

**MELICK-TULLY
AND ASSOCIATES, P.C.**
GEOTECHNICAL ENGINEERS AND
ENVIRONMENTAL CONSULTANTS

May 16, 2001

Freehold Area Health Department
Municipal Plaza, Schanck Road
Freehold, New Jersey 07728-3099

Attention: Mr. Jeff Palatini, REHS

**Re: Proposed Septic System
Block 12.01, Lot 5
Upper Freehold, Monmouth County, New Jersey**

This letter summarizes the construction observation services performed by Melick-Tully and Associates, P.C. (MTA) for the above-referenced septic system. Specifically, MTA observed the following phases of construction:

- 1) On December 6, 2000 a representative of MTA obtained a sample from Freyer Contracting of the suitable fill to be used in the construction of the septic system. The sample was brought to our office and subjected to laboratory textural analyses and was found to conform to the textural gradational requirements listed in NJAC 7:9A and on the approved design plan. The results of the Gradational Analyses are presented on Plate 1.
- 2) On April 18, 2001 a representative of MTA visited the subject site and performed two field percolation tests in the suitable fill installed in the septic system. One test was performed at the level of infiltration and one test was performed two feet below the level of infiltration. Percolation rates on the order of 3 minutes/inch and 3 minutes/inch were recorded, respectively, which conform to the design requirements.
- 3) On April 18, 2001, a representative of MTA determined that the as-built level of infiltration was established at approximate Elevation 125.4 feet, which is consistent with the design elevation.
- 4) MTA reviewed the foundation location plan prepared by Schoor DePalma Assoc. and has provided the as-built tie dimensions from selected house corners to the as-built septic tank and distribution box locations. The tie dimensions are presented in the Tie Dimension table provided on the attached Tie Dimension As-Built Plan. The tie dimensions are referenced relative to the house corners provided on the foundation location plan prepared by Schoor, DePalma, dated March 8, 2001.

Please Reply to:

☒ NORTHERN NJ OFFICE: 117 Canal Road, South Bound Brook, NJ 08880 / Phone: (732) 356-3400 Fax: (732) 356-9054

☐ SOUTHERN NJ OFFICE: 520 Fellowship Road, Suite B206, Mount Laurel, NJ 08054 / Phone: (856) 914-0077 Fax: (856) 914-0078

Principals:

CHARLES T. MELICK, P.E.
ROBERT J. VAN ORDEN, P.E.
RAYMOND J. TULLY, P.E.
EUGENE M. GALLAGHER JR., P.E.
ROBERT E. SCHWANKERT, P.E.
TODD E. HOROWITZ, P.E.

Senior Associates:

WILLIAM M. STRUBEL, P.E.
RICHARD D. LEV, CPG
DENNIS C. LOH, P.E.
MARK R. DENNO, P.E.

Associate:

STEVEN D. THORNE, P.E.

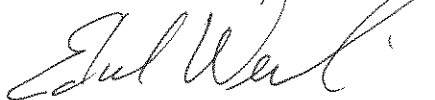
Consultant:

THOMAS E. TULLY, P.E.

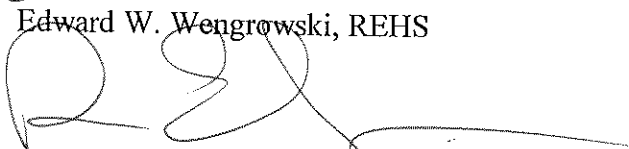
Please contact us if you have any questions regarding this information.

Very truly yours,

MELICK-TULLY and ASSOCIATES, P.C.



Edward W. Wengrowski, REHS



Robert E. Schwankert, P.E.

EWV:RES/eww
2338-496*01
(2 copies submitted)
Attachments

cc: K. Hovnanian Company
Attention: Mr. Randy Simat

LABORATORY GRADATIONAL ANALYSIS

Municipality: UPPER FREEHOLD TOWNSHIP

Block: 12.01 Lot: 5

1. Sample Number: S-1 Soil Pit/Boring Number: N/A
2. Sample Depth, Inches: Date Obtained: 12/6/00
3. Coarse Fragment Content:

Total Weight of Sample, W.T. grams: 607.7

Weight of Material Retained on 2mm Sieve, W.C.F. grams: 9.4

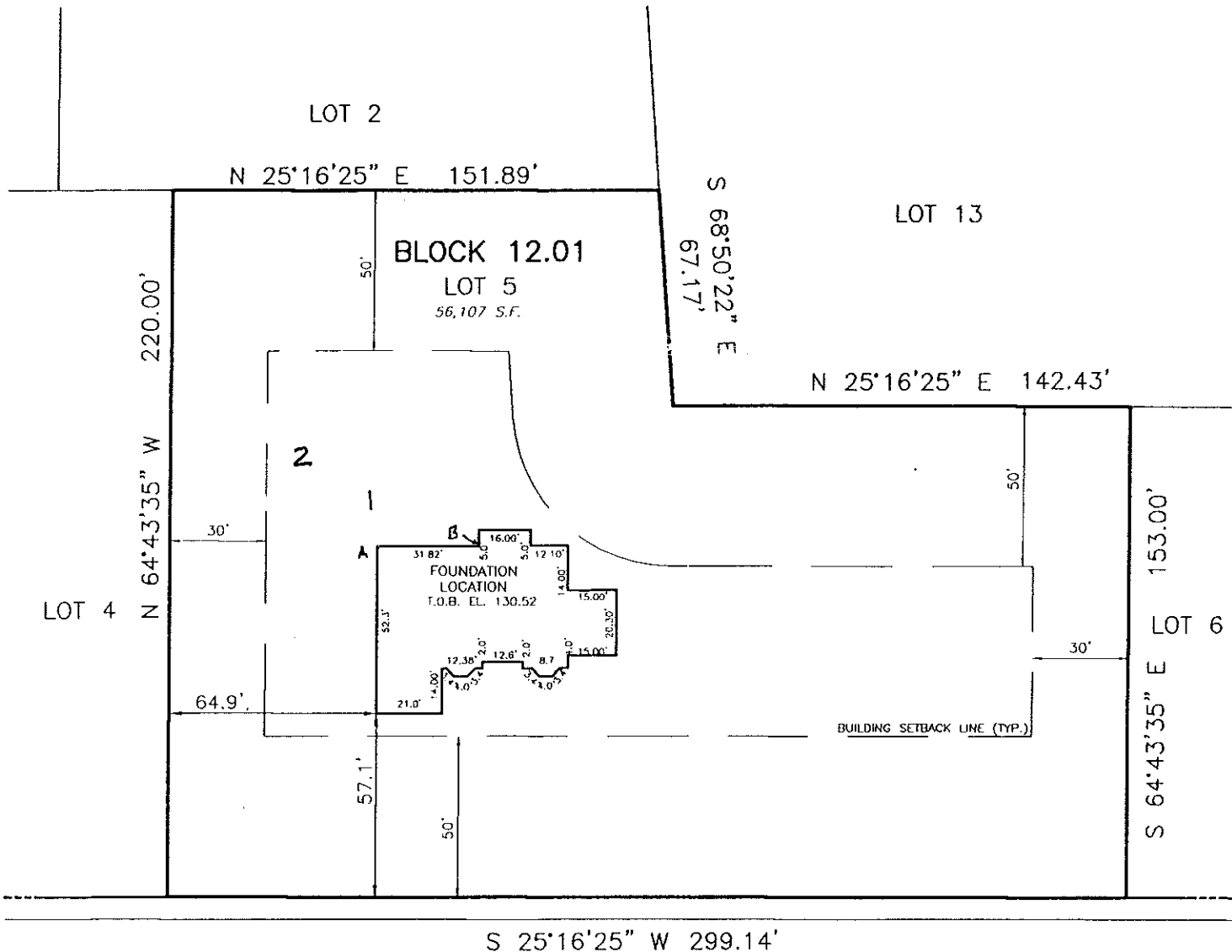
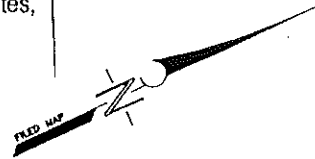
% Coarse Fragment (W.C.F./W.T. x 100): 1.5 %

		Replicate Letters	
		A	B
4.	Oven Dry Weight		
	(24 hrs. @ 105°C) of 40 Gram Air Dry Sample, grams, Wt.	40.0	40.0
5.	Hydrometer Calibration, Rc	5.0	5.0
6	Hydrometer Reading - 40 Seconds, grams, R1	7.0	7.0
	Temperature of suspension, °F	73	73
7.	Corrected Hydrometer Reading, grams, R1'	3.0	3.0
8.	Hydrometer Reading - 2 hours, grams, R2	7.0	7.0
	Temperature of Suspension, °F	73	73
9.	Corrected Hydrometer Reading, grams, R2'	3.0	3.0
10A.	% Sand=(Wt.-R1')/Wt.x 100=(40.0 - 3.0) / 40.00 x 100=	92.5	
10B.	% Sand=(Wt.-R1')/Wt.x 100=(40.0 - 3.0) / 40.00 x 100=		92.5
11A.	%Clay=R2'/Wt. X 100= 3.0/40.0 x 100=	7.5	
11B.	%Clay=R2'/Wt. X 100= 3.0/40.0 x 100=		7.5
12.	Sieve Analysis		
	a. Oven Dry Wt. (2 Hours @ 105°C) Total Sand Fraction (Soil Retained on 0.045 mm Sieve), grams	37.6	37.6
	b. Wt. of Fine Plus Very Fine Sand Fraction (Sand Passing 0.25 mm Sieve), grams	10.9	11.1
	c. % Fine Sand plus Very Fine Sand (b/a)	29.0	29.5

LOCATION PLAN

LYNWOOD ESTATES
LOT 5, BLOCK 12.01,
UPPER FREEHOLD TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

Reference plan entitled: Location Plan, Lynwood Estates,
Lot 5, Block 12.01, prepared by Schoor De Palma
Dated 3/8/01.



JENNINGS DRIVE

(50' WIDE R.O.W.)

KEY:

- 1 (SEPTIC TANK)
- 2 (D-BOX)
- A (REFERENCE HOUSE CORNER)
- B (REFERENCE HOUSE CORNER)

SEPTIC COMPONENT

AS-BUILT TIE DIMENSION PLAN



MELICK-TULLY AND ASSOCIATES, P.C.

Geotechnical Engineers
& Environmental Consultants
117 Canal Road
South Bound Brook, New Jersey 08880
(732) 356-3400

Melick-Tully and Associates, P.C.	Septic System As-Built Location Tie Dimensions	
Point to Point	Distance (feet)	Component
A to 1	15	Septic Tank
A to 2	36	D-Box
B to 1	37.5	Septic Tank
B to 2	62	D-Box

JOB NO.

2338-496

FILE NO.

14587

DR. BY
EWW

CHK. BY
RES

DATE
5-16-01

SCALE
1"=50'

PLATE
2

UPPER FREEHOLD HEALTH DEPARTMENT
K. HOVNANIAN COMPANIES OF THE JERSEY SHORE
LYNWOOD ESTATES SUBDIVISION

APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY: UPPER FREEHOLD TOWNSHIP
FORM 2b-SOIL LOG AND INTERPRETATION

BLOCK 12.01 LOT 5

1. LOG NUMBER SL-63A METHOD (CHECK ONE) ☒ PROFILE PIT ☐ BORING

2. SOIL LOG

DEPTH IN INCHES TOP - BOTTOM	MUNSEL COLOR NAME AND SYMBOL; ESTIMATED TEXTURAL CLASS; ESTIMATED VOLUME % COARSE FRAGMENTS, IF PRESENT; STRUCTURE; MOIST OR DRY; CONSISTENCE; MOTTILING-ABUNDANCE, SIZE & CONTRAST, IF PRESENT
0-11	BROWN (10YR, 4/3) (TOPSOIL) LOAM, <5% GRAVEL, MODERATE MEDIUM CRUMB, MOIST, FRIABLE CLEAR SMOOTH BOUNDARY, FEW FINE ROOTS.
11-67	OLIVE-BROWN (2.5Y, 4/4) CLAY LOAM, <5% GRAVEL, MODERATE MEDIUM ANGULAR BLOCKY, MOIST, FIRM, CLEAR SMOOTH BOUNDARY.
67-132	STRONG BROWN (7.5YR, 5/6) LOAMY SAND, SINGLE GRAIN, LOOSE.

SOIL LOG COMPLETED @ 132 INCHES
MOTTILING NOT ENCOUNTERED
REFUSAL NOT ENCOUNTERED

3. GROUNDWATER OBSERVATIONS:

- ☒ SEEPAGE-INDICATE DEPTH - NOT ENCOUNTERED.
☐ PIT/BORING FLOODED-DEPTH AFTER _____ HOURS _____ INCHES

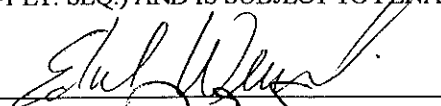
4. SOIL LIMITING ZONES (CHECK APPROPRIATE CATEGORIES):

- ☐ FRACTURED ROCK SUBSTRATUM-DEPTH TO TOP _____.
☐ MASSIVE ROCK SUBSTRATUM-DEPTH TO TOP _____.
☐ EXCESSIVELY COARSE HORIZON-DEPTH TOP TO BOTTOM _____.
☐ EXCESSIVELY COARSE SUBSTRATUM-DEPTH TO TOP _____.
☒ HYDRAULICALLY RESTRICTIVE HORIZON-DEPTH TOP TO BOTTOM 11" TO 67".
☐ HYDRAULICALLY RESTRICTIVE SUBSTRATUM-DEPTH TO TOP _____.
☐ PERCHED ZONE OF SATURATION-DEPTH TOP TO BOTTOM _____.
☐ REGIONAL ZONE OF SATURATION-DEPTH TO TOP _____.

5. SOIL SUITABILITY CLASSIFICATION: IIHr

6. I HEREBY CERTIFY THAT THE INFORMATION FURNISHED ON FORM 2b OF THIS APPLICATION IS TRUE AND ACCURATE. I AM AWARE THAT FALSIFICATION OF DATA IS A VIOLATION OF THE WATER POLLUTION CONTROL ACT (N.J.S.A. 58:10A-1 ET. SEQ.) AND IS SUBJECT TO PENALTIES AS PRESCRIBED IN N.J.A.C. 7:14-8.

SIGNATURE OF SITE EVALUATOR



DATE 9/10/99

SIGNATURE OF PROFESSIONAL ENGINEER



MTA JOB NUMBER: 2338-395

LICENSE # GE28642
COMPLETION DATE 04/05/96-elm

UPPER FREEHOLD HEALTH DEPARTMENT
K. HOVNANIAN COMPANIES OF THE JERSEY SHORE
LYNWOOD ESTATES SUBDIVISION

APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY: UPPER FREEHOLD TOWNSHIP
FORM 2b-SOIL LOG AND INTERPRETATION

BLOCK 12.01 LOT 5

1. LOG NUMBER SL-64 METHOD (CHECK ONE) ☒ PROFILE PIT ☐ BORING

2. SOIL LOG

DEPTH IN INCHES TOP - BOTTOM	MUNSEL COLOR NAME AND SYMBOL; ESTIMATED TEXTURAL CLASS; ESTIMATED VOLUME % COARSE FRAGMENTS, IF PRESENT; STRUCTURE; MOIST OR DRY; CONSISTENCE; MOTTILING-ABUNDANCE, SIZE & CONTRAST, IF PRESENT
0-12	BROWN (10YR, 4/3) (TOPSOIL) LOAM, <5% GRAVEL, MODERATE MEDIUM CRUMB, MOIST, FRIABLE CLEAR SMOOTH BOUNDARY, COMMON FINE ROOTS.
12-66	YELLOWISH-BROWN (10YR, 5/8) CLAY LOAM, <5% GRAVEL, MODERATE MEDIUM ANGULAR BLOCKY, MOIST, FRIABLE, GRADUAL SMOOTH BOUNDARY.
66-120	YELLOWISH-RED (5YR, 4/6) SANDY CLAY LOAM, <5% GRAVEL, WEAK MEDIUM SUBANGULAR BLOCKY, MOIST, FRIABLE, CLEAR SMOOTH BOUNDARY.
120-156	STRONG BROWN (7.5YR, 5/6) LOAMY SAND, WEAK MEDIUM SUBANGULAR BLOCKY, MOIST, FRIABLE.

SOIL LOG COMPLETED @ 156 INCHES
MOTTILING NOT ENCOUNTERED
REFUSAL NOT ENCOUNTERED

3. GROUNDWATER OBSERVATIONS:

- ☒ SEEPAGE-INDICATE DEPTH - NOT ENCOUNTERED.
☐ PIT/BORING FLOODED-DEPTH AFTER _____ HOURS _____ INCHES

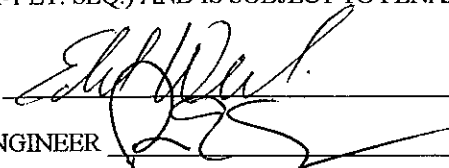
4. SOIL LIMITING ZONES (CHECK APPROPRIATE CATEGORIES):

- ☐ FRACTURED ROCK SUBSTRATUM-DEPTH TO TOP _____.
☐ MASSIVE ROCK SUBSTRATUM-DEPTH TO TOP _____.
☐ EXCESSIVELY COARSE HORIZON-DEPTH TOP TO BOTTOM _____.
☐ EXCESSIVELY COARSE SUBSTRATUM-DEPTH TO TOP _____.
☐ HYDRAULICALLY RESTRICTIVE HORIZON-DEPTH TOP TO BOTTOM _____.
☐ HYDRAULICALLY RESTRICTIVE SUBSTRATUM-DEPTH TO TOP _____.
☐ PERCHED ZONE OF SATURATION-DEPTH TOP TO BOTTOM _____.
☐ REGIONAL ZONE OF SATURATION-DEPTH TO TOP _____.

5. SOIL SUITABILITY CLASSIFICATION: I

6. I HEREBY CERTIFY THAT THE INFORMATION FURNISHED ON FORM 2b OF THIS APPLICATION IS TRUE AND ACCURATE. I AM AWARE THAT FALSIFICATION OF DATA IS A VIOLATION OF THE WATER POLLUTION CONTROL ACT (N.J.S.A. 58:10A-1 ET. SEQ.) AND IS SUBJECT TO PENALTIES AS PRESCRIBED IN N.J.A.C. 7:14-8.

SIGNATURE OF SITE EVALUATOR



DATE 9/10/99

SIGNATURE OF PROFESSIONAL ENGINEER

MTA JOB NUMBER: 2338-395

LICENSE # GE28642
COMPLETION DATE 04/05/96-eln

Results of Soil Permeability Data - Form 3a
Application for Permit to Construct/Alter/Repair an
Individual Subsurface Sewage Disposal System
Lynwood Estates
K. Hovnanian Companies

County/Municipality: Monmouth/Upper Freehold Township

Block: 12.01

Lot: 5

Assign a number for each test and a letter for each test replicate. Show test data and calculation on Form 3b, 3c, 3d, 3e, 3f, or 3g. Use one sheet for each separate test or test replicate.

Summary of Data-Enter data for each test replicate on a separate line.

Type of Test	Test Number	Replicate (letter)	Depth (inches)	Results*
SPCR	SL-63A, S-1	A	67+"	K4
SPCR		B	67+"	K4

* For each tube permeameter, pit-bailing and piezometer tests, report results in inches/hour. For soil permeability class rating give soil permeability class number. For percolation test, report results in minutes/inch. For basin flooding tests, report results as positive if basin drains completely within 24 hours after second filling, negative otherwise.

2. **Design Permeability/Percolation Rate: Specify Test No.** **6 to 20 in/hr (3 to 15 MPI)

- ☐ Average of Test Replicates
☐ Slowest of Replicates
☒ Single Replicate

** Permeability of Suitable Fill to be Installed

3. **Type of Limiting Zone Identified**

Test Number

_____	_____
_____	_____
_____	_____

4. **Attachments (Check Items included):**

☐ Form 3b - Tube Permeameter Test Data	Number of Sheets	_____
☒ Form 3c - Soil Permeability Class Rating Data	Number of Sheets	<u>1</u>
☐ Form 3d - Percolation Test Data	Number of Sheets	_____
☐ Form 3e - Pit Bailing Test Data	Number of Sheets	_____
☐ Form 3f - Piezometer Test Data	Number of Sheets	_____
☐ Form 3g - Basin Flooding Test Data	Number of Sheets	_____

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

Signature of Soil Evaluator: _____

Date: 9/10/99

Signature of Professional Engineer: _____

License Number: GE28642

SOIL PERMEABILITY CLASS RATING

Municipality/County: UPPER FREEHOLD TOWNSHIP/MONMOUTH COUNTY Block: 12.01 Lot: 5

1. Sample Number: S-1 Soil Pit/Boring Number: SL-63A
 2. Sample Depth, Inches: 67" + Date Collected: _____

3. Coarse Fragment Content:

Total Weight of Sample, W.T., grams: 293.4
 Weight of Material Retained on 2 mm Sieve, W.C.F., grams: 28.4
 % Coarse Fragment (W.C.F./W.T. x 100): 9.7

	Replicate Letters	
	A	B
4. Oven Dry Weight (24 hrs. @ 105°C) of 40 Gram Air Dry Sample, grams, Wt.	40.00	40.00
5. Hydrometer Calibration, Rc	4.0	4.0
6. Hydrometer Reading - 40 Seconds, grams, R1 Temperature of Suspension, °F	8.0 76	8.0 76
7. Corrected hydrometer Reading, R1'	5.6	5.6
8. Hydrometer Reading - 2 Hours, grams, R2 Temperature of Suspension, °F	6.0 77	6.0 77
9. Corrected Hydrometer Reading, grams, R2'	3.8	3.8
10A. % Sand=(Wt.-R1')/Wt. x 100=(40.00-5.6)/40.00 x 100=	86.0	
10B. % Sand=(Wt.-R1')/Wt. x 100=(40.00-5.6)/40.00 x 100=		86.0
11A. % Clay=R2'/Wt. x 100=3.8/40.00 x 100=	9.5	
11B. % Clay=R2'/Wt. x 100=3.8/40.00 x 100=		9.5
12. Sieve Analysis:		
a. Oven Dry Wt. (2 Hours @ 105°C) Total Sand Fraction (Soil Retained on 0.047 mm Sieve), grams	34.8	34.9
b. Wt. of Fine Plus Very Fine Sand Fraction (Sand Passing 0.25 mm Sieve), grams	3.9	4.0
c. % Fine Plus Very Fine Sand (b/a)	11.2	11.5
13. Soil Morphology (Natural Soil Samples Only): Structure of Soil Horizon Tested: <u>SINGLE GRAIN</u> Consistency of Soil Horizon Tested: <u>LOOSE</u>		
14. Soil Permeability Class Rating (Based upon average textural analysis of replicates A and B) <u>K4</u>		

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

Signature of Site Evaluator Eduel Wong Date 9/10/99

Signature of Prof. Engineer QES Date 9/10/99

**Freehold Area Health Department
General Design Data
Lynwood Estates
K. Hovnanian Co.**

County/Municipality: Monmouth/Upper Freehold Township

Block No.: 12.01

Lot No.: 5

1. **Volume of Sanitary Sewage, gal.:** 650

- ☒ Residential: No. of Dwelling Units: 1 Total No. of Bedrooms: 4
☐ Commercial/Institutional - Indicate type of establishment and show method of calculation. If estimate is based on water meter data, indicate source of data, frequency of readings, average daily flow, and maximum recorded daily reading: _____

2. **Alterations or Repairs**

a. Reason for Alteration or Repair (Check appropriate categories):

- ☐ Expansion or Change in Use
☐ Upgrade Existing Facilities
☐ Correct Malfunctioning System
☐ Other - _____

Specify: _____

b. Describe Nature of Alteration or Repairs: _____

3. **System Components:**

a. Grease Trap Capacity, gals.: _____

Show Calculation Used: _____

b. Septic Tank Capacities, gals.: 1000 First (Single Compartment)
_____ Second Compartment
_____ Third Compartment

c. Effluent Distribution

Method:

- ☒ Gravity Flow
☐ Gravity Dosing
☐ Pressure Dosing

Dosing Device:

- ☐ Pump
☐ Siphon

d. Dosing Tank Capacities, gals.: Total Capacity: _____ Dose Volume: _____
Reserve Capacity: _____

e. Laterals: Number: 4 Total Length: 256' Pipe Size: 4" Spacing: 3.0'

f. Connecting Pipe: Size: 4" Length: 10' house to septic tank, 5' septic tank to d-box

g. Manifold: Size: _____ Length: _____

h. Disposal Field: Type of Installation: SRE

Design Permeability (Percolation Rate): 6 to 20 in/hr (3 to 15 MPI)

Trenches Width: -- Total -- Bed Area: 1050 S.F.

: _____ Length: _____

i. Seepage Pits: Design Percolation Rate: --

Number of Pits: -- Total Percolating Area Provided: --

4. **Attachments (Check items included):**

- ☒ General Plan of System Showing Location of All System Components
☒ X-Sections of Each System Component Including Grease Trap, Septic Tank, Dosing Tank, Disposal Field, Seepage Pits and Interceptor Drains
☐ Pump Performance Curve
☐ Other - Specify: _____

5. I hereby certify that the information furnished on Form 4 of this application (and attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et. seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer: _____

Date: 9/10/99

UPPER FREEHOLD HEALTH DEPARTMENT
K. HOVNANIAN COMPANIES OF THE JERSEY SHORE
LYNWOOD ESTATES SUBDIVISION

APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR
AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

MUNICIPALITY: UPPER FREEHOLD TOWNSHIP

FORM 2b-SOIL LOG AND INTERPRETATION

BLOCK 12.01

LOT 5

1. LOG NUMBER SL-63 METHOD (CHECK ONE) ☒ PROFILE PIT ☐ BORING

2. SOIL LOG

DEPTH IN INCHES TOP - BOTTOM	MUNSEL COLOR NAME AND SYMBOL; ESTIMATED TEXTURAL CLASS; ESTIMATED VOLUME % COARSE FRAGMENTS, IF PRESENT; STRUCTURE; MOIST OR DRY; CONSISTENCE; MOTTILING-ABUNDANCE, SIZE & CONTRAST, IF PRESENT
0-14	BROWN (10YR, 4/3) (TOPSOIL) LOAM, <5% GRAVEL, MODERATE MEDIUM CRUMB, MOIST, FRIABLE, CLEAR SMOOTH BOUNDARY, COMMON FINE ROOTS.
14-78	YELLOWISH-BROWN (10YR, 5/8) CLAY LOAM WITH SANDY LOAM, 5% GRAVEL, MODERATE MEDIUM ANGULAR BLOCKY, MOIST, FIRM, GRADUAL SMOOTH BOUNDARY, MANY MEDIUM DISTINCT LIGHT YELLOWISH-BROWN (10YR, 6/2) MOTTLES ENCOUNTERED @ 52 INCHES TO 78 INCHES.
78-126	BROWNISH-YELLOW (10YR, 6/8) SANDY LOAM, <5% GRAVEL, WEAK MEDIUM SUBANGULAR BLOCKY, MOIST, FRIABLE, CLEAR SMOOTH BOUNDARY.
126-142	LIGHT BROWNISH-GRAY (10YR, 5/2) CLAY LOAM, WEAK MEDIUM SUBANGULAR BLOCKY, MOIST, FIRM, COMMON MEDIUM DISTINCT YELLOWISH-BROWN (10YR, 5/8) MOTTLES ENCOUNTERED @ 126 INCHES.

SOIL LOG COMPLETED @ 142 INCHES

MOTTLES ENCOUNTERED @ 52 INCHES TO 78 INCHES AND 126 INCHES

REFUSAL NOT ENCOUNTERED

3. GROUNDWATER OBSERVATIONS:

- ☒ SEEPAGE-INDICATE DEPTH - NOT ENCOUNTERED.
☐ PIT/BORING FLOODED-DEPTH AFTER _____ HOURS _____ INCHES

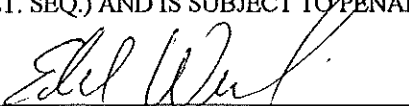
4. SOIL LIMITING ZONES (CHECK APPROPRIATE CATEGORIES):

- ☐ FRACTURED ROCK SUBSTRATUM-DEPTH TO TOP _____.
☐ MASSIVE ROCK SUBSTRATUM-DEPTH TO TOP _____.
☐ EXCESSIVELY COARSE HORIZON-DEPTH TOP TO BOTTOM _____.
☐ EXCESSIVELY COARSE SUBSTRATUM-DEPTH TO TOP _____.
☒ HYDRAULICALLY RESTRICTIVE HORIZON-DEPTH TOP TO BOTTOM 14" TO 78".
☒ HYDRAULICALLY RESTRICTIVE SUBSTRATUM-DEPTH TO TOP 126".
☒ PERCHED ZONE OF SATURATION-DEPTH TOP TO BOTTOM 52" TO 78".
☒ REGIONAL ZONE OF SATURATION-DEPTH TO TOP 126".

5. SOIL SUITABILITY CLASSIFICATION: IIHr, (IIWp)

6. I HEREBY CERTIFY THAT THE INFORMATION FURNISHED ON FORM 2b OF THIS APPLICATION IS TRUE AND ACCURATE. I AM AWARE THAT FALSIFICATION OF DATA IS A VIOLATION OF THE WATER POLLUTION CONTROL ACT (N.J.S.A. 58:10A-1 ET. SEQ.) AND IS SUBJECT TO PENALTIES AS PRESCRIBED IN N.J.A.C. 7:14-8.

SIGNATURE OF SITE EVALUATOR



DATE 9/10/99

SIGNATURE OF PROFESSIONAL ENGINEER



MTA JOB NUMBER: 2338-395

LICENSE # GE28642
COMPLETION DATE 04/05/96-elr

NOT USED FOR DESIGN

No 0461

FREEHOLD AREA HEALTH DEPARTMENT
SERVING FREEHOLD TOWNSHIP, MILLSTONE TOWNSHIP,
AND UPPER FREEHOLD TOWNSHIP
732-294-2060

CERTIFICATE OF COMPLIANCE

THIS IS TO CERTIFY THAT THE SEWAGE DISPOSAL SYSTEM AT

BLOCK: 12.01 LOT: 5 TOWNSHIP: Upper Freehold

STREET MAILING ADDRESS: Edison, NJ

AND OWNED BY: K. Hovnanian PHONE: _____

HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF THE CURRENT "STANDARDS FOR INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS", AS ADOPTED BY THE FREEHOLD AREA HEALTH DEPARTMENT.

THE ISSUANCE OF THIS CERTIFICATE SHALL NOT BE CONSTRUED AS A GUARANTEE THAT THE SYSTEM WILL FUNCTION SATISFACTORILY NOR SHALL IT IN ANY WAY RESTRICT THE POWERS OR RESPONSIBILITIES OF THE BOARD OF HEALTH IN THE ENFORCEMENT OF ANY LAW OR ORDINANCE RELATING TO PUBLIC HEALTH.

DATED: 5/29/01 [Signature]
FREEHOLD AREA HEALTH DEPARTMENT

 printed on recycled paper

FREEHOLD AREA HEALTH DEPARTMENT
SERVING FREEHOLD TOWNSHIP, MILLSTONE TOWNSHIP,
AND UPPER FREEHOLD TOWNSHIP
732-294-2060

No 0461

**PERMIT TO LOCATE AND CONSTRUCT OR ALTER
AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM**

PERMISSION IS HEREBY GRANTED TO:

OWNER/CONTRACTOR: K. Hovnanian

ADDRESS: Edison, NJ

PHONE: _____

TO LOCATE AND CONSTRUCT AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM IN ACCORDANCE WITH THE CURRENT "STANDARDS FOR INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEMS", LOCATED AT:

BLOCK: 12.01 LOT: 5 TOWN: Upper Freehold

DATE OF ISSUE: 1/21/00 EXPIRATION DATE: _____

FEE PAID: \$ 200.00 [Signature]

FREEHOLD AREA HEALTH DEPARTMENT

 printed on recycled paper

FREEHOLD AREA HEALTH DEPARTMENT

SERVING
FREEHOLD TOWNSHIP **FREEHOLD BOROUGH
MILLSTONE TOWNSHIP ** UPPER FREEHOLD TOWNSHIP

1 MUNICIPAL PLAZA
FREEHOLD, NEW JERSEY 07728-3099

TELEPHONE: 732-294-2060
FAX: 732-462-2340

INDIVIDUAL SEWAGE DISPOSAL SYSTEM CERTIFICATION

BLOCK: 12.01 LOT: 5 MUNICIPALITY: Upper Freehold

It is the opinion of the Board of Health that the proposed individual sewage disposal system for the subject property is expected to function satisfactorily, and is not likely to create an unsanitary condition if properly maintained.

Unless otherwise instructed below, at least two inspections are required during the installation:

1. After or during the excavation, and prior to the placement of stone or sand filter material.
2. After completion of the system but prior to backfilling.

NOTE: If plans require soil replacement, a licensed engineer must certify the fill for texture, permeability, compaction and elevation. Written certification must be presented to the Health Inspector prior to backfilling.

It is the responsibility of the applicant to supply the installer with a copy of this notice and the approved plan. To prevent unnecessary delays, inspections should be scheduled at least 24 hours in advanced by calling (732) 294-2060.

All permits are valid for two years after date of issue.

January 21, 2000
Date

Margy Jahn
Health Inspector

ADDITIONAL INSPECTIONS OR INFORMATION:

- ① System must be installed as designed per revisions of 1/18/00.
- ② System is fill enclosed and requires an excavation of 19'x74' to a depth of elev. 117.6 (126-132").

FREEHOLD AREA HEALTH DEPARTMENT
Municipal Plaza * Schanck Road * Freehold, New Jersey 07728 * (732)294-2060

APPLICATION FOR AN INDIVIDUAL SEWER PERMIT:

X to locate and construct X Upper Freehold
_____ to alter/repair _____ to supplement _____ Millstone _____ Freehold

Location:

Address: Jennings Drive
Property Owner: K. Hovnanian Company
Address: Raritan Plaza - 5th Floor
P.O. Box CN 7825
110 Field Crest Avenue
Edison, New Jersey 08817

Block: 12.01 Lot: 5
Builder: K. Hovnanian Company
Phone: (732)225-4001

Type of Building: Residential: X Other: _____ Square Feet: _____
Number of Bedrooms: 4 Expansion Room/Den: Yes: _____ No: X
Garbage Grinder: Yes: _____ No: X Volume of Sanitary Sewage (gal): 650 GPD
(inclu. method of calc.) 1st BR x 200 g + 3 BR x 150 g

PreTreatment:

A) Septic Tank Material: Concrete Capacity (gals): 1,000
B) Grease Trap Material: _____ Capacity (gals): _____
C) Dosing Tank Material: _____ Capacity (gals): _____

Disposal Bed	Trenches	Pits
Width/Length: <u>15' x 70'</u>	Width/Length: _____	Number: _____
Type/Ft. of pipe: <u>4" Perf. PVC - 256'</u>	Dist. Between: _____	Material: _____
Dist. Between Pipe: <u>3.0 feet</u>	Depth: _____	Length/Width/Diameter: _____
Req. Area: <u>1046.5 feet²</u>	Req. Area: _____	Req. Area: _____
Design Area: <u>1050 feet²</u>	Design Area: _____	Design Area: _____

*** INCLUDE CROSS SECTIONS**

Imported Soil Characteristics:

Zone of Treatment: 3-15 min/in or 6-20 in/hr (K4)

Zone of Disposal: <30 min/in or > 2.0 in/hr
(K3 or faster)

Soil Investigators: Edward Wengrowski and Michael Ehasz

Phone: (732)356-3400

Certifying Engineer: Robert E. Schwankert, P.E.

Address: Melick-Tully and Associates, P.C.
117 Canal Road
South Bound Brook, NJ 08880
Phone: (908) 356-3400

Date of Soils Tests: 4/5/96

Witness: Freehold Area Health Dept.

Please attach the following with application:

- | | | | |
|-------------|-------------------------------|-------------|--|
| 1) <u>X</u> | Detailed soil logs & location | 2) <u>X</u> | Groundwater Observation |
| 3) <u>X</u> | I.D. of limiting zones | 4) <u>X</u> | All permeability data (using applicable Chapter 199 forms) |
| 5) _____ | Pump Specs. | 7) <u>X</u> | Plot plan with Topography (include bench mark elev.) (Plan Note) |
| 6) _____ | Interceptor Drain Details | | |

Note: Pressure dosing system applications must include form #5 from Chapter 199 effective January, 1990.

MUNICIPAL PLAZA, SCHANCK RD., FREEHOLD, NJ 07728

DATE: 3-23-68 INSP. WJ

LOCATION: Box 538

[illegible]

MUNICIPAL PLAZA, SCHANCK RD., FREEHOLD, NJ 07728

TWP: UT BLK. 12.01 LOT: 5 DATE: 3/21 INSP. JP

LOCATION:



Depth In.	Color	Texture	Structure Type Grade & Type	Consistency moist dry wet	Ab.	Mottling size contrast	Comments
0-11	gray 4/36r	TS LT	camb	firm			
11-67	2.5 y 4/4 olive	Glaucous blue CL	MANS	firm			
67-138	7.5 y 6/6 sbd	SL to LS	# Granular	friable		sample	
							Location Map & PercData on (other side)

FREEHOLD AREA HEALTH DEPARTMENT

MUNICIPAL PLAZA, SCHANCK RD., FREEHOLD, NJ 07728

TWP: JT BLK. 12.01 LOT: 5 DATE: 8/26/06 INSP. PT

ENGINEER: M.T. Mike LOCATION: Ruck 39



Depth In.	Color	Texture	Structure Type Grade & Type	Consistency moist dry wet	Mottling Ab. size contrast	Comments
2-12	10YR 2/4 1/2 brown	Loam TS	2-Sub	Firm		
12-26	10YR 5/5 2 brown	Loam TS	2-Sub	Firm		
26-32	10YR 5/5 2 brown	Sandy clay loam w/ pebbles of sandstone	3-Sub	Firm - firm		
32-40	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
40-50	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
50-60	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
60-70	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
70-80	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
80-90	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
90-100	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
100-110	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
110-120	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
120-130	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
130-140	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
140-150	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
150-160	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
160-170	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
170-180	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
180-190	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
190-200	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
200-210	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
210-220	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
220-230	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
230-240	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
240-250	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
250-260	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
260-270	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
270-280	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
280-290	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
290-300	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
300-310	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
310-320	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
320-330	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
330-340	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
340-350	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
350-360	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
360-370	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
370-380	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
380-390	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
390-400	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
400-410	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
410-420	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
420-430	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
430-440	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
440-450	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
450-460	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
460-470	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
470-480	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
480-490	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
490-500	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
500-510	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
510-520	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
520-530	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
530-540	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
540-550	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
550-560	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
560-570	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
570-580	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
580-590	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
590-600	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
600-610	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
610-620	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
620-630	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
630-640	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
640-650	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
650-660	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
660-670	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
670-680	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
680-690	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
690-700	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
700-710	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
710-720	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
720-730	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
730-740	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
740-750	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
750-760	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
760-770	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
770-780	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
780-790	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
790-800	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
800-810	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
810-820	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
820-830	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
830-840	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
840-850	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
850-860	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
860-870	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
870-880	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
880-890	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
890-900	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
900-910	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
910-920	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
920-930	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
930-940	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
940-950	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
950-960	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
960-970	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
970-980	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
980-990	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		
990-1000	10YR 5/5 2 brown	Loam in sand TS	3-Sub	Firm		

Location Map &
PercData on
(other side)

Excav
to 120"

Excav
to 120"