stable and dog kennel adjacent to a plot of pasture land, which stretched down to the confluence of the Irwell and Irk (Morris, 1983, 39).

The 1320 survey made reference to an oven, a corn mill, and a fulling mill, which were typical features of any medieval manorial infrastructure. The corn mill, with its milling monopoly, was worth £7 6s 8d. In 1515 the mills were transferred to the Manchester Grammar School (Morris, 1983, 39), thereafter providing a substantial element of the School's income.

In 1421 the college of priests was founded by Thomas la Warre, lord of the manor and rector of Manchester, on the site of the 'Baron's Hall', at a cost of about £3,000. The surviving buildings of the college, now used as Chetham's Library and accommodation for the School of Music, have been described as 'the most complete late medieval residential complex to survive in the north-west' (Emery, 1996, 219). The history and development of the late medieval buildings has been recently presented in detail (Hartwell, 2004).

4.3.5 Post-medieval period

In 1515, the Manchester Grammar School was founded by Hugh Oldham, the building being erected on a plot of land located to the east of the College buildings (AHP Ltd, 2006). Following the Reformation of the late 1530's, the college was dissolved in 1547, and the buildings were acquired by the Stanley family, earls of Derby, in 1557. They were used as a town house for the family until the Civil War, when the Royalist 7th earl was ejected from the town by Parliamentarian supporters, triggering the first armed action of that conflict. The earl conducted a short, unsuccessful siege of the town, which was gallantly defended by Colonel John Bosworm, a professional mercenary. The college buildings were utilised during the siege, and apparently suffered some damage as a consequence (Hartwell, 2004, 54).

Following the first Civil War, the merchant Humphrey Chetham attempted to purchase the property from the earl, by then in exile on the Isle of Man. The earl would not respond, and it was not until 1665, long after the earl was executed and Chetham had died, that Chetham's executors managed to obtain the buildings, and fulfil Chetham's desire to create a chained library and a school for poor boys.

The survival of both library and school as institutions today ensured the survival of the late medieval college buildings. Other school buildings at the site are of 19th and early 20th century date, and have been covered in detail within the buildings report (AHP Ltd, 2006).

4.3.6 Late post-medieval period

The earliest large-scale, relatively accurate plan of Manchester was Green's map of 1794 (Figures 2 and 5). The medieval college buildings were shown as they survive today, but to the south, and enclosed within what must have been the original medieval precinct, was a garden with a parterre layout comprising a central circle with four satellite beds, and possibly an orchard to the east. To the south of this was a 'Burying Ground' (Site 16), and a number of buildings which fronted onto 'Apple-Market' (later Fennel Street). These must have included the 17th century house of the Master of the Grammar School, which was rebuilt in 1825.

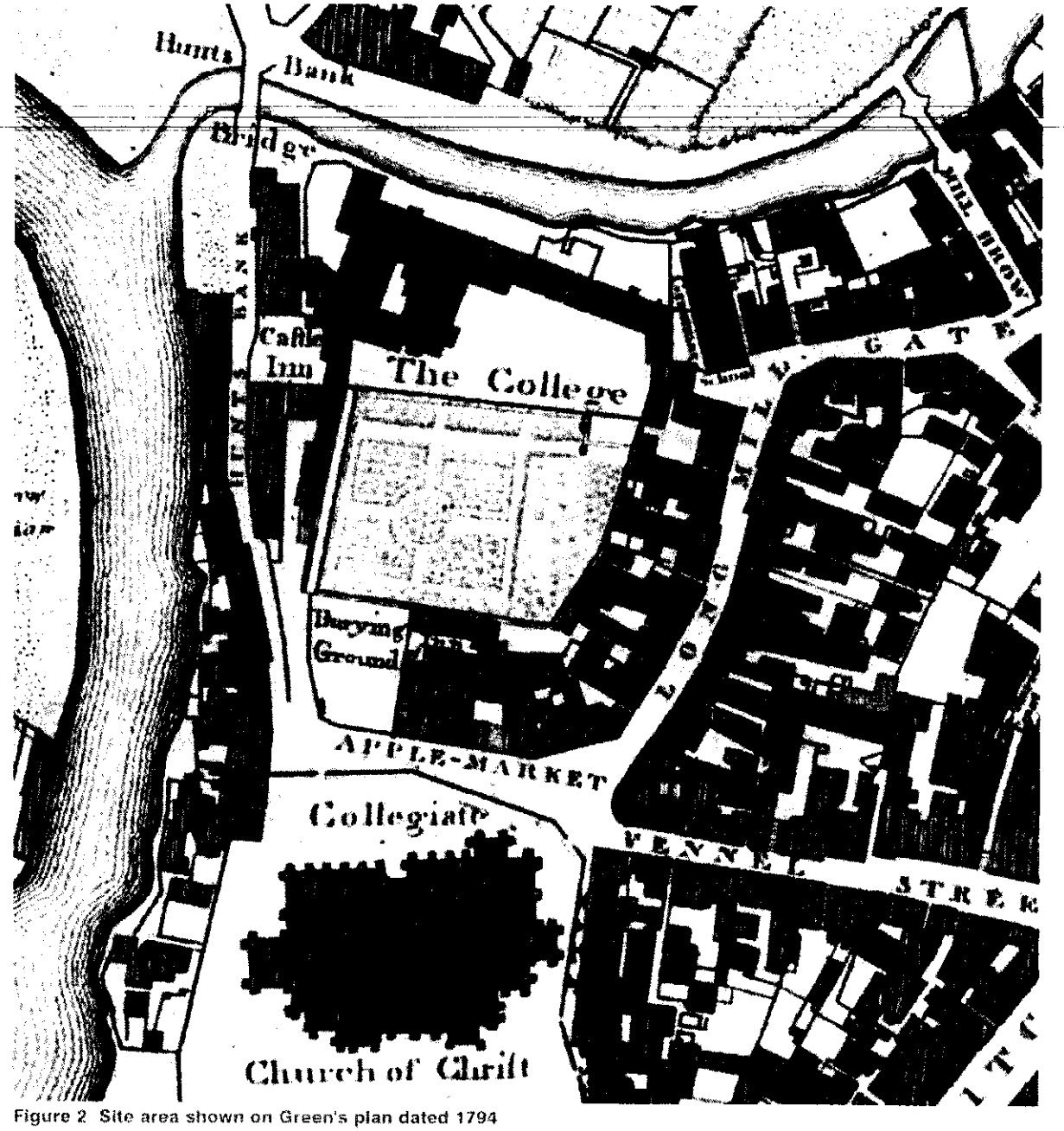

Figure 2 Site area shown on Green's plan dated 1794

Between Long Millgate and the College were a number of large properties, almost all of which had rear courtyards. Directly to the east of the College was the Grammar School, founded in 1515, but rebuilt in 1776. To the east of this were a number of buildings, probably dwellings, facing onto Long Millgate. To the north of these, and on the south bank of the Irk, was a large building later identified as a Jewish Synagogue, and a building by the bridge at Mill Brow on the later site of 'Phoenix Mill'

To the west of the College precinct was Hunt's Bank, then a narrow, irregular thoroughfare, which must have presented an awkward route into Manchester from the north, especially when the Irwell and Irk were running high with Hunt's Bank Bridge spanning the latter. Immediately to the west of the College buildings was the Castle Inn, which apparently occupied the former 'House of Correction' itself being within part of the 'Corne Barne' (AHP Ltd 2006). To the south of the Castle Inn was a group of buildings arranged around a north-south linear courtyard, whilst between Hunt's Bank and the Irwell were more buildings

In 1832, the Hunt's Bank improvement scheme involved the demolition of all of the buildings on this side of the college, the construction of a high new river wall, and the infilling of the whole area, to raise it up well above flood level, with a new broad roadway (Victoria Street), replacing Hunt's Bank. The Palatine Building was erected against

the west edge of the college precinct, between circa 1835 and 1845 (AHP Ltd, 2006). The widened Hunt's Bank Bridge formed the initial step in the culverting of the river Irk.



Figure 3 Site area shown on OS 1850 large scale plan

The O.S. large-scale town plan of 1850 (Figures 3 & 7) showed how the study area had altered since Green's plan of over 50 years previously. The burial ground on the north side of 'Apple Market' had been reduced in size, presumably as part of the 1832 improvements. The group of buildings to the east, including the 'School Master's House' were still intact. On Long Millgate, the extension to the Manchester Grammar School had been erected on the site of earlier buildings, and the creation of the 'Ball Court' to its west had apparently necessitated the demolition of the south end of the east precinct wall of the college.

To the east of the college, the 1776 Manchester Grammar School building still existed, as did a row of dwellings fronting onto Long Millgate, with the 'Jewish Synagogue' to the north. Further to the east, on Mill Brow, was the 'Phoenix Corn Mill', and to its east was 'School Mills'.

To the north of the college, the river Irk remained open, with its irregular south bank in close proximity to the college, and possibly a landing stage for boats located just to the north west of the medieval kitchen.

The 1892 O.S. plan (Figure 4) indicated that a number of significant changes had occurred within the study area. 'Apple Market' had been re-named Fennel Street, and it had been widened yet again, with most of the buildings on its north side being demolished, apart from the 'School Master's House', which had been converted to the 'Cathedral Hotel'. The burial ground was no longer shown, and had become integrated with the 'Play Ground' of the college. The extension to the Manchester Grammar School had itself been extended northwards along Long Millgate, which

had required the demolition of the other buildings located there.

To the east of the college, the original Grammar School building had been demolished and replaced by a new building ('Gymnasium'), which spanned across the Irk, and had required demolition of other buildings on Long Millgate. Apart from a short section of the river at Victoria Station Approach (built 1884), the whole of the Irk channel to the north of the college had been culverted, partially running beneath 'Walker's Croft' road, which seems to have been intended to allow passage beneath Victoria Station Approach, to the Irk valley further upstream. The 'Phoenix Mill' was still standing, and probably remained in use until well into the 20th century.

To the north of Walker's Croft, extensive buildings had been erected (1847 – 1880's) for use by the Lancashire & Yorkshire Railway Company, however the existing principal facade of Victoria Station was not erected until 1909 (C. Hartwell, pers. comm.).

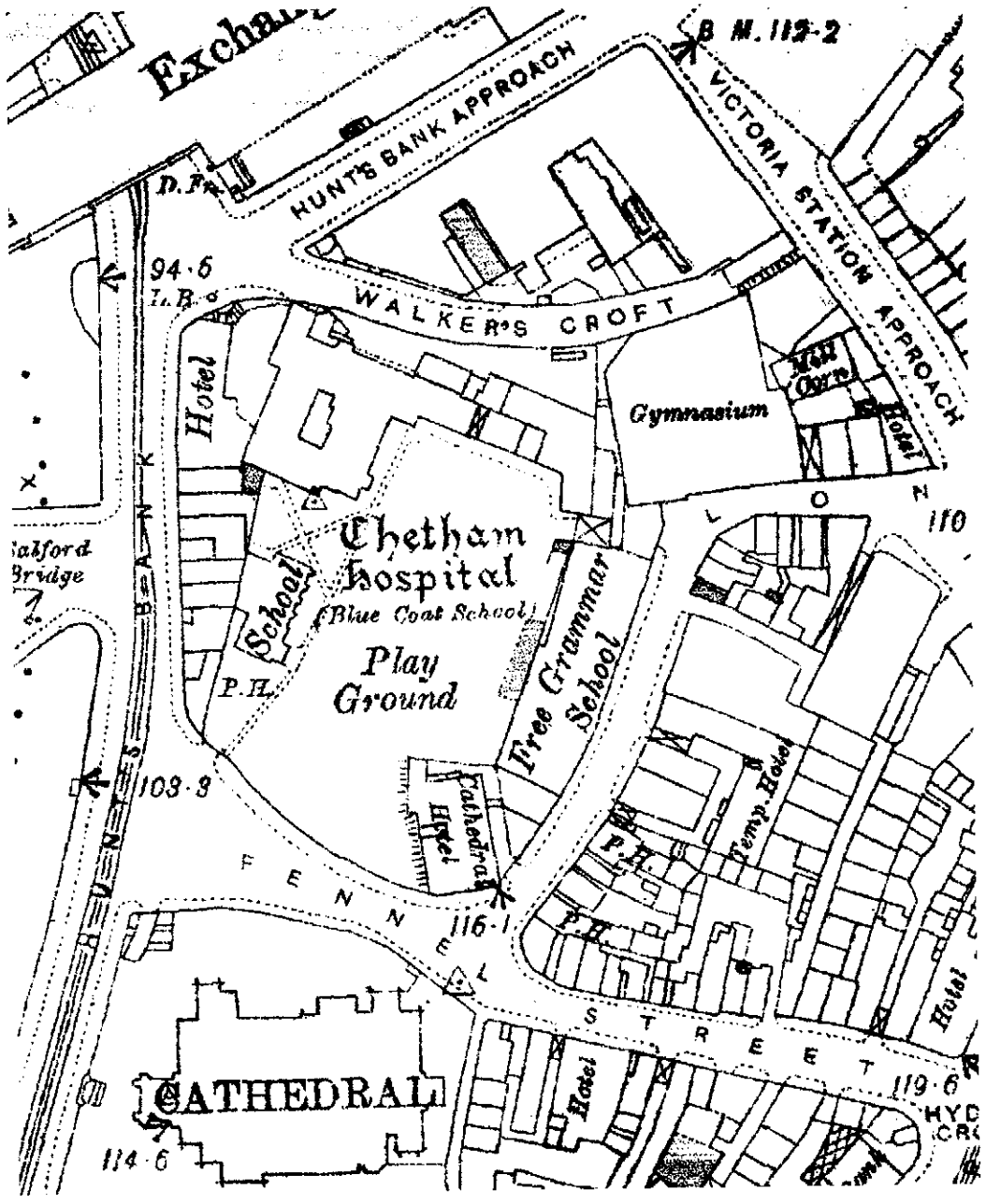

Figure 4 Site area shown on OS 1892 plan

4.4 PREVIOUS ARCHAEOLOGICAL WORK

4.4.1 A number of archaeological projects have been undertaken in the area peripheral to the College, but only one has been carried out within the actual precincts, this was the 1988 investigation by GMAU, which is detailed below (Section

Site 4). Additionally, there have been a number of antiquarian observations.

4.4.2 In 1993, an evaluation was undertaken within the north-western part of Victoria Station, where two east-west trenches were excavated to the east of Great Ducie Street (Fletcher, 1993). One of these revealed a substantial dump of red sandstone blocks at a depth of circa 4m. This was of pre-16th century date, and probably comprised the remains of a substantial demolished building.

4.4.3 In April 1997, a DBA was conducted at Hanging Ditch/Cathedral Gate, circa 50m to the east of Hanging Bridge, which recommended that an evaluation should be carried out (UMAU, 1997a). The resulting evaluation (UMAU, 1997b) demonstrated the survival of deposits within Hanging Ditch, which contained medieval pottery, shoes, leather, metal artefacts, and animal bones, all dated to 14th to 15th centuries. Environmental analysis (Downhill et al, 1997) of the deposits concluded that the basal sands and gravels, at 6.5 to 6.8m, were of glacial origin, with dumped medieval deposits overlying. Subsequently, a watching brief was carried out at the same site, with additional work at Long Millgate Street (UMAU, 2000). Only 18th and 19th century features were revealed.

4.4.4 In February 1999 a DBA was carried out at Hanging Bridge (UMAU, 1999), and was followed in 2002 by a watching brief during construction of the deep footing of a new retaining wall (UMAU, 2005). Other work is known to have been undertaken at the Cathedral Visitor Centre in 2001.

4.5 GAZETTEER (see Figure 5)

4.5.1 Chetham's College

The original college buildings are believed to have been erected in a single construction phase after 1421, when Thomas la Warr was granted his licence. Quite apart from being one of the best preserved medieval building complexes in the north-west of England, the college was probably built on the site of the earlier manor house of the la Warr family, and is also believed to occupy the site of the Norman castle. The unusual east-west linear arrangement has not been satisfactorily explained, and may have resulted from pre-existing site constraints on the east side, such as the rock-cut 'Inner Ditch' recorded here by Whitaker in 1765.

4.5.2 East boundary wall

To the south of the college gatehouse, the medieval boundary wall can be seen extending southwards, to the rear of Millgate House. At a distance of circa 42m from the gatehouse, it is abruptly terminated, as if demolished beyond this point. The wall is 1.2m thick, and about 5m high, and is constructed of blocks of ashlar sandstone. In the face of one block was an arrow-shaped scourmark, which suggested that the block was ex-situ, and was originally in contact with a rotating metal mechanism, such as a waterwheel or a hoist of some kind. A substantial section of this wall was underpinned with a large volume of concrete when the swimming pool inside Millgate House was constructed in 1912 (AHP Ltd, 2006).

4.5.3 West boundary wall

The west boundary wall of the college site extends southwards from the library, and runs between the Vallins and Palatine Buildings, forming the lower part of the east wall of the latter. It ends abruptly at a distance of 55.5m from the library. To the north of the Vallins Building, the 0.6m thick wall revets the natural red sandstone outcrop of the promontory upon which the college buildings sit, and thus has a height of only 2.3m on the courtyard side (east) whilst to the west it is over 7m high. Two integral buttresses supported this wall on the west, but they were partially removed, probably when the Palatine Building was erected. At the south end of the Palatine Building, the wall is again visible to a height of about 2.3m, but it is not known if there was a substantial fall to the west side.

4.5.4 Ditch and arch over

At the north end of the west precinct wall (Site 3), a modern bridge extends from the college site to the first floor of the Palatine Building, out over the scarp. Below here, the scarp face has been clad in sandstone ashlar to form the lower part of the precinct wall, and a 7m wide archway carries the wall over a deep infilled negative feature.

In 1900, Charles Roeder excavated an east-west trench just to the south of the library, against the college precinct wall (Site 3). He encountered a rock-cut ditch and a 'Roman Boulder Road'. In 1993 G.M.A.U. excavated a small north-south trench at the scarp base, to investigate the feature spanned by the arch. This was proven to be rock-cut, 6.8m wide at the top, with flanks at between 45 and 65 degrees from the horizontal. At 2.2m depth, the ditch had reduced to a width of 3.5m. The fills were of alternating bands of orange-red sand and black organically-rich silt, which implied a natural seasonal silting regime. Finds recovered from the ditch included three unabraded sherds of late medieval pottery, and several leather shoes of a similar date.



Plate 1
Face of west precinct wall, to east of Palatine Building. Masonry arch right, rock-cut channesl to left and centre

4.5.5 Buildings on site of Palatine Building

A number of buildings formerly existed on the site of the southern half of the Palatine Building, immediately to the west of the Vallins Building. On Green's plan of 1794, these were arranged around a north-south courtyard on the east side of Hunt's Bank. Barrett's view of the House of Correction, dated 1819, but based upon an earlier view (Rothwell, 2004, 86) shows the gable of a timber-framed house on this particular site. It may be of some interest that the basement floor of the southern half of the Palatine Building defines a gentle slope from south to north, potentially following the early ground level through the earlier yard. The basement would therefore reflect the profile of the local ground surface, prior to the raising of the adjacent road when the Hunt's Bank improvements were carried out in 1832. In terms of future archaeological potential, this may be of great significance.

4.5.6 Site of College Corn Barn and House of Correction

The Palatine Hotel was constructed on the site of a number of earlier buildings, outlined on Green's plan of 1794. The 'Corne Barne' was valued in the circa 1654 survey, and was also known as the 'Greate Barn', measuring 40 yards long by 10.5 yards wide. The scale of this building sounds like a typical tithe barn for a wealthy parish. In 1656 the college executors were empowered to sell the barn as a 'House of Correction', with rock-cut cells which were ventilated by funnels (AHP Ltd, 2006), and the latter building was closed in 1791 and subsequently used as the 'Castle Inn' (later renamed as the 'College Inn'). In 1794 Green showed this building as a north-south structure, beneath the site of the later Palatine Hotel, immediately to the west of the Fish Court. A deed of 1320 refers to a dog kennel and stables connected with the manor house in the vicinity of the Irwell – Irk confluence (AHP Ltd, 2006). During the medieval period, large mastiff-type dogs were employed for both hunting and security, and a dog kennel could have been a substantial, permanent building.

4.5.7 Hunt's Bank Bridge (Irk Bridge)

The bridge over the Irk at Hunts Bank was evidently on an early crossing point of the river, assumed to have originated during the Roman period when the Manchester – Ribchester Roman road would have followed the later line of Deansgate from the fort at Castlefield. The bridge shown on Green's map of 1794 coincides with the narrowest section of the river Irk culvert (Arch 4), which may suggest that that section of culvert was actually the bridge which existed in the late 18th century. The successively wider sections of culvert immediately to the west (Arches 3, 2 and 1) probably represent enlargement of the original bridge, as traffic increased during the early 19th century.

The bridge was first mentioned in the will of Isabell Chetham in 1573, when she left 'a payr of sylu' bedes towarde



Plate 2
Construction of New College House, circa 1999, Victoria Station facade in background

4.5.8 River Irk Culvert

The 1832 Hunt's Bank improvement scheme resulted in the development of the expansion of Hunt's Bank Bridge (Arch 5) to create a culvert, upon which a new road intersection was developed to serve Victoria Station. The major section of culverting to the north of the college site (Arch 6) seems to have been undertaken in about 1877, as a photograph of that date (Plate 4) appears to show construction work on the culvert in the vicinity of the present Victoria Station Approach. The completion of this section of culvert allowed the construction of the 1880 Mills & Murgatroyd rebuild of the Manchester Grammar School (M.G.S.), the northern part of which extended over the Irk. Just to the north-east of New College House there is a small visible section of the culvert soffit within the overgrown garden, it is composed of Staffordshire blue engineering brick.

Although the original river channel was fairly broad, it was significantly reduced when the culverting occurred, as the regular north wall of the channel, as shown on the 1849 O.S. plan, was utilised to spring the northern culvert arch. The irregular south bank, against the college, was abandoned in favour of a new river wall erected within the channel, from which the south segment of the arch sprang. Following completion of Arch 6, the west end of Walker's Croft was re-routed to run over the culvert. The measured profile of Arch 6, from recent surveys, suggested that an elliptical former or centring was used.

To the east of the M.G.S., the Irk was not culverted until after circa 1890, as it was shown open on the 1892 O.S. plan (Figure 4). This was probably because the adjacent corn mill (Site 10) was still in use at that time. This last section of culvert has been referred to as Arch 7 (Figure 5).

4.5.9 Brick vault beneath 1880 Manchester Grammar School building

The west wall of the destroyed 1880 Grammar School building crosses the Irk culvert at a distinct angle, carried upon an immense I-section cast-iron beam. Above here, there is an infilled archway in the wall, in the centre of which is a small doorway. Inside, there is a small vaulted chamber, the axis of which is parallel to the main north-south Grammar School building. The chamber floor is strewn with demolition rubble, but it appears to fall away off the arch of the underlying Irk culvert. At the far end of the chamber is a substantial structural column, of ashlar gritstone, which may have been intended to support a structural ironwork column within the building above, related to the 1880 rebuild.

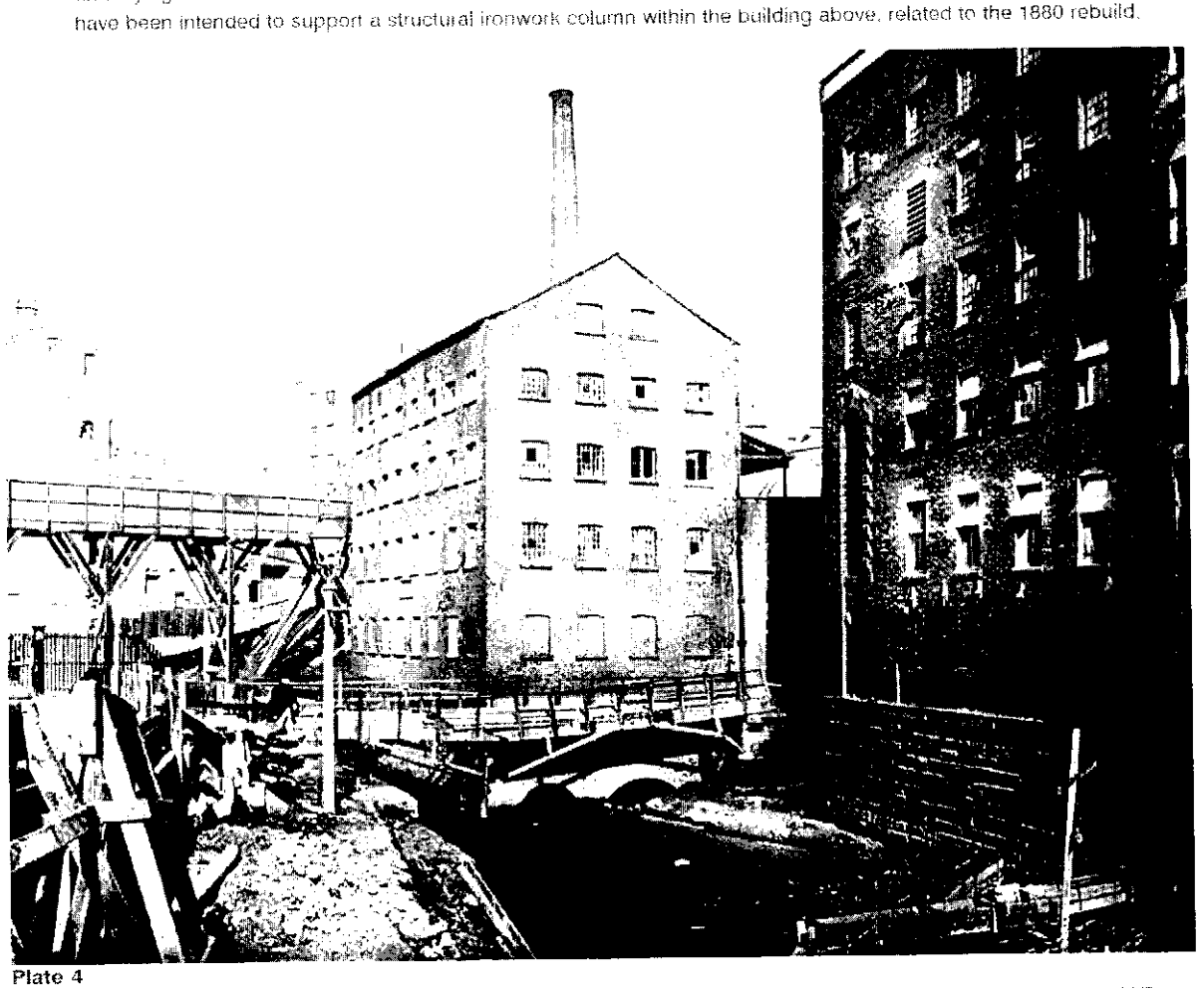

Plate 4
School Mills (centre) and Phoenix Mill (right), with channel of river Irk, possibly during culverting, circa 1877.

4.5.10 Site of Phoenix Corn Mill & School Mills

The 1850 O.S. plan showed a 'Phoenix Mill (Corn)' located on the south bank of the Irk, just to the east of New College House. This building was shown on the 1877 photograph (Plate 4), as a brick-built structure of five stories, and probably of two construction phases. The easternmost phase was of five bays, with an engine house occupying the last bay, adjacent to Mill Brow. The building then seems to have been in the ownership (or occupation) of Boddington's, who operated the nearby Strangeway's Brewery until 2005. It could be assumed that they were then (in 1877) using the mill for grinding malt, to supply the brewery. The form of the building would suggest an early 19th century construction date, which might relate to the rebuilding of the School Mills by Josiah Twyford, who rebuilt the High Master's House on Long Millgate in circa 1825 (AHP Ltd, 2006). In that same year, Manchester Grammar School was drawing £2,250 per annum from the mills, which represented half of its total income (Tait, 1904, 50).

In the centre of the 1877 photograph is 'School Mills', which according to the 1850 O.S. plan was also grinding corn. The two archways shown beneath the gable, at river level, suggest that a pair of waterwheels were located in the building basement. Green's plan showed a weir on the Irk by School Mills. It is possible that the Phoenix Mill represented a steam-powered extension to the ?earlier water-powered School Mills. Laurent's map of 1793 shows a single waterwheel at the site of the latter mill.

Part of the north- and west walls, of Phoenix Mill still survives, immediately to the east of New College House. The visible north wall is four bays in length, with a vertical straight joint dividing the elevation into 2 + 2 bays. On the 1877 photograph, the straight joint is clearly visible, with a total of five bays, including the engine house, existing to the east of the straight joint. This would suggest that much of the mill structure still exists below ground, on the site now partially occupied by the hairdresser's salon which fronts onto Victoria Station Approach. The mill roof appears to be shown on a post-1960 aerial photograph of Manchester City Centre (Morris, 1983, 1).

In about 1970, trial excavations related to the proposed SELNEC rail tunnel revealed a large sandstone cavern at 'the Fish Dock' on Long Millgate (Howarth, 1974). This feature was excavated from the sandstone bedrock, and had three blocked tunnels which headed towards the river.

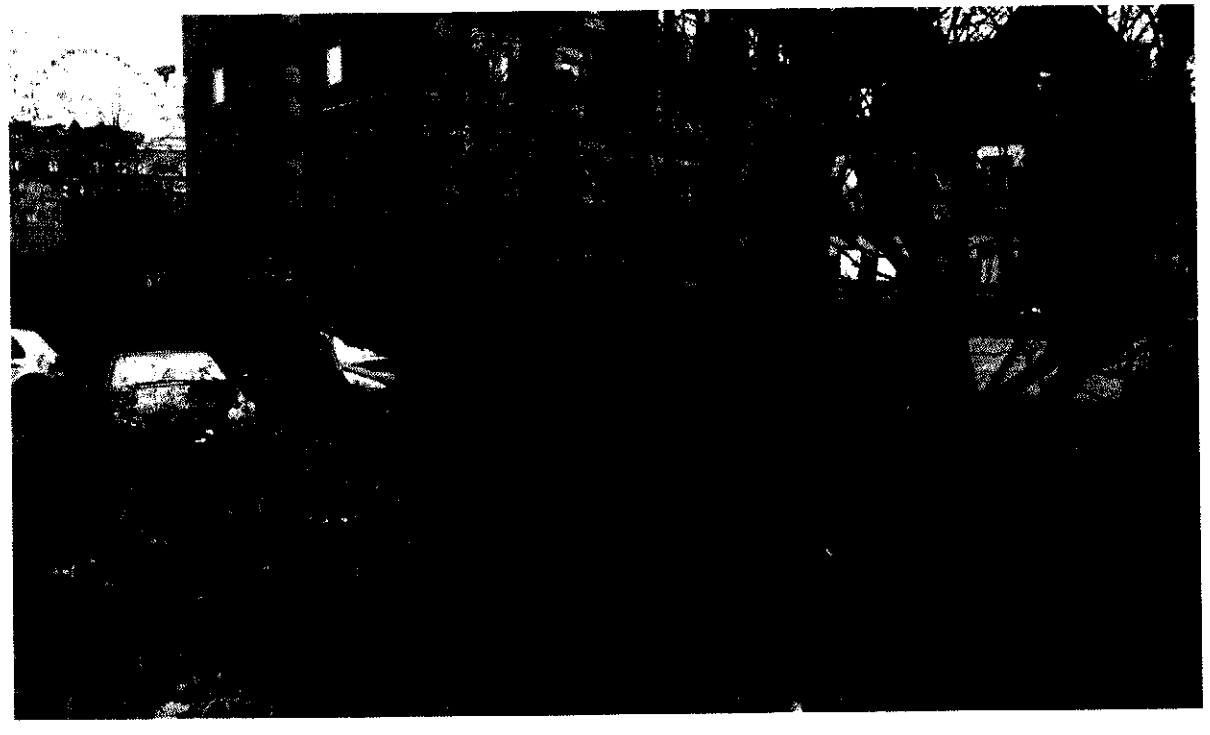

Plate 5
Remains of Phoenix Mill, viewed from Victoria Station Approach. New College House in background.

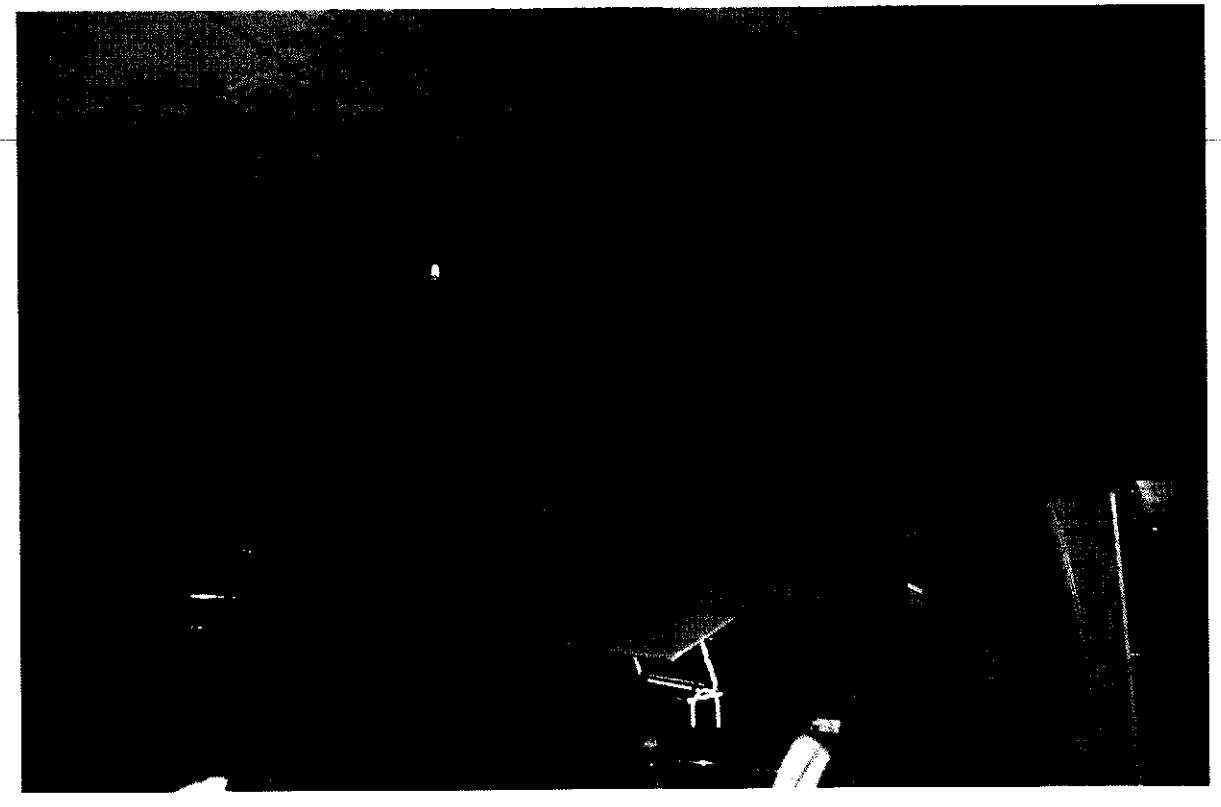

Plate 6
Part of east gable of Phoenix mill, visible (arrowed) in wall of viaduct beneath Victoria Station Approach. Doorway inserted into engine house staircase.

4.5.11 Arches under Victoria Station Approach / line of Mill Brow / Irk footbridge

Green's map of 1794 shows a bridge over the Irk at the bottom of Mill Brow, which appears to have a single central cutwater, implying that the bridge was probably built of masonry (or at least the central pier was). The 1849 O.S. plan shows a timber footbridge at the same site, as does the 1877 photograph (Plate 4). The access to the bridge from Long Millgate was along Mill Brow, which must have followed a steep decline to the bridge, running between School Mills and Phoenix Mill.

Victoria Station Approach was constructed in 1884, directly above Mill Brow, to bridge the Irk valley between Long Millgate and Victoria Station. This was partially raised as a viaduct of brickwork arches, entered from the tunnel at the east end of Walker's Croft. The 1892 O.S. plan shows that the Phoenix Mill was still operating after the Approach was constructed, and a visit to the arches in November 2006 revealed that the northernmost part of the east gable of Phoenix Mill formed part of the end wall of one the arches. The arches had evidently been constructed to abut the standing mill gable, and furthermore, a doorway had been inserted through the wall (Plate 6), to give access to a stone staircase which rose southwards within the space originally occupied by the engine house, to terminate at a slab of concrete presumably put in place when the mill was demolished. This staircase may have originally given access to the beam floor (the tall round-headed window in Plate 4 suggested a beam engine), and its existence suggested that much of the engine house will survive below-ground.

A natural sandstone outcrop occurs within the west side of the southernmost viaduct arch (Plate 7), which suggests that Mill Brow took the form of a holloway running down the hillside towards the river. A further possibility is that this outcrop represents the west side of the putative defensive 'Hanging Ditch', the northern terminal of which has been commonly extrapolated to this position, as a northward extension of Todd Street.

The floor of the viaduct must be at about the same level as the original Mill Brow, because where the viaduct spans the culverted Irk, the walkway passes through the culvert only a few metres above water level.



Plate 7
Bedrock outcrop within viaduct beneath Victoria Station Approach.
Possibly flank of 'Hanging Ditch', or of Mill Brow holloway.

4.5.12 Site of College Garden
A formal garden, probably of 18th (or even 17th) century origin existed across the area now used as the play area/car park, comprising a parterre with a central circle and four satellite beds. To the east was a large wedge-shaped planted area, which may have functioned as an orchard. Casson & Berry's map of Manchester, dated 1741, included a view of the college from the south, and in the foreground the garden was shown, indicating that it existed before that date. The garden had disappeared by 1849, according to the 1850 O.S. plan.

4.5.13 Site of Gatehouse?
A second gatehouse existed on the periphery of the college precinct, probably adjacent to Hunt's Bank, near to the south end of the Palatine Building. This location would place it at the diagonal opposite corner of the precinct from the existing north east gatehouse. It was mentioned by Dee in 1598, and still existed in 1690 (Hartwell 2004, 88-9). It may have been demolished when the garden (Site 12) was created, which must have occurred before 1741, as the garden is shown in a view of the college in Casson & Berry's map of Manchester, dated 1741.

4.5.14 North wall of garden
A stone wall extended from east to west across the college precinct, defining the northern edge of the garden (Site 12) against the college buildings and yard. The survey of circa 1654 made reference to 'The Garden Wall' as being worth £220, which was more than the 'Haye Barne' at £167 (Hartwell 2004, 87), although we cannot be sure whether this particular wall was being referred to.

4.5.15 Line of south wall of college precinct
Green's plan of 1794 showed that the college garden was enclosed to the south by a broad boundary feature, which continued around the east side of the precinct, presumably as the existing east wall. It seems probable that this wall was a substantial sandstone structure, identical to the existing boundary walls (Sites 2 & 3). The west gatehouse (Site 13) may have been located at the western end of this wall.

4.5.16 Site of burial ground
Green's plan of 1794 marks this area as 'Burying Ground', whilst the O.S. 1849 plan denotes it as 'Cathedral Yard',

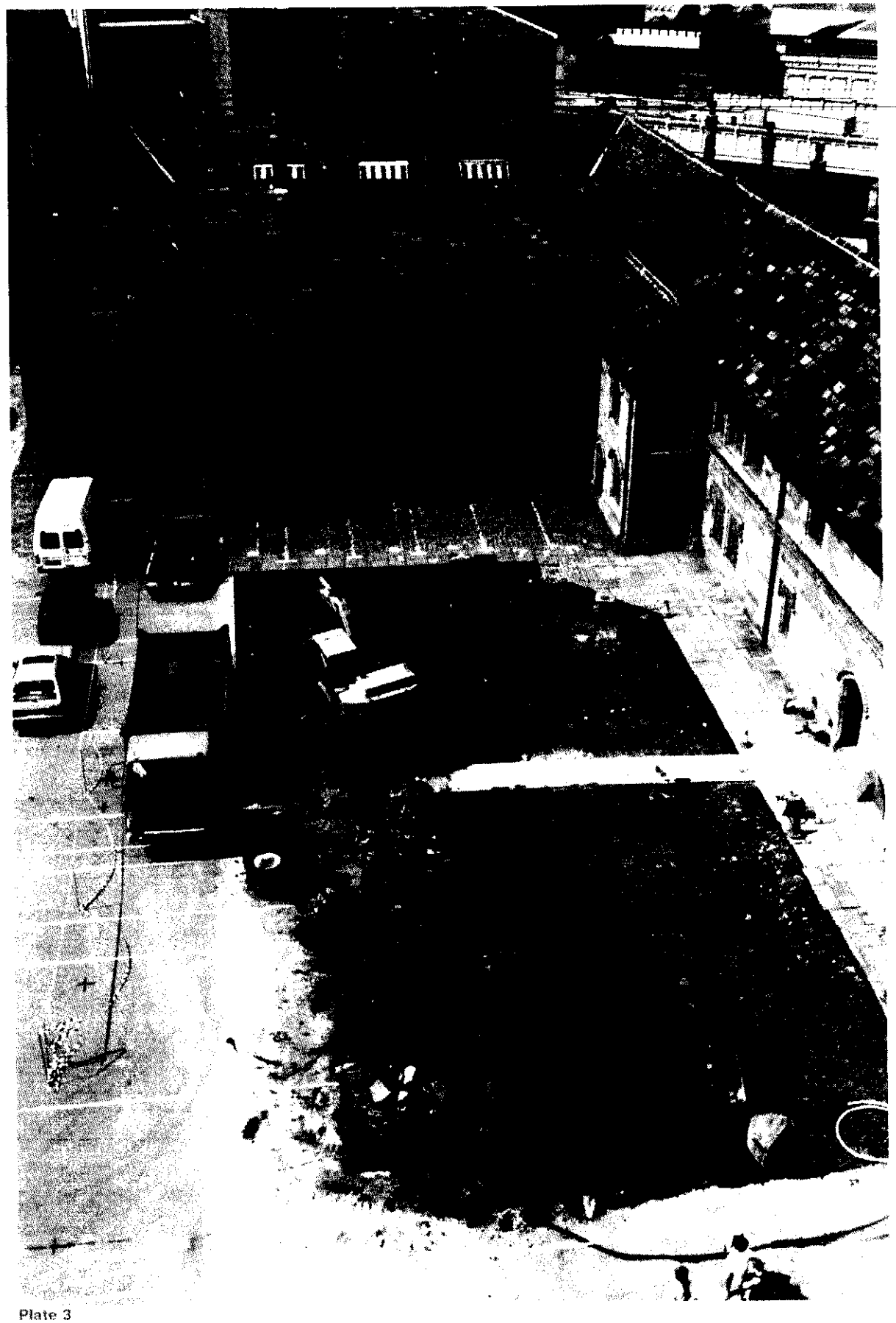

Plate 3
Construction of new garden, circa 1996, viewed from east.

with the area having been significantly reduced during the intervening period as the 'Apple Market' (now Fennel Street) was widened at its west end. This burial ground was first consecrated in 1768, as a result of a lack of burial space due to the rapid growth of the town of Manchester. The burial ground was only in use until 1788, during which time 6,383 interments occurred, mainly of paupers (AHP Ltd. 2006). The wall to the east of the yard, to the east of the south end of the Palatine Building, contains a number of broken gravestone fragments, as well as boiler flue brick fragments, the latter possibly originating from the boiler house located to the north of College House. Casson & Berry's plan of circa 1740 shows a row of buildings along Fennel Street on this site, these may have been demolished when the burial ground was first laid out.

4.5.17 Fennel Street excavation site
In 1974 the University of Manchester excavated two large trenches here in advance of installation of a sewage pumping scheme. The work was never published but a second-hand summary was produced a number of years later (Morris, 1983). Later features such as utility services had truncated much of the site, but a number of small scale medieval features were recorded. Apparently in situ skeletons were excavated, but the report makes no mention of these.

In circa 1891, an alleged medieval well was found in Fennel Street, but its location is not now known (SMR No 271.1.0). In 1999, nine trenches were excavated in the area to locate utility services. A watching brief was undertaken (UMAU 1999b) on five trenches. This located a presumed 18th century brick wall, running north-east to south-west within the burial ground (Site 16), and attributed to buildings shown on Casson & Berry's map of circa 1740.

4.5.18 M2 excavation site - Hurst Court
In 1980-81, G.M.A.U. excavated a large trench at this site, which had been previously used as a garage. Following removal of the concrete floor, archaeological features were immediately visible, with natural gravel subsoil being encountered at 0.5m depth. Excavated features included post-medieval house foundations, an 8m deep well, and two 19th century clay pipe kilns. There were no medieval features.

4.5.19 Hyde's Cross & New Garden
During the 16th century, a cross was erected at the junction of Hanging Ditch and Fennel Street. This was eventually repositioned in Chetham's College, just to the north of the Vallins Building. In circa 1996, a new garden was constructed between the college gatehouse and the 'Baron's Hall' (Plate 3). No archaeological works are believed to have been undertaken either before or during this work. Hyde's Cross was relocated as a feature in the centre of this garden.

4.5.20 New College House on site of 1880 Manchester Grammar School building
This large new accommodation block was erected in about 1993 (Plate 2), on the site of the 1880 Manchester Grammar School building, which had been destroyed by bombing during the blitz in World War II. This latter building had replaced earlier structures of 1515 and 1776. Unfortunately, when the 1993 building was erected, there was no archaeological investigation undertaken either before or during the groundworks, thus losing a valuable opportunity to investigate this part of the site prior to truncation of any surviving archaeology. In 1767, Whitaker (1771) noted the 'Inner Ditch' (Site 22) as a substantial rock-cut feature in this location. Furthermore, the street frontage on Long Millgate was built up by 1323-1473, including a building identified as in the occupation of the 'heir of Hugh Wrightington' (Morris, 1983, 39).

4.5.21 Brick-Arched Vault
A number of photographs, dated 1994, are lodged in the SMR, which show an underground brick-arched vault at this location. Nothing more is known about this feature.

4.5.22 'Inner Ditch'
The putative 'inner ditch', which apparently defined the extent of the medieval castle, was first identified by Whitaker in the late 18th century (Whitaker, 1771, 185-6). In 1767 he noted a ditch in excess of three metres deep, at the west end of Fennel Street, cut into the natural sand. In 1765 he recorded a similar ditch, rock cut and 2 metres deep, on Long Millgate, near the river Irk. John Owen also observed the ditch in the late 18th century, between Long Millgate and the college wall (Site 2) (Morris, 1983, 48).

4.5.23 Cave in river Irk bank (exact location not known)
A large cave was revealed in 'Old Millgate' during excavations for the Lancashire & Yorkshire Railway extension, when demolishing a row of houses on the bank of the Irk. It was 12 feet high, by 8 feet wide, and located at the foot of the bank (Roeder, 1906, 104). It is possible that this was related to one of the mills, and may have even been a sluice. It may have been connected with the cavern located in circa 1970 (Site 19).

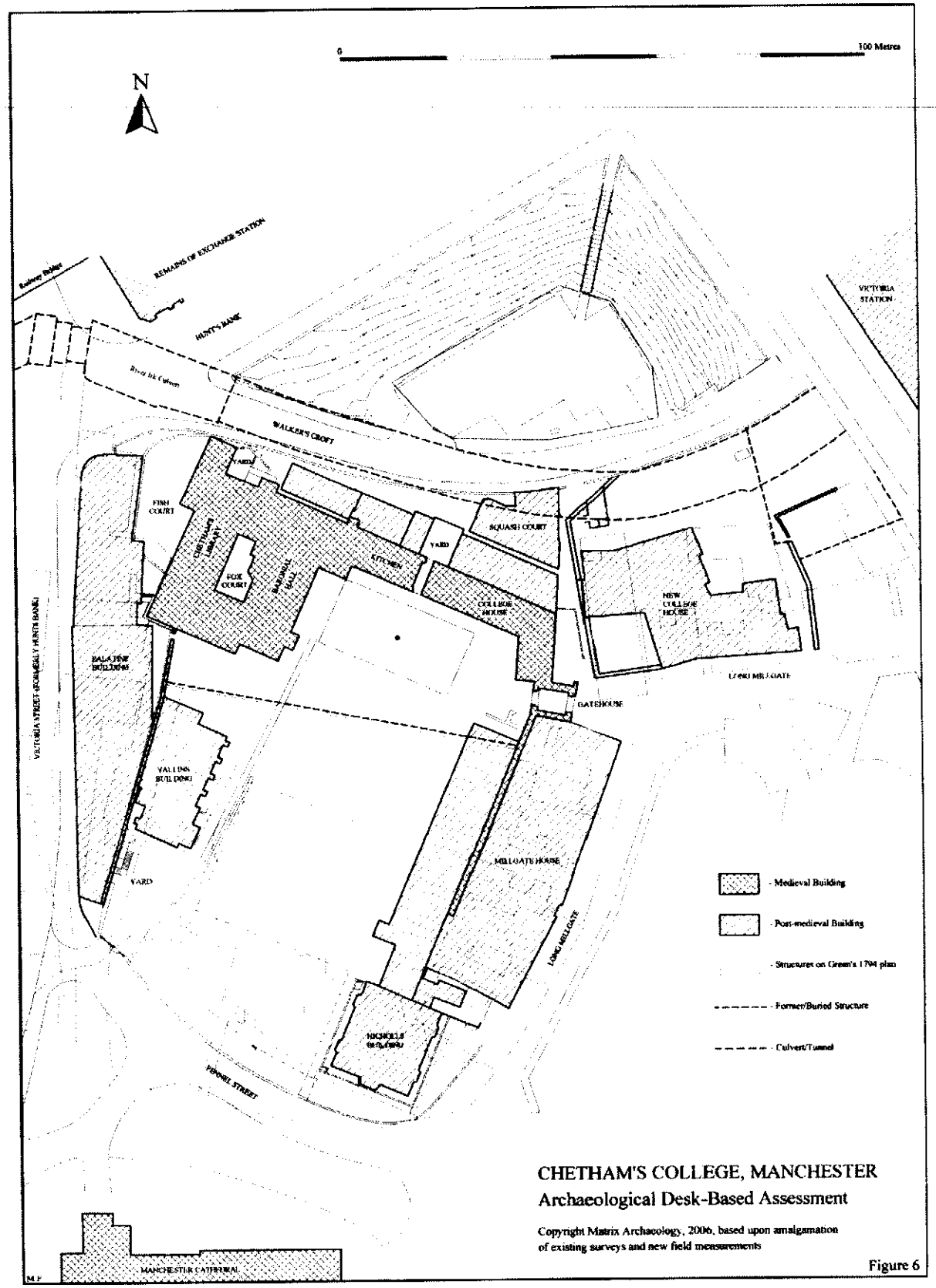

Figure 6
Structures on 1794 plan

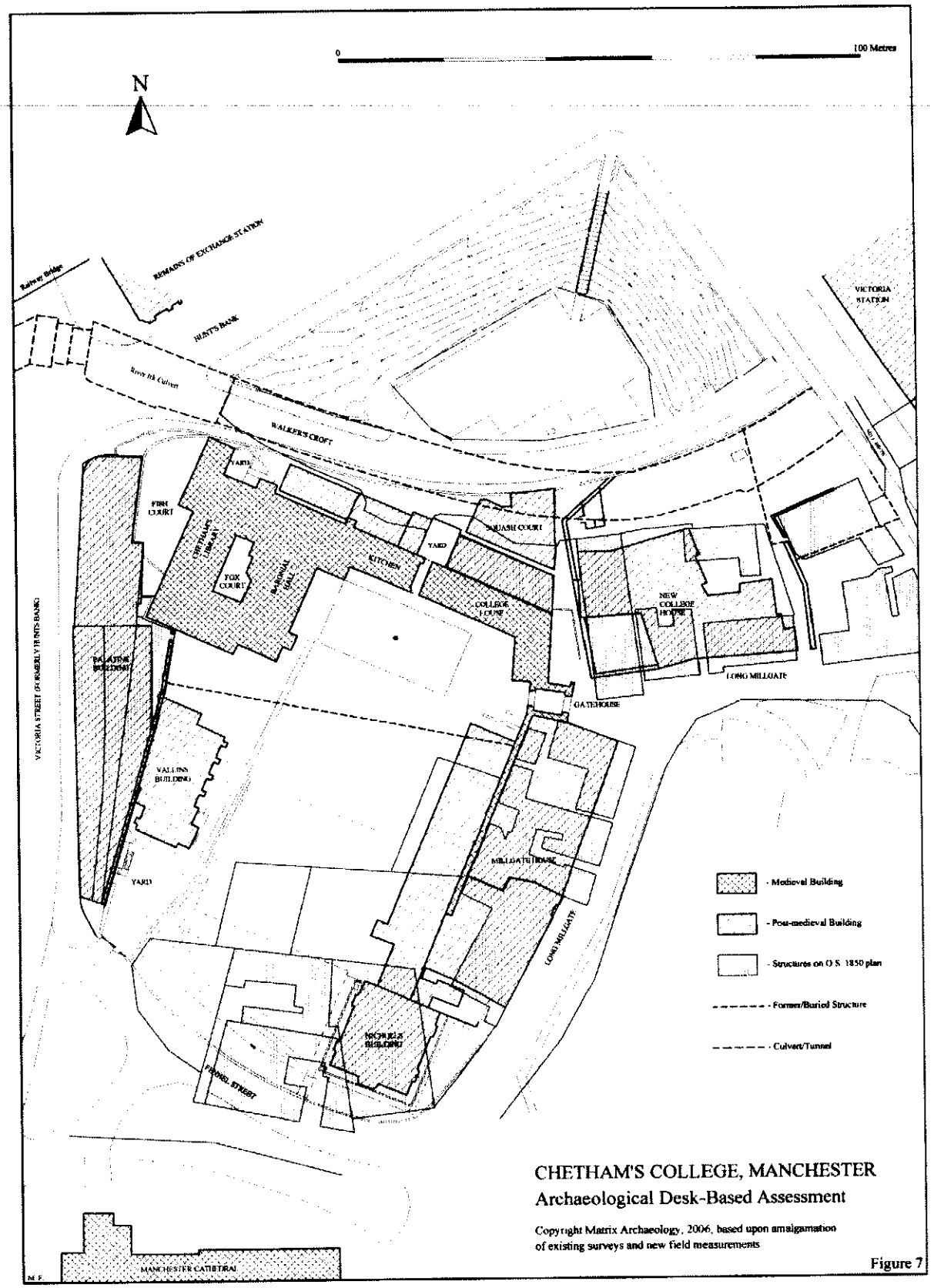

Figure 7
Structures on 1850 plan

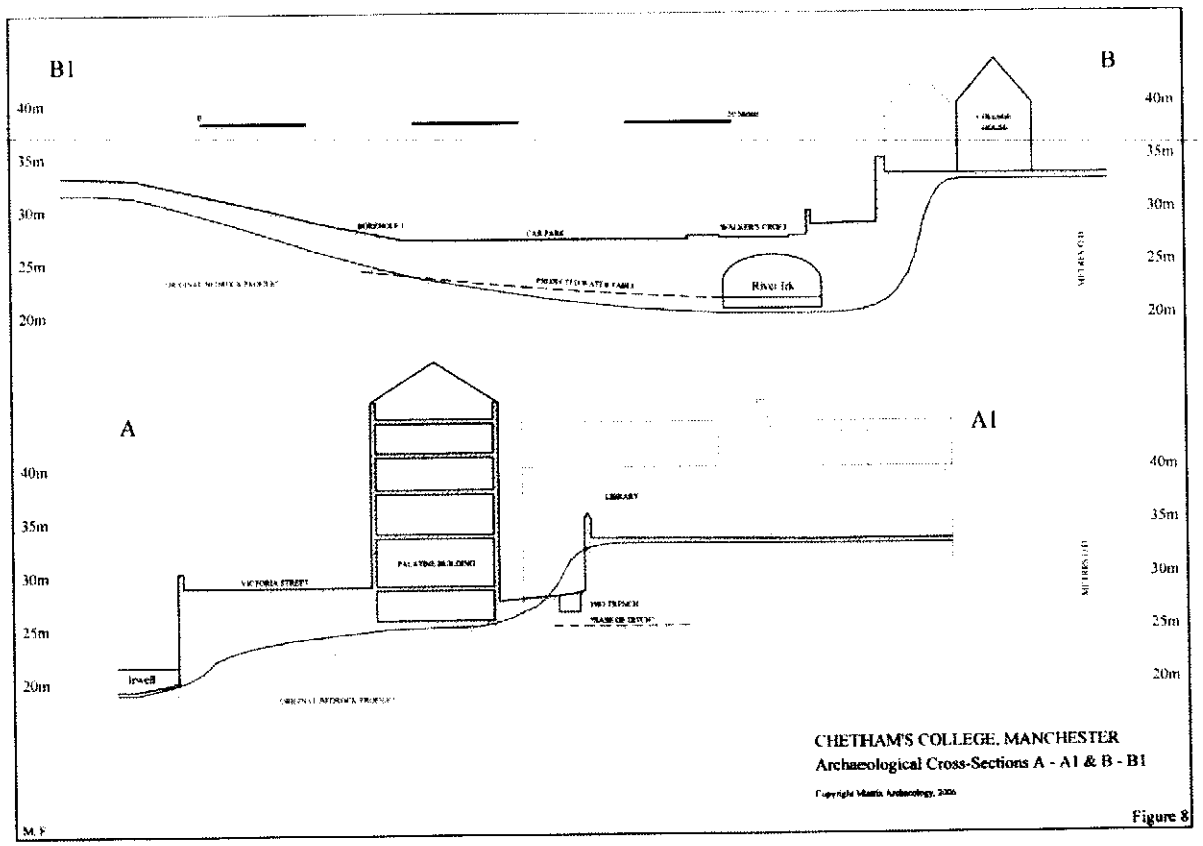

Figure 8

Archaeological cross-sections

4.6 INTERPRETATION

4.6.1 Prehistoric & Roman & post-Roman periods

The red sandstone promontory between the rivers Irwell and Irk would have formed an ideal location for a late prehistoric defended settlement, but as yet no evidence for any prehistoric settlement here has been recorded. The main Roman road between Manchester and Ribchester is believed to have followed the line of Deansgate and Hunt's Bank, before following the A56 towards Bury. However, no clear evidence for this hypothesis has been produced. Neither has any evidence been produced for a Roman camp at the site, as was suggested by Roeder on the basis of a number of finds of Roman coins in the Irk valley.

In 1850, an Anglo-Saxon 'cinerary urn' was discovered at Red Bank, just to the north of Victoria Station. It was said to have affinities with Anglian pottery assemblages from Yorkshire and Lincolnshire. The possibility of a Saxon 'burh' at Manchester arises from the royal command in the 10th century, for an army from Mercia "to occupy Manchester and repair and man it". Such a fortification could imply re-use of the Roman fort at Castlefield, or a defended enclosure at the later college site.

4.6.2 Medieval period

The castle and manor house

The site of Manchester's castle (and the later manor house), have been assumed to be on that of the college. There is no documentary proof for this assumption, but physical evidence for a defensive enclosure has been found. The position of the 'Inner Ditch' (as opposed to the outer 'Hanging Ditch'), as defined by Whitaker and Owen, may well have defined the later college precinct, delineated by the boundary walls at Sites 2, 3 and 15, and the escarpment above the river Irk to the north.

The ditch at Site 4 has been claimed the south-westernmost point of an innermost defensive enclosure, which would imply a defensive plan form which equated to the typical 'motte & bailey castle'. However, the scale of the ditch at Site 4 would seem to be significantly larger what might be expected at such a defensive enclosure. At circa 5m below courtyard level, the rock-cut ditch was 7m wide. After excavation to 2.2m depth (i.e. 7m below courtyard level) the ditch was still 3.5m wide. As the present college buildings indicate the courtyard level to be approximately that of the early 15th century, then the ditch at courtyard level would have been in excess of 12m wide and 9m deep. This would suggest that it was a natural gulley, similar in scale to the west end of Hanging Ditch, and probably of periglacial origin, as a solifluction feature.

The ditch fills were certainly of medieval origin, and there is no reason why it couldn't have formed part of a defensive perimeter, either running north-eastwards towards the Irk, or running eastwards to meet with the 'Inner Ditch' somewhere to the south of the existing gatehouse. There is also the possibility that it was not utilised as a defensive ditch, but formed an access point onto the plateau from Hunt's Bank, as a steep holloway, similar to that which originally gave access into the medieval castle at Beeston, in Cheshire. Immediately to the north of the ditch, adjacent to the 1983 GMAU excavation, the sandstone bedrock contained a number of hewn channels, one possibly a garderobe channel. These could potentially be of any date, although it is tempting to suggest that they are of medieval date. They were not mentioned in the GMAU report.

References to a castle occur during the late 12th to early 13th centuries, and this structure was probably in the form of a timber-built 'motte & bailey', which were common features of the English landscape. The bailey is commonly assumed to have been defined on the south and east by Whitaker's 'inner ditch' (Site 22), whilst the motte is suggested as being defined on the south and east by Roeder's ditch (Site 4). This conventional interpretation is presented in Figure 9. An alternative possibility is that Roeder's ditch extended across eastwards to the 'inner ditch', thus subdividing the whole of the medieval precinct into two halves, with the motte occupying the northern part, and the bailey the southern part (Figure 10). A second alternative possibility is that the castle was in the form of a single 'ringwork', defined to the south and east by the 'inner ditch', and Roeder's ditch was in fact a sharply-defined entrance feature, which led from the north-south road later followed by Hunt's Bank, into the ringwork interior (Figure 11).

By the late 13th century, the castle was no longer mentioned at Manchester, but references to a manor house occur. This change may have related to the demolition of the timber castle, and replacement by a stone-built manor house, which may or may not have been a defended structure. The fact that the west side of Long Millgate was divided into plots for residential purposes in 1334 (Morris, 1983, 37) would at least imply that the 'inner ditch' was no longer a functioning defensive feature by that time.

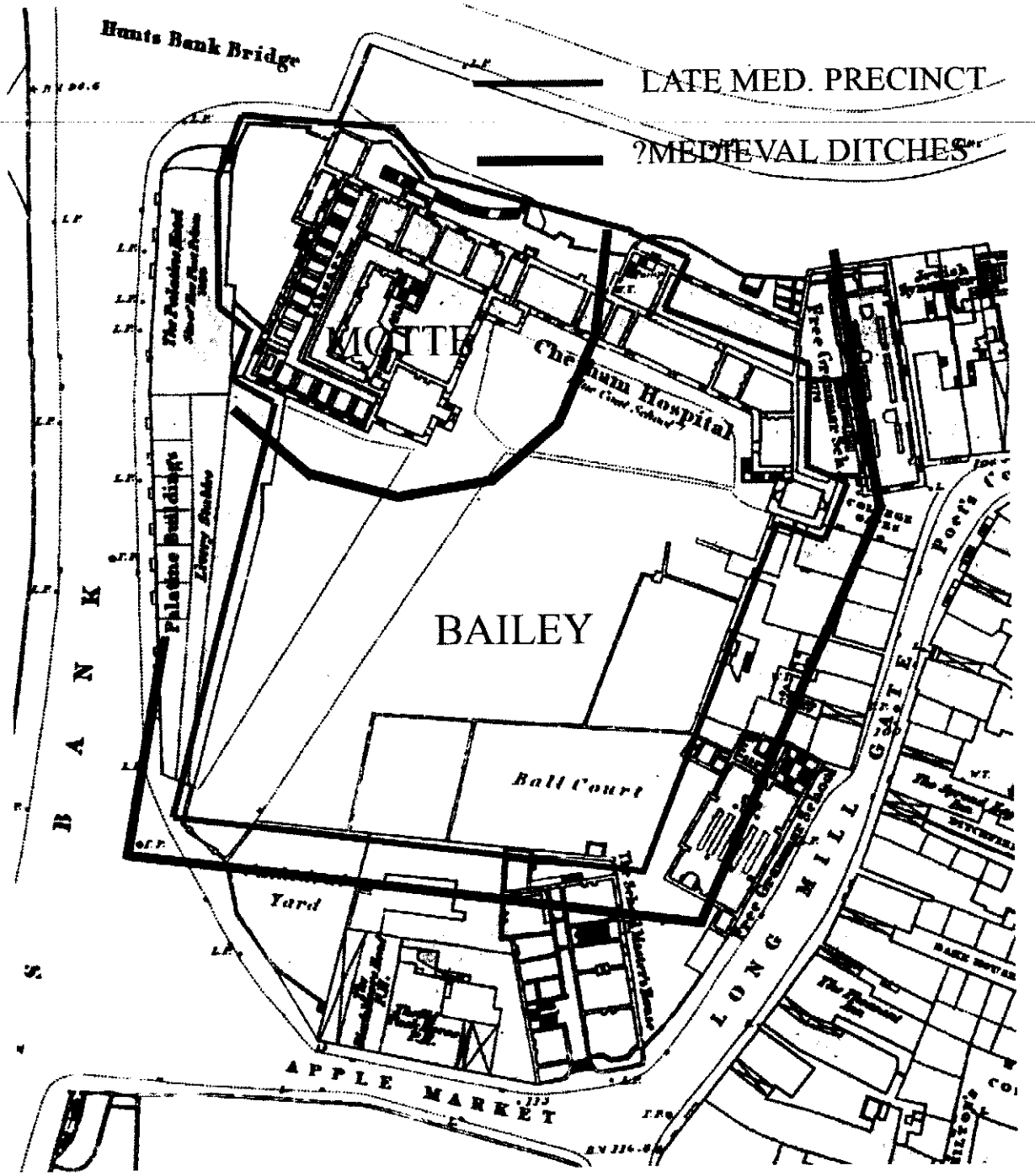

Figure 9
Conventional interpretation of medieval castle at College site

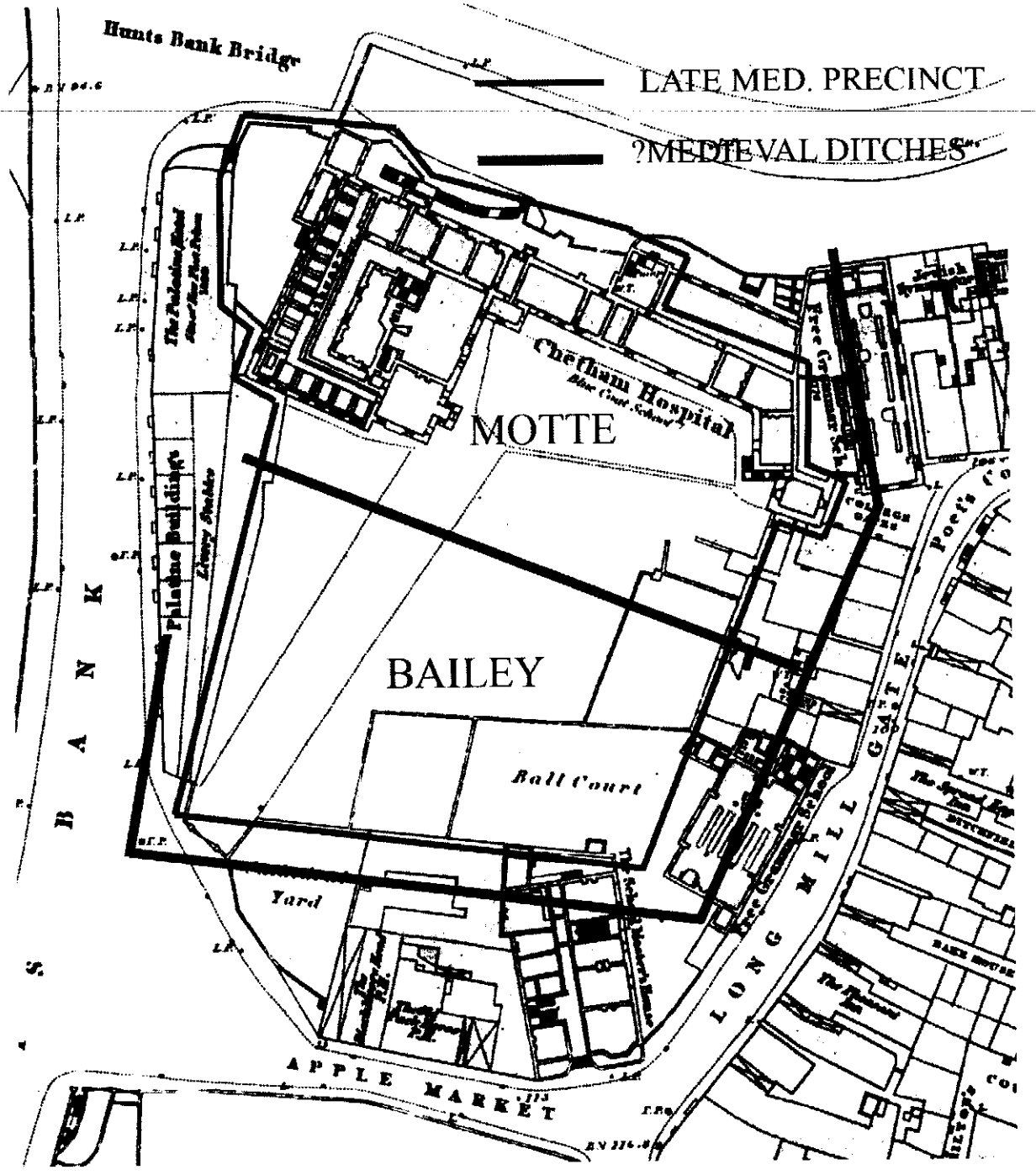

Figure 10
Alternative no.1 interpretation of medieval castle layout

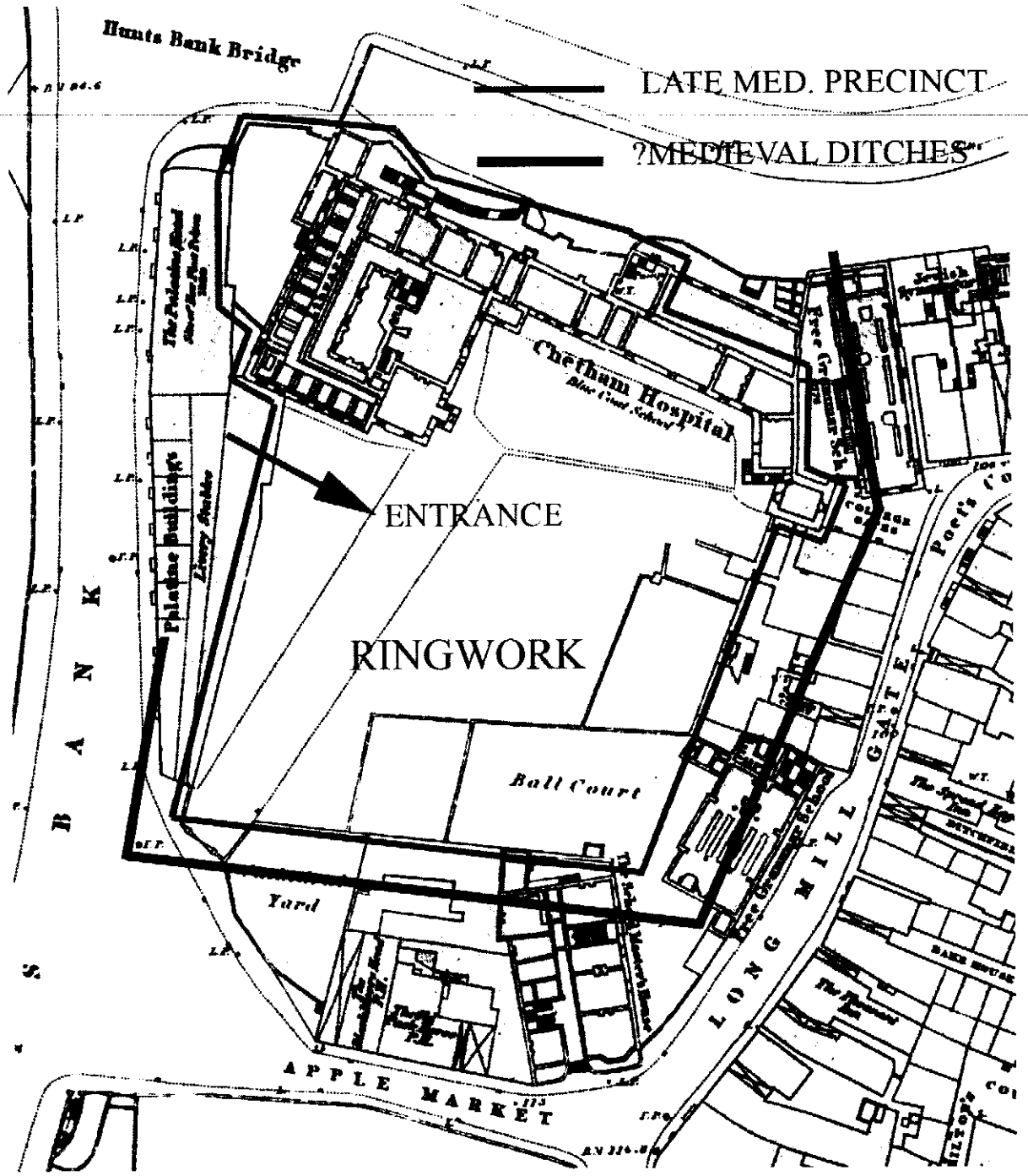

Figure 11
Alternative no.2 interpretation of medieval castle layout

The college

All of the available evidence would suggest that the fabric of the manor house was swept away in circa 1421 and the existing college buildings erected in a single construction campaign, which probably lasted for several years. The plan layout of the college is intriguing, and strongly suggests that it was at least partially determined by pre-existing features.

The 'missing' college buildings

The surviving structures of the college represent the high status domestic accommodation only. This gives a misleading impression to the 21st century visitor. As in any great residential complex of the late medieval period, a number of 'functional' buildings formerly existed within and around the college, all closely related to the day-to-day working of the establishment. All or some of these were listed in the circa 1654 account, including a hay barn, a corn barn, a stable, a wash house, a slaughter house, and a second gatehouse. We cannot be sure that these were contemporary with the existing college buildings, although it seems likely. The whole integrated complex, with its high precinct wall, sitting astride the sandstone promontory, must have been as impressive as buildings such as South Wingfield Manor in Derbyshire. We can only surmise where some of the 'missing' buildings may have been located, but it is likely that all of these will have left surviving archaeological evidence.

4.6.3 Post-medieval period

The college garden

The parterre garden first developed in England during the Renaissance period, but reached it's height of popularity during the 17th century. The college garden was the largest open space within the historic town centre, and it seems unlikely that such a sensitive feature could have survived the Civil War siege of Manchester without suffering significant damage. Furthermore, it seems probable that this part of the college precinct was at least partially occupied by other buildings, such as those mentioned in the account of circa 1654. It is possible that the garden was created when the school was established during the Interregnum period, and space for the garden may have been won by demolition of some of the buildings described in the circa 1654 survey.

In the context of a religious establishment, such a garden may have provided far more than a mere visual asset - herbs may have been grown for both medicine and cooking. Recent advances in field archaeology have demonstrated that below-ground evidence for former gardens will frequently survive intact, with 'Garden Archaeology' now being a well-established and recognised specialist subject (Currie, 2005).

The 1768 burial ground

The burial ground located immediately to the south of the college precinct will almost certainly still contain human remains. Very few 'chance' discoveries are likely to create as much public consternation and media interest as unexpected human remains. The Association of Diocesan and Cathedral Archaeologists (ADCA) Guidance Note 1 entitled Archaeological requirements for works on churches and churchyards, provides concise information on the procedures to be adapted in the event that human remains are suspected on a development site. Late 18th and 19th century inhumations are a legitimate archaeological concern, especially when it may be possible to identify some of the individuals from documentary sources. The Health & Safety aspects of disinterment are not to be taken lightly, and specialist commercial bodies exist to advise and act upon such matters.

The School Mills

A number of mills, for fulling and corn grinding, existed on the banks of the river Irk, as early as 1320 (Morris, 1983, 39). Some of these originated within the medieval manorial obligations, others probably developed at a later date. Without additional extensive documentary research, it is difficult to determine how the Phoenix Mill originated although it seems probable that in its latest phase, it comprised a steam-powered extension to School Mills (which was probably erected in circa 1510 (Morris, 1983, 39)), and was therefore probably of early 19th century date. In recent years, the archaeology of such industrial sites has been absorbed into the 'mainstream' of archaeological investigation, and as a result much new evidence has been revealed about how water and steam powered mills functioned. It is likely that considerable below-ground remains will survive to indicate how the mill functioned.

4.6.4 Summary

Notwithstanding the fact that the Chetham's College site has not been scheduled as an Ancient Monument, it is arguably the most important archaeological site in Manchester District, if not in the whole of Greater Manchester County. Along with the Cathedral site, it represents the central historic core around which the modern city of Manchester developed.

Not unexpectedly, there is a considerable amount of primary and cartographic evidence for the development of the site since the medieval period, and the standing remains of the college comprise an impressive survival of medieval fabric which is almost unknown within a northern industrial town.

However almost everything known about the below-ground archaeology of the college site is derived from observations by antiquarians during the 18th and 19th centuries. Roeder, in particular, seems to have been prone to constructing the most spurious hypotheses on the basis of the slimmest pieces of evidence. His somewhat dubious style seems to have skewed much of the later published material on the study area. Apart from one small trial trench conducted in 1983, any opportunities for modern scientific investigation on a large scale have been missed. Much of what has been claimed about the site is based on the most tentative speculation, with historic records providing only tantalising glimpses of the castle and manor house, and also the 'missing' buildings of the college itself.

4.7 RECOMMENDATIONS

4.7.1 Development Impact

The proposed development will almost certainly have a negative impact upon surviving archaeological features and deposits, and our present state of knowledge regarding the extent, dating and importance of such features is woefully inadequate. The necessary mitigation measures to accommodate this situation are impossible to design without the acquisition of further hard information from the site.

Any form of ground disturbance, whether from geotechnical trial-pits, demolition, grubbing out of floors and walls, new utility service installation, new build, landscaping, or tree planting, will have a potential impact upon the archaeology. Some form of archaeological intrusive intervention is necessary at an early stage to determine the extent of that impact.

4.7.2 Demolition of Palatine Building

In view of the previous buildings which existed on this site, and the existence of the major ditch feature at Site 4, and the late medieval precinct wall (Site 3), the later stages of demolition of this building would have to be carefully executed. Later fabric would have to be carefully 'peeled away' from the earlier medieval wall, and the basement floor slab would have to be removed without ripping out any underlying deposits or features. At this stage, a programme of archaeological trial-trenching would have to be undertaken, along with a detailed record and interpretation of the newly exposed medieval wall surface.

4.7.3 Area to west of Nicholls Building

The precinct wall (Site 15) and the former burial ground (Site 16) are obvious known features, and could be evaluated by straightforward archaeological trial trenching. However, it is likely that there will be surviving building footings in this area related to the gatehouse (Site 13) and other elements of the college complex. There is also the possibility of encountering the 'Inner Ditch', which seems to have extended from west to east, somewhere to the north of Fennel Street. This area could be surveyed in the first instance by Ground Penetrating Radar (GPR), which would give a good indication of such major features as building and ditches, and would provide a firmer basis for targeting archaeological trial trenches.

4.7.4 Area to east of New College House

The obvious significant feature in this area is the mill site (Site 10), of which some standing remains can still be seen. A single north-south evaluation trench, located within the mill footprint, would determine whether any significant internal features survived.

4.7.5 Area to north of Walker's Croft

There is no cartographic evidence to suggest that the area to the north of Walker's Croft, on the northern bank of the Ilk, is archaeologically significant, but the finding of numerous Roman coins in the Ilk valley in about 1900 would suggest that the valley was occupied during this period. A series of archaeological trial trenches should be excavated here, if possible targeting those areas least affected by the later railway buildings.

4.7.6 Area between college buildings and Walker's Croft

This area is presently occupied by a number of 19th and 20th century buildings, some or all of which may be demolished. Any demolition should be accompanied by a watching brief on the basis that early fabric or features may be uncovered here. Any new build should be preceded by archaeological trial-trenching.

4.7.7 Mitigation

Preparation of a pragmatic mitigation strategy should follow on from the above works, with recommendations being made with respect to any further archaeological recording, watching briefs, preservation in situ, etc.

4.7.8 Reporting