

Prepared on behalf of

MACE Ltd

**Nishkam School West London,
Syon Lane, Hounslow**

Stage 1 Road Safety Audit

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Appendices

APPENDIX A

Marked Up Plan

1 Introduction

- 1.1 Sanderson Associates (Consulting Engineers) Ltd have been appointed by MACE Ltd to carry out a Stage 1 Road Safety Audit of the highway works associated with the development of Nishkam School West London, which is located on land off Syon Lane, Hounslow, London.
- 1.2 The Audit Team membership is given in Section 3 of this report. The Audit took place on site on Monday 10th August 2015 and was discussed further at the office of Sanderson Associates. During the site visit the weather was fine and generally dry; and traffic conditions were free flowing.
- 1.3 The works comprise of a new site access on to Syon Lane, which includes a ghost island right turn lane and pedestrian refuge island. A zebra crossing is also proposed on Syon Lane to the south of Gower Road junction. The following drawings have been provided for Audit purposes:
- 8687-001C Proposed Highway Improvements
 - 8687-002B Proposed Highway Improvements and Typical Cross Sections
 - 8687-003C Proposed Access and Visibility
 - 8571-001A Swept Paths
- 1.4 The Audit report follows the Stage 1 table of contents list in Annex A of HD19/15. For instance a problem identified under list A1: General, item – Access will be referenced A1.8.1 where A1 refers to the particular list, 8 refers to the eighth item in list A1 i.e. Access and the third figure refers to the problem number. Therefore if a second problem has been identified under the same list and item this will be numbered A1.8.2.
- 1.5 The Audit Team have not been made aware of any departures from standard.
- 1.6 The Audit considers and reports on the safety implications of the proposed highway works. Comments made in this report relate to those points that are considered to be worthy of attention in respect of safety only.

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- 1.7 A marked up plan is included in **Appendix A**, which identifies the general location of problems that have been raised. General problems or those with multiple locations have not all been shown.
- 1.8 Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate means of eliminating or mitigating the identified problem. It is noted that there may be alternative methods of addressing a problem that would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

2 Items raised at the Stage 1 Audit

A1 GENERAL

A1.2.1 **Problem:** Cross-sectional variation

Location: Proposed site access

Summary: The proposed site access includes carriageway widening on the west side of Syon Lane to accommodate the proposed ghost island right turn lane. This results in the back of footway being set back closer to a dry ditch that runs along the rear of the easting footpath. Should adequate protection not be provided, pedestrians could trip and fall into the ditch.

Recommendation: If possible remove the ditch. If this is not practical, provide a fence or other boundary treatment to prevent pedestrians from entering the ditch.

A1.4.1 **Problem:** Drainage

Location: Proposed zebra crossing to the south of Gower Road

Summary: A road gully exists on the east side of the existing uncontrolled pedestrian crossing, located within the existing tactile paving. This uncontrolled crossing is proposed to be replaced by a zebra crossing, which will require alterations to the existing tactile paving. There is evidence of ponding in this location, with debris present on the tactile paving. Should the gully remain in its current location, this could result in ponding continuing to occur on the footway adjacent to the crossing, which would create slip hazard for pedestrians. The gully grate is also not a pedestrian friendly design and could cause trips or cause problems for pedestrians who use sticks etc.

Recommendation: Relocate the gully into the carriageway away from the pedestrian desire line.

A1.7.1 Problem: Lay-bys

Location: Proposed zebra crossing to the south of Gower Road

Summary: There is a parking lay-by on the east side of Syon Lane, immediately to the south of the proposed zebra crossing. Should a high sided vehicle park in the lay-by this would block visibility for pedestrians waiting on the east side of the crossing. This would make it more difficult for pedestrians to observe and be observed by an oncoming northbound vehicle, which could result in pedestrian/vehicle collisions or rear shunts associated with vehicles braking heavily to stop at the crossing.

Recommendation: Pedestrian visibility should be improved. This could be done by removing or setting back some of the lay-by parking, or possibly by introducing a buildout to enable pedestrians to look passed the lay-by without stepping in to the carriageway.

A1.7.2 Problem: Lay-bys

Location: Proposed zebra crossing to the south of Gower Road

Summary: Similar to point A1.7.1, there is a parking lay-by on the east side of Syon Lane, to the north of the proposed zebra crossing and Gower Road. Whilst the majority of the vehicles observed parking in the lay-by parked parallel to kerb, one vehicle in the most southern part of the lay-by had parked perpendicular to the kerb, which is possible as the lay-by is sufficiently deep to do so. This vehicle blocked visibility for pedestrians waiting on the east side of the crossing to southbound traffic. This would make it more difficult for pedestrians to observe and be observed by an oncoming southbound vehicle, which could result in pedestrian/vehicle collisions or rear shunts associated with vehicles braking heavily to stop at the crossing.

Recommendation: If the lay-by were marked to indicate to drivers to park parallel to the kerb at the rear of the lay-by, this would help control the use of the layout and prevent vehicles from blocking visibility.

A1.7.3 Problem: Lay-bys

Location: Lay-by on east side of Syon Lane opposite site access.

Summary: A buildout is proposed on the east side of Syon Lane to provide an uncontrolled crossing point, at the proposed pedestrian refuge immediate to the south of the proposed site access. This would remove some of the available lay-by parking, which appears to be heavily used as most of the adjacent properties do not benefit from having a drive. The removal of these parking spaces is likely to displace parking elsewhere on Syon Lane and surrounding streets and may encourage these motorists to park in inappropriate locations. Depending on where parking is displaced, this may cause a variety of safety issues, such as causing an obstruction or blocking sight lines if parking occurs close to junctions etc.

Recommendation: Ideally the lost parking spaces should be replaced elsewhere nearby if possible. However, as this may not be possible, it would be possible to introduce markings in the remaining lay-by (as already suggested in A1.7.2) to encourage a good parking regime that maximises the available space.

A1.8.1 Problem: Access

Location: Car park access on the east side of Syon Lane to the north of the proposed site access.

Summary: There is a car park access on the east side of Syon Lane to the north of the proposed site access, which is opposite the taper of the proposed ghost island right turn lane. No provision has been made to provide a right turn lane to enable access to the car park. Instead, drivers would be required to cross through the proposed hatch markings. As the road markings do not direct drivers on how to access the car park safely, vehicles waiting to turn right into the car park access could be badly positioned and impede passing traffic. This could result in rear shunt type collision with northbound vehicles, or collisions with southbound vehicles entering the proposed right turn lane.

Recommendation: Provide facilities for right turning vehicles into the car park access.

A4 Non-motorised User (NMU) Provision

A4.2.1 Problem: Pedestrian/Cyclists

Location: Site Access

Summary: The dropped crossing and pedestrian refuge island proposed to enable pedestrians to cross the site access is located quite close to Syon Lane. This makes the crossing distance on the inbound lane approximately 8m wide. As the crossing is likely to be heavily used by school children when the junction is at it busiest at the start and end of the school day, the risk of collisions between turning vehicles and pedestrians may be high.

Recommendation: Set back the pedestrian crossing point further into the site access to reduce the pedestrian crossing distance.

A5 ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING

A5.1.1 Problem: Signs

Location: Proposed zebra crossing to the south of Gower Road

Summary: There are trees and parking lay-bys on the east side of Syon Lane, which restrict visibility to the proposed zebra crossing, which will make it less conspicuous. Should approaching vehicles fail to observe the crossing, this could result in pedestrian/vehicle collisions, or rear shunt type incidents associated with late braking.

Recommendation: Provide advanced warning signage for the pedestrian crossing. Careful consideration of the sign locations should be given, as it was observed on site that an existing sign (bend ahead sign) of the east side of Syon Lane to the south of the proposed crossing is currently obscured by tree branches. A similar situation should be avoided for any proposed signage.

A5.2.1 Problem: Road Markings

Location: Site Access and proposed zebra crossing to the south of Gower Road

Summary: The proposed site access and the proposed zebra crossing to the south of Gower Road will require alterations to the existing street lighting to ensure that they are adequately illuminated. However, as with some of the existing lighting columns, they may become obscured by tree branches. Should inadequate lighting be provided, this could contribute to a variety of incidents and in particular increase the potential for pedestrian/vehicle collisions.

Recommendation: Ensure that adequate lighting columns are provided and that trees branches do not reduce their effectiveness.

3 Audit Team Statement

3.1 We certify that we have examined the works with the sole purpose of identifying any features, or combination of feature that could be modified such as to improve the overall safety of the scheme. The problems this Road Safety Audit identifies have been noted together with suggestions for improvement, which we recommend for consideration. No one on the Audit Team has been involved with the scheme design.

Audit Team Leader:

Adam Darwin FIHE

Associate at Sanderson Associates (Consulting Engineers) Ltd

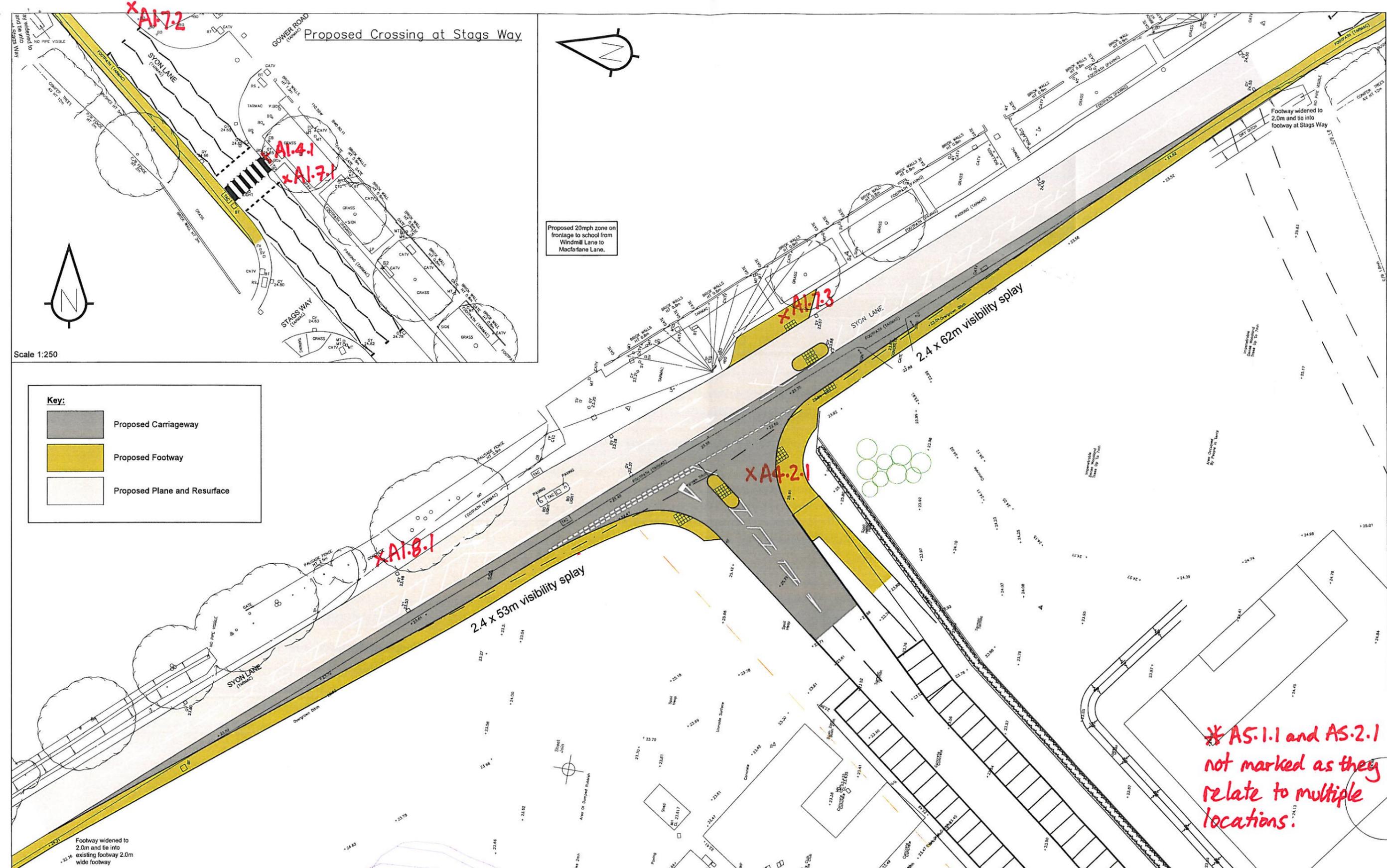
Audit Team Members:

Darren Hawkyard MIHE

Principal Engineer at Sanderson Associates (Consulting Engineers) Ltd

APPENDIX A
Marked Up Plan





Scale 1:250

Key:

- Proposed Carriageway
- Proposed Footway
- Proposed Plane and Resurface

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associates
(consulting engineers) ltd

Highways | Traffic | Transportation | Water

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Client
MACE Limited

Project Title
Nishkam School

Drawing Title
Proposed Highway Improvements
Syon Lane, Hounslow

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|-----|---|-------|----------|---------|
| Rev | Amendment | Drawn | Date | Checked |
| | C Crossing restriction markings added. | TW | 31.07.15 | DC |
| | B Footway extended, Annotations amended, Crossing changed to zebra. | KB | 29.07.15 | DC |
| | A Access layout amended including footway/cycle link | IE | 14.07.15 | DC |

| | | | |
|--------------|------------------|----------------|----------|
| Scale | 1:250 NTS | Drawn By | IE |
| Drawing Size | A1 | Checked By | DC |
| Date | 01.06.15 | Approved By | DC |
| | | Drawing Number | 8687/001 |
| | | Rev | C |