

# **APPENDIX 'A' GEOTECHNICAL REPORT**

**Table 2  
Summary of Pavement Structure**

**Genivar  
2008 Streets Reconstruction Program – Pavement Coring and Geotechnical Investigations**

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	Campbell / Cordova Alley	Asphalt	27	-	-	Silt	0.3	24.6									
							0.61	22.0	0.0	6.8	71.6	21.6	28.3	17.6	10.7		
							0.91	19.8									
							1.22	22.5									
		Concrete	165	-	-	Clay	1.52	29.4									
							1.83	40.6									
							2.13	45.8									
2	Campbell /Cordova Alley	Asphalt	20	-	-	Silt	0.3	20.8									
							0.61	23.1									
							0.91	25.1									
							1.22	29.8									
		Concrete	165	-	-	Clay	1.52	32.3									
							1.83	41.1									
							2.13	45.7									

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		Type	Thickness (mm)	Type	Thickness (mm)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index			
3	Campbell / Cordova Alley	Concrete	208	-	-	Clay	0.3	26.9										
							0.61	25.6										
						Clayey Silt	0.91	21.1										
							1.22	21.4										
							1.52	18.7										
						Clay	1.83	37.0										
							2.13	36.1										
4	Campbell /Cordova Alley	Asphalt Concrete	14 200	-	-	Clay (Fill)	0.3	29.8										
						Clay	0.61	32.1										
						Clayey Silt	0.91	25.1	0.0	9.4	68.8	21.8	24.9	16.2	8.7			
							1.22	21.5										
						Clay	1.52	33.9										
							1.83	34.6										
							2.13	38.9										

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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		
5	Campbell / Cordova Alley	Asphalt Concrete	35 200	-	-	Clay (Fill)	0.3	45.7									
							Clayey Silt	0.61	39.4								
								0.91	28.2								
								1.22	25.7								
								1.52	21.2								
								1.83	23.6								
							Clay	2.13	32.0								
6	Campbell /Cordova Alley	Asphalt Concrete	55 188	-	-	Clayey Silt	0.3	36.2									
							0.61	26.2									
							0.91	24.4									
							1.22	22.4									
							1.52	29.1									
							Clay	1.83	39.2								
								2.13	41.4								

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		Type	Thickness (mm)	Type	Thickness (mm)				Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Liquid Limit	Plastic Limit	Plasticity Index	
7	Campbell / Cordova Alley	Asphalt Concrete	40 210	-	-	Clayey Silt	0.3	25.4								
							0.61	24.8								
							0.91	25.4	0.0	8.1	67.0	24.9	30.4	19.4	11.0	
							1.22	24.7								
						Clay	1.52	27.6								
							1.83	41.0								
							2.13	45.6								
8	Campbell /Cordova Alley	Asphalt Concrete	20 165	-	-	Clay (Fill)	0.3	30.0								
						Clayey Silt	0.61	28.0								
							0.91	29.2								
							1.22	27.2								
							1.52	29.5								
						Clay	1.83	32.2								
							2.13	41.7								

**Table 3  
Summary of Pavement Structure**

**Genivar  
2008 Streets Reconstruction Program – Pavement Coring and Geotechnical Investigations**

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	Montrose / Waverley Alley	Asphalt	45	-	-	Silty Clay (Fill)	0.3	27.0									
							0.61	25.2									
							0.91	26.0									
							1.22	28.8									
		Concrete	175	-	-	Silt	1.52	24.4									
							1.83	22.0									
							2.13	21.5									
2	Montrose / Waverley Alley	Asphalt	20	-	-	Silty Clay (Fill)	0.3	24.6									
							0.61	24.6									
							0.91	20.7									
							1.22	26.2									
							1.52	26.3									
		Concrete	150	-	-	Clay	1.83	30.7									
							2.13	31.1									

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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	
3	Montrose / Waverley Alley	Concrete	288	-	-	Silty Clay (Fill)	0.3	26.7								
							0.61	25.9								
						Silty Clay	0.91	28.0	0.0	1.8	44.0	54.2	51.6	19.7	31.9	
							1.22	29.2								
							1.52	31.4								
							1.83	31.4								
							2.13	29.0								
4	Montrose / Waverley Alley	Asphalt	25	-	-	Silty Clay (Fill)	0.3	36.0								
							0.61	34.4	0.0	1.6	35.8	47.6	53.7	19.8	33.9	
							0.91	31.3								
							1.22	34.0								
		Concrete	185	-	-	Clay	1.52	28.9								
							Silt	1.83	25.9							
		2.13	23.3													

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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	
5	Montrose / Waverley Alley	Asphalt Concrete	20 190	-	-	Silty Clay (Fill)	0.3	35.1								
							0.61	38.4								
						Silt	0.91	28.4	0.0	5.8	73.7	20.5	27.2	15.5	11.7	
						Clay	1.22	34.4								
							1.52	34.1								
							1.83	31.2								
							2.13	40.9								
6	Montrose / Waverley Alley	Concrete	140	-	-	Silty Clay (Fill)	0.3	38.1								
							0.61	40.1								
						Clay	0.91	37.0								
							1.22	38.6								
							1.52	33.2								
							1.83	39.5								
							2.13	37.7								



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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	
7	Montrose / Waverley Alley	Asphalt Concrete	20 202	-	-	Silty Clay (Fill)	0.3	37.7								
						Clay	0.61	37.7								
							0.91	36.3								
							1.22	38.0								
							1.52	36.9								
							1.83	43.7								
							2.13	40.6								
8	Montrose / Waverley Alley	Concrete	95	-	-	Silty Clay (Fill)	0.3	35.4								
						Clay	0.61	36.2								
							0.91	29.0	0.0	18.5	28.4	53.1	56.4	21.2	35.2	
							1.22	34.8								
							1.52	31.3								
							1.83	37.3								
							2.13	42.8								

**Table 1  
Summary of Pavement Structure**

**Genivar  
2008 - 2009 Streets Reconstruction Program – Pavement Coring and Geotechnical Investigations**

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	Yale / Grosvenor Avenues Alley	Concrete	200	-	-	Sandy Silty Clay (Fill)	0.50	31.7									
						Silty Clay (Fill)	0.76	33.8	0.0	0.0	45.8	54.2	60.2	23.6	36.6		
						Clay	1.00	34.0									
							1.52	33.2									
						Silty clay	1.83	33.4									
							2.13	39.0									
2	Yale / Grosvenor Avenues Alley	Asphalt	14	-	-	Sandy Silty Clay (Fill)	0.50	32.0									
						Clayey Silt	0.76	30.8	0.0	4.1	63.3	32.6	38.6	19.3	19.3		
		Concrete	170	-	-	-	Clay	1.00	39.4								
								1.52	38.7								
								1.83	42.8								
								2.13	44.3								

**Table 1  
Summary of Pavement Structure**

**Genivar**

**2008 - 2009 Streets Reconstruction Program – Pavement Coring and Geotechnical Investigations**

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			
3	Yale / Grosvenor Avenues Alley	Concrete	150	-	-	Sandy granular (Fill)	0.50	3.4										
							0.76	9.9										
							1.00	9.7										
						Silt	1.52	14.9										
							1.83	16.7										
							2.13	19.5										
4	Yale / Grosvenor Avenues Alley	Asphalt Concrete Rubble Concrete	50 50 135	-	-	Sandy Silty Clay (Fill)	0.50	27.0	0.5	29.4	34.6	35.5	52.4	28.5	23.9			
						Silty Clay (Fill)	0.76	28.8										
						Silty Clay	1.00	23.7										
							1.52	24.2										
						Silt	1.83	9.7										
							2.13	17.5										



**Campbell Street and Cordova Street Alley**  
Kingsway to Acedemy Road



**Campbell Street and Cordova Street Alley**  
Kingsway to Acedemy Road



**Campbell Street and Cordova Street Alley**  
Kingsway to Academy Road



**Montrose Street and Waverley Street Alley**  
Academy Road to Kingsway



**Montrose Street and Waverley Street Alley**  
Academy Road to Kingsway





**Montrose Street and Waverley Street Alley**  
Academy Road to Kingsway



GROSVENOR AVENUE AND  
YALE AVENUE ALLEY  
ROCKWOOD STREET TO CAMBRIDGE STREET  
TH#1  
200 mm CONCRETE

GROSVENOR AVENUE AND  
YALE AVENUE ALLEY  
ROCKWOOD STREET TO CAMBRIDGE STREET  
TH#2  
14 mm ASPHALT  
170 mm CONCRETE

**Grosvenor Avenue and Yale Avenue Alley**  
Rockwood Street to Cambridge Street



**Grosvenor Avenue and Yale Avenue Alley**  
Rockwood Street to Cambridge Street