City of Ithaca
SITE PLAN REVIEW (SPR) APPLICATION

Building Permit Number: _____
REQUIRED

CONTACT:
Lisa Nicholas, Senior Planner
DIVISION OF PLANNING & ECONOMIC DEVELOPMENT
108 E. Green Street, 3rd Floor
Ithaca, New York 14850-5690
(607) 274-6550 — Fax: (607) 274-6558
lnichola@cityofithaca.org

APPLICANT: Name: Greg Martin Title/Role: Manager

Address 1: 312 Thurston Avenue, Apt. A16

Address 2: _____ City, State, & Zip Code: Ithaca, NY 14850

Telephone: (607) 279-8481 Cell Phone: _____ E-Mail: martinii76@yahoo.com

CONSULTANT: Name: HOLT Architects, P.C. Title/Role: Agent

Address 1: 217 N. Aurora Street

Address 2: _____ City, State, & Zip Code: Ithaca, NY 14850

Telephone: (607) 273-7600 Cell Phone: _____ E-Mail: tdh@holt.com

PROJECT OWNER: (if *other* than applicant) Name: RABCO Highland House, LLC Title/Role: Owner

Address 1: 312 Thurston Ave, Apt A16

Address 2: _____ City, State, & Zip Code: Ithaca, NY 14850

Telephone: (607) 279-8481 Cell Phone: _____ E-Mail: martinii76@yahoo.com

— PROJECT DESCRIPTION —

Project Title: Thurston Avenue Apartments

Project Address: 312 Thurston Avenue (adjacent to 312; new address not yet assigned)

Type (check one): [X] Residential [ ] Commercial [ ] Industrial [ ] Institutional

Scope of Work (check *all that apply* & indicate approximate operation/construction cost):

[X] Vegetation Removal	$ 20,000	[ ] Façade Change	$	[ ] Demolition	$
[X] New Paving	$ 50,000	[X] Earthwork	$ 150,000	[X] New Planting	$ 80,000
[X] New Structure	$ 2,300,000	[X] ~~Structure Expansion~~ Foundations	$ 400,000	[ ] Accessory Structure	$

Total Construction Cost: $ 3,000,000 Anticipated Construction Period: 11/13 to 7/14
(best estimate)

— OTHER INFORMATION —

1. If the development site is leased property, list the property owner's name and address below:

N/A

Length of Lease: _____

Note: Owner must include with this application a written statement authorizing the applicant to serve as the agent of Site Plan Review (SPR).

TROWBRIDGE WOLF MICHAELS
TWMLA
LANDSCAPE ARCHITECTS

April 22, 2013

Ms. JoAnn Cornish, Director and Members of the Planning Board
Department of Planning and Development
City of Ithaca
104 West Green Street
Ithaca, N.Y. 14850

RE: Thurston Avenue Apartments

Dear JoAnn and Members of the Planning Board:

Attached please find for your review the application materials for Preliminary Site Plan Approval for the Thurston Avenue Apartments project. The project includes the construction of four 3-story multi-unit residential buildings in the RU zone. The project will result in twenty new apartments, twenty-four parking spaces (including two handicap spaces) and associated loading, walkways, landscaping, storm drainage and site amenities. All aspects of the project are compliant with existing zoning.

The project is located within the Cornell Heights historic district. The project has been reviewed by the City of Ithaca ILPC and has undergone numerous revisions in response to their concerns. The project received a Certificate of Appropriateness from the ILPC on April 9, 2013.

We look forward to reviewing this project with the Planning and Development Board at the May 2013 Planning Board meeting.

Sincerely,

Peter Trowbridge
Principal

Trowbridge Wolf Michaels Landscape Architects LLP
1001 West Seneca Street, Suite 101 Ithaca, New York 14850 ph: 607.277.1400
www.twla.com

Site Description

The project includes the construction of four 3-story multi-unit residential buildings at the corner of Thurston Avenue and Highland Avenue on a 1.43 acre portion of a larger site. The site is located in the RU zone and all aspects of the project are compliant with existing zoning. The project will result in twenty new apartments, twenty-four parking spaces (including two handicap spaces) and associated loading, walkways, landscaping, storm drainage and site amenities.

The proposed site plan includes a new porous asphalt parking lot, site lighting, and an interconnected walkway system. A concrete walk is proposed to parallel the driveway while a more informal stone dust trail is proposed to traverse the hill and link to the intersection of Highland and Thurston avenues. Benches and bike racks are located at building entrances. Curving stone walls are proposed along the base of the hill along Highland Avenue to serve as tree wells to preserve existing trees. These walls will also serve as benches, creating a natural park-like atmosphere at the street intersection. Porous asphalt will reduce run-off and planted bio-retention basins will capture run-off from the parking lot, walkway, and building roofs. The patio at the terminus of the parking lot accommodates fire truck turn-around. The project has been reviewed with the City of Ithaca Assistant Fire Chief. Extensive landscape plantings will screen and buffer the site and provide a pleasing environment.

The project is located within the Cornell Heights historic district. The project has been reviewed by the City of Ithaca ILPC and has undergone numerous revisions in response to their concerns. The project received a Certificate of Appropriateness from the ILPC on April 9, 2013.

CITY SHORT ENVIRONMENTAL ASSESSMENT FORM

Project Information (to be completed by applicant or project sponsor)

Date: 4/22/13

1. Applicant/Sponsor: TROWBRIDGE WOLF MICHAELS LANDSCAPE ARCHITECTS AS AGENT FOR RABCO - HIGHLAND HOUSE LLC	2. Project Name: THURSTON AVENUE APARTMENTS
3. Project Location: 312 THURSTON AVENUE ITHACA NY 14850	
4. Is Proposed Action: ☒ New o Expansion	o Modification/Alteration
5. Describe project briefly: THE PROJECT CONSISTS OF 4 MULTI UNIT RESIDENTIAL BUILDINGS WITH 20 UNITS IN TOTAL. PARKING, CONNECTION WALKWAYS, AND GREENSPACE ENHANCEMENTS ARE INCLUDED AS WELL.	

6. Precise Location (road intersections, prominent landmarks, etc. or provide map) THE PROJECT IS LOCATED AT THE INTERSECTION OF THURSTON AVENUE AND HIGHLAND AVENUE ON THE NORTHEAST CORNER.

7. Amount of Land Affected:
Initially 1.43 Acres or Sq. Ft. Ultimately 1.43 Acres or Sq. Ft.

8. Will proposed action comply with existing zoning or other existing land use restrictions?
☒ Yes o No If No, describe briefly:

9. What is present land use in vicinity of project:
o Residential o Industrial o Agricultural o Parkland/Open Space
o Commercial ☒ Other UNDEVELOPED
Describe:

10. Does action involve a permit/approval, or funding, now or ultimately, from governmental agency (Federal, State, or Local): o Yes ☒ No
If Yes, List Agency Name and Permit/Approval Type:

11. Does any aspect of the action have a currently valid permit or approval?
☒ Yes o No
If Yes, List Agency Name and Permit/Approval Type:
ITHACA LANDMARK PRESERVATION COUNCIL - CERTIFICATE OF APPROPRIATENESS

12. As a result of proposed action will existing permit/approval require modification?
o Yes ☒ No

I certify that the information provided above is true to the best of my knowledge.

PREPARER'S SIGNATURE: _____ DATE: 4.22.2013

PREPARER'S TITLE: PETER TROWBRIDGE

REPRESENTING: RABCO HIGHLAND HOUSE LLC

CITY OF ITHACA

FULL ENVIRONMENTAL ASSESSMENT FORM (FEAF)

Purpose: The Full Environmental Assessment Form (FEAF) is designed to help applicants and agencies determine, in an orderly manner, whether a project or action may be significant. The question of whether an action may be significant is not always easy to answer. Frequently there are aspects of a proposed action that are subjective or immeasurable. It is also understood that those who determine significance may have little or no formal knowledge of the environment or may not be aware of the broader concerns affecting the question of significance.

The FEAF is intended to provide a method whereby applicants and agencies can be assured that the determination process has been orderly, comprehensive in nature, yet flexible enough to allow introduction of information to fit a project or action.

FEAF Components:

Part 1: Provide objective data and information about a given action and its site. By identifying basic project data, it assists in a review of the analysis that takes place in Parts 2 and 3.

Part 2: Focus on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially large impact. The form also identifies whether an impact can be mitigated or reduced.

Part 3: If any impact in Part 2 is identified as potentially large, then Part 3 is used to evaluate whether or not the impact is actually important.

THIS AREA IS FOR LEAD AGENCY USE ONLY

DETERMINATION OF SIGNIFICANCE—TYPE I AND UNLISTED ACTIONS

Identify the Portions of FEAF completed for this action: ☐ **Part 1** ☐ **Part 2** ☐ **Part 3**

Upon review of the information recorded on this FEAF (Parts, 2, and 3, if appropriate), and any other supporting information, and considering both the magnitude and importance of each impact, it is reasonably determined by the Lead Agency that:

☐ **A.** The Proposed Action **will not** result in any large and important impact(s) an is one that will not have a significant impact on the environment; therefore, **A NEGATIVE DECLARATION WILL BE PREPARED.**

☐ **B.** Although the proposed action could have a significant impact on the environment, there will not be a significant effect for this Unlisted Action because the mitigation measures described in PART 3 have been required; therefore, **A CONDITIONED NEGATIVE DECLARATION WILL BE PREPARED. ***

☐ **C.** The proposed action may result in one or more large and important impacts that may have a significant impact on the environment; therefore, **A POSITIVE DECLARATION WILL BE PREPARED.**

*A Conditioned Negative Declaration is only valid for Unlisted Actions

Name of Action: _____

Name of Lead Agency: _____

Name and Title of Responsible Officer in Lead Agency: _____

Signature of Responsible Officer in Lead Agency: _____

Signature of Preparer: _____

Date: _____

FULL ENVIRONMENTAL ASSESSMENT FORM

PART 1—PROJECT INFORMATION

Prepared by Project Sponsor

NOTICE: This document is designed to assist in determining whether the action proposed may have a significant effect on the environment. Please complete the entire form, Parts A through E. Answers to these questions will be considered as part of the application for approval and may be subject to further verification and public review. Provide any additional information you believe will be needed to complete Parts 2 and 3. It is expected that completion of the Full Environmental Assessment Form (FEAF) will be dependent on information currently available and will not involve new studies, research or investigation. If information requiring such additional work is unavailable, so indicate and specify each instance.

Name of Action: THURSTON AVENUE APARTMENTS		
Location of Action: 312 THURSTON AVENUE, ITHACA, NY 14850		
Name of Applicant/Sponsor: TROWBRIDGE WOLF MICHAELS LLP AS AGENT FOR RABCO HIGHLAND HOUSE LLC		
Address: 1001 West Seneca Street Suite 101		
City/Town/Village: Ithaca	State: NY	ZIP: 14850
Business Phone: 607.277.1400		
Name of Owner(If Different): RABCO - HIGHLAND HOUSE LLC		
Address: 312 THURSTON AVENUE		
City/Town/Village: ITHACA	State: NY	ZIP: 14850
Business Phone:		

Description of Action:

THIS PROJECT INCLUDES THE CONSTRUCTION OF FOUR 3-STORY MULTI-UNIT RESIDENTIAL BUILDINGS AT THE TOP OF THE SLOPE AT THE CORNER OF THURSTON AVENUE AND HIGHLAND AVENUE. THERE WILL BE A PARKING LOT TO THE NORTH OF THE UNITS LINED WITH TREES AND DECORATIVE LIGHT FIXTURES. CONCRETE WALKWAYS WILL CONNECT THE PARKING AND STREET SIDEWALKS TO THE RESIDENTIAL BUILDINGS ENTRANCES WITH BENCHES, BIKE RACKS, AND PEDESTRIAN LIGHTING ALONG THE WALK. A STONE DUST TRAIL WILL CONNECT THE SOUTHERN STREET INTERSECTION TO THE UNITS. AT THE BASE OF THE HILL THERE WILL BE FOUR CURVED QUARRY BLOCK WALLS USED TO PRESERVE THE LARGER EXISTING TREES ON THE SITE. THESE WALLS WILL ALSO SERVE AS BENCHES CREATING A NATURAL PARK-LIKE ATMOSPHERE AT THE STREET INTERSECTION. PLANTED BIO-RETENTION BASINS WILL BE USED TO CAPTURE RUNOFF FROM THE PARKING LOT, WALKWAYS, AND BUILDING ROOFS. POROUS ASPHALT WILL BE USED THROUGH THE PARKING LOT AT THE TOP OF THE HILL AND WILL HELP TO CAPTURE ADDITIONAL STORMWATER ON SITE. THERE WILL BE A FIRE LANE WITH A TURNAROUND UTILIZING THE PATIO AT THE END OF THE PARKING LOT, AND A TRASH DUMPSTER ENCLOSURE AT THE NORTH CORNER OF THE PATIO.

Please Complete Each Question--Indicate N/A if not applicable

A. SITE DESCRIPTION

(Physical setting of overall project, both developed and undeveloped areas.)

1. Present Land Use:	☐ Urban ☐ Industrial ☐ Commercial ☐ Public ☐ Forest ☐ Agricultural ☒ Other: UNDEVELOPED OPEN SPACE & WOODED AREA
2. Total area of project area: 1.85 Acres square feet (***Chosen units apply to following section also***)	

Approximate Area (*Units in question 2 apply to this section*)	**Presently**	**After Completion**
2a. Meadow or Brushland (non-agricultural)	0 ac	0 ac
2b. Forested	1.6 ac	1.6 ac
2c. Agricultural	0 ac	0 ac
2d. Wetland [as per Articles 24 of Environmental Conservation Law (ECL)]	0 ac	0 ac
2e. Water Surface Area	0 ac	0 ac
2f. Public	0 ac	0 ac
2g. Water Surface Area	0 ac	0 ac
2h. Unvegetated (rock, earth or fill)	.23 ac	0 ac
2i. Roads, buildings and other paved surfaces	.02 ac	.35 ac
2j. Other (indicate type)	0 ac	0 ac

3a. What is predominant soil type(s) on project site (e.g. HdB, silty loam, etc.): URBAN	
3b. Soil Drainage:	☒ Well Drained 80 % of Site ☒ Moderately Well Drained 20 % of Site ☐ Poorly Drained ____ % of Site
4a. Are there bedrock outcroppings on project site?	☐ Yes ☒ No ☐ N/A
4b. What is depth of bedrock? 11-35 (feet)	
4c. What is depth to the water table? 3-27 (feet)	
5. Approximate percentage of proposed project site with slopes:	☐ 0-10% 56 % ☐ 10-15% 17 % ☐ 15% or greater 27 %
6a. Is project substantially contiguous to, or does it contain a building, site or district, listed on or eligible for the National or State Register of Historic Places?	☒ Yes ☐ No ☐ N/A
6b. Or designated a local landmark or in a local landmark district?	☒ Yes ☐ No ☐ N/A
7. Do hunting or fishing opportunities presently exist in the project area?	☐ Yes ☒ No ☐ N/A If yes, identify each species:

SITE DESCRIPTION (Concluded)

8. Does project site contain any species of plant or animal life that is identified as threatened or endangered?	☐Yes ☒No ☐N/A According to: Identify each Species:
9. Are there any unique or unusual landforms on the project site? (i.e., cliffs, other geological formations)	☐Yes ☒No ☐N/A Describe:
10. Is the project site presently used by the community or neighborhood as an open space or recreation area?	☐Yes ☒No ☐N/A If yes, explain:
11. Does the present site offer or include scenic views known to be important to the community?	☐Yes ☒No ☐N/A Describe:
12. Is project within or contiguous to a site designated a Unique Natural Area (UNA) or critical environmental area by a local or state agency?	☐Yes ☒No ☐N/A Describe:
13. Streams within or contiguous to project area:	a. Names of stream or name of river to which it is a tributary: N/A
14. Lakes, ponds, wetland areas within or contiguous to project area:	a. Name: N/A b. Size (in acres): N/A
15. Has the site been used for land disposal of solid or hazardous wastes?	☐Yes ☒No ☐N/A Describe:
16. Is the site served by existing public utilities? a. If Yes, does sufficient capacity exist to allow connection? b. If Yes, will improvements be necessary to allow connection?	☒Yes ☐No ☐N/A ☒Yes ☐No ☐N/A ☒Yes ☐No ☐N/A (MAIN EXTENSION TO SITE)

B. PROJECT DESCRIPTION

1.	Physical dimensions and scale of project (fill in dimensions as appropriate)
1a.	Total contiguous area owned by project sponsor in acres: 1.85 AC or square feet:
1b.	Project acreage developed: 1.43 Acres initially 1.43 Acres ultimately
1c.	Project acreage to remain undeveloped: .42 AC
1d.	Length of project in miles: (if appropriate) N/A or feet:
1e.	If project is an expansion, indicate percent of change proposed: N/A
1f.	Number of off-street parking spaces existing: 0 proposed: 24
1g.	Maximum vehicular trips generated (upon completion of project) per day: 48 RT and per hour: 10 RT
1h.	Height of tallest proposed structure: feet. 36 ' 6 "
1j.	Linear feet of frontage along a public street or thoroughfare that the project will occupy? 725 LF
2.	Specify what type of natural material (i.e. rock, earth, etc.) and how much will be removed from the site: or added to the site: 5,500 CU YD (FILL AND TOPSOIL)
3.	Specify what type of vegetation (trees, shrubs, ground cover) and how much will be removed from the site: acres: 1.07 type of vegetation: TREES AND GROUND COVER
4.	Will any mature trees or other locally important vegetation be removed by this project? YES
5.	Are there any plans for re-vegetation to replace that removed during construction? YES
6.	If single phase project, anticipated period of construction 10 months, (including demolition)
7.	If multi-phased project, anticipated period of construction N/A months, (including demolition)
7a.	Total number of phases anticipated: 1
7b.	Anticipated date of commencement for first phase NOV month 2013 year, (including demolition)
7c.	Approximate completion date of final phase AUG month 2014 year.
7d.	Is phase one financially dependent on subsequent phases? ☐ Yes ☐ No ☒ N/A
8.	Will blasting occur during construction? ☐ Yes ☒ No ☐ N/A; if yes, explain:
9.	Number of jobs generated: during construction 100 after project is completed 1
10.	Number of jobs eliminated by this project: 0 Explain: N/A
11.	Will project require relocation of any projects or facilities? ☐ Yes ☒ No ☐ N/A; if yes, explain:
12a.	Is surface or subsurface liquid waste disposal involved? ☒ Yes ☐ No ☐ N/A; if yes, explain:
12b.	If #12a is yes, indicate type of waste (sewage, industrial, etc): SEWAGE
12c.	If surface disposal, where specifically will effluent be discharged? N/A
13.	Will surface area of existing lakes, ponds, streams, or other surface waterways be increased or decreased by proposal? ☐ Yes ☒ No ☐ N/A; if yes, explain:
14a.	Will project or any portion of project occur wholly or partially within or contiguous to the 100 year flood plain? ☐ Yes ☒ No ☐ N/A

PROJECT DESCRIPTION (Concluded)

14b. Does project or any portion of project occur wholly or partially within or contiguous to: Cayuga Inlet Fall Creek, Cascadilla Creek, Cayuga Lake, Six Mile Creek, Silver Creek? (Circle all that apply)
14c. Does project or any portion of project occur wholly or partially within or contiguous to wetlands as described in Article 24 Of the ECL? ☐ Yes ☒ No ☐ N/A;
14d. If #14a, b or c is yes, explain: N/A
15a. Does project involve disposal or solid waste? ☒ Yes ☐ No ☐ N/A;
15b. If #15a is yes, will an existing solid waste disposal facility be used? ☒ Yes ☐ No ☐ N/A;
15c. If #15b is yes, give name of disposal facility: SOLID WASTE MGMT DIVISION and its location: TOPMKINS CO.
15d. Will there be any wastes that will not go into a sewage disposal system or into a sanitary landfill? ☐ Yes ☒ No ☐ N/A; if yes, explain:
15e. Will any solid waste be disposed of on site? ☐ Yes ☒ No ☐ N/A; if yes, explain:
16. Will project use herbicides or pesticides? ☒ Yes ☐ No ☐ N/A; if yes, specify: DURING SITE CLEARING
17. Will project affect a building or site listed on or eligible for the National or State Register of Historic Places or a local landmark or in a landmark district? ☒ Yes ☐ No ☐ N/A; if yes, explain: BUILDING IS IN CORNELL HEIGHTS HISTORIC DISTRICT (NATIONAL/LOCAL). ILPC - ISSUED CERT. OF APPROPRIATENESS
18. Will project produce odors? ☐ Yes ☒ No ☐ N/A; if yes, explain:
19. Will project product operating noise exceed the local ambient noise level during construction? ☒ Yes ☐ No ☐ N/A; After construction? ☐ Yes ☒ No ☐ N/A
20. Will project result in an increase of energy use? ☒ Yes ☐ No ☐ N/A; if yes, indicate type(s) ELECTRIC & GAS
21. Total anticipated water usage per day: gals/day. 3,000 GALS/DAY Source of water CITY OF ITHACA

C. ZONING AND PLANNING INFORMATION

1. Does the proposed action involve a planning or zoning decision? [X] Yes [ ] No [ ] N/A; if yes, indicate the decision required:

[ ] Zoning Amendment [ ] Zoning Variance [ ] New/revision of master plan [ ] Subdivision
[X] Site Plan [ ] Special Use Permit [ ] Resource Management Plan [ ] Other:

2. What is the current zoning classification of site? R-U

3. If the site is developed as permitted by the **present** zoning, what is the maximum potential development?
MULTIPLE UNIT DWELLING WITH 30% LOT COVERAGE

4. Is proposed use consistent with present zoning? [X] Yes [ ] No [ ] N/A

5. If #4 is no, indicate desired zoning: N/A

6. If the site is developed by the **proposed** zoning, what is the maximum potential development of the site?
N/A

7. Is the proposed action consistent with the recommended uses in adopted local land-use plans?
[X] Yes [ ] No [ ] N/A; If no, explain:

8. What is the dominant land use and zoning classification within a ¼ mile radius of the project?
(e.g. R-1a or R-1b) R-U

9. Is the proposed action compatible with adjacent land uses? [X] Yes [ ] No [ ] N/A Explain:

10a. If the proposed action is the subdivision of land, how many lots are proposed? N/A

10b. What is the minimum lot size proposed? N/A

11. Will the proposed action create a demand for any community-provided services? (recreation, education, police, fire protection, etc.) ? [X] Yes [ ] No [ ] N/A Explain: POLICE & FIRE

If yes, is existing capacity sufficient to handle projected demand? [X] Yes [ ] No [ ] N/A
Explain: INCREASE IN SERVICES WILL NOT BE SIGNIFICANT

12. Will the proposed action result in the generation of traffic significantly above present levels?
[ ] Yes [X] No [ ] N/A If yes, is the existing road network adequate to handle the additional traffic?
[ ] Yes [ ] No [X] N/A Explain:

D. APPROVALS

1. Approvals:

2a. Is any Federal permit required? ☐ Yes ☒ No ☐ N/A; Specify:

2b. Does project involve State or Federal funding or financing? ☐ Yes ☒ No ☐ N/A; If Yes, Specify:

2c. Local and Regional approvals:

Agency	Yes or No	Type of Approval Required	Submittal Date	Approval Date
Common Council	NO	N/A	N/A	N/A
Board of Zoning Appeals (BZA)	NO	N/A	N/A	N/A
Planning & Development Board	YES	SITE PLAN REVIEW	4/22/13	TBD
Ithaca Landmarks Preservation Commission (ILPC)	YES	CERTIFICATE OF APPROPRIATENESS	5/10/12	4/9/13
Board of Public Works (BPW)	NO	N/A	N/A	N/A
Fire Department	YES	FIRE ACCESS	4/22/13	TBD
Police Department	NO	N/A	N/A	N/A
Building Commissioner	YES	BUILDING PERMIT	4/22/13	TBD
Ithaca Urban Renewal Agency (IURA)	NO	N/A	N/A	N/A

E. INFORMATIONAL DETAILS

Attach any additional information as may be needed to clarify your project. If there are or may be any adverse impacts associated with your proposal, please discuss such impacts and the measures which you propose to mitigate or avoid them.

F. VERIFICATION

I certify that the information provided above is true to the best of my knowledge.

Applicant/Sponsor Name: Trowbridge Wolf Michaels Landscape Architects as agent for RABCO Highland House LLC

Signature: _____

Title: Principal

********** END OF PART 1 **********

Elwyn Palmer
CONSULTING ENGINEERS, PLLC

213 E. Seneca Street, Ithaca, NY 14850
607.272.5060 T 607.272.5065 F

May 20, 2012

Mr. Graham Gillespie, RA
HOLT Architects
217 N. Aurora Street
Ithaca, NY 14850
Via email: gg@holt.com

Re: Summary of Subsurface Investigation Findings
Proposed Thurston Avenue Apartments
Thurston Avenue
Ithaca, NY

Dear Graham:

This letter will summarize the findings of a subsurface investigation that was performed at the site of the proposed Thurston Avenue Apartments during May 8-9, 2012. This letter includes a description of the work performed and a discussion of the findings. As we discussed, a full geotechnical report was not requested by the owner but the findings will be used by us in the design of foundations for the proposed buildings. Additional interpretation of the information can be provided as requested.

A. SCOPE OF WORK and PROJECT DESCRIPTION

The scope of work included advancing four borings (B1-B4) to various depths. Boring locations are shown on the attached site plan. The purpose of the borings was to determine the properties of the underlying natural soils and the extent and characteristics of the existing site fill beneath the existing parking area.

We understand the proposed structures will be four four-story and one three-story buildings. They will be located west of the existing Rabco apartments near the corner of Thurston Avenue and Highland Avenue. At the time of this report we did not have information on the proposed finished floor elevations.

B. SUBSURFACE FINDINGS

The soil borings were advanced using hollow stem augers. Split-spoon soil samples were taken in accordance with ASTM D1586. Samples were typically taken continuously to 10 ft and then at 5 ft intervals to the bottom of the boring. A log for each boring is attached.

Boring B1 was located at the base of the hill just west of the existing parking area. The approximate elevation of the boring was 761 ft +/-. The boring encountered loose sands and gravel to 9.2 ft where rock was encountered. Auger refusal was noted at 11 ft. The soil throughout the boring was noted as moist but no groundwater was measured.

B2 was advanced near the location of proposed three-story building part way up the entrance drive to the existing parking area. The approximate ground elevation of the boring was 778 +/-. The boring encountered approximately 6 inches of topsoil underlain primarily by loose sand and gravel to 3 ft. Below 3 ft there was dense/compact sand to 12 ft and then stiff silt to the bottom of the boring at 20 ft. No standing groundwater was measured. However, after the augers were removed from the borehole the hole caved in at 14.7 ft which can be an indication of groundwater level. Also, an 18 inch layer of wet silt and sand was encountered between 3 ft and 4.5 ft. This may indicate some perched water which could be a factor during construction.

B3 was advanced at the top of the hill from B1 and near the edge of the existing parking area. The approximate ground elevation of the boring was 783 +/-. The boring encountered 3 inches of topsoil and material that was obviously fill to 8 ft where material that could be the original topsoil layer was encountered. The fill material was noted as mainly soil with traces of wood and roots. The soil between 8.4 ft and 10.5 ft was noted as wet on the logs. Below this level cobbles and boulders were encountered from 10.5 to 14.6 ft. It wasn't clear from the borings if this was natural or fill material. Obviously if the material encountered at 8 ft was the original topsoil then it is the natural deposit. The cobbles were underlain by medium fine sand to 19 ft, and then stiff silt and clay to 32 ft. Beginning at 19 ft the silt was noted as wet on the logs. Rock was encountered at 32 ft. Auger refusal was noted at 32.7 ft. No standing groundwater measured. However, after the augers were removed from the borehole the hole caved in at 24.6 ft which can be an indication of groundwater level. Also, a 25 inch layer of wet silt and sand was encountered between 8.4 ft and 10.5 ft. This may indicate some perched water which could be a factor during construction.

B4 was advanced near the location of the existing garden shed just north of the existing parking area. The approximate ground elevation of the boring was 785 +/-. The boring encountered approximately 5 inches of topsoil underlain by loose to medium dense sand and gravel to 12 ft. The sand was noted as wet from 2.5-3 ft. Medium dense sand and gravel was encountered to 19 ft. The soil was noted as wet from 12.5 to 14.5 ft. Stiff to hard silt and clay was encountered from 19 ft to the weathered shale at 33 ft. No groundwater was measured but the soil below 19 ft was primarily noted as saturated. After the augers were removed from the borehole the hole caved in at 27.2 ft which can be an indication of groundwater level. Also, layers of wet soil were noted from 2.5-3 ft and 12.5-14.5 ft. This may indicate some perched water which could be a factor during construction.

C. SUMMARY

In summary, the results of the subsurface investigation revealed that the proposed buildings could be supported on conventional shallow foundations. Rock was encountered at approximately elevation 750. Based on borehole cave-in elevations the groundwater table could be at approximately elevation 758 but this is only approximate and not reliable. Additional wet layers encountered throughout the depths of the borings indicated possible perched water that could be a factor during construction. An

allowable bearing capacity for footing design can be determined once the footing bearing elevations are determined.

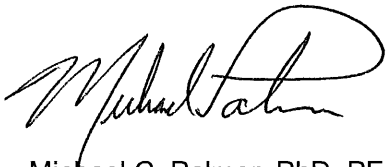
D. CLOSING

Elwyn & Palmer has prepared this report based on our interpretation of the subsurface conditions at the project sites and our understanding of the proposed project. Elwyn & Palmer has performed these services in a manner consistent with the standard methods and level of care exercised by members of the geotechnical engineering profession. No warranty, expressed or implied, is made in connection with the providing of geotechnical engineering services.

We appreciate the opportunity to be of service on this project. Please call if you have any questions or require additional information.

Sincerely,

ELWYN & PALMER CONSULTING ENGINEERS PLLC



Michael C. Palmer, PhD, PE
Partner

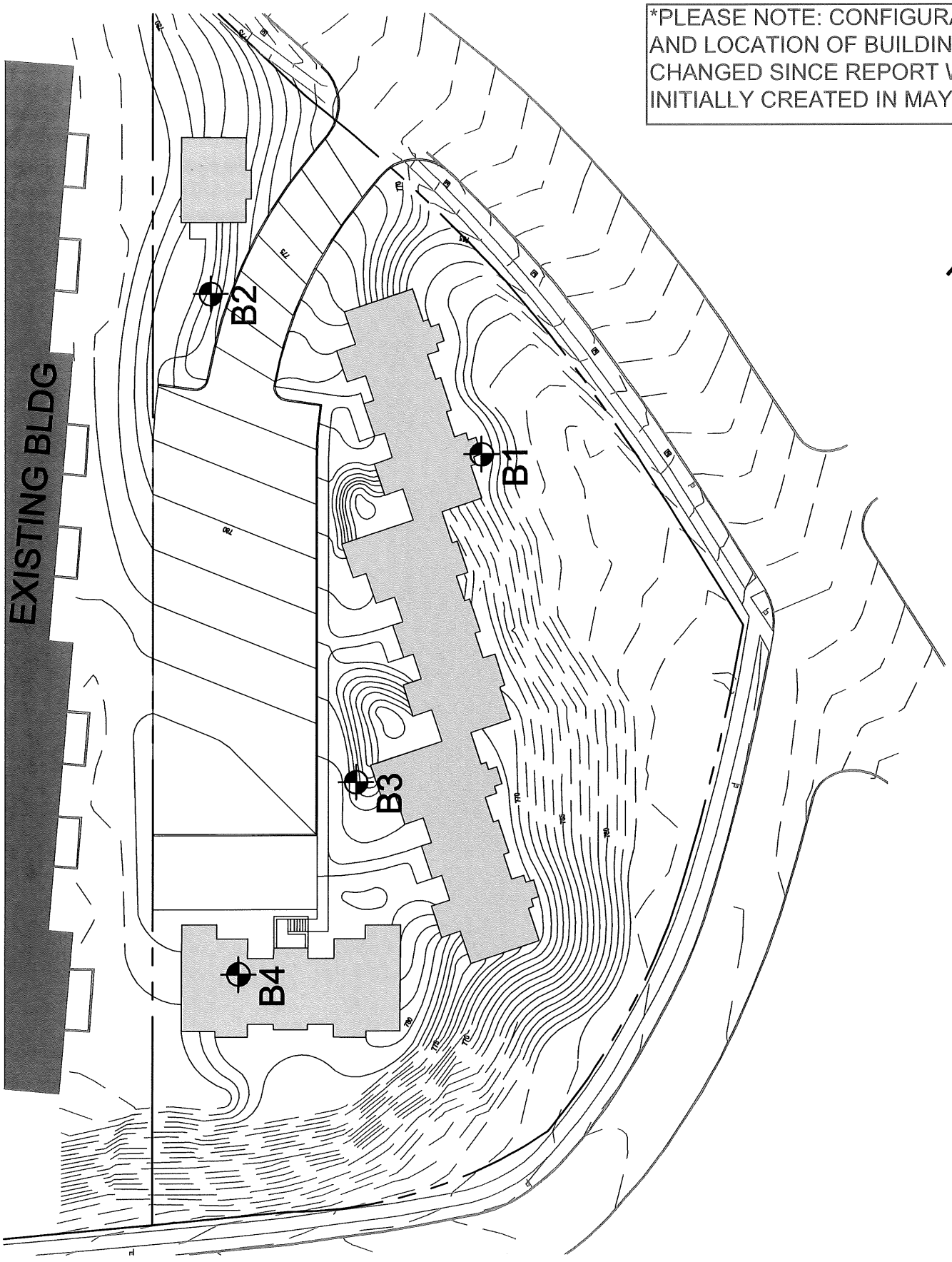
Attachments

APPENDIX

E&P

BORING LOCATION PLAN

*PLEASE NOTE: CONFIGURATION AND LOCATION OF BUILDINGS HAS CHANGED SINCE REPORT WAS INITIALLY CREATED IN MAY 2012.



1 BORING LOCATION PLAN
NTS

Elwyn&Palmer
CONSULTING ENGINEERS, PLLC
Ithaca, New York
607.272.5060 www.ElwynPalmer.com

BORING LOCATION PLAN

PROPOSED THURSTON AVENUE APARTMENTS
THURSTON AVENUE
ITHACA, NY

ISSUE DATE.: 5/10/12
PROJECT No.: 25005
DWG. NO.
S1

BORING LOGS

E&P

General Information and Key to Subsurface Logs

The subsurface logs attached to this report present the observations and mechanical data collected by the driller at the site, supplemented by classification of the material removed from the boring as determined through visual identification by technicians in the laboratory. It is cautioned that the materials removed form the borings represent only a fraction of the total volume of the deposits at the site and may not necessarily be representative of the subsurface conditions between adjacent borings or between sampled intervals. The data presented on the subsurface logs together with the recovered samples will provide basis for evaluating the character of the subsurface conditions relative to the project. The evaluation must consider all the recorded details and their significance relative to each other. Often analyses of standard boring data indicate the need for additional testing or sampling procedures to more accurately evaluate the subsurface conditions. Any evaluation of the contents of this report and the recovered samples must be performed by Professionals. The information presented in the following list defines some of the procedures and terms used on the subsurface logs to describe the conditions encountered.

1. The figures in the depth column define the scale of the subsurface log.
2. The sample column shows the depth range from which the sample was recovered. The sample type column will show an "S" for split spoon sample, a "T" for a tube sample and a "C" for a rock core sample.
3. The sample number is used for identification o n sample containers and in laboratory reports.
4. The Blows on Sampler column shows results of the Standard Penetration Tests and indicates the number of blows required to drive a split spoon sampler into the soil. The number of blows required for each six inches of penetration is recorded. The first six inches of penetration is considered the seating drive. The number of blows required for the second and third six inches of penetration is termed the penetration resistance, N. The sampler diameter, hammer weight, and length of drop are noted on the log.
5. All recovered soil samples are reviewed in the laboratory by an engineering technician, geologist, or geotechnical engineer unless noted otherwise. The visual descriptions are made on the basis of a combination of the driller's field descriptions and observations and the sample as viewed in the laboratory. The method of visual classification is based primarily on the Unified Soil Classification System (ASTM D2487) with regard to particle size and plasticity. The relative portion by weight by weight of tow or more soil types is described for granular soils in accordance with "Suggested Methods of Test for Identification of Soils" by D.M. Burmister (ASTM Special Technical Publication No. 479, June 1970). The description of relative soil density or consistency is based on Penetration Test results. The description of soil moisture is based upon relative wetness of the soil as recovered and is described as dry, damp, moist, wet, and saturated. The presence of boulders and large gravel is sometimes, but not necessarily, detected by an evaluation of sampler blows or the behavior of the drill rig.
6. The description of rock is based on the recovered rock core and the driller's observations.
7. The stratification lines present the approximate boundary between soil types. Actual boundaries may vary between sampling intervals and the transition may be gradual. Solid stratification lines are based on the driller's field observations.
8. Miscellaneous observations and procedures noted by the driller are shown on the logs, including water level observations. It is important to realize the reliability of the water level observations depends upon the soil type (water does not readily stabilize in a hole through fine grained soils) and that drill water used to advance the boring may influence the observations. The groundwater level typically will fluctuate seasonally. One or more perched or trapped water levels may exist in the ground seasonally. All the available readings should be evaluated. If definite conclusion cannot be made, it may be necessary to examine the conditions more thoroughly through test pit excavations or observation wells.
9. The length of rock core run is defined as the length of penetration of the core barrel. Core recovery is the length of core recovered divided by the core run. The RQD (Rock Quality Designation) is the total pieces of NX core exceeding 4 inches in length divided by the core run. Fresh, irregular or drilling induced breaks are ignored and the pieces counted as intact lengths. RQD values are valid only for NX size cores (2.125" diameter). The barrel size is noted in the logs.

E&P

Definition of Descriptors used in Boring Logs

Soil Type and Particle Size

Type		Size
Boulder		>12"
Cobble		12"-3"
Gravel		
	Coarse	3"- ¾"
	Fine	¾"-#4
Sand		
	Coarse	#4-#10
	Medium	#10-#40
	Fine	#40-#200
Silt		<#200
Clay		<#200

Soil Type Proportions

Term	Percent of Sample
"and"	35-50
"some"	20-35
"little"	10-20
"trace"	1-10

Relative Compactness or Consistency

Granular Soils

Descriptor	Blows/ft (N)
Loose	<11
Med-Dense	11-30
Dense	31-50
Very Dense	>51

Fine Grained Soils

Descriptor	Blows/ft (N)
Very Soft	0-2
Soft	2-4
Medium	4-8
Stiff	8-15
Very Stiff	15-30
Hard	>30

Stratification Description

Varved – Horizontal uniform layers or seams
Layer – Soil deposit more than 6" thick
Seam – Soil deposit less than 6" thick
Parting – Soil deposit less than 1/8" thick

Rock Classification Terms

Quality	Terms	Definition
Hardness	Soft	Scratched by fingernail
	Medium hard	Scratched easily by penknife
	Hard	Scratched with difficulty by penknife
	Very hard	Cannot be scratched with penknife
Weathering	Very weathered	Judged by the relative amounts of disintegration, iron staining, core recovery, clay seams, etc.
	Weathered	
	Sound	
Bedding	Laminated/Fissile	Less than 0.08"
	Thinly bedded	½" to 2"
	Medium bedded	2" to 2ft
	Thickly bedded	2 ft to 4 ft
	Massive	More than 6 ft

Client ELWYN PALMER	**LYON DRILLING CO.**	Boring No. B1	
Project THURSTON APARTMENTS		Project No.	
Location THURSTON AVE, ITHACA	**BORING LOG**	Sheet 1 of 1	
		Date Started 05/08/12	
		Date Completed 05/08/12	
		Driller HARRY LYON	

Drill Rig
Casing 3.25" HOLLOW STEM AUGERS
Casing Hammer: Wt. ____ lb. Fall ____ in.
Soil Sampler 2" SPLIT SPOON
Sample Hammer: Wt. ____ lb. Fall ____ in.
Rock Sampler:
Other:
Weather Conditions:

Boring Location AS STAKED, BY CLIENT
Surface Elevation 761 +/-

Ground Water Observations

Date	Time	Casing at	Hole at	Water at
05/08/12	12:15 PM	OUT	9.1	DRY

Depth	Sample Number	Sample Depth From (Ft)	Sample Depth To (Ft)	Sample Type	SOIL Blows on Sampler 0'/0.5'	0.5'/1.0'	1.0'/1.5'	1.5'/2.0'	N	Rock Recovery Ft.	Rock Recovery %	RQD	Sample Recovery	MATERIAL DESCRIPTION	Depth of Change	REMARKS
	1	0.0	2.0	S	1	1	3	4	4				4.0	MOIST BLACK PEAT	.4'	
													0.8	MOIST BROWN SILT, LITTLE FINE SAND, TRACE WOOD, TRACE FINE GRAVEL	1.2'	
	2	2.0	4.0	S	1	1	2	2	3					MOIST BROWN FINE SAND, LITTLE SILT	3.0'	
5	3	4.0	6.0	S	6	4	4	4	8				1.2	MOIST BROWN LOOSE COURSE TO FINE SAND, SOME FINE GRAVEL, TRACE SILT, TRACE TREE ROOTS UP TO 3/4" DIAMETER	8.0'	
	4	6.0	8.0	S	6	4	4	6	8				0.9	MOIST BROWN LOOSE FINE SAND, TRACE ROOT FIBERS	8.5'	
	5	8.0	9.4	S	2	6	50/.4						1.4	MOIST BROWN LOOSE FINE SAND, SOME FINE GRAVEL	9.2'	AUGER REFUSAL AT 11'
10														POSSIBLE WEATHERED SHALE		
														BORING TERMINATED AT 11.0'		
15																
20																
25																
30																
35																
40																
45																
50																

Client	ELWYN PALMER	**LYON DRILLING CO.**	Boring No. B2
Project	THURSTON APARTMENTS		Project No.
Location	THURSTON AVE, ITHACA	**BORING LOG**	Sheet 1 of 1
			Date Started 05/09/12
			Date Completed 05/09/12
			Driller HARRY LYON

Drill Rig
Casing 3.25" HOLLOW STEM AUGERS
Casing Hammer: Wt. ____ lb. Fall ____ in.
Soil Sampler 2" SPLIT SPOON
Sample Hammer: Wt. ____ lb. Fall ____ in.
Rock Sampler:
Other:
Weather Conditions:

Boring Location AS STAKED, BY CLIENT
Surface Elevation 778 +/-

Ground Water Observations

Date	Time	Casing at	Hole at	Water at
05/09/12	12:20 PM	17.5	20.0	DRY
05/09/12	12:35 PM	OUT	14.7	DRY

Depth	Sample Number	Sample Depth From (Ft)	Sample Depth To (Ft)	Sample Type	SOIL Blows on Sampler 0'/0.5'	0.5'/1.0'	1.0'/1.5'	1.5'/2.0'	N	Rock Recovery Ft.	Rock Recovery %	RQD	Sample Recovery	MATERIAL DESCRIPTION	Depth of Change	REMARKS
	1	0.0	2.0	S	1	5	2	3	7				1.0	TOPSOIL	.6'	
														MOIST BROWN FINE SAND, SOME SILT (FILL)	2.0'	
	2	2.0	4.0	S	4	6	2	4	8				1.0	MOIST BROWN COURSE TO FINE SAND, SOME FIN		
														GRAVEL (APPEARS NATURAL)	3.0'	
5	3	4.0	6.0	S	7	10	10	15	20				1.0	WET BROWN SILT AND FINE SAND	4.5'	AUGER LIKE BEDROCK:
														MOIST BROWN FIRM TO COMPACT COURSE TO FI		4.5-5.7
	4	6.0	7.7	S	15	26	32	50/.2	58				0.9	SAND, SOME FINE GRAVEL		
	5	8.0	10.0	S	16	38	22	23	60				1.3			
10																
	6	10.0	11.1	S	27	40	50/.1						0.6		11.7-12.5'	
														MOIST BROWN HARD SILT, TRACE CLAY		
	7	13.0	15.0	S	14	19	12	27	31				1.7			
15																
															17.0'	
	8	18.0	20.0	S	6	9	11	14	20				1.6	SATURATED GREY STIFF SILT		
20																
														BORING TERMINATED AT 20.0'		
25																
30																
35																
40																
45																
50																

Client ELWYN PALMER	**LYON DRILLING CO.**	Boring No. B3	
Project THURSTON AVE APTS		Project No.	
Location ITHACA NY	**BORING LOG**	Sheet 1 of 1	
		Date Started 05/08/12	
		Date Completed 05/08/12	
		Driller HARRY LYON	

Drill Rig CME 55
Casing 3.25" HOLLOW STEM AUGERS
Casing Hammer: Wt. ____ lb. Fall ____ in.
Soil Sampler 2" SPLIT SPOON
Sample Hammer: Wt. 140 lb. Fall 30 in.
Rock Sampler: ____
Other: ____
Weather Conditions: ____

Boring Location AS STAKED, BY CLIENT
Surface Elevation 783 +/-

Ground Water Observations

Date	Time	Casing at	Hole at	Water at
05/08/12	6:00 PM	29.5	32.7	DRY
05/08/12	6:25 PM	OUT	24.6	DRY

Depth	Sample Number	Sample Depth From (Ft)	Sample Depth To (Ft)	Sample Type	SOIL Blows on Sampler 0'/0.5'	0.5'/1.0'	1.0'/1.5'	1.5'/2.0'	N	Rock Recovery Ft.	Rock Recovery %	RQD	Sample Recovery	MATERIAL DESCRIPTION	Depth of Change	REMARKS
	1	0.0	2.0	S	3	3	2	1	5				0.9	TOPSOIL	.2'	
														MOIST BROWN LOOSE COURSE TO FINE SAND,		
	2	2.0	4.0	S	1	1	WH	1	1				0.6	LITTLE FINE GRAVEL, TRACE SILT, TRACE WOOD		
														(FILL)		
5	3	4.0	6.0	S	2	2	4	4	6				1.2		5.0'	
														MOIST LOOSE BROWN FINE SAND, LITTLE MEDIUM		
	4	6.0	8.0	S	4	4	2	3	6				0.7	TO COURSE SAND, TRACE SILT (FILL)		
	5	8.0	10.0	S	1	1	4	9	5				1.4		8.0'	
10														MOIST DARK BROWN SILT AND FINE SAND WITH		
														ROOTS (POSSIBLE OLD TOPSOIL)	8.4'	11.2': AUGERS LIKE THIN
														WET BROWN FINE SAND, SOME SILT WITH ROOTS	9.0'	BEDDED WEATHERED
														WET BROWN MEDIUM SILT, LITTLE FINE SAND	10.5'	SHALE
	6	13.0	13.4	S	50/.4								NR	SHALE BOULDER	11.2'	
15	7	14.0	16.0	S	28	12	12	16	24				0.2	POSSIBLE WEATHERED SHALE BOULDERS	13.8'	
														COBBLE	14.6'	
	8	16.0	18.0	S	4	7	8	10	15				1.1	MOIST BROWN FIRM FINE SAND	19.0'	
														WET BROWN STIFF SILT, TRACE FINE SAND		
20																
	9	20.0	22.0	S	9	12	12	15	24				1.6			
															23.0'	
25	10	24.0	26.0	S	4	6	12	12	18				1.7	WET GREY SILT, LITTLE CLAY		
															25.0'	
														SATURATED BROWN SILT, TRACE FINE SAND	25.5	
														WET GREY SILT, LITTLE CLAY		
															28.0'	
30	11	29.0	31.0	S	4	12	23	29	35				1.8	SATURATED GREY CLAY AND SILT		
															30.0'	
														GRADES TO SATURATED GREY SILT, TRACE CLAY		
	12	32.2	32.3	S	50/.1								0.1		32.0'	AUGER REFUSAL AT 32.7
35														POSSIBLE WEATHERED SHALE		
														BORING TERMINATED AT 32.7'		
40																
45																
50																

Client ELWYN PALMER	**LYON DRILLING CO.**	Boring No. B4	
Project THURSTON AVE APTS	**BORING LOG**	Project No.	
Location ITHACA NY		Sheet 1 of 1	
		Date Started 05/09/12	
		Date Completed 05/09/12	
		Driller HARRY LYON	

Drill Rig CME 55
Casing 3.25" HOLLOW STEM AUGERS
Casing Hammer: Wt. ____ lb. Fall ____ in.
Soil Sampler 2" SPLIT SPOON
Sample Hammer: Wt. 140 lb. Fall 30 in.
Rock Sampler:
Other:
Weather Conditions:

Boring Location AS STAKED, BY CLIENT
Surface Elevation 785 +/-

Ground Water Observations

Date	Time	Casing at	Hole at	Water at
05/09/12	4:07 PM	32.5	33.6	DRY
05/09/12	4:35 PM	OUT	27.2	DRY

Depth	Sample Number	Sample Depth From (Ft)	Sample Depth To (Ft)	Sample Type	SOIL Blows on Sampler 0'/0.5'	0.5'/1.0'	1.0'/1.5'	1.5'/2.0'	N	Rock Recovery Ft.	Rock Recovery %	RQD	Sample Recovery	MATERIAL DESCRIPTION	Depth of Change	REMARKS
	1	0.0	2.0	S	1	2	3	5	6				1.1	TOPSOIL	.4'	
														MOIST BROWN FINE TO MEDIUM SAND, TRACE		
	2	2.0	4.0	S	2	1	5	8	6				1.2	ROOTS	2.5'	
														WET BROWN FINE SAND, LITTLE SILT	3.0'	
5	3	4.0	6.0	S	4	4	4	5	8				0.6	MOIST BROWN LOOSE COURSE TO FINE SAND		
														AND FINE GRAVEL WITH OCASSIONAL COBBLES	6.0'	
	4	6.0	8.0	S	3	4	3	4	7				1.1	MOIST BROWN LOOSE FINE SAND (NATURAL)		
	5	8.0	10.0	S	4	7	8	8	15				1.5		8.5'	
10														MOIST BROWN FIRM FINE SAND, LITTLE SILT		
															12.5'	12.5-14.5: NO FREE WATER
	6	13.0	15.0	S	12	15	12	15	27				1.6	GRADES TO WET BROWN FIRM FINE SAND, LITTLE		
15														MEDIUM TO COURSE SAND, TRACE FINE GRAVEL	14.5'	
														MOIST BROWN FIRM FINE SAND	15.5'	
														MOIST BROWN COMPACT COURSE TO FINE SAND,		
	7	18.0	20.0	S	22	15	12	12	27				1.1	AND FINE GRAVEL WITH COBBLES		
20															19.0'	
														SATURATED BROWN SILT, TRACE FINE SAND	21.0'	
														SATURATED GREY STIFF CLAY AND SILT		
	8	23.0	25.0	S	6	10	14	31	24				1.5		23.5'	
25														GRADES TO MOIST GREY LAMINATED HARD SILT,		
														TRACE CLAY		
	9	28.0	30.0	S	33	30	24	19	54				1.7			
30															29.0'	
														GRADES TO SATURATED GREY SILT, TRACE CLAY		
	10	33.0	33.6	S	47	50/.1							0.4		33.4'	
35														MOIST GREY POSSIBLE HIGHLY WEATHERED SHA		
														BORING TERMINATED AT 33.6'		
40																
45																
50																