

**ARCHAEOLOGICAL MONITORING OF
GEO-TECHNICAL INVESTIGATIONS
FOR THE PROPOSED CANADIAN
MUSEUM FOR HUMAN RIGHTS
AT THE FORKS**

Submitted to

KGS GROUP

**QUATERNARY
CONSULTANTS
LIMITED**

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1.0 INTRODUCTION

In conjunction with the geo-technical investigations at the proposed site of the future Canadian Museum for Human Rights, it was deemed necessary to have the drilling of the bore holes monitored by an archaeologist in order to ascertain presence and/or absence of cultural horizons. The geo-technical holes would not be located at the same locations as the previous archaeological impact assessment trenches and thus would provide additional information.

Quaternary Consultants Ltd. was contracted by KGS Group to provide the archaeological expertise. The project, occurring from July 5 to July 7, 2004, was conducted under the terms of Heritage Permit A42-04, issued by Historic Resources Branch, Manitoba Culture, Heritage and Citizenship (Appendix A).

1.1 Location and Scope of the Project

As depicted on Figure 1, the project is located on the east side of Waterfront Drive (formerly Pioneer Boulevard) on land owned by The Forks North Portage Partnership and the City of Winnipeg. A series of eighteen test holes were drilled between Water Avenue to the north and the Festival Park Interpretive Pathway to the south. The western limit is Waterfront Drive and the easternmost hole was drilled at the east edge of the former Christie Street. The goal of the archaeological monitoring was to record all buried soil horizons and cultural horizons encountered during the drilling.

The stratigraphic data from the impact assessment was detailed in a previous report (Quaternary 2004). The data obtained during the geo-technical investigations will be correlated with that which had been obtained during the impact assessment.

1.2 Study Team

The entire archaeological resources management program was directed by Sid Kroker (M.A.) (Senior Archaeologist), who monitored the drilling of the geo-technical holes. Artifact preparation was undertaken by Sid Kroker and Pam Goundry (B.A. Hon.) (Research Archaeologist). The computer cataloguing was done by Pam Goundry. Faunal remains were identified by Sid Kroker. Artifact analysis and report preparation was undertaken by Sid Kroker and Pam Goundry.

1.3 Investigation Methods

The locations of the geo-technical holes were determined by KGS Group based upon the criteria for their investigations. The holes were excavated with a truck-mounted drill rig supplied by Paddock Drilling and outfitted with a 5 inch (12.5 cm) auger. The excavated soil was brought to the surface on the auger bit and the soil column was examined by the geo-technical team and the archaeologist.

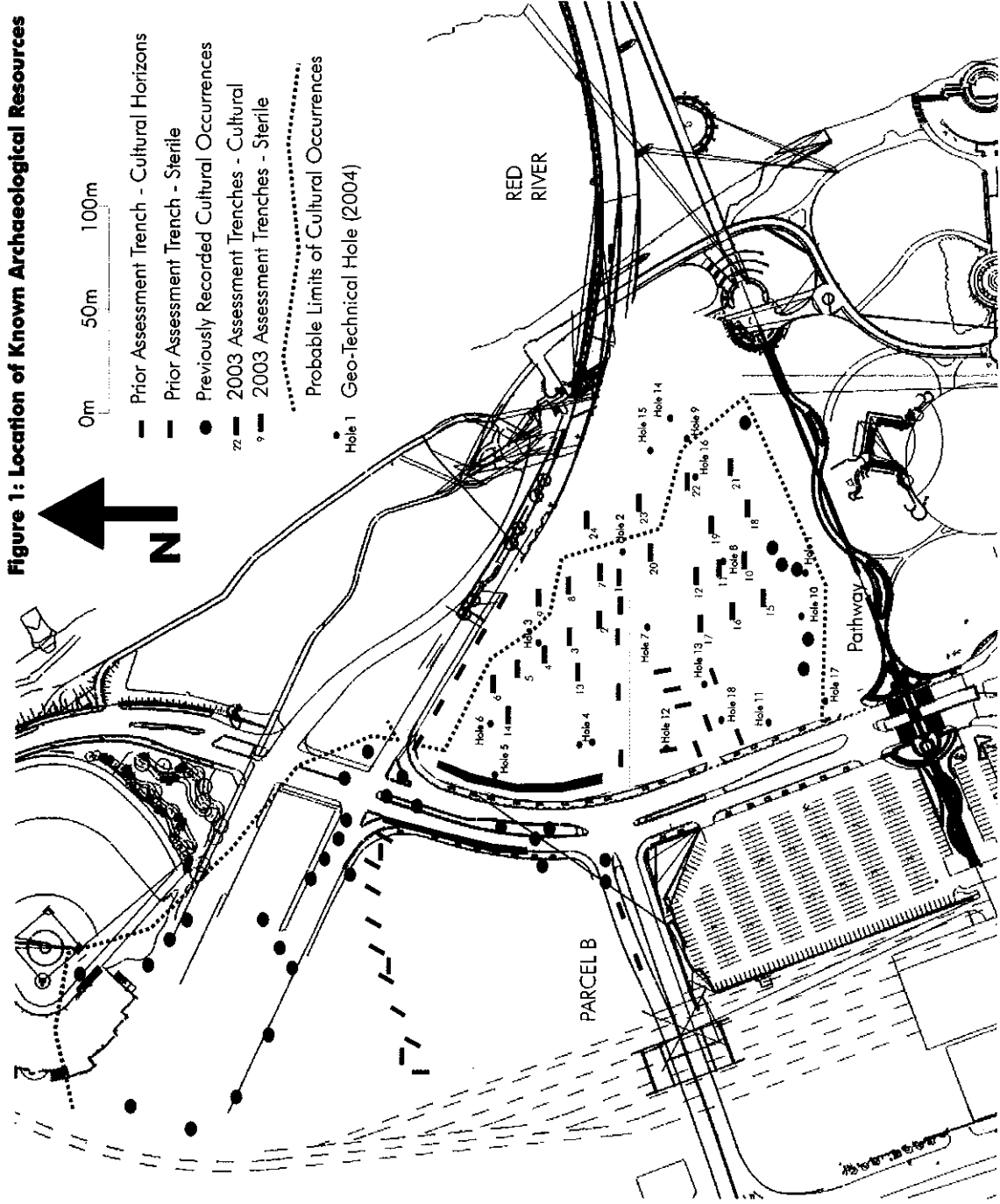


Figure 1: 2004 Geo-technical Holes, 2003 Assessment Trenches, and Previously Known Resources

The primary focus was the determination of the depths of the pre-European cultural horizons. However, due to the small nature of the investigation hole, buried soil horizons were also recorded. As no archaeological horizon has artifacts at every location, not every penetration of a cultural layer could be expected to recover artifacts, especially in such a small investigation window. With only a 12.5 cm diameter hole, the possibility of recovering larger, diagnostic artifacts is very small. Also, with such a small soil column, not every buried soil horizon will be represented on the column. As many of the soil horizons recorded during the archaeological impact assessment were 2 to 5 mm thick, it is not unexpected that only the thicker horizons will appear in the current auger cuttings.

When a cultural layer was observed on the auger bit, the entire soil matrix was collected for laboratory processing. All recoveries were bagged according to hole number and depth below surface. Only three cultural matrices were collected for wet-screening through a 2 mm screen.

1.4 Laboratory Procedures

During the geo-technical project, a total of 273 artifacts was recovered. These were recovered from the soil matrix samples which had been brought to Quaternary Consultants laboratory facilities. The soil samples were washed through 2 mm and 1 mm screens to remove the encapsulating soil. Some samples, with a high clay content, required several successive soakings to eliminate the clay.

The artifacts were sorted by material class and identified by the lab personnel. Standard faunal references include Casteel (1976), Clarke (1981), Gilbert (1973), Mundell (1975), Olsen (1960, 1964, 1968, 1971), and Schmid (1972). Material of the same type (e.g., fish scales) within the same location and depth were combined under a single catalogue number.

Each artifact received a catalogue number consisting of the Borden designation for the site and a sequential number for permanent identification, i.e., DILg-33:04A/#####. The Borden designation, consisting of a four-letter prefix and a numerical suffix, is a Canada-wide system of identifying archaeological sites based upon latitude and longitude (Borden 1954). The four letter identifier, DILg, designates a geographical block between 49° 50' and 50° 00' North latitude and 97° 00' and 97° 10' West longitude. Within each block, archaeological sites are assigned sequential numbers upon discovery. This site, lying south of Water Avenue, west of the Red River, and east of the CNR Main Line Embankment, had been previously designated as DILg-33. As numerous archaeological projects have occurred within the site boundaries over the past decade, the site designation has been expanded to include a sequential year/project identifier. The identifier for this project is 04A, denoting that this is the first project initiated at the site during 2004.

All pertinent data associated with the artifact was entered into the computer cataloguing system which is based on the Canadian Heritage Inventory Network (CHIN) system (Manitoba Museum of Man and Nature 1986; Kroker and Goundry 1993:Appendix B). The computer cataloguing program is derived from **DBASE3®** and generates individual artifact catalogue cards.

Processed artifacts were prepared for storage by inserting the specimens and the catalogue card into standard plastic storage bags, then stapling the bags closed. At the end of the project, all recovered artifacts will be delivered to the Manitoba Museum which is the repository designated by The City of Winnipeg and The Forks North Portage Partnership for artifacts recovered during development projects at The Forks.

2.0 STRATIGRAPHIC DATA

Stratigraphic data was recorded for all but one of the eighteen geo-technical holes (Table 1). One hole, in the vicinity of the Legacy Estates impact assessment (Quaternary 2000a), was missed due to the monitoring archaeologist having a prior commitment on another site. The holes in Table 1 are numbered in the sequence of drilling and also correlated with the KGS assigned numbers which reflect the depths and purposes of the hole for the geo-technical investigations.

The upper stratum consists of fill deposited by the railroads during the past century. This fill layer is composed of bands of railroad cinders, sands, gravels, and clay or silty clay fill. The cinder resulted from the operation of steam locomotives and the nearby Steam Plant. This waste product was used to raise the surface of the area as well as provide drainage equivalent to the use of aggregate. Below the railroad fill layer, which often rested on a moderately well-developed soil horizon showing varying degrees of disturbance, sequences of river-deposited clays and silts were present. Different flood episodes could be distinguished on the basis of differing textures of the sediments and by the presence of buried soil horizons separating the different layers of sediments.

As the primary focus of the investigation was to determine the depths of cultural levels and, secondarily, to determine depths of buried soil horizons, description of the deeper, culturally sterile sedimentological regimens portrayed by the profiles will be minimal. Cultural horizons were encountered in only two of the geo-technical holes, many of which had been situated in locations beyond the periphery of known cultural resources (Figure 1).

Given that the area is a flood deposition (and erosion) zone, it is nearly impossible to correlate strata between the separated trenches. Due to vagaries of sediment deposition, where flood swirls, ice jams, and tree falls cause impediments to water flow, silts will be deposited in areas of slower water movement while erosion can occur where the flow is faster. Thus, even a thick sediment layer will tend to pinch out and disappear after ten or twenty metres. In the current project, where the geo-technical holes are widely separated and seldom adjacent to the impact assessment trenches, all correlation must be considered as tenuous.

	Hole 1 TH04-01	Hole 2 TH04-02	Hole 3 TH04-03	Hole 4 TH04-04	Hole 5 TH04-05
Fill	0 - 120	0 - 45	0 - 92	0 - 75	0 - 86
Sawdust					86 - 104
Disturbed top soil		45 - 55	92 - 98	75 - 81	104 - 119
Silty clay	120 - 140	55 - 104	98 - 121	81 - 118	119 - 131
Relict soil horizon	140 - 140	104 - 104	121 - 121	118 - 134	131 - 131
Silty clay	140 - 210	104 - 119	121 - 230	134 - 147	131 - 168
Relict soil horizon	210 - 210	119 - 119			168 - 220
Hematite stained				147 - 147	
Silty clay	210 - 390	119 - 241		147 - 225	220 - 232
CULTURAL HORIZON				225 - 225	
Relict soil horizon		241 - 241			232 - 232
Silty clay		241 - 269		225 - 243	232 - 244
CULTURAL HORIZON				243 - 243	
Relict soil horizon					244 - 244
Silty clay					244 - 295
CULTURAL HORIZON					295 - 295
Sandy silt			230 - 235		
Clayey silt	390 - 660	269 - 275			
Silty clay		275 - 400	235 - 280	243 - 340	295 - 400
Relict soil horizon				340 - 340	
Sandy silt		400 - 460	280 - 285		
Silty clay		460 - 505	285 - 384	340 - 396	
Relict soil horizon				396 - 396	
Silty clay				396 - 505	
Brown clay				505 - 527	
Silty clay				527 - 572	
Sandy silt	660 - 675	505 - 600			
Hematite stained horizons			384 - 444	572 - 575	400 - 405
Silty clay	675 - 680		444 - 550	575 - 670	405 - 590
Grey clay	680 - 870			670 - 675	
Brown clay		600 - 670	550 - 640	675 - 825	
Hematite stained				825 - 828	590 - 595
Brown clay				828 - 840	590 - 670
Sand					670 - 695
Mixed brown & grey clay	870 - 1150	670 - 710	640 - 680		695 - 885
Agassiz clay	1150 - 1180	710 -	680 -	840 - 855	
Sand	1180 - 1280			855 - 870	
Agassiz clay	1280 -			870 -	885 -
Till					

Table 1: Stratigraphic Profile of Geo-Technical Holes

	Hole 6 MW1	Hole 7 TH04-06	Hole 8 TH04-07	Hole 9 TH04-08	Hole 10 MW2
Fill	0 - 90	0 - 72	0 - 61	0 - 19	0 - 105
Clay fill				19 - 61	
Disturbed top soil	90 - 95		61 - 87		105 - 122
Silty clay	95 - 118	72 - 142		61 - 92	122 - 147
Sandy silt				92 - 97	
Relict soil horizon	118 - 118	142 - 142	87 - 87		147 - 147
Silty clay	118 - 206	142 - 202	87 - 102	97 - 225	147 - 160
Relict soil horizon	206 - 206		102 - 102	225 - 225	160 - 160
Silty clay	206 - 221		102 - 111	225 - 280	160 - 190
Sand				280 - 314	
Relict soil horizon	221 - 221		111 - 111		190 - 190
Silty clay	221 - 247	202 - 274	111 - 168	314 - 324	190 - 332
Sandy silt				324 - 412	
Relict soil horizon	247 - 247	274 - 274	168 - 168		332 - 332
Silty clay	247 - 332	274 - 390	168 - 189		332 - 505
Relict soil horizon	332 - 332		189 - 189		
Silty clay	332 - 391		189 - 204		
Relict soil horizon	391 - 391		204 - 204		
Silty clay	391 - 442		204 - 224		
Relict soil horizon			224 - 224	412 - 412	
Silty clay			224 - 338		
Sand					505 - 510
Sandy silt					510 - 525
Clayey silt	442 - 600		338 - 342	412 - 565	
Hematite stained silty/clay		390 - 392			
Silty clay		392 - 510	342 - 381		525 - 600
Relict soil horizon			381 - 381		
Silty clay			381 - 585		
Hematite stained silty/clay		510 - 510	585 - 600		
Silty clay		510 - 805	600 - 640		
Sand			640 - 645		
Brown clay			645 - 730		
Mixed brown & grey clay		805 - 840	730 - 780	565 - 665	
Agassiz clay		840 -	780 -	665 -	

Table 1: Stratigraphic Profile of Geo-Technical Holes (continued)

	Hole 11 MW3/4	Hole 12 MW5	Hole 13 MW6	Hole 14 MW7	Hole 15 MW8
Fill	0 - 80	Not Recorded	0 - 92	0 - 67	0 - 33
Wood chip/sawdust				67 - 77	
Disturbed top soil	80 - 110		92 - 115		33 - 53
Silty clay	110 - 180		115 - 145	77 - 131	53 - 83
Relict soil horizon	180 - 183		145 - 145	131 - 131	83 - 83
Silty clay	183 - 230		145 - 190	131 - 145	83 - 112
Relict soil horizon	230 - 330		190 - 190	145 - 145	112 - 112
Silty clay	230 - 331		190 - 245	145 - 168	112 - 168
Relict soil horizon	331 - 331		245 - 245	168 - 168	168 - 168
Silty clay	331 - 358		245 - 320	168 - 190	168 - 212
Sand					212 - 221
Relict soil horizon	358 - 358		320 - 320	190 - 190	
Silty clay	358 - 370		320 - 357	190 - 254	221 - 242
Clay			357 - 362	254 - 254	
Hematite stained silty/clay				254 - 258	
Relict soil horizon	370 - 370				
Silty clay	370 - 495		362 - 380	258 - 375	242 - 242
Relict soil horizon	495 - 495		380 - 380		242 - 365
Silty clay	495 - 670		380 - 420		
Sand	670 - 685			375 - 380	365 - 380
Clayey silt			420 - 435		
Silty clay	685 - 715		435 - 600	380 - 385	380 - 410
Sand				385 - 390	
Sandy silt				390 - 415	
Silty clay				415 - 600	
Organic stained silty clay					410 - 655
Agassiz clay	715 -				

Table 1: Stratigraphic Profile of Geo-Technical Holes (continued)

	Hole 16 MW9	Hole 17 TH04-09	Hole 18 TH04-10
Fill	0 - 210	0 - 165	0 - 135
Disturbed top soil			135 - 150
Silty clay	210 - 220	165 - 180	150 - 172
Relict soil horizon	220 - 220	180 - 180	172 - 172
Silty clay	220 - 229	180 - 201	172 - 185
Hematite stained silty/clay	229 - 231		
Relict soil horizon		201 - 201	185 - 185
Silty clay	231 - 335	201 - 232	185 - 224
Relict soil horizon	335 - 335	232 - 232	224 - 224
Silty clay	335 - 468	232 - 295	224 - 318
Marly silty clay		295 - 310	
Relict soil horizon	468 - 468	310 - 310	318 - 318
Silty clay	468 - 600	310 - 336	318 - 330
Relict soil horizon		336 - 336	330 - 376
Hematite stained silty/clay			376 - 378
Silty clay		336 - 520	378 - 392
Relict soil horizon			392 - 392
Silty clay			392 - 475
Hematite stained silty/clay			475 - 475
Silty clay			475 - 540
Hematite stained silty/clay			540 - 544
Sandy silt		520 - 535	
Silty clay		535 - 820	544 - 835
Sandy silt		820 - 865	
Sand			835 - 845
Agassiz clay		865 - 900	845 -

Table 1: Stratigraphic Profile of Geo-Technical Holes (continued)

3.0 ARTIFACT RECOVERIES

Cultural levels were encountered in two of the geo-technical holes. Due to the small diameter of the bore, only limited quantities of small artifacts were recovered from each of the horizons.

3.1 Hole 4 - 225 cm dbs

A total of 89 specimens, with a combined weight of 1.0 grams, was recovered from this cultural level. All are faunal remains, one of which is a result of natural deposition. A single specimen (DILg-33:04A/1) of a freshwater snail (Lymnaeidae) would have been deposited with sediments during a high water episode and become incorporated into the soil matrix upon which the cultural evidence was deposited.

The remaining artifacts consist of three unidentifiable mammal bone fragments (DILg-33:04A/2) and 85 fish elements: one urohyal from an unidentified species (DILg-33:04A/3); 10 rib fragments (DILg-33:04A/4); 52 scale fragments (DILg-33:04A/6); and 22 unidentifiable bone fragments (DILg-33:04A/5).

3.2 Hole 4 - 243 cm dbs

A total of 127 specimens was recovered. They weigh 1.1 grams and consist of charcoal and faunal remains. Six minute charcoal specimens (DILg-33:04A/7) were catalogued. While too small for macroscopic analysis, they probably derive from deciduous trees (oak, maple, poplar, willow, etc.) in the local riverine gallery forest.

The faunal material consists of two freshwater snails (Planorbidae) (DILg-33:04A/8), which are the result of natural deposition, and 119 fish elements. These consist of a palatine from an unidentified species (DILg-33:04A/9); 26 rib fragments (DILg-33:04A/10); one vertebra (DILg-33:04A/11); 69 scale fragments (DILg-33:04A/13); and 22 unidentifiable bone fragments (DILg-33:04A/12).

3.3 Hole 5 - 295 cm dbs

A total of 57 specimens was recovered, with a combined weight of 0.9 grams. They consist solely of fish remains. The assemblage contains two fragments of a cleithrum from a catfish (*Ictalurus* sp.) (DILg-33:04A/14); 5 rib fragments (DILg-33:04A/15); 18 scale fragments (DILg-33:04A/17); and 32 unidentifiable bone fragments (DILg-33:04A/16).

3.4 Summary

None of the recoveries are culturally diagnostic. The majority of the faunal remains represent butchering remains from food processing—nearly all deriving from fish. One element was identified as catfish but the fragmentary nature of the other elements did not permit species identification. Given the location of the cultural occupations, adjacent to a major river, it is expected that fish would be strongly represented as was the case in cultural layers from other adjacent projects (Quaternary 1999a, 2000a, 2000b, 2004).

4.0 DISCUSSION

A five-inch (13 cm) auger is not an optimum tool for locating cultural layers due to the small diameter of the bore—a larger auger (30 cm or 40 cm) will produce better results. However, even using the smaller auger, additional evidence of the presence of buried cultural layers within the area for the proposed Canadian Museum for Human Rights was obtained. Cultural evidence, albeit sparse, was obtained from two of the auger holes. Hole 4 yielded two cultural layers at depths of 225 cm and 243 cm below surface and Hole 5 produced evidence of a cultural layer at a depth of 295 cm.

The two levels in Hole 4 can tentatively be correlated with cultural layers identified during previous projects. The upper horizon appears to be at a similar depth as Cultural Layer IV recorded during the Provencher Bridge Assessment (Quaternary 1989:8,10), although it was observed during the Forks Access Project (Quaternary 1999a) that soil horizons tended to slope downward to the north. Thus, the 225 cm level in Hole 4 could be correlated with Cultural Layer III which was identified in the Provencher Test Hole 2. The deeper level in Hole 4, at 243 cm, is a more likely candidate for correlation with Cultural Layer 4 which had been observed in Provencher Test Holes 1, 2, 3, and 4 at depths between 232 cm and 243 cm below surface. When the data from the Forks Access Project is considered, it seems likely that the 243 cm horizon correlates with Horizon F (Quaternary 1999a:9, 167-171) and the 225 cm horizon correlates with Horizon B (Quaternary 1999a:9, 103 - 135). Horizon B has a corrected radiocarbon date of A.D. 1285±60 (Quaternary 1999a:14) while Horizon F would have been deposited circa A.D. 1225 to 1235.

The single cultural occurrence in Hole 5 was identified at a depth of 295 cm below surface. This geo-technical hole is located close to the assessment trench for the Forks Access Project. Horizon K was recorded at depths approximating 300 cm in the vicinity of Hole 5 (Quaternary 1999a:9). The radiocarbon date for Horizon K is A.D. 1040±50 (Quaternary 1999a:14).

Several other holes were adjacent to locations where the 2003 Museum assessment trenches had recorded cultural horizons or cultural evidence had been located during prior projects.

Hole 1 was adjacent to the Hydro ductline trench which encountered a cultural horizon at a depth of 155 cm (Quaternary 2000b:9). This may correlate with the buried soil horizon recorded at 140 cm.

Hole 2 was located east of Provencher Trench 4 and east of Assessment Trenches 23 and 24, both of which were culturally sterile. Provencher Trench 4 (Quaternary 1989:14) contained cultural levels at 240 cm (Cultural Layer IV) and 271 cm (Cultural Layer V). A buried soil horizon was observed in the geo-technical soil column at 241 cm and may represent the eastern extent of the upper cultural layer.

Hole 3 was near Assessment Trench 4 which had cultural levels at 265 cm and 300 cm below surface (Quaternary 2004:9). No evidence of buried soil horizons was observed in the geo-technical hole.

Hole 6 was situated between the Forks Access Trench (Quaternary 1999a) and Assessment Trench 6, lying north of Assessment Trench 14. Six buried soil horizons were recorded (Table 1), some of which

probably correlate with the recorded cultural horizons—Horizons B, E, G, and K—from the Forks Access Trench (Quaternary 1999a:9); 274 cm in Assessment Trench 6 (Quaternary 2004:10); and 286 cm in Assessment Trench 14 (Quaternary 2004:11). Due to the vagaries of sediment deposition in flood zones, it is presently not possible to ascertain which buried soil horizon correlates with which cultural layer.

Hole 7 was located in the centre of the area, adjacent to the berm marking the property line. Cultural horizons had been previously recorded in adjacent trenches:

- ◆ to the north: Provencher Trench 4 at 240 cm and 271 cm (Quaternary 1989) and Assessment Trench 1 at 157 cm, 205 cm, and 295 cm (Quaternary 2004);
- ◆ to the east: Assessment Trench 20 at 206 cm and 259 cm (Quaternary 2004); and
- ◆ to the south: Assessment Trench 12 at 231 cm and 282 cm and Assessment Trench 17 at 224 cm, 244 cm, and 295 cm (Quaternary 2004).

Trench 7 excavated during the Legacy Estates Project (Quaternary 2000a:2,6) was located southwest of the geo-technical hole and had been culturally sterile. The geo-technical soil profile showed two buried soil layers at 142 cm and 274 cm which cannot be confidently correlated with any of the nearby cultural horizons.

Hole 8 was located adjacent to Assessment Trench 11 (Quaternary 2004) which had cultural levels at 202 cm and 250 cm below surface. The geo-technical soil column had a buried soil horizon at 204 cm which would correlate with the upper cultural level but there was no corresponding soil horizon at 250 cm.

Hole 9, Hole 14, and Hole 15 were situated on the former Christie Street. Buried soil horizons were present but no evidence of pre-European cultural occupations was observed. Beginning in 1892, this area was traversed by the Winnipeg Transfer Railway (Quaternary 1999b:7-9). Adjacent to the track, two manufacturing complexes, City Asphalt Plant (1900-1934) and Building Products (1920-1974), were established on opposite sides of Christie Street (FRC 1988:58-60, 140-141). The area alongside the riverbank was low-lying and had been built up considerably in the last century. Depths of fill recorded during the excavations for the west abutment of the new Provencher Bridge reached depths of 525 cm (Quaternary 2002:9). All three of these holes showed riverine silty clays below the roadbed indicating that this area was part of the upper terrace of the riverbank. However, Hole 15 had heavily organically stained sediments below 410 cm, indicating that, at one time, this had been the active river edge.

Hole 10 is located adjacent to the Festival Park Services Corridor and slightly east of the location where a cultural horizon had been identified at 180 cm below surface in the Hydro ductline trench and at 188 cm below surface in a vertical shaft for watermain installation (Quaternary 2000b:9). A buried soil horizon in the geo-technical soil profile at 190 cm below surface is correlated with this cultural layer.

Hole 11 is located at the west edge of the parking lot in an area which had a sub-gravel layer of concrete that was 15 cm thick. Four buried soil horizons were identified. None are at the same depth (270 cm) as the cultural layer identified in Legacy Estates Trench 1, situated about 12 metres north (Quaternary 2000a:6).

Hole 12 was located immediately adjacent to Legacy Estates Trench 3 which had a cultural layer at 195 cm below surface (Quaternary 2000a:6). As this geo-technical hole was not monitored by the archaeologist due to scheduling conflicts, it is not known if any manifestation of this cultural layer, or an equivalent buried soil horizon, was present.

Hole 13 was located in the east portion of the area investigated during the Legacy Estates Assessment and lies slightly north of Trench 5 which had two cultural levels at 250 cm and 280 cm below surface (Quaternary 2000a:2, 6). A buried soil horizon in the geo-technical column at 245 cm probably correlates with the upper cultural horizon but no corresponding indicators appeared for the lower horizon.

Hole 16 was located slightly to the south of the 2003 Assessment Trench 22 which had three cultural levels at 223 cm, 260 cm, and 274 cm. (Quaternary 2004:13). An equivalent buried soil layer was observed in the geo-technical profile at 220 cm, but no corresponding evidence of the lower two levels was present.

Hole 17 was located near the south entrance to the parking lot, adjacent to the locations of the vertical shafts for the watermain and land drainage sewer installations for Festival Park, as well as the Hydro ductline (Quaternary 2000b:2). Four buried soil horizons were present in the profile but no cultural evidence was observed in the geo-technical hole or during the earlier project.

Hole 18 was located midway between Legacy Estates Trench 1 and Trench 5. Trench 1 had a cultural horizon at 270 cm and Trench 5 had cultural horizons at 250 cm and 280 cm (Quaternary 2000a:6). None of the four buried soil layers in the geo-technical profile correspond with those horizons.

5.0 SUMMARY

Archaeological monitoring of the geo-technical investigations provided little new evidence of cultural resources beyond the areas where it was already known to occur (Figure 1). The recording of buried soil layers provides depths and locations of potential archaeological deposits as occupations would have occurred upon the former ground surfaces.

In the event of future sub-surface impact adjacent to any of the geo-technical bore holes, the depths of the known soil layers will alert monitoring archaeologists to the potential for archaeological resources occurring at those depths.

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APPENDIX A
HERITAGE PERMIT



Heritage Permit No. A 42 - 04

Pursuant to Section/Subsection 53 of *The Heritage Resources Act*:

Name: Quaternary Consultants Ltd.
Address: 130 Fort Street
Winnipeg, MB R3C 1C7

ATTENTION: Mr. Sid Kroker

(hereinafter referred to as "the Permittee"),

is hereby granted permission to:

monitor geo-technical investigations for the proposed Canadian Museum of Human Rights at the Forks;

during the period:

July 1 to July 20, 2004

This permit is issued subject to the following conditions:

- (1) That the information provided in the application for this permit dated the 17 th day of June 2004, is true in substance and in fact;
- (2) That the permittee shall comply with all the provisions of *The Heritage Resources Act* and any regulations or orders thereunder; Please note attachment re custody and ownership of heritage objects
- (3) That the Permittee shall provide to the Minister a written report or reports with respect to the Permittee's activities pursuant to this permit, the form and content of which shall be satisfactory to the Minister and which shall be provided on the following dates:
December 31, 2004.
- (4) That this permit is not transferable;
- (5) This permit may be revoked by the Minister where, in the opinion of the Minister, there has been a breach of any of the terms or conditions herein or of any provision of *The Heritage Resources Act* or any regulations thereunder;

(6) Special Conditions:



- a. All heritage objects are to be deposited with The Manitoba Museum by December 31, 2004, for permanent curation and storage, unless appropriate loan requirements are arranged with the Curator of Archaeology prior to that date;
- b. A complete set of archaeological field records, catalogue sheets, laboratory analysis records, photographs, reports, etc. are to be deposited with The Manitoba Museum upon completion of the archaeological research, or sooner if required, and any subsequent revisions or additions to these records are to be filed as soon as possible thereafter;
- c. Neither the Government of Manitoba nor the party issuing this permit be liable for any damages resulting from any activities carried out pursuant to this permit, and the Permittee specifically agrees, in consideration for receiving this permit, to indemnify and hold harmless the Minister and the Government of Manitoba, the Minister and any employees and officials of the Government, against any and all action, liens, demands, loss, liability, cost, damage and expense including, without limitation, reasonable legal fees, which the Government, Minister or any employee or official of the Government may suffer or incur by reason of any of the activities pursuant to or related to this permit.

Dated at the City of Winnipeg, in Manitoba, this 25 th day of June 2004

for Donna Dool
Minister of Culture, Heritage and Tourism