MOVA Tools

Site Configuration

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Filename: Browns Bridge 2019A.mova
Path: \\corp\dfs\corpdata\Data\environment services\Highways & Environmental Services\Neil Woolway\Current Schemes\Browns Bridge junction upgrade
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Data Plan 1 - (untitled)

Design Considerations

Severity	Area	Item	Description
Info	IN Detector	Link 1 - Lane 1 - Detectors	IN Detector on lane 1 should usually be at least 6.5s cruise time away from the stop line.
Info	IN Detector	Link 2 - Lane 2 - Detectors	IN Detector on lane 2 should usually be at least 6.5s cruise time away from the stop line.

Controller details

MOVA Controller 1

ID	1
MOVA Version	M7.0
Name	Brownsbridge Junction
Description	
Main Stage [MAINST]	1
Total Green Limit [TOTALG] (s)	180
Detector ON [DETON]	Closed circuit
Stage Confirm ON [STAGON]	Open circuit
Phase Confirm ON [PHASON]	Open circuit
Stage Demand ON [STGDEM]	Closed circuit
Dataset Filename	Brownsbridge19
Checksum Of All Site Data	73 289

Phases

Phases

Phase ID	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Name	Riviera way sthbound	Riviera way sthbound left turn	Riviera way nrthbound	Riviera way nrthbound right turn	Brownsbridge Left turn	Brownsbridge road	Peds accross Brownsbridge left turn	Peds accross Riviera way southbound	Peds accross Riviera way Northbound
Phase Type	Traffic	Filter	Traffic	Traffic	Traffic	Traffic	Pedestrian	Pedestrian	Pedestrian
Associated Phase		A							
Minimum Green (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Interstage Behaviour [LPHASE]	Never runs during interstage	Runs between consecutive stages	Runs between consecutive stages	Never runs during interstage	Runs between consecutive stages	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								
		A	B	C	D	E	F	G	H	I
From	A	-			4	7	5		8	
	B		-		4					
	C			-			3			5
	D	7	7		-		5			5
	E	3				-		4		
	F	5		7	5		-			
	G					7		-		
	H	7							-	
	I			7	7					-

Stages

Stages

Stage	1	2	3
Description			
Phases In Stage	A,B,C,G	C,D,E,H	B,E,F,H,I
Auto Set Stage Minimum	✓	✓	✓
Stage Minimum [MIN] (s)	7.0	7.0	7.0
Stage Maximum [MAX] (s)	60.0	35.0	60.0
All Red Pedestrian Stage [REDPED]			

Stages: Pedestrians

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

Stages: Alerts

Stage	1	2	3
Occupancy alert threshold (ON) [OCCUAL on]	9.90	9.90	9.90
Occupancy alert threshold (OFF) [OCCUAL off]	9.90	9.90	9.90

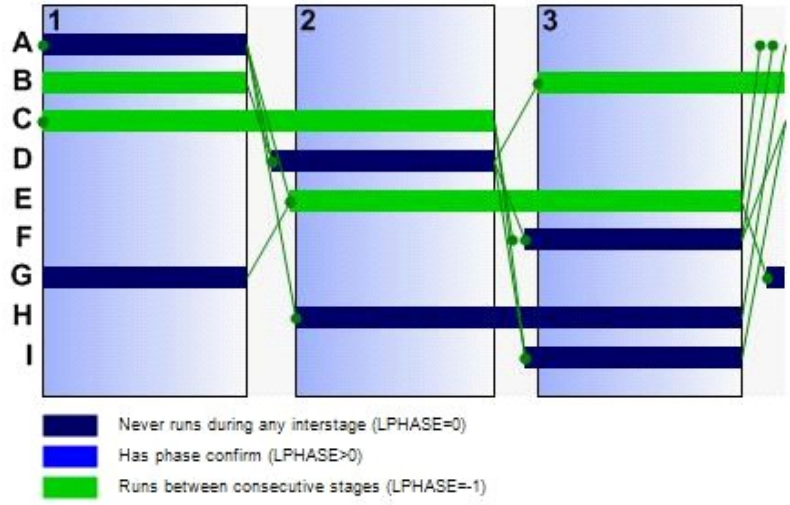
Interstage Matrix for Controller 1

		To		
		1	2	3
From	1	-	8	8
	2	7	-	7
	3	7	(banned)	-

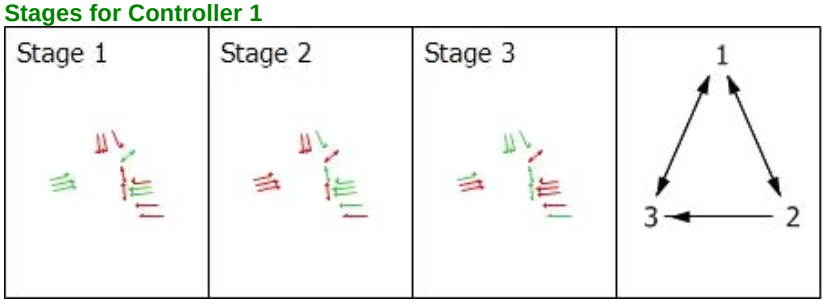
Banned Stage transitions for Controller 1

		To		
		1	2	3
From	1	-	Allow	Allow
	2	Allow	-	Allow
	3	Allow	Banned	-

Stages and phases for Controller 1



Stages for Controller 1



LGREEN and SDCODE Matrix

LGREEN matrix

	Link													
Stage		1	2	3	4	5	6	7	8	9	10	11	12	13	14
	1	1	1	2	2	2	0	0	0	0	1	0	0	0	0
	2	0	0	0	2	2	1	2	0	0	0	2	0	1	0
	3	0	0	2	0	0	0	2	1	1	0	2	1	0	1

SDCODE matrix

	Link														
Stage		1	2	3	4	5	6	7	8	9	10	11	12	13	14
	1	1	1	13	12	12					3				
	2				0	0	1	0				0		1	
	3			22				1	1	1		3	3		1

Links

Links

Link	1	2	3	4	5	6	7	8	9	10	11	12
Name												
Description												
Lanes	1	2	3	4	5	6	7	8	9			
Phase	A	A	B	C	C	D	E	F	F	G	H	I
Link Type [LTYPE]	Traffic	Traffic	Traffic	Traffic	Traffic	Traffic	Traffic	Traffic	Traffic	Pedestrian	Pedestrian	Pedestrian
Demand Channel										21	22	23
Latched												
Volumetric Detection												
Use Wait Channel												
Wait Channel [WAITCH]												
LPHASE_ RAW	0	0	-1	-1	-1	0	-1	0	0	0	0	0
LTYPE_ RAW	0	0	0	0	0	0	0	0	0	121	122	123

Links (continued)

Link	13	14
Name		
Description		
Lanes		
Phase	D	F
Link Type [LTYPE]	Simple Traffic	Simple Traffic
Demand Channel	24	25
Latched	✓	✓
Volumetric Detection		
Use Wait Channel		
Wait Channel [WAITCH]		
LPHASE_ RAW	0	0
LTYPE_ RAW	24	25

Link: Modelling

Link	1	2	3	4	5	6	7	8	9	10	11	12
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	7.0	7.0	7.0	7.0
Auto Set Stop Penalty	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Heavy Vehicles (%)	10	10	10	10	10	10	10	10	10			
Stop Penalty [STOPEN] (s)	17.0	17.0	9.0	12.0	12.0	9.0	9.0	9.0	9.0			
Encourage Pedestrian Stage										Off	Off	Off
Auto-set End of Saturation Time	✓	✓	✓	✓	✓	✓	✓	✓	✓			
End of Saturation Time [ESLMAX] (s)	60.0	60.0	120.0	95.0	95.0	35.0	95.0	60.0	60.0			
Auto Set Lost Time	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Lost Time [LOSTIM] (s)	19.0	19.0	9.0	10.0	10.0	15.0	9.0	17.0	17.0			

Link: Modelling (continued)

Link	13	14

Auto Set Link Minimum Green	✓	✓
Link Minimum Green [LMIN] (s)	7.0	7.0

Link: Offside Turners

Link	1	2	3	4	5	6	7	8	9	10	11	12
Auto set MIXOUT	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Early cut-off demand type [MIXOUT]	Not applicable	Not applicable	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	10	11	12
Auto Set	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
MINPCS	50	50	50	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	1	1	0	0	0

Link: Constants (continued)

Link	13	14
Auto Set	✓	✓
MINPCS	50	50
Is Short Link [SHORTL]		
Number Of Main Lanes [NMAINL]	0	0

Lanes

Lanes

Lane	1	2	3	4	5	6	7	8	9
Name									
Description									
Lane Type	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Short
Short Lane Length [DSHORT] (m)									50.00
Lane Weighting Factor [LANEWF]	1	1	1	1	1	1	1	1	1
Cruise Speed [CSPEED] (m/s)	14.3	14.3	10.0	12.6	12.6	10.0	10.0	10.0	10.0
Enter headway?	✓	✓	✓	✓	✓	✓	✓	✓	✓
Headway [SATINC] (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Saturation Flow (veh/hr)	1800	1800	1800	1800	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	1.3	1.3
Saturation Flow Feedback [USESF]	Off	Off	Off	Off	Off	Off	Off	Off	Off
Start-up Lost Time Feedback [USEST]	Off	Off	Off	Off	Off	Off	Off	Off	Off

Lane: Detectors

Lane	1	2	3	4	5	6	7	8	9
X Detector ID [X]	2	4	6	8	10	12	15	17	19
X Detector distance [DX] (m)	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
IN Detector?	✓	✓	✓	✓	✓	✓	✓	✓	
IN Detector ID [IN]	1	3	5	7	9	11	14	16	
IN Detector distance [DIN] (m)	90.0	90.0	90.0	90.0	90.0	75.0	90.0	90.0	
Auto Set	✓	✓	✓	✓	✓	✓	✓	✓	✓
X Detector cruise time [CRUSX] (s)	2.5	2.5	3.5	3.0	3.0	3.5	3.5	3.5	3.5
X Detector queue clear time [MOVEQX] (s)	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
IN Detector cruise time [CRUSIN] (s)	6.0	6.0	8.5	6.5	6.5	7.0	8.5	8.5	
IN Detector queue clear time [MOVQIN] (s)	29.5	29.5	29.5	29.5	29.5	25.0	29.5	29.5	
Queue Detection Time [QMINON] (s)	6.0	6.0	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	8	9
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	8	9
OUT Detector?									
OUT Detector ID									
IN-SINK Detector?									
IN-SINK Detector ID									
X-SINK Detector?									
X-SINK Detector ID									
STOPLINE Detector?						✓		✓	✓
STOPLINE Detector ID						13		18	20
AutoSet ALT-UP	✓	✓	✓	✓	✓	✓	✓	✓	✓
ALT-UP Detector?	✓	✓	✓	✓	✓	✓	✓	✓	
ALT-UP Detector ID	1	3	5	7	9	11	14	16	
ALT-DOWN Detector?						✓		✓	✓
ALT-DOWN Detector ID						13		18	20

Lane: Oversaturation

Lane	1	2	3	4	5	6	7	8	9
Auto Set Critical Vehicle Count	✓	✓	✓	✓	✓	✓	✓	✓	✓
Detector For Oversaturation Checking [XOSAT]	IN detector	IN detector	IN detector	IN detector	IN detector	IN detector	IN detector	IN detector	X detector
Critical Vehicle Count [OSATCC] (veh)	6	6	8	6	6	7	8	8	5
Critical Vehicle Count Compact [OSATCX] (veh)	5	5	5	5	5	5	5	5	5
Critical Vehicle Time [OSATTM]									12.5

Lane: Alerts

Lane	1	2	3	4	5	6	7	8	9
Enable Oversaturation Alert									
Oversaturation Cycles [OSATAL]									
Enable Exit Blocking Alert									
Exit Blocking Cycles [EXITAL]									

Lane: Advanced

Lane	1	2	3	4	5	6	7	8	9
Auto set Advanced Values	✓	✓	✓	✓	✓	✓	✓	✓	✓
Max Minimum Green [MAXMIN] (s)	13.5	13.5	13.5	13.5	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	2.0	2.0	2.0
Saturation Flow Gap [SATGAP] (s)	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Critical Gap [CRITG] (s)	3.4	3.4	3.4	3.4	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	25	3	14	9

Summary of Detectors and Confirms

Detectors

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

Confirms

Confirm	Stage	Phase
1	1	
2	2	
3	3	

Special Conditioning

No rules have been defined