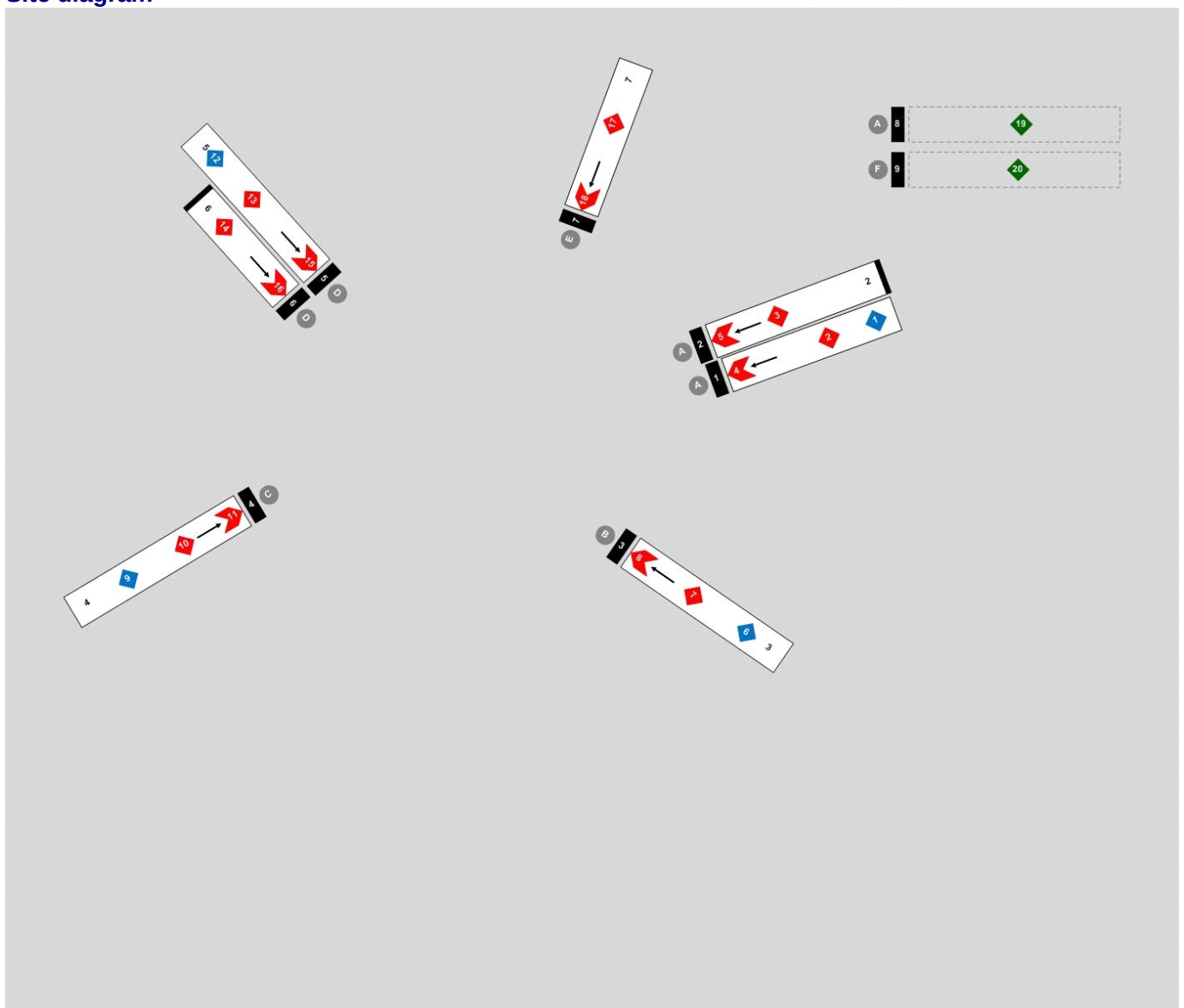


MOVA Tools	
Site Configuration	
Version: 2.0.1.110 [20-Oct-2015] © Copyright TRL Limited, 2020	
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 770758 software@trl.co.uk www.trlsoftware.co.uk	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: MOVA dataset Crown Crossroads iss 1.mova
Path: C:\Users\Canwell 2\Desktop\Crown Crossroads\MOVA
Report generation date: 12/09/2020 01:05:45

Site diagram



Data Plan 1 - (untitled)

Design Considerations

Severity	Area	Item	Description
Info	Main Stage	MOVA Controller 1	No reversionary stage defined. If there is no demand, the current stage will continue running.

Controller details

MOVA Controller 1

ID	1
MOVA Version	M7.0
Name	(untitled)
Description	Straight Mile / Llay Road, Wrexham
Main Stage [MAINST]	0
Total Green Limit [TOTALG] (s)	200
Detector ON [DETON]	Closed circuit
Stage Confirm ON [STAGON]	Open circuit
Phase Confirm ON [PHASON]	Open circuit
Stage Demand ON [STGDEM]	Closed circuit
Dataset Name	Crown1

Phases

Phases

Phase ID	A	B	C	D	E	F
Name						
Phase Type	Traffic	Traffic	Traffic	Traffic	Traffic	Dummy
Associated Phase						
Minimum Green (s)	7.0	7.0	7.0	7.0	7.0	3.0
Interstage Behaviour [LPHASE]	Never runs during interstage	Never runs during interstage	Never runs during interstage	Never runs during interstage	Never runs during interstage	Never runs during interstage
Phase Confirm Channel [LPHASE]						

Phase Intergreen Matrix for Controller 1

	To						
From		A	B	C	D	E	F
	A	-	7	9	8	5	3
	B	6	-	7	6	8	3
	C	7	6	-	6	9	3
	D	6	5	5	-	8	3
	E	8	8	10	8	-	3
	F	2	2	2	2	2	-

Stages

Stages

Stage	1	2	3	4	5	6
Description						
Phases In Stage	A	E	D	C	B	F
Auto-set Stage Minimum	✓	✓	✓	✓	✓	✓
Stage Minimum [MIN] (s)	7.0	7.0	7.0	7.0	7.0	3.0
Stage Maximum [MAX] (s)	40.0	20.0	40.0	30.0	60.0	5.0
All Red Pedestrian Stage [REDPED]						

Stages: Pedestrians

Stage	1	2	3	4	5	6
Enable Pedestrian Short Cycling						
PEDMAX1 (s)						
PEDMAX2 (%)						

Stages: Alerts

Stage	1	2	3	4	5	6
Occupancy alert threshold (ON) [OCCUAL on]	9.9	9.9	9.9	9.9	9.9	9.9
Occupancy alert threshold (OFF) [OCCUAL off]	9.9	9.9	9.9	9.9	9.9	9.9

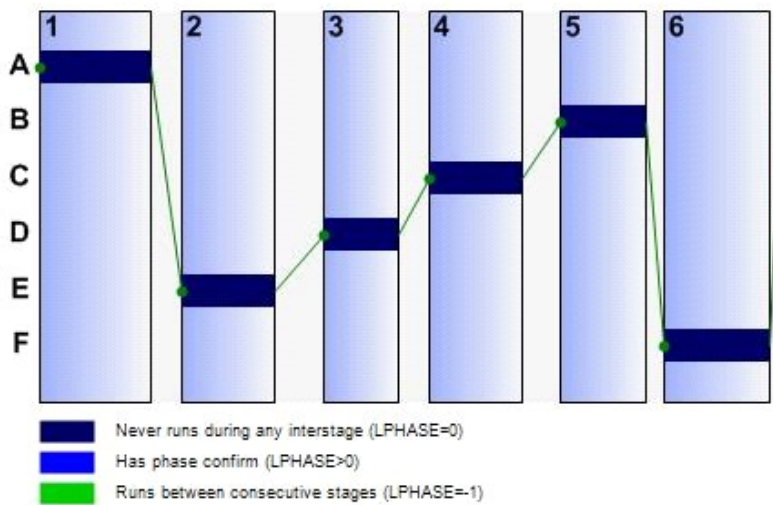
Interstage Matrix for Controller 1

		To					
		1	2	3	4	5	6
From	1	-	5	8	9	7	3
	2	8	-	8	10	8	3
	3	6	8	-	5	5	3
	4	7	9	6	-	6	3
	5	6	8	6	7	-	3
	6	2	2	2	2	2	-

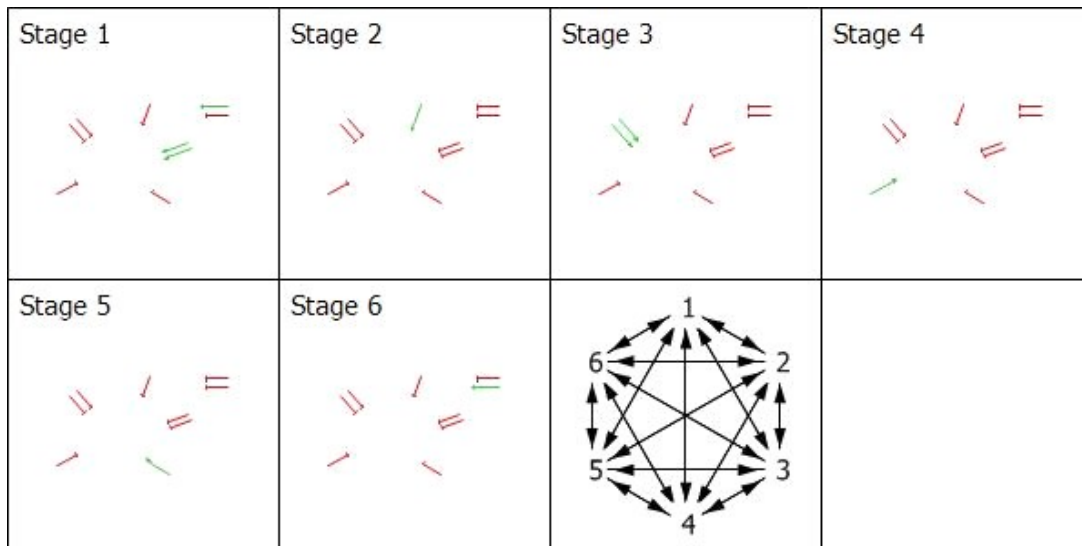
Banned Stage transitions for Controller 1

		To					
		1	2	3	4	5	6
From	1	-	Allow	Allow	Allow	Allow	Allow
	2	Allow	-	Allow	Allow	Allow	Allow
	3	Allow	Allow	-	Allow	Allow	Allow
	4	Allow	Allow	Allow	-	Allow	Allow
	5	Allow	Allow	Allow	Allow	-	Allow
	6	Allow	Allow	Allow	Allow	Allow	-

Stages and phases for Controller 1



Stages for Controller 1



LGREEN and SDCODE Matrix

LGREEN matrix

	Link									
		1	2	3	4	5	6	7	8	9
Stage	1	1	1	0	0	0	0	0	1	0
	2	0	0	0	0	0	0	1	0	0
	3	0	0	0	0	1	1	0	0	0
	4	0	0	0	1	0	0	0	0	0
	5	0	0	1	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0	1

SDCODE matrix

	Link									
		1	2	3	4	5	6	7	8	9
Stage	1	1	1						1	
	2							1		
	3					1	1			
	4				1					
	5			1						
	6									1

Links

Links

Link	1	2	3	4	5	6	7	8	9
Name									
Description									
Lanes	1	2	3	4	5	6	7		
Phase	A	A	B	C	D	D	E	A	F
Link Type [LTYPE]	Traffic	Traffic	Traffic	Traffic	Traffic	Traffic	Traffic	Simple Traffic	Simple Traffic
Demand Channel								19	20
Latched								✓	✓
Volumetric Detection									
Use Wait Channel									
Wait Channel [WAITCH]									
LPHASE_RAW	0	0	0	0	0	0	0	0	0
LTYPE_RAW	0	0	0	0	0	0	0	19	20

Link: Modelling

Link	1	2	3	4	5	6	7	8	9
Auto-set Link Minimum Green	✓	✓	✓	✓	✓	✓	✓	✓	✓
Link Minimum Green [LMIN] (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	3.0
Auto-set Stop Penalty	✓	✓	✓	✓	✓	✓	✓		
Heavy Vehicles (%)	10	10	10	10	10	10	10		
Stop Penalty [STOPEN] (s)	12.0	12.0	9.0	9.0	9.0	9.0	6.0		
Auto-set End of Saturation Time	✓	✓	✓	✓	✓	✓	✓		
End of Saturation Time [ESLMAX] (s)	40.0	40.0	60.0	30.0	40.0	40.0	20.0		
Auto-set Lost Time	✓	✓	✓	✓	✓	✓	✓		
Lost Time [LOSTIM] (s)	23.0	23.0	23.0	23.0	23.0	23.0	23.0		

Link: Offside Turners

Link	1	2	3	4	5	6	7	8	9
Auto set MIXOUT	✓	✓	✓	✓	✓	✓	✓		
Early cut-off demand type [MIXOUT]	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	-	-
Vehicles between X and OUT dets [MIXOUT] (veh)									

Link: Constants

Link	1	2	3	4	5	6	7	8	9
Auto-set	✓	✓	✓	✓	✓	✓	✓	✓	✓
MINPCS	50	50	50	50	50	50	50	50	50
Is Short Link [SHORTL]		✓				✓			
Number Of Main Lanes [NMAINL]	1	1	1	1	1	1	1	0	0

Lanes

Lanes

Lane	1	2	3	4	5	6	7
Name							
Description							
Lane Type	Normal	Short	Normal	Normal	Normal	Short	Compact MOVA
Short Lane Length [DSHORT] (m)		36.00				50.00	
Lane Weighting Factor [LANEWF]	1	1	1	1	1	1	1
Cruise Speed [CSPEED] (m/s)	12.0	12.0	10.0	10.0	10.0	10.0	9.0
Enter headway?	✓	✓	✓	✓	✓	✓	✓
Headway [SATINC] (s)	1.8	1.8	2.0	2.0	2.0	2.0	2.0
Saturation Flow (veh/hr)	2000	2000	1800	1800	1800	1800	1800
Start-up Lost Time [STLOST] (s)	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Saturation Flow Feedback [USESF]	Off	Off	Off	Off	Off	Off	Off
Start-up Lost Time Feedback [UDEST]	Off	Off	Off	Off	Off	Off	Off

Lane: Detectors

Lane	1	2	3	4	5	6	7
X Detector ID [X]	2	3	7	10	13	14	17
X Detector distance [DX] (m)	41.0	27.0	39.0	39.0	40.0	40.0	40.0
IN Detector?	✓		✓	✓	✓		
IN Detector ID [IN]	1		6	9	12		
IN Detector distance [DIN] (m)	94.0		88.0	87.0	90.0		
Auto-set	✓	✓	✓	✓	✓	✓	✓
X Detector cruise time [CRUSX] (s)	3.0	2.0	3.5	3.5	3.5	3.5	4.0
X Detector queue clear time [MOVEQX] (s)	16.5	11.5	16.5	16.5	16.5	16.5	16.5
IN Detector cruise time [CRUSIN] (s)	7.5		8.5	8.0	8.5		
IN Detector queue clear time [MOVQIN] (s)	31.0		29.0	28.5	29.5		
Queue Detection Time [QMINON] (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0

Lane: Combination Detectors

Lane	1	2	3	4	5	6	7
COMB-X Detector present?							
COMB-X Detector ID [COMBX]							
Associated X Det 1 [ASSOCD-1]							
Associated X Det 2?							
Associated X Det 2 [ASSOCD-2]							
Auto-set COMTIM	✓	✓	✓	✓	✓	✓	✓
Time To Use Combination [COMTIM] (s)							

Lane: Other Detectors

Lane	1	2	3	4	5	6	7
OUT Detector?							
OUT Detector ID							
IN-SINK Detector?							
IN-SINK Detector ID							
X-SINK Detector?							
X-SINK Detector ID							
STOPLINE Detector?	✓	✓	✓	✓	✓	✓	✓
STOPLINE Detector ID	4	5	8	11	15	16	18
AutoSet ALT-UP	✓	✓	✓	✓	✓	✓	✓
ALT-UP Detector?	✓		✓	✓	✓		
ALT-UP Detector ID	1		6	9	12		
ALT-DOWN Detector?	✓	✓	✓	✓	✓	✓	✓
ALT-DOWN Detector ID	4	5	8	11	15	16	18

Lane: Oversaturation

Lane	1	2	3	4	5	6	7
Auto-set Critical Vehicle Count	✓	✓	✓	✓	✓	✓	✓
Detector For Oversaturation Checking [XOSAT]	IN detector	X detector	IN detector	IN detector	IN detector	X detector	X detector
Critical Vehicle Count [OSATCC] (veh)	8	3	8	8	8	5	5
Critical Vehicle Count Compact [OSATCX] (veh)	5	3	5	5	5	5	5
Critical Vehicle Time [OSATTM]		8.0				12.5	12.5

Lane: Alerts

Lane	1	2	3	4	5	6	7
Enable Oversaturation Alert							
Oversaturation Cycles [OSATAL]							
Enable Exit Blocking Alert							
Exit Blocking Cycles [EXITAL]							

Lane: Advanced

Lane	1	2	3	4	5	6	7
Auto set Advanced Values	✓	✓	✓	✓	✓	✓	✓
Max Minimum Green [MAXMIN] (s)	12.5	8.5	13.5	13.5	13.5	13.5	13.5
Utilised Amber Time [GAMBER] (s)	2.0	2.0	2.0	2.0	2.0	2.0	1.0
Saturation Flow Gap [SATGAP] (s)	1.3	1.3	1.4	1.4	1.4	1.4	1.4
Critical Gap [CRITG] (s)	3.3	3.3	3.4	3.4	3.4	3.4	3.4

Logging

Logging

Telephone Number	
TMA Logging Period [TMAPRD]	60

Logging: Error weighting

Error type	Weighting
Auto-set	✓
Faulty detector [2]	0
Stage not ended [3]	5
Intergreen not ended [4]	5
Invalid stage demanded [5]	5
Wrong stage confirmed [6]	5
Multiple stage confirms [14]	0
Watchdog routine [8]	5
Divide error [16]	5
Program error [11]	0

Logging: Saturation Flow Logs

Time Period	Start Time (HH:mm)	End Time (HH:mm)
Weekday Period 1	07:30	09:30
Weekday Period 2	16:30	18:30
Weekday Period 3	09:30	16:30
Weekday Period 4	18:30	22:00
Saturday	09:00	17:00
Sunday	10:00	16:00

Constants

Constants

Auto-set	SCAN	MINEXT (s)	MAXEXT (s)	ADDGAP	SUBGAP	NDETS	STAGES	NLINKS	NLANES
✓	0.5	3.0	9.0	0.5	0.5	20	6	9	7

Summary of Detectors and Confirms

Detectors

Detector	Detector Type	Link	Lane	Data Plan
1	N		1	
2	X		1	
3	X		2	
4	Stopline		1	
5	Stopline		2	
6	N		3	
7	X		3	
8	Stopline		3	
9	N		4	
10	X		4	
11	Stopline		4	
12	N		5	
13	X		5	
14	X		6	
15	Stopline		5	
16	Stopline		6	
17	X		7	
18	Stopline		7	
19	Simple Traffic	8		
20	Simple Traffic	9		

Confirms

Confirm	Stage	Phase
1	1	
2	2	
3	3	
4	4	
5	5	
6	6	