

**The 2006 Stage 3-4 Archaeological Investigations
of the Proposed
Baker Street Parking Facility,
Former Public Burying Ground (AjHb-71),
City of Guelph,
Ontario**

Submitted to

The Corporation of the City of Guelph

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EXECUTIVE SUMMARY

In July 2006 the City contracted D.R. Poulton & Associates Inc. to conduct an archaeological excavation in the area subject to impact from Phase 1 of the proposed Baker Street Parking Facility. The lands involved in the proposed parking facility are located in the southern portion of the existing Baker Street Parking Lot. Related construction impacts also included portions of the adjacent Baker Street, Park Lane and Chapel Lane rights-of-way.

The lands in question formed part of the Public Burying Ground, one of the city's first cemeteries (Figures 1-8); it was established in 1827. The 2006 excavations followed the October 2005 salvage excavation of two burials in the adjacent Baker Street right-of-way (D.R. Poulton & Associates Inc. 2006, Spence 2006a, 2006b).

The archaeological excavations of Phase 1 of the proposed Baker Street Parking Facility were carried out over a five-week period, from late July to late August, 2006. The excavations encompassed most of the southern portion of the existing parking lot as well as part of the adjacent Park Lane right-of-way to the east. The excavations covered a surface area of 0.41 hectares, representing almost two-thirds of the historic cemetery. This report describes the rationale, methods and results of the 2006 archaeological excavations.

Section 2 of this report details the background research conducted to inform the 2005-2006 excavations. It includes a chronological review of the history of land use in the immediate area of the former Public Burying Ground. Section 3.0 of the report details the nature and results of the 2006 archaeological excavations. Section 4.0 describes the skeletal remains recovered by the excavations. Section 5.0 presents a discussion of various matters relating to the Public Burying Ground as both an ongoing planning concern and a source of information on the early history of Guelph. Finally, Section 6.0 presents recommendations concerning the human remains recovered in 2006, and comments on the potential for the future discovery of additional burials and other archaeological resources in the vicinity of the parking lot. The present report supplements two reports by Michael Spence, the Physical Anthropologist for the project. One is a technical report on the skeletal remains recovered by the 2006 excavations; the other is a non-technical report on the remains. Dr. Spence's two reports on the analysis are appended to this report.

The 2006 excavations documented the presence of 11 intact burials and a further 25 graves shafts of burials that had been exhumed in the second half of the 19th century (Figure 11). Fifteen of the exhumed grave shafts still contained some bones. In addition, isolated bones from previously disturbed or exhumed graves were also recovered. Including all categories of human bone, the portion of the former Public Burying Ground excavated in 2006 contained the remains of 20 individual adults, two teenagers and 21 children.

Any future land use changes in this area of the downtown core could represent an impact to unmarked graves in the as-yet unexcavated portion of the Public Burying Ground, and to the nearby St. George's Anglican Cemetery in St. George's Square. The same could also apply to archaeological resources other than burials. Accordingly, it is recommended that the City of Guelph implement archaeological assessments of any future developments in the immediate vicinity of the existing Baker Street Parking Lot.

1.0 INTRODUCTION

In October 2005, the City of Guelph contracted D.R. Poulton & Associates Inc. to investigate a human burial found by City staff in the course of repairing a sink hole in the right-of-way of Baker Street in the downtown part of the City of Guelph, Ontario. This area of the downtown core has always been known to be the site of the Public Burying Ground, one of the city's first cemeteries; it was established in 1827. In the course of that investigation, a second grave was discovered. Figure 1 shows the area of the City that contains the Public Burying Ground.

Reports on the 2006 investigations were duly submitted (D.R. Poulton & Associates Inc. 2006a, Spence 2006a, 2006b). Following the limited excavations in 2005, D.R. Poulton & Associates registered the Public Burying Ground as AjHb-71 in the Borden system, the system of archaeological site registry maintained by the Ontario Ministry of Culture.

The two burials investigated in the fall of 2005 were adjacent to the existing Baker Street Parking Lot, which formed the heart of the Public Burying Ground. Over the course of the first several months of 2006, the City of Guelph was in the process of planning to construct a multi-storey parking facility in the southern portion of the existing Baker Street Parking Lot (Plate 1). In July 2006 the City contracted D.R. Poulton & Associates Inc. to conduct archaeological test and salvage excavations in the area subject to impact from Phase 1 of the proposed construction.

The strategy for the salvage excavations was formulated over a period of several weeks in June and July, 2006. It was developed in consultation with City staff and with John MacDonald, heritage planner with the London office of the Ontario Ministry of Culture.

The salvage excavations were carried out over a five-week period, from late July to late August, 2006. As it evolved, the excavations encompassed most of the southern portion of the existing parking lot as well as a small part of the adjacent Park Lane right-of-way to the east. This report describes the rationale, methods and results of the 2006 archaeological excavations of the proposed parking facility.

The 2006 salvage excavations mitigated all of the areas subject to impact from the Phase 1 construction except for the southern entrance into the existing Baker Street Parking Lot. Excavations in that area were deferred so that the parking lot could continue to operate during the months of July and August, 2006. In the early fall of 2006 Council decided to shelve the plans for the proposed Baker Street Parking Facility. Accordingly, the salvage excavations did not include the southern entrance into the existing Baker Street Parking Lot and the traffic ticket box at that entrance. The southern entrance had been reserved as the last area parking lot portion of the Phase 1 lands to be excavated.

It should be noted that three other elements of the proposed archaeological work plan were never executed, as the construction of the Baker Street Parking Facility was shelved in the late summer of 2006, before they were scheduled to be carried out. One of the elements consisted of the proposed monitoring of the trenching for a new hydro conduit, which was to extend under the sidewalks adjacent to the south side of Chapel Lane and the east side of Park Lane. It was designated Task 5 of the 2006 work plan. This task was scheduled to be carried out in the fall of

2006. Based on the available evidence, the trench for the hydro conduit was to have a width of about 1.23 metres (4 feet) and a length of about 240 metres, with a total surface area of approximately 295 square metres. These sidewalks were located near the southern and eastern edges of the cemetery, but whether they are inside or outside of the cemetery remains to be determined.

Another element of the original work plan that was not implemented consisted of the monitoring of the proposed removal of an old storm sewer line; it extends along the Chapel Lane, Park Lane and Baker Street rights-of-way, parallel to the proposed new parking facility. This task was designated Task 6 of the archaeological work plan. It was scheduled to be carried out in the fall of 2007, after the hydro conduit and the proposed multi-storey parking facility were to be constructed. The storm sewer is located to the south and east of the proposed multi-storey parking facility, and in the eastern portion of the adjacent Baker Street right-of-way to the west. Available information indicated that the trench for the removal of the storm sewer line was to have a width of about 1.23 metres (4 feet) and a length of about 240 metres, with a total surface area of approximately 295 square metres - approximately the same dimensions as the proposed hydro conduit.

The last element of the original work plan was to conduct test excavations and monitoring of new side walks, new landscaping and the regrading of laneways outside of the completed Baker Street Parking Facility. These activities were designated Task 7 of the archaeological work plan. They were scheduled to be conducted in the fall of 2007, a full year after the completion of the salvage excavations in the main Phase 1 construction area.

Section 2 of this report details the background research conducted to inform the 2005-2006 excavations. It includes a chronological review of the history of land use in the immediate area of the former Public Burying Ground. Section 3.0 of the report details the nature and results of the 2006 archaeological excavations. Section 4.0 describes the different categories of skeletal remains recovered by the excavations. Section 5.0 presents a discussion of various matters relating to the Public Burying Ground as both an ongoing planning concern and a source of information on the early history of Guelph. Finally, Section 6.0 presents recommendations concerning the human remains recovered in 2006, and comments on the potential for the future discovery of additional burials and other archaeological resources in the vicinity of the parking lot.

The present report supplements two reports by Michael Spence, the Physical Anthropologist for the project. One is a technical report on the skeletal remains recovered by the 2006 excavations; the other is a non-technical report on the remains. Dr. Spence's two reports on the analysis are appended to this report.

Permission for access to the site was granted by the City of Guelph. The archaeological investigations were carried out under Archaeological Consulting Licence # P053, issued to Christine Dodd of DPA by the Ontario Ministry of Culture. The Ministry of Culture designated the 2006 salvage excavations as CIF # P053-061-2006.

The archaeological excavations were carried out in accordance with the provisions of the Ontario Heritage Act (Government of Ontario 1990a) and the Ontario Cemeteries Act

(Government of Ontario 1990b). All investigations accorded with the technical guidelines for archaeological assessments formulated by the Ministry of Culture, Tourism, and Recreation (now Ministry of Culture) (MCTR 1993).

The records and artifacts pertaining to this assessment are currently housed in the corporate storage facility of D.R. Poulton & Associates Inc. The artifacts recovered by the 2006 excavations are being donated to the Guelph Civic Museum. As with the human remain excavated from the Baker Street right-of-way in 2005, the human remains excavated from the Baker Street Parking Lot in 2006 will be transferred to the Woodlawn Memorial Park, City of Guelph. They will be re-interred in the portion of that cemetery dedicated to the reburial of remains exhumed from the former Public Burying Ground.

2.0 BACKGROUND RESEARCH

The report on the 2005 excavations of the two burials in the Baker Street right-of-way included information on the land use history of the property that contained the Public Burying Ground (D.R. Poulton & Associates 2006). Further supplementary background research was carried out as part of the 2006 work plan. In the interests of context, this section of the report on the 2006 excavations includes an expanded discussion of the land use history of the property containing the historic cemetery.

2.1 Establishment and Operation of the Public Burying Ground

The City of Guelph was founded by John Galt, the Superintendent of the Canada Company, and was one of the first planned communities in Canada. For the past several decades the triangular-shaped block in downtown Guelph bounded to the west by Baker Street has been used as a municipal parking lot. However, it has always been known that this property was the site of the Public Burying Ground. Figure 1 shows the location of the Public Burying Ground relative to modern Guelph. Figures 2 to 8 show the location of the cemetery at intervals between 1827 and 1906, including the changing landscape of the downtown core of Guelph during that 79-year period.

The Public Burying Ground was established on April 23rd, 1827, the same day Guelph itself was founded. Baker Street itself was evidently named for a family with that surname: as reference to the detail of the mid 19th century plan reproduced in Figure 5 shows, two individuals named Baker occupied Lots 92 and 93 in 1862. These lots are located on the west side of Baker Street, just west of the northern part of the cemetery.

The two main religious denominations in early Guelph had their own cemeteries. Anglicans were buried in the cemetery beside the first St. George's Church, in the centre of what is now St. George's Square. Roman Catholics were buried atop the hill in the cemetery beside the Church of Our Lady. Protestants, people of other religious denominations, and those who had no religion were buried in the Public Burying Ground. As this cemetery was located in the gore-shaped piece of land that contains the existing Baker Street parking lot and the surrounding road rights-of-way, it is often simply termed the Baker Street Cemetery. The exact limits of this cemetery are unknown, but one source quoted by Killam (1989) provides the following information on the subject: "*The study area, at 43° 32' 50" by 80° 15' 06", including 1.59 acres - that beside the Sawmill Lot that only the land registry now remembers - is defined in 1827 as the Public Burying Ground*". The stated size of 1.59 acres is 0.644 hectares.

Four different churches were located in proximity to the Public Burying Ground in the four decades spanned by the mid 19th century. Two of them were contemporary with the use of this cemetery and the other two post-date it. Data on these churches are contained in the 1906 Historic Atlas of Wellington County (Mika Silk Screening 1906:4); additional data are contained in the Sesquicentennial History of Knox Presbyterian Church (The Sesquicentennial History Committee 1994).

One of the two churches contemporary with the use of the Public Burying Ground was the aforementioned St. George's Church; it was located just southeast of this cemetery, at the intersection of Quebec Street and Wyndham Street (Figures 2, 5). The first St. George's Church was a framed and stucco building constructed in 1833-1834. A stone church was built on the site in 1850 and part of the old framed church was used as a chancel for the new building. The first and second St. George's Churches both faced south, and the Anglican cemetery associated with them was situated at the back, on the north side of the structures, but also within St. George's Square. In 1870-1871, following the destruction of the church by fire, the new St. George's Church on Woolwich Street was constructed. Given these dates, the Anglican cemetery in St. George's Square was in use for a maximum period of 36 years – a full decade longer than the nearby Public Burying Ground.

The other contemporary church in the immediate area was the first Knox Presbyterian Church (Figure 5). It was located on the east side of Yarmouth Street (later the site of the Raymond Sewing Machine Company factory), in Lot 89, and backed onto Baker Street. This church was constructed in 1847, six years before the Public Burying Ground closed, and was only in use for a few decades. Whether it had a cemetery is unknown.

The other two churches in proximity to the former Public Burying Ground that post-date the cemetery relate to the schism that divided the congregation of the Knox Presbyterian Church in 1868 (The Sesquicentennial History Committee 1994: 10). They are the Chalmers Presbyterian Church (which opened in 1871) and the second Knox Presbyterian Church (which opened in 1870). The second Knox Presbyterian Church was constructed to replace the first as the congregation had become too large to be accommodated in the original building. The Chalmers Church and the second Knox Presbyterian Church are still standing. Both are located on the north side of Quebec Street and both back onto the southern fringe of the former Public Burying Ground. They were constructed almost two decades after the Public Burying Ground was closed, and as such are unrelated to its use.

The Public Burying Ground in Guelph was in use for a maximum period of 26 years, from 1827 through to the late fall of 1853. No records of all of the individuals interred in this cemetery are known to have survived; nor is there any known record of who was buried where within the cemetery. In contrast, the records of the contemporary cemetery established by the Canada Company in Goderich are known to have survived in the basement of Goderich City Hall. As with Goderich, it may be that the records of the Public Burying Ground in Guelph still survive somewhere. For the present, Paul Taylor, Director of Woodland Memorial Park, has estimated that somewhat in excess of two hundred people from the Public Burying Ground may have been reburied in Woodland Memorial Park (personal communication to Dana Poulton, April 5, 2007). This estimate is based on the population statistics and on the estimated mortality rates in Guelph during the period 1827 to 1853.

A succinct summary of the origins of the Public Burying Ground is contained in the history of Woodlawn Cemetery by Frank Cooke (n.d: 5), who served as Secretary-Treasurer of the Guelph Cemetery Commission in the mid 20th century. It reads as follows:

At the founding of the Town of Guelph on April 23rd, 1827, by John Galt, the official representative of the Canada Company, it was revealed that the Company “Caused to be laid down upon the original plan of the town a parcel of land to be known as the Public Burying Ground, with other lands and certain lanes situate within the limits of Wyndham, Quebec, Yarmouth and Woolwich Streets in the said town”. The Canada Company dedicated the said parcel to the Town and Township of Guelph as a public burying ground.

The first death in the newly-established community of Guelph was a beer peddler named Stephen Tuttle; he was killed in late July, 1827. According to the 1906 Historic Atlas of Wellington County (Mika Silk Screening 1906:3), Tuttle had been visiting Guelph to deliver a load of beer and was returning home on the newly-opened Waterloo Road (now Waterloo Avenue) when a tree was blown down on his wagon. Whether he was buried in the Public Burying Ground or elsewhere is unknown.

Some useful data on the Public Burying Ground is presented in a letter of April 8, 1949 from R. B. Hungerford, the City of Guelph Solicitor, to L. M. Stewart, the Medical Officer of Health for Guelph. This letter was evidently written following the discovery of human bones. A copy of the letter is reproduced as Appendix 1 of the report on the burials excavated in 2005 (D.R. Poulton & Associates 2006). Copies of the pertinent legislation cited by Hungerford were reproduced as Appendices 2 and 3 of that report.

The first paragraph of Hungerford’s letter is directly relevant to the burials discovered in Baker Street and vicinity in 2005 and 2006, as it speaks to the issue of the potential for unmarked graves in general. It reads as follows:

I have your letter of April 2nd and am making a rather lengthy report so that there need be no further misunderstanding about the fact that human bones still remain in the old burying ground. The Burying Ground lying to the southwest of upper Wyndham Street was the property of the Canada Company and was laid out in 1827 as a public burying ground on the Canada Company’s survey. It was not an official cemetery and was not the property of the Town of Guelph although no doubt most people who died in the town between 1827 and 1855 were interred in that public burying ground.

2.2 Closure of the Public Burying Ground

An eye-witness account of a visit to the Public Burying Ground is contained in an 1853 entry in the diary of Anne Everitt (née Thurtell). She was the sister of Benjamin Thurtell, the First Reeve of Guelph Township. Anne Everitt had relatives buried in the Public Burying Ground and her brother Benjamin had been appointed Chairman of the Joint Cemetery Committee of the Town and Township of Guelph in 1852. In consequence, she had more than a passing interest in the cemetery. The 1853 diary entry in question dates to the last year the cemetery was in use. It

provides valuable information in that it describes conditions within the cemetery in the closing months in which it was in use. The entry reads as follows:

Mrs. T. again gave old Kitty the treat of taking us to Town to visit the Cemetery; where already lie three of my nieces – Louisa, Mary and Anne Everitt – and Mr. Davie whom I knew – the ground lies at the back of the Town - a most substantial wall roundit has just been completed; each family secures a small enclosure, which is palisaded in – my brother’s is a large oblong in the centre of the ground, which will hold 9 or 12 graves. A very neat white stone marks Louisa’s grave – a smaller stone or two – the two younger children. I also visited Mrs. Strowger’s and Mrs. Wilson’s graves, but their stones have not been erected, as the Town Council have determined upon purchasing ground for a new cemetery at a distance from the Town – and soon as that has been made ready – the old one will be closed. Mrs. T. and I dined with the Bakers – and then drove two miles out of town to take tea, with Mrs. George Murton. Thurtell/Mickle Collection, University of Guelph Library

The Bakers mentioned in the above diary entry are presumably members of the family for which Baker Street was named. The inscriptions on the monuments for the graves mentioned in Anne Everitt’s 1853 diary entry reveal that George Davie died on September 19, 1843, aged 47 years and Louisa Thurtell died on August 9, 1848, aged 19 years. Finally, the infant twins Mary and Anne (daughters of Benjamin and Sarah A. Thurtell, neé Davie) both died in 1843.

The need of a community for cemeteries is directly related to its population. In the case of Guelph, the growth in population was relatively slow in the first two decades. In 1833, six years after it had been founded, Guelph had a population of 300. By 1846, almost 20 years later, it had only risen to 1350, but by 1865, following another two decades, the population was nearly 5000. Thereafter, the population continued to increase at an even greater rate, with more than 6000 residents in 1870, 8000 in 1875 and 10,000 in 1880. The impetus for closing the Public Burying Ground and other cemeteries in Guelph in 1853 almost certainly relates to the impending arrival of the railway. The alignment for the Toronto and Guelph Railway was surveyed in 1852 and that railway amalgamated with the Grand Trunk Railway in 1854; the railway arrived in 1856. As with other 19th century communities, the arrival of the railway resulted in a rapid increase in the population of Guelph, and in the prosperity of its citizens (Mika Silk Screen 1906: 4).

Further information on the plans to close the Public Burying Ground is contained in a resolution passed by the Township of Guelph Council on June 27, 1853, the same year as Anne Everitt’s visit to the cemetery:

That whereas this municipality has strong reasons to believe that the present burial grounds in the town of Guelph will soon be closed and that the inhabitants of this Township will be left without any suitable place for the interment of the dead, that this municipality consider it desirable to take immediate action on the subject and that they would be most anxious

to act in unison with the municipality of the Town of Guelph for that purpose... (cited in Cooke n.d.: 6)

On December 5, 1853 the Town of Guelph passed Bylaw 33; it prohibited any further burials in the Public Burying Ground and other cemeteries located within the municipal limits. Accordingly, the use of this cemetery spanned a maximum period of 26 years, from April 23rd, 1827, when it was officially established, to December 5, 1853, when further burials were prohibited.

As quoted earlier, Anne Everitt's 1853 diary entry mentions the fact that a stone wall surrounded the Public Burying Ground. The wall is also mentioned in an irate letter to the editor of the Guelph Advertiser dated March 2, 1854. It reads as follows:

Is it possible that our Town Council has rented the grave yard in this town to Col. Hewat for \$5 a year, after the Town and Township have collected by voluntary subscription more than \$1,200 for the purpose of building a wall around it that the graves of the dead might not be disturbed by horses and cattle?

The fact of it's [sic] having been rented is said to have appeared in the Herald newspaper; if it is so, I should like to know what authority they have to lease it?... If the Council are really so hard up I will find an individual who will give them five dollars. I hope that the people of the Town and Township will petition our collective wisdom to put a stop to this disgraceful affair. Yours &, FAIR PLAY: and one who has given at various times \$10 toward the building of the wall.

In 1853 two new cemeteries were established adjacent to each other to replace the Public Burying Ground and St. George's Anglican Cemetery: the Union Cemetery and the new St. George's Cemetery. They were located two miles away, outside of the Town limits, in Guelph Township. The Union Cemetery (now Woodlawn Memorial Park) was so-named to signify the fact that it was jointly owned by the Town and Township of Guelph; it covered 10 acres of a larger 30-acre parcel. The first burial in that cemetery took place on January 13, 1854 (Cooke n.d.: 8). The newly-established St. George's Cemetery beside the Union Cemetery was also 10 acres in size.

References to the Public Burying Ground and to the first St. George's Cemetery are contained in the Wellington County history by Hutchinson (n. d.:20), as follows:

Around the Old Anglican Church on St. George's Square, there was an Anglican Cemetery, and on an adjoining piece of land, there was another cemetery, for others who were not Anglicans. It was located in the area of the Baker Street Parking Lot. Graves from these two

cemeteries were removed from their downtown location, to the New Union Cemetery, the site now known as Woodlawn Cemetery.

In 1879, these two old cemeteries were declared “legally closed,” by an Order-in-Council of the Ontario Legislature. But it was 1891 before a “Quit Claim Deed” was given for a sum of \$500 for the property. The Town and Township of Guelph paid equally for the removal of the bodies and stones to the new Cemetery. Baker Street was not opened until after the old cemetery was moved.

Further data relating to the closure of the Public Burying Ground are contained in the history of Woodlawn Cemetery by Frank Cooke (n.d: 5). Quoting from the Guelph Cemetery Commission – Woolwich Street - it reads as follows:

The town was to notify relatives of any persons interred and advise them of the town’s intention to remove the bodies of relatives to the new cemetery and to erect thereon the monuments, if any. An equal area of the original lot was to be allocated to the new cemetery. The burying grounds were then to be closed. A stone wall surrounded the burying ground and the lands enclosed were to be used for a public park, although it was recorded that many persons had been using the cleared burial grounds for their own use.

Paul Taylor, the Director of Woodland Memorial Park, confirms that a large number of the burials and monuments were indeed moved from the Public Burying Ground to the new Union Cemetery (now Woodland Memorial Park) in the second half of the 19th century. Based on the records, the removals from the Public Burying Ground and of Anglican burials from the first St. George’s Cemetery spanned the period from March 2, 1855 to December 1, 1895. A three-page list of removals from the two cemeteries was compiled with input by Charlotte Mackie, with the assistance of Ceska Brennan and Sach Killam.

Some of the removals listed for the two cemeteries are individual burials; many others are multiple burials of family members, including children. Bearing that in mind, and the fact that the list inventories burials removed from both cemeteries, the list includes 13 removals for the period 1855-1859, 16 for the 1860s, 22 for the 1870s, 30 for the 1880s, and one for the 1890s. The precise number of burials removed from the Public Burying Ground is unknown. However, Paul Taylor estimates that Woodland Memorial Park contains approximately 150 to 175 burials of individuals who were originally interred in that cemetery (personal communication to Dana Poulton, April 5, 2007).

Notwithstanding the Council’s stated intention to move bodies from the Public Burying Ground to the new cemetery, it appears that the exhumation and removal of the burials was not done in a systematic fashion. According to Paul Taylor of Woodland Memorial Park, when a member of a particular family died sometime after the Public Burying Ground closed in 1853 the relatives would establish a family burial plot in the new Union Cemetery or elsewhere, then move the

family burial(s) and any associated monument(s) from the Public Burying Ground to the new plot in the Union Cemetery (personal communication to Dana Poulton, April 5, 2007).

Although the last burial in the Public Burying Ground would date no later than the late fall of 1853, the cemetery was not formally closed until 1879; that was the year Guelph was incorporated as a city. Hungerford's letter provides some key information on the formal closing of the Public Burying Ground, as follows:

In 1879 by Chapter 88 of the Ontario Statutes, (in) an act respecting the public burying ground in the Town of Guelph, it was recited that the burying ground had not been used for burial purposes for more than twenty-five years past and that nearly all the dead had already been removed and that many persons were making use of the land for private purposes and it was enacted that the old burying ground should become the property of the City to be used as a public park. Permission for the removal of the bodies there remaining to the Union Cemetery and St. George's Cemetery was given to the Town of Guelph and Section 3 of the Act quoted hereunder provides for the manner of such removal:

#3. The said corporation shall, before removing the remains of the dead aforesaid, give written notice to the relatives of the dead, when known...stating their intention to remove the remains on a day to be named...and that parties, if any, owning burial plots in the said Burial Ground will receive conveyances of burial plots in said Union Cemetery, or St. George's Cemetery, corresponding in size as nearly as may be with those lots from which the remains of the dead shall have been removed...

I believe that following this Act, those bodies which had not already been removed by the relatives of the dead and which were identified by head stones or otherwise were removed to the Union Cemetery or St. George's Cemetery but that there were no doubt a number of bodies which were not identified by head stones or otherwise and the location of which was unknown and unidentifiable. As a result, there are in fact human remains still in the land which once constituted the burying ground.

In 1892 a further act was passed regarding the former burying ground allowing the sale of part of the land (which was then a public park) to the Guelph Curling and Skating Rink Company and I believe that in the excavations in connection with the rink and bowling properties, several skeletons or parts of skeletons were encountered in various localities. By this act, which was Charter 72 of the Ontario Statutes 55 Victoria, the old burying ground was absolutely vested in the Corporation of the City of Guelph to be used as a public park or for

*any other purpose the City Council might from time to time determine,
with power to the City to dispose of the whole or any part of it.*

By the time Public Burying Ground was officially closed in 1879, 26 years had passed since the last burial had taken place there – this was a period as long as the use of the cemetery itself. The list of removals cited earlier is a crude indicator of the number and rate of burials removed from the Public Burying Ground, partly because it does not always provide a precise count of the number of individual family members included in each individual removal, and partly because it also includes removals from the nearby St. George Anglican Cemetery in St. George’s Square. Granting those limitations, the frequency of removals per decade totals 16% for 1855-1859, 20% for the 1860s, 27% for the 1870s, 37% for the 1880s and only 1% for the 1890s. These statistics reflect an escalating rate of removals from the second half of the 1850s through to the end of the 1880s, with more than a third of the removals taking place in the 1880s alone.

The variable rate of removals of burials from the two cemeteries presumably reflects changes in land use of the two properties in the second half of the 19th century. In the case of St. George’s Anglican Cemetery, the rate of removals may have been higher earlier in the process, given the need to redevelop St. George’s Square in the early 1870s, following the destruction by fire of the Anglican church and the consequent move to the new St. George’s Church on Woolwich Street. In the case of the nearby Public Burying Ground, the impetus to remove burials was probably greater slightly later in the process, given the plans in 1879 to transform the property into a public park, and the ongoing use and/or development of that park in the 1880s.

2.3 Post-Closure Land Uses

Chapter 88, the 1879 Act which concerned the purchase of the old burying ground, states the following with respect to land use of the property in the period leading up to the creation of the park: “*many persons living in the neighbourhood of the said parcel are, and have for a long time past been, improperly making use of the same for their private purposes.*” The 1872 Bird’s Eye View provides the earliest visual record of the property in the decade leading up to the creation of the park. As illustrated in Figure 6, a series of eight or so small one-storey structures were located on the property, within what is now the Baker Street Parking Lot. In addition, the north end of the property appears to have been lightly forested. Most important, the property is depicted as having a rolling topography. That has significant implications for the potential for extant graves within the old Public Burying Ground.

Whatever the specifics may be, the more time passed following the closure of the Public Burying Ground in 1853, the more likely it was that a burial might be unmarked and overlooked in the 42 year removal process that followed. This would certainly be the case for any burials that were poorly marked or unmarked, such as the graves of children and infants. It could also apply to burials of adults such “*Mrs. Strowger and Mrs. Wilson*” whose graves – at least as noted in Anne Everitt’s 1853 diary entry, when the cemetery was already scheduled to be closed - were as yet unmarked. The same problem would also apply to any wooden grave markers that might not have survived the passage of time in the decades that followed the effective closure of the cemetery in 1853.

Further to the above, it should be noted that other burials may have been unmarked and overlooked because their headstones had been displaced by vandals in the decades following the closure of the cemetery. Still other monuments may have been displaced by squatters making use of the former cemetery, as mentioned above and illustrated in the 1872 Bird's Eye View (Figure 6). Indeed, it is interesting to note that by 1872 barely a third of the documented removals from the Public Burying Ground and the nearby St. George's Cemetery had been reinterred at Woodland Memorial Park and the adjacent Anglican cemetery. Fully two-thirds of the documented burials ultimately removed still remained in the Public Burying Ground and the old St. George's Cemetery as of the time when the Bird's Eye View was made.

In addition to the factors noted above, it should be stated that the accidental displacement of monuments may have responsible for some graves being unmarked and consequently overlooked in the removal process. For example, headstones could have been displaced by horses and cattle using them as rubbing posts. In any event, any and all of these factors may have been responsible for the fact that numerous burials were not included in the removal process, and remained as planning concerns into the 20th century and beyond.

It seems likely that most if not all of the small structures depicted on the property in the 1872 Bird's Eye View were moved or demolished when the public park was created in 1879. The park in the former Public Burying Ground was in use for about a dozen years, until 1892 when the southern part of the property was sold to the Royal Curling Club (later the Guelph Curling and Skating Rink Company).

Given the evidence that this property originally had a naturally rolling topography, the construction of facilities for the Royal Curling Club must have required some landscaping to flatten the space preparatory to construction. In the process, the tops of the knolls would have been levelled, and the intervening hollows would have been filled in. Curiously, the 1906 Historic Atlas depicts neither a public park nor a curling club and skating rink on the property. Rather, it identifies what is without doubt the property's most important historic function: as the "*Old Burying Ground*" (Figure 8).

Graphic information on the 20th century land use history of the former Public Burying Ground was kindly provided to D.R. Poulton & Associates by Ian Panabaker, the City of Guelph Heritage Planner. The information consists of fire insurance maps and aerial photographs spanning the period from 1921 to 1960 (Figures 9, 12-13).

As illustrated in the 1921 and 1960 plans reproduced as Figures 12 and 13, respectively, the building constructed by the Royal Curling Club was located at the northeast corner of the intersection of Baker Street and Chapel Lane. It occupied the southwest part of what is now the municipal parking lot and was named the Victoria Rink. This large rectangular steel truss structure was manufactured of brick. It was two and a half storeys high and was oriented east-west. The rink was used by the Royal Curling Club; it also doubled for ice skating in the winter and roller skating in the summer. In 1926, this club merged with the Union Curling Club to form the Guelph Curling Club (Johnston 1977: 326).

The Victoria Rink was bounded to the east and north by bowling greens. The bowling greens are evident in the 1960 fire insurance plan (Figure 13). The one to the east of the building is the subject of a 1913 photograph of lawn bowlers on file at the Guelph Civic Museum. All but three of the 21 men featured in that photograph are wearing hats and, quite aptly, most of the hats are bowlers.

The Victoria Rink is clearly visible in the 1946 aerial photograph illustrated as Figure 9 (lower) (view looking southeast), and in the 1921 and 1960 fire insurance plans illustrated in Figures 12 and 13, respectively. The 1946 aerial photograph in the bottom half of Figure 9 shows the front of the building looking southeast. The 1931 aerial photograph in top half of Figure 9 shows a view of the south end and rear of the building looking north. Surviving landmarks visible in these aerial photographs include Knox Presbyterian Church and Chalmers Church on Quebec Street.

Another large structure was located in the northwest part of the former Public Burying Ground (now the municipal parking lot). It was situated on the east side of Baker Street, north of the Victoria Rink and the bowling greens. This structure was the Cream Separator Factory, which was built about 1900. As with the nearby Victoria Rink, the construction of the factory and associated outbuildings would have required the grading of the building lot. This long, rectangular building was three storeys high and was built of brick. Other buildings adjoined the rear of the structure, and smaller outbuildings were also present to the rear of the complex, fronting on Park Lane.

The Cream Separator Factory was later taken over by the Raymond Sewing Machine Company, which had a factory across the road, on the west side of Baker Street, then by the White Sewing Machine Company when the latter bought the Raymond Sewing Machine Company in 1916 (Koch 1975-1976). The two factories were connected by three tunnels under Baker Street. The burials found in 2005 were located between the three tunnels (Figure 12). The ownership and function of the factory located within what is now the Baker Street parking lot changed yet again later in the 20th century; the building is identified on the 1960 fire insurance plan as “*Steel Wire Springs Ltd., Springs and Wire Specialties Mfg.*” (Figure 13).

As visible in the aerial photographs, a large smoke stack was located to the rear of the main factory building. A garage was located some distance to the northeast, near the northeast edge of the triangular block now occupied by the Baker Street parking lot. In addition, the 1921 plan shows a drive shed, a dry kiln and “*lumber piled 8-12 ft. high*”, located along the eastern edge of the triangular-shaped block; they all front on Park Lane. Another outbuilding is depicted on the 1960 plan; it is identified as a transformer, and is located north of the northeast corner of the Victoria Rink (Figure 13). This structure appears to partially overlap the location of the drive shed shown on the 1921 fire insurance plan (Figure 12). Sometime after 1960 the Victoria Rink and the factory complex to the north of it were demolished and the property was paved for use as a municipal parking lot.

3.0 2006 ARCHAEOLOGICAL EXCAVATIONS

3.1 Methods

The area of concern for the 2006 archaeological investigations is what the City of Guelph staff designated as Phase 1 of the proposed multi-storey parking facility. The lands involved in Phase 1 are located in the southern part of the former Public Burying Ground (Plate 1). They form a roughly rectangular-shaped area in the Baker Street Parking Lot, and also extend eastward into the Park Lane right-of-way. The Phase 1 lands included the proposed multi-storey parking facility as well as a proposed lane extension to the north of it. The latter was to connect Baker Street with the Park Lane right-of-way.

The 2006 salvage excavations covered a total surface area of 0.41 hectares. The limits of the 2006 excavations spanned the width of the southern portion of the existing parking lot and extended eastward into the adjacent Park Lane right-of-way.

One preliminary step in the 2006 excavations was for Dana Poulton, the Project Manager for the investigations, to meet with City staff to discuss matters relating to the proposed investigations. That meeting was held on June 20, 2006. As of that time, construction of the proposed multi-story parking facility was scheduled to commence some time between January and March 2007, with the facility to be completed and opened by Christmas of 2007. Several matters were discussed at the meeting of June 20, 2006, including the relative degree of potential that intact graves were present in the Phase 1 area, what protocol would be followed in the event human remains were found, and which external agencies, if any, would have to be contacted in that eventuality.

The single most important decision arising from the meeting of June 20, 2006 was that the archaeological investigations would involve test and salvage excavations prior to construction, rather than monitoring during construction. That strategy allowed for a far more effective excavation. It also ensured that there was no potential for last minute discoveries that could jeopardize the proposed construction schedule.

Another important decision arising from the meeting was that the excavations of the main Phase 1 area would be scheduled to be completed around the end of August 2006, a period that would present the least interference to downtown parking, parking revenues, and the businesses in the vicinity of Baker Street. A related decision was that segments of the existing parking would be restored for use as parking as the excavations were completed in each part of the Phase 1 area.

Another preliminary step in the 2006 excavations was to have an on-site meeting to discuss how best to undertake the excavations with a minimum of impacts to the daily operation of the existing parking lot. That meeting was held on July 11, 2006. It was attended by Dana Poulton, Christine Dodd and Jim Sherratt of D.R. Poulton & Associates, Rob Broughton of the Community Services Group, City of Guelph, the Project Manager for the proposed Baker Street Parking Facility, Anna Marie O'Connell, Supervisor of Parking, Parking and Downtown Operations, City of Guelph, and Don Lockhart of Lockhart Excavators Ltd., the contractor. Following that meeting, D.R. Poulton & Associates arranged for locates.

The archaeological test and salvage excavations of the proposed Baker Street Parking Facility spanned a five-week period, from July 24 to August 22, 2006. The excavations were directed by Christine Dodd and Jim Sherratt with an average crew of five. The first graves were found on the first day of the excavations; one of these graves is illustrated in Plate 4. As human remains were recovered over the weeks to come, they were transferred on a daily basis to the D.R. Poulton & Associates laboratory for processing. Once all of the remains had been cleaned they were transferred to Michael Spence, PhD, the Physical Anthropologist for the project, for analysis. Related artifacts recovered by the excavations were similarly transferred to the D.R. Poulton & Associates laboratory for processing

The archaeological excavations encompassed most of the southern portion of the existing parking lot as well as part of the adjacent portion of the Park Lane right-of-way to the east. As stated in Section 1.0 of this report, the salvage excavations did not include the southern entrance into the existing Baker Street Parking Lot and the traffic ticket box at that entrance. The southern entrance had been reserved as the last area in the Phase 1 lands to be excavated, but the project was shelved before that area was to be excavated. The only other area in the southern portion of the existing parking lot that was not excavated was the alignment of an existing storm sewer located immediately west and northwest of the southern entrance into the existing parking lot. The excavations are described in detail below.

The archaeological excavations within the existing parking lot began in the northeast portion of the Phase 1 lands. Using a backhoe with a toothed blade under archaeological supervision, the asphalt was removed over a limited area and dumped into a dump truck, to be removed off-site for recycling. The excavated soils were temporarily stock-piled beside the trench for use in the restoration of the parking lot as the test and salvage excavations progressed. The backhoe was then fitted with a straight-edged blade and the underlying fill and pea gravel was removed. In the process, it was discovered that there was a second buried layer of asphalt within the existing parking lot and in Park Lane to the east (Figure 10). The buried layer of asphalt was duly removed and the excavations by heavy machinery continued down to within a few centimetres of natural subsoil.

As the overburden was stripped, the archaeologists used shovels to expose the natural subsoil, checking for soil stains that could represent cultural features, most notably grave shafts. In addition, as the excavations progressed the archaeological personnel checked the soils for isolated human bones from previously-disturbed graves. Plate 2 shows a view of the soil stain marking a typical grave shaft, in this case Grave Shaft 23. Plate 3 shows a view of an exposed coffin in a grave shaft, in this case Burial 9. Plate 4 shows Burial 13; the surface visible to the right of the burial in Plate 4 is the exposed second asphalt layer.

When one or more grave shafts were found additional archaeologists were brought in so that the feature(s) could be excavated while the archaeological monitoring of the heavy equipment continued. The graves shafts were excavated by trowel. Intact burials were exposed and recorded before they were removed. All excavated soils were screened through 6 mm mesh to recover any loose bones or artifacts present. Once a given area had been cleared the contractor backfilled the excavations and compacted the soils so that the area could again be used for parking. While that was in process, the excavations progressed to the next area. On any given day, the area being excavated was enclosed by protective fencing. This was done to ensure the safety of the public.

3.2 Results

Including all categories of human bone, the portion of the former Public Burying Ground excavated in 2006 contained the remains of 20 individual adults, two teenagers and 21 children. That total is exclusive of the two adult burials excavated in 2005 in the adjacent Baker Street right-of-way. Plates 4-6 show select burials. Figure 11 shows the location of the cultural features recorded by the 2006 excavations, as well as the limits of the excavations. It also shows the location of the human remains recorded by the investigations.

In the interests of context, Section 4.0 of this report presents summary data on the human skeletal remains recovered by the 2006 excavations. Separate reports on the analysis of the human skeletal remains have been prepared by Michael Spence; they are presented in Appendix 1 and Appendix 2 of this report. Other aspects of the findings of the investigations of the Public Burying Ground are discussed in Section 5.0 of the report. A description of the non-burial cultural features discovered by the 2006 excavations is presented below.

The main non-burial feature identified by the 2006 excavations in the southern portion of the existing parking lot was a large rectangular cobblestone foundation. It formed the foundation of the Victoria Rink, which was constructed in 1892. The location and dimensions of this foundation correspond well to contemporary blueprints and fire insurance plans as well as photographs of the structure (Figures 9, 12-13). Based on the 2006 excavations, the structure covered a surface area of 0.1378 hectares – just over a third of an acre. As such, it covered about a third of the surface area of the 2006 archaeological excavations.

Another feature unrelated to the cemetery is a cat burial. It was designated Burial 10 and is presumed to post-date the use of the Public Burying Ground as a cemetery. The cat burial is presumably that of a mouser and/or a family pet. It is located in the right-of-way of Park Lane, just north of the intersection with Chapel Lane and was probably buried sometime in the late 19th or early 20th century, before Park Lane was paved. The animal was buried in a pit measuring 0.83 metres by 0.46 metres.

The 2006 excavations also uncovered three other cultural features within the southern portion of the existing parking lot. One is a box drain; it transects the parking lot on an east-west axis. The second is a buried concrete wall that is parallel to and just north of the box drain. The third is a section of a 6.3-metre length of a stone wall in the northeast part of the Phase 1 area, directly south of and nearly at a right angle to the box drain.

The stone wall segment is roughly parallel to the alignment of Park Lane, and is located approximately 20 metres west of Park Lane. The location of this wall doesn't correspond to any of the structures evident in the 1872 Bird's Eye View (Figure 6) and the aerial photographs of 1931 and 1946 (Figure 9). It is in the general vicinity of a drive shed illustrated on the fire insurance map of 1921 and a transformer illustrated on the fire insurance map of 1960 (Figures 12 and 13, respectively). However, the orientation of the wall segment does not appear to correspond to either of those buildings. The wall segment is too far west to have been part of the wall constructed in 1853 to enclose the cemetery.

4.0 DESCRIPTION OF THE SKELETAL REMAINS

The work plan for the proposed archaeological excavations included a statement that several different categories of human remains could potentially be encountered in the area involved in the construction of Phase 1 of the proposed parking facility. They ranged from intact burials to isolated bones from graves disturbed by previous construction.

As it evolved, the 2006 excavations did document a range of human remains in different categories. Data on age and sex and on age patterns for the sample of human remains recovered by the 2005-2006 excavations are presented in Section 5.6 of this report. A detailed osteological analysis of the skeletal remains recovered by the 2006 archaeological excavations is presented in the technical report by Michael Spence (Appendix 1); a non-technical report by Spence on the remains recovered in 2005 and 2006 is presented in Appendix 2. In the interests of context, summary data on the different categories of human remains recovered are presented below.

4.1 Burials

One category consisted of what were designated “Burials” by Spence (Appendices 1 and 2). With one exception, they consisted of graves that still had full skeletons in them – intact burials that had not been exhumed in the second half of the 19th century. The exception, Burial 6, is a secondary burial within the former limits of the Victoria Rink. The intact burials were laid out in coffins, lying on their backs with their heads to the west and their feet to the east.

The area excavated in 2006 contained eleven human burials. They are in addition to the intact burial and the partially intact burial excavated in the adjacent Baker Street right-of-way in 2005. The latter burials were not assigned individual burial numbers in the report on the 2005 excavations. However, for purposes of the 2006 investigations they have been designated Burial 1 and Burial 2, respectively.

The eleven human burials discovered in 2006 were assigned sequential numbers, from Burial 3 to 9 inclusive and 11 to 14 inclusive. Burial 10 was that of a cat. Two of the eleven human burials are adults (one a male and the other a female). The other nine were too young to determine gender; they consisted of four sub-adults and five infants or newborn. The latter included two infant burials that are almost certainly twins: Burials 11 and 12. They were located beside a larger grave shaft that had been exhumed (Grave Shaft 25). Burials 11 and 12 both had shroud pins over the right chest area. They were the only burials excavated in 2005-2006 that had shroud pins. Plates 5 and 6 illustrate those two burials.

4.2 Grave Shafts

The second category of human remains documented by the 2006 excavations consisted of exhumed burials. They were designated by Spence as “Grave Shafts” (abbreviated as “GS”) (Appendices 1 and 2). The bodies in these grave shafts had been exhumed in the second half of

the 19th century. Thirteen of the 25 grave shafts excavated in 2006 still held some bones that had been overlooked and left behind during the exhumation in the 19th century. Most common were the smaller bones of the extremities that are most likely to be overlooked in an exhumation. These remains at least allow us to know the age of the person that had been buried in the grave shafts in question. There were six adults and seven subadults, only two of whom were infants (one year or less in age). None were newborn. Another eleven grave shafts were completely empty. Based on their dimensions, the analysis by Spence inferred that the empty shafts had originally contained six adults and two children, plus three uncertain cases (Appendices 1 and 2).

4.3 Findspots

The third category of human remains was designated by Spence as “Findspots”, or F series (Appendices 1 and 2). This category applied to bones scattered in the area soil, either as single bones or small clusters of bones. Each such find was given a separate number. Unlike the GS series, these were not found in prepared graves, but rather were sitting loose in the ground as if just dropped there.

There were eight separate occurrences in the Findspot series. The most likely explanation for these is that they are the remnants of burials that had been intact but were then disturbed and scattered by later construction in the area. Half of the Findspots were in the soil beneath where the Victoria Rink had been, so they probably relate to intact graves or exhumed grave shafts with some bone that were disturbed during its construction.

4.4 Surface Finds

The last category of human remains was designated by Spence as “Surface”, or S series (Appendices 1 and 2). These occurrences consist of a few scattered bones that were found exposed on the surface of the excavations. These had probably been displaced during recent construction work, since bones exposed to the elements do not survive for more than a few years. Their scattered distribution suggests that they are probably just further examples of the F series, Findspots brought to the surface of the ground. The Surface series consists of only three finds scattered on the surface of the area. They include one adult, one child and one infant.

The infant from the Surface series, S1, was a child about one year of age; it is represented by only two bones, the left and right thigh bones. One of these has a fracture at the upper end. This particular kind of fracture is usually due to child abuse, and is caused by wrenching the leg or shaking the baby while holding the leg. The break was starting to heal, so the infant probably lived a few weeks after the episode of abuse.

5.0 DISCUSSION

Broadly speaking, the 2005-2006 archaeological investigations of the former Public Burying Ground yielded two types of information. The first consists of discoveries that could have a practical benefit for planning future developments and land use changes in the area of the former cemetery. Of primary concern in this respect are the outer limits of the former cemetery, in particular the unexcavated portions of it, which may contain as-yet undiscovered graves. Also of concern in this respect are the depths at which unmarked graves may be encountered. The discoveries that could have a practical benefit for the future planning are considered in Sections 5.1 and 5.2 of this report.

The second type of information derived from the 2005-2006 archaeological investigations of the former Public Burying Ground consists of discoveries that help us better understand the past. The insights into the early history of Guelph that were provided by the 2005-2006 excavations are discussed in Sections 5.3 to 5.7 inclusive of this report.

5.1 Limits of the Public Burying Ground

One key element in archaeological resource management is to confirm whether the site that is subject to potential impact from a proposed development is significant and warrants mitigation by avoidance or salvage excavation. In the case of the Public Burying Ground, that was a given. The other key element is to define the limits of the site. In this case, that is more problematic, as there are no detailed contemporary plans that show the limits of the cemetery.

The numerous contemporary plans that are available cover the entire Town or City of Guelph. They are all consistent in showing that the Public Burying Ground was located within the larger Gore bounded to the west by Yarmouth Street, the south by Quebec Street, and the east by Wyndham Street (Figures 2-5, 7-8). They are further consistent in that they place the Public Burying Ground in the smaller core area of the Gore defined by Baker Street to the west, Park Lane to the east and Chapel Lane to the south. However, the archaeological discoveries in 2005 and 2006 clearly show that the cemetery minimally extended west across the Baker Street right-of-way and east into the Park Lane right-of-way (see Section 5.2, below). This, in turn, demonstrates that the contemporary plans are at too small a scale to identify the limits of the cemetery with any degree of confidence.

As stated in Section 2.1, research by Killam (1989) places the size of the Public Burying Ground at 1.59 acres (0.644 hectares). If that is the case, the 0.41-hectare area covered by the 2006 excavations of the proposed Baker Street Parking Facility mitigated almost two-thirds of the historic cemetery. The same source further places the cemetery at 43° 32' 50" by 80° 15' 06", but the stated latitude and longitude do not assist us in defining the outer limits of the cemetery.

In the absence of detailed historical documentation, the limits of the cemetery could only be defined by the extent of the graves, and by the stone wall which is known to have been built around the burial ground in 1853 (see Section 2.2). Unfortunately, the graves identified to date essentially extend up to the edge of excavation in any given direction (Figures 11-13). In

addition, the excavations to date have not located any segment of the wall that surrounded the cemetery. Taken together, these two facts tend to indicate that the western, southern and eastern limits of the Public Burying Ground lie outside the western, southern and eastern limits of excavation, and that any segments of the wall that may survive are similarly located beyond the current edge of excavation.

A complicating factor in any discussion of burials on the western fringe of the Public Burying Ground is that the life span of this cemetery overlapped the existence of the first Knox Presbyterian Church. As illustrated in Figure 5 and stated in Section 2.1 of this report, the church in question was located on the east side of Yarmouth Street, in Lot 89, and backed onto Baker Street. This church was constructed in 1847, six years before the Public Burying Ground closed, and was only in use for some two decades, when it was replaced by the second Knox Presbyterian Church (1870) and the Chalmers Church (1871), both of which are located on Quebec Street.

It is not known if the first Knox Presbyterian Church had a cemetery, but if it did it would have been in use for a maximum period of some 20 years, from 1847 to the late 1860s. In addition, if it did exist and was located beside the church, it would have been situated on the west edge of the Public Burying Ground, between Baker Street and Yarmouth Street. Pending the results of any further research on this subject, all that can be said is that Burial 1, which was excavated within the Baker Street right-of-way in 2005, is located some 10 metres northeast of the northeast corner of the first Knox Presbyterian Church. It is the closest known burial to the property that contained the church.

5.2 Distributions of Human Remains

The 2005 excavations confirmed the presence of burials within the Baker Street right-of-way. In fact, in the case of Burial 1 the internment actually extended marginally under the sidewalk on the west side of the road. The far more extensive excavations in 2006 provided a great deal more information on the distribution of burials in the nearby southern portion of the former Public Burying Ground.

Figure 11 shows the distribution of human skeletal remains recovered by the 2006 excavations. Figures 12 and 13 show the distribution of the remains recovered by the 2005 and 2006 excavations relative to the 1921 and 1960 Fire Insurance maps.

As illustrated in Figure 11, the 2006 excavations confirmed the presence of grave shafts, intact burials and isolated finds of human bone in three discrete areas within and adjacent to the southern portion of the existing parking lot. Despite this distribution pattern, it is clear that the division of the burials into three discrete clusters is an artificial one. Without doubt, other burials were originally present in the intervening areas, but they were destroyed by later grading and construction. What we have left are, in effect, islands of surviving graves within a fairly extensive sea of disturbance. The individual clusters are discussed below.

North-Central Cluster

One of the clusters recorded by the 2006 excavations is located in the north-central portion of the Phase 1 lands, within the existing parking lot. This cluster had five intact burials and 13 exhumed grave shafts, for a total of 18 graves. One of the burials in this cluster, B4, was that of a man who died at 45-50 years of age. His lower face had probably looked a little lopsided because sometime in his childhood the left side of his lower jaw had been broken. It did not grow properly after that, remaining shorter than the right side (Plate 9). The analysis by Spence (2007a, 2007b) also determined that this individual had severe dental problems and that he suffered from spinal tuberculosis. Plate 7 illustrates one of the vertebrae that had been affected by the disease.

Both femora of Burial 4 have pronounced tubercles of bone on the posterior surface, just above the medial part of the condyle (Plate 8). The one on the right femur is particularly large. The medial head of the Gastrocnemius muscle attaches at this point. The tubercles suggest heavy and continued work for that muscle, well beyond what is normal. The Gastrocnemius runs down the back of the lower leg and flexes the leg, drawing the lower leg up or pulling it back. We need here to remember the destruction of B4's lower back. The kyphosis of the spine at that point would have bent his body sharply forward, and his mobility would have been severely limited. It is possible that he needed a conveyance like a Bath-chair to get around. Named for its use with invalids at the hot springs of Bath in the West Country of England, this is essentially a chair with wheels at the base of each leg, propelled either by someone pushing from behind or by using one's own legs to "walk" it. That set of movements could well have been responsible for the bony outgrowths on the backs of the femora.

Another of the burials in the northern cluster, B13, was that of a child of about 4-5 years of age (Plate 4). Death was the result of a severe blow to the back of the head by a hard object, like a hammer or stone. The blow landed high on the right side, leaving a circular depression 30 mm in diameter in the skull. A fracture in this area is usually the result of child abuse. However, none of the bones of B13 show evidence of prior abuse in the form of healed fractures. Without a clear history of abuse, accident cannot be ruled out.

Southeast Cluster

The second cluster of burials recorded by the 2006 excavations is located in the southeast corner of the existing parking lot and the adjacent segment of the Park Lane right-of-way. It had four intact burials and 10 exhumed grave shafts, for a total of 14 graves. The burials in this second cluster include the two infants or newborns that are almost certainly twins: Burials 11 and 12. As stated earlier, they were located beside Grave Shaft 25, the burial of an older child or adolescent, which had been exhumed.

Victoria Rink Cluster

The third cluster of burials recorded by the 2006 excavations is located in the southern part of the existing parking lot, within the original footprint of the Victoria Rink, which was constructed

in 1892. This cluster had two intact burials and one exhumed grave shaft, as well as four separate occurrences of isolated human bone. It is clear that the isolated human bone in this area derived from other graves disturbed during the construction of the Victoria Rink.

As stated earlier, one of the burials in the Victoria Rink cluster, B6, is a secondary burial. It contains the partial remains of a burial believed to have been disturbed during the construction of the Victoria Rink in 1892 and reburied by the construction workers. The analysis by Spence determined that B6 was a woman who died in her early forties.

One unusual feature of B6's skeleton is the presence of wear facets on the finger bones (Plate 10). These facets show that she often held both of her hands in a tightly flexed position, the fingers folded sharply back on themselves. This is like the condition medical specialists call "claw hand", a symptom of leprosy, and in fact the fingers of lepers do have these facets. However, B6 shows no other evidence of leprosy or of any other physical disorder that could lead to "claw hand". It is more likely that she was engaged in some sort of repetitious activity that required this hand position and that would have gradually led to the development of these facets on the fingers. Frequently holding the hand in a tight fist might have done it, but a 19th century Guelph woman probably did not do a lot of boxing. A more plausible explanation is that B6 was a washerwoman. Working clothes repeatedly over a washboard would have required a hand position like this.

The other intact burial in the Victoria Rink cluster is B7; it is a child of about a year of age. Unfortunately, this burial was only observed while it was in the process of being destroyed by the backhoe. The accidental destruction of features is always a danger in an excavation such as this, where the original ground level was uneven and cannot always be anticipated by the archaeologists monitoring the heavy equipment.

5.3 Internal Layout of the Public Burying Ground

As quoted in Section 2.2 of this report, the eye-witness account of a visit to the Public Burying Ground is recorded in an 1853 entry in the diary of Anne Everitt (née Thurtell). The entry includes a reference to family burial plots, as follows:

...each family secures a small enclosure, which is palisaded in – my brother's is a large oblong in the centre of the ground, which will hold 9 or 12 graves. A very neat white stone marks Louisa's grave – a smaller stone or two – the two younger children. I also visited Mrs. Strowger's and Mrs. Wilson's graves, but their stones have not been erected, as the Town Council have determined upon purchasing ground for a new cemetery at a distance from the Town...
(Thurtell/Mickle Collection, University of Guelph Library)

From the above statements it may be inferred that most but not all graves had headstones or monuments, that the cemetery included family burial plots and that the plots were enclosed or otherwise delimited.

The 2005-2006 excavations did not uncover any headstones or footing stones for headstones, or any markers that might have delimited family burial plots. There are two likely explanations for the absence of such remains, neither of which is mutually exclusive. One is that most of the monuments that would have been present were moved to the new grave sites in the Union Cemetery (now Woodlawn Memorial Park) or elsewhere in the second half of the 19th century, after the Public Burying Ground was closed. The other likely explanation for the absence of such remains is that any footing stones or other markers that might have remained would have been at or just below ground level, and would almost certainly have been destroyed by the grading and construction in the decades that followed the effective closure of the cemetery in December 1853.

Notwithstanding the above comments, the archaeological excavations by D.R. Poulton & Associates and the osteological analysis by Michael Spence did provide some evidence of the presence of family burial plots within the portion of the cemetery investigated in 2006. This is clearest in the case of the cluster of three graves in the southeast portion of the cemetery, in the Park Lane right-of-way. It included two newborns, B11 and B12, buried side-by-side, though in separate graves. As illustrated in Figure 11, they were beside GS25, an exhumed grave that had contained an older individual. The length of the latter grave shaft was in the intermediary range between the adult and subadult size, indicating that it may have held an adolescent or older child, possibly a sibling.

Other sets of burials documented by the 2006 excavations are also located immediately beside one another, so closely spaced that a familial relationship can be assumed. One set consists of B3, an unexhumed neonate, beside GS6, an empty grave of adult size. A second consists of B8, an unexhumed infant, beside GS16, an exhumed adult male. A third consists of GS21, an exhumed infant, beside GS22, an empty grave shaft of adult size.

5.4 Exhumations

The analysis of the intact and exhumed graves by Spence (Appendices 1 and 2) revealed some interesting patterns in the ages of those who were and were not exhumed from the Public Burying Ground following the closure of the cemetery in 1853. Data on the ages of the individuals whose remains were recovered were determined from the analysis of the bones recovered from the 13 intact or partially intact burials, and from the analysis of the remains from the 13 exhumed grave shafts that still contained some bones.

Further to the above, data on the ages of the individuals who had been buried in graves that were fully exhumed were determined on the basis of the length of the empty grave shafts. Judging by the sizes of the shafts that still had some bone remnants in them, any shaft over 192 cm in length had held an adult while any shaft less than 140 cm long had held a child. The age increment could not be reliably determined for people in shafts between 140 and 192 cm long.

The individuals represented by the exhumed burials total 12 adults and 9 subadults, with only 2 or 3 in the infant category. This contrasts with the figures for intact burials (the B series), those who were simply left in place when the cemetery was closed: 4 adults and 9 subadults, of whom

7 (77%) were infants of one year or less. These statistics indicate that adults were more likely to be exhumed than subadults, and infants were the least likely age category to be exhumed for removal to another cemetery.

This relative lack of concern for infants is also evident in the spatial distribution of the graves. As stated in Section 5.3, above, some were placed very close together, indicating that they held members of the same family. In three cases, the graves of unexhumed infants were right beside exhumed graves that had contained older individuals. Two of these exhumed graves had contained adults while one was for either an adult or an older child. The people who conducted these exhumations seem to have made a deliberate choice to leave the infants behind when they removed the older people. On the other hand, in a fourth case an infant and an adult in adjoining graves had both been exhumed. It seems, then, that we can't formulate any hard and fast rules for the Public Burying Ground. Infants were not always left behind, nor were adults always removed. These may have been general tendencies, but there were still a number of exceptions.

5.5 Depths of the Known Burials

Table 1 presents summary data on the human burial features excavated in 2005 and 2006, including their depths. As stated in the report on the 2005 archaeological excavations, and as illustrated in the 1872 Bird's Eye View shown in Figure 6, the original landscape of the Public Burying Ground was undulating. Given that, the original depths below surface of the burials would have varied depending on where they were situated within the property.

The Bird's Eye View indicates that the rights-of-way of Baker Street and Park Lane, which are known to contain graves, had already been graded by 1872. The same applies to Chapel Lane, which probably also contains graves. During the 1890s what is now the Baker Street Parking Lot, which represents the core of the former Public Burying Ground, was graded for the construction of the Victoria Rink, the adjacent bowling greens and the factory complex. By the last quarter of the 19th century the building lots fronting or backing onto the west side of the Baker Street right-of-way, the south side of the Chapel Lane right-of-way and the east side of the Park Lane right-of-way, which represent the periphery of the former Public Burying Ground, had all been graded and built upon. As a result, for more than a century the topography throughout the entire former cemetery has been flat.

The 2005-2006 archaeological excavations provided data on 38 interments: 13 intact burials; and 25 graves shafts, just over half of which contained bones. Data on the depths of the graves below the upper layer of asphalt is available for 32 of the interments; the surfaces of these graves have depths ranging from 0.31 metres to 1.36 metres (1.0 feet to 4.4 feet), with an average of 0.79 metres (2.6 feet).

Data on the depths of the bones below the upper layer of asphalt are naturally somewhat greater, as the remains rested on the bottoms of the coffins. The depths of the bones below asphalt are available for 31 of the burials and grave shafts excavated in 2005-2006. The remains had depths ranging from 0.58 metres to 1.64 metres (1.9 feet to 5.3 feet), with an average of 1.11 metres (3.6 feet).

Table 1 Summary Data on Human Burial Features

| Intern-ment | Age | Shaft Dimensions (metres) | | Coffin Dimensions (metres) | | | | Depth Below Asphalt (metres) | | Comments |
|-------------|--------------------|---------------------------|---------|----------------------------|------------|----------------|------------|------------------------------|---------|---|
| | | Length | Width | Length | Head Width | Shoulder Width | Foot Width | To Grave Shaft | To Bone | |
| Burial # 01 | adult | unknown | unknown | unknown | unknown | unknown | unknown | 0.55 | unknown | excavated in 2005 |
| Burial # 02 | adult? | unknown | unknown | unknown | unknown | unknown | no data | 0.39 | 0.58 | excavated in 2005 |
| Burial # 03 | neonate | 1.08 | 0.48 | 0.68 | 0.22 | 0.28 | 0.22 | 0.50 | 0.69 | |
| Burial # 04 | 45-50 | 1.67 | 0.65 | 1.97 | 0.34 | 0.50 | 0.26 | 0.31 | 0.66 | |
| Burial # 05 | Neonate | 1.13 | 0.46 | | | | | no data | 0.66 | |
| Burial # 06 | 40-44 | 1.25 | 0.48 | | | | | no data | 1.41 | |
| Burial # 07 | 1 year | na | na | | | | | no data | 1.37 | completely disinterred by backhoe |
| Burial # 08 | 1 year | 1.21 | 0.54 | 0.83 | 0.13 | 0.27 | 1.13 | 0.80 | 0.92 | |
| Burial # 09 | 2 years | 1.39 | 0.49 | 1.21 | 0.26 | 0.38 | 0.21 | 0.63 | 0.84 | |
| Burial # 11 | neonate | 0.80 | 0.40 | 0.72 | 0.24 | na | 0.14 | 1.10 | 1.20 | |
| Burial # 12 | neonate | 1.13 | 0.48 | | | | | 1.08 | 1.18 | |
| Burial # 13 | 4.5 years | 1.40 | 0.40 | 1.23 | 0.30 | 0.38 | 0.30 | 1.11 | 1.28 | previously labelled Burial # 1 for 2005 excavations |
| Burial # 14 | 1 year | 1.08 | 0.43 | | | | | 0.68 | no data | previously labelled Burial # 2 for 2005 excavations |
| Shaft # 01 | - | no data | no data | | | | | no data | no data | partial remnant stain |
| Shaft # 02 | - | 1.40 | 0.40 | | | | | 1.22 | 1.37 | |
| Shaft # 03 | 2-3 years | 1.92 | 0.64 | | | | | 1.14 | 1.60 | |
| Shaft # 04 | - | 2.13 | 0.64 | | | | | 1.05 | 1.64 | |
| Shaft # 05 | - | 2.02 | 0.78 | | | | | 1.06 | 1.64 | |
| Shaft # 06 | - | 1.98 | 0.64 | | | | | 0.62 | 1.25 | |
| Shaft # 07 | 3 months | 1.07 | 0.56 | | | | | 0.79 | 1.20 | |
| Shaft # 08 | mid-old age | 2.26 | 0.87 | | | | | 0.67 | 0.89 | |
| Shaft # 09 | young-middle adult | 2.41 | 0.80 | | | | | 0.70 | 0.92 | |
| Shaft # 10 | 4.5 years | 1.21 | 0.45 | 1.18 | 0.26 | 0.36 | na | 0.63 | 0.82 | jumble of bone in upper portion of coffin remnant |
| Shaft # 11 | 8.5 years | 1.80 | 0.62 | | | | | 0.61 | 0.97 | |
| Shaft # 12 | Adult | 2.31 | 0.92 | | | | | 0.60 | 1.42 | Large metal plate from lower portion of shaft |
| Shaft # 13 | | 1.63 | 0.72 | | | | | 0.76 | 0.90 | |
| Shaft # 14 | | 2.13 | 0.44 | | | | | no data | no data | |
| Shaft # 15 | | 0.92 | 0.42 | | | | | no data | 1.24 | |
| Shaft # 16 | Adult | 1.86 | 0.48 | | | | 0.21 | 0.54 | 0.68 | coffin wood |

| Internment | Age | Shaft Dimensions (metres) | | Coffin Dimensions (metres) | | | | Depth Below Asphalt (metres) | | Comments |
|------------|-------------|---------------------------|---------|----------------------------|------------|----------------|------------|------------------------------|---------|--|
| | | Length | Width | Length | Head Width | Shoulder Width | Foot Width | To Grave Shaft | To Bone | |
| | | | | | | | | | | preserved under lower body |
| Shaft # 17 | Adult | 0.65 | 0.59 | | | | | 0.98 | 1.23 | |
| Shaft # 18 | 8.5 years | 1.03 | 0.41 | | | | | 1.01 | 1.06 | |
| Shaft # 19 | | 1.98 | 0.60 | | | | | 0.66 | no data | |
| Shaft # 20 | 1.5-2 years | 1.02 | 0.42 | | | | | 0.76 | no data | |
| Shaft # 21 | 6 months | 1.40 | no data | | | | | 0.41 | 0.62 | small remnant of wood not impacted by backhoe - size of shaft is estimated |
| Shaft # 22 | | 1.95 | 0.57 | | 0.34 | 0.67 | 0.48 | 0.33 | no data | well preserved coffin outline but no nails or bones |
| Shaft # 23 | | 1.58 | 0.63 | | | | | 0.95 | 1.21 | |
| Shaft # 24 | 60 years | 1.76 | 0.60 | | | | | 1.36 | 1.44 | |
| Shaft # 25 | | 1.61 | 0.71 | | | | | 1.16 | 1.50 | |

5.6 Artifact Analysis

Handles and viewing plates on coffins are among the category of artifacts that archaeologists term “coffin furniture.” In addition, coffins from the latter half of the 19th century sometimes had coffin plates – metal plates with inscriptions that identified the name of the individual and provided other information, such as the date of birth and date of death. The only possible coffin furniture recovered by the 2006 archaeological excavations was from Burial 9, which was the internment of a two-year old. This coffin had the remains of a possible coffin plate; it is ferrous and highly fragmented, with no visible inscriptions. Apart from that specimen, coffin nails were also recovered from the burials. They are badly corroded; in consequence, they have not been analysed.

Burial 11 had a copper alloy shroud pin over the right chest area; it has a length of 30 mm. An identical shroud pin was located in the same position on the adjacent Burial 12. As stated elsewhere (Section 4.1), these two burials are those of infants who were likely siblings, possibly twins. That inference is strengthened by the fact that of the 13 intact burials excavated in 2005-2006, they were the only ones that had shroud pins. Plate 6 illustrates the placement of the shroud pin on Burial 12.

Buttons were recovered from two of the burials. All are of shell, and all are small four-hole buttons. Although they are relatively well preserved, they have degraded somewhat. In consequence, their diameters are likely somewhat smaller than the original size. Given that proviso, the buttons all appear to be identical in size and manufacture.

A single shell button was recovered from Grave Shaft 25; it has a diameter of 9.8 mm. As stated in Section 5.3, GS25 was adjacent to Burial 11 and Burial 12. It was an exhumed grave that had contained an adolescent or older child.

Three shell buttons were recovered from Burial 4. They have diameters of 9.8 mm, 9.7 and 10.2 mm, respectively. As described in Section 5.2, Burial 4 was that of a man who died at 45-50 years of age.

Small 19th century shell buttons of the type described above would typically be sewn onto the blouse of a woman or a girl. As such, the button from GS25 may not be out of place, but the buttons from Burial 4 certainly are. The most reasonable explanation is that the buttons recovered from Burial 4 represent accidental inclusions in the material used to fill in the grave following the interment of the adult male. For that matter, the same could apply to GS25.

Granting that the burials investigated in the course of the 2005-2006 excavations only represent a sample of the total population of those who were interred in the Public Burying Ground, the evidence to date suggests that very few of the individuals in this cemetery were buried in shrouds secured by shroud pins. Others may have been buried wrapped in winding sheets, but if so, no remains of the cloth have survived. Based on the paucity of buttons and on the nature of the graves in which they occur, few if any of the individuals appear to have been buried clothed. All things considered, the reality for most if not all of those who were interred here seems to echo Ecclesiastics 5:15: naked into this world they came, and naked they left it.

5.7 Data on Age and Sex of the Human Remains

Readers with an interest in the technical aspects of the analysis of the human remains recovered from the former Public Burying Ground are referred to the report by Spence presented in Appendix 1 of this report. Readers with an interest in the non-technical aspects of the analysis of the human remains recovered are referred to the report by Spence presented in Appendix 2 of this report. A brief summary of the findings of the analysis by Spence on the age and sex of the individuals represented in the 2005-2006 sample is presented below.

Including all categories of human bone, the portion of the former Public Burying Ground excavated in 2006 contained the bodies of 20 individual adults, two teenagers and 21 children. This total is exclusive of the two adult burials excavated in 2005 in the adjacent Baker Street right-of-way. As noted in the analysis by Spence (Appendices 1 and 2), the low number of teenagers in the 2006 sample is not unexpected as the teenage years are generally a time of low mortality; people of that age had survived the dangers of childhood and had not yet encountered the threats of adult life and old age.

Data on the age and sex represented in the human remains recovered by the 2005-2006 excavations are summarized in Table 2. Data on the elements represented from exhumed grave shafts (the GS series) and Findspots (the F series) are presented in Table 3. Finally, data on the age patterns represented in the remains recovered by the 2005-2006 excavations are presented in Table 4.

Table 2 2005-2006 Excavations: Age and Sex Data

| Individual | Sex | Age |
|-------------------|------------|--------------------|
| B1 | male | 38-59 years |
| B2 | female? | unknown |
| B3 | | neonate |
| B4 | male | 45-50 years |
| B5 | | neonate |
| B6 | female | 40-44 years |
| B7 | | 1 year |
| B8 | | 1 year |
| B9 | | 2 years |
| B11 | | neonate |
| B12 | | neonate |
| B13 | | 4.5 years |
| B14 | | 1 year |
| GS3 | | 2-3 years |
| GS7 | | 3 months |
| GS8 | | middle-old adult |
| GS9 | | young-middle adult |
| GS10 | | 4.5 years |
| GS11 | | 8.5 years |
| GS12 | | adult |
| GS16 | male | adult |
| GS17 | | adult |
| GS18 | | 8.5 years |
| GS20 | | 1.5-2 years |
| GS21 | | 6 months |
| GS24 | female | 60 years |
| F1 | male (?) | adult |
| F2 | | 15-19 years |
| F3 | male | adult |
| Fnw1/4 | male | 25-29 years |
| Fse, tr1 | | adult |
| Ftr1 | | 3 months |
| F7.31:1 | | adult |
| F8.2:1 | female | 13-16 years |
| S1 | | 1 year |
| S2 | | 6 years |
| S3 | | adult |

Table 3 Elements Represented from Exhumed Grave Shafts (GS) & Findspots (F)

| Category | Cranial | Vertebral | Rib | Pelvic | Long Bone* | Extremities | Total |
|-----------------|----------|-----------|-----------|----------|------------|-------------|------------|
| GS adult | - | 11 | 12 | 1 | 7 | 97 | 128 |
| GS subadult | 4 | 16 | 7 | 3 | 8 | 57 | 95 |
| <i>GS total</i> | 4 | 27 | 19 | 4 | 15 | 154 | 223 |
| F adult | - | - | - | 2 | 10 | 1 | 13 |
| F youth | - | - | - | 1 | 2 | - | 3 |
| F subadult | - | - | - | - | 4 | - | 4 |
| <i>F total</i> | - | - | - | 3 | 16 | 1 | 20 |
| Total | 4 | 27 | 19 | 7 | 31 | 155 | 243 |

- unfused epiphyses not included in counts

Table 4 Cemetery Age Patterns: 2005-2006 Excavations

| Categories | Adult (aged 20+) | Subadult | | | Youth (aged 13-19) | Total |
|---------------------------------|------------------|--------------------|-------------------|-----------------------|--------------------|-----------|
| | | Child (aged 1-8.5) | Infant (aged 0-1) | Subtotal (aged 0-8.5) | | |
| unexhumed burials (B) | 4 | 2 | 7 | 9 | - | 13 |
| exhumed (GS with bones) | 6 | 5 | 2 | 7 | - | 13 |
| exhumed (GS with no bones) | 6 | ? | ? | 2 | - | 8 |
| F series | 5 | - | 1 | 1 | 2 | 8 |
| S series | 1 | 1 | 1 | 2 | - | 3 |
| <i>intact burials (B+F)</i> | 9 | 2 | 8 | 10 | 2 | 21 |
| <i>exhumed burials (all GS)</i> | 12 | (5) | (2) | 9 | - | 21 |
| Total | 22 | (8) | (11) | 21 | 2 | 45 |

? denotes some shaft dimensions could be either infant or child size; () denotes minimum count

5.8 Disease and Cause of Death

Health and cause of death can be difficult if not impossible to determine from skeletal remains. Episodes of poor health often leave no traces in the bones. It takes a particularly prolonged and serious illness to affect the skeleton. Even then the evidence it leaves is often non-specific, that is, the skeletal changes could be due to a variety of different infections or diseases. It is the exception when some particular defects in the skeleton can actually be identified as the result of a particular disease.

Many of the great killers of humanity (cholera, bubonic plague, smallpox, influenza) leave no evidence in the skeleton. When they strike a person, that person either dies or recovers before the bones are affected. These problems hamper our investigation of the health of past societies, like 19th century Guelph. Still, some health problems can be identified from the bones and teeth. Examples include tuberculosis, syphilis, and dental infection (cavities), all of which could be fatal prior to the introduction of antibiotics in the 1930s.

Burials 1 and 4 both suffered from poor dentition. In addition, Burial 1 suffered from arthritis. Finally, Burial 4 suffered from spinal tuberculosis, a condition that left him with crippled. His cause of death could have been from either his tuberculosis or from a severe infection resulting from his poor dentition.

The threats to life and limb evident in the individuals from the Public Burying Ground also included trauma, whether accidental or deliberately inflicted. As described in detail in the reports on the 2005 excavations, Burial 1 had suffered a beating that left him alive but with several broken bones, a broken nose and a disabled right hand (D.R. Poulton 2006, Spence 2006a, 2006b). In addition, there are three possible cases of child abuse in the present sample. The infant S1 is pretty clearly a case of abuse, dying only a few weeks after receiving a broken leg. The older B13 child died from a blow to the head, but it might have been an accident since B13's bones show no history of abuse. In addition, the B4 man had suffered a broken jaw in childhood, but the analysis could not determine how old he was at the time, or how it happened.

The 21 children in the sample include 19 children whose ages are known: 11 were infants (one year or less); 3 were young children (between one and three years); and 5 were older children (4-9 years). That first year of life, then, seems to have been the most dangerous - much as it is today.

The infant category can be still further subdivided. Four of the eleven are newborns who either died at birth or within a few weeks. Death among newborns is usually caused by inherent factors, like genetic defects or congenital problems rooted in the mother's health or physical condition during pregnancy. As infants get safely past those first few weeks, the dangers that they face change to external ones - infection, disease, malnutrition, etc. These were what threatened the seven older infants.

One particularly difficult transition that children must endure is weaning. As they shift from mother's milk to prepared foods they are much more likely to suffer from infection, digestive problems, diarrhea and nutritional deficiencies. We know from historic sources and biochemical analyses of skeletons that this transition in 19th century southern Ontario was usually completed by the end of the first year of life. We can't say for sure that these seven Guelph infants succumbed to problems related to weaning. Still, it seems likely that weaning was involved in at least some of these deaths.

6.0 RECOMMENDATIONS

The 2005 archaeological investigations confirmed that intact and partially intact human burials relating to the Public Burying Ground survive within the Baker Street right-of-way. The far more extensive 2006 excavations confirmed that intact burials and exhumed and partially exhumed graves also survive within the adjacent Baker Street parking lot and the Park Lane right-of-way to the east. As the use of this cemetery was confined to the 26-year period from 1827 to 1853, all of these burials relate to the first few generations of 19th century residents of what is now the City of Guelph.

As described in Section 1.0 of this report, plans for the proposed Baker Street Parking Facility were shelved early in the fall of 2006. Most of the excavations included in the archaeological work plan for the proposed parking facility had been completed by that date, but three tasks had not yet been implemented as they were to be conducted later in the construction schedule. One consisted of the proposed monitoring of the trenching for a new hydro conduit, which was to extend under the sidewalks adjacent to the south side of Chapel Lane and the east side of Park Lane. This task was designated Task 5 of the 2006 work plan. It was scheduled to be carried out in the fall of 2006.

The second task of the original work plan that has not been implemented to date consisted of the monitoring of the proposed removal of an old storm sewer line, which extends along the Chapel Lane, Park Lane and Baker Street rights-of-way parallel to the proposed new parking facility. This task was designated Task 6 of the archaeological work plan. It was scheduled to be carried out in the fall of 2007, after the hydro conduit and the proposed multi-storey parking facility had been constructed.

The last element of the original work plan was to conduct test excavations and monitoring of new side walks, new landscaping and the regrading of laneways outside of the completed Baker Street Parking Facility. Those activities were designated Task 7 of the archaeological work plan. These activities were designated Task 7 of the archaeological work plan. They were scheduled to be conducted in the fall of 2007, a full year after the completion of the salvage excavations in the main Phase 1 construction area.

The rationale for the proposed construction of the Baker Street Parking Facility was that more parking spaces were needed in downtown Guelph. Although circumstances led to the shelving of the project in the fall of 2006, this need continues. Accordingly, it is quite possible that plans for the proposed parking facility may yet be revived. If they are, the 2006 archaeological excavations will have mitigated most of the archaeological concerns for the project. However, there will still be a requirement to conduct archaeological investigations of the trenching for the proposed hydro conduit, the removal of the old storm sewer line and the construction of new side walks, the new landscaping, and the regrading of laneways.

Apart from whatever may evolve with the Baker Street Parking Facility, other changes in land use in this part of the downtown core could raise archaeological planning concerns in the future. For the former Public Burying Ground, by far the most notable potential change is that the main

branch of the Guelph Public Library is in need of expansion and one of the alternative sites under consideration is the northern portion of the existing Baker Street Parking Lot. This area covered about a third of the former Public Burying Ground, much of which lay to the rear of the early to mid 20th century factory complex (Figures 12-13). As such, it retains a very high potential for graves. If this area were to be confirmed as the preferred site for the new public library, the 2006 excavations of the Baker Street Parking Facility could serve as the blueprint for the archaeological assessment of that development.

Based on the investigations described in this report and on the information detailed above, several recommendations have been formulated. All are predicated on the principle that any future archaeological investigations relating to this cemetery that may be conducted on behalf of the City of Guelph will be carried out by a licenced archaeologist in accordance with the provisions of the Cemeteries Act and the Ontario Heritage Act. The recommendations are as follows:

- Firstly, it is recommended that arrangements be made to have the human remains recovered in 2006 re-interred in a burial plot in Woodlawn Memorial Park, and that a suitable monument to commemorate these remains be erected in Woodlawn Memorial Park. The City of Guelph may also wish to consider an historic plaque on the site of the former Public Burying Ground.
- Secondly, in the event that plans for the Baker Street Parking Facility should be revived, it is recommended that the City of Guelph implement the proposed archaeological monitoring of the removal of the old storm sewer line and the trenching for the proposed hydro conduit, and the proposed test excavations and monitoring of new side walks, new landscaping and the regrading of laneways.
- Thirdly, in the event that the northern portion of the existing Baker Street parking lot should be confirmed as the preferred site for the new main branch of the public library, it is recommended that the City of Guelph implement archaeological excavations to mitigate the concerns for unmarked human graves and human remains.

The above recommendations apply specifically to future impacts to the area covered by the known and potential limits of the Public Burying Ground. That said, the lessons learned by the 2006 archaeological excavations have broader implications to heritage planning elsewhere in the downtown core of historic Guelph.

Briefly, the 2005 and 2006 archaeological excavations demonstrate that intact burials, exhumed graves and partially exhumed graves relating to the Public Burying Ground survive beneath the existing Baker Street parking lot and adjacent road rights-of-way. Those remains survive despite the fact that this area has suffered relatively extensive impacts in the 150 years or so since the cemetery was closed in the mid 19th century. There is no reason to assume the same could not apply to the St. George's Anglican cemetery, which was located in the northern part of St. George's Square, less than 40 metres to the southeast. Accordingly, it is recommended that an archaeological assessment be carried out if any road works, sewer construction or other infrastructure development were to be planned for St. George's Square.

While human burials tend to be among the most conspicuous below-ground heritage planning concerns, it should be noted that they are also among the rarest. The most common archaeological remains in urban settings are those of buildings and the artifacts made or discarded by those who occupied them. Archaeological remains of that type survive in the downtown core of cities around the world. Within Ontario, two notable examples are in Kingston (founded by the French in 1674), where the foundations of the 17th century Fort Cataraqui and 18th century First Nations graves survive within the grounds of the Royal Military College, and where a wealth of early historic remains were preserved beneath the Market Square. Another example is in London, where the well-preserved remains of a mid 19th century British barracks, the 4-hectare Framed Infantry Barracks, lie within Victoria Park.

Given the above examples, there is no reason whatsoever to assume that archaeological resources other than burials cannot survive in the largely early to mid 19th century urban landscape of downtown Guelph (founded by the Canada Company in 1827). Such remains could survive beneath existing streets and beneath and between existing buildings. They could also survive in parking lots, parks and other open spaces. The question for a municipality as old or older than Guelph is not whether archaeological remains of those earlier generations will survive in the downtown core, but in which particular areas or building lots those archaeological remains do survive.

For reasons that are not apparent, the mapping of zones of positive archaeological potential in the City of Guelph Archaeological Master Plan only includes a few small areas of the parkland and other open space in the downtown core (Detritus 2001: Schedule 3). The identified zones of potential do not include the former Public Burying Ground. Nor do they include the site of St. George's Anglican Church and its cemetery, the first Anglican cemetery in Guelph. Nor do they include the grounds of the Church of Our Lady, which contain the first Catholic cemetery in Guelph. Finally, the identified zones of archaeological potential don't include any other built or paved areas of the historic core.

In view of the above considerations, the last recommendation of this report is that in future planning with respect to archaeological resources, City of Guelph Planning staff should not rely solely on the master plan study in determining which proposed developments or land uses changes in the downtown core warrant archaeological assessments. It is anticipated that the wider application of archaeological assessments in the downtown core in years to come would result in the discovery and salvage of significant below-ground archaeological remains. That, in turn, could only enhance our understanding of the early history and evolution of the municipality.

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APPENDICES

APPENDIX 1

**The Osteological Analysis of Skeletons from the 2006 Excavations
of the Former Public Burying Ground,
City of Guelph, Ontario**

January 28, 2007

Technical report prepared by Michael Spence, PhD.

APPENDIX 2

**The Skeletons from the 2006 Excavations
of the Former Public Burying Ground,
City of Guelph, Ontario**

February 7, 2007

Non-technical report prepared by Michael Spence, PhD.