

Pedestrian Environment Street Audit Review

Bletchley and Fenny Stratford



October 2022



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PERS: 2022 Street Audit Bletchley & Fenny Stratford

1. INTRODUCTION

- This report has been produced by Milton Keynes City 1.1 Council's in house Urban Design team to perform a pre-design and works review of the area proposed for public realm improvement interventions derived from the Bletchley Town Deal and subsequently build upon the work carried out in the Central Bletchley Urban Design Framework Supplementary Planning Document (SPD). The scope of this study does extend wider than the focus area identified in the Town Deal Public Realm Improvement project. This is in order to cast the net wider and capture the pedestrian routes and networks leading to and from the surrounding neighbourhoods which are connected to the project area. The aim is to review the quality of existing pedestrian / cycle links between Bletchley Bus Station and Fenny Stratford Train Station and the two Town Centres of Bletchley and Fenny Stratford. Destination drivers such as local parks , the leisure centre and library were included to provide a comprehensive Pedestrian Environment Review Study (PERS).
- 1.2 The reviews were carried out on the study area during daytime hours along a network of links and routes identified as the main pedestrian connections within and around the project area. PERS is a walking and cycling audit tool that assesses the level of service and quality provided for pedestrians across a range of pedestrian environments. This allows an understanding of the physical characteristics of the study area, with the results helping to identify opportunities and constraints for improvements as the Town Deal Public Realm Improvement (PRI) project progresses, alongside policy review and survey data analysis.
- 1.3 The PERS was carried out over multiple walking visits and surveys throughout the Summer of 2022.

2 STREET AUDIT METHOD

- A total of 12 routes, 5 links, 70 crossings facilities (both formal and informal), 6 public spaces and 2 interchanges were identified as making up the network of pedestrian accessibility within the PERS audit area. These link Bletchley Bus Station and other key pedestrian movement generators within the study area namely, the two Town Centres, Bletchley Leisure Centre, Bletchley Library, Bletchley Bus Station and Fenny Stratford High Street and Train Station.
- 2.2 The assessment area and the routes, links, crossings, public spaces and interchanges identified are shown on the plan in Fig 1. Each route, link, crossing, public space and interchange was given an identifier during the initial audit. Each identifier was then assessed in relation to its relevant set of criteria as shown in Table 2-1 and given a score ranging from +3 (very good) to -3 (very poor). A score of 0 represents an average score, but also N was used where a particular criteria could not be assessed.
- 2.3 The assessment has been carried out with the purpose of identifying opportunities for improvement. A second review should be undertaken after works are completed in order to record the improvements and any associated uplift in PERS score changes. In this way PERS will play an important role in demonstrating the benefit realisation achieved through delivery of the Town Deal Public Realm Improvement project.
- 2.4 The full results of each are included in the report however a headline analysis of key criteria is included in the body of this report to help create a better understanding of the pedestrian environment, and areas and opportunities for future improvements to pedestrian connections.

2.5 What is PERS

PERS or 'Pedestrian Environment Review System' is a walking audit tool. It is also now part of the multi-modal Streetaudit assessment tool. PERS and Streetaudit have been developed by TRL (previously Transport Research Laboratory) in co-operation with Transport for London (TfL).

2.6 THE PERS TOOL

PERS as a walking audit tool consists of two main parts: Firstly, checksheet(s) with accompanying guidance for use in the field to score environments and note comments. And secondly, software that is used to store results and produce outputs such as graphs and reports. In short, PERS is used to assess the level of service and quality provided for pedestrians across a range of pedestrian environments.

2.6 PEDESTRIAN ENVIRONMENTS

PERS is used to review the following types of pedestrian environment:

- Links Any footway, footpath or highway. Links can be divided into sections if very long, into different sides of a street or reviewed in their entirety.
- Crossings Any designated or undesignated crossing where a pedestrian route intersects with a highway.
 Side road junctions can also be considered as crossings.
- Routes A route is comprised of links, crossings and other PERS pedestrian environments and forms a trip from start to finish, such as from home to the library.
- 4. Public Transport Waiting Areas Any designated area where people are required to wait in order to use public transport, such as bus and train stops. Larger public transport waiting areas, such as termini rail stations may be considered as interchange spaces.
- Interchange Spaces The areas around and between public transport stops or termini. They allow people to change between transport modes.
- Public Spaces These vary in size from small plazas to parks. These may not be specifically for pedestrians, but they can be used as part of a pedestrian's route.

2.7 PERS SCORING

Although quantitative methods are used when reviewing some elements of the pedestrian environment, such as footway widths, dropped kerb gradients and so forth, within PERS some of the auditing is also qualitative. Factors such as personal safety and quality of the environment use the judgement of the auditor.

This dual approach to assessing walking environments allows the 'feel' of an environment, as well as it's physical form to be gauged and assessed.

The PERS scoring system, used for all pedestrian environments ranges from -3 to +3, where 0 is an average score as below:

Poor			Average	9		Good
-3	-2	-1	0	1	2	3

- 2.8 The PERS software can use weighting so that particular walking environment factors can be prioritised, e.g. footway width can be made a more important factor when assigning a PERS score than footway gradient. This allows for flexibility according to local circumstances and needs. However, for the purposes of this study all weighting has been set to neutral (N).
- 2.9 PERS also factors in the relative importance of some criteria compared to others (e.g. Strategic routes and high streets with greater footfall) are considered most important and so must score more highly to be rated the same as local routes, such as residential streets.

Routes	Links	Crossings	Public Transport Waiting Area	Public Space
 Directness Permeability Road safety Personal security Legibility Rest points Quality of the environment 	 Effective width Dropped kerbs Gradient Obstructions Permeability Legibility Lighting Tactile Information Colour contrast Personal security Surface quality User conflict Quality of the environment 	 Crossing provision Deviation from desire line Performance Capacity Delay Legibility Legibility for sensory impaired people Dropped kerbs Gradient Obstructions Surface quality Maintenance 	 Information to the waiting area Infrastructure to the waiting area Boarding public transport Information at the waiting area Safety perceptions Security measures Lighting Quality of the environment 	 Moving in the space Interpreting the space Personal safety Feeling comfortable Sense of place Opportunity for activity

Table 1- PERS Assessment Criteria

2.10 THE REVIEW PROCESS

The key stages and process used to conduct this pedestrian audit are detailed below:

- Stage 1 Definition of the Study Area The study area was defined on a base map, with all the pedestrian environments – links, crossings, public spaces etc. to be reviewed all displayed and agreed upon.
- Stage 2 Identification of Review Stages
 The complete list of pedestrian environments broken down and divided up amongst auditors.
- Stage 3 On-Street Evaluation.

The auditors review their assigned environment using the PERS checklists and PERS scoring guides. Scores and comments are noted down for later input into the PERS software.

- Stage 4 Data Input and Analysis
 The scores and comments gathered are entered into
 PERS software for each environment reviewed and an overall score is output.
- Stage 5 Display and Review of Outputs
 The software is used to generate the reports and charts displayed on the following pages showing the culmination of the data and results gathered.

Route: results

3 ROUTES: RESULTS

- 3.1 13 routes were identified within the study area, and they all differ in terms of standards and quality. The routes that were identified and audited are mapped in Plan 1. Although some routes shown are possibly outside the scope of the proposed Town Deal Public Realm Improvement project, these routes were included in the study and assessed as they are important for pedestrian access to the town centres, high streets and local community facilities such as schools, libraries and leisure centres. These are considered to be pedestrian activators and are also identified in Plan 1 as 'Destinations'.
- 3.2 The routes were all scored from the combined totals of the following assessment criteria:

Directness -

Surveys actual distance compared with direct distance, evidence of short-cuts and deviation due to barriers

Permeability -

This looks at frequency of viable crossing points, access/exit points, pedestrian barriers / parked cars Traffic flow, dropped kerbs, road width, crossing places/ refuge points and sight lines.

Road safety -

Examines perceived road safety, traffic speeds/volumes effect of noise, spray and fumes, potential for conflict and segregation for cyclists. Casualty records is also expected to be looked at within the criteria if data available. However, at the point of carrying out the study this data was unavailable. The results were therefore recorded as neutral.

Personal security

Covers perceived personal security/sense of crime Street activity, lighting suitability, formal surveillance Visibility levels, visual appeal.

Legibility

Considers signage continuity, signage clarity Information boards/maps, surface type, tactile information and colour contrast.

Rest points

Evaluates the frequency of rest opportunities per 100m, Suitability for the type of user, if it is located in a safe area and enjoys protection from the weather, the quality and if it supports public activity.

Quality of the environment

This looks at public spaces, cleanliness/maintenance, pleasantness/aesthetics, soft landscaping, quality of materials and private frontages and prompts for activity

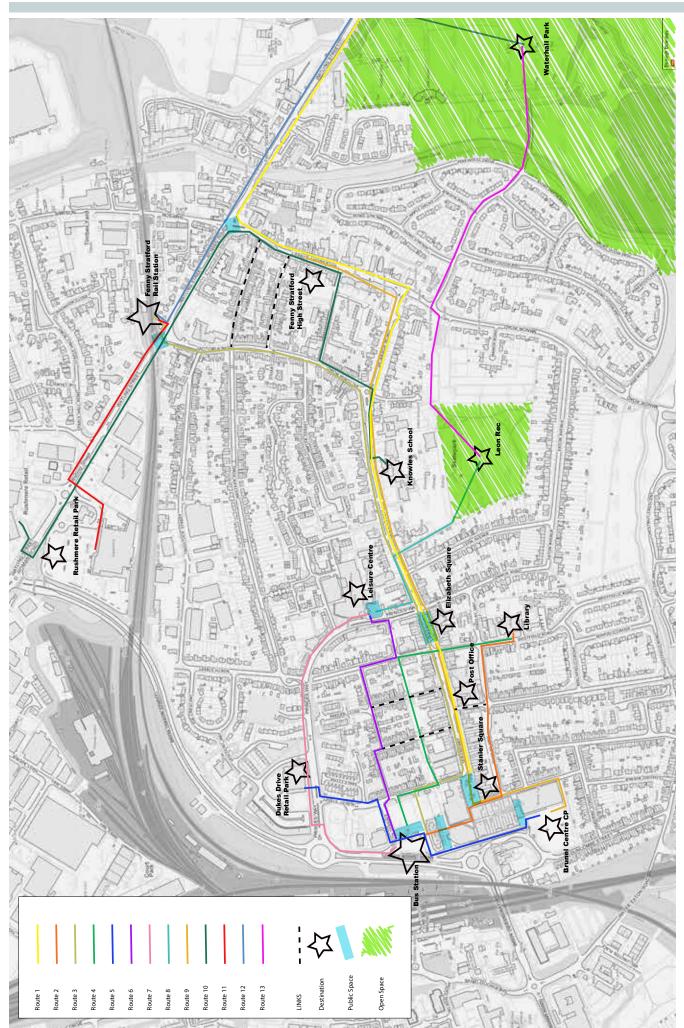
- 3.3 Table 2 shows the results of the total scores given to each route. 9 out of the total thirteen routes scored below average (below 0)
- 3.4 The combined total score for all thirteen routes is -220. This result represents a very poor score across the board for the public realm environment across Bletchley and Fenny Stratford.
- 3.5 Route 2 connecting Bletchley Bus Station to Bletchley Library, Route 5 connecting the concourse at Brunnell shopping centre to Dukes Street Retail park via Locke Road and Albert Street, and Route 7 connecting Bletchley Bus Station to Bletchley Leisure Centre via Princess Way where amongst the poorest scoring routes. These routes scored poorly, and most severely, in terms of environmental quality, personal security and road safety criteria.
- 3.6 Routes 5 and 2 also scored particularly poorly on personal security as some sections of these routes felt rather closed in and poorly overlooked by surrounding development. Pedestrian lighting infrastructure improvements could be made to help night hour use. Safety is an issue here as some connections are somewhat inaccessible or hazardous to pedestrians. These are also routes where wheelchair access remains severely restricted. This is not just apparent by the severely reduced footway widths and lack of ramps but also by the lack of dropped kerbs, correct blister paving for the sensory impaired and lack of smooth surfaces on the approaches to and from the bus station. Pedestrian barriers and parked cars on footways drives the score lower still, so an increased level of enforcement action might provide some immediate improvements. There is also, however, an opportunity for some 'quick win' uplifts in scores with the introduction of improved crossing provisions, surfaces, signage, introduction or repair of existing benches for rest points and an uplift in lighting provision along some lengths of the routes identified.

- 3.8
- Route 4 also scored poorly, although not currently a route considered as particularly popular or attractive to pedestrians. This route does, however, provide the shortest way that connects the Library and Town Centre to the Bus Station via Albert Street , Cawkwell Way and Westfield Road. The directness of this route was still considered quite poor with little signage to aid way finding. There was also an issue with a lack of pedestrian footway provision on both Cawkwell Way and Findlay Way. Presumably historically removed, a rather short sighted decision, in preference of a greater number of parking spaces within the streets scene.
- 3.9 Albert Street generally felt cluttered and unsafe for pedestrians on both sides of the street due mainly to multiple access points to the adjacent surface level car parks. Paths arbitrarily narrow, widen and terminate with no defined onward route apparent to pedestrians other than an option to join the road to cross the car parks.

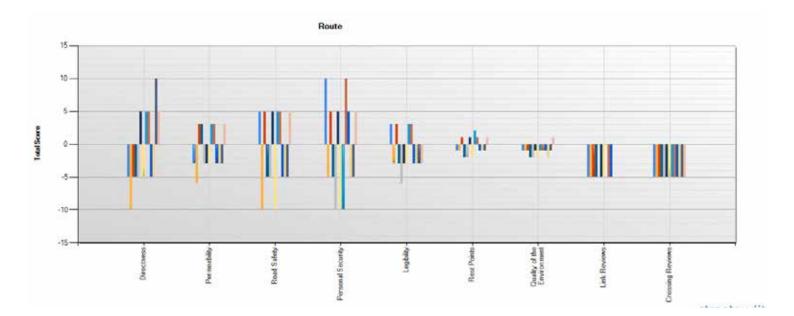
Route name	Summer 2022	Post Works
Route 1	-2	-
Route 2	-46	-
Route 3	1	-
Route 4	-29	-
Route 5	-38	-
Route 6	-1	-
Route 7	-45	-
Route 8	2	-
Route 9	12	-
Route 10	-23	-
Route 11	-29	-
Route 12	-13	-
Route 13	-9	
Total	-220	-

Table 2: PERS routes total results

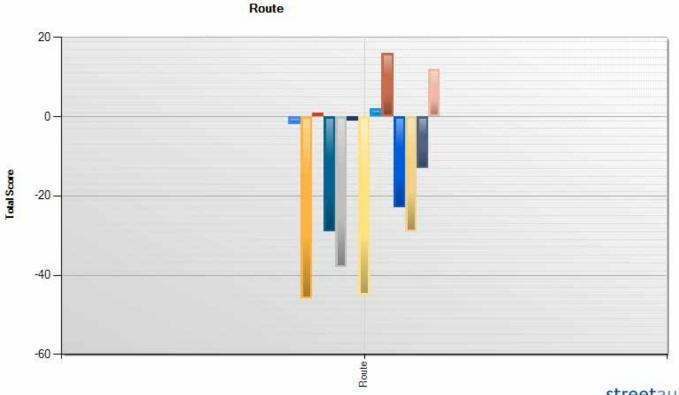
- 3.10 Part of Route 2 is a 'pedestrian only' area which also runs through public spaces 1 and 2 (evaluated separately) and between the Brunel Centre and under Stephenson House. Improvements to the public realm in these areas should be considered as a high priority along side any future development proposals for the surrounding buildings and wider town centre.
- 3.11 Routes 1, 3 and 9 received average or above average scores. They generally follow the high streets of Bletchley and Fenny Stratford via Queensway and Aylesbury Street respectively and therefore are expected to handle the greatest levels of pedestrian footfall and activity. They are along direct routes for pedestrians and with a good level of legibility. The pedestrian environment was generally good, feeling open and active yet safe along mostly single carriageway roads. However, the route varies in footpath surface quality across its entirety, reducing dramatically east of Elizabeth square. Personal security for pedestrians scored relatively well as there was adequate lighting and wide footways adjacent to the road and they are generally well overlooked.
- 3.12 The amount of pedestrian activity on the high street, especially along Queensway, was a pleasant surprise. Especially when compared to the much reported 'death of the high street' through reduction in visitor numbers identified elsewhere across the country. However, lots of occurrences of cars mounting pedestrian walkways to park were witnessed and recorded. This 'convenient for one but inconvenient for many' habitual behaviour is detrimental to any successful high street. It is suggested that this could present a 'quick win' opportunity for improvement through a better level of parking enforcement, which will go some way towards improving pedestrian comfort and safety scores.
- 3.13 Road crossing provision at side road junctions along all routes could be improved to reduce pedestrian vulnerability from vehicles and provide a greater indication to motorists of an increase to pedestrian priority specifically in the two high street areas.
 Higher consideration to improve pedestrian priority and road crossing provision at side roads also aligns with the tenor of Rule H2 of the new Highway Code, which states : At a junction you should give way to pedestrians crossing or waiting to cross a road into which or from which you are turning.



Plan 1: Identified pedestrian routes within the study area







streetaudit

Table 3 PERS routes total results showing Pedestrian category score breakdown for the survey of the thirteen identified routes



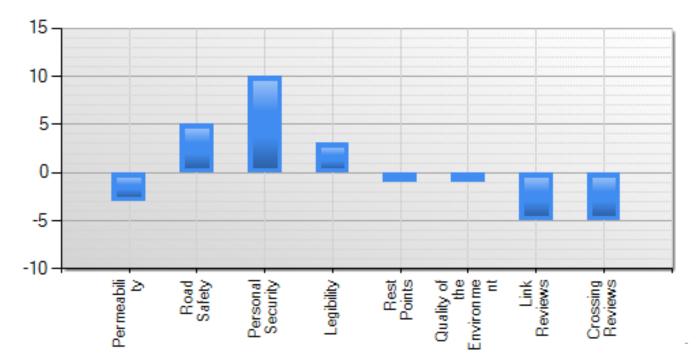




Fig 2 Route 1 image showing pedestrian environment evaluated across Stanier Square







Fig 3 Route 1 image showing pedestrian environment evaluated across Stanier Square

Fig 4 Route 1 image showing pedestrian environment evaluated on



Fig 5 Route 1 image showing pedestrian environment evaluated along the south side of Queensway



Fig 6 Route 1 image showing pedestrian environment evaluated along the south side of Queensway



Fig 9 Route 1 image showing pedestrian environment evaluated south side of Queensway at junction to Brooklands Road.



Fig 7 Route 1 image showing pedestrian environment evaluated along the south side of Queensway



Fig 10 Route 1 image showing pedestrian environment evaluated along the south side of Queensway to front of Post Office.



Fig 8 Route 1 image showing pedestrian environment evaluated along the south side of Queensway.



Fig 11 Route 1 image showing pedestrian environment evaluated along the south side of Queensway to front of Agora



Fig 13 Route 1 image showing pedestrian environment evaluated along east edge of Aylesbury Street



Fig 16 Route 1 image showing pedestrian environment evaluated along east edge of Aylesbury Street



Fig 14 Route 1 image showing pedestrian environment evaluated at junction to Eden Court



Fig 17 Route 1 image showing pedestrian environment evaluated along north east edge of Aylesbury Street



Fig 15 Route 1 image showing pedestrian environment evaluated along east edge of Aylesbury Street



Fig 18 Route 1 image showing pedestrian environment evaluated along south side of Watling Street at Junction to Wharfside

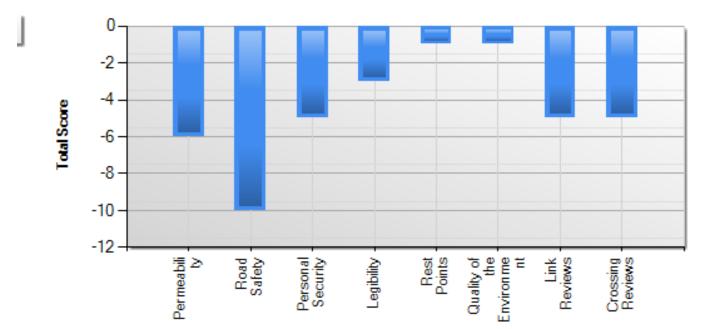




Fig 19 Route 2 image showing pedestrian environment evaluated beneath Stephenson House.





Fig 20 Route 2 image showing pedestrian environment evaluated north of the Brunel Centre

Fig 21 Route 2 image showing pedestrian environment evaluated north of the Brunel Centre



Fig 22 Route 2 image showing pedestrian environment evaluated north of the Brunel Centre



Fig 23 Route 2 image showing pedestrian environment evaluated north of the Brunel Centre



Fig 26 Route 2 image showing pedestrian environment evaluated south side of Findlay Way



Fig 24 Route 2 image showing pedestrian environment evaluated along north side of Stanier Square



Fig 27 Route 2 image showing pedestrian environment evaluated at junction of Findlay way and Brooklands Road



Fig 25 Route 2 image showing pedestrian environment evaluated on north side of Findlay Way



Fig 28 Route 2 image showing pedestrian environment evaluated an North edge of Findlay way

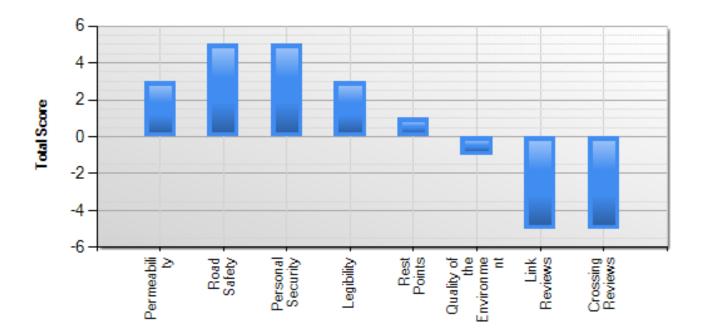




Fig 29 Route 3 image showing pedestrian environment evaluated on

Albert Street at Junction with South Terrace



Fig 31 Route 3 image showing pedestrian environment evaluated



Fig 30 Route 3 image showing pedestrian environment evaluated Albert Street at Junction with Cawkwell Way



Fig 32 Route 3 image showing pedestrian environment evaluated along East edge of Albert Street Towards Stanier Square



Fig 33 Route 3 image showing pedestrian environment evaluated on Stanier Square looking along north edge of Queensway



Fig 36 Route 3 image showing pedestrian environment evaluated north edge of Queensway at junction with Cambridge Street



Fig 34 Route 3 image showing pedestrian environment evaluated on the north edge of Queensway



Fig 37 Route 3 image showing pedestrian environment evaluated on the north edge of Queensway at junction with Princes Way



Fig 35 Route 3 image showing pedestrian environment evaluated on north edge of Queensway



Fig 38 Route 3 image showing pedestrian environment evaluated along Victoria Road

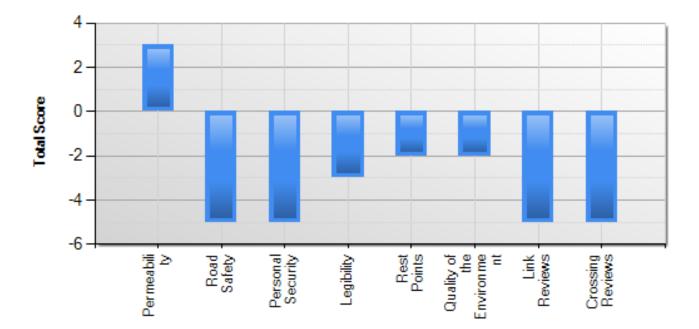




Fig 39 Route 4 image showing pedestrian environment evaluated along Albert Street at entrance to car parks.



Fig 41 Route 4 image showing pedestrian environment evaluated at Albert Street junction with Cawkwell Way



Fig 40 Route 4 image showing pedestrian environment evaluated at Albert Street junction with Cawkwell Way



Fig 42 Route 4 image showing pedestrian environment evaluated along Cawkwell Way



Fig 43 Route 4 image showing pedestrian environment evaluated on Cawkwell Way



Fig 46 Route 4 image showing pedestrian environment evaluated on Cambridge Street



Fig 44 Route 4 image showing pedestrian environment evaluated on Cawkwell Way



Fig 47 Route 4 image showing pedestrian environment evaluated on Cambridge Street



Fig 45 Route 4 image showing pedestrian environment evaluated on Cawkwell Way



Fig 48 Route 4 image showing pedestrian environment evaluated on Westfield Road at Junction with Findley Way

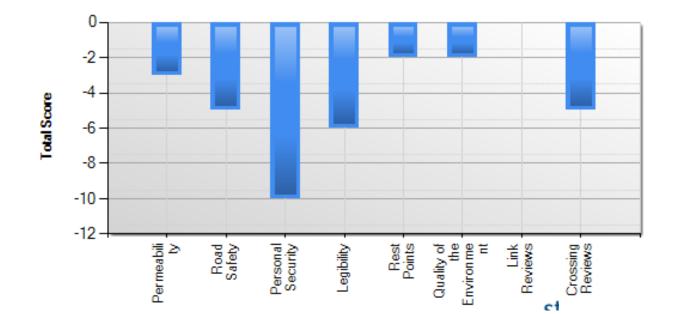




Fig 49 Route 5 image showing pedestrian environment evaluated east of Brunel Centre



Fig 51 Route 5 image showing pedestrian environment evaluated on Locke Road.



Fig 50 Route 5 image showing pedestrian environment evaluated on Locke Road.



Fig 52 Route 5 image showing pedestrian environment evaluated on Locke Road.



Fig 53 Route 5 image showing pedestrian environment evaluated on Locke Road.



Fig 56 Route 5 image showing pedestrian environment evaluated along Albert Street



Fig 54 Route 5 image showing pedestrian environment evaluated at Stephenson House.



Fig 57 Route 5 image showing pedestrian environment evaluated along Albert Street North



Fig 55 Route 5 image showing pedestrian environment evaluated at South Terrace



Fig 58 Route 5 image showing pedestrian environment evaluated at crossing on Princes Way.

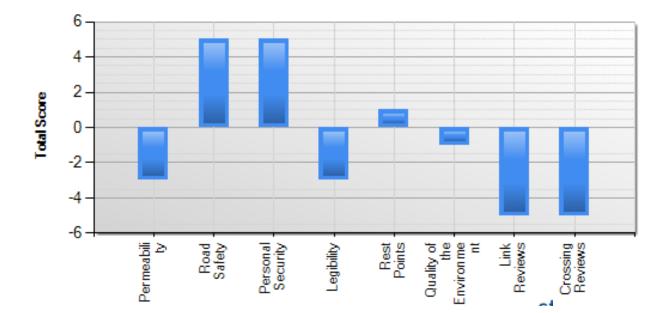




Fig 59 Route 6 image showing pedestrian environment evaluated on South Terrace looking west.



Fig 61 Route 6 image showing pedestrian environment evaluated at junction of Albert Street with Regent Street



Fig 60 Route 6 image showing pedestrian environment evaluated on South Terrace looking east.



Fig 62 Route 6 image showing pedestrian environment evaluated along Regents Street street



Fig 63 Route 6 image showing pedestrian environment evaluated along Regent street



Fig 66 Route 6 image showing pedestrian environment evaluated on St Martin's Street



Fig 64 Route 6 image showing pedestrian environment evaluated along Regent street



Fig 65 Route 6 image showing pedestrian environment evaluated on Regent Street and St Martin's Street Junction



Fig 67 Route 6 image showing pedestrian environment evaluated on Cawkwell Way



Fig 68 Route 6 image showing pedestrian environment evaluated on Princes Way.

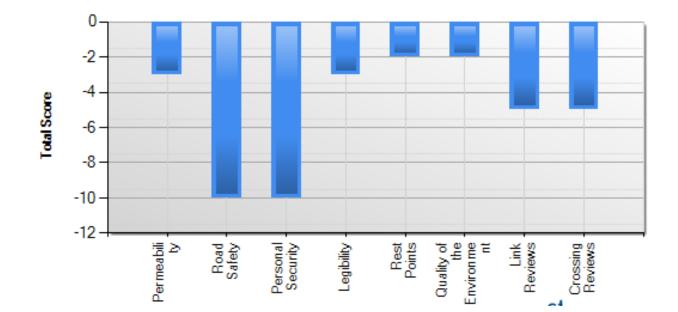




Fig 69 Route 7 image showing pedestrian environment evaluated at crossing from bus station at South Terrace





Fig 70 Route 7 image showing pedestrian environment evaluated along Saxon Street

Fig 71 Route 7 image showing pedestrian environment evaluated along Saxon Street



Fig 72 Route 7 image showing pedestrian environment evaluated at Saxon Street and Princes Way junction



Fig 73 Route 7 image showing pedestrian environment evaluated at Princes Way



Fig 76 Route 7 image showing pedestrian environment evaluated



Fig 74 Route 7 image showing pedestrian environment evaluated on Princes Way



Fig 77 Route 7 image showing pedestrian environment evaluated along Princes Way junction with Dynasty Drive.



Fig 75 Route 7 image showing pedestrian environment evaluated along north side of Princes Way



Fig 78 Route 7 image showing pedestrian environment evaluated at Princes Way junction with North Street

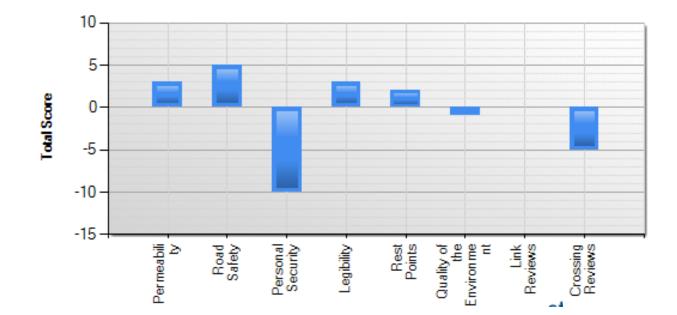




Fig 79 Route 8 image showing pedestrian environment evaluated to front of Leisure Centre on Princes Way





Fig 80 Route 8 image showing pedestrian environment evaluated to front of Leisure Centre on Princes Way

Fig 81 Route 8 image showing pedestrian environment evaluated along east access path to Leon Rec



Fig 82 Route 8 image showing pedestrian environment evaluated along wast access path to Leon Rec



Fig 83 Route 8 image showing pedestrian environment evaluated along east access path to Leon Rec



Fig 86 Route 8 image showing pedestrian environment evaluated at footway from Queensway through to Napier Street



Fig 84 Route 8 image showing pedestrian environment evaluated within Leon Rec



Fig 87 Route 8 image showing pedestrian environment evaluated along Queensway east



Fig 85 Route 8 image showing pedestrian environment evaluated within Leon Rec



Fig 88 Route 8 image showing pedestrian environment evaluated on Queensway east.

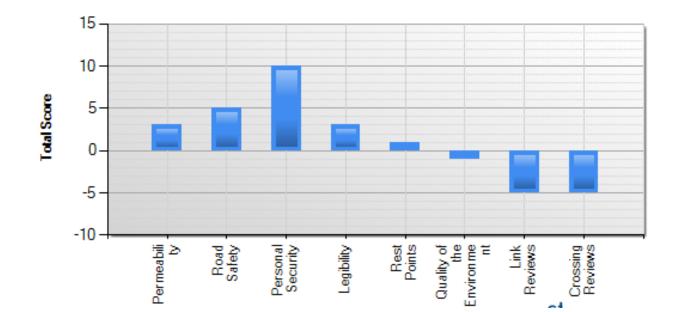




Fig 89 Route 9 image showing pedestrian environment evaluated on Stanier Square



Fig 91 Route 9 image showing pedestrian environment evaluated along south side of Queensway



Fig 90 Route 9 image showing pedestrian environment evaluated on Stanier Square



Fig 92 Route 9 image showing pedestrian environment evaluated at Westfield Road



Fig 93 Route 9 image showing pedestrian environment evaluated at Brooklands Road



Fig 96 Route 9 image showing pedestrian environment evaluated along Queensway at crossing of Lennox Road



Fig 94 Route 9 image showing pedestrian environment evaluated on Elizabeth square



Fig 97 Route 9 image showing pedestrian environment evaluated along east edge of Aylesbury Street.



Fig 95 Route 9 image showing pedestrian environment evaluated along south edge of Queensway east



Fig 98 Route 9 image showing pedestrian environment evaluated on Aylesbury Street at Junction to Denmark Street.

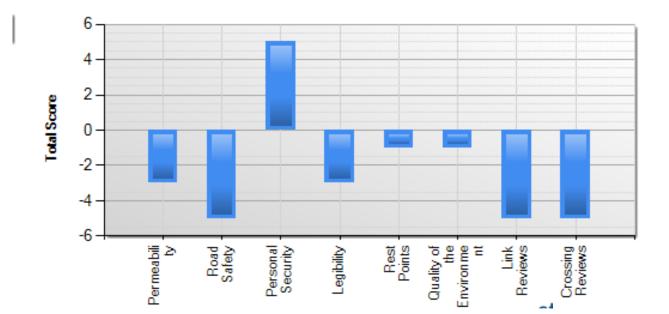




Fig 99 Route 10 image showing pedestrian environment evaluated at Access to Rushmere retail park from Watling Street





Fig 100 Route 10 image showing pedestrian environment evaluated along Watling Street

Fig 101 Route 10 image showing pedestrian environment evaluated on Watling Street junction with Saxon Street



Fig 102 Route 10 image showing pedestrian environment evaluated along Watling Street



Fig 103 Route 10 image showing pedestrian environment evaluated along Watling Street



Fig 106 Route 10 image showing pedestrian environment evaluated on Aylesbury Street, Fenny Stratford



Fig 104 Route 10 image showing pedestrian environment evaluated along Watling Street.



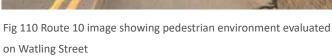
Fig 107 Route 10 image showing pedestrian environment evaluated on Aylesbury Street, Fenny Stratford



Fig 105 Route 10 image showing pedestrian environment evaluated at public space on Aylesbury Street and Watling Street junction



Fig 108 Route 10 image showing pedestrian environment evaluated at Queensway, Vicarage Road and Victoria Road



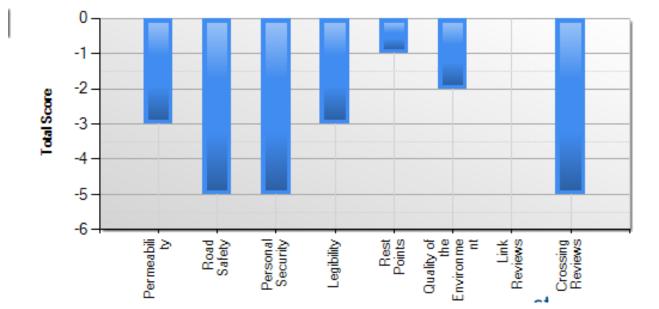




Fig 109 Route 11 image showing pedestrian environment evaluated on Watling Street along the northern edge.



Fig 111 Route 11 image showing pedestrian environment evaluated on Watling Street along the northern edge footway.



Fig 112 Route 11 image showing pedestrian environment evaluated on Watling Street along the northern edge.





Fig 113 Route 11 image showing pedestrian environment evaluated on Watling Street along the northern edge.



Fig 116 Route 11 image showing pedestrian environment evaluated along Watling Street at crossing at junction with Bilton Road



Fig 114 Route 11 image showing pedestrian environment evaluated on Watling Street along the northern edge.



Fig 117 Route 11 image showing pedestrian environment evaluated along Watling Street towards Rushmere Retail Park



Fig 115 Route 11 image showing pedestrian environment evaluated



Fig 118 Route 11 image showing pedestrian environment evaluated at crossing to entrance to Rushmere Retail Park

Route 12

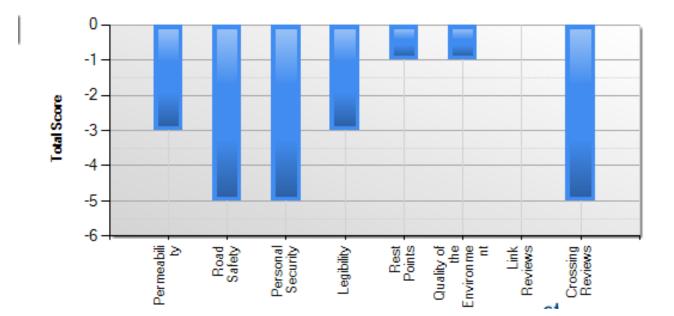




Fig 119 Route 12 image showing pedestrian environment evaluated along the footway to the north edge of Watling Street



Fig 121 Route 12 image showing pedestrian environment evaluated along the footway to the north edge of Watling Street



Fig 120 Route 12 image showing pedestrian environment evaluated along the footway to the north edge of Watling Street



Fig 122 Route 12 image showing pedestrian environment evaluated on Watling Street



Fig 123 Route 12 image showing pedestrian environment evaluated along the footway to the north edge of Watling Street



Fig 126 Route 12 image showing pedestrian environment evaluated along the footway to the north edge of Watling Street at crossing to Belvedere Lane



Fig 124 Route 12 image showing pedestrian environment evaluated at Watling Street and Simpson Road Junction



Fig 127 Route 12 image showing pedestrian environment evaluated along the footway to the north edge of Watling Street



Fig 125 Route 12 image showing pedestrian environment evaluated along the footway to the north edge of Watling Street www.milton-keynes.gov.uk/udla



Fig 128 Route 21 image showing pedestrian environment evaluated on Simpson Road

Route 13

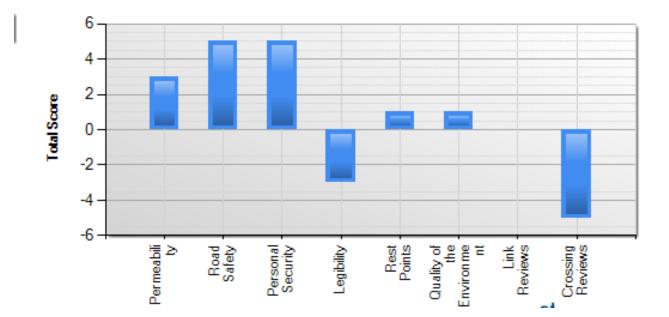




Fig 129 Route 13 image showing pedestrian environment evaluated within Leon Rec



Fig 131 Route 13 image showing pedestrian environment evaluated within Leon Rec



Fig 130 Route 13 image showing pedestrian environment evaluated within Leon Rec



Fig 132 Route 13 image showing pedestrian environment evaluated on footway from Leon Rec to Manor Road



Fig 133 Route 13 image showing pedestrian environment evaluated along east edge of Manor Road



Fig 136 Route 13 image showing pedestrian environment evaluated along Sycamore Avenue



Fig 134 Route 13 image showing pedestrian environment evaluated along Sycamore Avenue



Fig 137 Route 13 image showing pedestrian environment evaluated along Sycamore Avenue



Fig 135 Route 13 image showing pedestrian environment evaluated along Sycamore Avenue



Fig 138 Route 31 image showing pedestrian environment evaluated on access bridge over Grand Union Canal to Water Hall Park

Links : results

4. RESULTS: LINKS

- 4.1 The 5 links selected for the PERS audit were effectively streets that act as connections between the routes previously detailed and examined. These were included as they provide direct pedestrian access to the high street from the wider street network. They all scored relatively poorly against the criteria outlined in table below with all presenting a below average score of 0. It is thought that carefully targeted investment would, therefore, provide an overall uplift to the wider pedestrian and public realm environment.
- 4.2 The total combined link scores are presented in Table 4. The quality of pedestrian environment and associated PERS scores can be attributed in general to a lack of investment and maintenance neglect over a sustained period. The links 1, 2 and 3 linking to Queensway and the wider high street showed greatest inadequacies in a variety of criteria.
- 4.3 Links 1 and 2 which are essentially one way residential streets that merge into service road access to the rear of retail units on Queensway high street before joining Queensway itself at the south. These scored particularly poorly, from a pedestrian experience perspective, despite being one way and so closely linked to the town centre. These links, along with link 3 scored the lowest on effective width, dropped kerbs, colour contrast, surface quality and personal security. Personal security was an issue on both of these links due to inadequate lighting. All provide poor pedestrian environments which is predominantly attributed to the vehicle dominated access requirements along the southern stretch of the link, as well as a proliferation of kerb mount parking and A boards within footways.
- 4.4 Tables 4 and 5 show the scores of each link against the following criteria and the subsequent pages thereafter detail the score breakdown of each link.

Effective width

this examines the width for pedestrian flow, wheelchair accessibility, that all sections footway are an acceptable width, separation from traffic, allowances for obstructions and any pedestrian congestion.

Dropped kerbs

Located on desire lines, adequate capacity, level dropped/ flush, gradient of drop, consistency and frequency of dropped kerbs

Gradient

Severity, steps/ramps, rest points, undulations, appropriate handrails presence of crossfalls.

Obstructions

Presence of obstructions, location/alignment, overhead obstructions, tapering or transparent obstructions, tactile warnings, sight line reduction,

Permeability

Frequency of crossing points, parked cars/physical barriers, traffic flow, dropped kerbs, pedestrian barriers and sightlines are covered.

Legibility

Signage provision, signage clarity, information boards distances given on signs, sight lines and built form aids navigation

• Lighting

Intensity/frequency, definition/colour, maintenance, context suitability, after-dark, obstructions

Tactile Information

Is tactile information evident, consistent/correct, maintained, of the appropriate colour, interruptions and if a tapping line exists

Colour contrast

Examines tonal contrast, location, assists navigation, enhanced visibility of obstructions, space identification and is it made to specification

Personal security

Considers the perceived/sense of crime, activity on the street, lighting, police presence, cctv, and visual appeal

Surface quality

Looks at surface smoothness/trip hazards, surface friction, slippery surfaces, hierarchy, maintenance and context suitability

User conflict

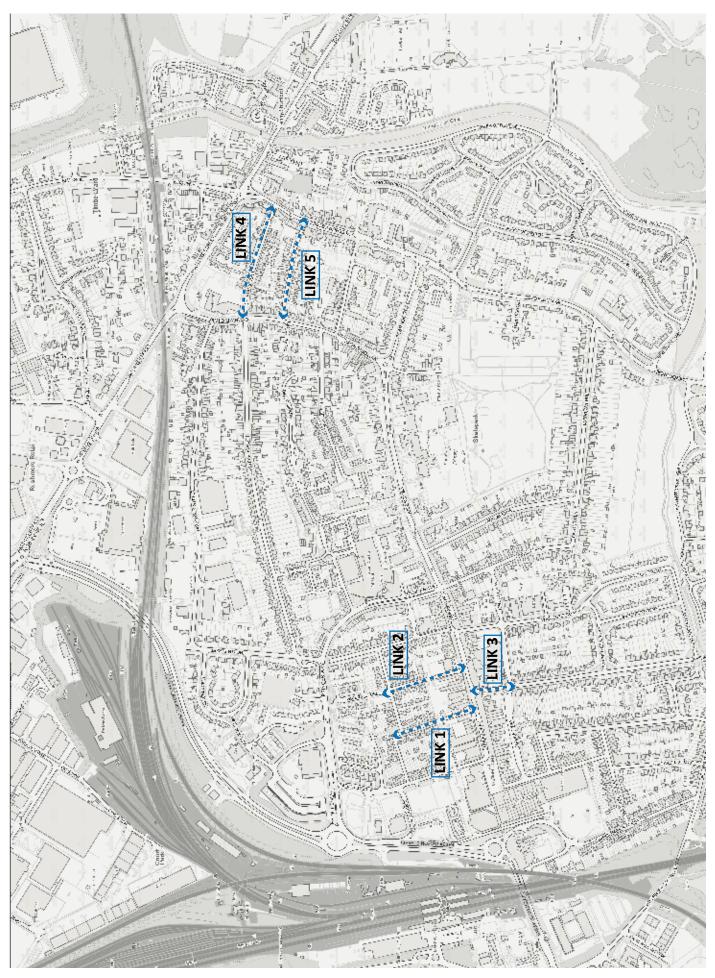
Surveys conflicting movements, user flows, encroachment on pedestrian space, segregation from cyclists, are bus queues an obstruction and is there adequate space provision

Quality of the environment,

Traffic/noise, aesthetics, soft landscaping, quality of materials, quality of private frontages and sense of place

Maintenance

Cleanliness, drainage, evidence of neglect, seasonal foliage, graffiti, landscaping and durability of materials.



Plan 2: Identified pedestrian inks within the study area

Table 4: Links overall Scores

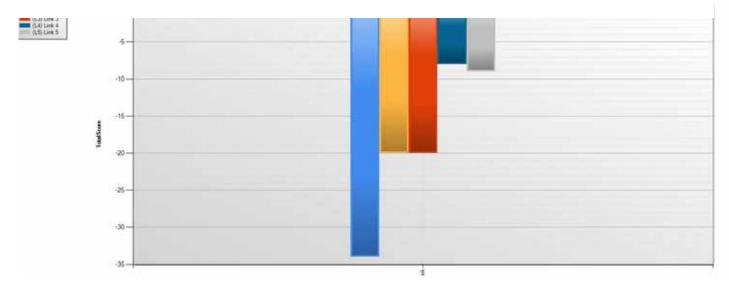
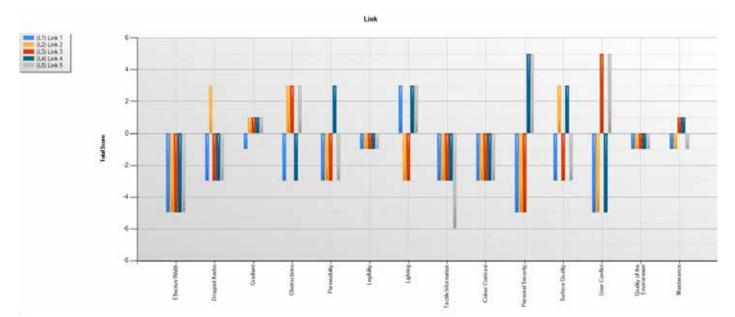


Table 5: Links scores by category.



Link Name	2022 score	Post intervention Score
Link 1	-28	
Link 2	-17	
Link 3	-17	
Link 4	-7	
Link 5	-8	

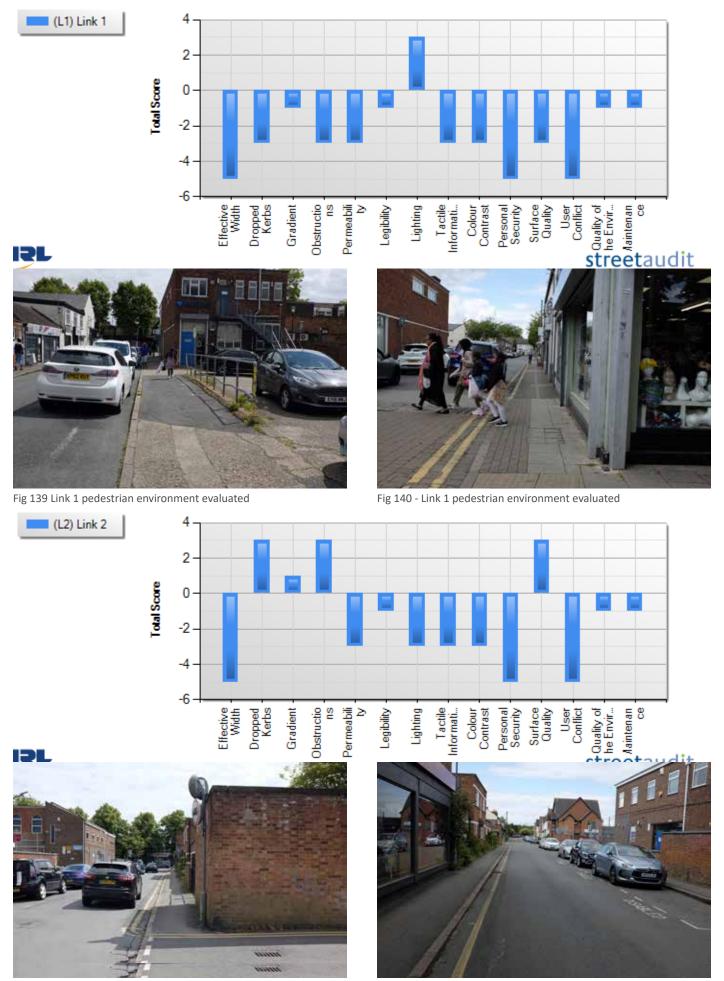


Fig 141 Link 2 pedestrian environment evaluated

Fig 142 - Link 2 pedestrian environment evaluated

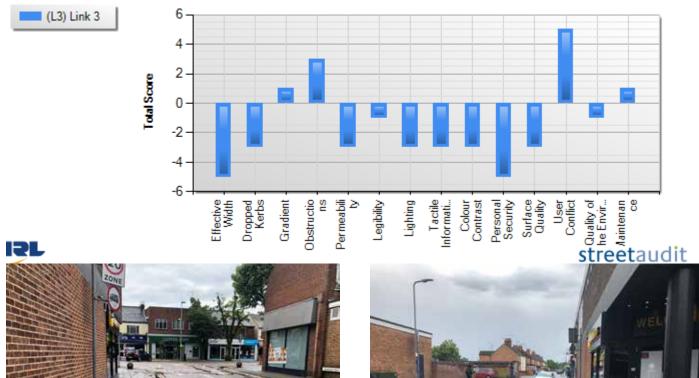




Fig 143 Link 3 pedestrian environment evaluated



Fig 144 Link 3 pedestrian environment evaluated



Fig 145 Link 3 pedestrian environment evaluated

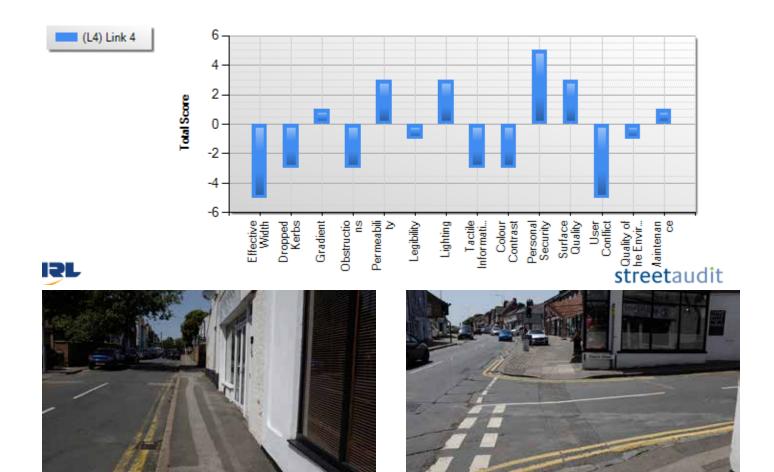


Fig 146 Link 4 pedestrian environment evaluated

Fig 147 Link 4 pedestrian environment evaluated

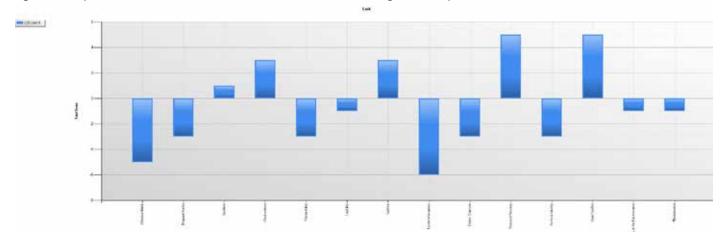




Fig 148 Link 5 pedestrian environment evaluated



Fig 149 Link 5 pedestrian environment evaluated

Crossing: results

5. CROSSINGS: RESULTS

5.1 Crossings are reviewed under the following parameters:

Crossing provision

Type suitable for context, suitable for pedestrian type, suitable for pedestrian volume, suitable for type of road, traffic speeds and traffic volumes

• Deviation from desire line

Deviations, serve likely desire lines, at grade / by level change, pedestrian priority, distance minimisation, barriers causing deviation

Performance

Crossing operational safety/protection of pedestrians, vehicle behaviour, traffic control measures, space ownership, obstructions to sight lines

• Capacity

Minimum dimension standards met, peak hour performance, pedestrian flows coped with, waiting areas/widths, refuge capacity, width for wheelchair users

Delay

Crossing stages, effect of crossing type, traffic flow, pedestrian phase, waiting time, crossing time

Legibility

Surface type continuity, obvious where to cross, driver stop line in place, delineation for pedestrians, positioning of infrastructure, lighting

- Legibility for sensory impaired people
 Button position, audible information, rotating cones, tactile information provided/intact, appropriate tactile information, colour contrast
- Dropped kerbs

Suitable locations, capacity, level dropped/flush, gradient of drop, provision, profile

Gradient

Crossing at grade, crossfall evident, impedance to access, camber, severity of gradient on approach, severity of gradient on exit

Obstructions

Obstructions on approach, obstructions on crossing, location/alignment, overhead obstructions, opaque/ tapering obstructions, tactile warnings, sight line reduction, permanent obstructions • Surface quality

Smoothness/trip hazards, context suitability, consistency, quality of reinstatements, drainage, slippery surfaces

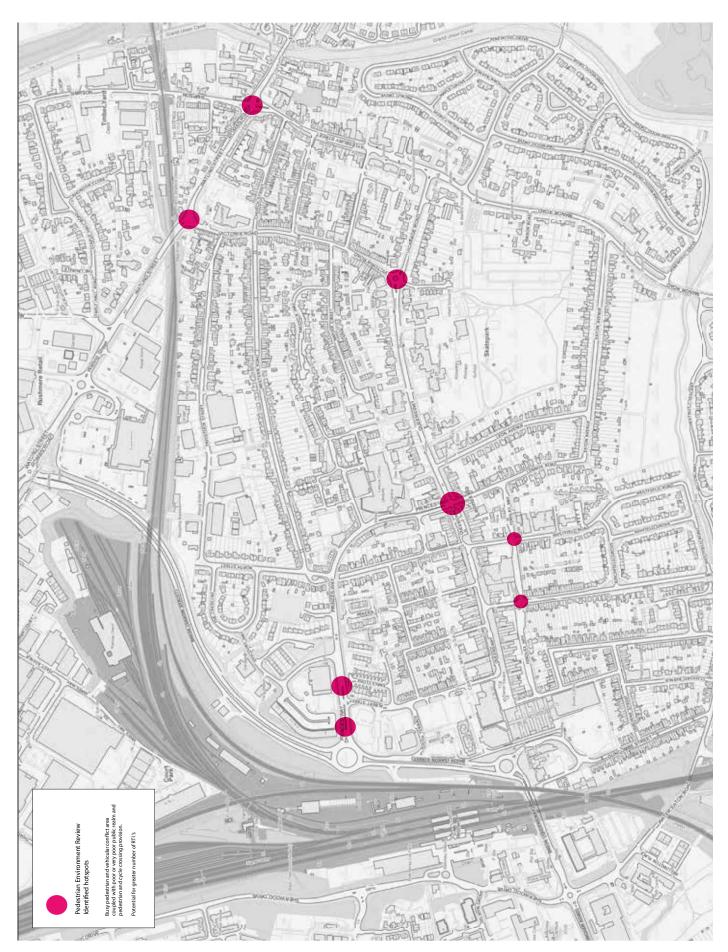
Maintenance

Cleanliness, state of repair, littering, evidence of neglect, impact of seasonal foliage, graffiti/stickers/ chewing gum, evidence of debris

5.2 Within the study area, a total of seventy crossings were surveyed (19 formal and 51 informal) Only 5 of the formal crossings scored relatively well and were generally judged to be fit for purpose.

> The crossings that scored well were crossings C10 on Princess way to the front of the leisure centre, C51 and C59 along Watling Street and C65 and C70 in Aylesbury Street, Fenny Stratford. These signalled or controlled crossings scored particularly well on performance, legibility for sensory impaired people and dropped kerbs. However, it was noted that some improvements to these crossings could still be achieved through relatively small, quick win, interventions such as a road line paint refresh.

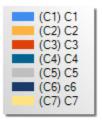
- 5.3 A distinct lack of a suitable crossing provision was noticeable across the study area with many high footfall areas showing particularly poor provision for pedestrians with sensory impairment. An uplift in these crossings would represent a notable uplift in total score across the study area and could be delivered from the reduction in deviations from desire lines, improved dropped kerbs, an increase in crossing capacity and improved legibility for sensory impaired people.
- 5.4 The poorest crossings, identified as 'hot spots' in Plan 3 shown opposite, scored well below average. These are busy pedestrian and vehicular areas coupled with poor or very poor public realm and pedestrian/cyclist crossing provision. These areas, therefore, carry a greater risk of road traffic accidents involving vulnerable highway users.

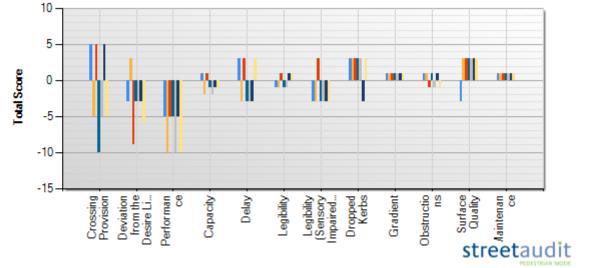


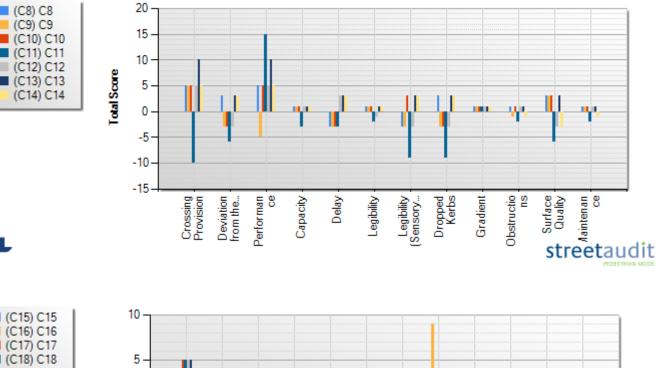
Plan 3: Identified pedestrian crossing hot spots within the study area

- 5.5 The crossings C11 and C31 at the junction of Queensway and Princess Way fall well short of being fit for purpose. They present a number of trip hazards with poor surface quality and poorly aligned drop kerbs. The crossing capacity is also an issue, particularly at peak times. This could be moderately improved by adjusting widths to accommodate more space within the refuge island, and encourage lower speeds at the approach to the roundabout. Although it is accepted that the level of pedestrian improvements achievable will be restricted by the complicated highway constraints of the roundabout in the immediate area.
- 5.6 Crossings at the roundabout junction at Queensway, Victoria Road and Vicarage Road also presented very poorly from a pedestrian perspective. As did Watling Street and Victoria Road Junction near the Fenny Stratford Train Station entrance and the crossings at Junctions of Aylesbury Street, Watling Street.
- 5.7 It is suggested that a plan be put in place to remodel all three of these junction/ pedestrian crossing with a greater focus and understanding of pedestrian movement and safety with the aim to provide a public focused space with lower vehicle domination.
- 5.8 Findlay way crossing provision, and pedestrian environment as a whole, is extremely poor and hostile to pedestrians across the board.

- 5.9 The none-signalise crossings along Princess way also scored particularly poorly, especially those closer to the junctions with Saxon Street where speeding vehicles make for an intimidating and hostile environment.
 People visiting the retail park on foot are, therefore, forced to take refuge on a small pedestrian island between four lanes of fast-moving traffic.
- 5.10 Further to the above, data evidence collected by Thames
 Valley Police of road traffic accidents involving pedestrians
 have also been shown to increase and closely reflect the
 poorer scoring crossing 'hot spot' areas identified in Plan
 3.
- 5.11 The criteria results for each crossing is shown on the following pages.

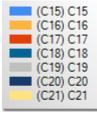




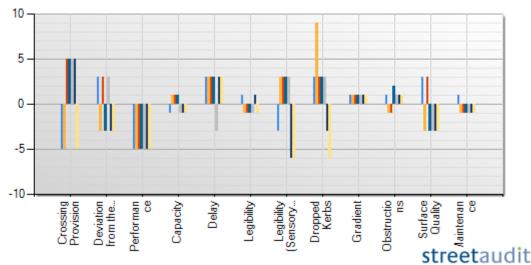




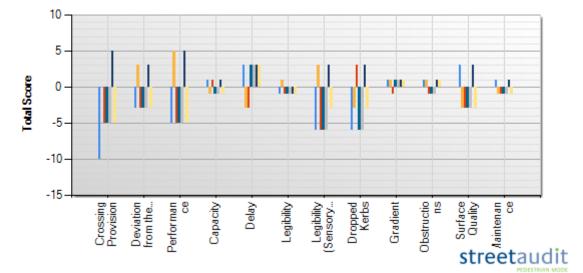
SL



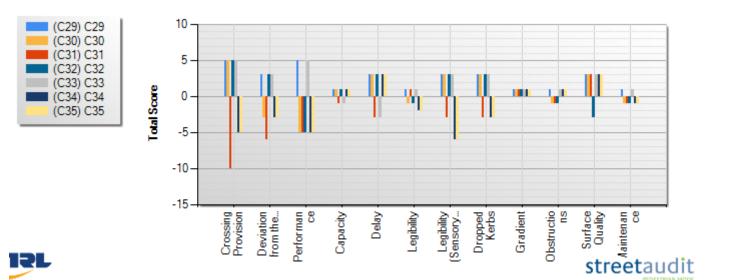
Total Score

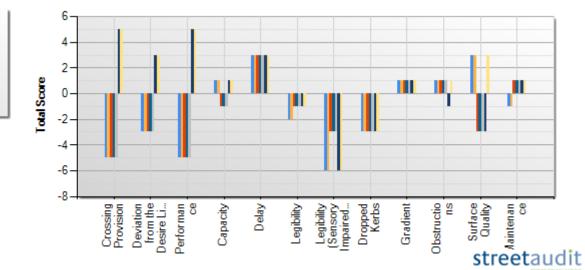


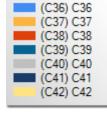


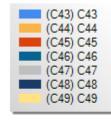


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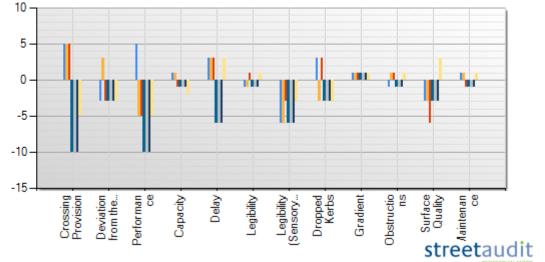




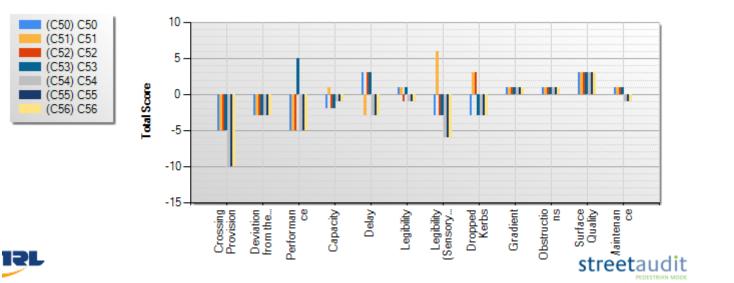


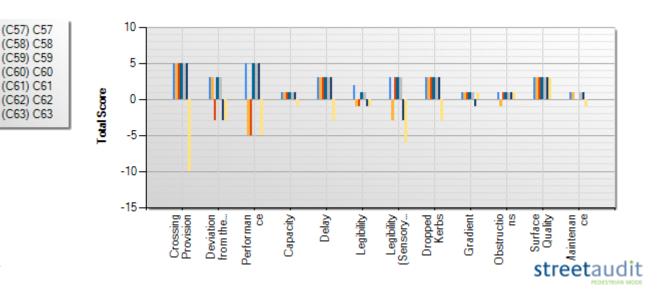
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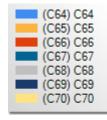






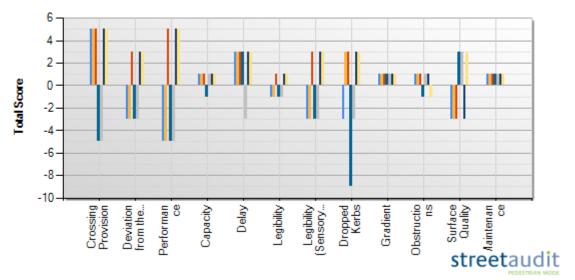


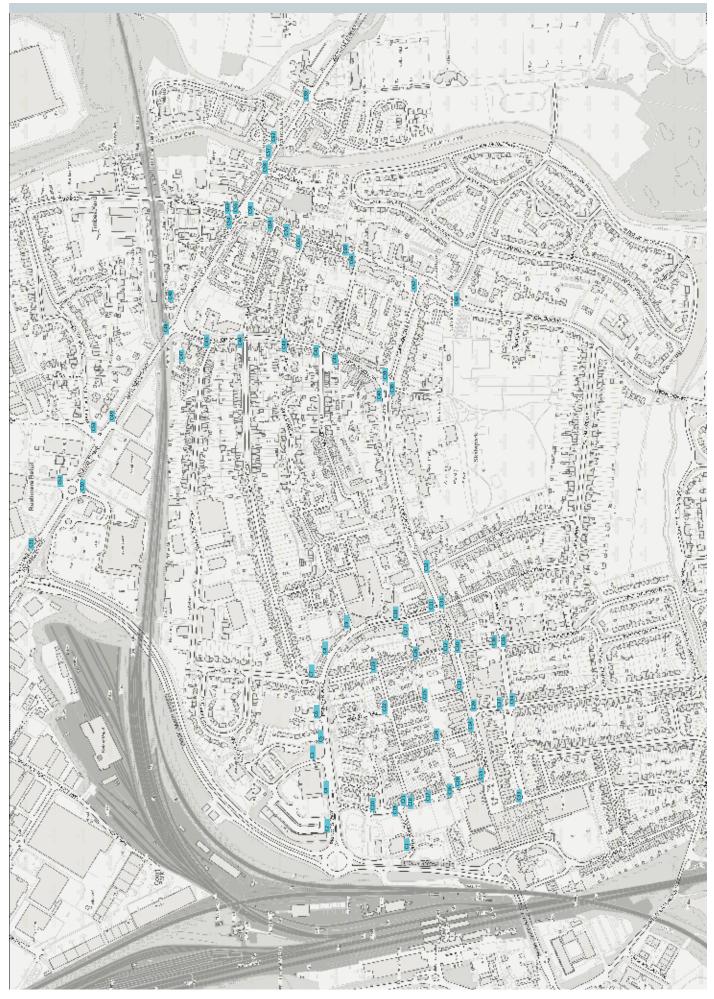




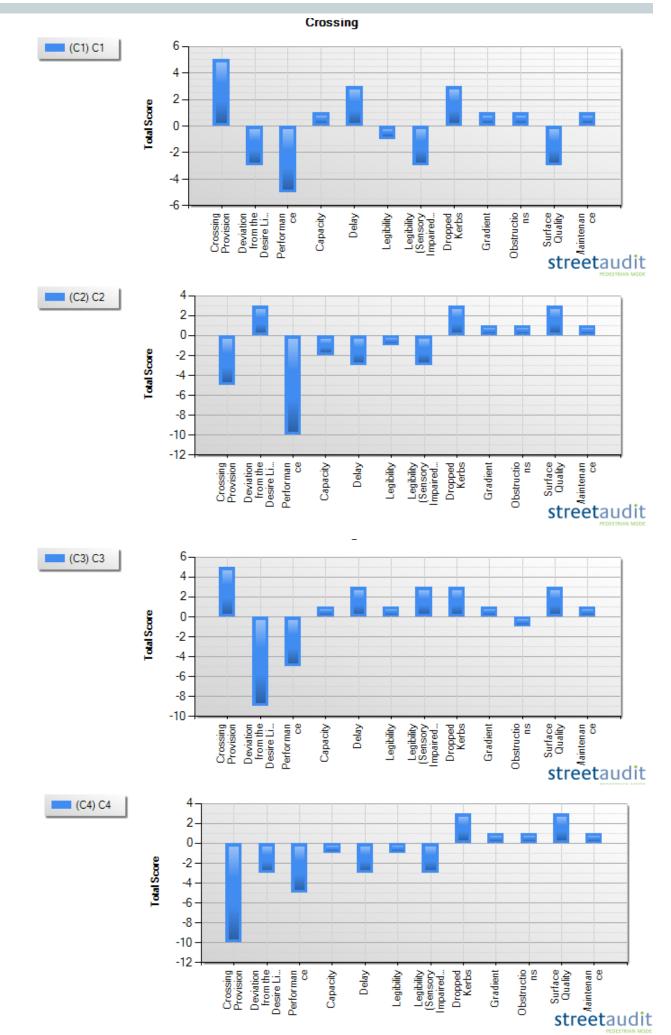
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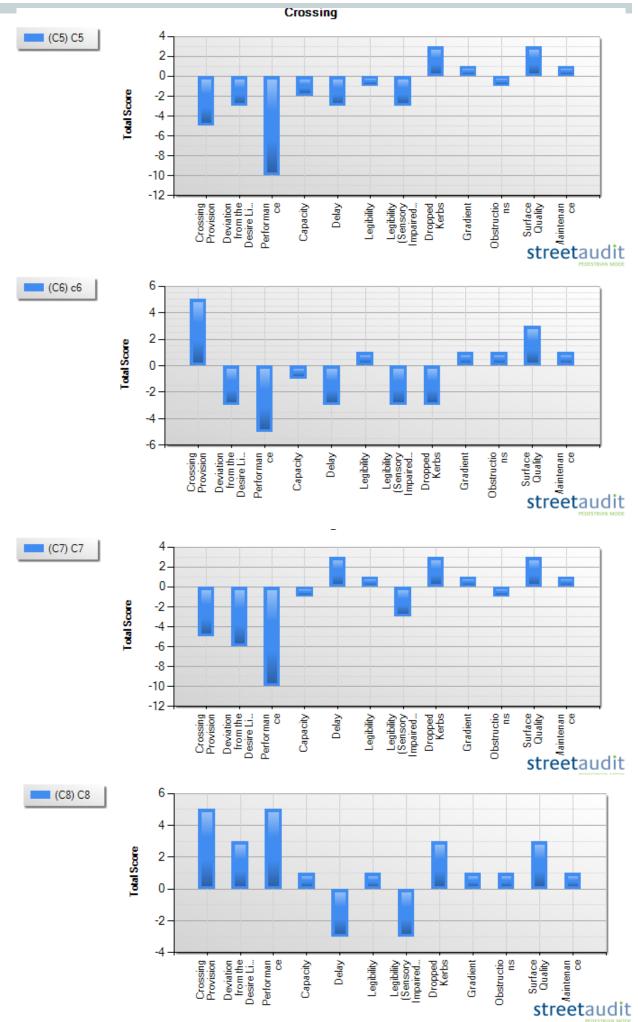
SL



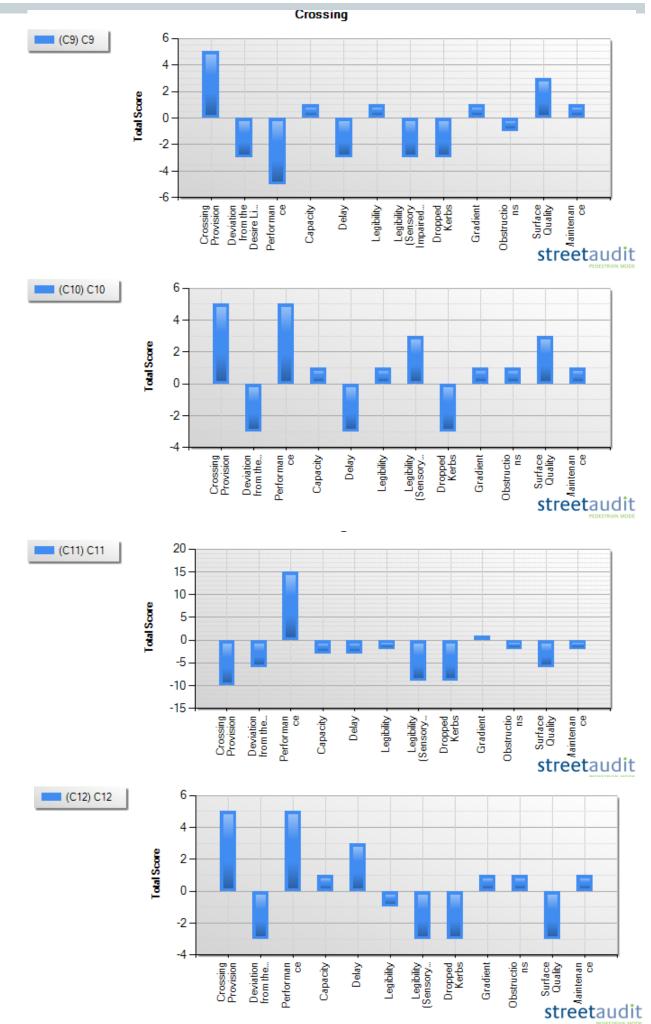


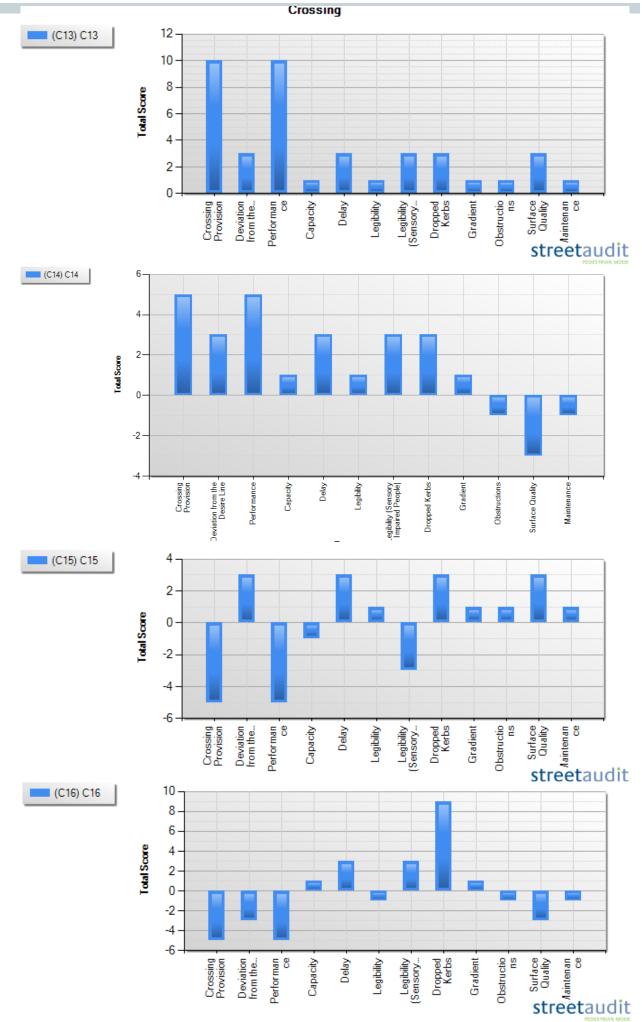
Plan 4: Pedestrian crossing locations within the study area



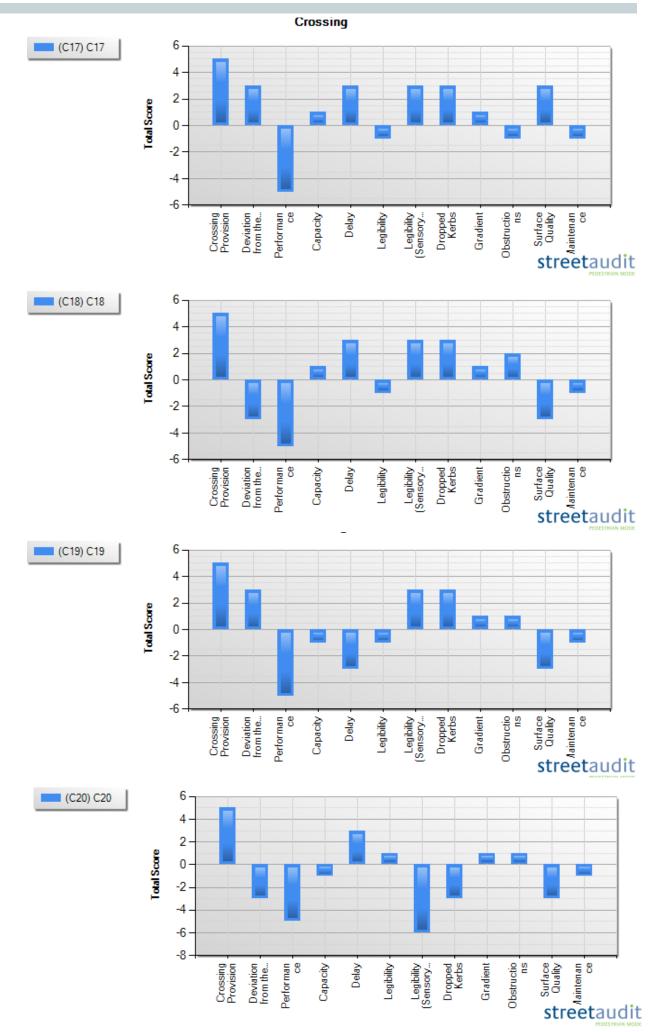


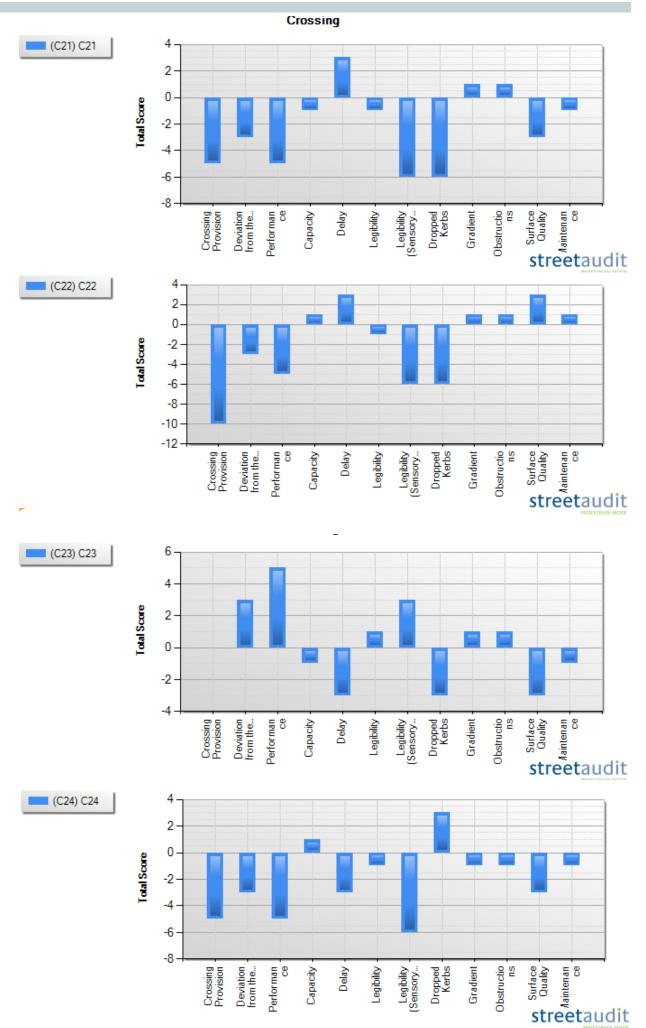
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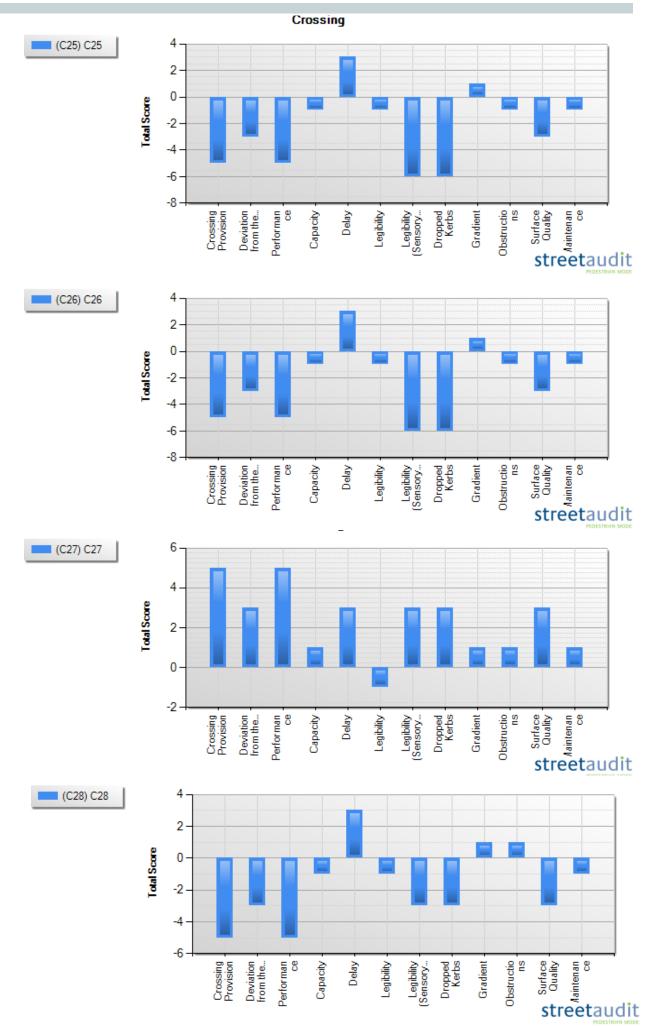




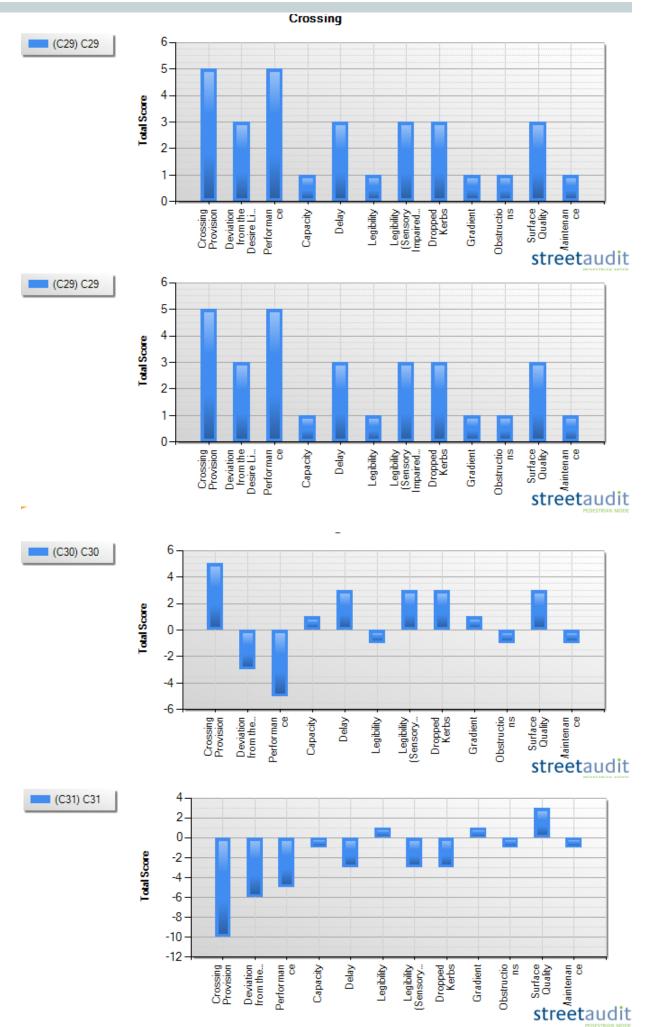
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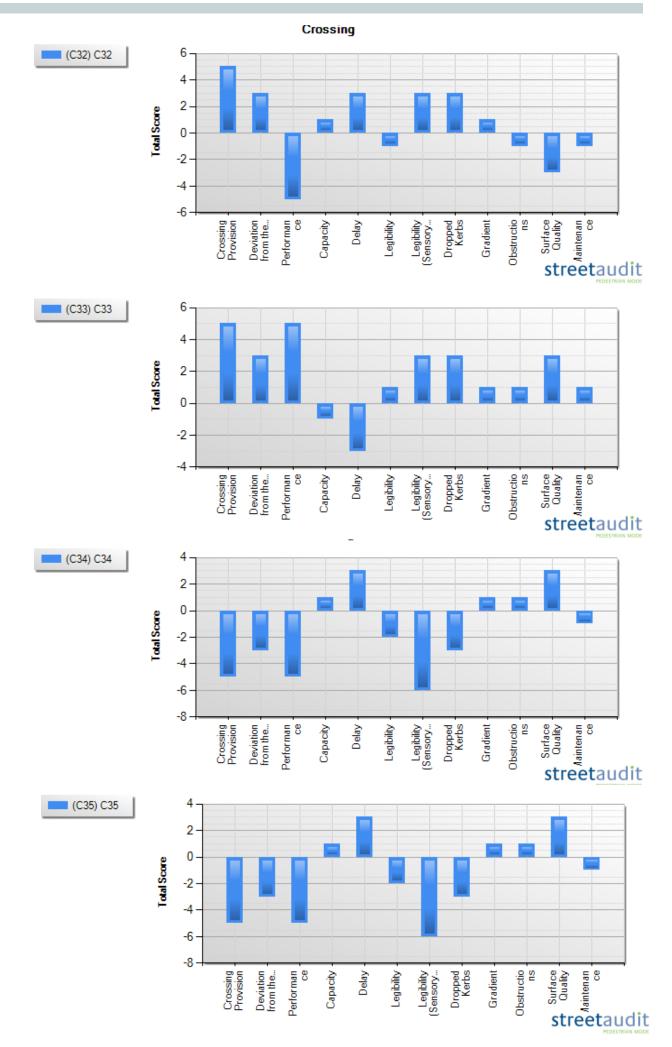


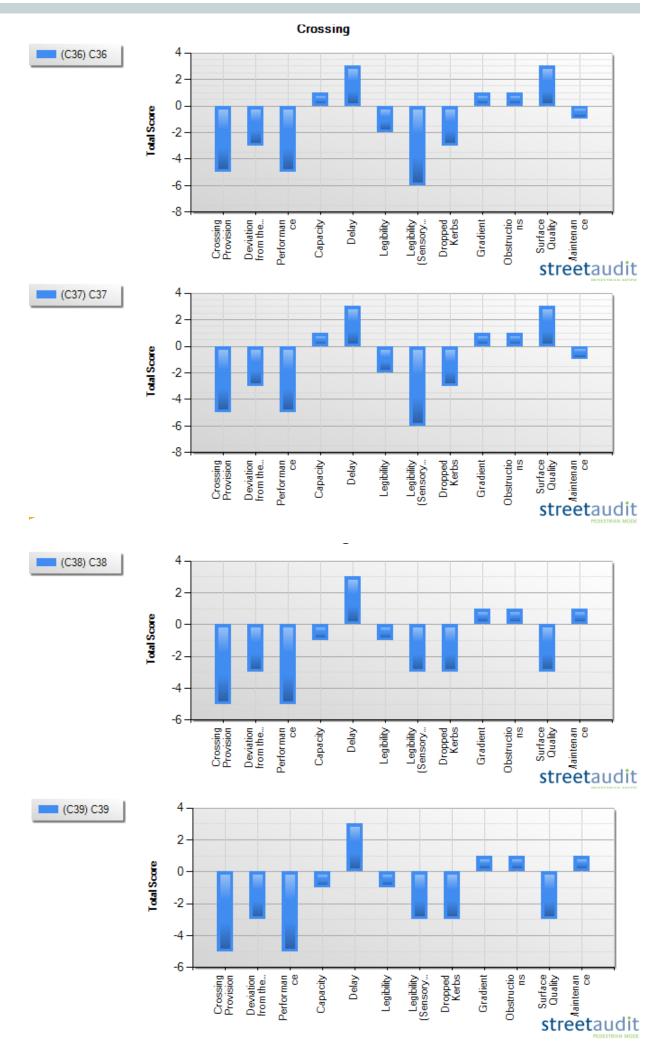


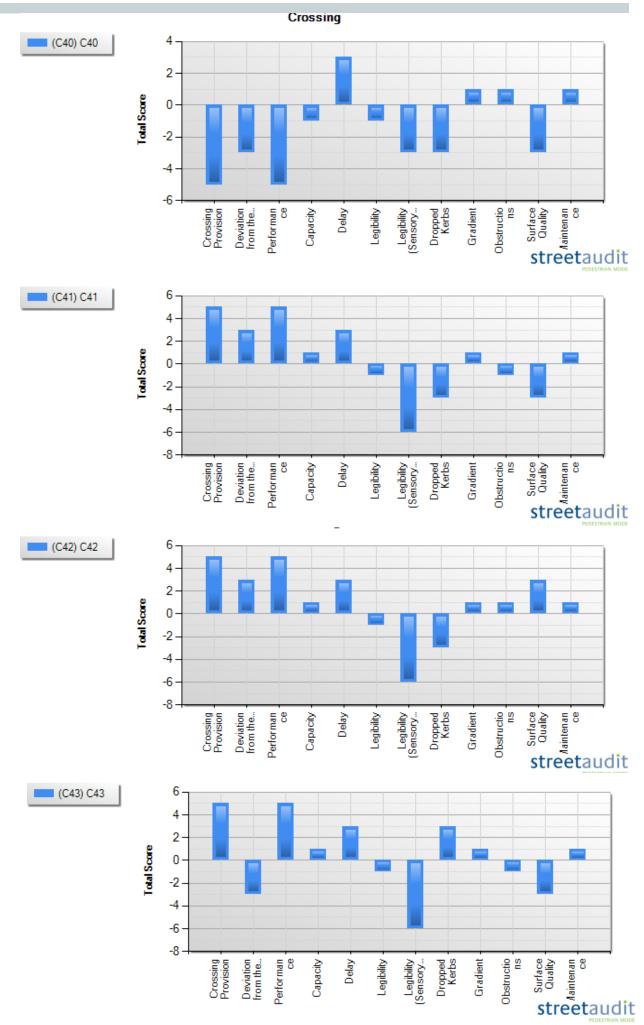


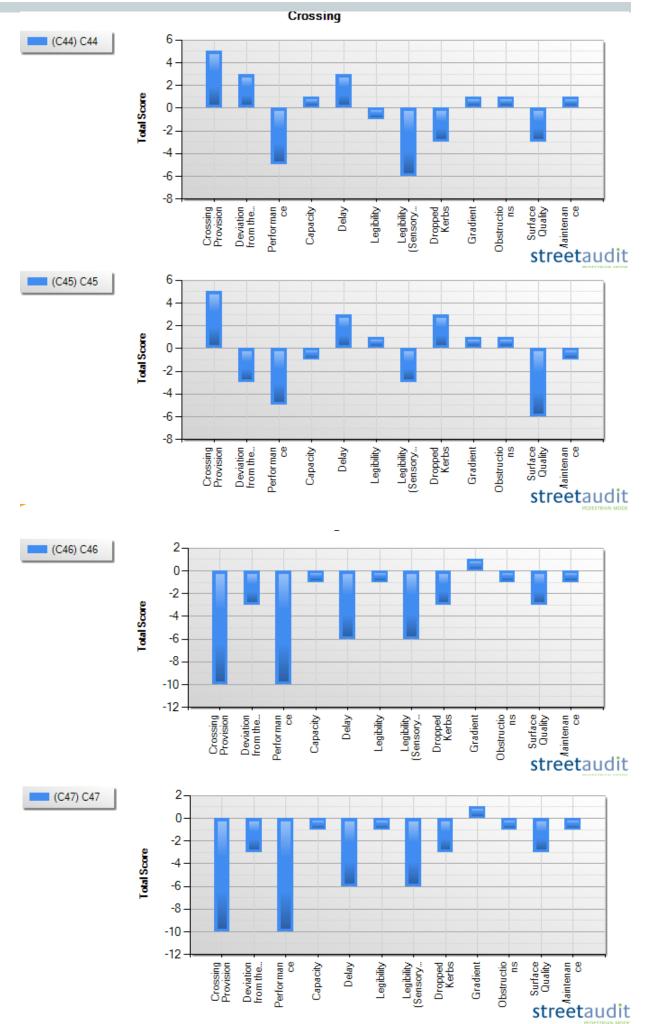


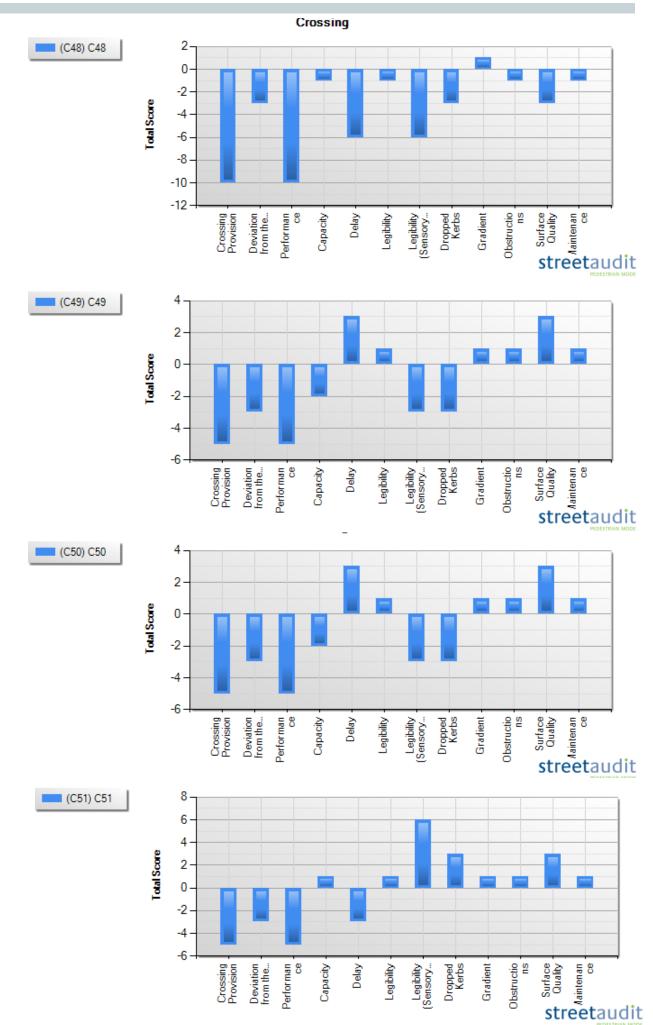




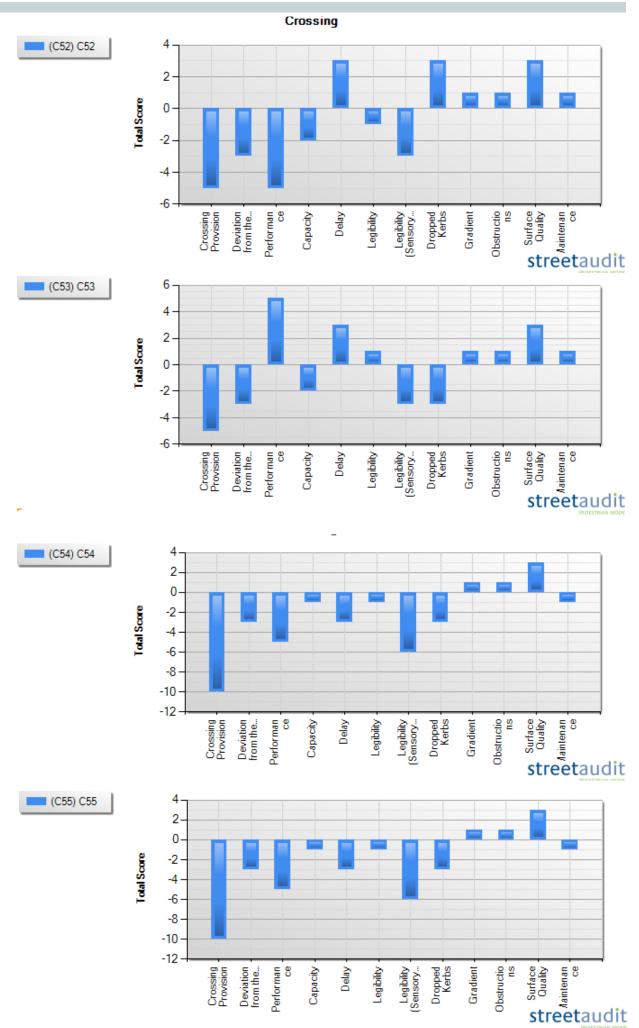


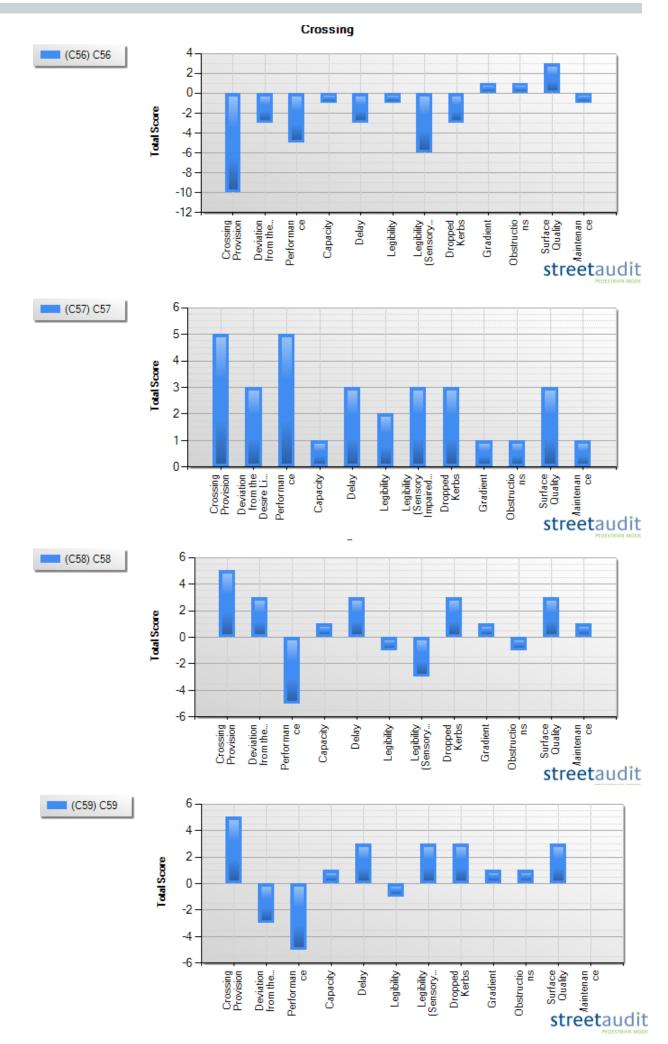


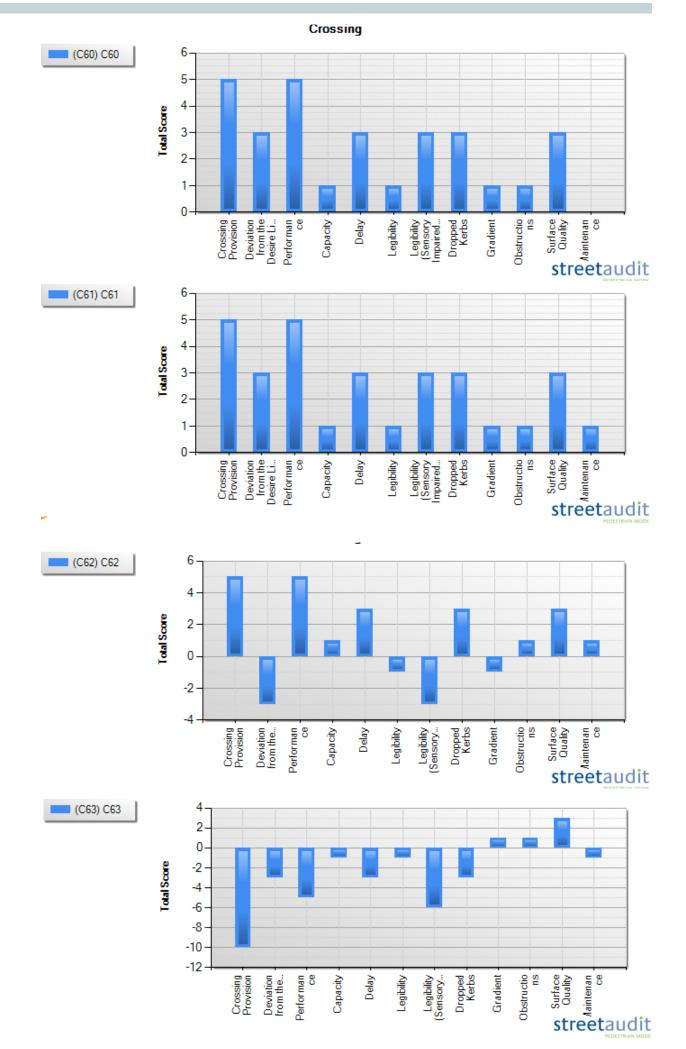


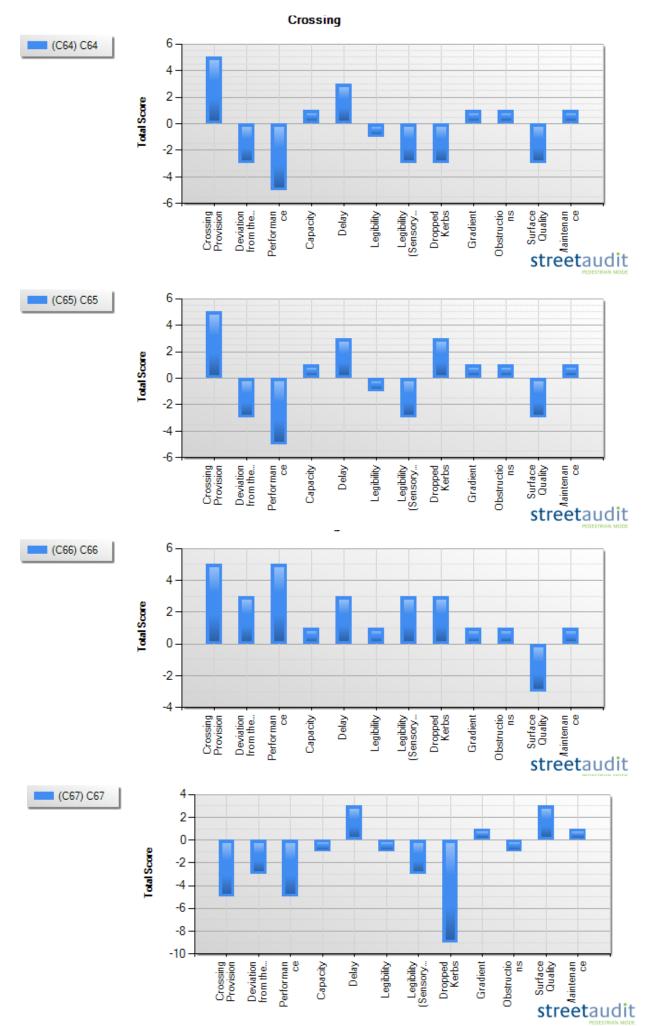


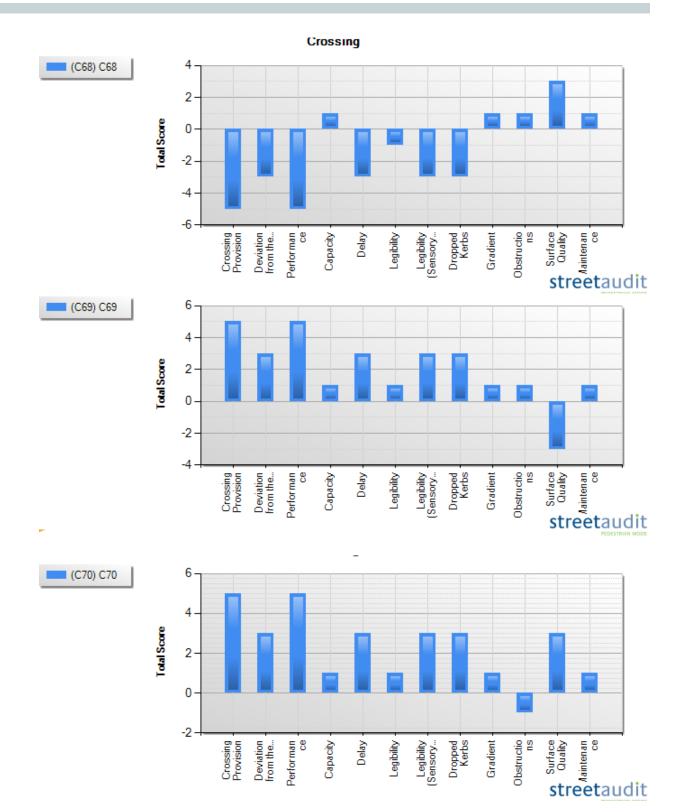












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Interchange: results

6. RESULTS: PUBLIC TRANSPORT INTERCHANGES

- 6.1 Interchange spaces are defined as the areas around and between public transport stops or termini. Interchange spaces act as gateways to the surrounding area, be it a town or city, or to the areas they serve for those arriving or leaving by public transport. Interchange spaces should also allow travellers to change between transport services or modes. Users of interchange spaces have particular functional requirements of that space, in addition to the common requirements of pedestrians generally. In particular, users need to be able to orientate themselves rapidly and accurately in the space and to identify and use routes between the space and surrounding areas or other modes.
- 6.2 The Interchange Review requires consideration of a number of the following specific characteristics:
 - Moving between modes

Distance between modes, clear routes / on desire lines, crossings within the space, walking surfaces, access for mobility impaired pedestrians, user conflict,

- Identifying where to go Information provision, information continuous / consistent, signage legibility / visibility, wayfinding elements, provision for mobility/sensory impaired, presence and visibility of the space
- Personal safety ,

Perceptions of safety, use of area, informal surveillance, formal surveillance, lighting provision, official supervision

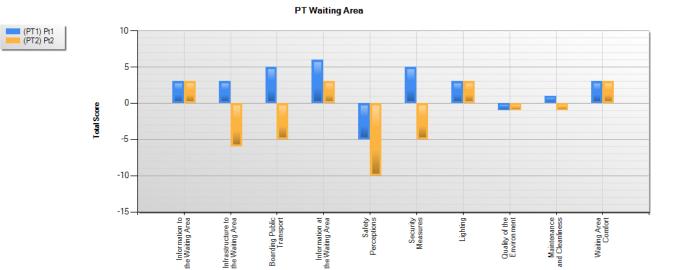
- Feeling comfortable
 Waiting area provision, adequate seating for all, provision of facilities, shelter provision, inclusivity, community identity/vitality
- Quality of the environment
 Aesthetics, quality of materials, street furniture
 quality and access, street furniture placement, traffic
 flow proximity, local air and noise pollution.
- Maintenance Durability of materials
 Landscaping maintenance, adequacy of drainage, seating resilience / vagrant proof, evidence of neglect, cleanliness

- 6.3 Two interchanges within the study area were identified

 Interchange 1 (Bletchley Bus Station) and Interchange
 2 (Fenny Stratford Train Station). Although Bletchley bus
 station interchanges scored above average and displayed
 improvements from investment to the bus station itself
 ,and displayed improvements as a consequence of recent
 investment in the bus station itself, the public realm
 leading to and surrounding the station is still extremely
 poor and uninviting for pedestrians and cyclists alike.
- 6.4 The environs of Fenny Stratford train station however have scored particularly poorly across the board. Waiting area comfort and safety perceptions, due to a lack of natural surveillance and lighting scored particularly low.
- 6.5 Way finding signage is apparent at both interchanges to direct pedestrians to the town centre, but this could be improved further with better signage and mapping for onward journeys to local destinations.
- 6.6 There is a steep ramped step access with no provision of dropped kerbs or disability access of any sort upon entering / exiting the station to and from Watling street. There is the option of a level surface access point to the station from Simpson Road but this is via a difficult to find surface level car park. This is possibly acceptable as an interchange for vehicle drop-off and parking but at the expense of an extremely poor pedestrian and cyclist experience.
- 6.7 At the bus station, lighting has recently been addressed, information as well as infrastructure to the waiting areas with the introduction of new shelters have also been updated.
- 6.8 Generally, the quality of the environment was below average at both the train and bus stations and whilst neither where appealing or welcoming to pedestrians upon arrival, the bus station did display some uplift as a result of new digital bus information signage and upgraded shelter provision and waiting areas.

- 6.9 In respect to the interchanges, improvements to the quality of the pedestrian environment around the Train Station still needs to be made. In particular, issues of safety and waiting area comfort need to be improved as well as information at, and on approach to, the station itself. The station approach felt uninviting regarding lighting, safety and personal security. Although part of this is due to the isolated location and the absence of any direct surveillance from adjoining development.
- 6.10 In all, the area around both interchange study areas require significant improvements, not least in advance of the anticipated delivery of East West Rail. To that end, these scores reflect some significant improvement requirements and opportunities to the public realm with a much better focus on pedestrian and cyclist needs.

Table 3-9: Public Transport Interchange by Total Scores



PT Stop / Interchange Name	Total Score
Interchange 1 Bus	18
Interchange 2 Rail	-17



Fig 150 Interchange 1 pedestrian environment evaluated



Fig 153 Interchange 1 pedestrian environment evaluated



Fig 151 Interchange 1 pedestrian environment evaluated



Fig 154 Interchange 1 pedestrian environment evaluated



Fig 152 Interchange 1 pedestrian environment evaluated



Fig 155 Interchange 1 pedestrian environment evaluated



Fig 156 interchange 2 pedestrian environment evaluated



Fig 159 Interchange 2 pedestrian environment evaluated



Fig 157 interchange 2 pedestrian environment evaluated



Fig 160 Interchange 1 pedestrian environment evaluated



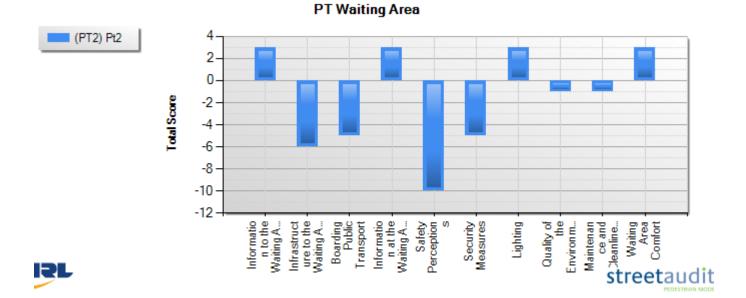
Fig 158 interchange 2 pedestrian environment evaluated



Fig 161 interchange 2 pedestrian environment evaluated

PT Waiting Area 8 (PT1) Pt1 6 4 Total Score 2 0 -2 -4 -6 Informatio n to the -Waiting A... Infrastruct ure to the Waiting A... Informatio n at the Waiting A... Security Measures Quality of the -Boarding Public Transport Safety Perception Lighting Maintenan ce and Cleanline... Waiting Area Comfort s) Environm... ÐL ي ال

Public Transport Interchange 1 by category Scores



Public Transport Interchange 2 by category scores

Public Space: results

7. PUBLIC SPACE : RESULTS

- 7.1 The purpose of a public space is primarily to allow the public to informally rest and enjoy. Such a space may or may not be a definable area and can range in scale from a small plaza to a city park. It is not a space specifically or solely defined to be a pedestrian thorough-fare although pedestrians may use all or part of the space as a route. It is likely to be a space where people are found to be sitting or not moving in a particular direction for a set purpose. It can be a space for social activities with things for people to see and do.
- 7.2 Public spaces can exist in both built-up areas and more natural environments and may have a defined purpose. Examples of typical public spaces are plazas, parks and playgrounds. The factors and associated considerations contained within the public space review framework aim to encapsulate all of the characteristics of the space, defining its positive and negative aspects to review the public environment.
- 7.3 It could be argued that both public spaces identified as PS
 9 and PS10 in Plan 10 overleaf are not, strictly speaking, regarded as 'public squares' in the traditional sense.
 This is possibly due to them historically being engineered towards optimisation for vehicular movement. They have both been highlighted earlier in this report as hotspots for potential pedestrian and vehicular conflict, coupled with poor or very poor public realm and pedestrian and cycle crossing provisions .
- 7.4 However, it is considered that both these spaces are also, if not more so, strategically important for pedestrian movement within the network and surrounding townscape, providing access to important facilities and services. It might, therefore, seem counter intuitive to those with a more vehicular highway focus, to suggest exploring the possibilities of reorganising the spaces to look at providing a more human centred design approach through an uplift in consideration for pedestrian and cycle environments, as well as movement networks adjoining these spaces. This could provide an opportunity to deliver an early spark of transformational improvements to the public realm which will increase the community value of the wider surrounding area as a result.

- 7.5 The qualities of public space was assessed according to the following criteria:
 - Moving in the space

Provision in the space, surface quality, ease of movement, barriers for mobility impaired people, frequency of obstructions, user conflict

• Interpreting the space

Presence of maps, use and appropriateness of signage, signage consistency, provision for mobility/ sensory impaired people, layout of the built form, landmark visibility

Personal safety

Perceptions of safety, informal surveillance, formal surveillance, ease of reporting an incident, lighting provision, type of area/environment

• Feeling comfortable

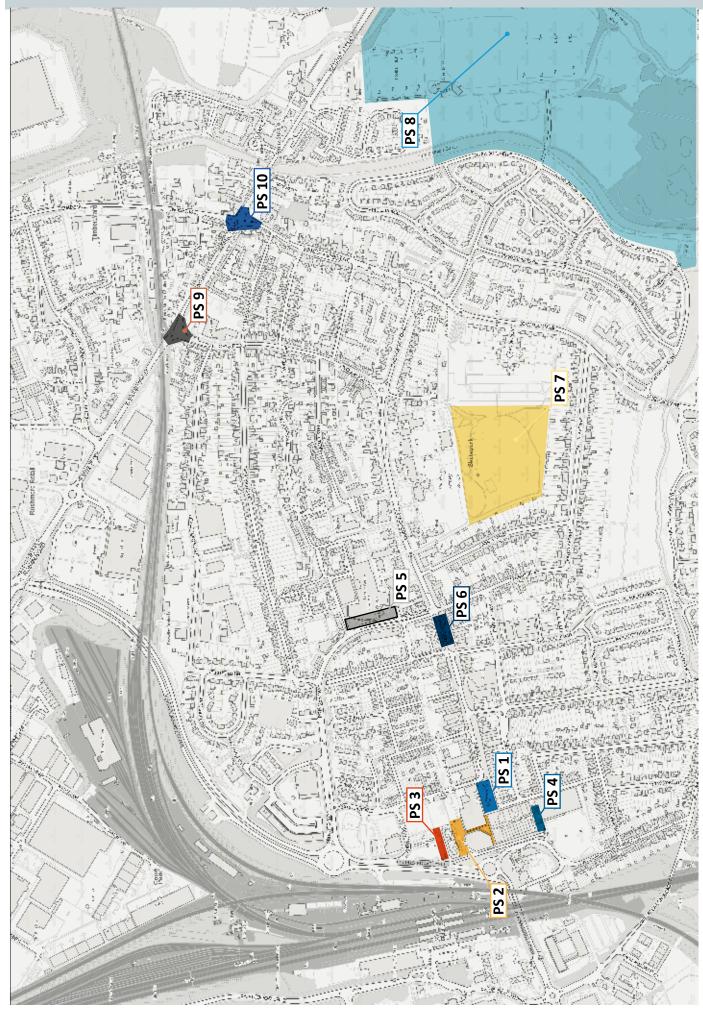
Spending time in the space, provision of shelter, seating provision, toilets, noise level, impact of traffic

• Sense of place

Quality of the materials, character of the built environment, aesthetics, sense of identity, distinctiveness, ambience,

• Opportunity for activity

Evidence of social interaction, atmosphere, diversity of user types, type of activity appropriate for space, function of the space used appropriately, evidence of decay/dereliction/lacks activity



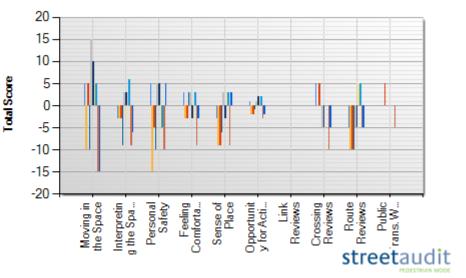
Plan 5 Public Spaces within the study area

- 8.1 The following ten public spaces within the study area were
 - identified and evaluated $\,-\,$
 - 1. Stanier Square
 - 2. Stephenson House (South)
 - 3. Stephenson House (N) Bus Station
 - 4. Duncombe Street / Brunel Centre Square
 - 5. Leisure Centre Plaza
 - 6. Elizabeth Square
 - 7. Leon Recreation ground
 - 8. Water Hall Park
 - 9. Fenny Stratford Station Square, Watling Street
 - 10. Fenny Stratford High Street

These are mapped on the plan 5 overleaf and the scores are detailed on the following pages:.



Public Space

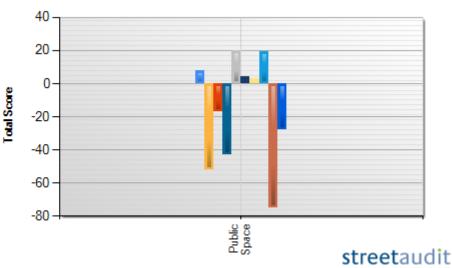












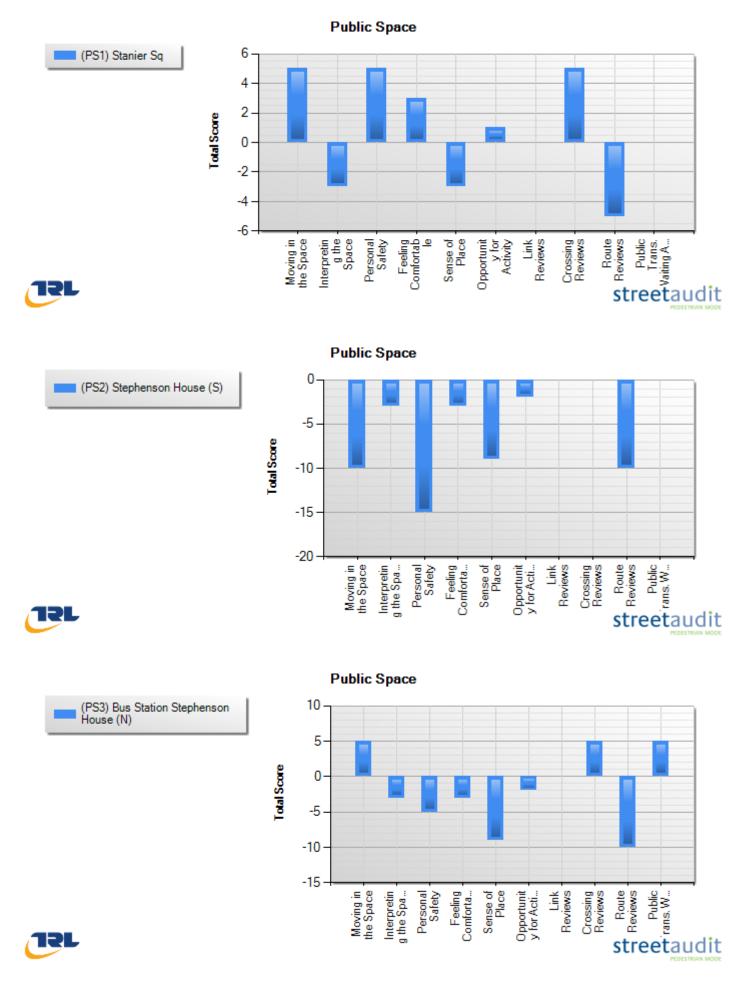




Fig 162 Public Space 1 pedestrian environment evaluated



Fig 163 Public Space 1 pedestrian environment evaluated



Fig 164 Public Space 2 pedestrian environment evaluated



Fig 165 Public Space 2 pedestrian environment evaluated



Fig 166 Public Space 3 pedestrian environment evaluated



Fig 167 Public Space 3 pedestrian environment evaluated

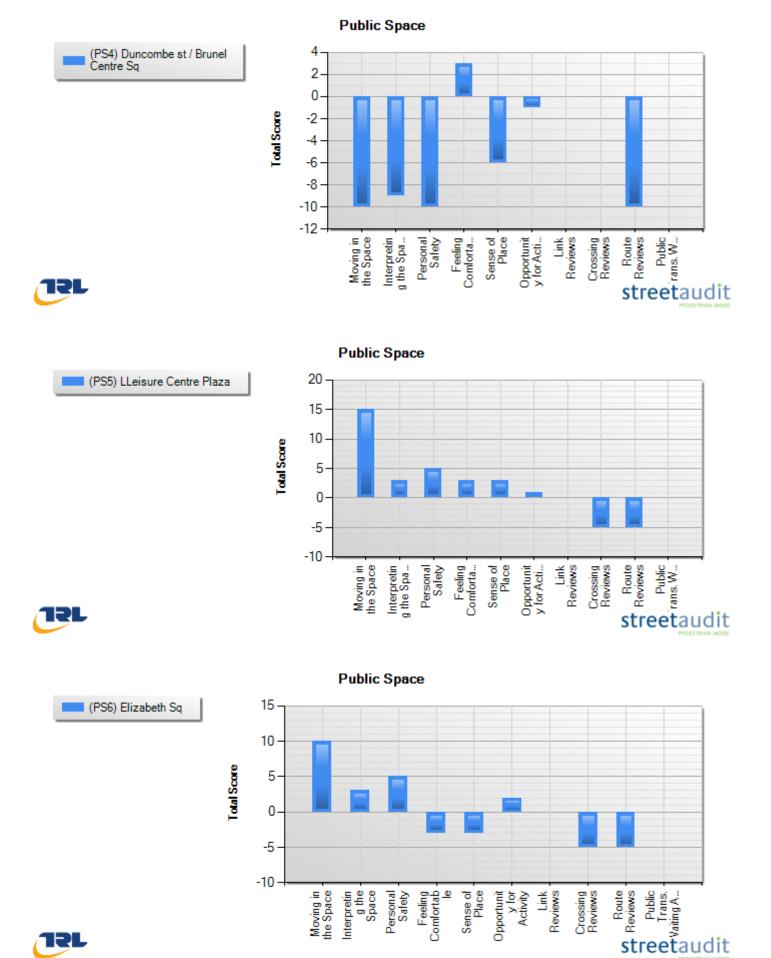






Fig 168 Public Space 4 pedestrian environment evaluated



Fig 169 Public Space 4 pedestrian environment evaluated



Fig 170 Public Space 5 pedestrian environment evaluated



Fig 171 Public Space 5 pedestrian environment evaluated



Fig 172 Public Space 6 pedestrian environment evaluated



Fig 173 Public Space 3 pedestrian environment evaluated

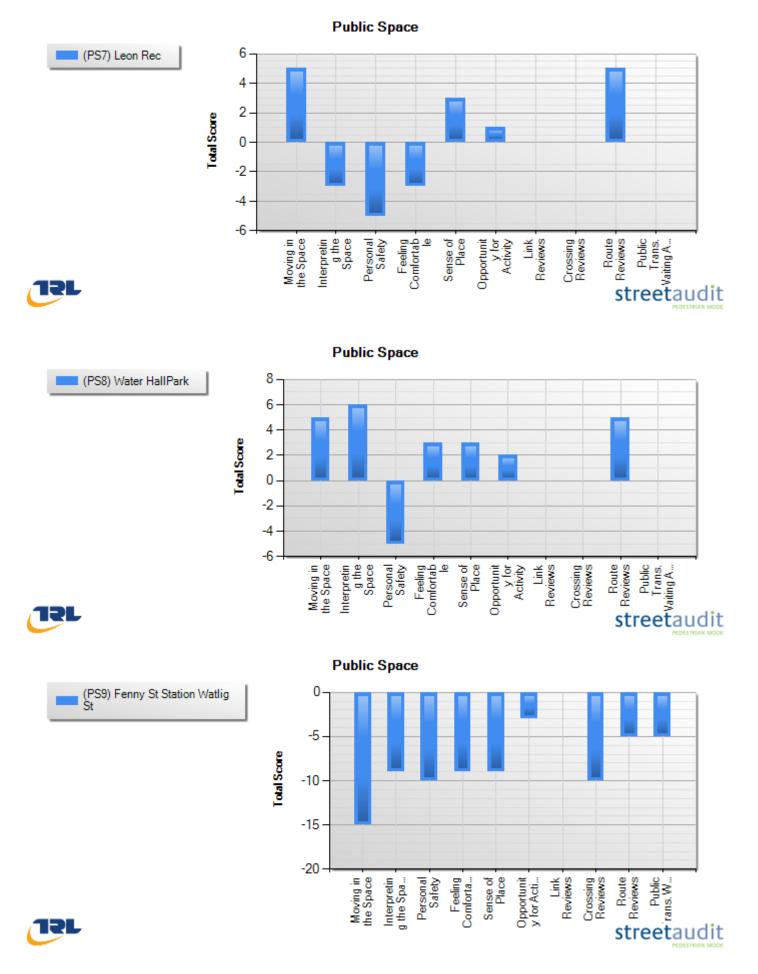




Fig 174 Public Space 7 pedestrian environment evaluated



Fig 175 Public Space 7 pedestrian environment evaluated



Fig 176 Public Space 8 pedestrian environment evaluated



Fig 177 Public Space 8 pedestrian environment evaluated



Fig 178 Public Space 9 pedestrian environment evaluated



Fig 179 Public Space 9 pedestrian environment evaluated

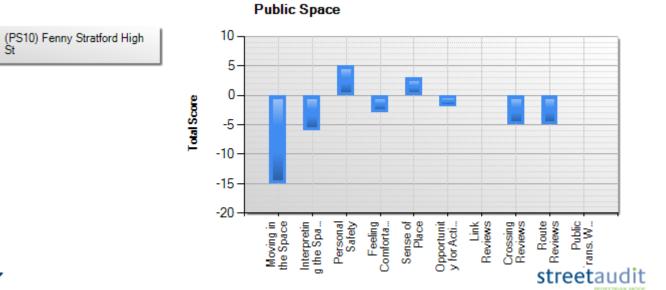






Fig 180 Public Space 10 pedestrian environment evaluated



Fig 181 Public Space 10 pedestrian environment evaluated



Fig 182 Public Space 10 pedestrian environment evaluated



Fig 183 Public Space 10 pedestrian environment evaluated

8. CONCLUSIONS

- 8.1 It can be concluded from the results gathered within this report that the majority of routes and links that scored poorly within the study area have done so due to a history of low investment, coupled with priority given over to designing and engineering vehicle dominated environments, when afforded. Therefore seemingly comparatively low regard and neglect of the pedestrian environment as a result. This imbalance in the importance afforded to different users of the street is evident across the entire study area.
- 8.4 Problems with informal crossing and their capacity for pedestrian and vulnerable road users and legibility for sensory impaired people is clearly evident. This is reflected in the collected data of road traffic accidents involving pedestrians. It is therefore imperative that this is addressed as a matter of urgency across the entire study area.
- 8.2 To achieve an uplift in quality and a resulting marked improvements in pedestrian environment standards across the study area. Which currently can be described as uncomfortable at best, we must first focus on providing a better level of human scale, people first public realm environment. Improvements to the comfort and safety of pedestrian users will have a positive impact on the viability of the town centre, which will subsequently help to improve wider neighbourhoods and communities as a direct result.
- 8.3 In achieving this, any proposed interventions must aim to deliver greater quality and display the desire for a much improved environment for active travel modes such as cyclists and pedestrians as well as people with reduced mobility or sensory impairment.