



PROCUREMENT SERVICES

CITY OF SURREY, SURREY CITY HALL
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ADDENDUM No. 1

REQUEST FOR QUOTATIONS (RFQ) No.: 1220-040-2020-040

TITLE: BRIDGEVIEW COMMUNITY CENTER – PARKING
LOT REHABILITATION AND UPGRADES

ADDENDUM ISSUE DATE: JUNE 16, 2020

DATE: PREFER TO RECEIVE SUBMISSION ON OR
BEFORE JUNE 24, 2020.

INFORMATION FOR CONTRACTORS

Contractors are advised that Addendum No. 1 to RFQ No. 1220-040-2020-040 is hereby issued by the City. This addendum shall form part of the contract documents and is to be read, interpreted and coordinated with all other parts. The following information is provided to answer questions raised by Contractors for the above-named project, to the extent referenced and shall become a part thereof. No consideration will be allowed for extras due to the Contractors or any sub-contractor not being familiar with this addendum.

INFORMATION TO CONTRACTORS

1. In Part C – Form of Tender

Delete Schedule C – Form of Quotation as issued for tender in its entirety and substitute with the revised “Schedule C – Form of Quotation as attached separately from this Addendum. Some adjustments have been made to Division 33 40 01 “Storm Sewers”, shown in red.

2. Revisions to Supplementary Specifications (Project)

Revision to 03 40 01 – Precast Concrete: Delete 1.4.6 and replace it with the following: “Payment for concrete wheel stops will be made for installation of existing wheel stops as shown on the Contract Drawings and specified in the Schedule of Quantities and Prices. The Contract Administrator will choose 15 wheel stops to be reused. All extra wheel stops should be removed from the site as part of Item 31.01.”

3. In Schedule B – Appendix 2-A Contract Drawings (Project)

(a) Delete Drawing package titled “Bridgeview Community Centre Parking Lot Rehabilitation” as issued for tender in its entirety and substitute with the separately attached drawing set titled, “Bridgeview Community Centre Parking Lot IFQ – S and S”

CLARIFICATIONS

1. The geotechnical report from Metro Testing has been made available as a reference document and attached to this addendum.
2. Tenderers are to include all costs for the removal of all existing asphalt in Item 31.01, mass excavation.
3. There is no specified length of the gravel access path in the Erosion and Sediment Control drawings. Contractors are responsible for keeping the site clean and ensuring that the gravel access path is of adequate length to ensure material is not tracked onto the City roads.

QUESTIONS AND ANSWERS:

Q1. Please provide us the Geotechnical report by Metro Testing and Engineering Dated September 13,2019 as per drawing 19-0690-G1?

A1. See attached.

Q2. In demolition work: Do we need to remove the 6" thick existing Gravel base and removed off site? Or we could re-use it?

A2. Upon removing the existing asphalt, the contractor must proof roll the existing base gravel with the contract administrator to identify soft spots for removal. As per the typical section on the drawings, these soft spots must be dug out and replaced with 150mm of imported 19mm crushed granular base gravel. A minimum layer of 50mm of imported granular base must be installed across the site for regrading. Existing gravel from the site cannot be re-used.

Q3. What is the extent of the landscape Modification work?

A3. Landscape works include placing 150mm topsoil and hydraulic seeding as per the Schedule of Quantities and contract drawings. On average, this would be about 1-2m of restoration behind the new parking lot/extruded curb.

Q4. Please provide a location for the storm inspection chamber? It doesn't appear to be listed on the drawings?

A4. The IC is shown on the drawings at the property line. The note refers to detail SSD-G.1 which includes the IC.

Q5. I have counted 7 catch basins on the drawings compared to the 6 on the take off?

A5. See adjusted item 33.10 to be "7" marked in red (refer to attached revised Schedule C).

All Addenda will become part of the Contract Documents.

- END OF ADDENDUM -



September 13, 2019
Project No. WF32002

R.F. Binnie & Associates Ltd.
101-19232 Enterprise Way
Surrey BC V3S 6J9

Attn. Mr. Kyle Neufeld, P.Eng
Project Manager

Re: Geotechnical Pavement Assessment
for Bridgeview Community Center Parking Lot
11475 126a St, Surrey, BC

Attention: Mr. Neufeld

As requested, Metro Testing + Engineering | Western Geotechnical Consultants Ltd (Metro|WesternGeo) has completed a geotechnical pavement evaluation at the Bridgeview Community Center parking lot in accordance to our proposal WP1-1796 dated July 10, 2019 and our email correspondence. Our assessment and recommendations for pavement rehabilitation are outlined in the following sections of this report. Geo-environmental consideration is not a part of this assessment.

1.0 BACKGROUND and SITE DESCRIPTION

The City of Surrey intends to rehabilitate the approximately seventy (70) stall parking lot located at the Bridgeview Community Center. The paved surface is fair to poor condition, with isolated sections of alligator cracking and small “birdbath” depressions that collect ponded water following rain events. The site is located in an area where soft, organic laden soils exist and where ongoing settlement from vertical loads such as fill placement may result in uneven pavement over time. The parking lot appears to be built up above the surrounding grade by approximately 0.3 to 0.5m. There are no catch basins located within the lot and the pavement appears to be graded to slope down towards the outer perimeter of the lot. There are some sections of asphalt curbs in place on the inside perimeter. The stalls on the outer perimeter show signs of settlement near the concrete parking stops beside the edge of the pavement.

British Columbia Locations:
Abbotsford, Burnaby, Sechelt,
Surrey (Head Office), and Squamish.

Alberta Locations:
Calgary





2.0 FIELD INVESTIGATION

On September 9, 2019, technical staff from Metro | WesternGeo visited the various sites and advanced a total of four test holes by means of a truck mounted mechanical auger to a maximum depth of 2.7m. Metro | WesternGeo logged the soil and groundwater conditions encountered. After completion of each test hole, it was reinstated with compacted cuttings and/or capped with cold mix asphalt. For details of the factual information from the field investigation, the test hole logs and test hole location plan are attached to the end of this report.

3.0 SUBSURFACE CONDITIONS

Published surficial geological information indicates that the site is underlain by bog, swamp and Fraser River sediments consisting of organic, soft compressible soils and sands. The subsurface investigation confirms the published information. These organic soils are typically softest and most compressible where the moisture contents are highest. Overlying these native sediments, fill was encountered including granular pavement structure and hog fuel. Hogfuel is a product of the forest industry that has historically been used as lightweight fill for road embankment projects.

Test holes were located to determine the existing pavement structure and subsurface conditions. From the information obtained from the test hole logs, a summary of the inferred pavement structure and subsurface conditions is presented in the following table for quick reference:

Table 1: Summary of Inferred Pavement Structure & Subsurface Conditions

	Test Hole Location	Asphalt (mm)	Base (mm)	Subbase (mm)	Subgrade & Comment
1	<i>Bridgeview Community Center</i>				
	TH1, driving lane at east side of lot	65	385	-	Hogfuel fill overlying firm to soft organic silt
	TH2, Parking stall	45	605	-	Hogfuel fill overlying soft organic silt
	TH3, Drive lane in parking lot	40	410	-	Hogfuel fill overlying soft organic silt
	TH4, Drive lane in parking lot	60	540	-	Hogfuel fill overlying soft organic silt



The soil conditions described in the preceding table were encountered in the specific test holes and are representative of the general soil conditions in the immediate vicinity of each respective auger hole. Interpretation of soil conditions between auger holes is based on an assumed continuity of subsurface conditions.

4.0 DISCUSSION AND RECCOMENDATIONS

Based on our observations and the field investigation completed, our comments and recommendations for pavement rehabilitation is outlined in the following section.

4.1 Bridgeview Community Center Parking Lot

- The pavement is in poor to fair condition with intermittent sections of alligator cracking and distortions and settlement of the outer perimeter of the parking stalls (See attached Figures).
- The asphaltic concrete in this parking lot is about 40mm to 60mm thick with variable sources of base gravel or limestone crushed sand and gravel that was found to range between 385mm and 540mm thick. Underlying this pavement structure, a 350mm to 450mm thick layer of hogfuel fill was encountered in each of the four test holes. Beneath this layer of hogfuel fill, a soft, wet organic silt was encountered to the maximum depth investigated. Moisture content in this layer were found to range between 111% to 337%

With the deeper deposit of organic laden soils, it is deemed to be impractical and uneconomical to excavate out these soft soils and reconstruct the parking area. Without treatment with preload the parking lot will continue to experience ongoing settlement over time. Any rehabilitation strategy lacking such treatment will likely require some ongoing maintenance throughout its service life.

Considering that preload treatment would not be feasible to implement at an active Community Center parking lot, we recommend an interim rehabilitation strategy. The best working platform for construction will be the overlying surficial fill. Additional pavement structure is required to help “bridge” the soft underlying native soils. Upon visual review of the parking lot, there appears to be no obvious restrictions to raise the grade nominally.

We recommend the existing asphalt shall be removed and it should be regraded with 50mm of additional 19mm minus base gravel and repaved with 85mm of asphalt, in two lifts. Following the placement of the additional gravel, the exposed base gravel surface should be compacted and proof rolled. Localized soft areas should be sub-excavated and replaced with compacted gravel. The anticipated service life expectancy will be improved, compared to the original pavement structure after it was first built, however some ongoing consolidation of the underlying soft soils should be anticipated over time. In order to mitigate further differential settlement in the outer perimeter of the parking stalls, the base gravel fill should be extended laterally, equal to the thickness of the existing fill. All engineered fill should



be compacted to a minimum of 95% of Modified Proctor maximum dry density (MPMDD). It should be compacted in maximum lift thickness of 300mm with moisture content within 2% of the optimum moisture for compaction.

5.0 CLOSURE

This report has been prepared in accordance with generally accepted geotechnical engineering principles and practices, based on the information that was available to us at the time of the report preparation. We will be pleased to prepare specifications and assist in tendering and construction supervision as required.

Because of the possible variability of the existing pavement structures and the uncertainty of their boundaries, Metro | WesternGeo should be provided with opportunities to review the construction.

If conditions other than those noted are found during subsequent phases of the project, Metro | WesternGeo should be notified and given an opportunity to review and revise our recommendations if necessary. Recommendations presented herein may not be valid if an adequate level of review is not provided during construction.

For:

Metro Testing + Engineering | Western Geotechnical Consultants

Prepared by:

Greg Moorhouse, E.I.T.
Geotechnical Engineer

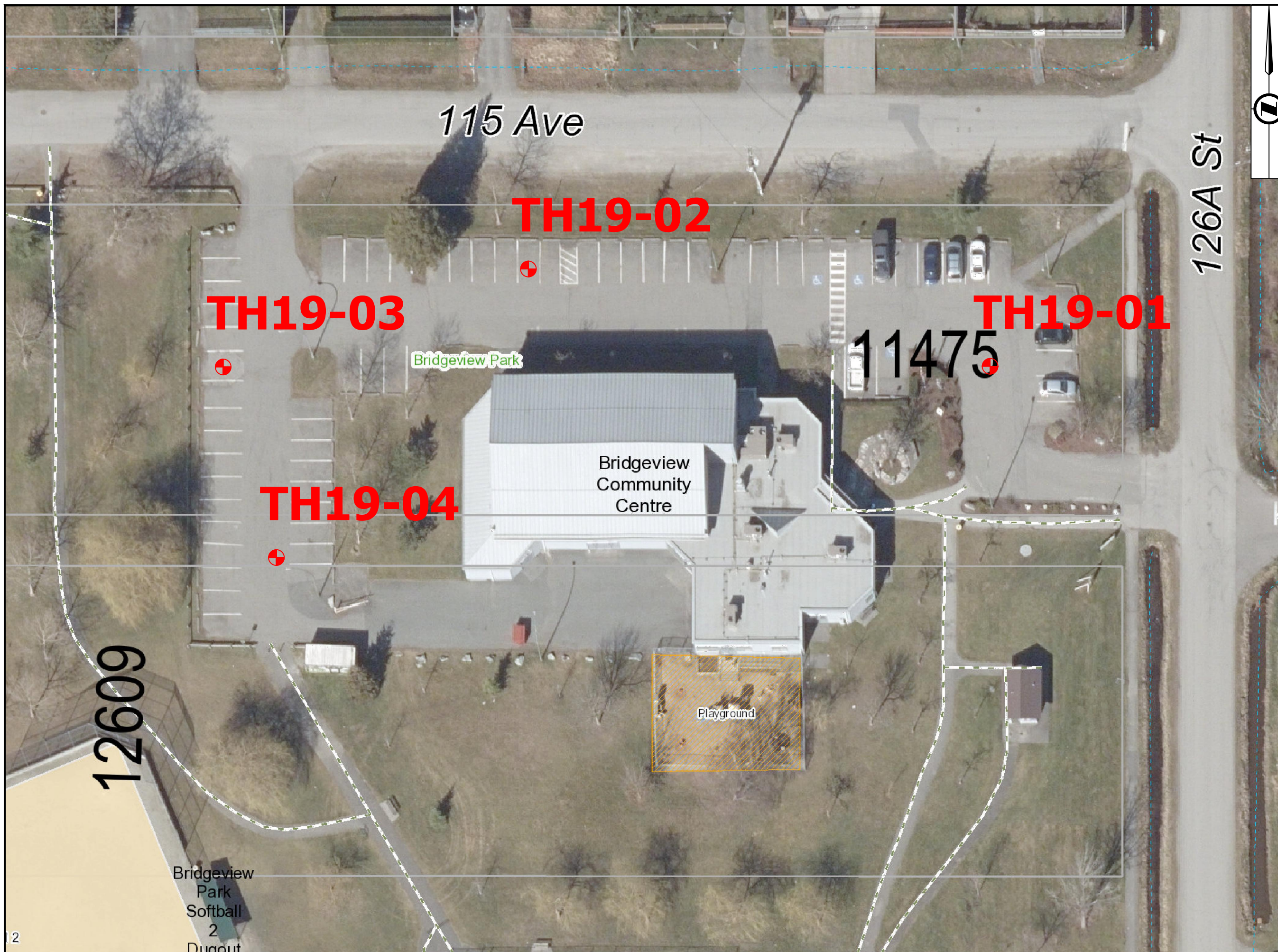
Reviewed By:

Chander Khosla, M.A.Sc. P.Eng
Senior Engineer

Attached: *Test Hole Location Plan – 1 page*

Test Hole Logs - 4 pages

Photographic Plates- 2 pages



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Legend:
 Approximate Test Hole Location



PROFESSIONAL SEAL

REVIEWED BY (per OQM):

PREPARED FOR
 R.F. Binnie & Associates Ltd.

Test Hole Location Plan
 Bridgeview Community Center Parking Lot

Drawing Number:	Figure 1
Project Number:	WF32002
Date of Original Drawing:	Sep 10, 2019
Date of Latest Revision:	Sep 10, 2019
Revision Number:	0
Designed By:	GM
Drawn By:	GM
Scale:	NTS



Metro Testing and Engineering | Western Geotechnical Consultants
 #20-3275 McCallum Rd
 Abbotsford BC V2S 7W8
 Telephone: 604.385.4244

BORING NUMBER TH19-01

CLIENT R.F. Binnie & Associates Ltd.

PROJECT NAME Bridgeview Community Center Parking Lot

PROJECT NUMBER WF32002

PROJECT LOCATION Bridgeview Community Center 11475 126a St, Surrey, BC

DATE STARTED 9/9/19 COMPLETED 9/9/19

GROUND ELEVATION _____ HOLE SIZE 150mm

DRILLING CONTRACTOR Metro

GROUND WATER LEVELS:

DRILLING METHOD Truck Mounted Auger

AT TIME OF DRILLING ---

LOGGED BY GM CHECKED BY _____

AT END OF DRILLING ---

NOTES See Test Hole Location Plan

AFTER DRILLING ---

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	DCPT COUNT BLOWS/0.305m	POCKET PEN. (kPa)	DRY UNIT WT. (Mg/m ³)	DCPT VALUE ▲	
								PL	MC LL
0.0 - 0.5		ASPHALT, in low severity alligator cracking. 65mm thick SAND and GRAVEL (FILL), 19mm minus, compact to dense, light brownish grey, dry 155mm thick SAND and GRAVEL (FILL), limestone crushed base, dense, light grey, dry. 230mm thick Gravelly SAND, trace organics, compact, light grey, dry to moist							
0.5 - 1.0		Hogfuel (FILL), coarsely fibrous, loose, brown Organic SILT, firm, dark brown, moist							
1.0 - 1.6		some clay, light brown and soft at 1.6m	AU 1						203
1.6 - 1.8		dark brown and wet at 1.8m	AU 2						257
1.8 - 2.7		Bottom of hole at 2.70 m.	AU 3						270

GEOTECH BH PLOTS WF32002 BRIDGEVIEW PARKING LOT.GPJ GINT CANADA LAB.GDT 16/9/19



Metro Testing and Engineering | Western Geotechnical Consultants
 #20-3275 McCallum Rd
 Abbotsford BC V2S 7W8
 Telephone: 604.385.4244

BORING NUMBER TH19-02

CLIENT R.F. Binnie & Associates Ltd.

PROJECT NAME Bridgeview Community Center Parking Lot

PROJECT NUMBER WF32002

PROJECT LOCATION Bridgeview Community Center 11475 126a St, Surrey, BC

DATE STARTED 9/9/19 COMPLETED 9/9/19

GROUND ELEVATION _____ HOLE SIZE 150mm

DRILLING CONTRACTOR Metro

GROUND WATER LEVELS:

DRILLING METHOD Truck Mounted Auger

AT TIME OF DRILLING ---

LOGGED BY GM CHECKED BY _____

AT END OF DRILLING ---

NOTES See Test Hole Location Plan

AFTER DRILLING ---

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	DCPT COUNT BLOWS/0.305m	POCKET PEN. (kPa)	DRY UNIT WT. (Mg/m ³)	DCPT VALUE ▲	
								PL	MC LL
								20 40 60 80	20 40 60 80
								□ FINES CONTENT (%) □	
								20 40 60 80	20 40 60 80
0.5		ASPHALT, fair condition, 45mm thick SAND and GRAVEL (FILL), 19mm minus, compact, light brownish grey. 605mm thick							
1.0		Hogfuel (FILL), coarsely fibrous, loose, brown	AU 1						
1.5		Organic SILT, soft, brown, moist to wet	AU 2						130
2.5			AU 3						337
2.7		Bottom of hole at 2.70 m.							

GEOTECH BH PLOTS WF32002 BRIDGEVIEW PARKING LOT.GPJ GINT CANADA LAB.GDT 16/9/19



Metro Testing and Engineering | Western Geotechnical Consultants
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BORING NUMBER TH19-03

CLIENT R.F. Binnie & Associates Ltd.

PROJECT NAME Bridgeview Community Center Parking Lot

PROJECT NUMBER WF32002

PROJECT LOCATION Bridgeview Community Center 11475 126a St, Surrey, BC

DATE STARTED 9/9/19 COMPLETED 9/9/19

GROUND ELEVATION _____ HOLE SIZE 150mm

DRILLING CONTRACTOR Metro

GROUND WATER LEVELS:

DRILLING METHOD Truck Mounted Auger

AT TIME OF DRILLING ---

LOGGED BY GM CHECKED BY _____

AT END OF DRILLING ---

NOTES See Test Hole Location Plan

AFTER DRILLING ---

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	DCPT COUNT BLOWS/0.305m	POCKET PEN. (kPa)	DRY UNIT WT. (Mg/m ³)	DCPT VALUE ▲						
								PL	MC	LL	FINES CONTENT (%) □			
0.0 - 0.5		ASPHALT, moderate severity alligator cracking in settled area. 40mm thick SAND and GRAVEL (FILL), 19mm minus, loose to compact, light brownish grey, dry to moist. 110mm thick Gravelly SAND, with some silt (FILL), 19mm minus, compact, brown, dry to moist. 300mm thick Hogfuel (FILL), mixed with soft SILT, soft, moist, dark brown												
0.5 - 1.0		Organic SILT, with some clay, soft, dark brown, moist	AU 1											
1.0 - 1.5		brown at 1.1m												
1.5 - 2.0		greyish brown and wet at 1.4m												
2.0 - 2.5			AU 2											
2.5 - 2.7		Bottom of hole at 2.70 m.												

GEOTECH BH PLOTS WF32002 BRIDGEVIEW PARKING LOT.GPJ GINT CANADA LAB.GDT 16/9/19

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Metro Testing and Engineering | Western Geotechnical Consultants
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BORING NUMBER TH19-04

CLIENT R.F. Binnie & Associates Ltd.

PROJECT NAME Bridgeview Community Center Parking Lot

PROJECT NUMBER WF32002

PROJECT LOCATION Bridgeview Community Center 11475 126a St, Surrey, BC

DATE STARTED 9/9/19 COMPLETED 9/9/19

GROUND ELEVATION _____ HOLE SIZE 150mm

DRILLING CONTRACTOR Metro

GROUND WATER LEVELS:

DRILLING METHOD Truck Mounted Auger

AT TIME OF DRILLING ---

LOGGED BY GM CHECKED BY _____

AT END OF DRILLING ---

NOTES See Test Hole Location Plan

AFTER DRILLING ---

DEPTH (m)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	DCPT COUNT BLOWS/0.305m	POCKET PEN. (kPa)	DRY UNIT WT. (Mg/m ³)	DCPT VALUE ▲	
								PL	MC LL
		ASPHALT, fair condition. 60mm thick						20	40 60 80
		SAND and GRAVEL (FILL), limestone crushed base, compact to dense, light grey, dry. 150mm thick						20	40 60 80
		SAND and GRAVEL (FILL), 19mm minus, compact, light brownish grey. 390mm thick						20	40 60 80
0.5		Hogfuel (FILL), coarsely fibrous, loose, brown						20	40 60 80
1.0		Organic SILT, soft, dark brown, moist to wet						20	40 60 80
			AU 1						120
1.5		brown at 1.4m							
2.0									
2.5									
		Bottom of hole at 2.70 m.							

GEOTECH BH PLOTS WF32002 BRIDGEVIEW PARKING LOT.GPJ GINT CANADA LAB.GDT 16/9/19



Figure 1: Central Parking Lot looking west.



Figure 2: West parking lot, looking south



Figure 3: West parking lot, looking west



Figure 4: Center west parking lot, looking west