2. Context Analysis



2. Context Analysis

2.1. Historical Context

2.1.1. This section forms an analysis of the study area using historic map information to illustrate how the area has changed and evolved, and what factors have led to the form and appearance we see today.

Cambridge Historic Environment Record

- 2.1.2. The Cambridge Historic Record maintained by the Historic Environment Team forms a comprehensive record of archaeological sites and finds in Cambridgeshire. Figure 6 shows that the Eastern Gate study area contains 6 Archeological sites. These range from Paleolithic finds (500,000 to 10001 BC) on Occupation Road, late prehistoric pottery fields (4000 BC to 42 AD) on New Street, to remains relating to Britannia Ironworks (19th Century to 21st Century) on the Mackays site.
- **2.1.3.** The Historic Environment Team at the County Council provides archaeological interpretation, and it is recommended that any development proposal be referred to the County Council's archaeologists for advice as part of the pre-application process.

Medieval period

2.1.4. From the Medieval period Newmarket Road has been used as a main route linking Stourbridge Common and villages to the East to the City Centre. Areas surrounding Newmarket Road date back to a much earlier Iron Age and Roman Rural Settlement where produce from the east including that from the Horningsea Pottery Kilns would have been brought into the town by river.



Figure 3: 1886 OS Figure Ground Plan



Figure 4: 1954 OS Figure Ground Plan



igure 5: 2011 OS Figure Ground Plan

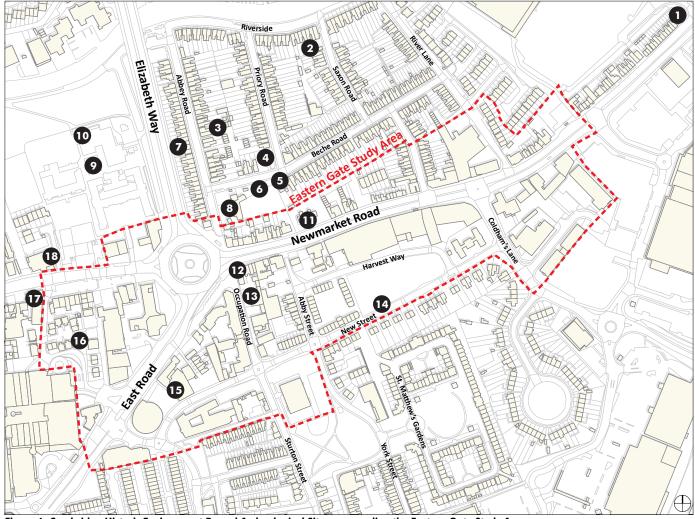


Figure 6: Cambridge Historic Environment Record Archeological Sites surrounding the Eastern Gate Study Area

- Maltings, behind the Wrestler's Inn, Newmarket Road (19th Century 1801 AD to 1900 AD)
- 2 Site of Barnwell Spring (Medieval 1066 AD to 1539 AD)
- 3 Barnwell Abby/Priory (Medieval 1066 AD to 1539 AD)
- 4 Barnwell Priory/Cellar's Chequer (Medieval 1066 AD to 1539 AD)
- 5 Medieval remains, Barnwell Priory (Medieval 1066 AD to 1539 AD)
- Wall at Abbey House/Barnwell Priory (Medieval 1066 AD to 1539 AD)
- 7 Beaker find, Abby Road (Bronze Age 2500 BC to 701 BC)
- 8 Abby House, Cambridge (Post Medieval 1540 AD to 1900 AD)
- 9 Fishpond, Barnwell Abby (Medieval 1066 AD to 1539 AD)
- 10 Possible World War 2 air raid shelter (World War

- II 1939 AD to 1945 AD)
- 11 Church of St Andrew the Less, Cambridge
- Rose and Crown, 110 Newmarket Road (19th Century to 21st Century 1801 AD to 2000AD
- Palaeolithic finds, festival Theatre Site, Newmarket Road (Palaeolithic 500,000 to 10001 BC)
- Late prehistoric pottery fields (4000 BC to 42 AD)
- Britannia Ironworks, Cambridge (19th Century to 21st Century 1890AD to 2000AD)
- 16 19th Century building remains 5 Wellington court (19th Century 1801 AD to 1900 AD)
- 17 Shakespeare Brewery (19th Century 1801 AD to 1900 AD)
- Priory Brewery, Newmarket Road (19th Century 1801 AD to 1900 AD)
- 19 Auckland Brewery, Newmarket Road (19th Century 1801 AD to 1900 AD)

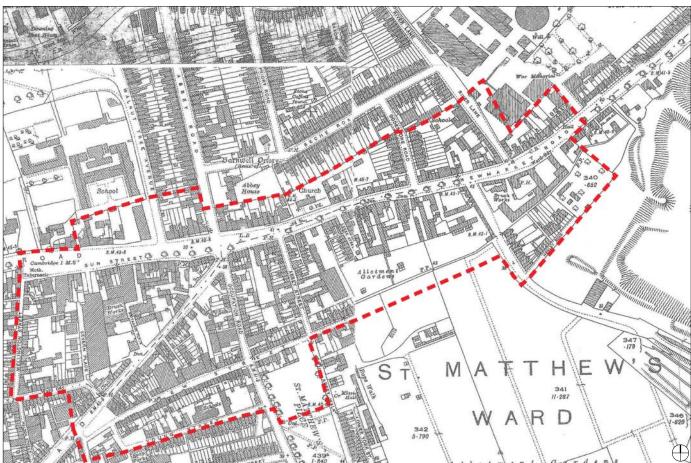


Figure 7: 1925 OS Plan showing the location of the Eastern Gate study area

Barnwell Priory

2.1.5. Barnwell Priory (Historic Environment Record 04653), which was originally founded in the 11th Century at Castle Hill, but later moved to Riverside, has played a major role in shaping the area. However, there is little left now apart from the 12th century church of St Andrew-the-Less (refer to figure 8), a building known as the Cellarar's Chequer, and many relevant street names; Priory Road and Abbey Road being the most apparent. The 16th Century building of Abbey House stands on what used to be Barnwell Priory.

Victorian Era

2.1.6. The 1886 first edition Ordnance
Survey (OS) Map shows the emergence
of numerous brickyards, gas works,
sewage works and areas used for refuse
disposal. The Museum of Technology now
occupies the Victorian sewage pumping

- station, and is one of the few remaining buildings from this period, and as such has been designated a Scheduled Ancient Monument (SAM).
- 2.1.7. The growth of the railway in the 1840s separated the area from Coldham's Common and brought about the emergence of terrace houses built for railway workers to the north of Newmarket Road.
- 2.1.8. The 1901 OS Map of this area shows further development, including sand and gravel works. In addition to a fine grained pattern of streets, a multitude of small passages on the southside of Newmarket Road, such as Leek Street, Browns Yard, Shamrock Passage and Dragon Yard all provided additional routes between Newmarket Road and the allotments and residential areas of Petersfield. These streets however are

long gone, and today large 1960s/70s warehouses of poor quality stand in their place.

20th Century

- OS maps of the study area illustrates the growth of the St Matthew's and Petersfield residential areas to the south of Newmarket Road including the development of Silverwood Close. The 1925 OS map shows a single row of trees along Newmarket Road, these have since been lost along substantial sections of the road. The 1945 OS Map reveals a departure from the characteristic fine urban grain with the emergence of larger buildings 'set in space', on the corner of Newmarket Road and Coldham's Lane.
- 2.1.10. The 1960s and 70s brought additional changes to Newmarket Road with the introduction of the roundabout and opening of Elizabeth Way Bridge in 1971 (refer to figures 9 & 10) which resulted in the removal of Victorian

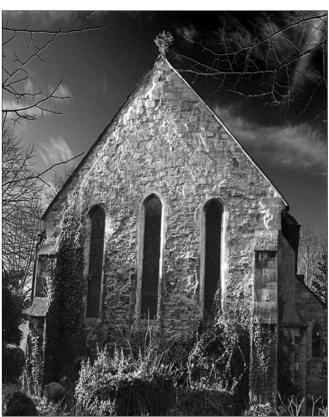


Figure 8: Photograph of St Andrew-the-Less (Abbey Church) showing the east gable (date unknown)

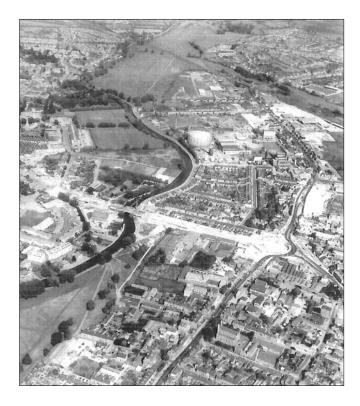




Figure 9 (top) and Figure 10 (above): Photographs showing the construction of Elizabeth Way Bridge in 1971

terraces on Walnut Tree Avenue and buildings which enclosed the former Newmarket Road/East Road junction. The highway alterations have since resulted in increased vehicular priority and dominance of the study area causing the severance of the Riverside and Petersfield communities.

2.1.11. More recently the area has seen the redevelopment of the former gas, brick and tile works to the east of the study area, much of the land now forms part of the Cambridge Retail Park and Tesco Superstore.



Figure 11: Photograph of East Road/Newmarket Road Junction before it was dualled in 1963

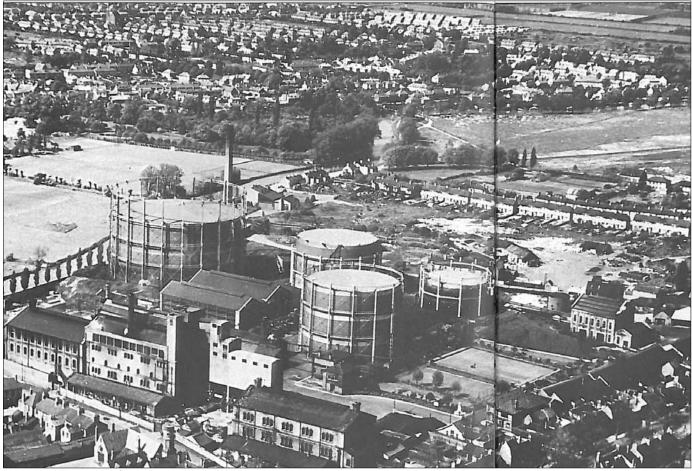


Figure 12: Photograph of the Newmarket Road Gas Works (Circa 1950)

2.2.Existing Movement and Circulation

- **2.2.1.** This section provides an analysis of the existing movement and circulation network. Key elements of this analysis are as follows:
 - The study area falls within the Cambridge City Council Air Quality Management Area. (See appendix A)
 - The study area is dominated by vehicular movements along the primary routes of East Road, Newmarket Road and Coldham's Lane, and is hostile for pedestrians and cyclists.
 - Inconsistent cycle lanes, bus lanes and narrow footpaths along Newmarket Road create a confusing environment for all users.
 - Newmarket Road forms an actual and perceived barrier to pedestrian and cyclist movements north and south of the study area, and from the east beyond the railway and results in dividing neighbouring communities.
 - Wide sweeping junctions encourage higher traffic speeds and reinforce vehicle domination.
 - Hostile, busy junctions dominate the few vehicular entry points to residential communities, creating weak gateways.
 - There is a lack of surface level, direct pedestrian/cycle crossings that pick up on key desire lines. Instead people are forced to use unpleasant and hostile routes such as the underpass and when crossing at Coldham's Lane/Newmarket Road junction. This further divides communities.

- The arrangement of key 'movement generators' gives priority to vehicular traffic whilst pedestrians are limited to indirect routes.
- Bus lanes along the length of Newmarket Road are considered ineffective as vehicles and taxi's use them to navigate past congested traffic to access the retail park.
- Parking pressures within the New Street area have a negative effect upon the quality of the public realm. Local residents are concerned about the levels of commuter and shopper parking.



Figure 13: Pedestrian guardrails present barriers to movement



Figure 14: A lack of crossings at Coldham's Lane junction creates a hostile and dangerous environment for pedestrians

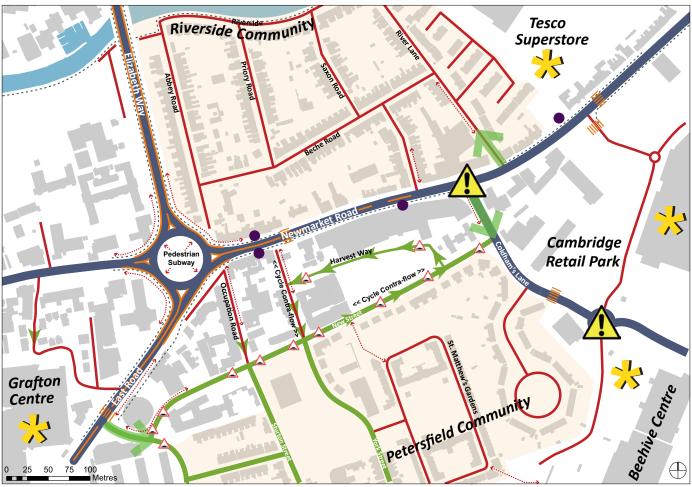


Figure 15: Existing movement & circulation



Pedestrian crossings



Bus Stops



Key Movement generators



Pedestrian routes



Barriers to movement



One-way-traffic on New Street and Harvest Way



Busy junctions, some which lack pedestrian crossings



Cycle routes



Primary Routes



Secondary Routes



Tertiary routes



Gateways to residential neighborhoods are dominated by vehicles



Traffic speed restriction measures

2.3.Surrounding Land Use & Activity

- **2.3.1.** This section provides an analysis of the surrounding land use and the services found within and around the study area.
- **2.3.2.** The adjacent map illustrates the broad land uses and distribution of local services and facilities found within the study area. Key elements are as follows:
 - Remnants of the historic high street survive to the east of Elizabeth Way roundabout. However, large footprint industrial uses on the southside of Newmarket Road dominate the historic 'high street', create blank frontages and generate little activity onto the street.
 - Whilst a mix of uses does exist along Newmarket Road, the activity these uses generate is largely limited to commercial opening hours. There is to some extent a mix of uses occurring within buildings, such as flats above shops.
 - A number of pubs exist within, and close to the study area.
 - Groups of facilities (including Tesco's, the Beehive Centre, Cambridge Retail Park and Cambridge United Football Club) to the east of the study area, are 'people attractors' and generate significant movement. The retail parks and football ground in particular have a city and subregional pull.
 - A cluster of services located to the north of the Grafton Centre front Maids Causeway, serving residential areas to the west of study area.
 - There is a greater dispersal of services and facilities to the south of the study area.

- 2.3.3. The walkable neighbourhood appraisal (refer to figure 16) highlights facilities and services that are located within a 5 minute (400m) and 10 minute (800m) walking time of the Eastern Gate study area. The walkable neighbourhood map illustrates:
 - The river and railway create significant barriers to pedestrian movement further north and southeast of the study area.
 - The hostile underpass, pedestrian guardrails and indirect crossings, which surround Elizabeth Way roundabout, limit the accessibility of the area and increase journey times and walking distances.
 - The dominance of vehicular traffic on Newmarket Road and East Road makes informal crossings difficult and increases walking distances.
 - Larger plot widths of industrial buildings fronting the southside of Newmarket Road form barriers to pedestrian movement and limit opportunities for permeability.

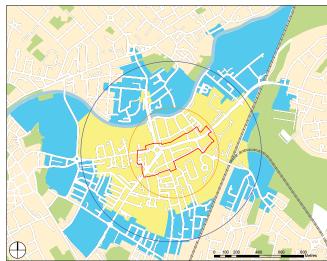


Figure 16: Walking catchment for Eastern Gate

400m theoretical walking distance (from the centre of the Eastern Gate Study area)

800m theoretical walking distance (from the centre of the Eastern Gate study area)

400m actual walking distance

800m actual walking distance

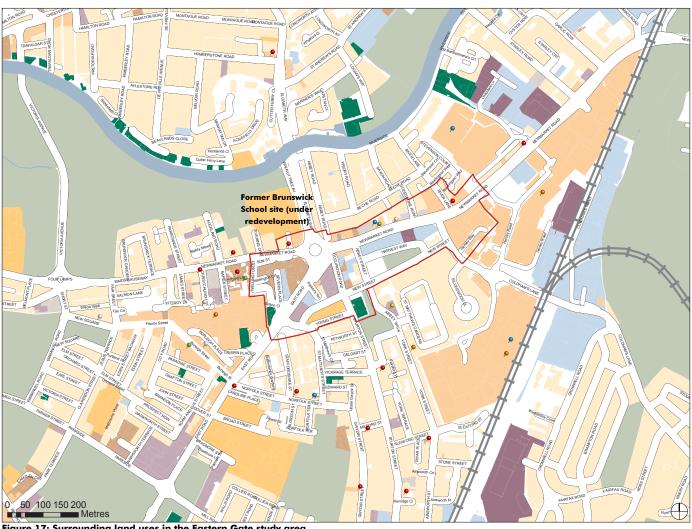
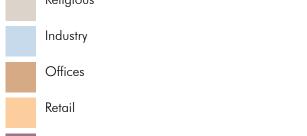
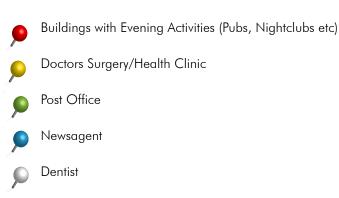


Figure 17: Surrounding land uses in the Eastern Gate study area









Chemist

Note: Broad Land use data is derived from Cities Revealed Data captured in 2008.

2.4.Character Appraisal

- **2.4.1.** A character appraisal has been undertaken of the study area in order to assess locally distinctive patterns of development and land uses. These factors help to distinguish different areas.
- 2.4.2. The character appraisal map (refer to figure 21) shows clear variations in character across the study area with large scale retail development to the east and mixed-use 20th Century retail, residential and office developments to the west.
- 2.4.3. The Riverside and Petersfield communities to the north and south of Newmarket Road are predominantly comprised of Victorian two-storey terrace housing (refer to figure 18). The area is characterised by continuous building lines and narrow building plots. The frequency of doors and windows creates a strong sense of rhythm.
- 2.4.4. Areas of Victorian mixed use developments remain in small clusters along the northern side of Newmarket Road and adjacent to the Elizabeth Way Roundabout (refer to figure 19), which typically comprise of a mixture of 2-2.5 storey retail and residential properties.
- 2.4.5. The later addition of two-storey industrial warehousing and car showroom buildings in the 1960s and 70s along Newmarket Road (refer to figure 20) has eroded the traditional 19th Century street character. The lack of windows and doors at ground level has resulted in a continuous blank façade along the southern side of Newmarket Road, which in turn has resulted in a lack of activity and surveillance. In addition, the large footprint of the warehouse buildings restricts permeability from Newmarket Road through to Harvest Way.
- 2.4.6. A comprehensive character appraisal of the Eastern Gate Study Area is contained

within the Eastern Gate Visioning Document, Cambridge City Council, January 2011



Figure 18: 19th Century residential terraces

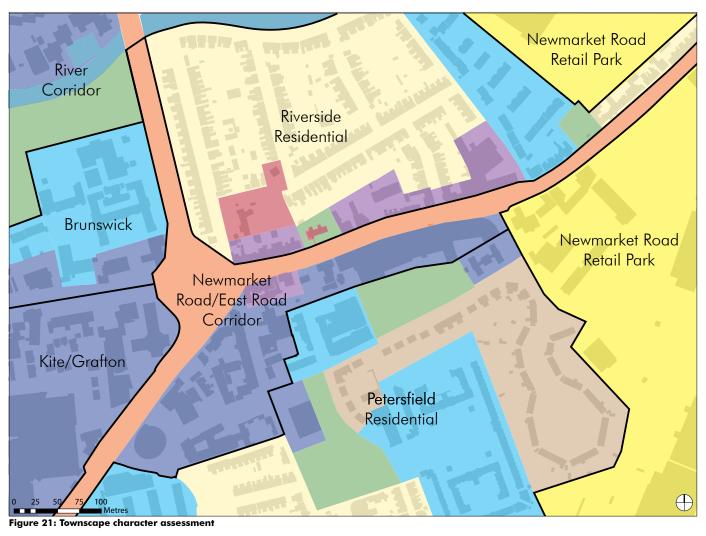


Figure 19: 19th and early 20th Century mixed use



Figure 20: 1960s and 70s industrial warehouse buildings

corridor





2.5. Townscape Analysis

- **2.5.1.** This section provides an analysis of the study area in terms of its urban form and visual appearance, and how the components of the environment combine in a way that is distinctive to the area. Key elements are as follows:
 - Views of the conservation area from Elizabeth Way bridge reveal the areas historic Victorian roofscape and fine urban grain.
 - Large areas of negative, left over space which is ill-defined and poorly enclosed.
 - Poor quality and passive frontages create hostile and uncomfortable edges.
 - Poor quality buildings and standard highway solutions mask buildings of townscape interest and have eroded the qualities of place.
 - The predominant domestic scale of the residential areas to the north and south of Newmarket Road is disrupted by poor quality warehouse buildings, with larger footprints and passive frontages.
 - The frontage east of the roundabout and along the north side of Newmarket Road is characterised by historic retail buildings with narrow plot widths providing greater variety, interest.
 - Pedestrian railings surrounding Elizabeth Way roundabout and Newmarket Road forms a barrier between the two residential areas, restricting north and south movements within the study area.
 - The Crown Court forms a local landmark and a point of reference in the urban environment.



Figure 22: Grade 2 listed Church of St Andrew-the-Less (Abbey Church)



Figure 23: Poor quality and passive frontages create hostile and uncomfortable edges



Figure 24: Poor quality warehouse and car showroom buildings create barriers to movement between residential areas north and south of Newmarket Road

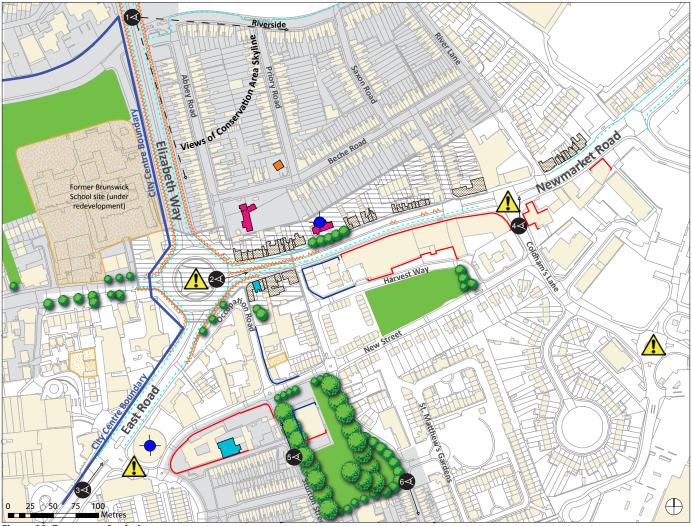


Figure 25: Townscape Analysis



Central Conservation Area



Proposed extension to the Riverside Conservation Area



Listed building (Grade 2*)



Listed building (Grade 2)



Buildings of Local Interest (BLI)



Historic building frontage



Trees of townscape value



Protected open space



Busy junction



Passive frontage



Poor quality frontage



Barriers to movement



Cycle routes



Local landmark buildings



Viewpoints:

- 1. Conservation area skyline
- 2. Newmarket Road
- 3. East Road
- 4. Museum of Technology chimney
- 5. Sturton Street
- 6. York Street

2.6.Existing Scale and Massing

- **2.6.1.** This section provides an analysis of the existing scale and massing of buildings within the study area. The map (refer to figure 29) illustrates the following key elements;
 - The area predominantly comprises of residential housing with a domestic scale of 2-2.5 storeys, arranged in groups of terraces and semi-detached pairs.
 - Larger scale industrial and retail buildings with wide plot widths front the southern side of Newmarket Road forming a barrier between the residential areas to the north and south.
 - Taller buildings line East Road and form a transition between the smaller domestic scale and edge of the city centre.
 - The Crown Court forms the tallest building within the study area and acts as a local landmark.



Figure 26: View over the riverside area, taken from Elizabeth Way Bridge (looking south-east)



Figure 27: View of Cambridge Crown Court (looking north-east along East Road)



Figure 28: Large scale industrial buildings front Newmarket Road (view looking east along Newmarket Road).

Sites currently under redevelopment



Note: Building heights have been derived from Lidar Data. Storey heights expressed are based on a typical residential floor to ceiling height of 2.7m

3 Storey Buildings

2.7. Opportunities and Constraints

2.7.1. This section provides a summary of the context analysis, teasing out the key strengths, weaknesses and opportunities (refer to figure 30) the study area presents.

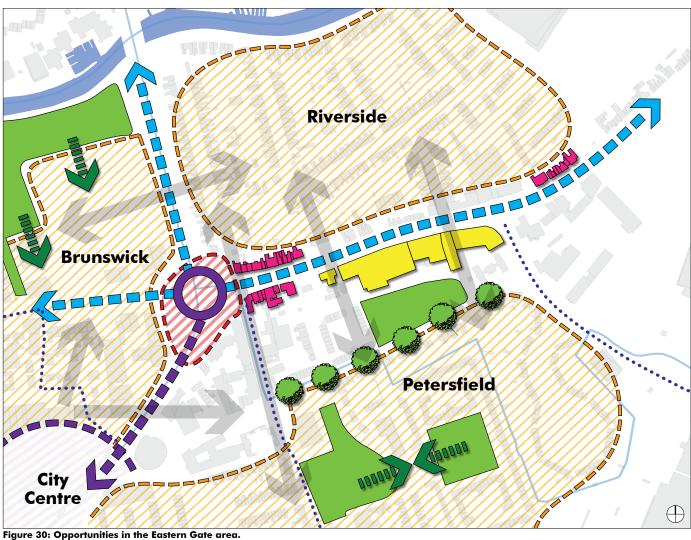
2.7.2. Strengths:

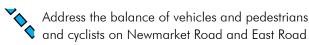
- The area is well located for access to the City Centre, the Grafton Centre the river and Anglia Ruskin University
- Existing pedestrian/cycle routes provide direct access to Cambridge Railway Station.
- Retail uses front Maids Causeway and provide local centre services for nearby residents.
- Clusters of historical retail frontage still exist east of Elizabeth Way roundabout.
- The area contains buildings with strong landmark features that aid navigation through the area.
- Elevated views from Elizabeth Way bridge reveal the historic Victorian roofscape and finer urban grain of the Riverside Conservation Area.
- Large areas of domestic 2-2.5 storey terraces within the Riverside and Petersfield neighbourhoods form important character areas.
- Larger buildings lining East Road serve to mark the transition zone between the residential and city centre uses.

2.7.3. Weaknesses:

The dominance of vehicles on Newmarket Road forms a barrier and restricts pedestrian movements

- between the residential districts of Petersfield, Riverside and Brunswick.
- Buildings of historic interest are masked behind the heavy traffic, signs and signals associated with traffic engineering.
- Large warehouse and industrial buildings with poor quality, blank frontages contribute little to the townscape or public realm, and restricts movements north and south of the study area.
- Uses along Newmarket Road frontage that stretch activity beyond retail opening hours are not in abundance.
- The dominance of vehicular traffic on Newmarket Road and the absence of pedestrian crossing points makes crossing difficult to those on foot resulting in increased walking distances.
- Pedestrian railings surrounding Elizabeth Way roundabout and Newmarket Road form barriers between residential areas.
- Inconsistent cycle and bus lanes along the length of Newmarket Road enforces the priority of vehicular traffic.
- Narrow footpaths and wide sweeping junctions encourage higher traffic speeds.
- Dominance of car parking on residential streets north and south of Newmarket Road.
- Elizabeth Way roundabout currently lacks the qualities of a positive gateway into the city and severely limits pedestrian and cycle movements.





Opportunities to improve existing cycle routes

Create new links between communities

Strengthen links between existing open spaces

Improve the "Eastern Gateway" to the City

Humanise the highway, green and soften routes explore opportunities for street tree planting



Repair and reshape the built form - particularly on Newmarket Road

Enhance the setting of historically significant buildings and frontages

Ward area boundaries

Open space areas