PAH HIGHWAY CONSULTANTS

PROPOSED RESIDENTIAL DEVELOPMENT
STATION ROAD
MELTHAM

STAGE 1 / 2 ROAD SAFETY AUDIT

RSA802(E)
May 2016

Unit 2
The Office Campus
Paragon Business Park
Red Hall Court
Wakefield
WF1 2UY

DESIGNER'S RESPONSE TO STAGE 1/ 2 ROAD SAFETY AUDIT
DATE: 5th August 2016

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1 INTRODUCTION

1.1 PAH Highway Consultants Ltd has been appointed to carry out a Stage 1 / 2 Road Safety Audit of the proposed upgrading works to Station Road (part) Meltham in relation to the construction of a small residential development that will provide turning facilities, resurfacing works, a footway and street lighting on the development side of Station Road.

1.2 The Audit Team Membership is given in Section 3 of this report. This Audit was undertaken in accordance with HD 19 /15. A site visit was carried out on the 11th May 2016. During the site visit the weather was sunny with light cloud. The plans were discussed at the site meeting and were analysed in more detail at the offices of PAH Highway Consultants Ltd.

1.3 The proposals consist of the provision of a footway along the development site frontage to Station Road with associated street lighting, the upgrading and widening of the carriageway, the provision of two turning facilities and surface water drainage again on the section fronting the development. A considerable section of the setts on Station Road from its junction with the B6108 to the site frontage will also be relayed.

1.4 It was noted at the time of the site visit that Station Road along the site frontage was very lightly trafficked. Station Road also forms part of the route of a definitive footpath.

1.5 It is not a highway safety issue, however, it is noted that a soakaway is proposed within a steep embankment to the east of the second turning area. This will be difficult to construct and the saokaway should be relocated in a more suitable area, however, it should be located a minimum of 3 metres from any highway / drive.

1.6 The road safety audit was carried out by Road Safety Engineers approved by the designer who have not been involved in the design process.

1.7 The following information was submitted to the Audit Team:

1. A copy of the detailed improvement works drawing ref: 802E/01

1.8 The terms of reference of the audit are as described in HD 19/15 'Road Safety Audit', which forms part of Volume 5 of the Design Manual for Roads and Bridges. The 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.

1.9 The problems identified have been referenced to the Stage 2 checklist contained within Annex B of HD 19/03. For instance a problem identified under List B1: General, Item – Lay-bys will be referenced B1.6.1 where B1 refers to the particular list, 6 refers to the sixth item in List 1 i.e. Lay-bys and the second 1 refers to the problem number. Therefore if a second problem has been identified under the same list and item this will be numbered B1.6.2.

1.10 The Audit considers and reports on the safety implications of the proposed highway works. Comments made in this report relate to points which are considered to be worthy of attention in respect of safety.

1.11 The Audit Team has not been made aware of any departures from standards.

2 ITEMS RAISED IN STAGE 2 ROAD SAFETY AUDIT

B1 General

B1.2.1 Problem: Drainage

Location: To the west of the access to Edwin Brook & Co. Ltd

Summary

There is a manhole and gas box just on the edge of the sett paved carriageway and within an area that is used for occasional car parking. Both the covers are above the surface level in places of the surrounding "highway" and present a trip hazard to pedestrians and other NMU's. This could lead to pedestrians tripping over the boxes and falling within the carriageway.

See photograph below.



Recommendation

The manhole and gas covers should be relayed to the same level of the adjoining highway.

DESIGNER'S RESPONSE

Accepted, a note has now been added to the drawings as recommended.

B1.2.2 **Problem: Drainage**

Location: To the south east of the access to Edwin Brook & Co. Ltd.

Summary

There is an existing gulley located to the south east of the access to Edwin Brooks Mills – see photograph below. The gulley is "backed up" and there is evidence of ponding in the immediate locality. This leads to accumulations of surface water within this locality causing vehicles to loose traction whilst braking and potentially colliding with other road users of Station Road. This problem would be exacerbated during the winter months with a risk of ice forming. Furthermore, standing water can lead to premature failure of the surface course, and consequently represent a trip hazard for pedestrians.



Recommendation

The gulley should be jetted and the area around the gulley should be relayed to ensure surface water discharges to the gulley.

DESIGNER'S RESPONSE

Accepted, a note has now been added to the drawings as recommended.

B1.4.1 **Comment: Landscaping**

Location: Section of Station Road to be improved / widened.

No indication has been given to the Audit Team that the gate posts, trees and fences are to be removed / relocated as if left in situ will be within the new highway These features would be an obstruction to traffic and NMU's and vehicles could potentially collide with same causing injury.

Recommendation

The existing gates, posts, fences and trees should be removed.

DESIGNER'S RESPONSE

Accepted, a note has now been added to the drawings as recommended.

B1.5.1 **Comment: Public Utilities**

Location: Section of Station Road to be improved / widened.

Summary

No indication has been given to the Audit Team that the existing BT poles and cables and gas main are to be relocated and if left in situ will be within the new highway The poles would be an obstruction to traffic and NMU's and vehicles could potentially collide with same causing injury.

Recommendation

The existing poles / cables and gas main should be relocated outside the new highway limits and any drive entrance points.

DESIGNER'S RESPONSE

Accepted, a note has now been added to the drawings as recommended.

B2 Local alignment

B2.2.1 **Comment: New / Existing road interface**

Location: From the junction of the B6108 to the north west of the access to Edwin Brook & Co. Ltd.

Summary

No indication has been given to the Audit Team of how the transition between the tarmac surface and area of relayed setts is to be dealt with. Failure to provide flush jointing and patching could lead to a trip hazard for pedestrians and other NMU's causing injury.

Recommendation

Details of the proposed method of treatment of the transition between the two different surface courses shall be submitted to the Audit Team for comment.

DESIGNER'S RESPONSE

Accepted, a note has now been added to the drawings as recommended.

B3 Junctions

B3.1.1 **Comment: Layout**

Location: Turning areas

Summary

No information has been provided to the Audit Team on the gradients of the proposed turning heads. The topography of the site and in particular the topography at the location of the most western turning facility would require the construction of a substantial retaining structure. Excessive gradients within the turning areas would lead to loss of traction for drivers of vehicles which would be exacerbated in inclement weather such as ice and snow with potential for collision with other vehicles. An excessive gradient would also lead to access difficulties for pedestrians and other NMU's resulting in falling within the highway.

Recommendation

Information should be submitted to the Audit Team demonstrating the gradients of the turning facilities and the method of ground retention.

DESIGNER'S RESPONSE

Accepted, details have been included on the amended drawings.

B5 Road Signs, Carriageway Markings and Lighting

B5.3.1 **Comment: Lighting**

Location: Proposed new footway.

Summary

The drawing indicates that the new lamp columns are to be erected within the middle of the new footway. Lamp columns in this location would form an obstruction to pedestrians and other NMU's and would result in blind or partially sighted pedestrians colliding with a lamp column or alternatively pedestrians having to step into the carriageway into the path of an oncoming vehicle.

Recommendation

The lamp columns should be located to the rear of the footway.

DESIGNER'S RESPONSE

Accepted, a note has now been added to the drawings as recommended and the lamp columns re-sited accordingly.

B5.3.2 **Comment: Lighting**

Location: Proposed new lighting column on the original line of Station Road.

Summary

This proposed lighting column will be located close to the carriageway and the potential line of a high pressure gas main – see photograph below. Failure to provide adequate off set from the carriageway would lead to drivers colliding with the column causing injury.



Recommendation

The proposed lamp column should be located a minimum of 600mm from the carriageway edge and in this case away from the line of the high pressure gas main.

DESIGNER'S RESPONSE

Accepted, a note has now been added to the drawings as recommended.

DESIGNER'S RESPONSE BY

Ash Howarth

Design Manager – Paragon Highway Consultants

Date: 5th August 2016.

3 AUDIT TEAM STATEMENT

3.1 I certify that this Audit has been carried out in accordance with HD 19/15.

AUDIT TEAM LEADER
Paul Howarth MCIHT MIHE
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Signed

Date **26th May 2016**

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