



**WOKINGHAM
BOROUGH COUNCIL**

**ACORNS
PROJECTS
LIMITED**



**Market Place, Wokingham, Berkshire
Environmental Improvements
Stage 3 Road Safety Audit**

**For Wokingham Borough Council
Prepared by Acorns Projects Limited
Safety Traffic Project Management & Highway Engineering Consultants**

MAY 2019

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Approvals

This document requires the following approvals:

Name	Title
Adriano B. Cappella	Audit Team Leader
Lisa Allen	Audit Team Member

Distribution

This document has also been distributed to:

Name	Title & Organisation
Chris Easton	Service Manager - Transport, Drainage and Compliance - Wokingham Borough Council
Ian Haller	Service Manager - Highway Delivery - Wokingham Borough Council
Stephen Reed	Technical Director - WSP
John Noble	WSP
Graham Lee	Associate - Traffic Signals - WSP
Tony Jackman	CDM Advisor - WSP
David Edmond	Hampshire & Thames Valley Joint Operations Road Policing

1.0 INTRODUCTION

1.1 This report results from a Stage 3 Road Safety Audit carried out on the Market Place, Wokingham, Berkshire, Environmental Improvements Project, at the request of Overseeing Organisation, i.e. the Local Highway Authority, Wokingham Borough Council, Delivery and Infrastructure, Shute End, Wokingham, Berkshire, RG40 1WN. The Design Organisation was the WSP Wokingham Highway Alliance, who are based within the Highways and Transport offices in Wokingham.

1.2 The recently constructed scheme comprises of Environmental Improvements to Broad Street, Denmark Street and the area surrounding the historic Town Hall building. A new junction arrangement at Broad Street and Rose Street has been constructed. The existing vehicular carriageways have been narrowed and two new traffic signal controlled pedestrian crossing facilities have been provided on raised platforms in Broad Street and Market Place respectively. In addition, three new uncontrolled pedestrian crossing facilities have been constructed, one of which is in Broad Street and two of which are in Market Place, again on raised platforms. New loading and disabled parking bays have been provided and the whole area has been repaved and resurfaced. New traffic signs complete the recently constructed Environmental Improvements project.

1.3 The Audit Team membership was as follows:

Adriano B. Cappella IEng, FIHE, MCIHT, MSoRSA, HA RSA Certificate of Competency
(Audit Team Leader) Director, Acorns Projects Limited

Lisa Allen MSc, BEng (Hons), MCIHT, MSoRSA, HA RSA Certificate of Competency
(Audit Team Member) Associate Consultant, Acorns Projects Limited

1.4 Also in attendance during the daytime Audit were:

Ian Haller Wokingham Borough Council

Chris Easton Wokingham Borough Council

Stephen Reed WSP

Graham Lee WSP

John Noble WSP

David Edmond Hampshire & Thames Valley Joint Operations Road Policing

1.5 Also invited to attend but had to decline due to other commitments was:

Tony Jackman WSP

1.6 The Audit took place at the Eaton Bray office of Acorns Projects Limited during March and May 2019. The Audit was undertaken in accordance with the Audit Brief contained in the Wokingham Borough Council E-Mail to Acorns Projects Limited dated the 20th February 2019. The Audit comprised an examination of the drawings and documents provided by the Design Organisation and Wokingham Borough Council for review at this Stage 3 Road Safety Audit and, are listed in Annex A.

1.7 The drawings and document consisted of a copy of the general arrangements, longitudinal sections, contours, isopachyte contour layouts, site clearance, surface water drainage, slot drain arrangements, surface water drainage longitudinal sections, external works, carriageway construction, typical cross sections, signs and road markings, utility arrangements, horizontal setting out, string labels, proposed electrical layout, dual puffin crossing refurbishment details, utilities & topographical details, landscaping details and, a feasibility lighting study document. Copies of the scheme drawings at both A3 and A4 size were provided for the Audit Team's use. Road traffic collision data, vehicular traffic flow data, pedestrian and pedal cycle accessibility information and, public transport information has not been provided for the purposes of this Stage 3 Road Safety Audit.

1.8 A visit to the site was undertaken between 3.00 pm and 4.45 pm during the afternoon of the 18th March 2019 by both Audit Team Members together. Also in attendance were the parties identified in Paragraph 1.4. During the afternoon site visit, the weather was chilly, cloudy with rainfall and, the existing carriageway surface was wet. Vehicular traffic conditions at the time of the afternoon site visit were observed to be moderate to heavy on occasion, particularly in Denmark Street where vehicles queuing back with Denmark Street was noted. A significant number of pedestrians and a couple of pedal cyclists were observed during the afternoon site visit.

A night time visit to the site was undertaken between 7.15 pm and 8.10 pm on the 18th March 2019 by both Audit Team Members together. No other parties were in attendance during the night time site visit. During the night time site visit, the weather was cold and the existing carriageway surface was wet. Vehicular traffic conditions at the time of the night time site visit were observed to be light. A few pedestrians and one pedal cyclist was observed during the night time site visit.

1.9 The terms of reference of the Audit are as described in DMRB GG 119 Road Safety Audit. The Audit Team has examined and reported only on the road safety implications of the scheme as presented and, has not examined or verified the compliance of the designs to any other criteria.

However, to clearly explain a safety problem or the recommendation made to resolve the identified problem, the Audit Team may, on occasion, have referred to a Design Standard without touching on technical audit.

- 1.10** No Departures from Design Standards have been reported by the Design Organisation.
- 1.11** All Problems and Recommendations are referenced to the design drawing and the location has been indicated on the A4 plan supplied for use by the Audit Team in Annex B.
- 1.12** Issues identified and observations made during this Stage 3 Road Safety Audit and site inspection which the Terms of Reference exclude from this report, but which the Audit Team wishes to draw to the attention of the Overseeing Organisation, i.e. the Local Highway Authority, Wokingham Borough Council, will be set out in a separate letter. These issues could include maintenance items and operational issues. In this regard, the Audit Team have made reference to three issues identified and observations made as referred to in a Covering Letter to the Overseeing Organisation, i.e. the Local Highway Authority, Wokingham Borough Council, dated the 31st May 2019. This Covering Letter should be supplied to the Design Organisation, WSP Wokingham Highway Alliance, and be considered in conjunction with this Stage 3 Road Safety Audit Report.

2.0 ITEMS RAISED AT THE COMBINED STAGE 1 AND 2 ROAD SAFETY AUDIT AND INTERIM STAGE 3 ROAD SAFETY AUDIT

- 2.1** The safety aspects of the Market Place, Wokingham, Berkshire, Proposed Environmental Improvements Project were the subject of comment in the October 2016 Combined Stage 1 and 2 Road Safety Audit undertaken by Acorns Projects Limited.
- 2.2** The Design Organisation, WSP Wokingham Highway Alliance, responded to the Combined Stage 1 and 2 Road Safety Audit Report in November 2016, whereby the safety aspects raised were discussed and mitigating measures proposed.
- 2.3** All of the issues raised in the October 2016 Combined Stage 1 and 2 Road Safety Audit undertaken by Acorns Projects Limited were resolved.
- 2.4** The safety aspects of the Market Place, Wokingham, Berkshire, Proposed Environmental Improvements Project were the subject of comment in the September 2018 Interim Stage 3 Road Safety Audit undertaken by Acorns Projects Limited.
- 2.5** The Overseeing Organisation, i.e. the Local Highway Authority, Wokingham Borough Council and the Design Organisation, WSP Wokingham Highway Alliance, jointly responded in a letter to the Interim Stage 3 Road Safety Audit Report in February 2019, whereby the safety aspects raised were discussed and mitigating measures proposed.
- 2.6** All of the issues raised in the September 2018 Interim Stage 3 Road Safety Audit undertaken by Acorns Projects Limited have been resolved.

3.0 ITEMS RAISED AT THIS STAGE 3 ROAD SAFETY AUDIT

3.1 GENERAL

3.1.1 No Problems identified in this category at this Stage 3 Road Safety Audit.

3.2 LOCAL ALIGNMENT

3.2.1 No Problems identified in this category at this Stage 3 Road Safety Audit.

3.3 JUNCTIONS

3.3.1 No Problems identified in this category at this Stage 3 Road Safety Audit.

3.4 NON MOTORISED USER PROVISION

3.4.1 No Problems identified in this category at this Stage 3 Road Safety Audit.

3.5 ROAD SIGNS, CARRIAGEWAY MARKINGS & STREET LIGHTING

3.5.1 PROBLEM

Location 1 - On the north western side of Market Place (Drawing No. 5049-MP/100/100 Rev A).

Summary - Inspection of lighting unit fitted to a regulatory sign during the hours of darkness.

During the night time inspection, the Audit Team have identified that the lighting unit fitted to a new No Entry regulatory sign to Diagram 616 was found to be inoperative.

Concern arises that this may result in the sign being slightly inconspicuous during the hours of darkness, whereby drivers may not fully interpret the regulatory requirements and road layout ahead.

RECOMMENDATION

It is Recommended that the inoperative lighting unit fitted to the new No Entry regulatory sign to Diagram 616 should be attended to as soon as practicable.

END OF PROBLEMS IDENTIFIED AND RECOMMENDATIONS OFFERED IN THIS STAGE 3 ROAD SAFETY AUDIT

4.0 AUDIT TEAM STATEMENT

We certify that this Road Safety Audit has been carried out in accordance with DMRB GG 119.

AUDIT TEAM LEADER

Adriano B. Cappella IEng, FIHE, MCIHT, MSoRSA, HA RSA Certificate of Competency



Signed :

Director

Acorns Projects Limited

Safety Traffic Project Management & Highway Engineering Consultants

Redwood House

3 Eaton Park

Eaton Bray

Bedfordshire

LU6 2SP

Date : 31st May 2019

AUDIT TEAM MEMBER

Lisa Allen MSc, BEng (Hons), MCIHT, MSoRSA, HA RSA Certificate of Competency

Signed : 

Associate Consultant

Acorns Projects Limited

Safety Traffic Project Management & Highway Engineering Consultants

Redwood House

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Date : 31st May 2019

ANNEX A

ANNEX A

MARKET PLACE, WOKINGHAM, BERKSHIRE

ENVIRONMENTAL IMPROVEMENTS

STAGE 3 ROAD SAFETY AUDIT

LIST OF WOKINGHAM BOROUGH COUNCIL DRAWINGS REVIEWED AT THIS STAGE 3 ROAD SAFETY AUDIT

DRAWING NO.	TITLE
5049-MP/100/100 Rev A	General Arrangement Overview
5049-MP/100/101 Rev A	North Side General Arrangement
5049-MP/100/102 Rev A	East Side General Arrangement
5049-MP/100/103 Rev A	Town Hall General Arrangement
5049-MP/100/104 Rev A	Market Place General Arrangement
5049-MP/100/110 Rev A	North Side Longitudinal Sections
5049-MP/100/111 Rev A	East Side Longitudinal Sections
5049-MP/100/120 Rev A	North Side Contour Arrangement
5049-MP/100/121 Rev A	North Side Isopachyte Contour Layout
5049-MP/100/122 Rev A	East Side Contour Arrangement Sheet 1 of 2
5049-MP/100/123 Rev A	East Side Contour Arrangement Sheet 2 of 2
5049-MP/100/124 Rev A	East Side Isopachyte Contour Layout Sheet 1 of 2
5049-MP/100/125 Rev A	East Side Isopachyte Contour Layout Sheet 2 of 2
5049-MP/100/126 Rev A	Town Hall Contour Arrangement
5049-MP/100/127 Rev A	Town Hall Isopachyte Contour Arrangement
5049-MP/100/128 Rev A	Market Place Contour Arrangement
5049-MP/100/129 Rev A	Market Place Isopachyte Contour Arrangement
5049-MP/200/101 Rev A	North Side Clearance
5049-MP/200/102 Rev A	East Side Site Clearance Sheet 1 of 2
5049-MP/200/103 Rev A	East Side Site Clearance Sheet 2 of 2

LIST OF WOKINGHAM BOROUGH COUNCIL DRAWINGS REVIEWED AT THIS STAGE 3 ROAD SAFETY AUDIT (CONTINUED)

DRAWING NO.	TITLE
5049-MP/200/104 Rev A	Town Hall Site Clearance
5049-MP/200/105 Rev A	Market Place Site Clearance
5049-MP/500/101 Rev A	North Side Surface Water Drainage
5049-MP/500/102 Rev A	East Side Surface Water Drainage Sheet 1 of 2
5049-MP/500/103 Rev A	East Side Surface Water Drainage Sheet 2 of 2
5049-MP/500/104 Rev A	Market Place Surface Water Drainage
5049-MP/500/110 Rev A	North Side Drainage Slot Drain Arrangement
5049-MP/500/111 Rev A	East Side Drainage Slot Drain Arrangement Sheet 1 of 2
5049-MP/500/112 Rev A	East Side Drainage Slot Drain Arrangement Sheet 2 of 2
5049-MP/500/113 Rev A	Town Hall Slot Drain Arrangement
5049-MP/500/115 Rev A	Market Place Slot Drain Arrangement
5049-MP/500/120 Rev A	Proposed Surface Water Drainage Longitudinal Section
As Shown MP_500_121 Rev A	Proposed Surface Water Drainage Longitudinal Section East Side
5049-MP/700/101 Rev A	North Side External Works
5049-MP/700/102 Rev A	North Side Carriageway Construction
5049-MP/700/103 Rev A	East Side External Works
5049-MP/700/104 Rev A	East Side Carriageway Construction Sheet 1 of 2
5049-MP/700/105 Rev A	East Side Carriageway Construction Sheet 2 of 2
5049-MP/700/106 Rev A	Town Hall External Works
5049-MP/700/107 Rev A	Market Place External Works
5049-MP/700/110 Rev A	Platform Arrangement External Works
5049-MP/700/111 Rev A	Platform Arrangement Typical Cross Section
5049-MP/700/112 Rev A	Loading/Disabled Bay Arrangement External Works
5049-MP/700/113 Rev A	Loading/Disabled Bay Arrangement & Pedestrian Area Typical Cross Section
5049-MP/700/114 Rev A	Town Hall Arrangement External Works

LIST OF WOKINGHAM BOROUGH COUNCIL DRAWINGS REVIEWED AT THIS STAGE 3 ROAD SAFETY AUDIT (CONTINUED)

DRAWING NO.	TITLE
5049-MP/1200/101 Rev A	North Side Signs And Road Markings
5049-MP/1200/102 Rev A	Sign Design Details
5049-MP/1200/103 Rev A	East Side Signs And Road Markings
5049-MP/1200/104 Rev A	Town Hall Signs And Road Markings
5049-MP/1200/105 Rev A	Market Place Signs And Road Markings
5049-MP/1400/101 Rev A	North Side Utility Arrangement
5049-MP/1400/102 Rev A	East Side Utility Arrangement Sheet 1 of 2
5049-MP/1400/103 Rev A	East Side Utility Arrangement Sheet 2 of 2
5049-MP/1400/104 Rev A	Town Hall Utility Arrangement
5049-MP/1400/105 Rev A	Market Place Utility Arrangement
5049-MP/SO/101 Rev A	North Side Horizontal Setting Out
5049-MP/SO/102 Rev A	North Side String Labels
5049-MP/SO/103 Rev A	East Side Horizontal Setting Out
5049-MP/SO/104 Rev A	East Side String Labels
5049-MP/SO/105 Rev A	Town Hall Horizontal Setting Out
5049-MP/SO/110 Rev A	Town Hall Setting Out
5049-MP/SO/111 Rev A	Demarcation Markers Setting Out
MPLACE_Electrical Rev A	Proposed Electrical Layout
PW131/TS/001 Rev B	Market Place Dual Puffin Crossing Refurbishment

LIST OF SUMO SERVICES LIMITED DRAWINGS REVIEWED AT THIS STAGE 3 ROAD SAFETY AUDIT

DRAWING NO.	TITLE
8903_01 Utility	Utilities & Topographical Details
8903_02 Utility	Utilities & Topographical Details
8903_03 Utility	Utilities & Topographical Details

**LIST OF SUMO SERVICES LIMITED DRAWINGS REVIEWED AT THIS STAGE 3 ROAD SAFETY AUDIT
(CONTINUED)**

DRAWING NO.	TITLE
8903_04 Utility	Utilities & Topographical Details
8903_05 Utility	Utilities & Topographical Details
8903_06 Utility	Utilities & Topographical Details
8903_07 Utility	Utilities & Topographical Details
8903_08 Utility	Utilities & Topographical Details
8903_09 Utility	Utilities & Topographical Details
8903_10 Utility	Utilities & Topographical Details
8903_11 Utility	Utilities & Topographical Details
8903_12 Utility	Utilities & Topographical Details
8903_Topo_03	Utilities & Topographical Details
8903_Topo_04	Utilities & Topographical Details
8903_Topo_05	Utilities & Topographical Details
8903_Topo_06	Utilities & Topographical Details
8903_Topo_07	Utilities & Topographical Details
8903_Topo_08	Utilities & Topographical Details

LIST OF GREEN BLU URBAN DRAWINGS REVIEWED AT THIS STAGE 3 ROAD SAFETY AUDIT

DRAWING NO.	TITLE
001 - Rev A	Tree Pit Installation System - Tree Pit Plan View - Rootspace Locations
002 - Rev A	Tree Pit Installation System - Typical Tree Pit Design - Rootspace 4.0m x 4.0m

LIST OF DOCUMENTS REVIEWED AT THIS STAGE 3 ROAD SAFETY AUDIT

Wokingham Borough Council - Response Letter - Market Place, Wokingham, Berkshire - Environmental Improvements - Interim Stage 3 Audit - February 2019
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LIST OF DOCUMENTS REVIEWED AT THIS STAGE 3 ROAD SAFETY AUDIT (CONTINUED)

Acorns Projects Limited - Market Place, Wokingham, Berkshire - Environmental Improvements - Interim Stage 3 Road Safety Audit - September 2018
WSP Wokingham Highway Alliance - Designers Response - Environmental Improvements Programme - Market Place - Road Safety Audit Combined Stages 1 and 2 - November 2016
Acorns Projects Limited - Market Place, Wokingham, Berkshire - Proposed Environmental Improvements - Combined Stage 1 and 2 Road Safety Audit - October 2016
WSP Parsons Brinckerhoff - Feasibility Lighting Study - May 2016

ANNEX B

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