

**Walking and Cycling Improvements:
Clifton Terrace and Romsey Road,
Winchester**

**Experimental Traffic Regulation Order
Monitoring Plan**

October 2023

Introduction

This document sets out monitoring to be carried out on a scheme that comprises the introduction of walking and cycling improvements, and associated changes to traffic management, on Clifton Terrace and Romsey Road, Winchester. These changes are to be initially introduced using an Experimental Traffic Regulation Order, with monitoring, and feedback from the public, to be used to inform a future decision about whether the scheme should be made permanent or not.

Background to the scheme

The scheme consists of the following measures which have been informed by engagement with the public:

- A puffin controlled pedestrian crossing on Romsey Road, at its junction with Clifton Terrace.
- Clifton Terrace to be made “No Entry” from Romsey Road and traffic (except for bicycles) would only be permitted to turn right when exiting from Clifton Terrace to Romsey Road.
- Traffic will be prohibited from entering Clifton Hill from the Clifton Terrace junction (except for bicycles).
- Traffic traveling from Clifton Hill will only be permitted to turn right into Clifton Terrace (except for bicycles).
- A section of on-street parking will be relocated from the southern section of Clifton Terrace to the northern section of Clifton Terrace, near Allison Way.

More information about the scheme can be found on the [Hampshire County Council webpages](#).

Purpose of monitoring

The purpose of the monitoring is to help understand whether the scheme is effective in making walking and cycling more comfortable and safer. There have also been concerns from the public about potential impacts of the scheme such as increased traffic in other areas. These impacts will also be monitored.

The Monitoring Plan

The following confirms the plan for monitoring the scheme during the ETRO process including questions that the plan aims to address, impacts to be monitored and how these will be measured and reported.

Before this, it is worth noting that the scheme will likely be one of many factors influencing observed changes during the ETRO. For example, there could be traffic incidents or roadworks (planned or emergency) that may affect travel behaviour in the vicinity of the scheme, and which has consequences for observed traffic levels, air quality and collisions, for example. And some expected impacts, such as increases in walking and cycling, are more likely to occur over a longer timeframe, so again may not be fully captured by monitoring during the ETRO period. We also expect impacts beyond the immediate scheme area to be smaller in scale and so more challenging to attribute to the scheme itself. Nonetheless, monitoring is intended to capture a broad range of potential impacts. We will also monitor incidents and roadworks and make use of data comparing traffic levels in areas assumed not to be affected by the scheme, to help understand whether changes are likely to be attributable to the scheme alone or whether there are other influences.

Key monitoring questions

Below are the key questions to be answered through the monitoring plan.

Impact on traffic flows:

- What are the impacts on traffic flow on Romsey Road and Clifton Terrace and roads immediately surrounding the scheme?
- How do impacts on traffic flow vary by vehicle type?
- How do impacts on traffic flow vary by time period?
- Did traffic flows change during the experiment?

Impact on road-user journey times:

- What are the impacts on road-user journey times on Romsey Road?

Impact on walking and cycling:

- What are the impacts on cycle flows at the crossing and on Romsey Road and Clifton Terrace?
- What are the impacts on pedestrian flows at the crossing and on Romsey Road and Clifton Terrace?

Impact on air quality:

- What are the impacts on air quality based on change at specific air quality monitoring sites along Romsey Road?

Impact on collisions:

- What are the impacts by road / user?

User experience:

- Has the introduction of the scheme led to any changes in travel behaviour (mode / route / frequency of travel)?
- Has the introduction of the scheme led to changes in experience of walking and cycling in the area (journey safety, comfort, interaction with other modes)?

How impacts will be monitored

The impacts of the scheme will be measured using monitoring and other survey data. These are set out in the table below. **Annex A** also provides a summary of some of the baseline traffic and pedestrian flows observed in the immediate area of the scheme in October 2022.

Measure	Data to be used	Rationale & data collection method	Frequency of data collection
Traffic flows (permanent counters)	Traffic data collected by counters including the following roads: <ul style="list-style-type: none"> ▪ Andover Road ▪ Chilbolton Avenue ▪ Stockbridge Road ▪ St James Lane 	To understand changes in traffic flow beyond the immediate area of scheme (including for comparison). Permanent Automated Traffic Counters.	Continuous monitoring (pre- and post-scheme opening)
Traffic flows (non-permanent counters)	Traffic data collected by counters on the following roads/junctions: <ul style="list-style-type: none"> ▪ Romsey Road ▪ Clifton Terrace ▪ Clifton Hill ▪ Clifton Road ▪ West End Terrace ▪ Elm Road ▪ Greenhill Road ▪ Romsey Road/Clifton Terrace/Clifton Road ▪ Carfax junction ▪ Stockbridge Road/Berewecke Road/Cheriton Road junction ▪ Romsey Road/Chilbolton Avenue/Kerrfield junction ▪ B3044 City Road/ St Pauls Hill/Elm Road/B3049 Stockbridge Road 	To understand changes in traffic flow in immediate area of scheme including possible alternative traffic routes. Non-Permanent Automated Traffic Counters; VivaCity sensor; Manual Classified Count.	Baseline (October 2022 & before start of construction) then within 3 or 4 months of scheme opening; VivaCity sensor (continuous) from autumn 2023.



Measure	Data to be used	Rationale & data collection method	Frequency of data collection
Road-user journey times	Existing journey time data collected on Romsey Road.	To understand changes in motorised vehicle journey times. Existing Bluetooth sensors.	Baseline (pre-scheme) then within 3 or 4 months of scheme opening.
Pedestrian and cyclist flows	Traffic data collected on the following roads: <ul style="list-style-type: none">▪ Romsey Road▪ Clifton Terrace	To understand changes in pedestrian and cycle activity. VivaCity sensor; Manual Classified Count.	Baseline (October 2022 & before start of construction) then within 3 or 4 months of scheme opening; VivaCity sensor (continuous) from autumn 2023.
Air quality	Air quality monitoring (covering NO2, PM10, PM2.5), carried out by Winchester City Council, at different points along Romsey Road.	To understand changes in exposure to air pollution. Diffusion tubes and automatic monitoring sites.	Baseline (2022) and then annually with 2023 and 2024 data assumed to be available in summer 2024 and 2025, respectively [changes in traffic flows, which has an impact on air pollution, to therefore be used as a proxy measure for air quality if air quality monitoring data is not available during the monitoring period].
Road collisions/accidents	Reported accident statistics encompassing the following roads: <ul style="list-style-type: none">▪ Romsey Road▪ Clifton Terrace▪ Clifton Hill▪ Clifton Road▪ West End Terrace▪ Elm Road▪ Greenhill Road	To understand changes in road collisions/accidents by mode and severity. Reported accidents statistics provided by from Hampshire Constabulary.	Comparison of data for similar periods in 2022 and 2023 (baselines) with 2024 (ETRO period).
User experience	Intercept surveys on Romsey Road and Clifton Terrace.	To understand changes in travel behaviour and perceptions in road safety, comfort etc. Face to face surveys with pedestrians and cyclists.	Post-implementation survey within 3 or 4 months of scheme opening.

How and when will the monitoring findings be reported?

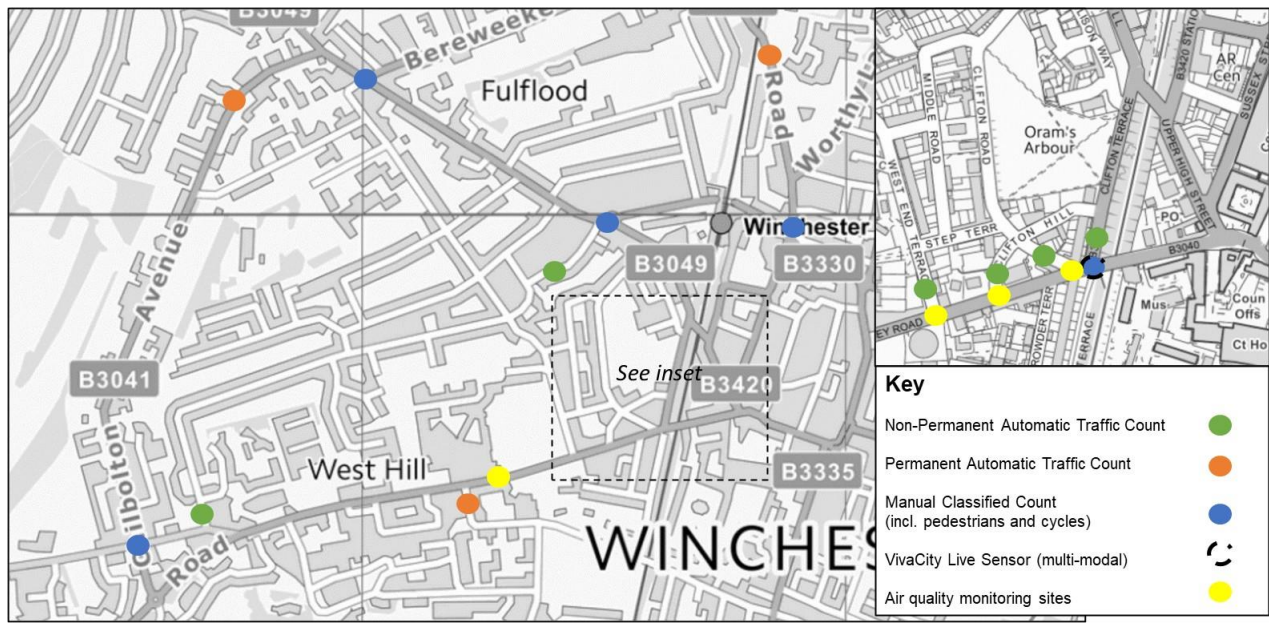
The table below shows the indicative timeline for monitoring and reporting. Exact dates will depend on when construction ends and the ETRO starts. Dates may also change depending on whether any changes are made to the scheme during the ETRO and which would result in the ETRO consultation being extended).

Activity	Date
Baseline data collection	Various months in 2022, 2023 & 2024
Scheme monitoring during ETRO	March to August 2024 (exact period to be confirmed but will be for a minimum of six months from the end of construction/start of ETRO).
Monitoring report	Summer/autumn 2024 (exact date to be confirmed but monitoring report will be produced when at least 6 months of post-implementation data has been collected and analysed).

Annex A: Monitoring Sites and Baseline Data

Several surveys were undertaken in October 2022, to provide baseline traffic, cycle, and pedestrian count data. The approximate locations of these surveys, as well as other permanent traffic and air quality monitoring sites, in the vicinity of the scheme, are shown in Figure A1.

Figure A1: Traffic, Cycle, Pedestrian and Air Quality Monitoring Sites



The following tables (A1 to A3) provide a summary of baseline survey data, from October 2022, observed in the immediate vicinity of the scheme.

Table A1: Non-Permanent Automatic Traffic Counts

Location	Direction	Observed traffic flow (12hrs) – average weekday*	Observed traffic flow (12hrs) – Saturday [^]	Observed traffic flow (12hrs) – Sunday [#]
Clifton Terrace	NB	955	373	330
	SB	1843	850	581
Clifton Hill	NB	71	43	33
	SB	101	42	36
Clifton Road	NB	107	83	65
	SB	118	72	58
West End Terrace	NB	537	288	263
	SB	693	244	195
Elm Road	WB	426	300	261
	EB	238	184	173
Greenhill Road	NB	661	489	454
	SB	1022	572	489

*Monday 3 to Friday 7 October 2022

^Saturday 8 October 2022

#Sunday 9 October 2022

Table A2: Manual Classified Count

Location	Observed % vehicle type*						Total
	Car	LGV	HGV	Bus	Motorcycle	Bicycle	
Romsey Road (near Clifton Terrace/Clifton Road)	82%	11%	1%	3%	1%	1%	100%
Clifton Terrace (near Romsey Road)	86%	9%	1%	0%	1%	3%	100%
Clifton Road (near Romsey Road)	66%	25%	1%	1%	2%	5%	100%

*Tuesday 11th October 2022

Table A3: Manual Classified Count - Pedestrian Crossing Survey

Location	Direction	Observed pedestrian flow (12hrs)*
Romsey Road (east of Clifton Terrace at approx. location of new crossing)	NB	798
	SB	810
Romsey Road (just west of the location of new crossing)	NB	61
	SB	86
Clifton Terrace (near junction with Romsey Road)	WB	70
	EB	59

*Tuesday 11 October 2022