



September 1996

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**MASON STREET/GRINFIELD  
STREET TUNNELS,  
LIVERPOOL**

**Archaeological Assessment**

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Commissioned and funded by:

**Seymour Properties Ltd**

Mason Street/Grinfield Street Tunnels,  
Liverpool,  
Merseyside

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Archaeological Assessment

Checked by Project Manager. ..... Date
Passed for submission to client. ..... Date

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September 1996

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## ACKNOWLEDGMENT

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The desk-based assessment was carried out for Brian Young and Associates, on behalf of their clients, Seymour Properties. Lancaster University Archaeological Unit (LUAU) would like to thank the staff of Liverpool Record Office and Sarah Jane Farr, the Merseyside County Archaeological Curator, for access to much of the background information and previous research. Most previous research has been carried out by David Head and Stephen Moran, and has been deposited with the Merseyside Sites and Monuments Record, Liverpool Museum, National Museums & Galleries on Merseyside. This report is substantially based on their work. The site visit and the documentary research was undertaken by Caron Newman of the Egerton Lea Consultancy. This report was compiled by Caron Newman and edited by Mark Fletcher, LUAU Project Manager.

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## EXECUTIVE SUMMARY

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A desk-based archaeological assessment was carried out on land bounded by Mason Street, Grinfield Street and Smithdown Lane, Edge Hill, Liverpool (centred on SD 354901). The study area is divided into two parts: a vacant lot on Grinfield Street/Mason Street, and the former Liverpool Corporation central stables adjacent and to the north-west. The work was carried out by the Lancaster University Archaeological Unit on behalf of Brian Young and Associates. The work comprised a desk-based study, compiling data from the Merseyside Sites and Monuments Record, the Joint Countryside Advisory Service, and the Liverpool Record Office, followed by a site visit.

There appears to have been no significant development in the area prior to the end of the eighteenth century. The area in which the study area lies is well-known as the site of extensive building works and tunnels carried out by an eccentric Liverpool philanthropist, Joseph Williamson, in the first half of the nineteenth century. Williamson developed all of the area concerned in this assessment, either as housing or terraced gardens. More significantly most of the land lies over tunnels, passages and caverns excavated by his workforce.

Although many local historians have written about the tunnels and even extensively explored them where possible, no definitive plan exists of the tunnels' layout. Recent micro-gravity and geotechnical surveys have located below-ground voids but have not managed to plot them in detail.

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## 1. INTRODUCTION

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- 1.1** An archaeological evaluation, comprising a desk-based archaeological assessment and geophysical survey was undertaken by the Lancaster University Archaeological Unit (LUAU) on behalf of Brian Young and Associates on behalf, in response to a planning condition on an application (Liverpool City Council, 96P/0250) for development of land bounded by Mason Street, Grinfield Street and Smithdown Lane, Edge Hill, Liverpool (centred on SD 354901; Fig. 1). This report presents the results of the desk-based study. The site comprises two areas; the former Liverpool Corporation stable yards and an area of open land to the south and east. The site has been the subject of modern redevelopment, of which the extent of vertical disturbance is not known.
- 1.2** The purpose of the assessment was to investigate the possible presence/absence, location, extent, survival, quality, significance and date of any archaeological features, in accordance with PPG 16 Archaeology and Planning (paragraphs 21-30). The desk-based study aimed to collate information from various sources about the archaeological resource as well as to establish the potential for sub-surface remains. In particular, the study was undertaken to examine the archaeological potential with reference to the extensive tunnels and cavities in the vicinity, excavated in the early nineteenth century by Joseph Williamson.
- 1.3** The desk-based study consisted of a search of existing records held by the Merseyside Sites and Monuments Record (MSMR), and the Liverpool Record Office and Local History Department in the Central Library, aerial photographs, and secondary sources held in the Lancaster University Library, as well as a brief site visit.. Both published and unpublished sources were examined. The desk-based survey was undertaken between the 17th and 20th of September, 1996.
- 1.4** This report sets out the results of the work with a methodology statement, an assessment of the archaeological potential within the study area, and a discussion of the results.

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## 2. METHODOLOGY

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### 2.1 Project Design

- 2.1.1 A project design (Appendix 1) was submitted by LUAU in response to a request from Brian Young and Associates for an archaeological evaluation of the proposed development area at Mason Street/Grinfield Street.
- 2.1.2 The project design provided for a desk-based assessment and a micro-gravity survey of the site culminating in a written report. This report represents the results of the desk-based assessment. The results of the micro-gravity survey will be presented in a separate report. The work has been carried out in accordance with the project design.

### 2.2 Desk-Top Study

- 2.2.1 Existing archaeological information was obtained from the Merseyside Sites and Monuments Record (MSMR). Copies of maps were obtained from the MSMR, including a number of nineteenth century maps and Ordnance Survey (OS) maps dating to the nineteenth and twentieth centuries at various scales. Copies of various antiquarian histories were also obtained from the MSMR, along with newspaper cuttings, copies of paintings and unpublished survey data carried out by local historians, Stephen Moran and David Head. Although the information provided by Mr Moran and Mr Head is fairly detailed, many of their sources are unreferenced and must therefore be treated with caution.
- 2.2.2 Manuscript maps were studied in the Liverpool Record Office (LRO). Apart from the maps which were also available in the MSMR, only three other maps in the LRO were relevant to this survey. All dated to the first half of the nineteenth century. The three maps each depicting Liverpool and its environs were by J Gore, 1817 (LRO Hf 912 1817/53), J and A Walker, 1823 (LRO Hf 912 1823/60) and William Swire, 1824 (LRO Hf 912 1824/61). Antiquarian sources contained in the Lancaster University Library were also consulted.
- 2.2.3 A visit was made to the Joint Countryside Advisory Service in order to examine aerial photographs. Only two photographs covered the relevant area, run 15/8833 (1961; scale 1:10,000) and run 83/12/74 (1993; scale 1:10,000).
- 2.2.4 A brief site visit was made. The open area and the stables were examined, but for safety reasons the tunnels were not explored.

### 2.3 Archive

- 2.3.1 A full archive of the desk-top survey has been produced to a professional standard in accordance with the current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition 1991). The archive will be deposited with the Liverpool Record Office with a copy of the report given to the Sites and Monuments Record. A copy of the archive will also be available for deposition with the National Archaeological Record in London.

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### 3. TOPOGRAPHY

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#### 3.1 Location

- 3.1.1 The survey area now lies within the modern district of Edge Hill, in the city of Liverpool (Fig. 1). Originally, the area was in the township of West Derby, adjacent to the township of Liverpool. It is bounded by Mason Street to the east, Grinfield Street to the south, Smithdown Lane to the west and by the Liverpool to Manchester railway to the north. The survey area comprises two parts: the area marked for development and the former Liverpool Corporation central stables.
- 3.1.2 The development site comprises an area of *c* 0.4ha of grassed-over open land adjacent to Grinfield Street. It is bounded by a brick wall and has been developed in the past. The whole area slopes gradually down from the north towards Grinfield Street, and from Mason Street down towards Smithdown Lane.
- 3.1.3 The Corporation central stables lies to the north-west of the open area, adjacent to Smithfield Lane. It contains derelict buildings and a cobbled yard which is currently obstructed by a large amount of building debris. The stables area has been terraced into the hillside.

#### 3.2 Geology

- 3.2.1 The site is situated in an area of Triassic sandstones, known as New Red Sandstones. In the area of the site itself are Bunter Pebble Beds, comprising conglomerates and pebbly sands interspersed with layers of clay. This overlies Bunter Sandstone (Ordnance Survey Geology Sheet 96: Liverpool, 1975, scale 1:50,000).



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## 4. RESULTS

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### 4.1 General Historical Background

- 4.1.1 The site lies within the medieval township of West Derby, which was the capital manor of the hundred of West Derby (Baines 1936, 523; Farrer and Brownbill 1907, 13). The township measured four miles from north to south and three and a half miles from east to west. The manor was a royal possession, held by King Edward the Confessor in 1066. It was granted to Roger of Poitou by William I (the Conqueror). In Domesday Book the manor is assessed at four hides, with fifteen ploughs and a forest two leagues long and one broad. It was clearly a substantial landholding at this time (Farrer and Brownbill 1907, 13). In 1115 West Derby was held by Stephen of Blois, as part of the Honour of Lancaster. The manor generally remained in the hands of the House of Lancaster, and therefore was held by the king, in his position as Duke of Lancaster after 1399. It was sold by Charles I to certain citizens of London in 1628, and in the following year the manor was transferred to James, Lord Stanley and Strange, Earl of Derby. In 1717 it was sold to Isaac Greene and then became the property of the Marquis of Salisbury, whose family remained lords of the manor up until the twentieth century (Farrer and Brownbill 1907, 15).
- 4.1.2 West Derby contained large areas of woodland, measured at 2,880 customary acres at the time of Domesday (Farrer and Brownbill 1907, 13). Successive grants made by the lords of the manor throughout the medieval period show that the clearance of the woodland and land improvement advanced rapidly (Farrer and Brownbill 1907, 13-14). The common lands were enclosed in 1718, and a body of commissioners was set up for the management of the former waste lands. In 1723, Isaac Greene, as lord of the manor, was permitted to enclose several acres of land on the borders of West Derby and Liverpool (Farrer and Brownbill 1907, 15, n. 3). The exact location of this land is not known, but probably incorporated the study area. In 1753, there were still areas of common or waste land, as it is recorded that commissioners were given lands to manage, including land near Smeatham (Smithdown) which had been lately, and wrongly, enclosed (Farrer and Brownbill 1907, 15, n. 3).
- 4.1.3 By 1768, the town of Liverpool and its surrounding villages were growing. The study area lay close to one of the main eastward roads leading out of Liverpool. This road divided at the top of a hill, the northern branch becoming Edge Lane, the other becoming the road to Wavertree to the north of the study area. Smithdown Lane led southward, paralleling the Liverpool town boundary. Where the main road divided was an open area called Greenfield. This had formed part of the enclosed wastes of West Derby (Farrer and Brownbill 1907, 12). By 1768 most of this area had been enclosed and built upon. The study area is likely to fall within Greenfield, but it is not known whether it had been developed. It may have formed at least part of the surviving open portion, triangular in shape, which was used by Liverpool Corporation as a recreation ground (Farrer and Brownbill 1907, 12, n. 9).

- 4.1.4 The expansion of Liverpool resulted in a portion of West Derby being taken into the municipal borough in 1835. This was formed into a ward of the borough. In 1895, this ward was divided into three: Low Hill, Kensington and Edge Hill (Farrer and Brownbill 1907, 11). The study area now lies within Edge Hill.
- 4.1.5 Around 1800 a large mansion was built at the north end of Mason Street, with grounds stretching back to Smithfield Lane (Hand 1917, 1). Shortly afterwards, seven or eight detached houses were also built upon the western side of Mason Street, although the opposite side remained open. However, Mason Street underwent major changes following the lease of all the land, which lay to the south of the mansion, by Joseph Williamson.

## 4.2 Joseph Williamson

- 4.2.1 Joseph Williamson was born in Warrington on the 10th March 1769, and came to Liverpool to work for Thomas Moss Tate, a tobacco manufacturer (Hand 1928, 106, Whittington-Egan 1952, 110). He married Elizabeth Tate, the daughter of his late employer, the merchant Richard Tate, in 1802 (Hand 1928, 106). The succeeding employer, Thomas Moss Tate, died in 1803, leaving him the business (Hand 1917, 2; Whittington-Egan 1952, 110).
- 4.2.2 By 1806 he had begun to lease the land covered by the study area (Head 1995, 4). In some sources it states that Williamson bought the land (Hand 1917, 2; Whittington-Egan 1952, 109-10); however, it is recorded that the leases ran out in 1858 when the land reverted to the West Derby Commission (Head 1995, 4; Stonehouse 1863, 185; Stonehouse 1879, 131), therefore he could not have owned it. Williamson retired from business in 1818 (Hand 1917, 2) and concentrated on the construction of the complex of buildings and tunnels within and adjacent to the study area.
- 4.2.3 Williamson's building works continued for many years. He employed large numbers of the poor at a time when the Napoleonic Wars had left many of the returning soldiers without work. His workforce built houses along Mason Street one of which, number 44, he took for his own home (Hand 1928, 88). Presumably, the houses built by Williamson filled in gaps between the detached houses constructed a few years earlier along Mason Street (see section 4.1.5), since maps from 1817 onwards show a continuous row of houses along the west side of Mason street (LRO Hf 912 1817/53; Figs 2 and 3). A building is also shown on the corner of Grinfield Street and Smithfield Lane (Figs. 2 and 3). It is not known whether this was one of Williamson's constructions or an earlier building, however, a drawing by Stonehouse of 1846 (LRO 942 570 1/3) shows a schematic plan of the tunnels which shows the corner property as an "excavated house two deep now filled in". What is apparent from this map is that the layout of gardens already existed at this time, and that the rear boundary of the gardens is the same as those shown on later maps. Therefore the land may have already been terraced.
- 4.2.4 In addition to houses, he built an incredible complex of tunnels and caverns which extended right across his land and beneath Mason Street. Many of the houses were built on arches over the tunnels, and underground passageways linked the buildings. Williamson himself was said to live in a cellar beneath his house. The tunnels are reported to be multi-layered in places, lying one

over another. Detailed descriptions are contained in articles by Stonehouse (1863 and 1879) and Hand (1917 and 1928). However, the accuracy of the descriptions, particularly those of Stonehouse, cannot be relied upon.

- 4.2.5 Work began in 1832 on George Stephenson's railway tunnel, which was to connect Edge Hill station with Lime Street. Williamson's workmen broke through into the tunnel from beneath. Stephenson was given a conducted tour around Williamson's tunnels, with which he was very impressed (Hand 1916, 15). The railway tunnel, now a cutting, forms the northern boundary to the study area, although Williamson's tunnels extend beyond it to the north and east.
- 4.2.6 Williamson died in 1840, and the lease on the land expired in 1858 (Hand 1916, 23). Many of the tunnels had begun to be filled in with rubbish, even by 1845. The Liverpool Corporation took over the land and a deliberate policy was adopted of using the tunnels to dump rubbish (Head 1995, 4; *The Porcupine* 1867, August 31st and November 23rd).

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## 5. RECENT HISTORY

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### 5.1 Surface Features

- 5.1.1 Some of the larger houses fronting on to Mason Street were taken over by the Lancashire Artillery Volunteers (Fig. 4) after 1858. Williamson's own house was used as the storehouse and barracks for the Lancashire Royal Engineers. In 1902 most of these buildings were demolished, and the headquarters of the First Lancashire Royal Engineers was built on the site. Williamson's own house, number 44, survived and was used as a machinery store by the owner, Mr Samuel Jones (Hand 1928, 88). By 1952 his house had been demolished and replaced by a garage (Whittington-Egan 1952, 112). These structures lie immediately outside the study area.
- 5.1.2 A map published in 1859 appears to show that the houses within the study area had changed very little, if at all, from Williamson's time (Davies 1859). By 1891 (Ordnance Survey), however, the houses within the study area which fronted Mason Street, had been demolished, apart from a public house on the corner of Mason Street and Grinfield Street. A factory, marked as a confectionery works in 1905 (Fig. 5), stood in their place. By this time, houses had also been built fronting on to Grinfield Street, and north of these, a new street of houses, Congress Street, had been built on the site from Smithdown Lane. Much of this area was cleared under a municipal scheme in 1937 (Whittington-Egan 1952, 112).

### 5.2 The Tunnels

- 5.2.1 As has been stated above (section 4.2.6) following Williamson's death in 1840, many of the tunnels were at least partially filled in with rubbish. Williamson was reluctant to allow others to look around his network of tunnels (Stonehouse 1863, 173-4), except in exceptional circumstances (for example Stephenson), therefore they have never been properly mapped.
- 5.2.2 There have been many attempts to explore the tunnels, and some attempts to map them. The earliest depiction of the tunnels is a schematic drawing by James Stonehouse in 1846 (LRO 942 570 1/3). Stonehouse was a local antiquarian who took a great interest in Williamson and his works (Stonehouse 1863 and 1879). He appears to have explored the tunnel network extensively and describes it in detail. However, his only pictorial description is the schematic plan of 1846. The army also mapped the tunnels in 1903. The results of their survey also appears to be schematic, as represented by the illustration of the results in a later survey carried out as part of an undergraduate degree (Cuss 1994-5, 38). The results are shown in Figure 7.
- 5.2.3 The tunnels were also explored by Charles Hand in the first half of this century (Hand 1926). By his time, Hand says that many of the tunnels and deep excavations described by Stonehouse were no longer accessible (Hand 1926, 91). Hand's investigations appear to have been concentrated on the tunnels leading from Williamson's house, to the north of Stephenson's railway

tunnel. It is in this area that the workings appear to be at their most extensive and deepest.

- 5.2.4 Within the study area, there are two tunnels for which the entrances still survive. These entrances lead in from the south-east corner of the Corporation central stable yards. The stable yard is terraced here, so that the tunnels run directly into the hillside originally beneath gardens and houses fronting Mason Street. The exposed edge of the terraced land is faced with brick, and a nineteenth century watercolour (Fig. 6) shows the impressive edifice. This is now fairly overgrown but the tunnel entrances are still clear. Both tunnels are depicted on Stonehouse's schematic plan of 1846 (LRO 942 570 1/3).
- 5.2.5 The northernmost tunnel is actually two, one built above the other. Stonehouse, on his plan, describes it as "two tiers of Vaults in one a frightful labyrinth filled in". These run into the hillside across the northern part of the development area and head towards Mason Street. They are cut off from the rest of Williamson's tunnels by a wall of sandstone blocks (Head 1995, 2). However, a small tunnel runs south towards Grinfield Street giving access to other tunnels and cellars towards Mason Street (Head 1995, 2).
- 5.2.6 The southern tunnel also drives back into the hillside below the development area, and is in many places blocked by Victorian brick walls or rubbish (Head 1995, 2). This tunnel connects with many others that run through the hillside in the area of the development site. There are no plans available of the exact layout of these tunnels although they are shown in fairly crude form by the 1903 army survey (Cuss 1994-5, 38). It has also been plotted, in sketch form, by David Head and Stephen Moran, who show the tunnel with a dog-leg to the north and with small passages running off to the sides. There are also two tunnels which run beneath the stable yard, heading towards Crown Street to the west and crossing below the development area (Head 1995, 2).
- 5.2.7 It has been stated that many tunnels and other subterranean features lie below the open land which forms the proposed development area (Head 1995, 3). Along Mason Street are cellars linked with underground passageways. To the rear of these, Stonehouse depicted three vaults (LRO 942 570 1/3). He also showed the location of a pit of water close to the boundary of the development area and the stable yard. Within the south-west corner of the development area, Stonehouse shows a deep hole and an excavated house filled in. This is probably the building shown on nineteenth century maps and cleared for the construction of Congress Street.
- 5.2.8 No plan of the excavations in this area is available, although the site was subject to a micro-gravity survey in 1994 by R Cuss, as part of an undergraduate degree (Cuss 1994-5). Both Cuss' survey and the army survey show the two tunnels with entrances from the stable yards (Figs. 7 and 8). The army survey shows the north-south tunnel, but this does not appear in Cuss' work as it runs beneath stable buildings. Both show a third tunnel, running parallel and to the south of the two main tunnels within the development area. In addition, Cuss detected three small tunnels in the Corporation stable yards, two of which are definite, and the third probable (Cuss 1994-5, 122; Fig. 8). There is also another possible, small, tunnel within the development area close to Grinfield Street.

- 5.2.9 The most recent work has taken the form of a geotechnical survey of the development area, using boreholes and trenches to locate tunnels and determine the nature of the fill above them. The boreholes located the two main tunnels running under the development site, with some indication that previous surveys were not entirely accurate in defining their size and exact positions. This survey also picked up the third tunnel noted by Cuss as well as small north-south tunnels linking the two main ones. Trial trenches excavated at the south end of the site failed to show the presence of any tunnels in the area. However, they did reveal "filled/disturbed ground from the previous properties on this part of the site" (letter from Howard and McNamara dated 9th April 1996, ref. 94/1493/GJH). It was unfortunate that this work was undertaken by engineers and not archaeologists, for much potentially useful archaeological evidence for the use of the site was lost as a result.

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## 6. CONCLUSIONS

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- 6.1** There is little evidence to indicate that there was any occupation within the development area before the beginning of the nineteenth century. Indeed the area appears to have been common waste throughout the medieval and post-medieval periods. The first houses, to the north of the development area, were built in the later eighteenth century. Therefore it seems likely that the houses built by Williamson were the first on the site. It is also likely that Williamson was responsible for terracing the site on the western side, in order to build the tunnel entrances. Evidence for previous occupation debris on the site, revealed by the geotechnical trial trenches, probably relates to either Williamson's buildings or more probably the turn of the century houses along Congress Street.
- 6.2** The tunnels are well-documented and evidently distributed widely across the Mason Street, Smithdown Lane, Grinfield Street area. It is also evident that the most extensive workings are to the north of the railway line which crosses the site. However, tunnels and passages are documented within the development area, with access from the Corporation stable yards.
- 6.3** The known tunnels appear to be restricted mainly to the northern part of the development area, although Stonehouse in the nineteenth century marked further excavations in the south-west corner of the site, where a house had stood (LRO 942 570 1/3). A geotechnical survey indicated that there are no tunnels in the southern part of the site. It is not possible to comment more on the tunnels and their potential until further survey work is carried out. The new micro-gravity survey may be able to pinpoint the tunnel locations more accurately, however, only a full digital subterranean survey would accurately and definitively map the tunnel complex.
- 6.4** Although derelict, the Corporation central stable yards survive intact, along with the entrances to the tunnels. It is recommended that a Level 2 survey is carried out on the buildings, in accordance with the Royal Commission for Historic Monuments (England) guidelines.

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## 7. BIBLIOGRAPHY

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### 7.1 Primary sources

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Hf 912 1823	A Plan of Liverpool and the Environs Containing the Latest Improvements, J. and A. Walker, 1823. Scale 1":200 yards
Hf 912 1824	Liverpool and its Environs, William Swire, 1824. Scale 1":280 yards
Hf 912 1835	A Map of the Town and Port of Liverpool with their Environs, Jonathan Bennison, 1835. Scale 6¼":1 mile
Hf 912 1836	Map of the Town and Port of Liverpool Including the Environs of Edge Hill, Michael Alexander Gage, 1836. Scale 19½":1 mile
Hf 912 1849	Map of the Borough of Liverpool, and of the Townships Adjacent, James Newlands, 1849. Scale 1":220 yards
H 912 WES	West Derby Tithe map, 1838
H 942 570 1/3	A Brief Notice of the Excavations at Edge Hill near Liverpool, James Stonehouse, 1846

#### Unprovenanced Records Held by Merseyside Sites and Monuments Record

Watercolour, 1888	House built by Williamson, then the headquarters of 2nd Lancashire Artillery Volunteers
Watercolour, c1858	Entrance to tunnels under Edge Hill from Smithdown Lane (later the stable yard)
David Head, Stephen Moran	Sketch plan of southern tunnel leading from stable yard

#### Aerial Photographs

1961 15/8833	Edge Hill, scale 1:10,000
1993 83/12/74	Edge Hill, scale 1:10,000



## 7.2 Published Cartographic Sources

Ordnance Survey, 1891 1:500 Series: Sheet CVI 15.6, Southampton

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## ILLUSTRATIONS

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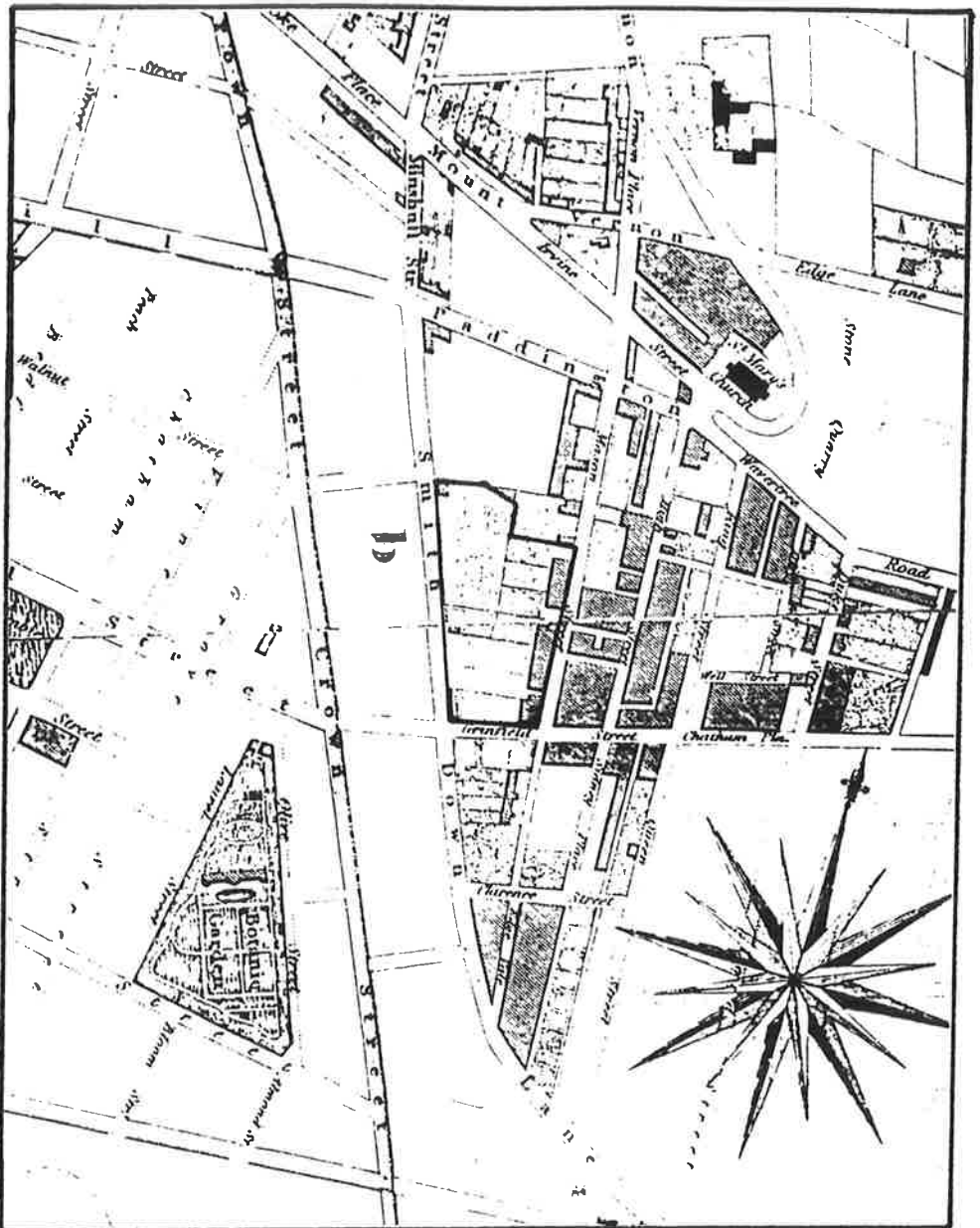
The study area is delineated by a dark line where appropriate

**Fig. 1: Site Location**

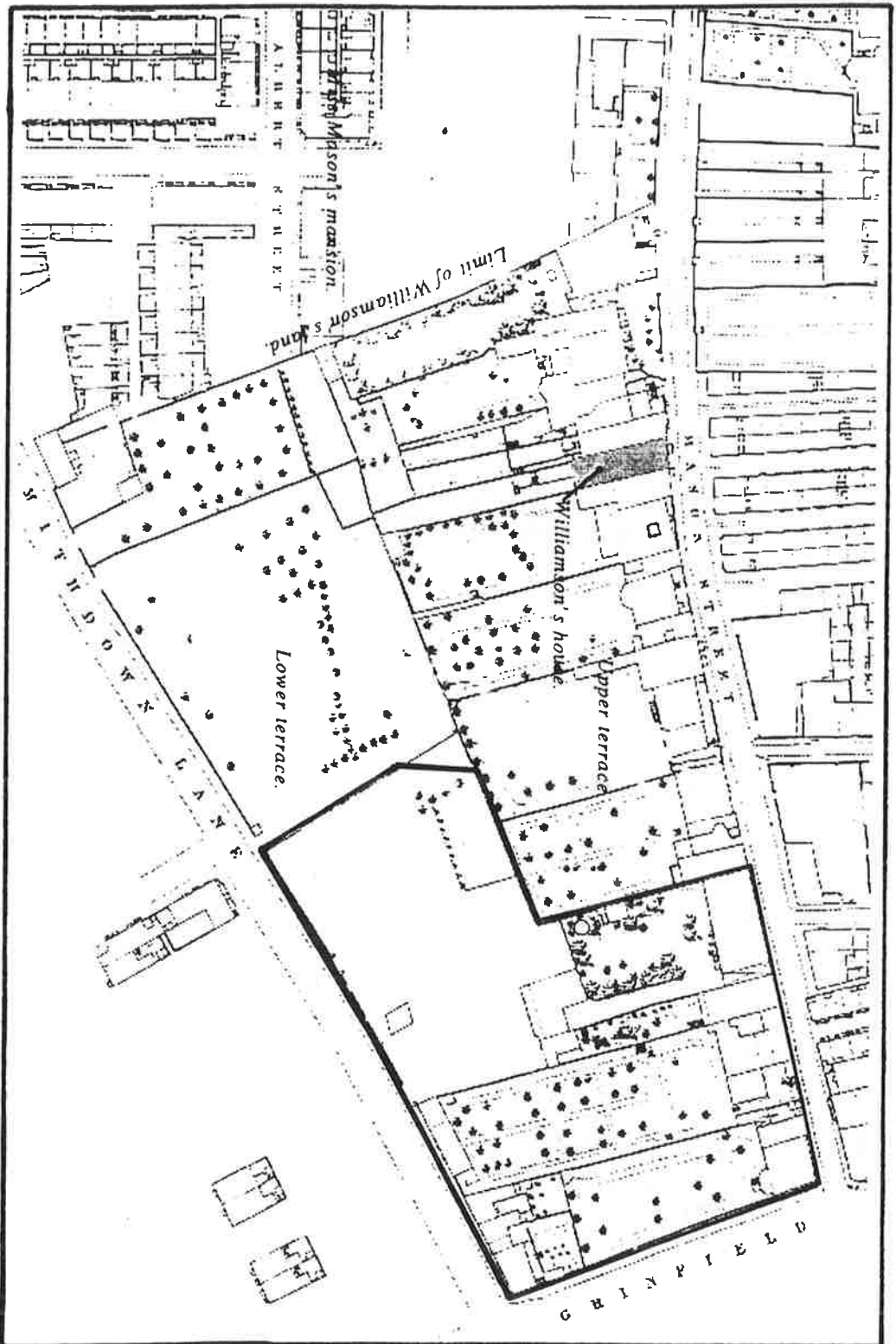


▲ Study Area

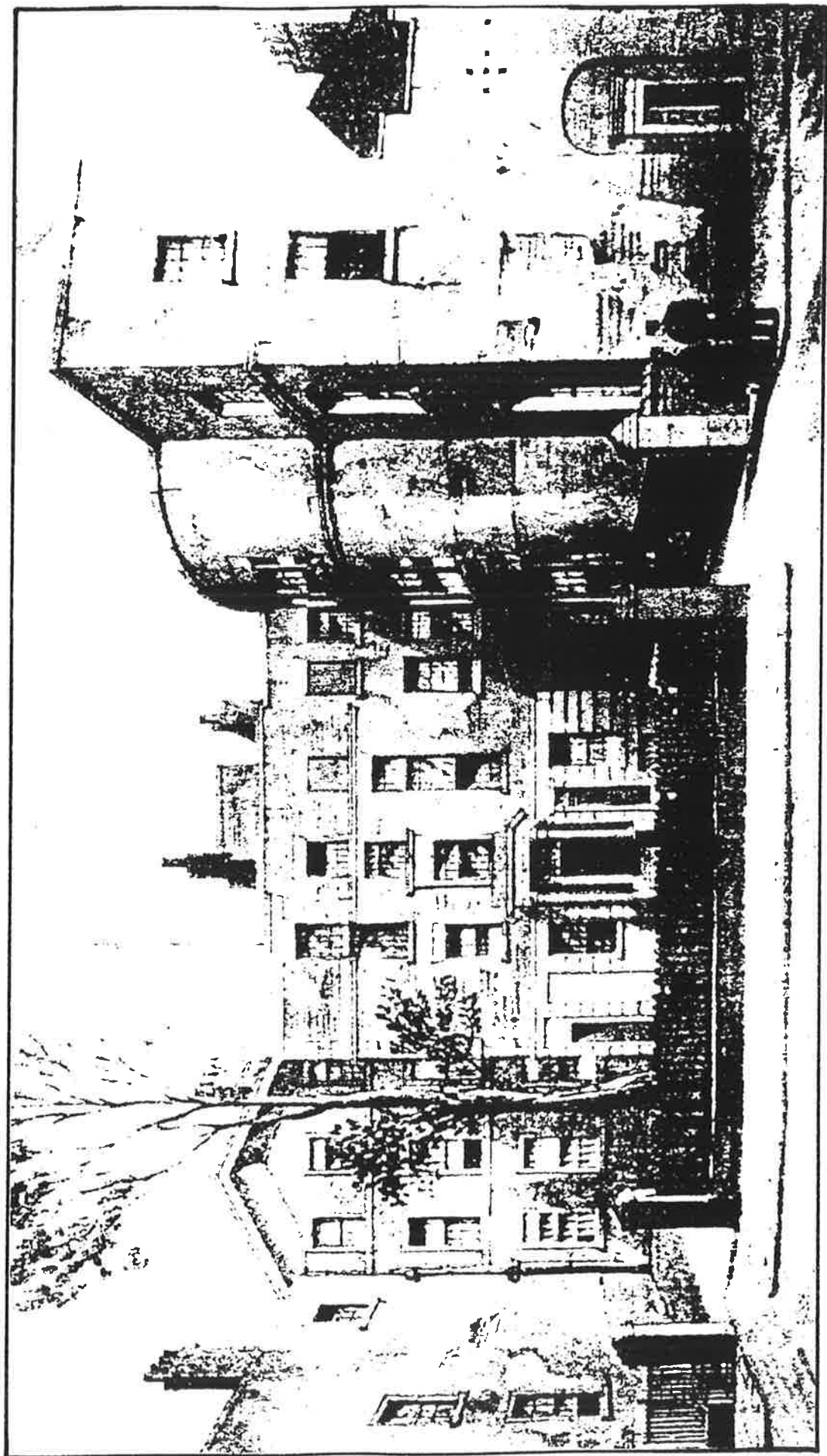
Fig. 2: Study Area in 1823 (Map by J and A Walker)



**Fig. 3:** Study Area in 1847 (taken from R. Cuss, based on Ordnance Survey Map), showing houses built by Joseph Williamson and the lower terraced area next to Smithdown Lane

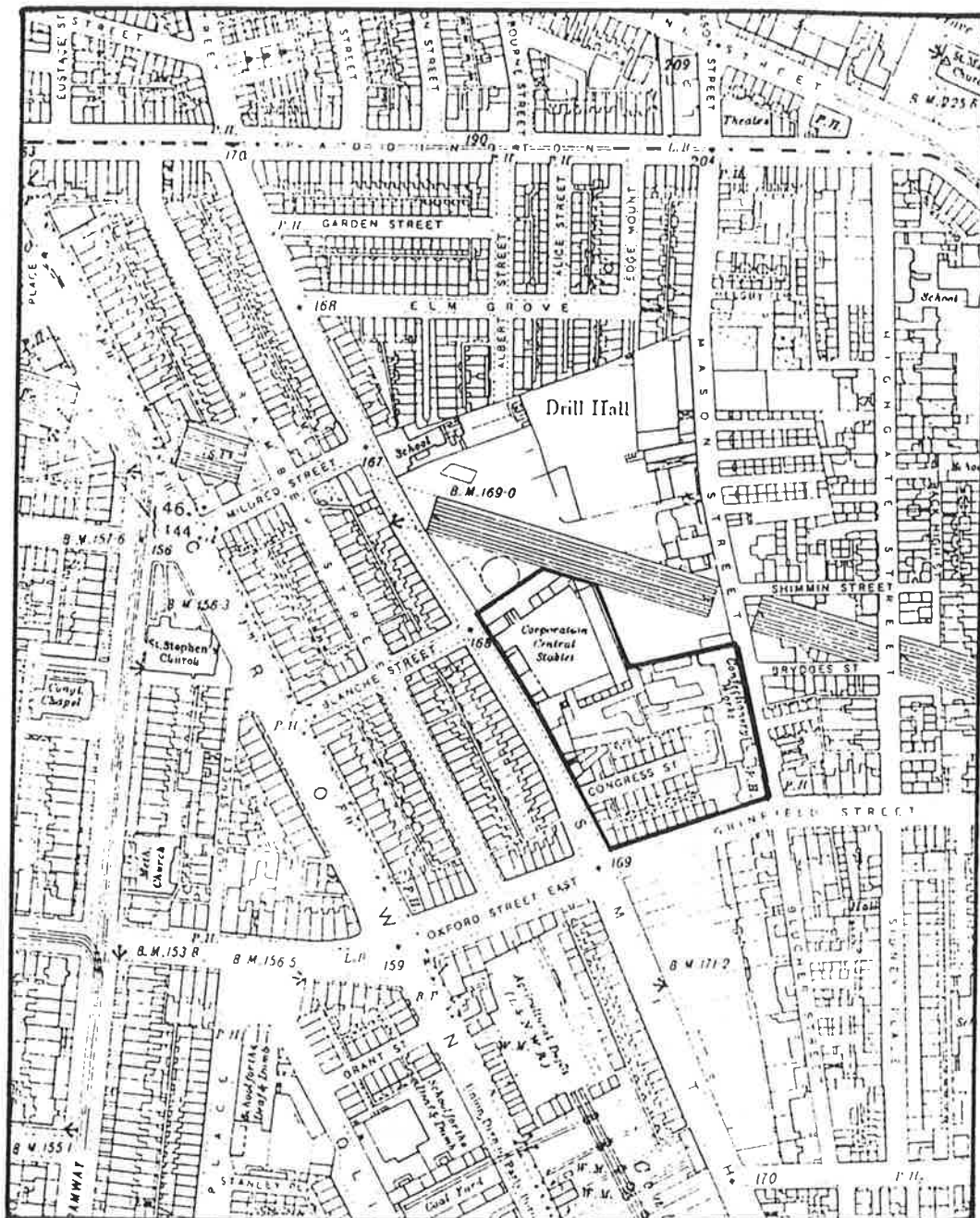


**Fig. 4:** Copy of 1888 Watercolour, showing one of Williamson's buildings used as headquarters of 2nd Lancashire Artillery Volunteers

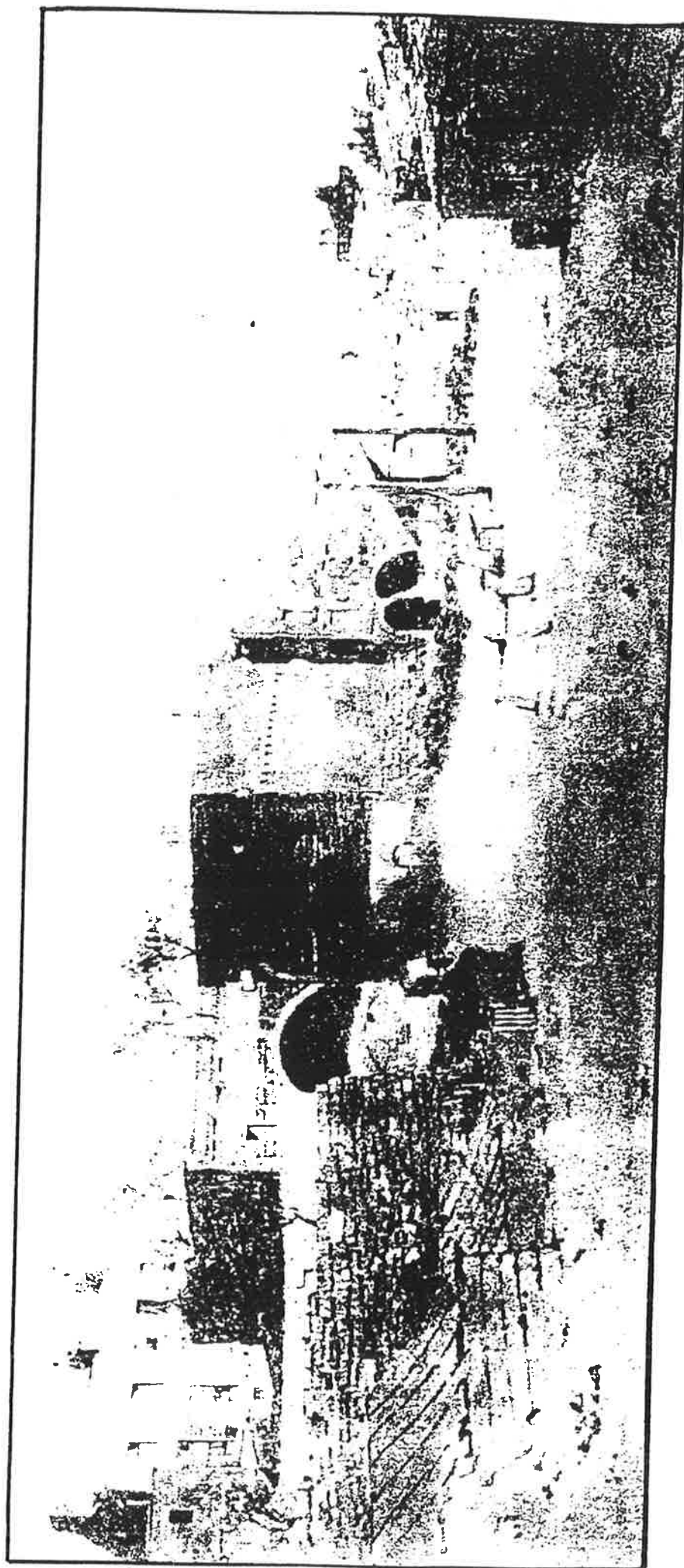




**Fig. 5:** 1905 Ordnance Survey Map, showing late 19th century redevelopments. Note Corporation central stables, the confectionery works and the houses on Congress Street



**Fig. 6:** Copy of Watercolour c. 1858, showing the lower terrace and brick facings and entrances to tunnels running below the study area





**Fig. 7:** Schematic Plan of Tunnels Mapped by the Army in 1903 (taken from R. Cuss)

