



M&Z ENGINEERING ASSOCIATES

CONSULTING ENGINEERS

4105 US Route 1, Suite #13
Monmouth Junction, NJ 08852
Tel: (732) 274 - 8800
Fax: (732) 274 - 8822
E-mail: contact@mzengineering.org

www.mzengineering.org

CLIENT: AWZ Engineering, Inc.
150 River Road, Suite B3
Montville, NJ 07045

Date: 09/19/2020

PROJECT: 39 Susan Drive
Chatham, NJ 07928

ATTN: Mr. Adnan Khan

RE: Subsurface investigation

Dear Mr. Khan,

At your request, M&Z engineering has performed a subsurface investigation at the project mentioned above, including excavation, visual inspection and sampling of test pits within the property. The purpose of our investigation was to determine the nature of subsurface materials, allowable bearing capacity, the depth of ground water, and perform hydraulic conductivity testing. The location and depth of test pits was limited to the front of the property due to the existing severe slope which could not be accessed.

The soil strata was found to include approximately 72" of undocumented fill, followed by a stratum of undisturbed virgin ground. We recommend that building foundations be supported on the stratum of undisturbed virgin ground and be designed for a net allowable bearing capacity of 2,000 PSF.

Ground water was not encountered within the depth of excavation. It should be noted that ground water may fluctuate significantly in response to tides, precipitation and other external factors. Mottling was not identified. Based on the available information we have concluded that the seasonal high water table lies below the explored depth of 108".

Soil hydraulic conductivity testing was performed in test pit TP-2 at the depth of 84" below the existing grade, within the undisturbed natural soils. The observed field intake rate was recorded at 12 inches per hour, and the soil permeability rating is K3, with a permeability rate of 4.11 in/hr. Please contact us if we can be of further assistance.

Sincerely,
M&Z Engineering Associates, P.C.

Andrei Danel, P.E.



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Test Pit Log			
Test Pit ID	Depth	Description	Ground Water
TP-1	0" to 36"	FILL – Brown Clay, some sand, gravel and cobbles	Not encountered
	36" to 44"	Asphalt	
	44" to 72"	FILL – Brown Clay, some sand, gravel and cobbles	
	72" to 108"	Brown Clay, little sand, gravel and cobbles	
End of TP-1 at 108"			
TP-2	0" to 72"	FILL – Brown Clay, some sand, gravel and cobbles	Not encountered
	72" to 108"	Brown Clay, little sand, gravel and cobbles	
End of TP-2 at 108"			

Test Pit Location Plan

