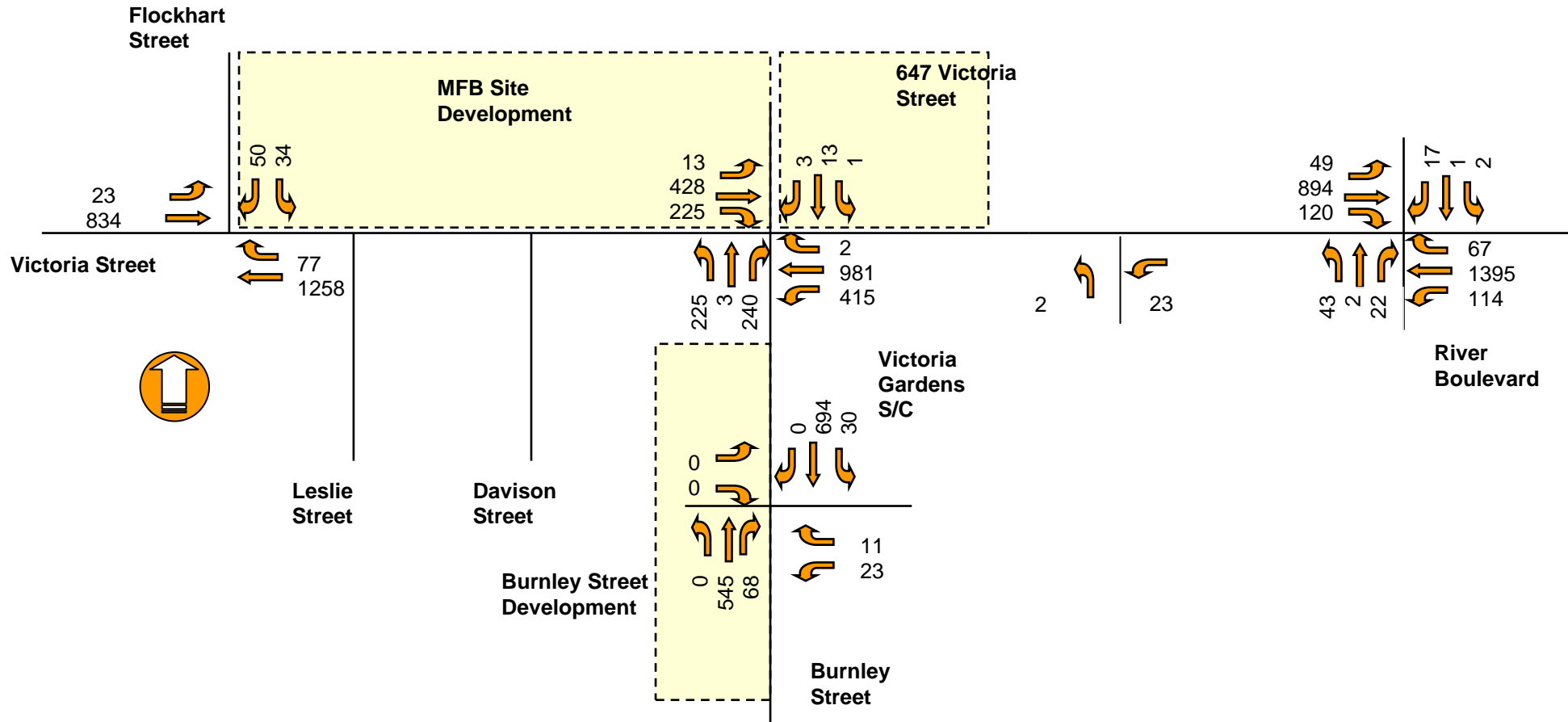


Figure 2 Summary of Observed AM Commuter Peak Hour Flows – June 2006

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3. TRAFFIC GENERATION

Previous work undertaken by Grogan Richards Pty Ltd and summarised in the October 2001 report anticipated that traffic attributable to the office component would generate up to 1.10 trips per 100sq.m. during the commuter peak hours. Since that time further information presented to the PDP took a more conservative approach and based the traffic generation on the number of parking spaces that are provided.

The office traffic generation is based on the statutory requirement of 2.5 spaces per 100sq.m. For the purposes of analysis it was assumed that during the AM commuter peak 60% of spaces would fill, while during the PM commuter peak hour 50% of spaces would vacate. Flows in the counter peak direction would be 10% of the peak direction. The anticipated traffic generation equates to about 1.6 and 1.4 movements per 100sq.m. during the AM and PM peak hours.

A rate of 0.6 and 2.4 trips/100sq.m. of lettable floor area was applied to the retail component of Options 1 & 2

Table 1 summarises the expected traffic generation of the two options.

Table 1 PDP– Summary of Traffic Generation

		Location	Floor Area (sq.m.)	AM Peak		PM Peak	
				IN	OUT	IN	OUT
Option 1	Lot 8	BAE	11,420	171	17	14	143
	Lot 9	Office	11,690	175	17	15	146
		Retail	13,000	78	1	156	156
	Lot 10	Office	22,187	333	33	28	278
	VGRT	Retail	7,500	45	1	90	90
Total			65,797	802	79	303	813
				881		1,116	
Option 2	Lot 8	BAE	11,420	171	17	14	143
	Lot 9	Office	22,058	330	33	28	276
		Retail	0	0	0	0	0
	Lot 10	Office	22,187	333	33	28	278
	VGRT	Retail	7,500	45	1	90	90
Total			63,165	879	84	160	787
				963		947	

The current Stage 4 development is expected to generate approximately 474 and 401 movements during the AM and PM peak hours. The options represent an increase of 407-489 trips in the AM and 546-715 trips during the PM commuter peak hour, for Options 1 and 2 respectively.

3.1 Traffic Distribution

Traffic generated by the office component is expected to primarily utilise the River Boulevard/Victoria Street intersection and follow the observed distribution for the office workers on the Honeywell site opposite that indicates about 58% entering from the east and 42% from the west, and 85% exiting to the west during the AM peak, while 56% exit to the east and 44% to the west, and 50% entering from each direction during the PM peak hour.

Traffic associated with the retail component is expected to utilise Burnley Street as well as the River Boulevard access. The anticipated retail traffic distribution is summarised in Cardno's July 2006 report to the PDP.

The anticipated development traffic flows for the two options are shown in Figure 5 and Figure 6, while Figure 4 summarises the recent work for Stage 4, and is provided for comparison. Figures 7 and 8 summarise the change in development flows compared to Stage 4 work already undertaken.

Figure 9 and 10 summarise the post development traffic for each option and has been derived by superimposing the anticipated development traffic onto the observed June 2006 traffic flows.

3.2 Impact

Each option results in a significant increase in turning traffic at River Boulevard of between 50 and 100vph above that previously expected due to Stage 4. The resulting flows turning left out of the site in the PM peak, and, turning right into the site during the AM peak are expected to take these movements close to their theoretical capacity. Flows at the Victoria Street/Burnley Street intersection are similar to the previous estimates and increases due to the Options considered here are in the range of 40 to 50 movements and therefore not expected to alter the conclusions of the July 2006 analysis.

In practice the actual traffic flows at the River Boulevard access will depend on the proportion of parking provided with access from Doonside Street, i.e. if parking for Lot 9 is provide there then turning traffic at River Boulevard could be significantly reduced on the west and south approaches. In addition the current analysis assumes only a small number of people in Lot 9 would use the existing shopping centre as a short-cut to Burnley Street – in practice congestion levels on Victoria Street are likely to encourage a greater proportion of Lot 9 office worker traffic to use the shopping centre (even though it requires the driver to negotiate the control points).

Future residential development would be expected to the further increase in traffic movements at the River Boulevard access during the commuter peak hours by between 100 and 200 movements in total. As the residential distribution is opposite to the office distribution and likely not to coincide, the construction of this future component is not expected to have a significant impact on intersection operating conditions.

3.3 Other Development

Increases in traffic flows due to other development not considered in this summary such as the MFB site will increase traffic flows on Victoria Street, but not turning traffic into the shopping centre and therefore the impact of those developments on the River Boulevard intersection is not expected to affect the ability of cars to get on and off the site.

The expected impact of other development on the Victoria Street/Burnley Street intersection has been documented in the 2006 work and report presented to the PDP. Figure 7 and 8 summarise the expected increase in traffic flows at the adjacent intersections due to the two Options being considered (when compared to the current approved Stage 4 and 647 Victoria Street developments).

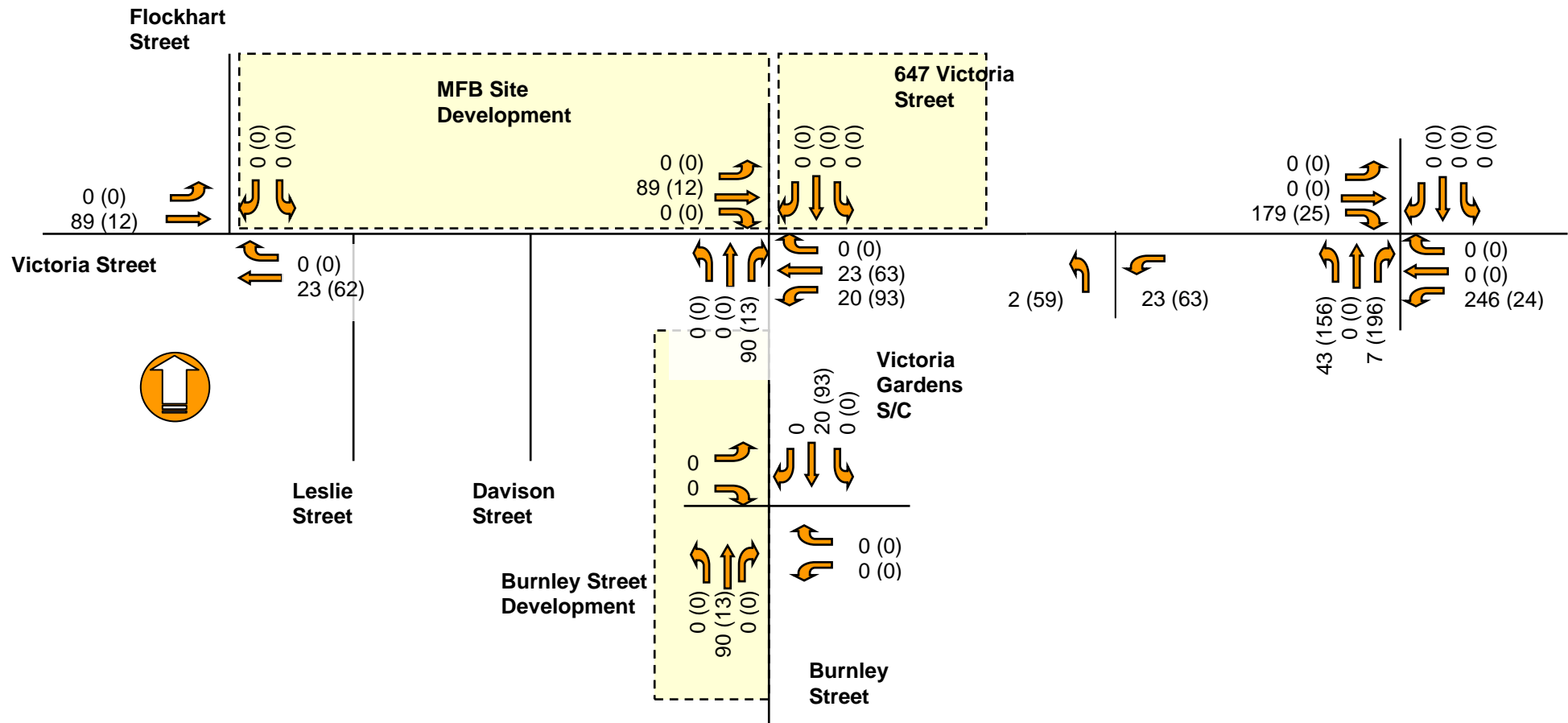


Figure 4 Summary of Previous Approved Development Flows – Stage 4 (FOR COMPARISON ONLY)

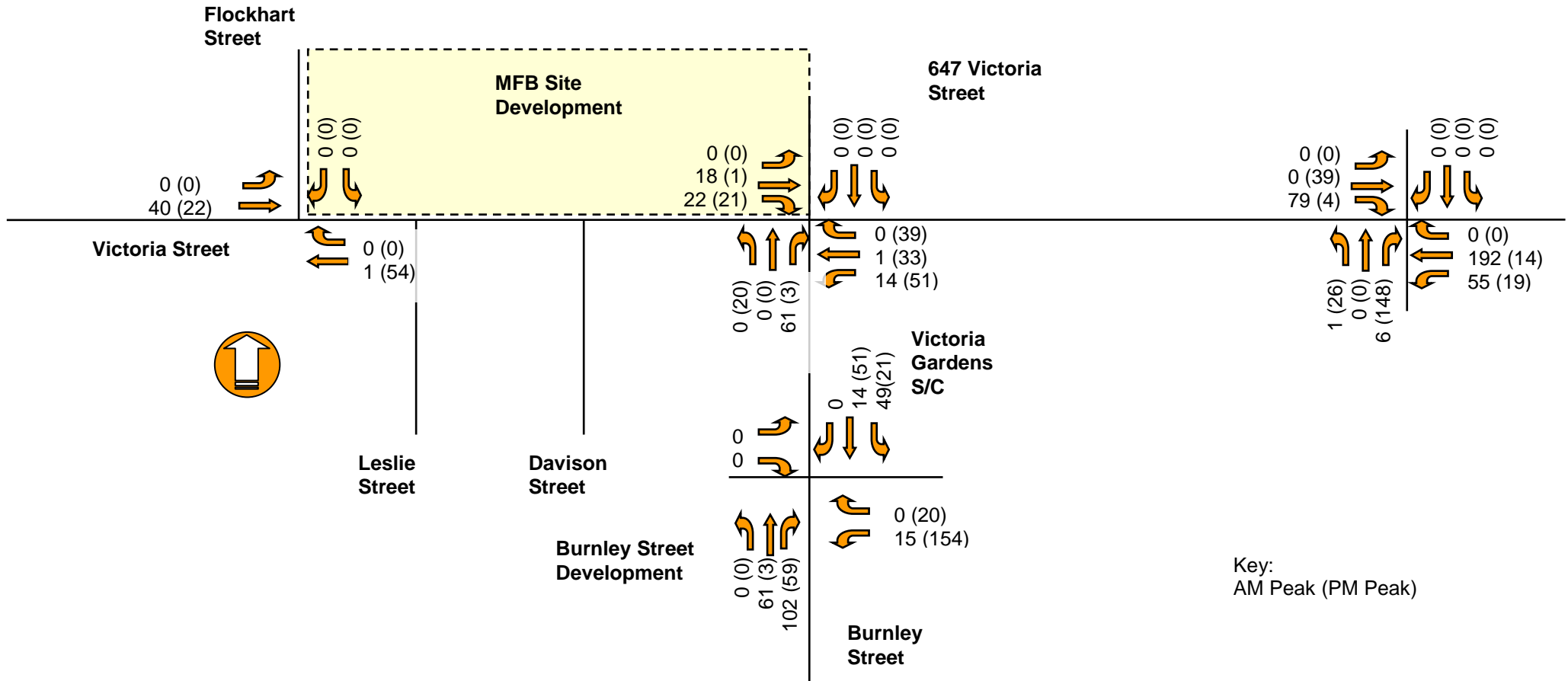


Figure 8 Change in Development Flows Compared to Stage 4* – Option 2

* includes 647 Victoria Street

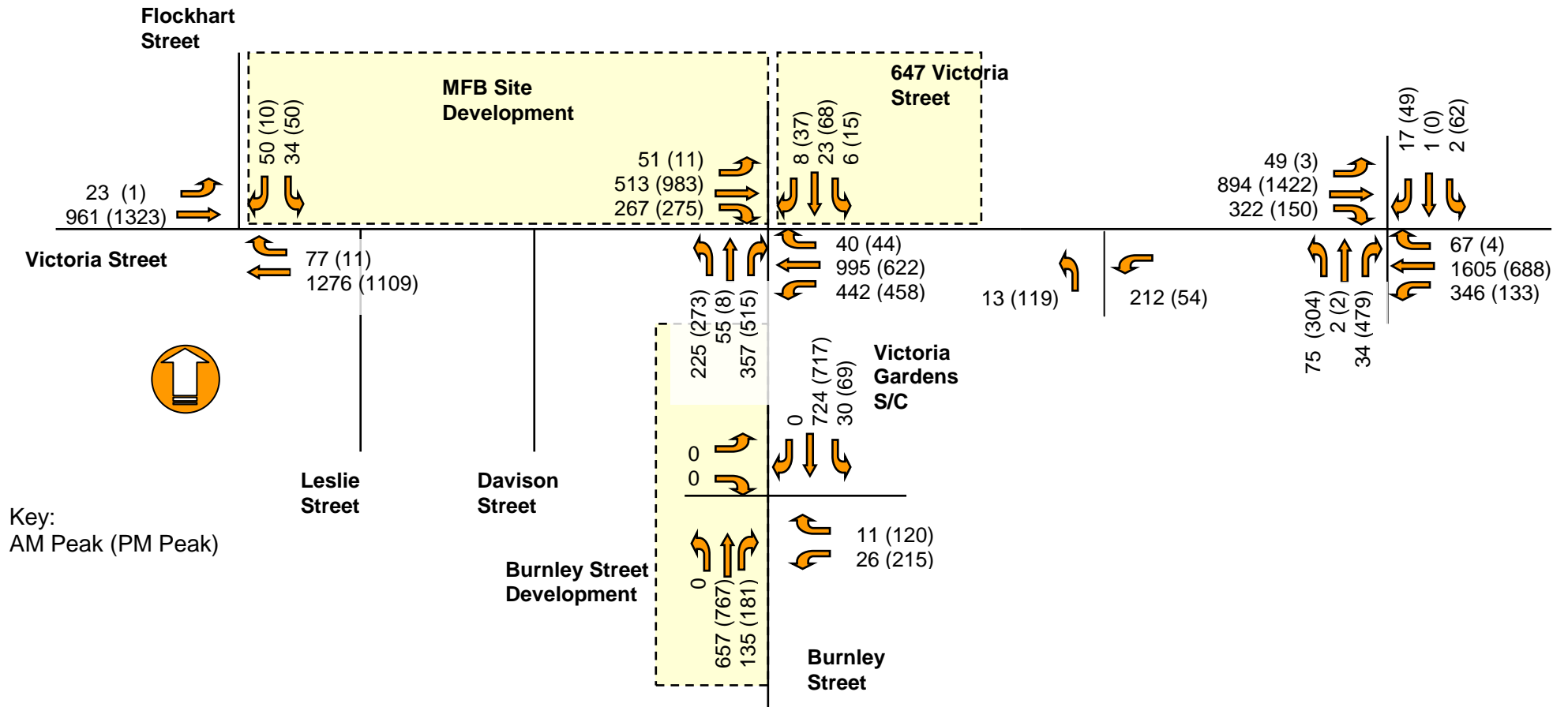


Figure 9 Summary of Post Development Flows – Option 1

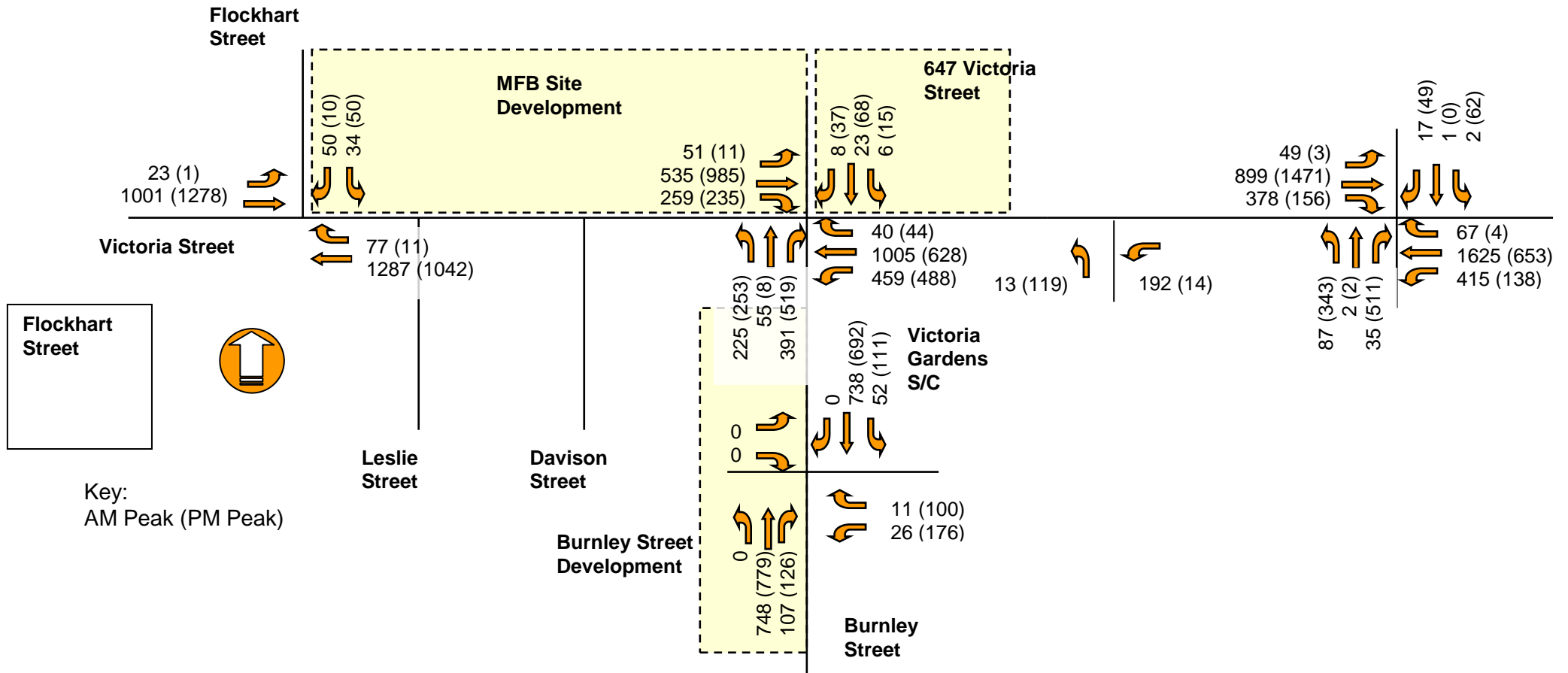


Figure 10 Summary of Post Development Flows – Option 2

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