

		ACTION	DATE
TO	1. SENIOR ENGINEER, CONTROLLER APPLICATIONS		
	2. DAMIEN KALUARACHCHI , IMPROVEMENT PROJECTS		
FROM	ISURU MEDONZA	DATE	18/06/18
SITE	HAWDON STREET NR REA STREET	SITE NO.	6096
REGION	NORTH EASTERN	MUNICIPALITY	GREATER SHEPPARTON

## GENERAL

Works Program Job?	Yes	Project Number	44IWMAIN
Classification	STANDARD	Works Order Number	4A006011
Description	<input type="checkbox"/> New intersection signals <input type="checkbox"/> New pedestrian operated signals <input checked="" type="checkbox"/> Controller swap. Reason for swap		
	New Controller LED Upgrade		

## CONTROLLER DETAILS

Type	Eclipse	Software Version & Release	V5 R20	Lanterns	LED
Number of Signal Groups	Vehicle	2	Pedestrians	1	Total 3
Number of special outputs / Pedestrian Wait State Outputs	0				
Controller capacity	4				
Number of detectors	Vehicle	2	Pedestrians	1	Total 3
	Tram	0	Other	0	

## CONTROLLER APPLICATIONS

Target Date for Draft Opsheet	4/06/18
Target Date for completion of Program	ASAP
Prepare Interlocking	

## PERSONALITY CHECKSUMS

	Hex	Octal
Total	0C	14
Times	4C	114
Pers	40	100
Dispatched	24/07/18	

## IMPROVEMENT PROJECTS - SIGNAL INSTALLATION

If switch-on of a metro site is to occur without a Telstra line, seek approval of the T/L Signal Services

SCATS connection	Controller must be connected to SCATS at switch-on
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## PRIOR NOTICE

A job must be entered into RAI Action database before this switch on will be allowed.

<input checked="" type="checkbox"/>	SCATS data changes - notify	ISURU MEDONZA	Ext	8725
	OR	CHRIS EER	Ext	8711
before 3:00pm on the day before switch on.				

SCATS Data Changes -

## TRAFFIC MANAGEMENT CENTRE

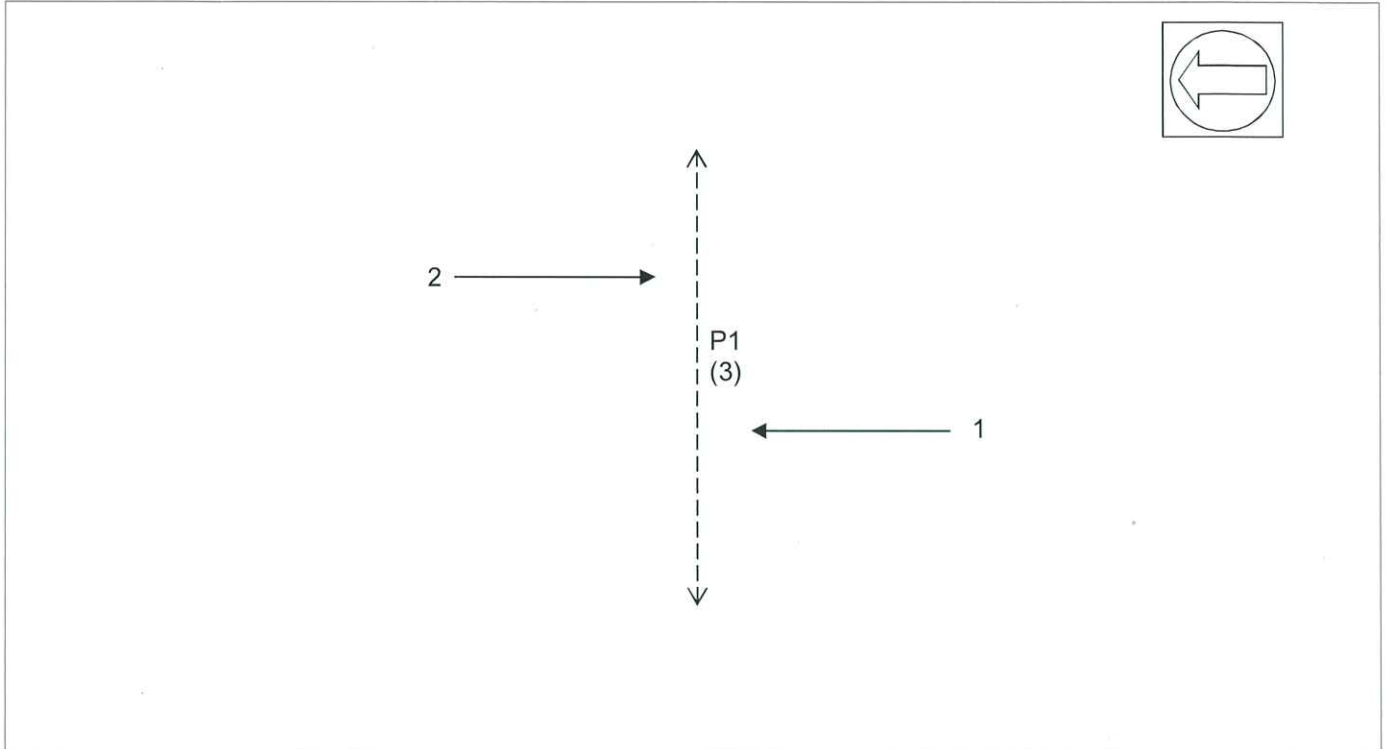
<input checked="" type="checkbox"/>	Please notify ISURU MEDONZA (x8725) on job completion.
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## DATE OF NEW CONTROLLER SWITCH ON

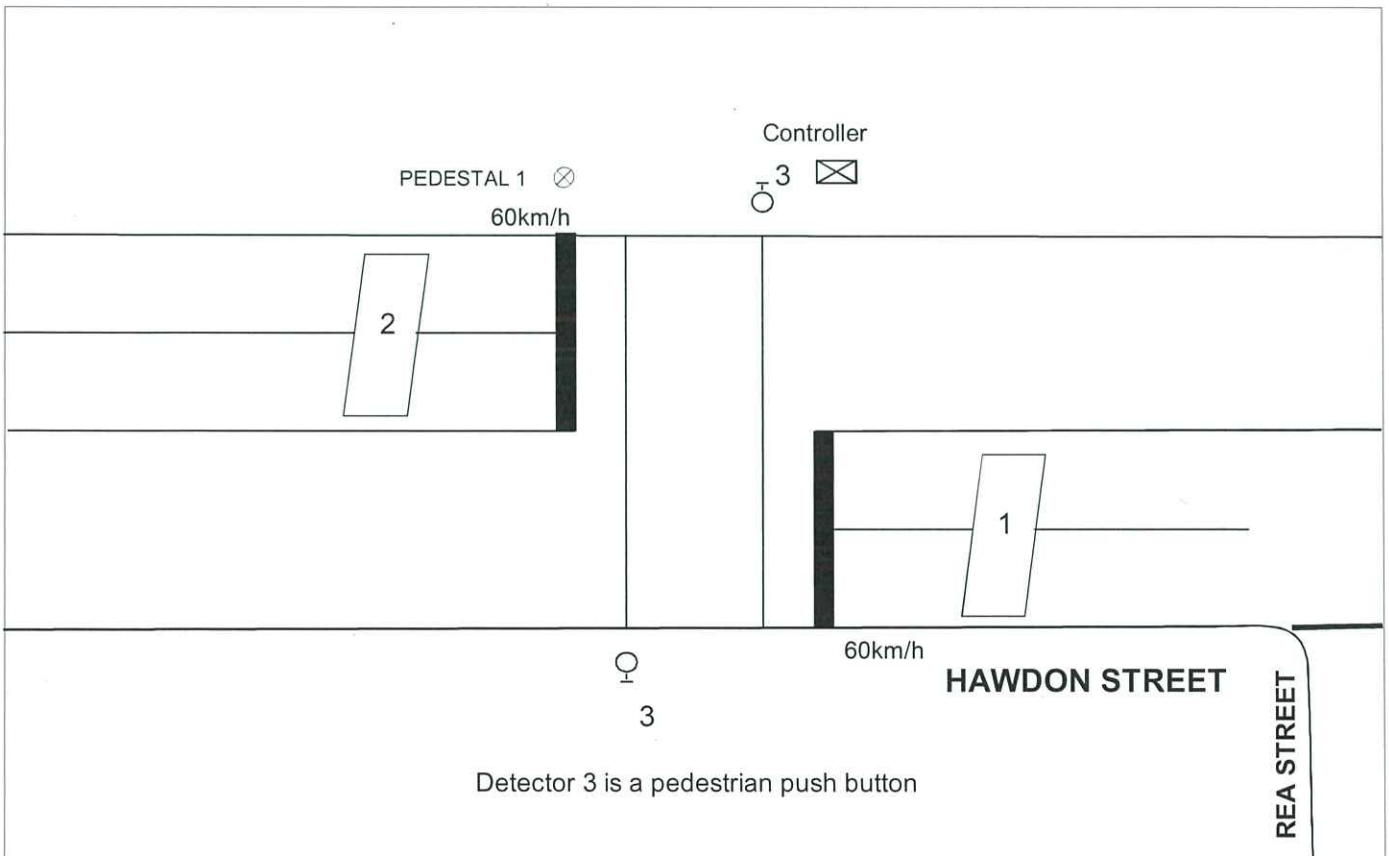
## CONTROLLER OPERATION SPECIFICATION

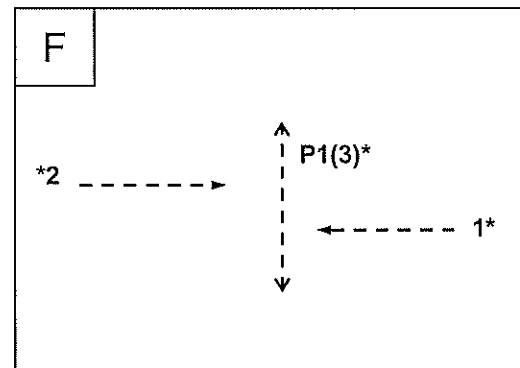
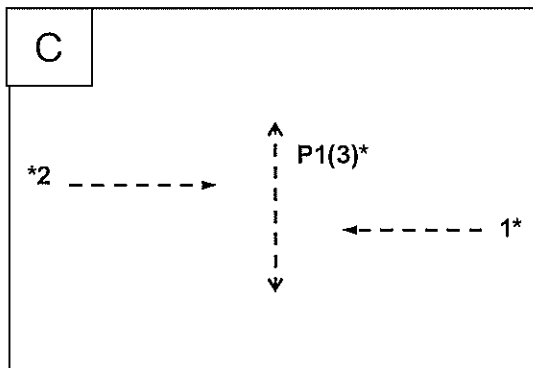
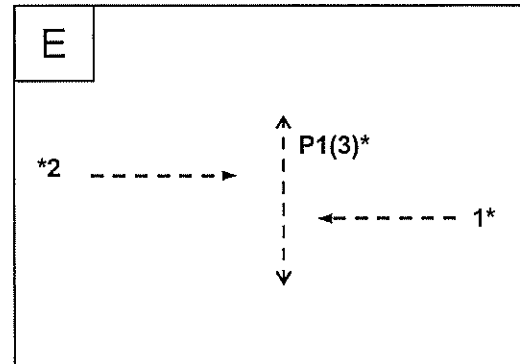
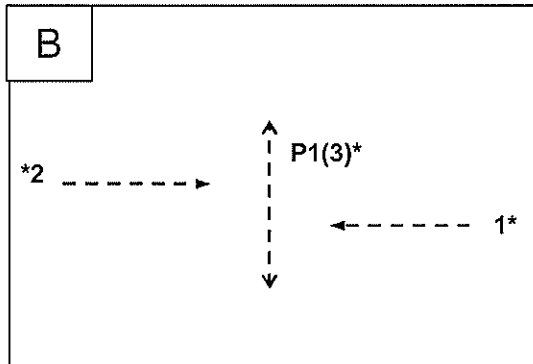
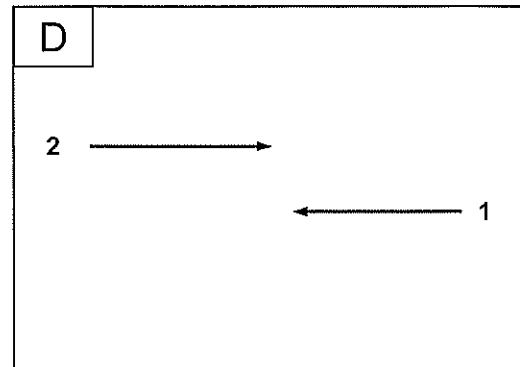
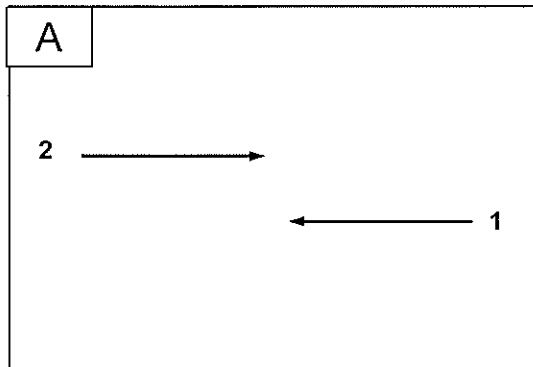
SITE NAME	<b>HAWDON STREET NR REA STREET</b>			SITE NO.	<b>6096</b>
MUNICIPALITY	GREATER SHEPPARTON	DESIGNED BY	ISURU MEDONZA	DATE	18/06/18
PLAN NO.	700301	DESIGN CHECKED	<i>Chris Ren</i>	DATE	10/7/2018
CONTROLLER TYPE	Eclipse	PROM CHECKED	<i>Isuru Medonza</i>	DATE	23/7/2018

## GROUP ALLOCATION



## DETECTOR MAP



**PHASING DIAGRAM****OPERATION IN LINK MODE**

1. Signal groups are independent of phasing. All phases have a permanent demand in Masterlink & Flexilink
2. SG1 & SG2 cannot close down during AØ (refer note 6 below for the exception).
- \* 3. SG1 & SG2 can close down at any time during BØ green, provided SG1 & SG2 minimum green has expired and both approaches gap or waste. If SG1 & SG2 close down at the end of BØ green (i.e. at the start of BØ yellow), P1 introduces at the start of CØ
- \* 4. SG1 & SG2 cannot close down during CØ
5. Any ped demand placed during BØ intergreen or during CØ will not be serviced until the next cycle.
6. If BØ is left out of the sequence in Masterlink or Flexilink, SG1 & SG2 can close down at the start of AØ yellow and P1 introduces at the start of CØ.
7. The operation of DØ, EØ, FØ are the same as for AØ, BØ, CØ respectively. DØ, EØ and FØ are only used when double phasing.
8. When XSF3 (Master & Flexi) is set, P1 uses Special Purpose Timesetting No. 9 for its walk time.

**OPERATION IN V.A. AND FLEXI ISOLATED MODES**

1. Controller runs AØ and CØ.
2. AØ is extended by the vehicle detectors. When AØ gaps or wastes, AØ and SG1 & SG2 close down together.
3. CØ is called by P1. P1 introduces at the start of CØ (SG1 & SG2 close down at the start of AØ yellow). CØ runs for the duration of P1 walk, clearance and solid don't walk time.

V.A. SEQUENCE AC

DESIGNED BY: ISURU MEDONZA

DATE 18/06/18

**DETECTOR FUNCTIONS**

DETECTOR No.	Internal / External	Input Number	SPECIAL FUNCTION	DETECTOR ALARMS					
				DA Category	Disable	DA on S/C only	Fault Simulation		
							Call & Extend	Call Only	Ignore
1	I	1	Extend SG1, Approach 1 *	0			✓		
2	I	2	Extend SG2, Approach 2 *	0			✓		
3	E	1	Call CØ. Places demand for Ped 1**.	6		✓			
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									

\* For Queuing Feature, refer notes on page 6.

\*\* MSS11 is set for the duration of P1 demand.

**INTERGREEN AND PEDESTRIAN TIMES****INTERGREEN TIMES**

	LEGAL SPEED	DESIGN SPEED		INTERGREEN		
		YELLOW	RED	YELLOW	RED	TOTAL
SG1 & SG2	60	60	-	4.0	2.0	6.0

**PEDESTRIAN TIMES**

	WALK			CLEARANCE			MINIMUM SOLID DON'T WALK
	DISTANCE (m)	TIME		DISTANCE (m)	TIME		
		GRAPH	ADOPTED		GRAPH	ADOPTED	
P1	12.0	8	8	12.0	8	8	3.0

## CONTROLLER TIMESETTINGS - 1

### PHASE TIMESETTINGS

Front Panel Command: Phase No.Timesetting No (e.g. 1.6 accesses A phase maximum extension green)

DESCRIPTION	Timesetting No	PHASE						
		A (1)	B (2)	C (3)	D (4)	E (5)	F (6)	G (7)
RED / YELLOW	1	-	-	-	-	-	-	-
LATE START	2	-	-	-	-	-	-	-
MINIMUM GREEN (1)	3	3.0	0.0	3.0	3.0	0.0	3.0	-
INCREMENT	4	-	-	-	-	-	-	-
MAXIMUM INITIAL GREEN	5	-	-	-	-	-	-	-
MAXIMUM EXTENSION GREEN (4)	6	25	-	-	-	-	-	-
EARLY CUT OFF	7	-	-	-	-	-	-	-
YELLOW (2)	8	4.0	4.0	3.0	4.0	4.0	3.0	-
ALL RED (2)	9	2.0	2.0	0.0	2.0	2.0	0.0	-
SPECIAL ALL RED	10	0*	-	-	-	-	-	-
GAP 1 (3)	11	3.0	-	-	-	-	-	-
GAP 2 (3)	12	3.0	-	-	-	-	-	-
GAP 3	13	-	-	-	-	-	-	-
GAP 4	14	-	-	-	-	-	-	-
HEADWAY 1	15	0.8	-	-	-	-	-	-
HEADWAY 2	16	0.8	-	-	-	-	-	-
HEADWAY 3	17	-	-	-	-	-	-	-
HEADWAY 4	18	-	-	-	-	-	-	-
WASTE 1	19	7	-	-	-	-	-	-
WASTE 2	20	7	-	-	-	-	-	-
WASTE 3	21	-	-	-	-	-	-	-
WASTE 4	22	-	-	-	-	-	-	-

1. For SG1 & SG2 minimum green in Isolated mode, refer Special Purpose Timesetting 10. \* Special all red for AØ → BØ, DØ → EØ.

For SG1 &amp; SG2 minimum green in link mode, refer Special Purpose Timesetting 11.

2. When SG1 &amp; SG2 close down they use the phase yellow time &amp; the all-red specified in Special Movement Timesettings 1&amp;2 (AØ all-red).

3. SG1 &amp; SG2 use the gap, headway and waste times specified in AØ timesettings.

4. AØ maximum extension green is used only in Isolated mode.

### PEDESTRIAN TIMESETTINGS

Front Panel Command: Pedestrian No.Timesetting No (e.g. 18.2 accesses P2 walk)

DESCRIPTION	Timesetting No	PEDESTRIAN							
		P1 (17)	P2 (18)	P3 (19)	P4 (20)	P5 (21)	P6 (22)	P7 (23)	P8 (24)
DELAY	1	-	-	-	-	-	-	-	-
WALK*	2	8	-	-	-	-	-	-	-
CLEARANCE 1	3	8	-	-	-	-	-	-	-
CLEARANCE 2	4	0	-	-	-	-	-	-	-

DESIGNED BY: ISURU MEDONZA

DATE 18/06/18

**CONTROLLER TIMESETTINGS - 2****SPECIAL MOVEMENT TIMESETTINGS** Front Panel Command: B.Timesetting No (e.g. B.5 accesses Special Movement Timesetting No 5)

Timesetting No	Timesetting (Range: 0-5)	FUNCTION
1	2.0	SG1 ALL RED (SUBSTITUTE AØ ALL RED)
2	2.0	SG2 ALL RED (SUBSTITUTE AØ ALL RED)
3		
4		
5		
6		
7		
8		

**SPECIAL PURPOSE TIMESETTINGS** Front Panel Command: B.Timesetting No (e.g. B.19 accesses Special Movement Timesetting No 19)

Timesetting No	Timesetting (Range: 0-200)	FUNCTION
9	8	P1 WALK TIME SUBSTITUTION
10	10	SG1 & SG2 MINIMUM GREEN IN ISOLATED MODE
11	10	SG1 & SG2 MINIMUM GREEN IN LINK MODE
12		
13		
14		
15		
16		
17		
18	0	LIMIT GREEN WATCHDOG TIMER
19	0	SPECIAL FACILITY CONTROLS ALARM TIMER
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		

**CONTROLLER TIMESETTINGS - 3****PRESENCE TIMESETTINGS**

Front Panel Command: D.Detector No (e.g. D.7 accesses Presence time for detector 7)

DETECTOR No	TIMESETTING (Range: 0-10)
1	6.0
2	6.0
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	

**QUEUING FEATURE****APPROACH 1:**

- If XSF9 (Masterlink) or R- (Flexilink) is set, and the presence time for detector 1 is expired in BØ, and there is a demand for P1, expire approach 1
- If XSF9 (Masterlink) or Q- (Flexilink) is set, and the presence time for detector 1 is expired in EØ, and there is a demand for P1, expire approach 1

**APPROACH 2:**

- If XSF10 (Masterlink) or R+ (Flexilink) is set, and the presence time for detector 2 is expired in BØ, and there is a demand for P1, expire approach 2
- If XSF10 (Masterlink) or Q+ (Flexilink) is set, and the presence time for detector 2 is expired in EØ, and there is a demand for P1, expire approach 2

**DAILY EVENT TIMESETTINGS**

FUNCTION	TIMESETTING
Daily start time (Hours)	
Daily start time (Minutes)	
Daily finish time (Hours)	
Daily finish time (Minutes)	

**FLEXILINK OPERATION****PHASE SEQUENCES**

No	PHASE SEQUENCE
1 (No Y+)	ABCDEF (Only ABC run)
2 (Y+)	ABCDEF

**NOTES:**

1. All phases must be specified in the phase sequence
2. Only specify phase sequence 2 if it is different from phase sequence 1.

**LOOK AHEADS & RELEASES**

PHASE SEQUENCE 1		
PHASE	LOOK AHEAD*	RELEASE
A	No	No
B	No	No
C	No	No
D	No	No
E	No	No
F	No	No
G	No	No

PHASE SEQUENCE 2		
PHASE	LOOK AHEAD*	RELEASE
A	No	No
B	No	No
C	No	No
D	No	No
E	No	No
F	No	No
G	No	No

\* Specify the phases to which look ahead is permitted, e.g. Yes (to E, F, G, A)

**INHIBIT PHASES**

The following phases can be inhibited in flexilink by setting the call pulse one step before the call pulse of the next phase in sequence

B, E

**PULSE STEP LENGTH**

☐ One Second ☒ Two Second

**MASTERLINK & FLEXILINK SPECIAL FLAGS**

FLAG	FUNCTION
Y- Flexi	The site will operate in flexilink mode if the signal is continuously sent (C) or is used as an offset (e.g. 25)
Y- Master	
Y+ Flexi	Double phasing, i.e. Run ABCDEF
Z- Flexi	
Z- Master	
Z+ Flexi	
Z+ Master	
R- Flexi	Queuing Feature (refer notes on page 6)
R+ Flexi	Queuing Feature (refer notes on page 6)
Q- Flexi	Queuing Feature (refer notes on page 6)
Q+ Flexi	Queuing Feature (refer notes on page 6)



**SCATS INTERSECTION DATA**

The data shown on this page is typical data that can be used for testing controller operations.

This data is not necessarily applicable when the site is switched on in the field

**TYPICAL SLOT DATA**

SLOT <i>n</i>	=	6	,	1	,	0
		(phases)		(split plans)		(walks)
INT	=	6096				
VC	=	5				
CS	=					
COM	=	NET				
PK	=	!				
S#	=					
LM	=					
RMN	=	0				
DCL	=	0				
AT	=	4				
BT	=	6				
CT	=	3				
DT	=	4				
ET	=	6				
FT	=	3				
PP1	=	0,0A				
PP2	=	0,0A				
PP3	=	0,0A				
PP4	=	0,0A				

**TYPICAL SPLIT PLAN DATA**

PHASE SEQUENCE 1	
A =	0PDB
B =	50NGC
C* =	19#NGA
D =	1E
E =	1F
F =	1A

PEDNO	PED NO				P1
	GROUP NO	1	2	3	
	1				X
	2				X
P1	3	X	X		

\* CØ = WALK + CLEARANCE + 3 SECONDS

**TYPICAL VARIATION PARAMETERS**

VP1 =		VP22 =		VP43 =	
VP2 =		VP23 =		VP44 =	
VP3 =		VP24 =		VP45 =	
VP4 =		VP25 =		VP46 =	
VP5 =		VP26 =		VP47 =	
VP6 =		VP27 =		VP48 =	
VP7 =		VP28 =		VP49 =	
VP8 =		VP29 =		VP50 =	
VP9 =		VP30 =		VP51 =	
VP10 =		VP31 =		VP52 =	
VP11 =		VP32 =		VP53 =	
VP12 =		VP33 =		VP54 =	
VP13 =		VP34 =		VP55 =	
VP14 =		VP35 =		VP56 =	
VP15 =		VP36 =		VP57 =	
VP16 =		VP37 =		VP58 =	
VP17 =		VP38 =		VP59 =	
VP18 =		VP39 =		VP60 =	
VP19 =		VP40 =		VP61 =	
VP20 =		VP41 =		VP62 =	
VP21 =		VP42 =			

```
1  SITE NO.= 6096   24/07/18
2
3  PAGE
4  *** MAPPING TABLES
5  *** Input translation map
6  IMAP      EQU *
7  SECT1     EQU *
8      FDB INT1+1      ( APP 1 )
9      FDB INT2+2      ( APP 2 )
10     FDB EXT1+P1      ( P1 P.B. )
11     FDB END
12
13
```