

TECHNICAL NOTE 4

DATE:	03 January 2023	CONFIDENTIALITY:	Confidential
SUBJECT:	F-Series Bus-gate tests		
PROJECT:	Cambourne to Cambridge TWAO	AUTHOR:	Heather Clarke
CHECKED:	Graham Higgins	APPROVED:	Graham Higgins

INTRODUCTION

The purpose of this Technical Note is to examine the results and provide clarity on the model runs used as sensitivity tests on the section of route from Scotland Farm to Madingley Mulch. This should inform a decision as to whether these differences are material to the scheme.

F-SERIES CSRM RUNS

The F-series Do Something runs including the C2C scheme were coded with the section from Scotland Farm to Madingley Mulch still off-road as per the original preferred option, but the bus-gate on St Neots Road (between Cambridge Road and Long Road) had been included.

It is considered that this should not have much effect on the demand model outcomes, so the matrices have been retained and assigned to the following network 'options' to assess the impact on bus journey times and general traffic flows:

- 1) Do Minimum – no C2C – MC
- 2) Do Minimum – no C2C – No MC
- 3) Do Something – with C2C – MC:
 - a) Off-road section retained (no bus-gate)
 - b) On road (no bus-gate)
 - c) On road with bus-gate
- 4) Do Something – with C2C – No MC:
 - a) b) c) – as for 3)

Comparisons have been carried out between the different Do Something options, and between with and without Making Connections (MC).

Journey times (in minutes and seconds) for the bus route from the Park & Ride at Scotland Farm to the Cambridge Biomedical Campus have been used to provide a comparison – as shown below:

TECHNICAL NOTE 4

DATE:	03 January 2023	CONFIDENTIALITY:	Confidential
SUBJECT:	F-Series Bus-gate tests		
PROJECT:	Cambourne to Cambridge TWAO	AUTHOR:	Heather Clarke
CHECKED:	Graham Higgins	APPROVED:	Graham Higgins

	With MC		No MC	
AM	EB	WB	EB	WB
Off-road	20:46	23:22	26:09	27:15
On-road	22:34	24:54	27:58	28:46
	01:48	01:32	01:49	01:31
Bus-gate	22:38	24:54	28:05	28:57
	00:04	00:00	00:07	00:11

PM	EB	WB	EB	WB
Off-road	20:32	33:04	24:15	40:30
On-road	22:07	34:44	25:58	42:11
	01:35	01:40	01:43	01:41
Bus-gate	22:15	34:27	25:59	42:00
	00:08	00:17	00:01	00:11

The comparison of bus journey times for the different options shows that moving the buses onto St Neots Road along with general traffic is adding between 91 and 109 seconds onto the journey time, regardless of direction or time period. It appears however that this is purely due to the slower speeds achievable on St Neots Road, compared with on an off-road busway, as when a bus-gate is added it has little or no effect on the journey time (even making it slightly slower in a couple of scenarios). This shows that the interaction with general traffic is not what is slowing down the bus.

When Making Connections is not included, bus journey times are consistently longer due to greater congestion in the city centre. But the comparisons between on- and off-road and bus-gate still have the same outcomes.

Note (added August 2025): Making Connections was subsequently dropped as an option so comparisons should only be made on No Making Connections options.