Van Cleef
ENGINEERING ASSOCIATES

Form 3b. Tube Permeameter Test Data

Block: 116
Lot: 47
Municipality: Mendham
County: Morris

Job Number: 2001MNT
Client: Mortezai
Date Collected: 2/25/2020

Sample Identification: Rain Garden

Material Tested: Native Soil Depth = 42"

Type of Sample: ____ Undisturbed X Disturbed

Sample Dimensions:	Replicate A	Replicate B
Inside radius of Sample Tube, R, in cm. =	2.38	2.38
Length of Sample in inches =	4.50	4.50

Bulk density determination (Disturbed Samples Only) :

	A	B
Sample Weight, grams =	255	257
Sample Volume, Cubic centimeters (cc) =	203	203
Bulk Density, grams/cc =	**1.25**	**1.26**

Standpipe Used: ____ No XX Yes, Internal Radius, r , in cm. =

A	B
0.476 (3/8" ID)	0.476 (3/8" ID)

Height of water level, in inches:

	A	B
At the beginning of each test interval, H1 =	17.00	17.00
At the end of each test interval, H2 =	12.00	12.00

Rate of Water Level Drop:

Replicate A		Replicate B	
Time for Water Drop	Length of test (minutes) t	Time for Water Drop	Length of test (minutes) t
5	4.243	5	3.025
5	4.481	5	3.134
5	4.602	5	3.281

Calculation of Permeability:

	A	B
K = 60 x (L/t) x (r2/R2) x Ln (H1/H2) =	**0.8** in/hr	**1.2** in/hr

Defects in Sample:

XX	None	____	Cracks	____	Worm Channels
____	Large Gravel	____	Large Roots	____	Root Channels
____	Dry soil	____	Smearing	____	Compaction
____	Soil/Tube contact				Other

I hereby certify that the information furnished on form 3b of this application is true and accurate.
I am aware that falsification of this data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to the penalities as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer: Michael K. Ford Date: 3-4-20

Michael K. Ford NJPE No. 34722

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Van Cleef
ENGINEERING ASSOCIATES

Form 3b. Tube Permeameter Test Data

Block: 116
Lot: 47
Municipality: Mendham
County: Morris

Job Number: 2001MNT
Client: Mortezai
Date Collected: 2/25/2020

Sample Identification: 1B

Material Tested: Native Soil Depth = 72"

Type of Sample: ____ Undisturbed X Disturbed

Sample Dimensions:	Replicate A	Replicate B
Inside radius of Sample Tube, R, in cm. =	2.38	2.38
Length of Sample in inches =	4.50	4.50

Bulk density determination (Disturbed Samples Only) :

	A	B
Sample Weight, grams =	279	274
Sample Volume, Cubic centimeters (cc) =	203	203
Bulk Density, grams/cc =	**1.37**	**1.35**

Standpipe Used: ____ No XX Yes, Internal Radius, r , in cm. =

A	B
0.476 (3/8" ID)	0.476 (3/8" ID)

Height of water level, in inches:

	A	B
At the beginning of each test interval, H1 =	17.00	17.00
At the end of each test interval, H2 =	12.00	12.00

Rate of Water Level Drop:

Replicate A		Replicate B	
Time for Water Drop	Length of test (minutes) t	Time for Water Drop	Length of test (minutes) t
5	3.745	5	2.913
5	3.924	5	3.081
5	4.013	5	3.263

Calculation of Permeability:

K = 60 x (L/t) x (r2/R2) x Ln (H1/H2) =	A	B
	1.0 in/hr	**1.2** in/hr

Defects in Sample:

XX	None	____	Cracks	____	Worm Channels
____	Large Gravel	____	Large Roots	____	Root Channels
____	Dry soil	____	Smearing	____	Compaction
____	Soil/Tube contact				Other

I hereby certify that the information furnished on form 3b of this application is true and accurate.
I am aware that falsification of this data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to the penalities as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer Michael K. Ford Date: 3-4-20

Michael K. Ford NJPE No. 34722

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Van Cleef
ENGINEERING ASSOCIATES

Form 3b. Tube Permeameter Test Data

Block: 116
Lot: 47
Municipality: Mendham
County: Morris

Job Number: 2001MNT
Client: Mortezai
Date Collected: 2/25/2020

Sample Identification: 1TP

Material Tested: Native Soil Depth = 24"

Type of Sample: ____ Undisturbed X Disturbed

Sample Dimensions:	Replicate A	Replicate B
Inside radius of Sample Tube, R, in cm, =	2.38	2.38
Length of Sample in inches =	4.50	4.50

Bulk density determination (Disturbed Samples Only) :

	A	B
Sample Weight, grams =	257	259
Sample Volume, Cubic centimeters (cc) =	203	203
Bulk Density, grams/cc =	**1.26**	**1.27**

Standpipe Used: ____ No XX Yes, Internal Radius, r , in cm. =

A	B
0.476 (3/8" ID)	0.476 (3/8" ID)

Height of water level, in inches:

	A	B
At the beginning of each test interval, H1 =	17.00	17.00
At the end of each test interval, H2 =	12.00	12.00

Rate of Water Level Drop:

Replicate A		Replicate B	
Time for Water Drop	Length of test (minutes) t	Time for Water Drop	Length of test (minutes) t
5	2.902	5	3.071
5	3.024	5	3.284
5	3.139	5	3.665

Calculation of Permeability:

K = 60 x (L/t) x (r2/R2) x Ln (H1/H2) =	A	B
	1.2 in/hr	**1.1** in/hr

Defects in Sample:

XX	None	____	Cracks	____	Worm Channels
____	Large Gravel	____	Large Roots	____	Root Channels
____	Dry soil	____	Smearing	____	Compaction
____	Soil/Tube contact				Other

I hereby certify that the information furnished on form 3b of this application is true and accurate. I am aware that falsification of this data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to the penalities as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer: Michael K. Ford
Michael K. Ford NJPE No. 34722

Date : 3-4-20

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ENGINEERING ASSOCIATES

Form 3b. Tube Permeameter Test Data

Block: 116
Lot: 47
Municipality: Mendham
County: Morris

Job Number: 2001MNT
Client: Mortezai
Date Collected: 2/25/2020

Sample Identification: 2B

Material Tested: Native Soil Depth = 80"

Type of Sample: ____ Undisturbed X Disturbed

Sample Dimensions:	Replicate A	Replicate B
Inside radius of Sample Tube, R, in cm. =	2.38	2.38
Length of Sample in inches =	4.50	4.50

Bulk density determination (Disturbed Samples Only) :	A	B
Sample Weight, grams =	297	293
Sample Volume, Cubic centimeters (cc) =	203	203
Bulk Density, grams/cc =	**1.46**	**1.44**

Standpipe Used: ____ No XX Yes, Internal Radius, r , in cm. =

A	B
0.476 (3/8" ID)	0.476 (3/8" ID)

Height of water level, in inches:	A	B
At the beginning of each test interval, H1 =	17.00	17.00
At the end of each test interval, H2 =	12.00	12.00

Rate of Water Level Drop:

Replicate A		Replicate B	
Time for Water Drop	Length of test (minutes) t	Time for Water Drop	Length of test (minutes) t
5	1.251	5	1.827
5	1.364	5	1.945
5	1.207	5	1.993

Calculation of Permeability:

K = 60 x (L/t) x (r2/R2) x Ln (H1/H2) =	A	B
	3.0 in/hr	**2.0** in/hr

Defects in Sample:

XX	None	____	Cracks	____	Worm Channels
____	Large Gravel	____	Large Roots	____	Root Channels
____	Dry soil	____	Smearing	____	Compaction
____	Soil/Tube contact				Other

I hereby certify that the information furnished on form 3b of this application is true and accurate.
I am aware that falsification of this data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to the penalities as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer: Michael K. Ford Date: 3-4-20
Michael K. Ford NJPE No. 34722

Van Cleef
ENGINEERING ASSOCIATES

Form 3b. Tube Permeameter Test Data

Block: 116
Lot: 47
Municipality: Mendham
County: Morris

Job Number: 2001MNT
Client: Mortezai
Date Collected: 2/25/2020

Sample Identification: 2TP

Material Tested: Native Soil Depth = 48"

Type of Sample: ____ Undisturbed X Disturbed

Sample Dimensions:	Replicate A	Replicate B
Inside radius of Sample Tube, R, in cm. =	2.38	2.38
Length of Sample in inches =	4.50	4.50

Bulk density determination (Disturbed Samples Only) :

	A	B
Sample Weight, grams =	257	261
Sample Volume, Cubic centimeters (cc) =	203	203
Bulk Density, grams/cc =	**1.26**	**1.28**

Standpipe Used: ____ No XX Yes, Internal Radius, r , in cm. =

A	B
0.476 (3/8" ID)	0.476 (3/8" ID)

Height of water level, in inches:

	A	B
At the beginning of each test interval, H1 =	17.00	17.00
At the end of each test interval, H2 =	12.00	12.00

Rate of Water Level Drop:

Replicate A		Replicate B	
Time for Water Drop	Length of test (minutes) t	Time for Water Drop	Length of test (minutes) t
5	3.450	5	3.624
5	3.865	5	3.871
5	4.002	5	3.989

Calculation of Permeability:

K = 60 x (L/t) x (r2/R2) x Ln (H1/H2) =	A	B
	1.0 in/hr	**1.0** in/hr

Defects in Sample:

XX	None	____	Cracks	____	Worm Channels
____	Large Gravel	____	Large Roots	____	Root Channels
____	Dry soil	____	Smearing	____	Compaction
____	Soil/Tube contact				Other

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Signature of Professional Engineer: Michael K. Ford Date: 3-4-20
Michael K. Ford NJPE No. 34722

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Van Cleef
ENGINEERING ASSOCIATES

Form 3b. Tube Permeameter Test Data

Block: 116
Lot: 47
Municipality: Mendham
County: Morris

Job Number: 2001MNT
Client: Mortezai
Date Collected: 2/25/2020

Sample Identification: 4B

Material Tested: Native Soil Depth = 24"

Type of Sample: ____ Undisturbed X Disturbed

Sample Dimensions:	Replicate A	Replicate B
Inside radius of Sample Tube, R, in cm. =	2.38	2.38
Length of Sample in inches =	4.50	4.50

Bulk density determination (Disturbed Samples Only) :	A	B
Sample Weight, grams =	288	284
Sample Volume, Cubic centimeters (cc) =	203	203
Bulk Density, grams/cc =	**1.42**	**1.40**

Standpipe Used: ____ No XX Yes, Internal Radius, r , in cm. =

A	B
0.476 (3/8" ID)	0.476 (3/8" ID)

Height of water level, in inches:	A	B
At the beginning of each test interval, H1 =	17.00	17.00
At the end of each test interval, H2 =	12.00	12.00

Rate of Water Level Drop:

Replicate A		Replicate B	
Time for Water Drop	Length of test (minutes) t	Time for Water Drop	Length of test (minutes) t
5	2.987	5	3.029
5	2.746	5	3.345
5	3.021	5	3.412

Calculation of Permeability:

K = 60 x (L/t) x (r2/R2) x Ln (H1/H2) =	A	B
	1.3 in/hr	**1.2** in/hr

Defects in Sample:

XX	None	____	Cracks	____	Worm Channels
____	Large Gravel	____	Large Roots	____	Root Channels
____	Dry soil	____	Smearing	____	Compaction
____	Soil/Tube contact				Other

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Signature of Professional Engineer: Michael K. Ford
Michael K. Ford NJPE No. 34722

Date: 3-4-20

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Van Cleef
ENGINEERING ASSOCIATES

Form 3b. Tube Permeameter Test Data

Block: 116
Lot: 47
Municipality: Mendham
County: Morris

Job Number: 2001MNT
Client: Mortezai
Date Collected: 2/25/2020

Sample Identification: 4TP

Material Tested: Native Soil Depth = 24"

Type of Sample: _____ Undisturbed X Disturbed

Sample Dimensions:	Replicate A	Replicate B
Inside radius of Sample Tube, R, in cm. =	2.38	2.38
Length of Sample in Inches =	4.50	4.50

Bulk density determination (Disturbed Samples Only) :	A	B
Sample Weight, grams =	259	260
Sample Volume, Cubic centimeters (cc) =	203	203
Bulk Density, grams/cc =	**1.27**	**1.28**

Standpipe Used: _____ No XX Yes, Internal Radius, r , in cm. =

A	B
0.476 (3/8" ID)	0.476 (3/8" ID)

Height of water level, in inches:	A	B
At the beginning of each test interval, H1 =	17.00	17.00
At the end of each test interval, H2 =	12.00	12.00

Rate of Water Level Drop:

Replicate A		Replicate B	
Time for Water Drop	Length of test (minutes) t	Time for Water Drop	Length of test (minutes) t
5	3.764	5	3.329
5	3.985	5	3.612
5	3.900	5	3.407

Calculation of Permeability:

K = 60 x (L/t) x (r2/R2) x Ln (H1/H2) =	A	B
	1.0 in/hr	**1.1** in/hr

Defects in Sample:

XX	None	_____	Cracks	_____	Worm Channels
_____	Large Gravel	_____	Large Roots	_____	Root Channels
_____	Dry soil	_____	Smearing	_____	Compaction
_____	Soil/Tube contact			_____	Other

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Signature of Professional Engineer: Michael K. Ford Date: 3-4-20

Michael K. Ford NJPE No. 34722

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Van Cleef
ENGINEERING ASSOCIATES

Form 3b. Tube Permeameter Test Data

Block: 116
Lot: 47
Municipality: Mendham
County: Morris

Job Number: 2001MNT
Client: Mortezai
Date Collected: 2/25/2020

Sample Identification: 5B

Material Tested: Native Soil Depth = 30"

Type of Sample: ____ Undisturbed X Disturbed

Sample Dimensions:	Replicate A	Replicate B
Inside radius of Sample Tube, R, in cm. =	2.38	2.38
Length of Sample in inches =	4.50	4.50

Bulk density determination (Disturbed Samples Only) :	A	B
Sample Weight, grams =	245	249
Sample Volume, Cubic centimeters (cc) =	203	203
Bulk Density, grams/cc =	**1.21**	**1.22**

Standpipe Used: ____ No XX Yes, Internal Radius, r , in cm. =

A	B
0.476 (3/8" ID)	0.476 (3/8" ID)

Height of water level, in inches:	A	B
At the beginning of each test interval, H1 =	17.00	17.00
At the end of each test interval, H2 =	12.00	12.00

Rate of Water Level Drop:

Replicate A		Replicate B	
Time for Water Drop	Length of test (minutes) t	Time for Water Drop	Length of test (minutes) t
5	3.521	5	3.421
5	3.402	5	3.608
5	3.662	5	3.972

Calculation of Permeability:

K = 60 x (L/t) x (r2/R2) x Ln (H1/H2) =	A	B
	1.1 in/hr	**1.0** in/hr

Defects in Sample:

XX	None	____	Cracks	____	Worm Channels
____	Large Gravel	____	Large Roots	____	Root Channels
____	Dry soil	____	Smearing	____	Compaction
____	Soil/Tube contact				Other

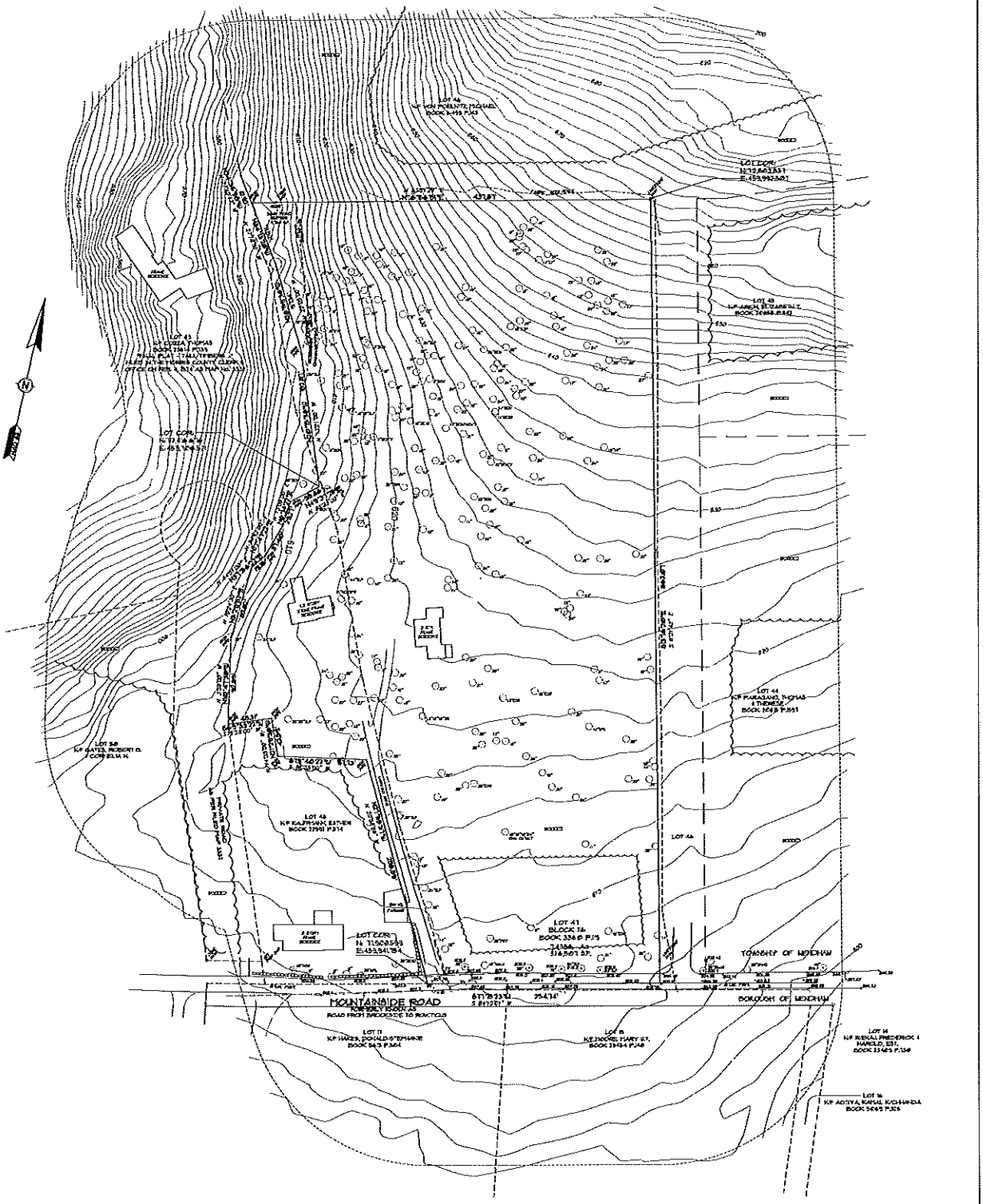
I hereby certify that the information furnished on form 3b of this application is true and accurate.
I am aware that falsification of this data is a violation of the Water Pollution Control Act
(N.J.S.A. 58:10A-1 et seq.) and is subject to the penalities as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer: Michael K. Ford Date: 3-4-20

Michael K. Ford NJPE No. 34722

APPENDIX F

LOI Map for Block 116, Lot 49
By Dykstra Walker Design Group



3 MAR 20	ADD'L TOPO; ADD 200' RAD.; CHANGE TO 50 SCALE	AS
8 FEB 20	ADD POND BUFFER	AS
1 FEB 20	ADD'L TREE LOCATIONS	AS
29 JAN 20	TREE LOCATION SURVEY	AS
10 JUN 19	LOCATE UNDERGROUND TANK	AS
DATE	REVISIONS	BY

NOTES:

HORIZONTAL AND VERTICAL CONTROL ESTABLISHED BY GPS BY ROBINSON AERIAL SURVEYS, INC, HACKETTSTOWN, NJ

GROUND CONTOURS ESTABLISHED BY LIDAR BY ROBINSON AERIAL SURVEYS, INC, HACKETTSTOWN, NJ

BOUNDARY CONTROL LOCATED BY UNDERSIGNED BY GROUND SURVEY.

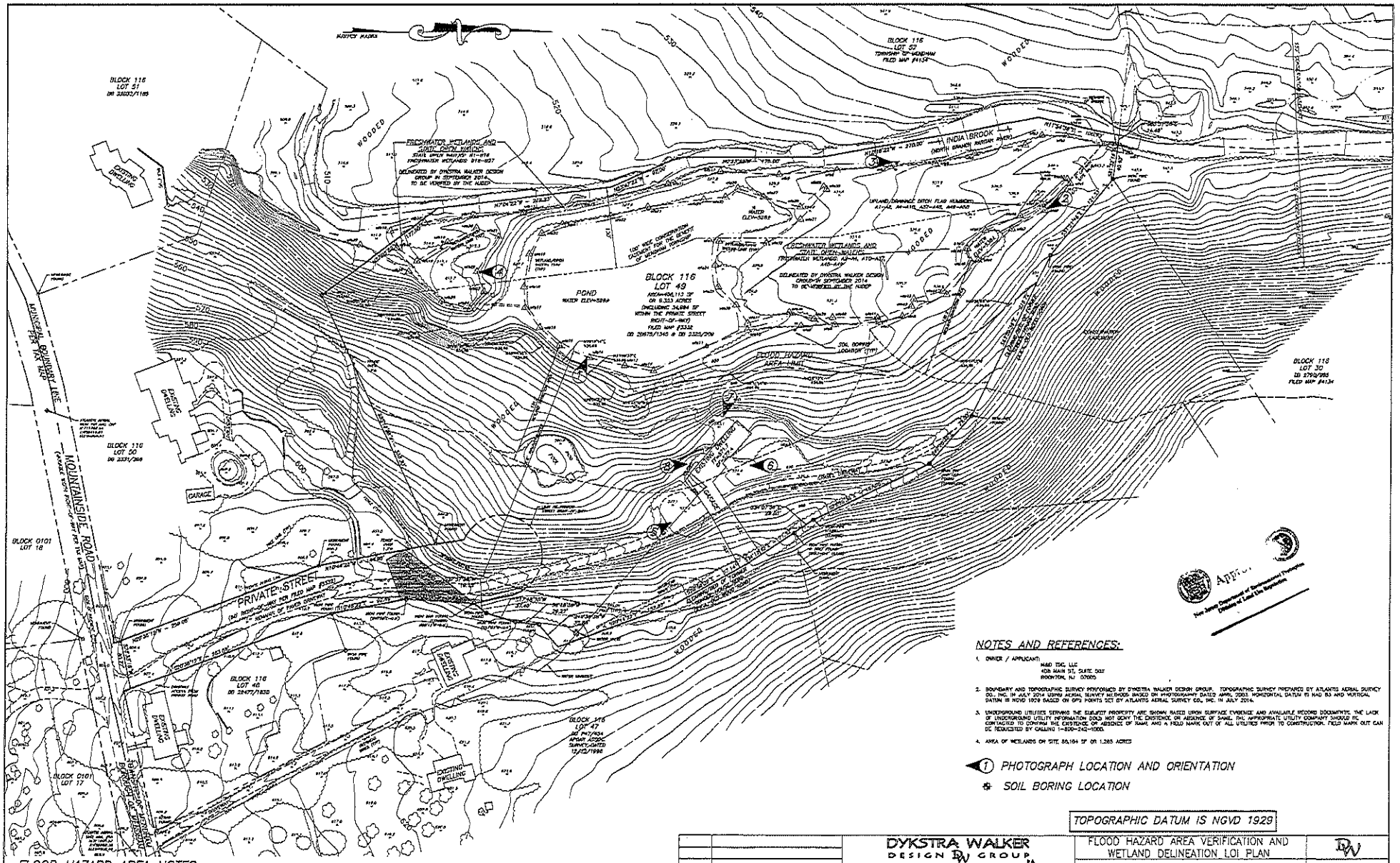
PROJECT No: 1169
DATE: 15 JUN 2017
SCALE: 1" = 50'
CHECKED BY: AS
DRAFTED BY: AS

SCHAN ASSOCIATES
41 HORSENECK ROAD
MONTVILLE, NJ 07045
973-541-1555

ANDRO SCHAN
PROFESSIONAL LAND SURVEYOR NJ LIC. 35749

TOPOGRAPHIC SURVEY
LOT 47 – BLOCK 116
239 MOUNTAINSIDE ROAD
TOWNSHIP OF MENDHAM
MORRIS COUNTY NEW JERSEY

SHEET 1 OF 1



NOTES AND REFERENCES:

1. OWNER / APPLICANT:
   MAD TDC, LLC
   408 MAIN ST, SUITE 202
   BOONTON, NJ 07005
2. BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED BY DYKSTRA WALKER DESIGN GROUP. TOPOGRAPHIC SURVEY PREPARED BY ATLANTIS AERIAL SURVEY CO., INC. IN JULY 2014 USING AERIAL SURVEY METHODS BASED ON PHOTOGRAMMY DATED APRIL 2003. HORIZONTAL DATUM IS NAD 83 AND VERTICAL DATUM IS NGVD 1929 BASED ON GPS POINTS SET BY ATLANTIS AERIAL SURVEY CO., INC. IN JULY 2014.
3. UNDERGROUND UTILITIES SERVING THE SUBJECT PROPERTY ARE SHOWN BASED UPON SURFACE EVIDENCE AND AVAILABLE RECORD DOCUMENTS. THE LACK OF UNDERGROUND UTILITY INFORMATION DOES NOT DENY THE EXISTENCE OR ABSENCE OF SAME. PAL APPROPRIATE UTILITY COMPANY SHOULD BE CONTACTED TO CONFIRM THE EXISTENCE OR ABSENCE OF SAME AND A FIELD MARK OUT OF ALL UTILITIES PRIOR TO CONSTRUCTION. FIELD MARK OUT CAN BE REQUESTED BY CALLING 1-800-242-1000.
4. AREA OF WETLANDS ON SITE 80,184 SF OR 1.265 ACRES

① PHOTOGRAPH LOCATION AND ORIENTATION

SOIL BORING LOCATION

FLOOD HAZARD AREA NOTES:

1. FLOOD HAZARD DETERMINATION WAS MADE WITHIN A FEW FEET ±10-3 THE APPROXIMATED DELINEATED FLOOD HAZARD SUPERIOR MADE ACROSS THE PROPERTY 10 FEET ABOVE THE POOL STORM STANDS.
2. A PORTION OF THE LOT IS LOCATED WITHIN THE 100 YEAR REGULAR STORM ACCORDING WITH NJDA RULES, WHICH HAS BEEN FLUCTUATED AS PER 7701. ACTIVITIES ASSOCIATED WITH THE PROJECT AND THE ALLOWABLE MANDATORY DISTURBANCE WITHIN THE REGULAR ZONE WILL BE REGULATED BY DAL WHERE THEY NOT REQUIRE A FLOOD HAZARD AREA PERMIT.
3. WITH ALL OR A PORTION OF SITE NOT LIES IN THE FLOOD HAZARD AREA, CERTAIN ACTIVITIES IN FLOOD HAZARD AREAS ARE REGULATED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SOME ACTIVITY MAY BE PROHIBITED OR WITH SITE OR NOT FIRST PLANNED A PUBLIC CONTACT DAL OFFICE OF LAND USE REGULATION AT (609) 292-0060 FOR MORE INFORMATION PRIOR TO ANY CONSTRUCTION.

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

DATE	REVISION
09/29/15	REVISED PER NJDEP CONVERSATION AND EMAIL

DYKSTRA WALKER DESIGN GROUP, LLC
PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS
25 BOWLING GREEN PARKWAY, SUITE 204 · LAKE HOPATCONG, NJ 07849
PHONE (973) 663-5540 · FAX (973) 663-0042
WWW.DYKSTRAWALKER.COM

THOMAS F. GRAHAM, P.E.
PROFESSIONAL ENGINEER, N.J. LIC. NO. 24GE03788100

FLOOD HAZARD AREA VERIFICATION AND
WETLAND DELINEATION LOI PLAN

NJDEP PERMITTING PLANS

BLOCK 116, LOT 49
#243 MOUNTAINSIDE ROAD
TOWNSHIP OF MENDHAM
MORRIS COUNTY NEW JERSEY

SCALE:	1" = 50'
JOB NO.:	14032
DRAWN BY:	KJG
CHECKED BY:	KDG
DATE:	4/22/15
SHEET NO.	1 OF 2

Approved
New Jersey Department of Environmental Protection
Division of Land Use Regulation

M:\MENDHAM\14032\Acad\PLAN\PERMITTING PLANS\14032 PERMITTING PLANS.dwg, 9/29/2015 12:15:22 PM, Canon IR7105.pc3