CITY OF PLYMOUTH

Subject:	Royal Parade Crossing Review
Committee:	Cabinet
Date:	23 August 2011
Cabinet Member:	Councillor Wigens
CMT Member:	Director for Development and Regenration
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Ref:	Royal Parade Crossing Review
Key Decision:	No
Part:	I

Executive Summary:

The Royal Parade Armada Way pedestrian crossing was installed in 2004 to replace an existing underpass. Despite the presence of a grade separated crossing, and central barriers, pedestrian and vehicle collisions were evident at that time, and the central surface level crossing formed a package of measures intended to improve safety and pedestrian accessibility across the city centre as a whole. It caters for approximately 15,000 to 20,000 pedestrian movements a day.

Collision statistics since the crossing was installed have shown a marked and continuing decline in casualties. However, on the 26th February 2010 there was a fatal collision between a female pedestrian and a Heavy goods Vehicle. In the subsequent court hearing, Judge Francis Gilbert branded the crossing the crossing, based upon his own experience of using it, as "very hazardous".

In response the City Council agreed to review the crossing, in conjunction with the police. The outcome of the above actions, supported by the police has been that the crossing itself is working appropriately, but that a series of measures to improve the environment around the crossing, and increase its 'visibility' could be undertaken. These include, in priority order for implementation:

A) Provide a surface contrast to funnel pedestrians to the area between the road studs demarking the crossing. This would be delivered by introducing a buff surface for the length of the zig zags either side of the crossing – highlighting the crossing.
B) Changing the colour of the poles to aid identification and location for crossing.
C) Change the tactile paving to burnt red.
D) Introduce seating or planters on the pavement areas either side of Royal Parade to provide a visual pointer towards the crossing point
E) Review the light timings to seek a reduction in the call time and duration of the green man, to make the crossing more appealing to users.
F) Discuss with the DfT the provision of count down signs to make the crossing more appealing and better inform users.

Corporate Plan 2011 – 2014:

The Royal Parade Crossing Review supports the following objectives of the Corporate Plan

- **Deliver growth:** Develop Plymouth as a thriving growth centre by creating the conditions for investment in quality new homes, jobs and infrastructure
- **Reduce inequality:** Narrow the inequality gap, particularly in health, between communities

The Royal Parade crossing lies at the heart of Plymouth's Central Business District; it facilitates movement between the principle retail opportunities of the City, civic services and the Hoe. It is therefore crucial in supporting the vibrancy of the City Centre which in turn helps to deliver growth. The crossing also reduces inequalities. It provides a formal crossing point across a key arterial route in the City and without the crossing pedestrian movement across Royal Parade would be impaired.

Implications for Medium Term Financial Plan and Resource Implications: Including finance, human, IT and land

If all aspects are implemented, the total cost of the works will be determined as shown below:

Total scheme cost		**£0.089m (Capital)**
A	Provide new high friction surfacing (buff coloured) on both sides of crossing	£30,000
B	Change pole colour	£0.00
C	Remove existing tactiles and replace with new red tactile pavings on both sides of crossing	£8,000
D	Measures to funnel pedestrians, including options of: New planter / trees Relocation of existing seats	To be finalised subject to services and adopted measures
E	Review light timings	£0.00
F	"Count Down" signals to be added to the pedestrian signal heads once approved by the DfT	£15,000

Now that works have been identified it is important that the works are commenced as soon as practicable.

There are no funds to support this scheme within the existing Plymouth Transport and Highways capital programme, and Corporate funding will need to be made available for this work to be completed in the current financial year.

Other Implications: e.g. Community Safety, Health and Safety, Risk Management and Equality, Diversity and Community Cohesion:

The review of the Royal Parade crossing was initiated following the fatality in 2010 and the subsequent court hearing and Judges comments.

All works within the public highway are the subject of detailed safety reports, and regulated by Department for Transport design criteria. Despite this, casualties will continue to occur, but Plymouth's Killed or Seriously Injured statistics show a generally reducing trend.

The crossing since being installed has contributed significantly to a reduction in accidents in the locality. It is fully compliant with all DfT requirements and if used correctly provides a safe and convenient method of crossing the carriageway. The crossing cannot therefore be described as 'very hazardous'.

The measures identified in this report are not essential requirements, and have been identified in order to further enhance the setting of the crossing to further encourage correct use.

The measures have been assessed using the Council's Equalities Impact Assessment procedures to ensure that the proposals do not discriminate against any of the seven protected characteristics and instead enhance a crossing which provides a vital link between the retail centre of the City and the waterfront.

Recommendations & Reasons for recommended action:

It is recommended that the Council introduce the following works in an incremental, phased manner, to enhance the setting and visibility of the crossing.

A) Provide a surface contrast to funnel pedestrians to the area between the road studs demarking the crossing. This would be delivered by introducing a buff surface for the length of the zig zags either side of the crossing – highlighting the crossing.
B) Changing the colour of the poles to aid identification and location for crossing.
C) Change the tactile paving to burnt red.
D) Introduce seating or planters on the pavement areas either side of Royal Parade to provide a visual pointer towards the crossing point
E) Review the light timings to seek a reduction in the call time and duration of the green man, to make the crossing more appealing to users.
F) Discuss with the DfT the provision of count down signs to make the crossing more appealing and better inform users.

Alternative options considered and reasons for recommended action:

Take no action: Not accepted

The crossing itself has been identified as safe if used correctly, although it is never going to be possible to ensure that any crossing or road will ever be 100% safe. The independent report did identify the opportuity to improve the 'visibility' of the crossing in the street to reduce the abuse of crossing the road that takes place in this general location. Given the significant number of pedestrians who use the crossing, measures to further enhance safety in the locality are deemed appropriate.

Install full guard rails on and around the crossing: Not accepted
The crossing itself is not unsafe and has shown a significant and continued reduction in casualties in the vicintiy since it was installed in it's current format over and above the previous subway and guard rails. The provision of railings either side of a crossing has been shown nationally to potentially increase the incidence of risk to pedestrians in and around crossings as abuse puts them in a more vulnerable position, vehicle speeds also tend to be higher when these features exist.

Background papers:

Royal Parade Crossing Review

Sign off:

Fin	SDG /Dev F11 120 023. 140 711	Leg	1217 0/R W	HR		Corp Prop		IT		Strat Proc	
Originating SMT Member: Clive Perkin											

Royal Parade Crossing Review:
Background Paper

1.0 Introduction

The Royal Parade central pedestrian crossing was installed in 2004 to replace an existing underpass. Despite the presences of a grade separated crossing, and central barriers, pedestrian and vehicle collisions were evident at that time, and the central surface level crossing formed a package of measures intended to improve safety and pedestrian accessibility across the city centre as a whole. It caters for approximately 15,000 to 20,000 pedestrian movements a day.

Collision statistics since the crossing was installed have shown a marked and continuing decline in casualties. However, on the 26th February 2010 there was a fatal collision between a female pedestrian and a Heavy Goods Vehicle. In the subsequent court hearing, Judge Francis Gilbert branded the crossing, based upon his own experience of using it, as "very hazardous". He asked that the Police and Highway Authority review the crossing.

In response the City Council agreed to review the crossing, in conjunction with the police. This led to a number of agreed actions:

1) That we undertake an operational review and collect data re crossing operation and use.
2) That a benchmarking exercise is conducted regarding national research and operational expectations.
3) An independent review of the Stage 4 Road Safety Audit is conducted in tandem with current operational use.
4) That the resulting information gathered from 1 - 3 above is assessed jointly with the Police, any proposed intervention or advice will be presented to the Council for their consideration.

2.0 Highway safety in and around Royal Parade

2.1 Since the introduction of the surface level pedestrian crossing, collisions on Royal Parade have continued to reduce. Appendix A to C show the overall statistics of collisions at both the crossing and along Royal Parade as a whole.

2.2 The fatal collision in 2010 was a tragic incident that has stimulated a comprehensive assessment of the operation and use of the crossing which has included an independent external analysis together with a Council and Police review of activity.

3.0 Independent analysis

3.1 The crossing and its environment was the subject of an independent review by TRL, a firm of independent traffic consultants who lead the field in Highway safety.

3.2 The crossing provides an important pedestrian link for circa 15,000 -20,000 crossings per day and is the busiest in the City. It is also in the middle of the key public transport hub for the City Centre.

4.0 Intervention Options

4.1 A review of recommendations assessed from an operational and use perspective has been noted below in terms of priority and a proposed phased intervention programme. Incremental introduction of the proposals will allow their impact individually and cumulatively to be evaluated.

4.2 This proposed programme has been jointly reviewed by the Police and has their support.

Make the Crossing more conspicuous

4.3 One of the key findings of the investigation is that the crossing would benefit from being more conspicuous. Abuse of the crossing facility, ignoring the lights, crossing out side of the designated area (between the poles), using the crossing as two separate roads by standing in the centre, all contribute to increased risk for pedestrians. Making the crossing more conspicuous will aid compliance and improve safety; this can be achieved in a number of ways, both visually and physically.

Visually:

- Providing a surface contrast to funnel pedestrians to the area between the road studs demarking the crossing. This would be delivered by introducing a buff surface for the length of the zig zags – highlighting the crossing.
- Changing the colour of the poles to aid identification and location for crossing.
- Change the tactile paving to burnt red.

Physically:

- By introducing trees/planters and other forms of street furniture to funnel pedestrians to the crossing.

Make the crossing more attractive to use

4.4 Reducing the waiting time for pedestrians once they have pressed the button, to the green man appearing will help alleviate frustration and encourage compliance. Additionally review and adjust the length of time that the green phase and black phase operate to facilitate improved information for users.

4.5 Countdown timers to aid pedestrian decision making have been on trial by Transport for London under licence by the Department for Transport. It is agreed that the introduction of these timers at Royal Parade would be advantageous as it would reduce perceived ambiguity and improve pedestrian decision making. An application to the DfT and their assent is required to progress the use of counters at this site.

Other considerations

4.6 The consideration of railings has been deliberated but there is concern that abuse (as observed prior to the introduction of the Royal Parade crossing) will increase risk and the number of casualties at this location. Additionally the introduction of a central reservation, as is provided at either end of Royal Parade would require a significant alteration to the current road layout, as the capacity required for the reservation would have to be extensive to provide safety for a large number of pedestrians (several times larger than that of the Derry's and St Andrew's crossings) – those unable to gain access to the reservation would be put at greater risk.

5.0 Costs

5.1 The costs of the various works are as follows:

Total scheme cost		£0.089m (Capital)
A	Provide new high friction surfacing (buff coloured) on both sides of crossing	£30,000
B	Change pole colour	£0.00
C	Remove existing tactiles and replace with new red tactile pavings on both sides of crossing	£8,000
D	Measures to funnel pedestrians, including options of: New planter / trees Relocation of existing seats	To be finalised subject to services and adopted measures
E	Review light timings	£0.00
F	"Count Down" signals to be added to the pedestrian signal heads once approved by the DfT	£15,000
Total scheme cost		**£0.089m (Capital)**

6.0 Implementation timescales

6.1 Whilst it is recognised that the crossing is working satisfactorily, now that works to reduce the abuse of crossing the road in this location have been identified it is important that the works are commenced at the earliest convenience.

6.2 The type of works proposed can be implemented without impacting unduly on traffic movements, so there are no limitations to starting the works as soon as possible.

6.3 However, some of the works, namely the changes to the light phasing and count down timers will require further work and thus are identified as measures to be delivered as part of the final phases.

7.0 Conclusion

7.1 The occurrence of the fatal collision in 2010 is unfortunate and regrettable. However, despite the comments of the Judge, the evidence does not point to any fault with the crossing or its environment but instead would appear to be the consequence of a minority of users who decide not to utilise the crossing as it has been designed to be used.

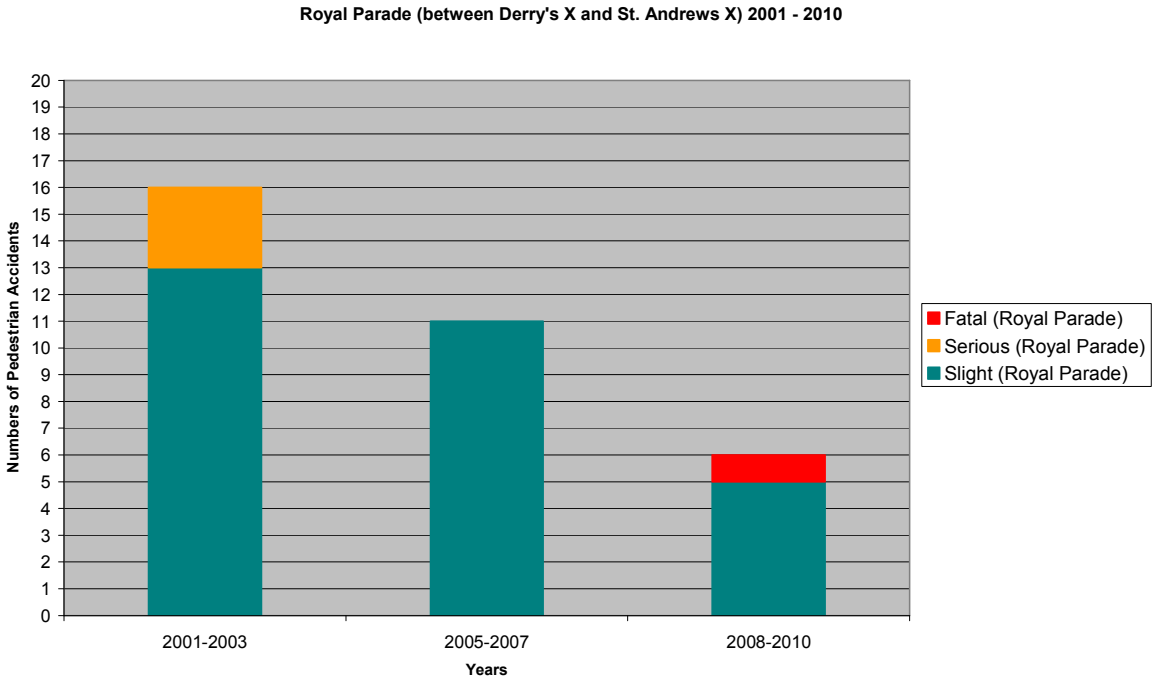
7.2 From a lay perspective it could be tempting, given the circumstances, to employ significant changes to a crossing to tackle the perceived danger, and in so doing create a more dangerous situation.

7.3 The advice received is that the facility can and does provide a safe means of crossing the road, but in order to further enhance this a number of minor works could be introduced.

7.4 It is intended to introduce these changes in a phased manner, to ensure that each can be monitored and evaluated with regard to enhancing the safety and use of the crossing.

7.5 In conclusion, in any situation whereby pedestrians and vehicles need to cross paths the potential for collisions will remain. Highway engineering solutions are intended to reduce this risk, but ultimately such solutions rely upon the actions of all users to conform to the requirements of that solution. The significantly higher number of serious and minor collisions prior to the installation of the crossing show that even with railings and a subway, collisions will happen.

Appendix 1: Royal Parade Crossing Pedestrian casualty Statistics



(A) **Personal injury collision data for the three year period before the surface level crossing was introduced.**

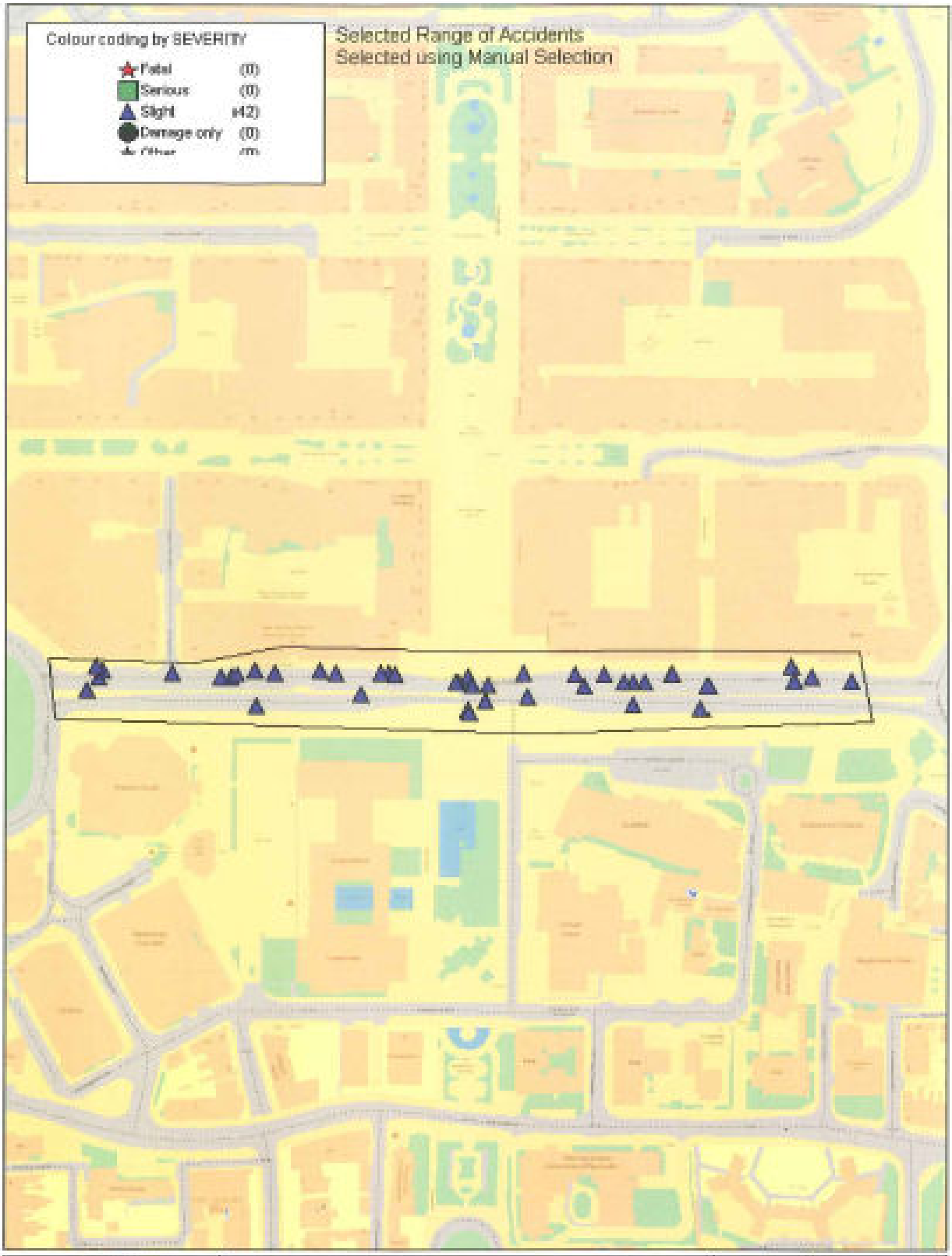
A.1 – Royal Parade Crossing Data 2000 - 2004

A.2 – Royal Parade Data 2000 - 2004

(B) Personal injury collision data for the three year period after the surface level crossing was introduced.

B.1 Royal Parade Crossing Data 2005 - 2009

B.2 Royal Parade Data 2005 - 2009



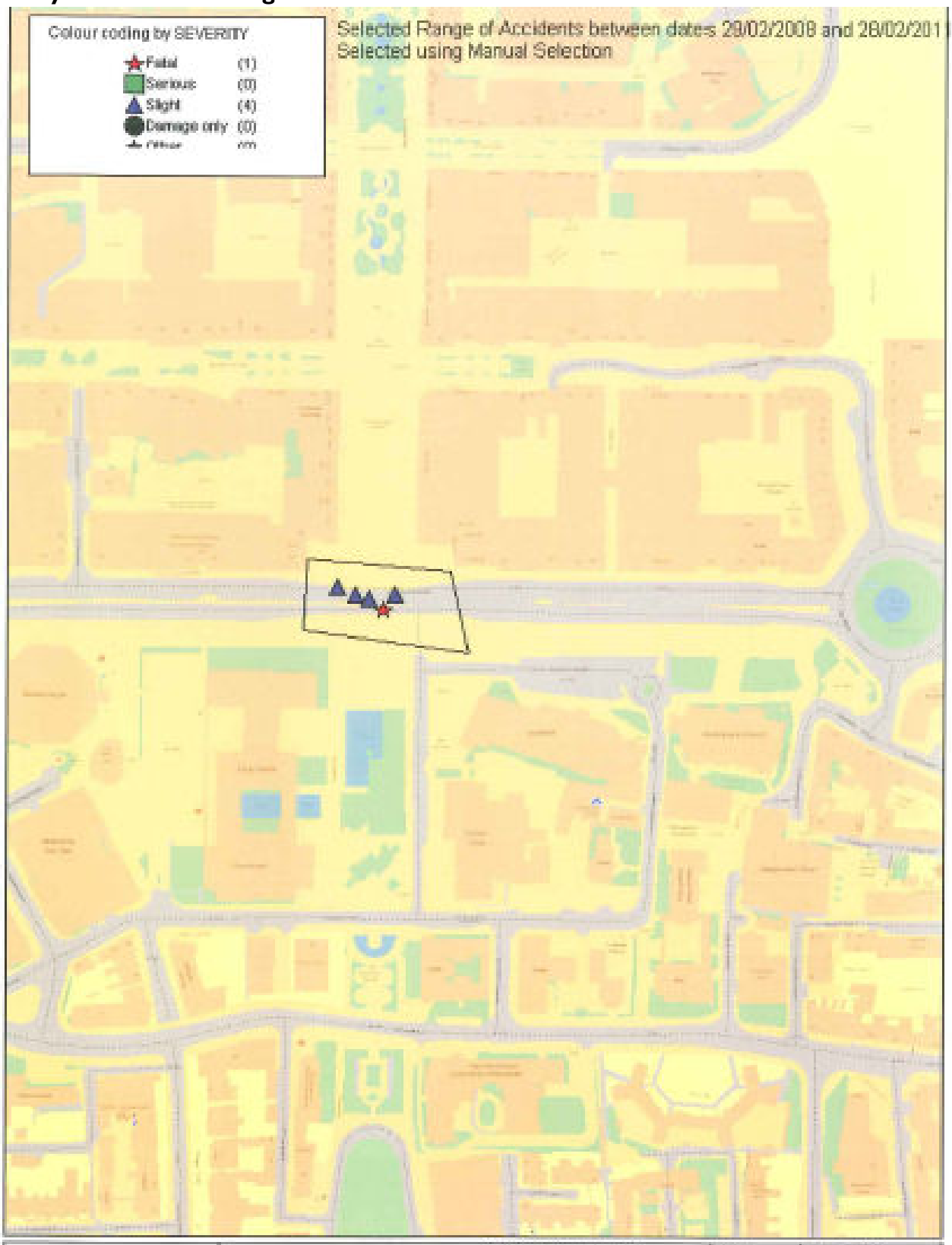
BUCHANAN COMPUTING

Royal Parade 2005-2009 Personal Injury Accident

SCALE	1 : 2530
DATE	26/02/2010

(C) Personal injury collision data for the last three years.

C.1 Royal Parade Crossing Data 2008 - 2011



C.2 Royal Parade Data 2008 – 2011