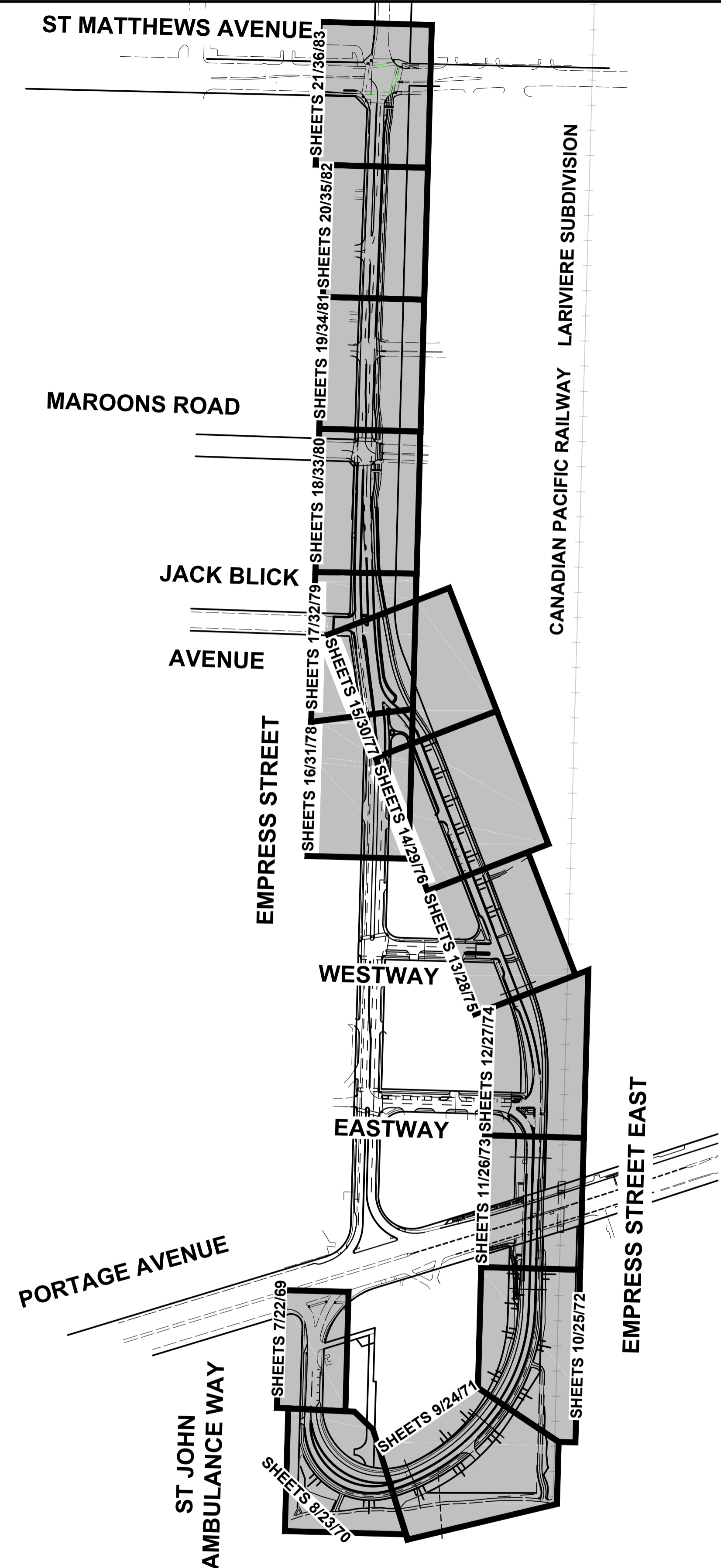
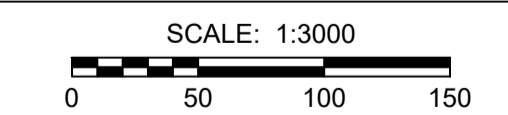
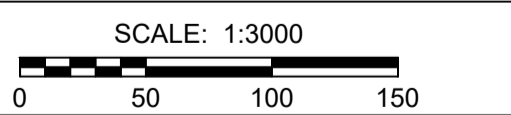


KEY PLAN-HORIZONTAL GEOMETRY



KEY PLAN-PAVING, GRADING and LANDSCAPING



SURVEY BAR-HORIZONTAL CONTROL POINTS-PROJECT COORDINATES				NAD83 DATUM	
CONTROL POINT	LOCATION	NORTHING	EASTING	ELEVATION	
#1	SURVEY BAR @ W PL EMPRESS ST AND S PL ELLICE AVE	10401.347	10679.826	233.820	5528402.542
#2	SURVEY BAR @ PCC ON N PL S LEG EMPRESS ST	8793.509	10704.834	233.281	5528402.542

NOTE: THE PROJECT DRAWINGS HAVE A SCALE FACTOR OF 1.000236369 APPLIED TO LBS INFORMATION TO MATCH LOCAL SURVEYED PROJECT COORDINATES

METRIC
 WHOLE NUMBERS INDICATE MILLIMETRES
 DECIMALIZED NUMBERS INDICATE METRES

LOCATION APPROVED UNDERGROUND STRUCTURES

NO.	REVISIONS	DATE	BY
C	ISSUED FOR ADDENDUM 1	18/10/05	RPB
B	ISSUED FOR TENDER	18/09/04	RPB
A	ISSUED FOR CLIENT REVIEW	18/06/27	RPB

NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

BM	ELEV.

MORRISON HERSHFIELD

DESIGNED BY: WRJ
 CHECKED BY: RPB
 DRAWN BY: DID
 APPROVED BY: BWB
 RELEASED FOR CONSTRUCTION: N/A

HOR SCALE: 1:3000
 VERT SCALE: N/A

DATE: 18/09/04

PROFESSIONAL'S SEAL
R.P. BRUCE
 REGISTERED PROFESSIONAL ENGINEER
 CONSULTANT FILE NAME: W160034-1-Empress-Recon-KP-1.dwg

THE CITY OF WINNIPEG
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DIVISION

EMPRESS STREET PROJECT PAVEMENT RECONSTRUCTION OVERPASS REHABILITATION KEY PLAN, DRAWING LIST & HORIZONTAL AND VERTICAL CONTROL

CITY DRAWING NUMBER: P-3494-1
 SHEET 1 OF 169
 DRAWING No. 1 REV C

DRAWING LIST-ROAD WORKS

No.	DESCRIPTION
0	COVER SHEET AND LOCATION PLAN
1	KEY PLAN, DRAWING LIST, HORIZONTAL AND VERTICAL CONTROL
HORIZONTAL GEOMETRY	
2	ST. JOHN AMBULANCE WAY/EMPRESS STREET EAST PORTAGE AVENUE TO STA 0+390.00 EG
EMPRESS STREET EAST	
3	STA 0+390.000 EG TO STA 0+850.000 EG
4	STA 0+850.000 EG TO EMPRESS STREET
EMPRESS STREET	
5	EMPRESS STREET EAST TO STA 0+940.000 WG
6	STA 0+940.000 WG TO ST MATTHEWS AVENUE
PAVING	
7	PORTAGE AVENUE TO STA 0+200.000 EG
ST. JOHN AMBULANCE WAY/EMPRESS STREET EAST	
8	STA 0+200.000 EG TO STA 0+330.000 EG
EMPRESS STREET EAST	
9	STA 0+330.000 EG TO STA 0+460.000 EG
10	STA 0+460.000 EG TO STA 0+590.000 EG
11	STA 0+590.000 EG TO STA 0+720.000 EG
12	STA 0+720.000 EG TO STA 0+840.000 EG
13	STA 0+840.000 EG TO STA 0+960.000 EG
14	STA 0+960.000 EG TO STA 1+090.000 EG
15	STA 1+090.000 EG TO EMPRESS STREET
EMPRESS STREET	
16	STA 0+410.000 WG TO STA 0+540.000 WG
17	STA 0+540.000 WG TO STA 0+670.000 WG
18	STA 0+670.000 WG TO STA 0+800.000 WG
19	STA 0+800.000 WG TO STA 0+920.000 WG
20	STA 0+920.000 WG TO STA 1+040.000 WG
21	STA 1+040.000 WG TO ST MATTHEWS AVENUE
GRADING	
22	PORTAGE AVENUE TO STA 0+200.000 EG
ST. JOHN AMBULANCE WAY/EMPRESS STREET EAST	
23	STA 0+200.000 EG TO STA 0+330.000 EG
EMPRESS STREET EAST	
24	STA 0+330.000 EG TO STA 0+460.000 EG
25	STA 0+460.000 EG TO STA 0+590.000 EG
26	STA 0+590.000 EG TO STA 0+720.000 EG
27	STA 0+720.000 EG TO STA 0+840.000 EG
28	STA 0+840.000 EG TO STA 0+960.000 EG
29	STA 0+960.000 EG TO STA 1+090.000 EG
30	STA 1+090.000 EG TO EMPRESS STREET
EMPRESS STREET	
31	STA 0+410.000 WG TO STA 0+540.000 WG
32	STA 0+540.000 WG TO STA 0+670.000 WG
33	STA 0+670.000 WG TO STA 0+800.000 WG
34	STA 0+800.000 WG TO STA 0+920.000 WG
35	STA 0+920.000 WG TO STA 1+040.000 WG
36	STA 1+040.000 WG TO ST. MATTHEWS AVENUE
PROFILES	
ST. JOHN AMBULANCE WAY	
37	PORTAGE AVENUE TO STA 0+200.000 EG
ST. JOHN AMBULANCE WAY/EMPRESS STREET EAST	
38	STA 0+200.000 EG TO STA 0+330.000 EG
EMPRESS STREET EAST	
39	STA 0+330.000 EG TO STA 0+460.000 EG
40	STA 0+460.000 EG TO STA 0+590.000 EG-SOUTHBOUND LANE
41	STA 0+460.000 EG TO STA 0+590.000 EG-NORTHBOUND LANE
42	STA 0+590.000 EG TO STA 0+691.283 EG-SOUTHBOUND LANE
43	STA 0+590.000 EG TO STA 0+720.000 EG-NORTHBOUND LANE
44	STA 0+720.000 EG TO STA 0+840.000 EG-NORTHBOUND LANE
45	STA 0+840.000 EG TO STA 0+960.000 EG-NORTHBOUND LANE
46	STA 0+960.000 EG TO STA 1+090.000 EG-NORTHBOUND LANE
47	STA 1+090.000 EG TO EMPRESS STREET-NORTHBOUND LANE
EMPRESS STREET	
48	STA 0+410.000 WG TO STA 0+540.000 WG
49	STA 0+540.000 WG TO STA 0+670.000 WG
50	STA 0+670.000 WG TO STA 0+800.000 WG
51	STA 0+800.000 WG TO STA 0+920.000 WG
52	STA 0+920.000 WG TO STA 1+040.000 WG
53	STA 1+040.000 WG TO ST. MATTHEWS AVENUE
CYCLE TRACK	
54	PORTAGE AVENUE TO STA 0+400.000 TRACK
55	STA 0+400.000 TRACK TO STA 0+660.000 TRACK
56	STA 0+660.000 TRACK TO STA 0+920.000 TRACK
57	STA 0+920.000 TRACK TO STA 1+180.000 TRACK
58	STA 1+180.000 TRACK TO STA 1+440.000 TRACK
59	STA 1+440.000 TRACK TO ST. MATTHEWS AVENUE
MULTI-USE PATH EAST OF HYDRO SUBSTATION	
60	STA 0+100.00 TO STA 0+228.423
CROSS SECTIONS	
61	SECTIONS 1, 2, 3 & 4 AND DELINEATOR STRIP DETAIL
62	SECTIONS 5, 6, 7 & 8
63	SECTIONS 9, 10, & 11
64	SECTIONS 12, & 13
65	SECTIONS 14, & 15
66	SECTIONS 16, & 17
DETAILS	
67	VARIOUS
GEOTECHNICAL	
68	PLAN AND SECTIONS
LANDSCAPING	
ST. JOHN AMBULANCE WAY	
69	PORTAGE AVENUE TO STA 0+200.000 EG
ST. JOHN AMBULANCE WAY/EMPRESS STREET EAST	
70	STA 0+200.000 EG TO STA 0+330.000 EG
EMPRESS STREET EAST	
71	STA 0+330.000 EG TO STA 0+460.000 EG
72	STA 0+460.000 EG TO STA 0+590.000 EG
73	STA 0+590.000 EG TO STA 0+720.000 EG
74	STA 0+720.000 EG TO STA 0+840.000 EG
75	STA 0+840.000 EG TO STA 0+960.000 EG
76	STA 0+960.000 EG TO STA 1+090.000 EG
77	STA 1+090.000 EG TO EMPRESS STREET
EMPRESS STREET	
78	STA 0+410.000 WG TO STA 0+540.000 WG
79	STA 0+540.000 WG TO STA 0+670.000 WG
80	STA 0+670.000 WG TO STA 0+800.000 WG
81	STA 0+800.000 WG TO STA 0+920.000 WG
82	STA 0+920.000 WG TO STA 1+040.000 WG
83	STA 1+040.000 WG TO ST MATTHEWS AVENUE
84	LANDSCAPE DETAILS & PLANT SCHEDULE

DRAWING LIST-STRUCTURAL WORKS

No.	DESCRIPTION
85	GENERAL NOTES AND DESIGN DATA
86	GENERAL ARRANGEMENT AND SCOPE OF WORK
OVERPASS REHABILITATION WORKS	
SUBSTRUCTURE	
87	NORTH AND SOUTH ABUTMENT DEFECT MAP AND SURFACE REPAIRS
88	SOUTH PIER CAP DEFECT MAP AND SURFACE REPAIRS
89	SOUTH PIER COLUMNS DEFECT MAP AND SURFACE REPAIRS
90	CENTRE PIER CAP DEFECT MAP AND SURFACE REPAIRS
91	NORTH PIER CAP DEFECT MAP AND SURFACE REPAIRS
92	NORTH PIER COLUMNS DEFECT MAP AND SURFACE REPAIRS
93	CENTRE PIER REHABILITATION 1
94	CENTRE PIER REHABILITATION 2
95	CENTRE PIER REHABILITATION 3
96	CENTRE PIER REHABILITATION 4
97	NORTH AND SOUTH PIER REHABILITATION
98	NORTH AND SOUTH ABUTMENT REHABILITATION
99	MISCELLANEOUS REPAIR DETAILS
100	TYPE 1 ANODE INSTALLATION DETAILS
SUPERSTRUCTURE	
101	CONSTRUCTION STAGING 1
102	CONSTRUCTION STAGING 2
103	EXISTING DECK AND APPROACH SLAB CONCRETE COVER READINGS
104	CONCRETE REMOVALS
105	DECK CORROSION PROTECTION PLAN & DETAILS
106	STRUCTURAL CONCRETE
107	STRUCTURAL CONCRETE AND REINFORCING DETAILS
108	BARRIER ELEVATIONS AND JOINT DETAILS
109	ASPHALT OVERLAY
110	EXPANSION JOINT DETAILS
111	EXPANSION JOINT PLATE DETAILS
112	EXPANSION SLAB AND STRUCTURAL ROADWAY SLAB
113	BICYCLE RAIL DETAILS 1
114	BICYCLE RAIL DETAILS 2
115	BICYCLE RAIL DETAILS 3
116	BILL OF REINFORCING
PEDESTRIAN ACCESSIBILITY RAMPS	
117	GENERAL RAMP PLAN
118	BORE HOLE LOGS
SOUTH RAMP	
119	PLAN
120	GEOMETRY
121	ELEVATIONS
122	CROSS SECTIONS 1
123	CROSS SECTIONS 2
124	CROSS SECTIONS 3
125	CROSS SECTIONS 4
126	CROSS SECTIONS 5
127	CONCRETE AND HANDRAIL REMOVALS
128	PEDESTRIAN HANDRAIL PLAN
129	PEDESTRIAN HANDRAIL DETAILS 1
130	PEDESTRIAN HANDRAIL DETAILS 2
131	PEDESTRIAN HANDRAIL DETAILS 3
132	PEDESTRIAN HANDRAIL DETAILS 4
133	PEDESTRIAN HANDRAIL DETAILS 5
134	PEDESTRIAN HANDRAIL DETAILS 6
135	SLAB ON GRADE REINFORCEMENT PLAN
136	SLAB ON GRADE REINFORCEMENT DETAILS
137	DRAINAGE CHANNEL REINFORCEMENT DETAILS
NORTH RAMP	
138	GENERAL ARRANGEMENT
139	GEOMETRY
140	FOUNDATION DETAILS
141	PIER DETAILS
142	PIER CAP AND PIER REINFORCEMENT DETAILS
143	ABUTMENT AND DIAPHRAGM REINFORCEMENT DETAILS 1
144	DIAPHRAGM DETAILS 2
145	DIAPHRAGM REINFORCEMENT DETAILS 2
146	DIAPHRAGM REINFORCEMENT DETAILS 2
147	PRESTRESSED SLAB DETAILS
148	PRESTRESSED SLAB REINFORCING DETAILS
149	SLAB ON GRADE REINFORCEMENT DETAILS
150	BEARING DETAILS
151	EXPANSION JOINT DETAILS 1
152	EXPANSION JOINT DETAILS 2
153	EXPANSION JOINT DETAILS 3
154	PEDESTRIAN HANDRAIL PLAN
155	PEDESTRIAN HANDRAIL DETAILS 1
156	PEDESTRIAN HANDRAIL DETAILS 2
157	PEDESTRIAN HANDRAIL DETAILS 3
158	PEDESTRIAN HANDRAIL DETAILS 4
159	DRAINAGE DETAILS
EMPRESS STREET RETAINING WALL	
160	GENERAL ARRANGEMENT
161	CROSS SECTIONS 1
162	CROSS SECTIONS 2
163	CONCRETE AND REINFORCING DETAILS
164	BICYCLE RAIL DETAILS 1
165	BICYCLE RAIL DETAILS 2
166	BILL OF REINFORCING 1
167	BILL OF REINFORCING 2
168	BILL OF REINFORCING 3
169	BILL OF REINFORCING 4

GEODETIC BENCHMARK-VERTICAL CONTROL POINTS

GBM	LOCATION	ELEVATION
37-037	N.E. Cor. St. Matthews Ave & St. James St., Tblt. in S. Conc. foundation No. 945 St. James St.	234.171m

ENGINEERS GEOSCIENTISTS MANITOBA
 Certificate of Authorization
 MORRISON HERSHFIELD
 No. 1736
 BID OPPORTUNITY No. 602-2018