

Army and Navy Sustainable Transport Package - Local Junction Modelling Results

The following tables outline the predicted change in journey times for different modes of transport (general traffic, buses, walking and cycling) for the two remaining junction options (Hamburger Roundabout and Separate T-Junctions) compared with if there was no junction improvement scheme.

The information is presented separately for the different arms of the junction and includes data for both the morning (AM) and evening (PM) peak periods.

All of the data relates to 2026 and is based on our latest traffic modelling, which uses estimated future traffic flows and journey times for vehicles passing through the Army and Navy junction.

Information about the impacts of the two options on average journey times is included on both the boards within our [virtual exhibition](#) and our [public consultation brochure](#).

Local Junction Modelling Results for forecast year 2026 – General traffic

The following table contains forecast traffic flows and journey times for vehicles passing through the Army and Navy junction. The start and end points for journeys are Odeon Roundabout, Chelmer Road/Chelmer Village Way Roundabout, Essex Yeomanry Way Maldon Road slip roads, Baddow Road/Beehive Lane Roundabout and Princes Road/Watson Vale Roundabout.

Approach arm	Time period	Hamburger Roundabout option				Separate T-Junctions option			
		Vehicles passing through junction from approach arm (Vehicles/hr)	Average journey time from start to end point (minutes)	Change in vehicles from 'No scheme' scenario (%)	Change in average journey time from 'No scheme' scenario (minutes)	Vehicles passing through junction from arm (Vehicles/hr)	Average journey time from start to end point (Minutes)	Change in vehicles from 'No scheme' scenario (%)	Change in average journey time from 'No scheme' scenario (minutes)
Parkway	AM	1293	2	-19%	0	1448	5	-9%	2.0
	PM	1945	5	4%	-1	1868	6	-1%	0.4
Chelmer Road	AM	1966	2	61%	-9	1139	8	-7%	-3.5
	PM	1208	5	-9%	2	1268	4	-5%	1.2
Essex Yeomanry Way	AM	1406	4	7%	-10	1202	21	-8%	7.5
	PM	1280	3	75%	-13	1173	5	60%	-10.8
Baddow Road	AM	465	11	8%	-1	418	13	-3%	0.4
	PM	607	6	41%	-8	378	14	-12%	0.8
Van Diemens Road	AM	645	11	1%	2	475	5	-26%	-4.0
	PM	842	5	64%	-6	601	4	17%	-7.4

Local Junction Modelling Results for forecast year 2026 – Buses

The following table contains forecast traffic flows and journey times for vehicles passing through the Army and Navy junction. The start and end points for journeys are Odeon Roundabout, Chelmer Road/Chelmer Village Way Roundabout, Essex Yeomanry Way Maldon Road slip roads, Baddow Road/Beehive Lane Roundabout and Princes Road/Watson Vale Roundabout.

Approach arm	Time period	Hamburger Roundabout option		Separate T-Junctions option	
		Average journey time from start to end point (Minutes)	Change in average journey time from 'No scheme' scenario (Minutes)	Average journey time from start to end point (Minutes)	Change in average journey time from 'No scheme' scenario (Minutes)
Parkway	AM	3.1	-0.6	3.9	0.2
	PM	4.8	-1.2	4.4	-1.6
Chelmer Road	AM	2.8	-6.8	8.5	-1.0
	PM	5.4	3.0	4.3	1.9
Essex Yeomanry Way	AM	2.7	-0.4	3.9	0.8
	PM	2.9	-0.6	3.7	0.2
Baddow Road	AM	11.3	-0.8	12.8	0.7
	PM	5.7	-7.4	13.9	0.8
Van Diemens Road	AM	N/A	N/A	N/A	N/A
	PM	N/A	N/A	N/A	N/A

Local Junction Modelling Results for forecast year 2026: Walking

The following table contains forecast journey times for pedestrians passing through the Army and Navy junction. The start and end points for journeys are Baddow Road o/s Parkway House (Parkway North), Odeon Roundabout (Parkway South), Chelmer Road from EV2 1 (Chelmer Road), Meadgate Avenue/Tusser Court (Meadgate Terrace), Baddow Road o/s Baddow News (Baddow Road) and Princes Road/Amcotes Place (Van Diemens Road). Comparisons

Approach arm	Time period	Hamburger Roundabout option			Separate T-Junctions option		
		Average journey time from start to end point (Minutes)	Change in average journey time from 'No scheme' scenario if subway was used (Minutes)	Change in average journey time from 'No scheme' scenario if subway was not used (Minutes)	Average journey time from start to end points (Minutes)	Change in average journey time from 'No scheme' scenario if subway was used (Minutes)	Change in average journey time from 'No scheme' Scenario if subway was not used (Minutes)
Parkway North	AM	11.7	-0.3	-2.6	11.9	-0.1	-2.4
	PM	12.1	0.3	-1.7	12.6	0.9	-1.1
Parkway South	AM	12.7	-1.4	-1.4	12.5	-1.7	-1.7
	PM	13.0	-0.6	-0.6	12.9	-0.7	-0.7
Chelmer Road	AM	20.0	-0.2	-3.2	19.8	-0.4	-3.4
	PM	19.6	-0.4	-3.6	20.0	-0.1	-3.2
Meadgate Terrace	AM	13.4	0.8	-4.7	12.9	0.3	-5.2
	PM	16.1	0.3	-5.1	17.1	1.3	-4.0
Baddow Road	AM	13.8	0.8	-0.3	13.0	0.1	-1.1
	PM	15.9	0.3	-1.5	16.7	1.1	-0.7
Van Diemens Road	AM	12.8	-0.2	-0.2	13.3	0.4	0.4
	PM	17.7	-0.2	-0.2	17.6	-0.3	-0.3

Local Junction Modelling Results for forecast year 2026 – Cycling

The following table contains forecast journey times for cyclists passing through the Army and Navy junction. Start and end points for journeys are Baddow Road o/s Parkway House (Parkway North), Odeon Roundabout (Parkway South), Meadgate Avenue/Tusser Court (Meadgate Terrace), Baddow Road/Beehive Lane Roundabout (Baddow Road) and Princes Road/Amcotes Place (Van Diemans Road).

Approach arm	Time period	Hamburger Roundabout option		Separate T-Junctions option	
		Average journey time from start to end point (Minutes)	Change in average journey time from 'No scheme' scenario (Minutes)	Average journey time from start to end point (Minutes)	Change in average journey time from 'No scheme' scenario (Minutes)
Parkway North	AM	4.1	-0.2	3.1	-1.3
	PM	3.8	-0.7	3.6	-0.8
Parkway South	AM	4.5	0.5	4.5	0.5
	PM	3.6	0.2	3.8	0.5
Chelmer Road	AM	5.0	-1.2	6.0	-0.2
	PM	4.5	-1.3	5.2	-0.6
Meadgate Terrace	AM	2.9	-1.0	3.3	-0.6
	PM	2.9	-0.4	3.2	-0.1
Baddow Road	AM	8.1	-4.9	8.7	-4.3
	PM	5.1	-7.1	10.0	-2.3
Van Diemans Road	AM	3.2	-0.3	3.2	-0.3
	PM	3.6	-1.6	3.9	-1.3