INVOICE

LOUIS T. HOOPER

Soils and Foundations

1489 CREEKSIDE DRIVE - WHEATON, ILLINOIS 60187

PHONE 708/665-7680

Client Name

Manisha S. Patel
19 W 114 E. 22nd Street
Lombard, Illinois 60148

Date September 3, 1992

Client Reference

Project No. J-2740

Invoice No. 4681

Soils Investigation & Report
Lot located at s.e. corner of Lawrence & Garden Avenues
Keeneyville, Illinois $300.00

Credit Ck#107 100.00

Balance due $200.00

LOUIS T. HOOPER
SOILS AND FOUNDATIONS
REGISTERED STRUCTURAL ENGINEER
PHONE 708/665-7680
1489 CREEKSIDE DRIVE - WHEATON, ILLINOIS 60187

September 3, 1992

Mr. Manisha S. Patel
19 W 114 E. 22nd Street
Lombard, Illinois 60148

Dear Mr. Patel:

Enclosed are the logs for the three hand auger borings which we performed at your lot located at the south-east corner of Lawrence and Garden Avenues in Keeneyville, Illinois. Also enclosed is a sketch showing the approximate locations of the borings.

Soil conditions at the site were determined to be generally uniform. A tough yellow-gray silty to sandy clay with desiccated limestone fragments was encountered beneath 12 inches of topsoil. These clays prevailed to depths of 1.7 to 3.9 feet where a medium dense clayey sand and gravel with limestone fragments was encountered. This stratum was noted to a depth of 6.8 feet at the deepest point of penetration. Refusal on stones prevented deeper probes. Seven attempts were made to further advance the borings.

Foundation support for structures in the area can be achieved at or below a depth of 1.5 feet below existing grade provided that a minimum soil cover of 3.5 feet is provided for frost protection purposes.

Basement footings are normally located at a depth of ± 7 feet below existing grade. The single boring which penetrated to this depth revealed a dry condition. No water problems are anticipated at the site.

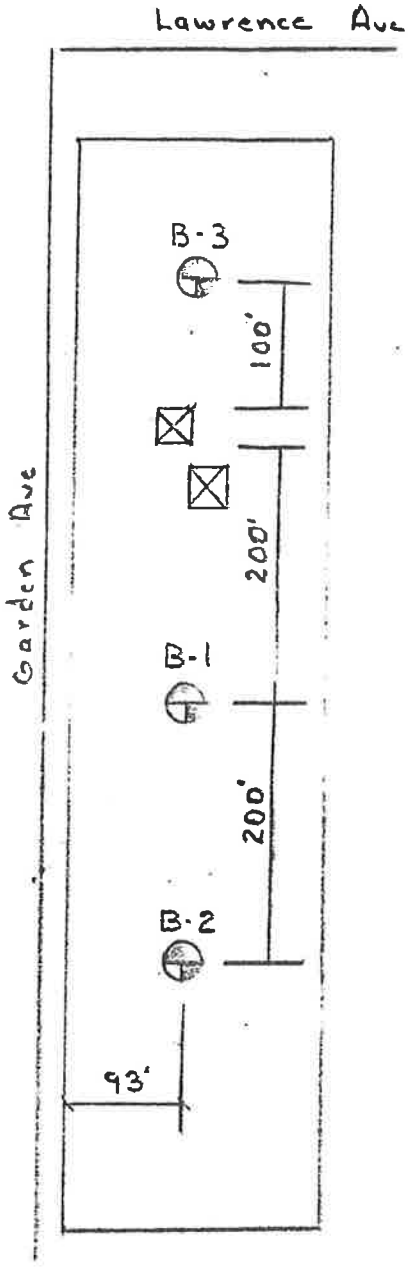
Conventional earthmoving equipment can be used for excavations. Cut faces should stand on slopes of 45 degrees or steeper during the time required for construction. Permanent slopes should not exceed a ratio of 4 horizontal to 1 vertical.

No support or unusual construction problems are anticipated.

Respectfully submitted,

Louis T. Hooper
Registered Structural Engineer

Encl.
LTH:j



BORING LOCATION DIAGRAM

LOUIS T. HOOPER
REGISTERED STRUCTURAL ENGINEER
1489 CREEKSIDE DRIVE
WHEATON, ILLINOIS 60187

N

SCALE
1" = 150'

PROJECT NAME: LOCATION

KEENEYVILLE, ILLINOIS

BY: | JOB NO.:

SUBSURFACE EXPLORATIONS

SOIL CLASSIFICATION

"Trace"	1% to 10%
"Some"	10% to 40%
"And" (&)	40% to 50%

Granular Soils	Penetration blows/ft.	Relative Density
Loose	0 to 9	0 - 30%
Medium Dense	10 to 29	30 - 60%
Dense	30 to 59	60 - 90%
Very Dense	60+	90 - 100%

Cohesive Soils	Unconfined Compressive Strength Tons/sq. ft.
Very Soft	0.00 to 0.29
Soft	0.29 to 0.59
Stiff	0.60 to 0.99
Tough	1.00 to 1.99
Very Tough	2.00 to 3.99
Hard	4.00+

LOG OF AUGER BORINGS

SOUTH-EAST CORNER OF LAWRENCE & GARDEN AVENUES

KEENEYVILLE, ILLINOIS

B-1

Depth-ft.	Description
0.0 - 1.0	Black TOPSOIL
1.0 - 1.8	Tough Gray SANDY CLAY - Some Gravel
1.8 - 3.5	Tough Yellow-Gray SILTY CLAY - Some Sand & Gravel
3.5 - 4.5	Loose to Medium Dense SAND & LIMESTONE FRAGMENTS
4.5 - 5.3	Medium dense Yellow-Gray CLAYEY SAND w/Limestone Fragments
	Refusal on Stone - 3 attempts Water Level: Dry

B-2

0.0 - 1.0	Black TOPSOIL w/Gravel
1.0 - 1.7	Tough Dark Gray SILTY CLAY - Some Gravel
1.7 - 2.3	Medium Dense SAND & LIMESTONE FRAGMENTS
2.3 - 3.7	Medium Dense Gray Clayey SAND & GRAVEL w/Limestone Fragments
	Refusal on Stone - 3 attempts Water Level: Dry

B-3

0.0 - 1.0	Black TOPSOIL
1.0 - 1.8	Tough Gray SILTY CLAY - Trace Sand & Gravel
1.8 - 3.9	Tough Yellow-Gray SANDY CLAY - Trace Gravel & Limestone Fragments
3.9 - 6.8	Medium Dense Gray Clayey SAND & GRAVEL w/Limestone Fragments
	Refusal on Stone Water Level: Dry

DuPage County Health Department

111 NORTH COUNTY FARM ROAD

WHEATON, ILLINOIS 60187-3988

TELEPHONE 708-682-7400

JAMES PAULISSEN, M.D., M.P.H.
Executive Director

August 31, 1992

To: Accurate Percolation
0S120 Church Street
Winfield, IL 60190

Re: Permanent Parcel Number: 02-16-102-004,
Subdivision: PLEASANT HILL GARDENS
Block Lot 37

A Percolation test was witnessed by a representative of the Health Department on this property on Friday August 28, 1992.

The test results indicate the lot passed the percolation test.
The percolation rate based on the last hour reading was 19.50min./inch
The last hour readings were:

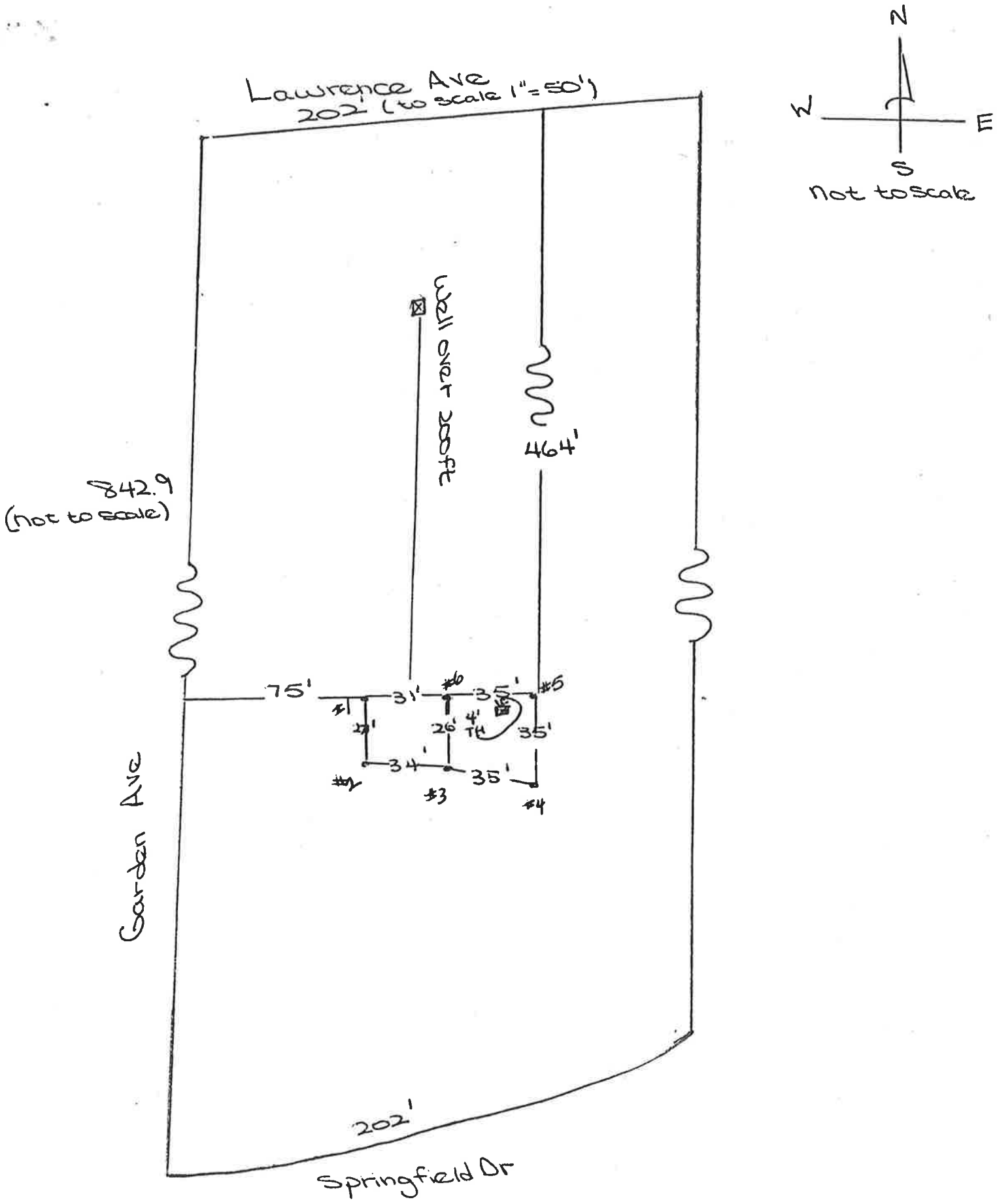
Hole 1.	3.25	2.	3.25	3.	3.00	4.	3.50	5.	2.50	6.	3.00
7.	0.00	8.	0.00	9.	0.00	10.	0.00	11.	0.00	12.	0.00

If the test was a failure (X) indicates the reason for the failure,
A ( ) Water was present in the 4' test hole (see below).
B ( ) The minutes per inch exceeded 60.
C ( ) 50% or more of the test holes failed to drop at least 1 inch.
D Other reason for failure or special conditions that make the test acceptable: REQUIRE DRAINAGE IMPROVEMENTS ON THIS PROPERTY.

The water level in the 48 inch test hole was: DRY @ 48"
The soil description was: 0-10" BLACK TOPSOIL, 10-20" DARK BROWN DIRT , 20-30" ORANGE & GRAY CLAY, 30-48" SANDY G RAVELY LIMESTONE W/ ORANGE MOTTLING.
The weather conditions were: 70° F, SUNNY Test depth was 24"

The test was conducted by: ACCURATE PERCOLATION
The DuPage County representative was: CAROLYN SLONE

Should you have any further question please call us at 682-7400 ext.7398


Lawrence Ave
202' (to scale 1"=50')
N
W
E
S
not to scale
well over 200ft
464'
842.9
(not to scale)
75'
31'
35'
#6
#5
#1
#2
#7
#3
#4
26'
4'
TH
35'
34'
35'
Garden Ave
202'
Springfield Dr