

AGGREGATE TEST DATA – GRANULARS Physical Properties

Contract No.:		Contractor:		Contract Location:	
Testing Laboratory: Engtec Consulting Inc.			Telephone No.: 905-856-2988		Fax No.: 905-856-2989
Sampled by (Print Name): Strada Aggregates			Date Sampled: (YY/MM/DD) 17 / 06 / 01		Engtec Lab # G4155
Granular Type: 50 mm. Cerca Stone (OPSS Recycled Gran. B)	Lot No.:		Quantity (tonnes):		
Source Name/ Location: Strada Aggregates - Etobicoke			Aggregate Inventory Number (AIN):		

Laboratory Test and Number	Requirement						Test Result		
	Granular A	Granular B Type I, III	Granular B Type II	Granular M	Granular O	SSM	Reference Material	Sample	Meets Requirement (Y / N)
Freeze-Thaw Loss, % maximum, LS-614	–	–	–	–	15	–	12.9	N/T	N/A
Micro-Deval Abrasion Loss, Coarse Aggregate, % maximum, LS-618	25	30 (Note 1)	30	25	21	30 (Note 1)	12.7	22.1	Y
Micro-Deval Abrasion Loss, Fine Aggregate, % maximum, LS-619	30	35	35	30	25	–	17.6	8.4	Y
Amount of Contamination, LS-630	Note 2							(Attach Report)	Y
Plastic Fines, LS-631	NP (Non-Plastic)							N/P	Y
Determination of Permeability, <i>k</i> , LS-709	(Note 3)							N/T	N/A

Note 1: The coarse aggregate micro-Deval abrasion loss test requirement shall be waived if the material has more than 80% passing the 4.75 sieve.

Note 2: Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass and/or ceramic material. Granular A, O, B Type I, B Type III, and M shall not contain more than 1.0 percent by mass of wood, clay brick and/or gypsum and/or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.

Note 3: For materials north of the French/Mattawa Rivers only, the coefficient of permeability, *k*, shall be greater than 1.0×10^{-4} cm/s or field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirement for *k*, shall be acceptable provided that such testing has been done within five years of the material being used and field performance has continually been shown to be satisfactory.

Issued by (Testing Laboratory Representative):		
Salman Bhutta, Ph.D., P.Eng.		June 13, 2017
PRINT NAME	SIGNATURE	DATE
 Received by (Contract Administrator Representative):		
PRINT NAME	SIGNATURE	DATE

Copies to: Contract Administrator; Contractor; Regional Quality Assurance; Regional Geotechnical; MERO (Soils and Aggregates)

DETERMINATION OF AMOUNT OF CONTAMINATION OF COARSE AGGREGATE
(LS-630, R24)

Testing Laboratory: Engtec Consulting Inc.	Telephone No.: 905-856-2988	Fax No.: 905-896-2989
Sampled By (Print Name): Strada Aggregates	Date Sampled: (YY/MM/DD) 17/ 06 /01	Engte Lab. #G4155
Granular Type: 50mm. Cerca Stone (Recycled OPSS Granular B)	Lot No.:	
Source Name/Location: Strada Aggregates - Etobicoke		Aggregate Inventory Number (AIN):

Laboratory Sample No.	Largest Particle Size (>95% Passing Sieve)	Mass of Sample, g A	Mass of Wood, g B	Type of Contaminant	Mass of Contaminant, g C	% Wood (B*100/A)	% Contaminant (C*100/A)	
G4155	50 mm.	2263	0	Clay brick	9.8	0	0.43	

Remarks: No wood contaminants detected.

Date: June 06,2017

Operator: Leonardo Pilapil



Engtec Consulting Inc.

12-100 Hanlan Road
 Vaughan, Ontario, L4L 4V8
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Grain Size Analysis

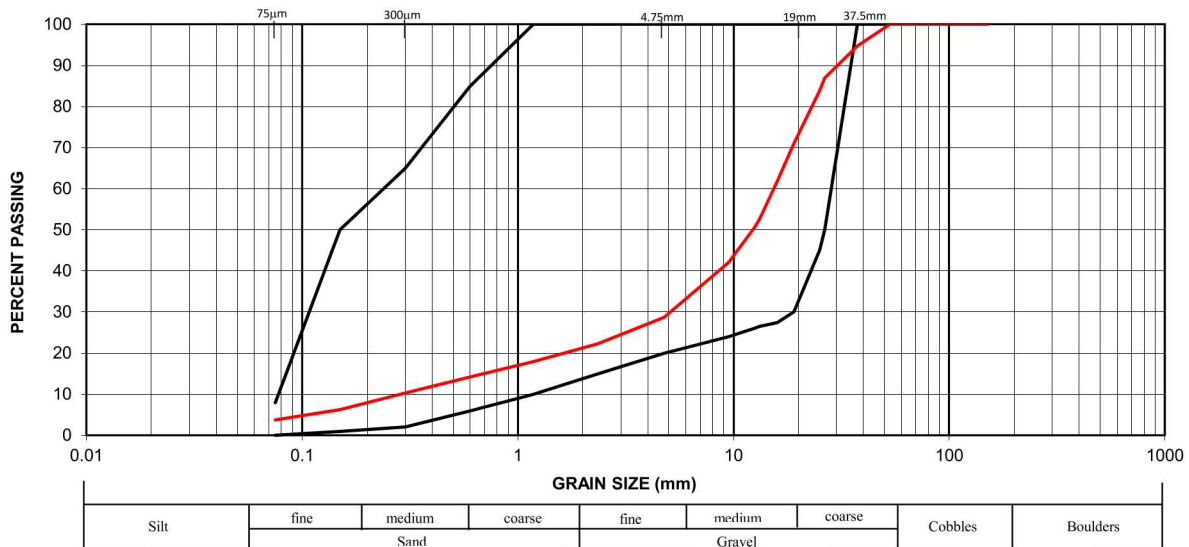
Project No.	ET17-1096A	Material	50mm. Cerca Stone(Recycled OPSS Granular B)
Client:	Strada Aggregates	Sampled By:	Client
Project Description:	Strada Aggregates-Material Testing	Date Sampled:	June 1, 2017
Source	Strada Aggregates - Etobicoke	Date Tested:	June 6, 2017
Sampled Location:	Pad	Specification:	Granular B - Type I - OPSS 1010
Lab No.	G4155		

Sieve Size (mm)	Percent Passing	Specification		Note
		Minimum	Maximum	
150	100.0	100	100	
106	100.0			
75	100.0			
53	100.0			
37.5	94.7			
26.5	87.0	50	100	
25	83.8			
19	71.0			
16	61.9			
13.2	52.5			
12.5	50.6			
9.5	42.0			
4.75	28.7	20	100	
2.36	22.2			
1.18	17.9	10	100	
0.6	14.3			
0.3	10.3	2	65	
0.15	6.3			
0.075	3.8	0	8	

Physical Properties	
Asphalt Coated Particles (%):	6.0
Crushed Particles (%):	99
Percent Deleterious (%):	0.43

Additional Comments

Note: * - Out of Specification



Modified M.I.T. Classification

Grain Size Analysis - ASTM D422

Project PM: Salman Bhutta

Reported By: Leo Pilapil



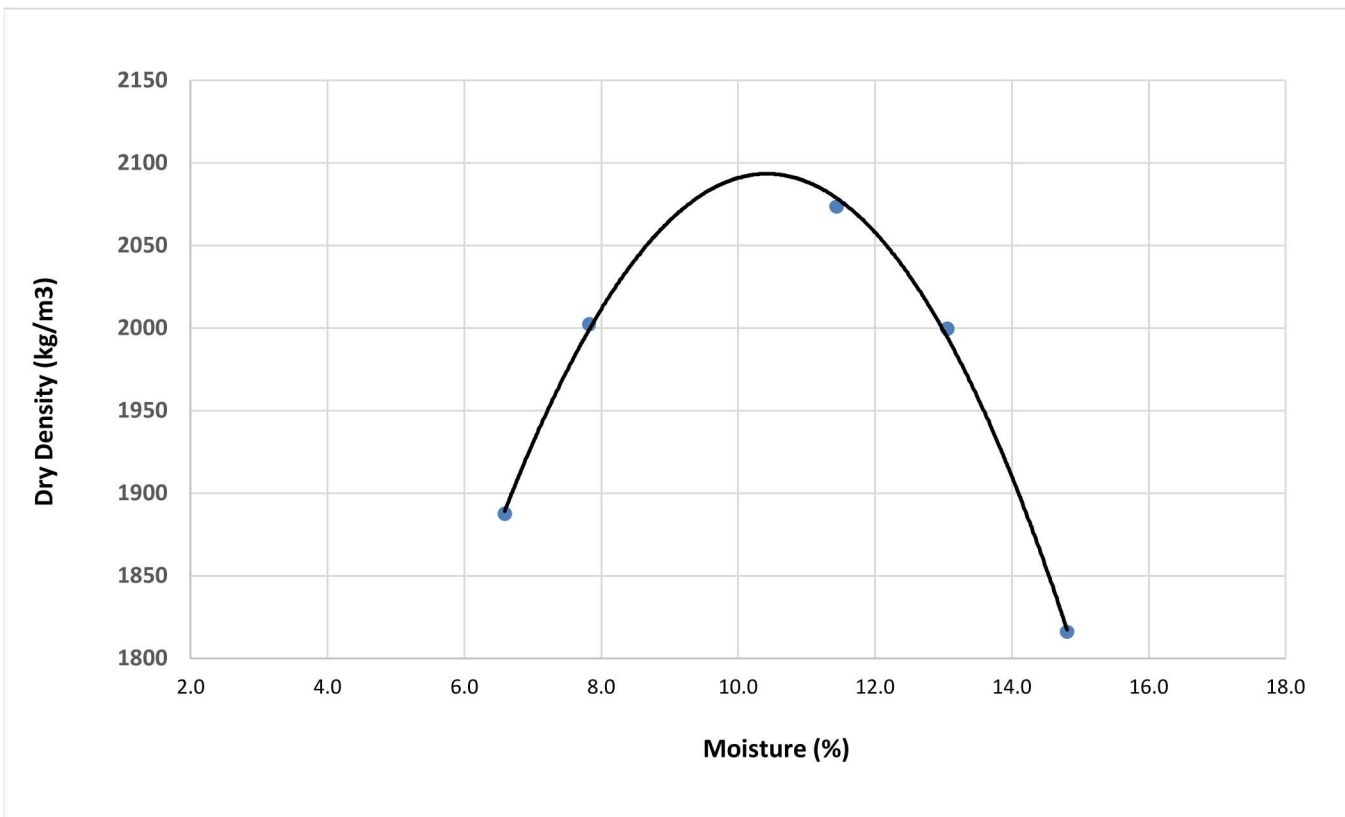
Engtec Consulting Inc.

12-100 Hanlan Road
Vaughan, Ontario, L4L 4V8
Telephone: (905) 856-2988
Fax: (905) 856-2989

Standard Proctor

Project No:	ET17-1096A	Material:	50mm.CERCA Stone- (Recyled OPSS Gran B)
Client:	Strada Aggregates	Sampled By:	Client
Project Description:	Strada Aggregates-Material Testing	Date Sampled:	June 01,2017
Source:	Strada Aggregates-Etobicoke	Date Tested:	June 8, 2017
Sampled Location:	Strada Aggregates-Etobicoke	Specification:	LS-706
Lab No:	G4155		

Point No.	1	2	3	4	5
Dry Density (kg/m ³)	1887	2002	2073	2000	1816
Moisture Content (%)	6.6	7.8	11.4	13.1	14.8



Maximum Dry Density	2098 Kg/m³
Optimum Moisture Content	10.5 %

Name of the Operator: Leonardo Pilapil, C.E.T

Project Manager: Salman Bhutta, P.Eng.