APPENDIX ‘A’

GEOTECHNICAL REPORT

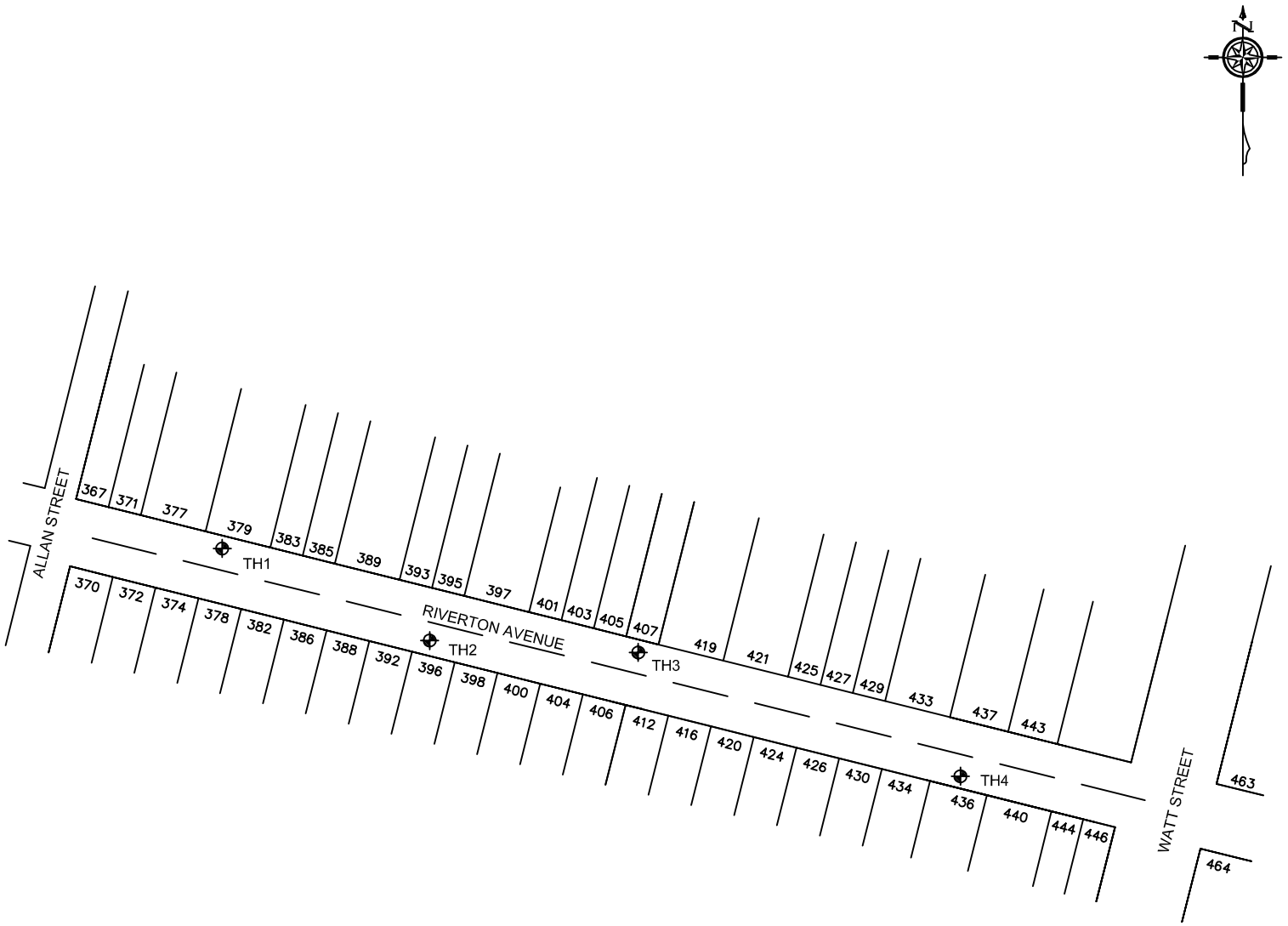
APPENDIX 'A' - GEOTECHNICAL REPORT

TABLE OF CONTENTS

GEOTECHNICAL REPORT FOR RIVERTON AVENUE

GEOTECHNICAL REPORT FOR MERRIAM BOULEVARD

The geotechnical report is provided to aid in the Contractor's evaluation of the existing pavement structure and/or soil conditions. The information presented is considered accurate at the locations shown on the Drawings and at the time of drilling. However, variations in pavement structure and/or soil conditions may exist between test holes and fluctuations in groundwater levels can be expected seasonally and may occur as a result of construction activities. The nature and extent of variations may not become evident until construction commences.



Test Hole Location

ENG-TECH CONSULTING LIMITED
#6 - 854 Marion Street
Winnipeg, MB R2J 0K4
Phone: (204) 233-1694
Fax: (204) 235-1579

ENG. STAMP:

APEGM
Certificate of Authorization
ENG-TECH Consulting Limited
No.2475 Expiry:April 30,2007

CLIENT:
CITY OF WINNIPEG, PUBLIC WORKS DEPARTMENT

PROJECT:
CITY OF WINNIPEG
2007RESIDENTIAL STREET
RENEWAL PROGRAM

DWG DESCRIPTION:
TEST HOLE LOCATION PLAN
RIVERTON AVENUE

SCALE:
NTS

DRAWN BY:	DATE:
OB	DECEMBER 2006
FILE No.:	CLIENT DWG/FIG. No.:
06-217-05	
ENG-TECH DWG/FIG. No.:	REV.:
1	0

Figure 1
Test Hole Locations

City of Winnipeg
2007 Residential Street Renewal Program

Street Location	Test Hole #	Test Hole Location
RIVERTON AVENUE from Allan Street to Watt street	1	- In front of house # 379 - 1.1 m south of north curb - 26.9 m east of east curb of Allan Street
	2	- In front of house # 396 - 1.0 m north of south curb - 56.2 m east of east curb of Allan Street
	3	- In front of house # 407 - 1.2 m south of north curb - 68.5 m west of west curb of Watt Street
	4	- In front of house # 436 - 1.3 m north of south curb - 24.8 m west of west curb of Watt Street

City of Winnipeg
2007 Residential Street Renewal Program
Riverton Avenue

Test Hole No.	Testhole Location	Pavement Surface		Pavement Structure Material		Subgrade Description	Sample Depth (m)	Moisture Content (%)	Hydrometer Analysis				Atterberg Limits		
		Type	Thickness (mm)	Type	Thickness (mm)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
1	Riverton Avenue	Asphalt	34	-	-	Clay	0.3	38.7	-	-	-	-	-	-	-
		Concrete	144			Clayey Silt	1.4	23.0	-	-	-	-	-	-	-
						Clay	1.9	30.0	-	-	-	-	-	-	-
2	Riverton Avenue	Asphalt	43	Sand	15	Clay	0.5	35.9	-	-	-	-	-	-	-
		Concrete	122			Clayey Silt	0.8	22.5	0.0	3.8	68.4	27.8	32.7	18.4	14.3
						Clay	1.7	31.8	0.0	0.0	28.6	71.4	64.9	23.8	41.1
3	Riverton Avenue	Asphalt	25	Sand	25	Clay Fill	0.3	28.8	-	-	-	-	-	-	-
		Concrete	155			Clayey Silt	0.7	25.6	-	-	-	-	-	-	-
						Clay	1.7	29.7	-	-	-	-	-	-	-
4	Riverton Avenue	Asphalt	36	-	-	Clay	0.5	34.5	-	-	-	-	-	-	-
		Concrete	191			Clayey Silt	1.1	27.9	-	-	-	-	-	-	-

ENG-TECH CONSULTING LIMITED

GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg, Public Works Department
Project: City of Winnipeg 2007 Residential Street Program
Site: Riverton Avenue
Location: See Figure 1

Test Hole #: TH 1

File No: 06-217-05
Date Drilled: December 20, 2006
Grade Elevation: 100.0 m (local)
Water Elevation: - -

Depth (m)	Soil Symbol	Description	Elevation (m)	Number	Sample Type	Recovery (%)	blows/300 mm	Water Content (%) PL |----------0----------| LL 20 40 60 80	Gravel	Sand	Silt	Clay
		SUBSURFACE PROFILE		**SAMPLE DATA**					**GRAIN SIZE DISTRIBUTION %**			
0		Ground Surface	100									
		Asphalt (34 mm)										
		Concrete (144 mm)										
		Clay (CH) - dark brown, moist, high plastic, trace silt.		S1								
				S2								
				S3								
1		- below 1.0 m, medium brown, some silt.	99	S4								
		Clayey Silt (ML) - medium brown, moist, low plastic, with clay.		S5								
		Clay (CH) - medium brown, moist, high plastic, with silt.		S6								
				S7								
2		***End of Test Hole*** - end of test hole at 2.0 m below grade. - no groundwater or sloughing encountered. - test hole backfilled with auger cuttings and capped with asphalt cold mix.	98									
3			97									

ENG-TECH Consulting Limited

Logged by: ERM
Reviewed by:

Drilled By: Paddock Drilling Ltd.
Drill Rig: Acker MP5-T
Auger Size: 125 mm Solid Stem

Completion Depth: 2.0 m
Completion Elevation: 98.0 m
Sheet: 1 of 1

Sample Type Split Barrel ■ Shelby Tube Auger Cuttings ‖ Split Spoon

ENG-TECH CONSULTING LIMITED

GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg, Public Works Department
Project: City of Winnipeg 2007 Residential Street Program
Site: Riverton Avenue
Location: See Figure 1

Test Hole #: TH 2

File No: 06-217-05
Date Drilled: December 20, 2006
Grade Elevation: 100.0 m (local)
Water Elevation: - -

Depth (m)	Description	Elevation (m)	Number	Sample Type	Recovery (%)	blows/300 mm	Water Content (%) PL |----------0----------| LL 20 40 60 80	Gravel	Sand	Silt	Clay
0	Ground Surface	100									
	Asphalt (43 mm)										
	Concrete (122 mm)										
	Sand (SP) (15 mm) - light brown, damp, frozen, medium to coarse grain sizes.		S1								
	Clay (CH) - dark brown, moist, high plastic.		S2								
	Clayey Silt (ML) - light brown, damp to moist, low plastic, with clay. - below 0.9 m, occa. grey pocket.		S3					0.0	3.8	68.4	27.8
1		99	S4								
			S5								
	Clay (CH) - medium brown, moist, high plastic, with silt.		S6					0.0	0.0	28.6	71.4
2	***End of Test Hole*** - end of test hole at 2.0 m below grade. - no groundwater or sloughing encountered. - test hole backfilled with auger cuttings and capped with asphalt cold mix.	98									
3		97									

ENG-TECH Consulting Limited

Logged by: ERM
Reviewed by:

Drilled By: Paddock Drilling Ltd.
Drill Rig: Acker MP5-T
Auger Size: 125 mm Solid Stem

Completion Depth: 2.0 m
Completion Elevation: 98.0 m
Sheet: 1 of 1

Sample Type Split Barrel | Shelby Tube | Auger Cuttings | Split Spoon

ENG-TECH CONSULTING LIMITED

GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg, Public Works Department
Project: City of Winnipeg 2007 Residential Street Program
Site: Riverton Avenue
Location: See Figure 1

Test Hole #: TH 3

File No: 06-217-05
Date Drilled: December 20, 2006
Grade Elevation: 100.0 m (local)
Water Elevation: - -

Depth (m)	Soil Symbol	Description	Elevation (m)
0		Ground Surface	100
		Asphalt (25 mm)	
		Concrete (155 mm)	
		Sand (SP) (25 mm) - light brown, damp, medium to coarse grain sizes.	
		Clay Fill (CH) - dark brown, moist, high plastic, some silt inclusions, some sand.	
		Clayey Silt (ML) - light brown, moist, low plastic, with clay. - below 0.6 m, with silt, some silt pockets.	
1			99
		Clay (CH) - medium brown, moist, high plastic, with silt.	
2		***End of Test Hole*** - end of test hole at 2.0 m below grade. - no groundwater or sloughing encountered. - test hole backfilled with auger cuttings and capped with asphalt cold mix.	98
3			97

SAMPLE DATA

Number	Sample Type	Recovery (%)	blows/300 mm
S1			
S2			
S3			
S4			
S5			
S6			

Water Content (%)
PL |----------0----------| LL
20 40 60 80

GRAIN SIZE DISTRIBUTION %

Gravel	Sand	Silt	Clay

ENG-TECH Consulting Limited

Logged by: ERM
Reviewed by:

Drilled By: Paddock Drilling Ltd.
Drill Rig: Acker MP5-T
Auger Size: 125 mm Solid Stem

Completion Depth: 2.0 m
Completion Elevation: 98.0 m
Sheet: 1 of 1

Sample Type Split Barrel ■ Shelby Tube Auger Cuttings ‖ Split Spoon

ENG-TECH CONSULTING LIMITED

GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg, Public Works Department
Project: 2007 Residential Street Program
Site: Riverton Avenue
Location: See Figure 1

Test Hole #: TH 4

File No: 06-217-05
Date Drilled: December 20, 2006
Grade Elevation: 100.0 m (local)
Water Elevation: - -

Depth (m)	Soil Symbol	Description	Elevation (m)	Number	Sample Type	Recovery (%)	blows/300 mm	Water Content (%) PL |----------0----------| LL 20 40 60 80	Gravel	Sand	Silt	Clay
		SUBSURFACE PROFILE		**SAMPLE DATA**					**GRAIN SIZE DISTRIBUTION %**			
0		Ground Surface	100									
		Asphalt (36 mm)										
		Concrete (191 mm)										
		Clay Fill (CH) - dark brown, moist, high plastic, trace sand. - below 0.9 m, transition to silt, medium brown, occa. oxide & silt inclusion, with silt.		S1								
				S2								
				S3								
1		***Clayey Silt (ML)*** - medium brown, moist, low plastic, with clay.	99	S4								
				S5								
				S6								
2		***End of Test Hole*** - end of test hole at 2.0 m below grade. - no groundwater or sloughing encountered. - test hole backfilled with auger cuttings and capped with asphalt cold mix.	98									
3			97									

ENG-TECH Consulting Limited

Logged by: ERM
Reviewed by:

Drilled By: Paddock Drilling Ltd.
Drill Rig: Acker MP5-T
Auger Size: 125 mm Solid Stem

Completion Depth: 2.0 m
Completion Elevation: 98.0 m
Sheet: 1 of 1

Sample Type Split Barrel ■ Shelby Tube Auger Cuttings ‖ Split Spoon

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PARTICLE SIZE ANALYSIS REPORT

City of Winnipeg, Public Works Department,
Transportation Engineering Division
106-1155 Pacific Avenue
Winnipeg, Manitoba
R3E 3P1

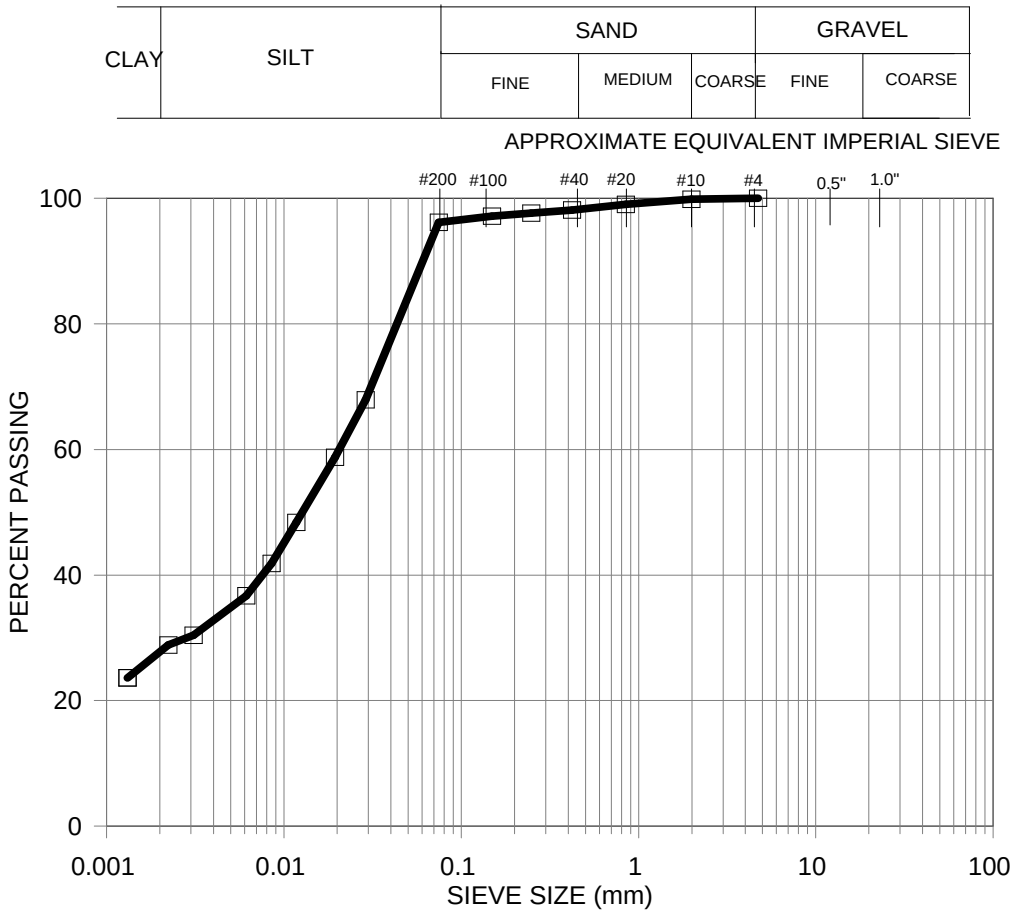
File No.: 06-217-05

Reference No.: 6-217-5-1

ATTENTION: Rolf K. Doerries, C.E.T.

PROJECT: CITY OF WINNIPEG 2007 RESIDENTIAL STREET RENEWAL PROGRAM

Test Hole No.	TH2	**Sample No.**	S3	**Depth:**	0.7 m
Sampled By:	ENG-TECH	**Type of Sample:**	Bag	**Source:**	Riverton Avenue
Date Sampled:	December 20/06	**Date Received:**	December 20/06	**Date Tested:**	December 27/06



SIEVE SIZE (mm)	PERCENT PASSING
4.7500	100.0
2.0000	99.8
0.8500	99.0
0.4250	98.2
0.2500	97.7
0.1500	97.2
0.0750	96.2
0.0291	67.9
0.0195	58.8
0.0118	48.4
0.0085	41.9
0.0062	36.7
0.0031	30.4
0.0022	28.9
0.0013	23.7

Percent of: GRAVEL (0.0%), SAND (3.8%), SILT (68.4%) and CLAY (27.8%)
Sample Description: Clayey Silt

ENG-TECH Consulting Limited

COMMENTS:

per _____
Clark Hryhoruk, President
Ph: (204) 233-1694 Fax: (204) 235-1579

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Winnipeg, Manitoba
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PARTICLE SIZE ANALYSIS REPORT

City of Winnipeg, Public Works Department,
Transportation Engineering Division
106-1155 Pacific Avenue
Winnipeg, Manitoba
R3E 3P1

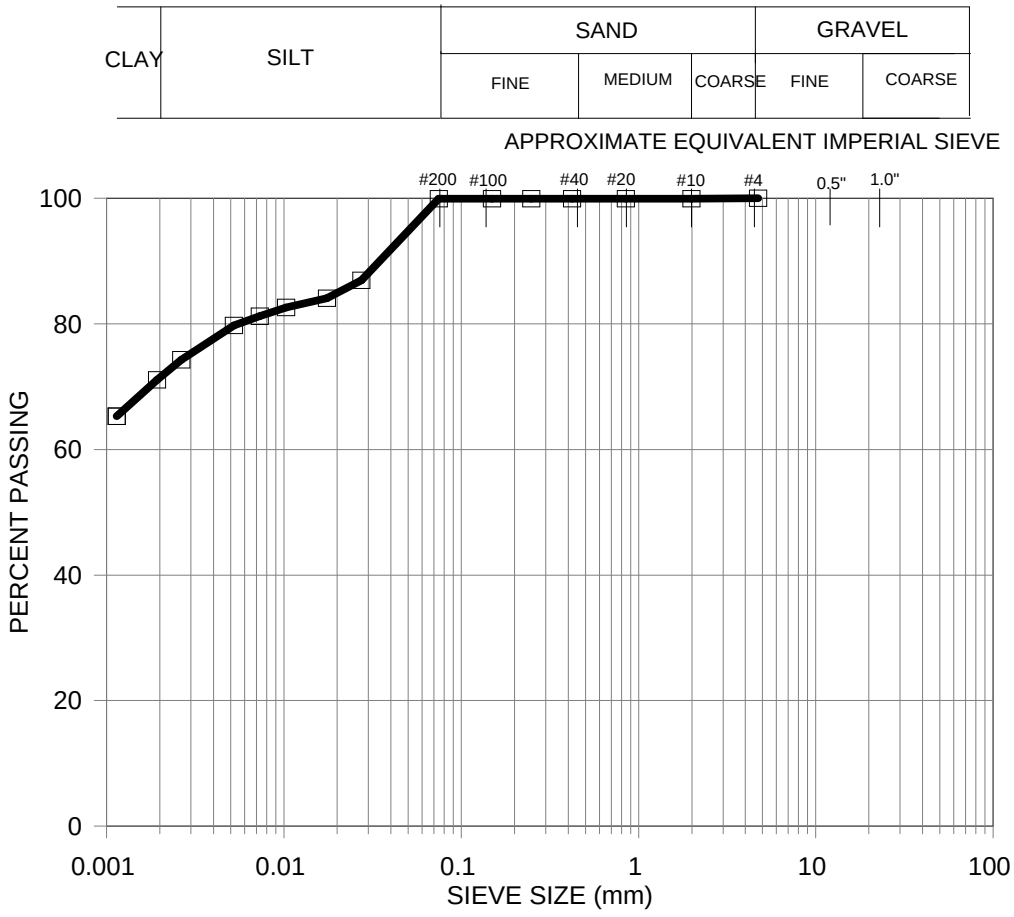
File No.: 06-217-05

Reference No.: 6-217-5-2

ATTENTION: Rolf K. Doerries, C.E.T.

PROJECT: CITY OF WINNIPEG 2007 RESIDENTIAL STREET RENEWAL PROGRAM

Test Hole No.	TH2	**Sample No.**	S6	**Depth:**	1.6 m
Sampled By:	ENG-TECH	**Type of Sample:**	Bag	**Source:**	Riverton Avenue
Date Sampled:	December 20/06	**Date Received:**	December 20/06	**Date Tested:**	December 27/06



SIEVE SIZE (mm)	PERCENT PASSING
4.7500	100.0
2.0000	100.0
0.8500	100.0
0.4250	100.0
0.2500	100.0
0.1500	100.0
0.0750	100.0
0.0275	87.0
0.0176	84.1
0.0104	82.7
0.0073	81.2
0.0053	79.8
0.0026	74.3
0.0019	71.1
0.0011	65.3

Percent of: GRAVEL (0.0%), SAND (0.0%), SILT (28.6%) and CLAY (71.4%)
Sample Description: Clay

ENG-TECH Consulting Limited

COMMENTS:

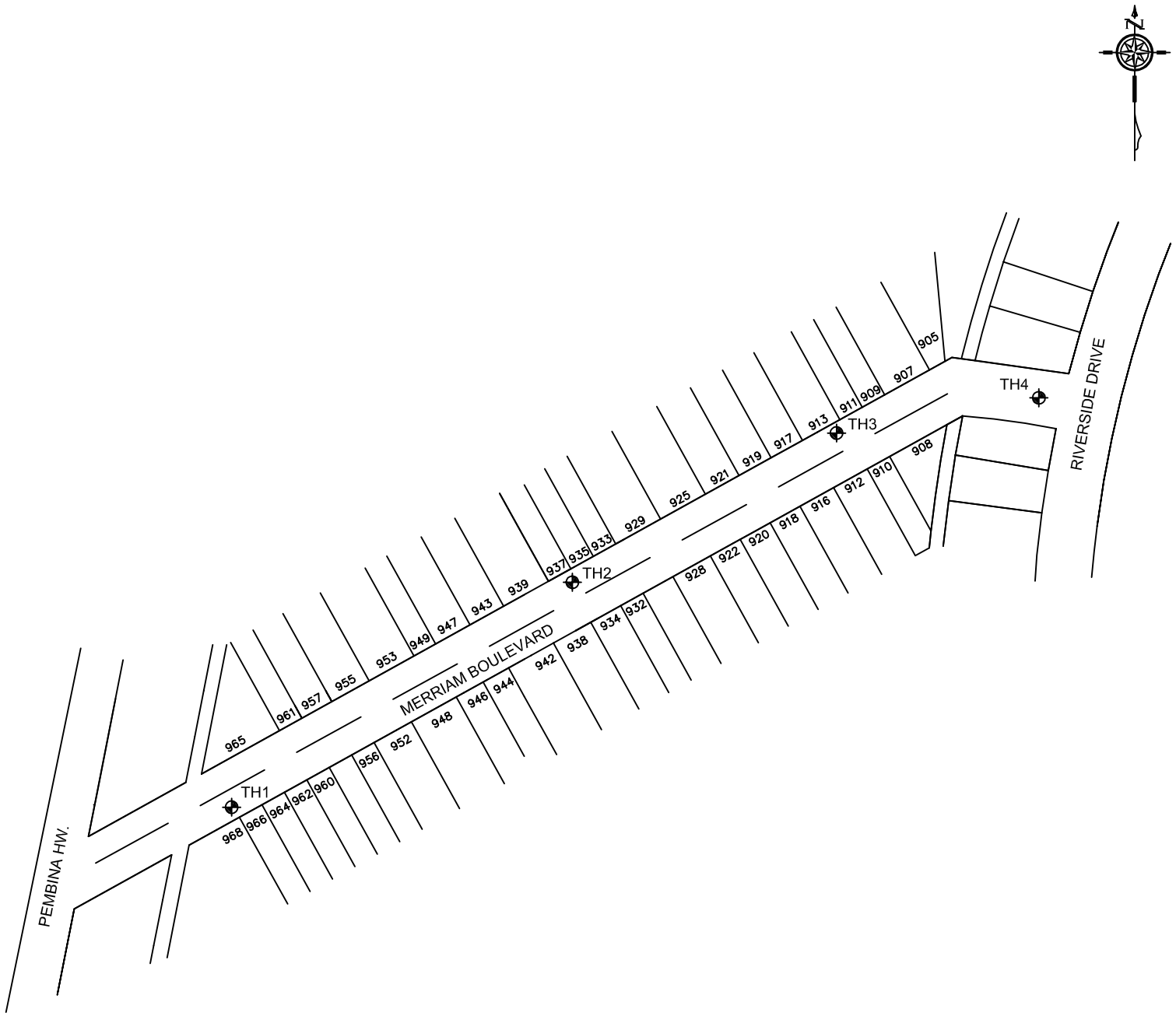
per _____
Clark Hryhoruk, President
Ph: (204) 233-1694 Fax: (204) 235-1579

Riverton Avenue

ENG-TECH
CONSULTING LIMITED

Riverton Avenue

ENG-TECH
CONSULTING LIMITED



Test Hole Location

ENG-TECH CONSULTING LIMITED
#6 - 854 Marion Street
Winnipeg, MB R2J 0K4
Phone: (204) 233-1694
Fax: (204) 235-1579

ENG. STAMP:

APEGM
Certificate of Authorization
ENG-TECH Consulting Limited
No.2475 Expiry:April 30,2007

CLIENT:
CITY OF WINNIPEG, PUBLIC WORKS DEPARTMENT

PROJECT:
CITY OF WINNIPEG
2007 RESIDENTIAL STREET RENEWAL PROGRAM

DWG DESCRIPTION:
TEST HOLE LOCATION PLAN
MERRIAM BOULEVARD

SCALE:
NTS

DRAWN BY:	DATE:
OB	DECEMBER 2006
FILE No.:	CLIENT DWG/FIG. No.:
06-217-05	
ENG-TECH DWG/FIG. No.:	REV.:
3	0

Figure 3
Test Hole Locations Merriam Boulevard

City of Winnipeg
2007 Residential Street Renewal Program

Street Location	Test Hole #	Test Hole Location
MERRIAM BOULEVARD from Pembina Hyghway to Riverside Drive	1	- On the property lines of house #'s 968 and 966 - 1.0 m north of south curb of Merriam Boulevard - 38.7 m east from east curb of Pembina Highway
	2	- On the property lines of house #'s 937 and 935 - 0.9 m from north curb of Marriam Boulevard - 125.5 m west from west curb of Riverside Drive
	3	- In front of house # 913 - 1.3 m south of north curb of Marriam Boulevard - 53.0 m west from west curb of Riverside Drive
	4	- 1.2 m north of south curb of Marriam Boulevard - 8.5 m west of the west curb of Riverside Drive

City of Winnipeg
2007 Residential Street Renewal Program
Merriam Boulevard

Test Hole No.	Testhole Location	Pavement Surface		Pavement Structure Material		Subgrade Description	Sample Depth (m)	Moisture Content (%)	Hydrometer Analysis				Atterberg Limits		
		Type	Thickness (mm)	Type	Thickness (mm)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index
1	Merriam Boulevard	Asphalt	57	-	-	Clay Fill	0.2	20.2	-	-	-	-	-	-	-
						Clay	0.5	26.4	-	-	-	-	-	-	-
2	Merriam Boulevard	Asphalt	88	Sand	600	Clay Fill	0.8	21.7	-	-	-	-	-	-	-
						Clay	1.1	34.3	-	-	-	-	-	-	-
3	Merriam Boulevard	Asphalt	57	Sand	25	Clay Fill	0.2	25.3	-	-	-	-	-	-	-
						Silty Clay	0.5	28.5	0.0	0.4	33.4	65.6	68.7	26.1	42.6
						Silt	1.4	20.7	0.0	0.0	75.9	24.1	31.0	17.8	13.2
4	Merriam Boulevard	Asphalt	57	Sand	840	Clay	1.0	29.2	-	-	-	-	-	-	-

ENG-TECH CONSULTING LIMITED

GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg, Public Works Department

Project: City of Winnipeg 2007 Residential Street Program

Site: Merriam Boulevard

Location: See Figure 3

Test Hole #: TH 1

File No: 06-217-05

Date Drilled: December 21, 2006

Grade Elevation: 100.0 m (local)

Water Elevation: - -

Depth (m)	Soil Symbol	Description	Elevation (m)	Number	Sample Type	Recovery (%)	blows/300 mm	Water Content (%) PL |----------0----------| LL 20 40 60 80	Gravel	Sand	Silt	Clay
		SUBSURFACE PROFILE		**SAMPLE DATA**					**GRAIN SIZE DISTRIBUTION %**			
0		Ground Surface	100									
		Asphalt (57 mm)										
		Clay Fill (CH) - dark brown, moist, high plastic, some sand, some silt.		S1								
		Clay (CH) - dark brown, moist, high plastic, with silt.		S2								
				S3								
1			99	S4								
				S5								
		End of Test Hole - end of test hole at 1.5 m below grade. - no groundwater or sloughing encountered. - test hole backfilled with auger cuttings and capped with asphalt cold mix.										
2			98									
3			97									

ENG-TECH Consulting Limited

Logged by: ERM

Reviewed by:

Drilled By: Paddock Drilling Ltd.

Drill Rig: Acker MP5-T

Auger Size: 125 mm Solid Stem

Completion Depth: 1.5 m

Completion Elevation: 98.5 m

Sheet: 1 of 1

Sample Type Split Barrel Shelby Tube Auger Cuttings Split Spoon

ENG-TECH CONSULTING LIMITED

GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg, Public Works Department

Project: City of Winnipeg 2007 Residential Street Program

Site: Merriam Boulevard

Location: See Figure 3

Test Hole #: TH 2

File No: 06-217-05

Date Drilled: December 20, 2006

Grade Elevation: 100.0 m (local)

Water Elevation: - -

SUBSURFACE PROFILE				SAMPLE DATA					GRAIN SIZE DISTRIBUTION %			
Depth (m)	Soil Symbol	Description	Elevation (m)	Number	Sample Type	Recovery (%)	blows/300 mm	Water Content (%) PL |----------0----------| LL 20 40 60 80	Gravel	Sand	Silt	Clay
0		Ground Surface	100									
		Asphalt (88 mm)										
		Sand (SP) - light brown, damp, medium grain sizes.		S1								
		Clay Fill (CH) - dark brown, moist, high plastic, some sand, some silt.		S2								
1		***Clay (CH)*** - medium brown, moist, high plastic, some silt.	99	S3								
		- at 1.5 m, trace grey inclusions.		S4								
		End of Test Hole - end of test hole at 1.5 m below grade. - no groundwater or sloughing encountered. - test hole backfilled with auger cuttings and capped with asphalt cold mix.										
2			98									
3			97									

ENG-TECH Consulting Limited

Logged by: ERM

Reviewed by:

Drilled By: Paddock Drilling Ltd.

Drill Rig: Acker MP5-T

Auger Size: 125 mm Solid Stem

Completion Depth: 1.5 m

Completion Elevation: 98.5 m

Sheet: 1 of 1

Sample Type Split Barrel | Shelby Tube | Auger Cuttings | Split Spoon

ENG-TECH CONSULTING LIMITED

GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg, Public Works Department
Project: City of Winnipeg 2007 Residential Street Program
Site: Merriam Boulevard
Location: See Figure 3

Test Hole #: TH 3

File No: 06-217-05
Date Drilled: December 21, 2006
Grade Elevation: 100.0 m (local)
Water Elevation: - -

SUBSURFACE PROFILE				SAMPLE DATA					GRAIN SIZE DISTRIBUTION %			
Depth (m)	Soil Symbol	Description	Elevation (m)	Number	Sample Type	Recovery (%)	blows/300 mm	Water Content (%) PL |----0----| LL 20 40 60 80	Gravel	Sand	Silt	Clay
0		Ground Surface	100									
		Asphalt (57 mm)										
		Sand (SP) (25 mm) - light brown, damp, frozen, medium grain sizes.		S1								
		Clay Fill (CH) - dark brown, moist, high plastic, some sand, some silt.		S2					0.0	0.4	33.4	65.6
		Silty Clay (CH) - dark brown, moist, high plastic, with silt.		S3								
1		***Silt (ML)*** - medium brown, moist, low plastic, with clay.	99	S4					0.0	0.0	75.9	24.1
				S5								
				S6								
		End of Test Hole - end of test hole at 1.5 m below grade. - no groundwater or sloughing encountered. - test hole backfilled with auger cuttings and capped with asphalt cold mix.										
2			98									
3			97									

ENG-TECH Consulting Limited

Logged by: ERM
Reviewed by:

Drilled By: Paddock Drilling Ltd.
Drill Rig: Acker MP5-T
Auger Size: 125 mm Solid Stem

Completion Depth: 1.5 m
Completion Elevation: 98.5 m
Sheet: 1 of 1

Sample Type Split Barrel ■ Shelby Tube Auger Cuttings ‖ Split Spoon

ENG-TECH CONSULTING LIMITED

GEOTECHNICAL • ENVIRONMENTAL • MATERIALS TESTING

Client: City of Winnipeg, Public Works Department

Project: City of Winnipeg 2007 Residential Street Program

Site: Merriam Boulevard

Location: See Figure 3

Test Hole #: TH 4

File No: 06-217-05

Date Drilled: December 21, 2006

Grade Elevation: 100.0 m (local)

Water Elevation: - -

SUBSURFACE PROFILE				SAMPLE DATA					GRAIN SIZE DISTRIBUTION %			
Depth (m)	Soil Symbol	Description	Elevation (m)	Number	Sample Type	Recovery (%)	blows/300 mm	Water Content (%) PL |----------0----------| LL 20 40 60 80	Gravel	Sand	Silt	Clay
0		Ground Surface	100									
		Asphalt (57 mm)										
		Sand (SP) - light brown, damp to moist, frozen, medium grain sizes, with gravel.		S1								
				S2								
1		***Clay (CH)*** - dark brown, moist, high plastic, trace sand & silt.	99	S3								
				S4								
		End of Test Hole - end of test hole at 1.5 m below grade. - no groundwater or sloughing encountered. - test hole backfilled with auger cuttings and capped with asphalt cold mix.										
2			98									
3			97									

ENG-TECH Consulting Limited

Logged by: ERM

Reviewed by:

Drilled By: Paddock Drilling Ltd.

Drill Rig: Acker MP5-T

Auger Size: 125 mm Solid Stem

Completion Depth: 1.5 m

Completion Elevation: 98.5 m

Sheet: 1 of 1

Sample Type Split Barrel | Shelby Tube | Auger Cuttings | Split Spoon

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PARTICLE SIZE ANALYSIS REPORT

City of Winnipeg, Public Works Department,
Transportation Engineering Division
106-1155 Pacific Avenue
Winnipeg, Manitoba
R3E 3P1

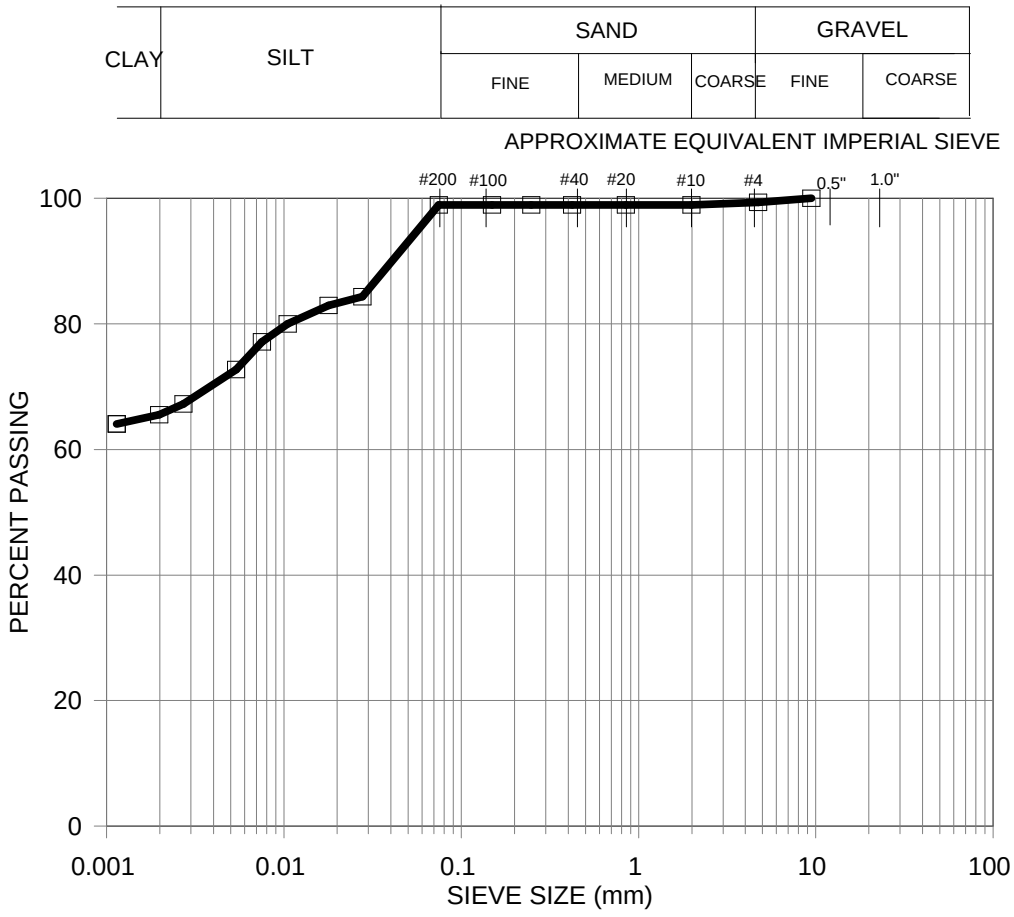
File No.: 06-217-05

Reference No.: 6-217-5-5

ATTENTION: Rolf K. Doerries, C.E.T.

PROJECT: CITY OF WINNIPEG 2007 RESIDENTIAL STREET RENEWAL PROGRAM

Test Hole No.	TH3	**Sample No.**	S2	**Depth:**	0.5 m
Sampled By:	ENG-TECH	**Type of Sample:**	Bag	**Source:**	Merriam Blvd.
Date Sampled:	December 21/06	**Date Received:**	December 21/06	**Date Tested:**	December 27/06



SIEVE SIZE (mm)	PERCENT PASSING
9.5000	100.0
4.7500	99.4
2.0000	99.0
0.8500	99.0
0.4250	99.0
0.2500	99.0
0.1500	99.0
0.0750	99.0
0.0279	84.4
0.0179	82.9
0.0105	80.0
0.0075	77.1
0.0054	72.8
0.0027	67.3
0.0020	65.5
0.0011	64.1

Percent of: GRAVEL (0.6%), SAND (0.4%), SILT (33.4%) and CLAY (65.6%)
Sample Description: Silty Clay

ENG-TECH Consulting Limited

COMMENTS:

per _____
Clark Hryhoruk, President
Ph: (204) 233-1694 Fax: (204) 235-1579

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PARTICLE SIZE ANALYSIS REPORT

City of Winnipeg, Public Works Department,
Transportation Engineering Division
106-1155 Pacific Avenue
Winnipeg, Manitoba
R3E 3P1

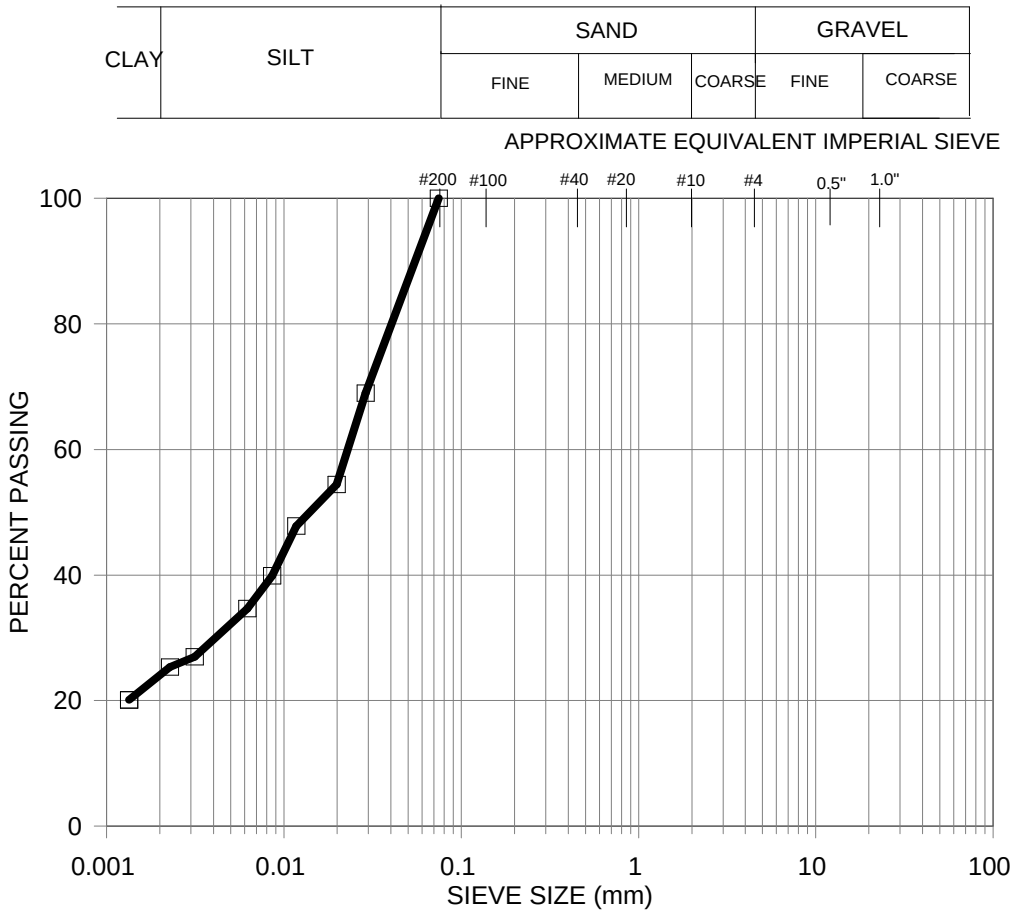
File No.: 06-217-05

Reference No.: 6-217-5-6

ATTENTION: Rolf K. Doerries, C.E.T.

PROJECT: CITY OF WINNIPEG 2007 RESIDENTIAL STREET RENEWAL PROGRAM

Test Hole No.	TH3	**Sample No.**	S4	**Depth:**	0.9 m
Sampled By:	ENG-TECH	**Type of Sample:**	Bag	**Source:**	Merriam Blvd.
Date Sampled:	December 21/06	**Date Received:**	December 21/06	**Date Tested:**	December 27/06



SIEVE SIZE (mm)	PERCENT PASSING
0.0750	100.0
0.0291	69.0
0.0199	54.5
0.0118	47.9
0.0086	39.9
0.0062	34.6
0.0031	27.0
0.0023	25.4
0.0013	20.1

Percent of: GRAVEL (0.0%), SAND (0.0%), SILT (75.9%) and CLAY (24.1%)
Sample Description: Silt

ENG-TECH Consulting Limited

COMMENTS:

per _____
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Merriam Boulevard

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CONSULTING LIMITED

Merriam Boulevard

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