



Product Type: ASC/3

Reference: AN2103
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Program a Flashing Mid-Block Pedestrian Crossing

Purpose

This document recommends a method to program an ASC/3 Controller for a Flashing Mid-Block Pedestrian Crossing (also called “BC Flashing Pedestrian Crossing” because it is used in British Columbia, Canada).

Introduction

This configuration of the ASC/3 for Flashing Mid-Block Ped Crossing is used to notify the driving public of a non-intersection Pedestrian crossing. The sequence is as follows:

1. The traffic signal rests in vehicle green of the primary street with a Vehicle 1 PPS Flashing Green display, WALK REST on Phase 2. The crossing pedestrian movement Phase 4, shows a Solid DON'T WALK.
2. After a pedestrian pushes a button to actuate Phase 4, the display stays as a Solid DON'T WALK while:
 - a. The Vehicle signal for Phase 2 advances from the *Flashing* green to a *Solid* green signal. The length of Solid Green time is the same as the Phase 2 Pedestrian Clearance time.
 - b. The YELLOW and RED vehicle signal time, based on the clearance interval programmed timing, and when complete Phase 2 terminates.
3. Phase 4 cycles through the pedestrian movement, WALK, PED CLEAR, RED CLEAR then terminates and returns to Phase 2. During this time, Phase 2 shows a solid RED vehicle display.

Applications

Flashing Mid-Block Ped Crossing uses:

- Phase 2 for the flashing green vehicle phase timing
- Phase 4 for the pedestrian phase timing and display

To program an ASC/3 Controller for a Flashing Mid-Block Pedestrian Crossing, enter data in ASC/3 screens as follows:

1. **Phases in use, MM-1-2.** Use Phases 2 and 4, with Phase 4 as an exclusive pedestrian phase, as shown here:

PHASES IN USE / EXCLUSIVE PED		PHASE							
		1	2	3	4	5	6	7	8
IN USE.....		.	X	.	X
EXCLUSIVE PED		.	.	.	X
		PHASE							
		9	10	11	12	13	14	15	16
IN USE.....	
EXCLUSIVE PED	



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2. **Phase Timing, MM-2-1.** Enter the signal timing as follows (times in parentheses are for this example):

- Phase 2
 - WALK time = the minimum Vehicle Flashing Green time (10 sec.)
 - PED CLR time = the Solid Vehicle Signal Green time (5 sec.)
 - Program phase YELLOW (4.0 sec.) and RED CLR (2.0 sec.) times for normal clearances
- Program Phase 4 timing with normal clearances for WALK (8 sec.), PED CLR (20 sec.) and RED CLR (5.0 sec).

TIMING PLAN [] PHASE DATA > v								
PHASE	1	2	3	4	5	6	7	8
MIN GRN	0	5	0	0	0	0	0	0
BK MGRN	0	0	0	0	0	0	0	0
CS MGRN	0	0	0	0	0	0	0	0
DLY GRN	0	0	0	0	0	0	0	0
WALK	0	(10)	0	(8)	0	0	0	0
WALK2	0	0	0	0	0	0	0	0
WLK MAX	0	0	0	0	0	0	0	0
PED CLR	0	(5)	0	(20)	0	0	0	0
PD CLR2	0	0	0	0	0	0	0	0
PC MAX	0	0	0	0	0	0	0	0
PED CO	0	0	0	0	0	0	0	0
VEH EXT	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0
VH EXT2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX1	0	35	0	35	0	0	0	0

TIMING PLAN [] PHASE DATA > v								
PHASE	1	2	3	4	5	6	7	8
MAX2	0	40	0	40	0	0	0	0
MAX3	0	0	0	0	0	0	0	0
DVM MAX	0	0	0	0	0	0	0	0
DVM STP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOW	0.0	(4.0)	0.0	(5.0)	0.0	0.0	0.0	0.0
RED CLR	0.0	(2.0)	0.0	(5.0)	0.0	0.0	0.0	0.0
RED MAX	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RED RVT	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
ACT B4	0	0	0	0	0	0	0	0
SEC/ACT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX INT	0	0	0	0	0	0	0	0
TIME B4	0	0	0	0	0	0	0	0
CARS WT	0	0	0	0	0	0	0	0
STPTDUC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3. **MM-2-4.** Make sure the Guaranteed Minimum Time of the Phase 2 PED CLR is the same or less than the PED CLR you entered in MM-2-1 in Step 2, above.

GUARANTEED MINIMUM TIME DATA								
PHASE	A01	B02	C03	D04	E05	F06	G07	H08
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	(5)	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5
PHASE	I09	J10	K11	L12	M13	N14	O15	P16
MIN GRN	5	5	5	5	5	5	5	5
WALK	0	0	0	0	0	0	0	0
PED CLR	7	7	7	7	7	7	7	7
YELLOW	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
RED CLR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OVL GRN	5	5	5	5	5	5	5	5



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- 4. **MM-2-6-1.** For Phase 2, toggle FLASHING GRN PH to F1 (1 pulse per second) and enable NON-ACT I.

NOTE: Phase 2 Vehicle signal Flashes when Phase 2 is Green.
NON-ACT I (Call to Non-Actuated 1) enabled for Phase 2 forces this phase to be Non-Actuated.

```

CONTROLLER OPTIONS > v
PED CLEAR PROTECT..... ON
UNIT RED REVERT..... 2.0
  PHASE 1 2 3 4 5 6 7 8
FLASHING GRN PH. . (F1) . . . . .
GUAR PASSAGE.... . . . . .
NON-ACT I..... . (X) . . . . .
NON-ACT II..... . . . . .
DUAL ENTRY..... . . . . .
COND SERVICE.... . . . . .
COND RESERVICE.. . . . . .
PED RESERVICE... . . . . . .
REST IN WALK.... . . . . . .
FLASHING WALK... . . . . . .
PED CLR>YELLOW.. . . . . . .
PED CLR>RED..... . . . . . .

```

- 5. **MM-1-8-2 Logic Processor (LP).** LP statement LOGIC #1 only affects Phase 2 Vehicle Green display when the phase interval changes from a Walk condition to a Pedestrian Clearance condition. At the timing of the Pedestrian Clearance interval, the Phase 2 Green is forced to Solid Green vehicle display.

```

LOGIC # 1 ACTIVE: Y
IF GREEN ON PHASE      2 IS ON
AND PED CLEAR ON PHASE 2 IS ON
THEN SET PHASE GREEN   2 ON

ELSE

**** WARNING: STATEMENT ENABLED ****

```

LP statement LOGIC #2 enables the controller CNA 1 (Call to Non-Actuated 1) and Walk Rest Modifier (forces Phase 2 to rest in walk).

```

LOGIC # 2 ACTIVE: Y
IF PHASE TIMING        0 IS ON
THEN SET CNA1          ON
  SET WALK REST MOD    ON

ELSE

**** WARNING: STATEMENT ENABLED ****

```



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- 6. **MM 1-8-1 Logic Processor (LP).** Toggle to enable LP statements 1 and 2 (and also LP statement 3, if you program the option in Step 7, below).

```

LOGIC STATEMENT CONTROL
      1 2 3 4 5 6 7 8 9 0 1 2 3 4 5
LP  1-15  E E . . . . .
LP  16-30 . . . . .
LP  31-45 . . . . .
LP  46-60 . . . . .
LP  61-75 . . . . .
LP  76-90 . . . . .
LP  91-100 . . . . .

      D = DISABLED      E = ENABLED
      ". " = ENABLED / DISABLED BY OTHER SOURCE

```

- 7. **Optional Programming.** If you add and enable this LP statement, Phase 2 Red Vehicle signal flashes during the Phase 4 Pedestrian Clearance interval.

NOTE: COB CODE ON 546 is for a flash rate of 1 pulse per second.

```

LOGIC # 3 ACTIVE: Y >U
IF  PHASE TIMING          4 IS ON
AND WALK ON PHASE        4 IS OFF
AND COB CODE ON          546

THEN SET PHASE RED        2 OFF

ELSE

**** WARNING: STATEMENT ENABLED ****

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