

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

Please Read
Application And
Notes, If Any,
Attached

CONSTRUCTION PERMIT

Permit Number: 030546

This is to certify that Fore River Realty Associates Edgewood
has permission to 14,500 s.f. Addition to existing building
AT 33 Sewall St 190 D003001

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of Maine and of the ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and when permission is procured before this building or part thereof is occupied or closed-in. **HEAR NOTICE IS REQUIRED.**

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. [Signature]
Health Dept. _____
Appeal Board _____
Other _____
Department Name _____

[Signature] 2/23/01
Director - Building

PENALTY FOR REMOVAL

City of Portland, Maine - Building or Use Permit Application
 389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 03-0546	Issue Date:	CBL: 190 D003001
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Location of Construction: 33 Sewall St	Owner Name: Fore River Realty Associates	Owner Address: 33 Sewall St	Phone: 828-2124
Business Name:	Contractor Name: Ledgewood Inc.	Contractor Address: PO Box 8107 Portland	Phone: 2077671866
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Commercial	Zone: RP

Past Use: Medical offices	Proposed Use: Physician's offices with 14,500 s.f. Addition	Permit Fee: \$10,607.00	Cost of Work: \$1,511,305.00	CEO District: 3
Proposed Project Description: 14,500 s.f. Addition to existing building		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group B Type 2C 6/23/03 Signature: <i>[Signature]</i>	
		PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) Action: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Signature: _____ Date: _____		

Permit Taken By: gg	Date Applied For: 05/20/2003	Zoning Approval
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1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. 2. Building permits do not include plumbing, septic or electrical work. 3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..	Special Zone or Reviews <input type="checkbox"/> Shoreland NA <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input checked="" type="checkbox"/> Site Plan 2003-0008 Maj <input checked="" type="checkbox"/> Minor <input checked="" type="checkbox"/> MM <input type="checkbox"/> Date: 6/2/03	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	Historic Preservation <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: [Signature]
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CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 03-0546	Date Applied For: 05/20/2003	CBL: 190 D003001
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Location of Construction: 33 Sewall St	Owner Name: Fore River Realty Associates	Owner Address: 33 Sewall St	Phone: () 828-2124
Business Name:	Contractor Name: Ledgewood Inc.	Contractor Address: PO Box 8107 Portland	Phone: (207) 767-1866
Lessee/Buyer's Name	Phone:	Permit Type: Additions - Commercial	

Proposed Use: Medical offices with 14,500 s.f. Addition	Proposed Project Description: 14,500 s.f. Addition to existing building
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Dept: Zoning **Status:** Approved **Reviewer:** Marge Schmuckal **Approval Date:** 06/02/2003
Note: **Ok to Issue:**

Dept: Building **Status:** Approved with Conditions **Reviewer:** Mike Nugent **Approval Date:** 06/23/2003
Note: **Ok to Issue:**
 1) The cylinder storage room must have walls and ceilings that have a 3 hour fire separation.

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Lt. MacDougal **Approval Date:** 06/02/2003
Note: **Ok to Issue:**
 1) Means of egress shall be continuously maintained and free of all obstructions or impediments during construction
 2) the fire alarm system and sprinkler system shall be inspected in accordance with the appropriate standard and the results submitted to the Portland Fire Department
 3) The medical gas storage room shall be built in accordance with NFPA 99 standards
 4) the sprinkler system shall be maintained to NFPA 13 standards
 5) the fire alarm system shall be maintained to NFPA 72 standards

Comments:
 05/21/2003-gg: pre-prepared check was for incorrect amount. Called, left message for additional funds.
 05/30/2003-gg: Balance due paid 5/27/2003.
 06/24/2003-mjn: HOLD FOR PLANNING!!!!!!!!!!!!!!!!!!!!!!

**CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM
Planning Copy**

2003-0008

Application I. D. Number

01/20/2003

Application Date

Orthopaedic Assoc. Building Expan.

Project Name/Description

Fore River Realty Associates

Applicant

33 Sewall St, Portland, ME 04102

Applicant's Mailing Address

Consultant/Agent

Applicant Ph: (207) 828-2124 Applicant Fax: (207) 828-2193

Applicant or Agent Daytime Telephone, Fax

[Redacted] and, Maine

Address of Proposed Site

190 D003001

Assessor's Reference: Chart-Block-Lot

Proposed Development (check all that apply): New Building Building Addition Change Of Use Residential Office Retail
 Manufacturing Warehouse/Distribution Parking Lot Other (specify) _____

13736 s.f.

Proposed Building square Feet or # of Units

Acreage of Site

RP

Zoning

Check Review Required:

- | | | | |
|--|---|--|--|
| <input checked="" type="checkbox"/> Site Plan
(major/minor) | <input type="checkbox"/> Subdivision
of lots _____ | <input type="checkbox"/> PAD Review | <input type="checkbox"/> 14-403 Streets Review |
| <input type="checkbox"/> Flood Hazard | <input type="checkbox"/> Shoreland | <input type="checkbox"/> Historic Preservation | <input type="checkbox"/> DEP Local Certification |
| <input type="checkbox"/> Zoning Conditional
Use (ZBA/PB) | <input type="checkbox"/> Zoning Variance | <input type="checkbox"/> Other _____ | |

Fees Paid: Site Plan \$500.00 Subdivision _____ Engineer Review \$741.00 Date 07/07/2003

Approval Status:

Reviewer Kandi Talbot

- Approved [Redacted] Denied
- See Attached

Approval Date 03/11/2003 Approval Expiration 03/11/2004 Extension to _____ Additional Sheets Attached

[Redacted] Kandi Talbot [Redacted] J.R. for K.T.

signature date

Performance Guarantee Required* Not Required

* No building permit may be issued until a performance guarantee has been submitted as indicated below

<input checked="" type="checkbox"/> Performance Guarantee Accepted	<u>07/08/2003</u> date	<u>\$37,800.00</u> amount	<u>07/01/2004</u> expiration date
<input checked="" type="checkbox"/> Inspection Fee Paid	<u>07/07/2003</u> date	<u>\$756.00</u> amount	
<input type="checkbox"/> Building Permit Issue	_____ date		
<input type="checkbox"/> Performance Guarantee Reduced	_____ date	_____ remaining balance	_____ signature
<input type="checkbox"/> Temporary Certificate of Occupancy	_____ date	<input type="checkbox"/> Conditions (See Attached)	_____ expiration date
<input type="checkbox"/> Final Inspection	_____ date	_____ signature	
<input type="checkbox"/> Certificate Of Occupancy	_____ date		
<input type="checkbox"/> Performance Guarantee Released	_____ date	_____ signature	
<input type="checkbox"/> Defect Guarantee Submitted	_____ submitted date	_____ amount	_____ expiration date
<input type="checkbox"/> Defect Guarantee Released	_____ date	_____ signature	

**CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM
ADDENDUM**

2003-0008

Application I. D. Number

01/20/2003

Application Date

Orthopaedic Assoc. Building Expan.

Project Name/Description

Fore River Realty Associates

Applicant

33 Sewall St, Portland, ME 04102

Applicant's Mailing Address

Consultant/Agent

Applicant Ph: (207) 828-2124 Applicant Fax: 2078282193

Applicant or Agent Daytime Telephone, Fax

33 - 33 Sewall St, Portland, Maine

Address of Proposed Site

190 D003001

Assessor's Reference: Chart-Block-Lot

Approval Conditions of Planning

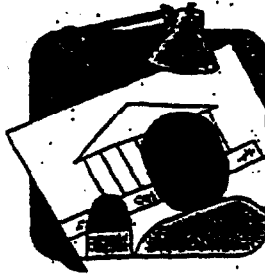
- 1 i. That the plans be revised to reflect the Development Review Coordinator's memo dated March 7, 2003 to be reviewed and approved by the Development Review Coordinator.
- 2 ii. That a sewer capacity letter from the Portland Sewer Division be submitted to staff prior to issuance of a building permit.

Approval Conditions of DRC

- 1 see planning conditions

Approval Conditions of Fire

- 1 Application requires State Fire Marshal approval.



CITY OF PORTLAND MAINE

389 Congress St., Rm 315

Portland, ME 04101

Tel. - 207-874-8704

Fax - 207-874-8716

TO: Inspector of Buildings City of Portland, Maine
Planning & Urban Development
Division of Housing & Community Services

FROM DESIGNER: HKTA/architects

Portland, Maine

DATE: 05/19/03

Job Name: Orthopaedic Associates, PA

Address of Construction: 33 Sewall Street

THE BOCA NATIONAL BUILDING CODE/1999 Fourteenth EDITION

Construction project was designed according to the building code criteria listed below:

Building Code and Year BOCA 1999 Use Group Classification(s) Business

Type of Construction 2C Bldg. Height Varies Bldg. Sq. Footage 14,312 (ADD)

Seismic Zone AV=Aa=0.11 Group Class I

Roof Snow Load Per Sq. Ft. 42PSF+Drift Dead Load Per Sq. Ft. 11PSF

Basic Wind Speed (mph) 85 MPH Effective Velocity Pressure Per Sq. Ft. 18.5PSF

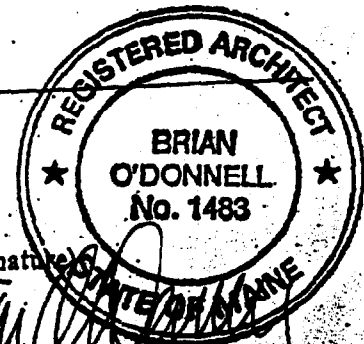
Floor Live Load Per Sq. Ft. 50PSF + 20PSF Partitions

Structure has full sprinkler system? Yes X No Alarm System? Yes X No
Sprinkler & Alarm systems must be installed according to BOCA and NFPA Standards with approval from the Portland Fire Department.

Is structure being considered unlimited area building: Yes No X

If mixed use, what subsection of 313 is being considered N/A

List Occupant loading for each room or space, designed into this Project.



(Designers Stamp & Signature)

Johnson & Jordan
 Att: Mr. Tim Land
 18 Mussey Road
 Scarborough, ME 04074

June 18, 2003

Dear Tim,

The following list includes all of the cylinders and their volumes that we currently anticipate placing in the cylinder storage room at Orthopaedic Associates:

Item #	Description	Quantity Cylinders	Total Volume in Cubic Feet
<u>Oxygen</u>			
LOX4504HP	4505 c/f Oxygen Cylinder Contents	2	9,008
OX262TH	262 c/f Oxygen Cylinder Contents	16	4,512
OXEA	22 c/f Oxygen Cylinder Contents	12	264
		Total O2	13,784
<u>Nitrogen</u>			
NG304NF	304 c/f Nitrogen Cylinder Contents	16	4,864
NGE	22 c/f Nitrogen Cylinder Contents	6	132
		Total N2	4,996
<u>Nitrous Oxide</u>			
		Total N2O volume in pounds	
NSG	56 lb. Nitrous Oxide Cylinder Cont.	12	672
NSE	6 lb. 7 oz. Nitrous Oxide Cyl Cont. * 1# N2O = 8.741 scf	6	39
		Total N2O	711

John Maurice

Advantage Gases & Tools
 527 Danforth Street
 Portland, ME 04102

HKTA/architects

HKTA/architects inc.
482 Congress St.
Suite 200
Portland, Maine 04101
207-774-6016 Fax: 774-9128

TO:

Michael J. Noyant
City of Portland
Fax #: 874-8714

Date:

6/18/03

Re:

Orthopaedic Associates

Job #:

Subject:

Review

NUMBER OF PAGES INCLUDING THIS PAGE:

2

MESSAGE:

Michael, RE: Orthopaedic Associates
33 School Street

Statement from Structural Engineer about
design for drifting snow loads per your
request.

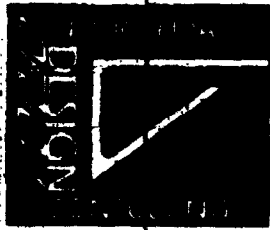
Thank you,

Copy to:

Mark McAuliffe
Scott Christing

Signed

Annunzio



5 Balsam Lane
Falmouth, ME 04105-2448
Phone: (207) 878-8098
Fax: (207) 878-8293

FAX MEMO

Date: June 18, 2003
To: Brian O'Donnell, HKTA / architects inc.
Fax #: 774-9128
From: David Tetresult
Subject: Orthopaedic Associates

Hard copy will follow YES NO

Brian,

As noted on sheet S1, BOCA/1999 was used as the structural design criteria for the subject project. All snow-loading provisions of BOCA/1999 were accounted for in the structural design. This includes drifting snow, sliding snow and unbalanced snow loads on both new and existing roofs.

SIGNATURE: David Tetresult

copy to:

389 Congress St. Rm 315
Portland, ME 04101
Phone: (207)874-8700
Fax: (207)874-8716

facsimile transmission

To: Brian O'Donnell From: Mike Nugent

Fax: 774-9128 Date: June 16, 2003

Phone 774-6016 Pages: 1

Re: 33 Sewall St. (190 D003)

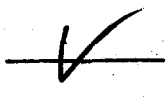
Urgent For Review Please Comment Please Reply Please Recycle

I am reviewing the Orthopedic Associates and have some questions:

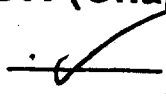
- 1) There is no soils report to base the footing foundation design, can you provide this?
- 2) The Storage area on the first floor, what types of gas etc. are likely to be stored there and how much of each kind?
- 3) In calculating the area allowance pursuant to Table 503, how much credit did you allow for excessive frontage?
- 4) There is no information about unbalances snow load & drifting, can you advise?
- 5) Where are the Fire Dept. connections on the building?
- 6) In looking on page 7531.3 of the Spec Book, I had trouble translating the Fire class of the roofing in BOCA terms, can you assist?
- 7) In the same section, it looked like an 80mph wind load roof covering was spec'd, that appears to conflict with table 1609.3

Please get back to me so I can complete the review





Complete construction documents
(107.5, 107.6, 107.7)



Signed/sealed construction documents
(107.7, 114.1)

BUILDING PLANNING (Chapters 3, 4, 5, 6)

USE OR OCCUPANCY CLASSIFICATION (302.0-313.0)

B

Single Use Group

Specific occupancy areas (302.1.1)

Mixed Use Groups

Accessory areas (302.1.2)

GENERAL BUILDING LIMITATIONS (Chapters 5 & 6)

Apply Case 1 to determine the allowable height and area and permitted types of construction for a building containing a single use group or nonseparated mixed use groups. Apply Case 2 to determine the allowable height and area and permitted types of construction for a building containing separated mixed use groups.

AREA MODIFICATIONS TO TABLE 503

% of Allowable tabular area (Table 503) 100%

% Reduction for height (Table 506.4) - 0%

% Increase for open perimeter (506.2) +104%

% Increase for automatic sprinklers (506.3) +200%

Total percentage factor ~~1304%~~

Conversion factor ~~1304/100 = 13.04~~
(Total percentage factor/100%)

Open perimeter (506.2)	<u>170</u>	<u>280</u>	<u>0</u>	<u>280</u>
	North	East	South	West
Open perim.	<u>730</u> ft.	Perimeter <u>930</u> ft.		
% Open perimeter =	<u>82%</u> (Open perim./perim.) x 100%			
% Tab. area increase = (506.2)	<u>104%</u> 2x(% Open perim. -25%)			

CASE 1 — SINGLE USE OR NONSEPARATED MIXED USE GROUPS (313.1.1, 503.0)

Using Table 503, identify the allowable height and area of the single use group or the most restrictive of the nonseparated mixed use groups. Construction types that provide an allowable tabular area equal to or greater than the adjusted floor area and allowable heights (as modified by Section 504.0) equal to or greater than the actual building height are permitted.

<u>Actual</u> Actual floor area	<u>63,360</u>	ft. ²	Actual building height	<u>40</u> feet	<u>3</u> stories
<u>Proposed</u> Adjusted floor area*	<u>56,312</u>	ft. ²	Allowable building height	<u>29</u> feet	<u>2</u> stories

*Adjusted floor area = actual floor area/conversion factor

Permitted types of construction All EXCEPT Type of construction assumed for review (602.3) 2C

50

MEANS OF EGRESS (continued)

<u>✓</u>	General limitations (1005.0)	_____	Ramps (1016.0)
<u>NO EXCEPT AS PROTECTED W/ DAMPER</u>	Air movement in egress elements (1005.7)	_____	Means of egress doorways (1017.0)
<u>OK</u>	Types and location of egress (1006.0)	_____	Number of doorways (1017.2)
<u>OK</u>	Exit access travel distance (1006.5 and Table 1006.5)	_____	Size of doors (1017.3)
<u>N/A</u>	Accessible means of egress (1007.0)	_____	Door hardware (1017.4)
<u>N/A</u>	Emergency escape (1010.4)	_____	Revolving doors (1018.0)
<u>✓</u>	Exit access passageways and corridors (1011.0)	_____	Horizontal exits (1019.0)
<u>N/A</u>	Aisles and accessways (1012.0)	_____	Level of exit discharge passageway (1020.0)
<u>N/A</u>	Grandstands (1013.0)	_____	Guards (1021.0)
<u>OK</u>	Interior stairways (1014.1 - 1014.11)	_____	Handrails (1022.0)
<u>N/A</u>	Exterior stairways (1014.1 - 1014.10, 1014.12)	_____	Exit signs and lights (1023.0)
<u>N/A</u>	Smokeproof enclosures (1015.0)	_____	Means of egress lighting (1024.0)
		_____	Access to roof (1027.0)

ACCESSIBILITY (Chapter 11)

<u>N/A</u>	Required (1103.0)	_____	Accessible entrances (1106.0)
<u>N/A</u>	Accessible route (1104.0)	_____	Special use groups (1107.0)
<u>N/A</u>	Parking facilities (1105.0)	_____	Features and facilities (1108.0)

INTERIOR ENVIRONMENT (Chapter 12)

<u>N/A</u>	Room dimensions (1204.0)	_____	Air-borne noise (STC) (1214.2)
<u>N/A</u>	Roof spaces (1210.1, 1211.2)	_____	Structure-borne sound (IIC) (1214.3)
<u>N/A</u>	Crawl spaces (1210.2, 1211.1)	_____	Ratproofing (1215.0)

BUILDING ENVELOPE (Chapters 14, 15)

EXTERIOR WALL COVERINGS (Chapter 14)

<u>SEE</u>	Performance requirements (1403.0)	_____	Combustible material restrictions (1406.0)
<u>cert. from ENG. 10/15/16</u>	Wall sidings and veneers (1404.0, 1405.0)	_____	

STEEL (Chapter 22)

✓
_____ Structural steel design/construction
standard specified (2203.1, 2203.2)

✓
_____ Shop drawing preparation specified
(2203.4)

✓
_____ Open-web steel joist design/construction
standard specified (2205.1)

✓
_____ Formed steel design/construction
standard specified (2206.1)

✓
_____ Formed steel member identification
(2206.6)

WOOD (Chapter 23)

_____ Installation inspections (2301.2)

_____ Design/construction standard specified
(2303.1)

_____ Grade mark specified (2303.1.1)

HEAVY TIMBER CONSTRUCTION

_____ Minimum dimensions (605.1, 2304.0)

_____ Design/construction standard specified
(2304.1)

WOOD FRAME CONSTRUCTION

_____ Fastening and construction details
(2305.0, Table 2305.2)

_____ Wind bracing design required (2305.7)

_____ Seismic bracing (2305.8)

_____ Foundation anchorage (2305.17)

_____ Wood structural panels (2307.0)

_____ Particleboard (2308.0)

_____ Fiberboard (2309.0)

_____ Fireretardant-treated wood (2310.0)

_____ Decay and termite protection (2311.0)

_____ Joist hangers (2312.0)

_____ Prefabricated components (2313.1, 2313.2)

_____ Metal-plate-connected trusses (2313.3.1,
2313.3.2)

NONSTRUCTURAL MATERIALS (Chapters 24, 25, 26)

GLASS AND GLAZING (Chapter 24)

_____ Skylights (2404.0)

_____ Safety glazing (2405.0, 2406.0, 2407.0)

GYPSUM BOARD AND PLASTER (Chapter 25)

_____ Gypsum board materials (2503.0,
Table 2503.2, Table 2503.3)

_____ Plaster (2504.0, 2505.0, 2506.0)

PLASTIC (Chapter 26)

_____ Approved materials (2601.2)

_____ Identification (2601.4)

_____ Interior trim (2603.7)

_____ Alternative approval (2603.8)

FOAM PLASTIC (2603.0)

_____ Labeling (2603.2)

_____ Surface-burning characteristics (2603.3)

_____ Thermal barrier (2603.4)

_____ Exterior walls (2603.5, 2603.6)

LIGHT-TRANSMITTING PLASTIC (2603.5, 2604.0)

NA

Diffusing systems (2604.5)

Wall panels (2605.0)

Unprotected openings (2606.0)

NA

Roof panels (2607.0)

Skylight glazing (2608.0)

BUILDING SERVICES (Chapters 28, 30)

MECHANICAL SYSTEMS (Chapter 28)

NA

Waste- and linen-handling systems (2807.0)

NA

Refuse vaults (2808.0)

ELEVATORS AND CONVEYING SYSTEMS (Chapter 30)

NA

Construction standard specified (3001.2)

Elevator emergency operation (3006.2)

Hoistway enclosure (3007.1)

NA

Venting (3007.3 - 3007.6)

Opening protectives (3008.2)

Conveyors and escalators (3010.0, 3011.0)

SPECIAL DEVICES AND CONDITIONS (Chapters 31, 34)

SPECIAL CONSTRUCTION (Chapter 31)

NA

Membrane structures (3103.0)

Flood-resistant construction (3107.0)

Towers (3108.0)

PEDESTRIAN WALKWAYS (3106.0)

NA

Construction and use (3106.1 - 3106.3)

Separation (3106.4)

Local approval (3106.5)

Egress and size (3106.6 - 3106.8)

EXISTING STRUCTURES (Chapter 34)

ADDITIONS, ALTERATIONS OR CHANGE OF OCCUPANCY

NA

General requirements (3402.0)

Structural loads (1614.0, 3402.5)

Accessibility (1110.0, 3402.7)

NA

Additions/alterations (3403.0, 3404.0)

Change of occupancy (1110.3, 3405.0)

Compliance alternative evaluation (3408.0)

BUILDING EVALUATION SUMMARY (Table 3408.7)

Existing use group	Proposed use group				
Year building was constructed	Number of stories	Height in feet			
Type of construction	Area per floor				
Percentage of open perimeter	Percentage of height reduction	%			
Completely suppressed:	Yes	No	Corridor wall rating		
Compartmentation:	Yes	No	Required door closers:	Yes	No
Fireresistance rating of vertical opening enclosures					
Type of HVAC system	serving number of floors				

OCCUPANT NEEDS (Chapters 10, 11, 12)

MEANS OF EGRESS (Chapter 10)

OCCUPANT LOAD (1008.0 and Table 1008.1.2)

CAPACITY OF EGRESS COMPONENTS (1009.0 and Table 1009.2)

Location	Floor Area	Sq. ft./person	Occt. load	Other occt. loads	Total
1ST	42000	100	= 420		420
2ND	16000	100	= 160		160

Egress width (inch/occupant)

Stairways = 2
 Doors/ramps/corridors = 15

CAPACITY

Location	Stairways	Doors/ramps corridors
1ST FLOOR	ENCLOSURE	7 DOORWAYS
2ND FLOOR	3 STAIRWAYS	3 DOORWAYS
	1 COMM. STAIRWAY	

NUMBER OF EXITS (1010.0)

Location	Required	Shown
1ST	2	2
2ND	2	2

STATEMENT OF SPECIAL INSPECTIONS

PROJECT: Orthopaedic Associates Building Expansion

LOCATION: 33 Sewall Street
Portland, Maine

OWNER: Fore River Realty
P.O. Box 1260
Portland, ME 04101-1260

ARCHITECT OF RECORD: HKTA / architects
Congress Street, Suite 200
Portland, ME 04101

STRUCTURAL ENGINEER OF RECORD: Structural Design Consulting, Inc.
5 Balsam Lane
Falmouth, ME 04105

This Statement of Special Inspections is submitted as a condition of permit issuance in accordance with Section 1705.0 of the 1999 BOCA National Building Code. It includes a Schedule of Special Inspection Services applicable to this project as well as the name of the Special Inspector, and the names of other agencies intended to be retained for conducting these inspections.

The Special Inspector shall keep records of all inspections listed herein, and shall periodically furnish Interim Special Inspection Reports to the Building Code Official and to the Architect of Record. All discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Code Official and the Architect of Record. A Final Report of Special Inspections documenting completion of all special inspections and correction of all discrepancies noted in inspection records shall be submitted to the Building Code Official.

Job site safety is solely the responsibility of the Contractor. Materials and activities to be inspected are not to include the Contractor's equipment and methods used to erect or install the materials listed.

Prepared by:

David Tetreault 5/19/03
Signature Date



Owner's Authorization:

Building Code Official's Acceptance

M. M. M. M. 5/20/03
Signature Date

Signature Date

Orthopaedic Associates Building Expansion
Portland, Maine
Page 1 of 3

SCHEDULE OF SPECIAL INSPECTION SERVICES

1. Soils and Foundations

Item	Agent No.	Scope
Subgrade Preparation	2	Observe excavation and footing bearing surface.
Structural Fill placement	2	Observe placement and compaction of structural fill.

2. Cast-In-Place Concrete

Item	Agent No.	Scope
Mix Design	1	Review suppliers mix design and laboratory test reports or strength tests.
Reinforcement Installation	1	Inspect placement of reinforcement prior to placement of concrete.
Concrete Placement	1	Inspect concreting operations during placement.
Material Testing	2	Sample and test concrete for slump, air content, temperature and compressive strength

3. Structural Steel

Item	Agent No.	Scope
Materials	1	Review material for conformance with Contract Documents.
Welding	2	Perform visual inspection of all welds. Welds deemed questionable by visual inspection, all partial and full penetration welds, and any other welds indicated on the Contract Documents shall be tested by Liquid penetrant inspection, magnetic particle inspection, radiographic inspection or Ultrasonic Inspection
Details	2	Review framing details for conformance with Contract Documents.

SPECIAL INSPECTION AGENCIES

1. SPECIAL INSPECTOR:

David Tetreault, P.E.
Structural Design Consulting, Inc.
5 Balsam Lane
Falmouth, ME 04105

2. TESTING AGENCY:

Haley & Aldrich
500 Southborough Drive
South Portland, ME 04106-6903

3. TESTING AGENCY:

Summit Labs
197 U.S. Route One
Scarborough, ME 04070

Note **The inspection and testing agents shall be engaged by the Owner or the Owner's Agent and not by the Contractor or Subcontractor whose work is being inspected or tested. Any conflict of interest shall be disclosed to the Building Official prior to commencement of work.**

INTERIOR FINISHES (Chapter 8)

_____ Smoke development (803.3.2)

_____ Floor finish (805.0, 806.0)

_____ Flame spread (803.4)

FIRE PROTECTION SYSTEMS (Chapter 9)

FIRE SUPPRESSION SYSTEMS (Where required)

_____ Assembly (A-1, A-3, A-4) (904.2)

_____ Assembly (A-2) (904.3)

_____ Educational (E) (904.4)

_____ High-hazard (H) (904.5)

_____ Institutional (I) (904.6)

_____ Mercantile (M), Moderate-hazard
storage (S-1), Factory and Industrial
(F-1) (904.7)

_____ Residential (R-1) (904.8)

_____ Residential (R-2) (904.9)

_____ Windowless story (904.10)

_____ Specific occupancy areas (302.1.1,
904.11)

_____ Covered mall buildings (402.10)

_____ High-rise buildings (403.2)

_____ Atriums (404.2)

_____ Underground structures (405.3)

_____ Public garages (408.3.1)

_____ Sound stages (411.7)

_____ Stages and enclosed platforms (412.6)

_____ Special amusement buildings (413.4)

_____ HPM facilities (416.4)

_____ Paint spray booths and storage rooms
(419.3)

_____ Unlimited area buildings (507.1)

_____ Exit lobbies (1020.3)

_____ Drying rooms (2806.4)

_____ Waste- and linen-chutes/termination
rooms (2807.6)

_____ Refuse vaults (2808.4)

FIRE SPRINKLER SYSTEMS

_____ NFPA 13 system (906.2.1)

_____ NFPA 13R system (906.2.2)

_____ NFPA 13D system (906.2.3)

_____ Design (906.3)

_____ Actuation (906.4)

_____ Sprinkler alarms (906.5)

_____ Sprinkler riser (906.7)

LIMITED AREA SPRINKLER SYSTEMS

_____ Where permitted (907.2)

_____ Design (907.3)

_____ Actuation (907.4)

_____ Standpipe connection (907.6)

_____ Domestic supply (907.6.1)

_____ Cross connection (907.6.2)

_____ Shutoff valve (907.6.3)

OTHER SUPPRESSION SYSTEMS

_____ Water-spray fixed systems (908.0)

_____ Carbon dioxide extinguishing systems
(909.0)

_____ Dry-chemical extinguishing systems
(910.0)

_____ Foam-extinguishing systems (911.0)

_____ Halogenated extinguishing systems
(912.0)

_____ Clean agent fire extinguishing systems
(913.0)

_____ Wet-chemical range hood extinguishing
systems (914.0)

WARRANTY DEED

Know all Men by these Presents,

That Eat First, LLC, a limited liability company organized and existing under the laws of the State of Maine, and having a place of business at 53 Deer Hill Avenue, Westbrook, Maine 04092, for consideration paid, grant to:

75 York Street LLC

a limited liability company, organized and existing under the laws of the State of Maine and having a place of business in the City of Portland, in the County of Cumberland, and State of Maine, whose mailing address is: C/O Scott Simons, Architects, 15 Franklin Street, Portland, Maine 04101, with warranty covenants, the land in Portland, County of Cumberland, and State of Maine, described as follows:

A certain lot or parcel of land, together with any buildings and improvements thereon, situated in the City of Portland, County of Cumberland, and State of Maine as set forth in Exhibit A attached hereto and made a part hereof.

In Witness Whereof, the said Eat First, LLC, has caused this instrument to be executed by Eric A. Taylor, its Member thereunto duly authorized this 3rd day of the month of February, 2003.

MAINE REAL ESTATE TAX PAID

Signed, Sealed and Delivered in presence of

[Handwritten signature]

Eat First, LLC

By: [Handwritten signature] Eric A. Taylor Its: Member

State of Maine, County of Cumberland ss.

February 3, 2003

Then personally appeared the above named Eric A. Taylor, Member of said Eat First, LLC and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Eat First, LLC.

Before me,

[Handwritten signature of Donnelly S. Douglas]

Attorney at Law/Notary Public

Printed Name

Donnelly S. Douglas

Donnelly S. Douglas Attorney At Law

EXHIBIT A

A certain lot or parcel of land, with the buildings thereon, situated on the northwesterly side of York Street in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning on York Street at the southerly corner of land formerly of J. B. Brown, being about two hundred and seventy (270) feet southwesterly from the westerly corner of York and Maple Streets;

Thence running northwesterly by said Brown land about one hundred and ffity-three (153) feet to land formerly owned by W. P. I. Baker;

Thence southwesterly by line of said Baker land and land formerly owned by J. Simonton, seventy-five (75) feet, more or less, to land owned by the heirs of J. K. King;

Thence southeast by line of said J. K. King land sixty-five (65) feet, more or less, to a stake;

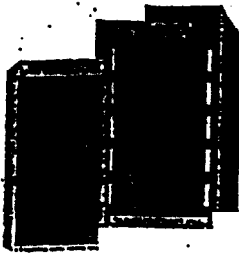
Thence southeast by south and by line of said King heirs and by line of land formerly owned by Katherine Cleary one hundred and fifteen (115) feet, more or less, to York Street;

Thence northeast along the line of said York Street sixty-three (63) feet, more or less, to the point of beginning.

Containing 11,738 square feet, more or less.

Being the same premises conveyed to Eat First, LLC by warranty deed from Eric A. Taylor and Mary Jo Taylor dated March 8, 1999 and recorded in the Cumberland County Registry of Deeds in Book 14624, Page 92.

Received
Recorded Register of Deeds
Feb 04, 2003 02:46:15P
Cumberland County
John B. D Brien



**CITY OF PORTLAND
BUILDING CODE CERTIFICATE**
389 Congress St., Rm 315
Portland, ME 04101

TO: Inspector of Buildings City of Portland, Maine
Department of Planning & Urban Development
Division of Housing & Community Service

FROM: HKTA / architects

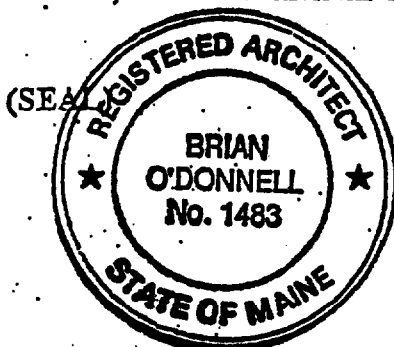
RE: Certificate of Design

DATE: 05/19/03

These plans and/or specifications covering construction work on:

Orthopaedic Associates, P.A.

Have been designed and drawn up by the undersigned, a Maine registered architect/engineer according to the BOCA National Building Code/1999 Fourteenth Edition; and local amendments.



Signature *Brian O'Donnell*

Title Architect

Firm HKTA / architects

Address 482 Congress St. Suite 200
Portland ME 04101

As per Maine State Law:

\$50,000.00 or more in new construction; repair, expansion, addition, or modification for Building or Structures, shall be prepared by a registered design Professional.

Applicant: Fore River Realty Assoc Date: 6/2/03

Address: 33 Sewall St

C-B-L: 190-D-003

CHECK-LIST AGAINST ZONING ORDINANCE

Date - Existing Bldg

Zone Location - RP

Interior or corner lot -

Proposed Use/Work - 14,500^{sq} Addition to existing Bldg - DR's offices

Sevage Disposal - City

Lot Street Frontage - 60' min - + 25' scaled

Front Yard - 20' min with exceptions - 21' scaled

Rear Yard - 20' min - 100' + shown

Side Yard - 12' min - 71.5' scaled
2 story shown

Projections -

Width of Lot - 60' min - 425' scaled

Height - 45' max - 29' scaled

Lot Area - 6,000^{sq} min 146,400^{sq}

Lot Coverage/ Impervious Surface - 80% - existing = 75%
R-5 Zone closed propose = 70%

Area per Family - N/A

Off-street Parking - 56,312^{sq} given \div 400 = 141 req. spaces - 183 spaces shown

Loading Bays - N/A

Site Plan - 2003-0008

Shoreland Zoning/ Stream Protection - N/A

Flood Plains - Panel 13 Zone C

**CITY OF PORTLAND, MAINE
DEVELOPMENT REVIEW APPLICATION
PLANNING DEPARTMENT PROCESSING FORM
Insp Copy**

2003-0008
Application I. D. Number
01/20/2003
Application Date
Orthopaedic Assoc. Building Expan.
Project Name/Description

Fore River Realty Associates
Applicant
33 Sewall St, Portland, ME 04102
Applicant's Mailing Address

33 - 33 Sewall St, Portland, Maine
Address of Proposed Site
190 D003001
Assessor's Reference: Chart-Block-Lot

Consultant/Agent
Applicant Ph: (207) 828-2124 Applicant Fax: (207) 828-2193
Applicant or Agent Daytime Telephone, Fax

Proposed Development (check all that apply): New Building Building Addition Change Of Use Residential Office Retail
 Manufacturing Warehouse/Distribution Parking Lot Other (specify) _____

13736 s.f. Proposed Building square Feet or # of Units
Acreage of Site
RP Zoning

Check Review Required:

- | | | | |
|---|--|--|--|
| <input checked="" type="checkbox"/> Site Plan (major/minor) | <input type="checkbox"/> Subdivision # of lots _____ | <input type="checkbox"/> PAD Review | <input type="checkbox"/> 14-403 Streets Review |
| <input type="checkbox"/> Flood Hazard | <input type="checkbox"/> Shoreland | <input type="checkbox"/> Historic Preservation | <input type="checkbox"/> DEP Local Certification |
| <input type="checkbox"/> Zoning Conditional Use (ZBA/PB) | <input type="checkbox"/> Zoning Variance | <input type="checkbox"/> Other _____ | |

Fees Paid: Site Plan \$500.00 Subdivision _____ Engineer Review _____ Date 01/22/2003

Insp Approval Status:

Reviewer _____

- Approved Approved w/Conditions See Attached Denied

Approval Date _____ Approval Expiration _____ Extension to _____ Additional Sheets Attached

Condition Compliance _____ signature _____ date _____

Performance Guarantee Required* Not Required

* No building permit may be issued until a performance guarantee has been submitted as indicated below

- | | | | |
|---|----------------------|--|-----------------------|
| <input type="checkbox"/> Performance Guarantee Accepted | _____ date | _____ amount | _____ expiration date |
| <input type="checkbox"/> Inspection Fee Paid | _____ date | _____ amount | |
| <input type="checkbox"/> Building Permit Issue | _____ date | | |
| <input type="checkbox"/> Performance Guarantee Reduced | _____ date | _____ remaining balance | _____ signature |
| <input type="checkbox"/> Temporary Certificate of Occupancy | _____ date | <input type="checkbox"/> Conditions (See Attached) | _____ expiration date |
| <input type="checkbox"/> Final Inspection | _____ date | _____ signature | |
| <input type="checkbox"/> Certificate Of Occupancy | _____ date | | |
| <input type="checkbox"/> Performance Guarantee Released | _____ date | _____ signature | |
| <input type="checkbox"/> Defect Guarantee Submitted | _____ submitted date | _____ amount | _____ expiration date |
| <input type="checkbox"/> Defect Guarantee Released | _____ date | _____ signature | |

030546

THIS IS NOT A PERMIT/CONSTRUCTION CANNOT COMMENCE UNTIL THE PERMIT IS ISSUED

**Building or Use Permit Pre-Application
Attached Single Family Dwellings/Two-Family Dwelling
Multi-Family or Commercial Structures and Additions Thereto**

In the interest of processing your application in the quickest possible manner, please complete the Information below for a Building or Use Permit.

NOTEIf you or the property owner owes real estate or personal property taxes or user charges on ANY PROPERTY within the City, payment arrangements must be made before permits of any kind are accepted.**

Location/Address of Construction (include Portion of Building): Orthopaedic Associates 33 SOWALL STREET			
Total Square Footage of Proposed Structure 14,500 sq FT		Square Footage of Lot	
Tax Assessor's Chart, Block & Lot Number Chart# 190 Block# D Lot# 003		Owner: Orthopaedic Associates OF MAINE	Telephone#: 828.2124 MARK McAuliffe
Owner's Address: 33 SOWALL ST Portland ME 04102		Lessee/Buyer's Name (If Applicable)	Cost Of Work: \$ 4,511,305.00 Fee \$ 9096.00
Proposed Project Description: (Please be as specific as possible) 14,500 sq FT Additions including two New "OR" suites, expanded Recovery area & Dr.'s Offices. Interior Renovations to existing Induction area.			
Contractor's Name, Address & Telephone: LEDGEWOOD INC 27 MAIN ST. S. Portland 767-1866			Rec'd By
Current Use: MEDICAL		Proposed Use: MEDICAL	

Separate permits are required for Internal & External Plumbing, HVAC and Electrical installation.

- All construction must be conducted in compliance with the 1996 B.O.C.A. Building Code as amended by Section 6-Art II.
- All plumbing must be conducted in compliance with the State of Maine Plumbing Code.
- All Electrical Installation must comply with the 1996 National Electrical Code as amended by Section 6-Art III.
- HVAC (Heating, Ventilation and Air Conditioning) installation must comply with the 1993 BOCA Mechanical Code.

You must Include the following with you application:

- 1) A Copy of Your Deed or Purchase and Sale Agreement
- 2) A Copy of your Construction Contract, if available
- 3) A Plot Plan/Site Plan

Minor or Major site plan review will be required for the above proposed projects. The attached checklist outlines the minimum standards for a site plan.

4) Building Plans

Unless exempted by State Law, construction documents must be designed by a registered design professional.

A complete set of construction drawings showing all of the following elements of construction:

- Cross Sections w/Framing details (including porches, decks w/ railings, and accessory structures)
- Floor Plans & Elevations
- Window and door schedules
- Foundation plans with required drainage and dampproofing
- Electrical and plumbing layout. Mechanical drawings for any specialized equipment such as furnaces, chimneys, gas equipment, HVAC equipment (air handling) or other types of work that may require special review must be included.

Certification

I hereby certify that I am the Owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant: Scott Cristina <i>Scott Cristina</i>	Date: 5.16.03
--	----------------------

Building Permit Fee: \$30.00 for the 1st \$1000. cost plus \$6.00 per \$1,000.00 construction cost thereafter.

Additional Site review and related fees are attached on a separate addendum

LEDGEWOOD, INC.

Manual Check Request

Vendor #: 191200 Date: 5-19-03

Payable To: City of Portland

Address: 389 Congress St.

Portland ME 04101

Attn: Inspection's Dept.

Invoice #: _____

Amount: \$ 9096⁰⁰

Desc. Of Payment: Building Permit

Job Cost Code: 03412-01050-0

G/L: _____

Needed by (date): 5-19-03

Return to: _____

Or

Mail To: _____

Date Entered: _____

Check # _____ Date Paid: _____

Approved By: SWC 5-19-03

January 21, 2003
00207

sebagotechnics.com
One Chabot Street
P.O. Box 1339
Westbrook, Maine
04098-1339
Ph. 207-856-0277
Fax 856-2206

Sarah Hopkins
Planning & Urban Development
City of Portland
389 Congress Street
Portland, Maine 04101

Major Site Plan Application
Orthopaedic Associates of Portland P.A., Sewall Street

Dear Sarah:

On behalf of Orthopaedic Associates of Portland P.A. (OAP), I am pleased to submit the attached Site Plan Application for a proposed building expansion to their existing facility on Sewall Street. This facility is in the RP Zone.

This building expansion is in support of their expanding Orthopaedic Services and consist of the following:

First Floor Expansion

5,870 s.f.

- Expansion involves adding two Operating Rooms with revised Clean and Dirty support spaces in the Outpatient Surgery Center. Enlarging of the recovery area to support two new Operating Rooms. Additional waiting and support space is provide to the Outpatient Surgery Center under this expansion plan.
- Expansion of the existing Physical Therapy space is proposed.

Second Floor Expansion

7,866 s.f.

- Expansion provides for additional office and administrative support space on top of existing first floor space and above the first floor Physical Therapy expansion.

- Space is provided for the possible development of a walk-in clinic area above the expanded first floor Outpatient Surgery Center.

Total Building Expansion**13,736 s.f.**

The proposed expansion is planned to occur on the south side of the existing building and will be consistent with the existing architectural style in both materials and form. Building floor plans and elevations are attached for your review and consideration. Color plans will be presented at the workshop hearing.

Site Plan changes are minor in nature and consist of removal of seven (7) parking spaces and relocation of the service area east of its current location. New walkways, site landscaping and screen walls are proposed to enhance and support the proposed expansion.

Parking

The 13,736 s.f. expansion combined with the existing 42,000 s.f. building requires a total of 140 parking spaces per the ordinance (1 space/400 s.f.). With the loss of seven (7) spaces their remains 181 parking spaces on-site. While this number exceeds the ordinance requirements, the demand for parking for this use requires ample parking in order for the Orthopaedic Associates of Portland P.A. to properly service their clients. To supplement the on-site parking Orthopaedic Associates of Portland P.A. have entered into a 7 year lease with the State of Maine to reserve 40 spaces in the adjacent MDOT lot across from the Portland Intermodal Facility. These spaces will be used by employees. They are also pursuing development of a new shared parking lot with the Eye Care Center on Sewall Street. This parking program implemented by OAP will meet or exceed the needs of this facility.

Impervious Surface

The RP Zone allows for a maximum impervious surface of 80% of the total site. Currently the site is at 75%. This new building program adds 4,426 s.f. of impervious surface to the site raising the ratio to 78%.

Site Lighting

The existing site light poles will adequately serve to light the areas around the new building. New building mounted lighting will occur at all doorways. These will be shielded fixtures to complement the architecture.

Landscaping

The proposed additions will remove several existing trees on the property. If feasible, we propose to relocate these elsewhere on-site. New landscape plantings will be developed on

January 21, 2003

Sewall Street to restore the landscape that is being removed. The attached site plans indicates suggested treatment for these areas.

Utility Services

The new addition will require modifications to the existing water and sanitary connections to the building. These changes are anticipated to occur within the limits of the property.

Additional Permits

There are no additional State or local permits required for this project.

I trust this Application package provides the City with enough information for review and consideration to place us on a workshop agenda with the Planning Board for February 11th.

We look forward to presenting this project to the Board at that time. In the interim if you have questions, comments or require additional information, please call me.

Sincerely,

SEBAGO TECHNICS, INC.



Stephen G. Doe, R.L.A.
Landscape Architect

SGD:dlf

cc: Mark McAuliffe
Brian O'Donnell

City of Portland Site Plan Application

If you or the property owner owe real estate taxes, personal property taxes or user charges on any property within the City of Portland, payment arrangements must be made before permit applications can be received by the Inspections Dept.

Address of Construction: 33 SEWALL STREET		Zone:
Total Square Footage of Proposed Structure 13,736 S.F.	Square Footage of Lot 3.38 ACRES (147,232.82) S.F.	
Tax Assessor's Chart, Block & Lot Chart# 190 Block# Lot# D-7, 8, 14-16 / E 1-9, 13, 14 H-16, O-7, 8, 14	Property owner, mailing address: TORR RIVER REALTY P.O. Box 1260 PORTLAND, ME 04104-1260	Telephone: 207-828-2124 (P) 828-2130 (D)
Consultant/Agent, mailing address, phone & contact person SEBAGO TECHNICS PO Box 1339 WESTBORO, ME 04090-1339	Applicant name, mailing address, telephone #/Fax#/Pager#: SAME AS OWNER	Project name: ORTHOPAEDIC ASSOC. OF PORTLAND P.A.
Proposed Development (check all that apply) <input type="checkbox"/> New Building <input checked="" type="checkbox"/> Building Addition <input type="checkbox"/> Change of Use <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Office <input type="checkbox"/> Retail <input type="checkbox"/> Manufacturing <input type="checkbox"/> Warehouse/Distribution <input type="checkbox"/> Parking lot <input type="checkbox"/> Subdivision, amount of lots <input type="checkbox"/> \$25.00 per lot \$ <input type="checkbox"/> Site Location of Development \$3,000, except for residential lots which are then \$200 per lot <input type="checkbox"/> Traffic Movement \$1,000 <input type="checkbox"/> Stormwater Quality \$250.00 <input type="checkbox"/> Other <input type="checkbox"/> After the fact review - Major project \$1,500.00 <input type="checkbox"/> After the fact review - Minor project \$1,200.00 Major Development <input checked="" type="checkbox"/> \$500.00 Minor Development <input type="checkbox"/> \$400.00 Plan Amendments: <input type="checkbox"/> Board review \$200.00 <input type="checkbox"/> Staff review \$100.00		
Who billing will be sent to: ORTHOPAEDIC ASSOCIATES OF PORTLAND P.A. Mailing address: P.O. Box 1260 State and Zip: PORTLAND, ME 04104-1260 Contact person: MARK McAWINNE Phone: 207-828-2124		

Submittals shall include (1) separate ~~folded~~ packets of the following:

- a. copy of application
- b. cover letter stating the nature of the project
- c. site plan containing the information found in the attached sample plans check list

Amendment to Plans: Amendment applications should include 6 separate packets of the above (a, b, and c)

ALL PLANS MUST BE FOLDED NEATLY AND IN PACKET FORM

Section 14-522 of the Zoning Ordinance outlines the process, copies are available at the counter at .50 per page (8.5 x11) you may also visit the web site: ci.portland.me.us chapter 14

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant: 	Date: 1/20/03
---	----------------------

This application is for site review ONLY, a building Permit application and associated fees will be required prior to construction.

HKTA / architects, inc.
482 Congress Street - Suite 200
Portland, Maine 04101
207-774-6016 Fax: 774-9128

HKTA / architects

June 18, 2003

MEMO

Mike Nugent
City of Portland
389 Congress Street Rm 315
Portland, Maine 04101
Fax (207)874-8716

ORTHOPAEDIC ASSOCIATES, PA – 33 Sewall Street Portland, Maine
HKTA #2002018.00

This memo follows receipt of questions from the City of Portland on 6/16/03 during review of Orthopaedic Associates Plans and Specifications dated May 19, 2003.

- Item 1 - Haley and Aldrich Geotechnical Report dated June 2003 enclosed.
- Item 2 - See attached medical gases schedule.
- Item 3. See attached area calculation form. Also included, please note correction to Site Drawings Sheet 1 of 4 amending building size to reflect Phase I construction only.
- Item 4.- See drawing sheet No. S-1 for structural loading requirements.
- Item 5.- Fire Department connections are at the same general building location only closer to Sewall Street on the east addition.
- Item 6 - See Spec 07531-1 paragraph C which requires FM 4450 and FM 4470 standards for roofing material. Also note paragraph C subparagraph 1.a which requires Class 1A-90 compliance. (*This corresponds to BOCA Section 1505.2 for performance requirements.*) In turn, see 07531.2 item 1.4 paragraph B item 1 which requires Class A per ASTM E 108.. (*This corresponds to BOCA Section 1506.1 and 1506.1.1. Fire Classification testing requirements.*)
- Item 7 - Wind speed requirements for the building systems are shown on Sheet No. S-1. Spec references are for warrantee requirements.

Please forward any further questions you may have or any additional questions concerning the above Items. Thank you.



Signed: Brian O'Donnell
HKTA/architects

cc: Mark McAuliffe, Orthopaedic Associates, PA (Memo only)
Scott Christina, Ledgewood, Inc. (Memo only)

389 Congress St.Rm 315
Portland, ME 04101
Phone: (207)874-8700
Fax: (207)874-8716

.....
facsimile transmittal

To: Brian O'Donnell From: Mike Nugent

Fax: 774-9128 Date: June 16, 2003

Phone 774-6016 Pages: 1

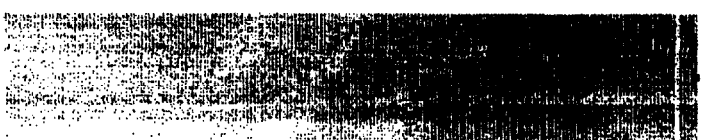
Re: 33 Sewall St. (190-D003)

Urgent For Review Please Comment Please Reply Please Recycle

.....
I am reviewing the Orthopedic Associates and have some questions:

- 1) There is no soils report to base the footing foundation design, can you provide this?
- 2) The Storage area on the first floor, what types of gas etc. are likely to be stored there and how much of each kind?
- 3) In calculating the area allowance pursuant to Table 503, how much credit did you allow for excessive frontage?
- 4) There is no information about unbalances snow load & drifting, can you advise?
- 5) Where are the Fire Dept. connections on the building?
- 6) In looking on page 7531.3 of the Spec Book, I had trouble translating the Fire class of the roofing in BOCA terms, can you assist?
- 7) In the same section, it looked like an 80mph wind load roof covering was spec'd. that appears to conflict with table 1609.3

Please get back to me so I can complete the review



.....

**REPORT ON PROPOSED ADDITIONS
TO ORTHOPAEDIC ASSOCIATES BUILDING
SEWALL STREET
PORTLAND, MAINE**

by

**Haley & Aldrich, Inc.
South Portland, Maine**

for

**Orthopaedic Associates
Portland, Maine**

**File No. 29972-000
June 2003**



Haley & Aldrich, Inc.
500 SouthBorough Drive
Suite 10
South Portland, ME 04106-6935
Tel: 207.772.5439
Fax: 207.871.5999
www.HaleyAldrich.com



3 June 2003
File No. 29972-000

Orthopaedic Associates
c/o HKTA/Architects
482 Congress Street
Portland, Maine 04101

Attention: Mr. Brian O'Donnell

Subject: Proposed Additions to Orthopaedic Associates Building
Sewall Street
Portland, Maine

Ladies and Gentlemen:

This report presents the results of our subsurface and foundation investigation for the proposed addition to the Orthopaedic Associates Building in Portland, Maine (see Figure 1, Project Locus). This work was undertaken at your request and in accordance with our proposal dated 9 April 2003.

In summary, we recommend that the proposed structure be supported on spread footings and continuous wall footings bearing on naturally deposited marine deposit soils and Compacted Granular Fill as needed. The floor slab can be designed as an earth-supported slab-on-grade bearing on Compacted Granular Fill. Specific foundation design recommendations and construction considerations are presented in this report.

PROPOSED CONSTRUCTION

The site is located on Sewall Street in Portland, Maine (see Figure 1). The project consists of a two-phase addition to the existing Orthopaedic Associates building. Phase 1 includes an approximately 2,300 sq. ft (sf) single-story addition on the east side of the existing building adjacent to Sewall Street (Phase 1 East) and an approximately 3,300 sf two-story addition at the southeast corner of the existing building (Phase 1 South). The eastern portion of Phase 1 South includes a basement level. Phase 2 of the development consists of an approximately 800 sf two-story addition on the southwest corner of the existing building (Phase 2 South). The proposed configuration and location of the additions are shown on Figure 2.

Structural loading information (vertical dead, live and snow loads) for each structure was provided by Structural Design Consulting, Inc. and is summarized in the following table.

OFFICES

Boston
Massachusetts

Cleveland
Ohio

Dayton
Ohio

Denver
Colorado

Detroit
Michigan

Hartford
Connecticut

Los Angeles
California

Manchester
New Hampshire

Newark
New Jersey

Rochester
New York

San Diego
California

Tucson
Arizona

Washington
District of Columbia

Addition Name	Dead Load (kips)	Live Load (kips)	Snow Load (kips)
Phase 1 East	1.9 - 3.6	0	7.9 - 9.2
Phase 1 South	3.4 - 19.2	2.9 - 15.5	0 - 16.8
Phase 2 South	0.4 - 11.2	0.2 - 10.8	0.5 - 9.2

It is our understanding that the level of the finish ground floor slab is currently planned to be at El. 38.3, and that the basement floor level in the Phase 1 South addition is planned to be approximately 10 ft below the level of the ground floor slab. Slight raises in grade are planned adjacent to the new additions; the proposed finish exterior grade ranges from approximately El. 34 to El. 38.

SITE CONDITIONS

The locations of the proposed additions are occupied by parking and landscaped areas to the south, and a grassy swale area to the east. A generator is located adjacent to the southeast corner of the existing building, and is enclosed by a masonry wall. Existing ground surface elevations in the vicinity of the new additions range from approximately El. 34 to El. 38.

SUBSURFACE EXPLORATIONS

Five test borings (designated B1 through B5) were drilled by Maine Test Borings, Inc. on 29 and 30 April 2003. The test borings, drilled under Haley & Aldrich observation using hollow-stem augers, were advanced to depths ranging from 17 to 22 ft. below ground surface. Standard split spoon samples were collected at typical 5-ft depth intervals using a 1-3/8 in. inside diameter split spoon sampler advanced using a 140-lb. hammer dropped from a height of 30 in. Standard Penetration Resistance (N) was measured at each sample interval in the overburden soil in accordance with ASTM test designation D1586. Each borehole was terminated in the marine deposit and was backfilled with the drill cuttings. Undrained shear strength of the marine deposits was measured using a field vane shear test.

Test boring locations are shown on Figure 2, and logs are provided in Appendix A. Test boring locations were determined by Haley & Aldrich by taping from existing site features. Ground surface elevations were estimated from a plan showing topographic data that was provided by Sebago Technics, dated 3 March 2003.

The exploration logs and related subsurface information depict subsurface conditions and water levels at their specific locations and at the time the explorations were conducted. Soil conditions at other locations may differ from the conditions encountered at the referenced test boring locations.

SUBSURFACE SOIL AND WATER CONDITIONS

The explorations revealed subsurface conditions consisting of two principal soil units beneath a thin surficial layer of topsoil: fill and marine deposits. A generalized description of the soil conditions encountered is presented below in order of increasing depth below ground surface.

- **Fill** - The fill consisted of a loose to medium dense, brown to gray-brown well-graded SAND with gravel (SW) to silty SAND (SM). Fill encountered in boring B1 consisted of a medium stiff, gray-brown lean CLAY (CL). Encountered thickness ranged from 0.7 to 3.0 ft.
- **Marine Deposits** - The naturally-deposited marine deposits typically consisted of medium stiff to very stiff, olive-brown to gray lean clay (CL). Undrained shear strengths were measured using field vane shear apparatus. Measured shear strength values varied from 1,190 to 1,670 pounds per square foot (psf) in the upper, dessicated portion of the deposit (the "crust"), and from 560 to 740 psf below the crust. The thickness of the marine deposits was not determined, but borings penetrated from 13.5 to 19.5 ft into the deposit. Based on our experience on other projects in the area, we anticipate that the bottom of the marine deposit extends 70 ft or more below ground surface.

Water level measurements recorded during and immediately after completion of the drilling operations ranged from 13.8 to 20.7 ft below ground surface. These levels may not represent stabilized groundwater due to the influence of the drilling operations and the lack of time available for the water level to stabilize in the borehole. Based on previous test pits (1988) excavated for design of the existing building, groundwater was encountered between 2 and 9 ft from ground surface. We consider these levels to be more indicative of the static groundwater levels at the site.

Groundwater levels at the site can be expected to fluctuate, subject to seasonal variation and precipitation. Water levels encountered during construction may differ from those measured in the test borings.

Engineering Properties of the Clay and Silt Stratum

Shear vane tests performed on in-situ clay in the test borings at several depths indicate undrained shear strengths of 1,190 to 1,670 pounds per square foot (psf) in the upper dessicated portion of the deposit (the "crust"), 560 to 740 psf below the crust.

These results were compared to correlations with the strength profiles, stress history and compressibility characteristics for similar clays in the area. The correlations indicate that the clay at this site is overconsolidated. That is, the maximum previous stress of the deposit is

greater than the existing overburden stress. It is likely that the clay became overconsolidated due to dessication resulting from a lowering of the groundwater at some time in the geologic past.

The stress-strain or compressibility characteristics of clay are highly dependent on their stress history. If the soil is stressed within the limits of the previous maximum pressure, the settlement will be a function of the recompression ratio. If the applied stress exceeds the maximum previous stress, the strain will be proportional to the virgin compression ratio. The magnitude of the virgin compression ratio is often on the order of 10 times the recompression ratio.

RECOMMENDATIONS FOR FOUNDATION DESIGN

Recommended Foundation Type and Design Criteria

The existing topsoil and fill are not considered suitable for support of the building structural loads. All topsoil and fill should be removed from within the limits of the building additions. The undisturbed, naturally-deposited marine deposits are the uppermost suitable foundation bearing materials (referred to below as the "bearing stratum"). We recommend that the proposed building walls, columns and other structural elements be supported by reinforced concrete spread footings bearing directly in the bearing stratum or on Compacted Granular Fill placed on the bearing stratum after removal of the overlying topsoil and fill.

Specific foundation design criteria are recommended below:

- Design the foundations in accordance with the current BOCA Code.
- Design footings bearing in the undisturbed marine deposit soils or on Compacted Granular Fill using a maximum allowable bearing pressure of 3,000 psf. The bearing pressure should be reduced in proportion to footing widths for footings narrower than 3 ft. For example, for a 2-ft wide footing, the allowable bearing pressure would be $3,000 \text{ psf} \times 2 \text{ ft} / 3 \text{ ft} = 2,000 \text{ psf}$.
- All footings should be a minimum of 1.5 ft wide.
- Exterior footings should be founded at least 4.5 ft below the lowest adjacent ground surface exposed to freezing. Interior footings should also be founded a minimum of 1.5 ft below the ground floor slab. If interior footings will be exposed to freezing temperatures during construction or at any time thereafter, footings should be lowered to bear at least 4.5 ft below the level of the nearest ground surface exposed to freezing.

Orthopaedic Associates

3 June 2003

Page 5

- Compacted Granular Fill supporting footings should extend laterally from the footings to at least the limits defined by 1 horizontal to 1 vertical lines sloped outward and downward from points located at least 2 ft horizontally beyond the bottom edges of the footings.
- Design footings to bear below a reference line drawn upward and outward on a 1 horizontal to 1 vertical (1H:1V) slope from the bottom of any adjacent foundations, utilities or other underground structures.

In order to consider foundations bearing on the clay, settlement evaluations were performed. Engineering evaluations were based on the anticipated consolidation of the clay stratum due to the combined stresses of the raise-in-grade to El. 38.3, footing loads and slab/floor loads. Phase 1 South will include a full basement, which will unload the clay stratum by the weight of the soil excavated.

- For Phase 1 East, Phase 1 South (without the basement) and Phase 2 South, we anticipate that settlement will be on the order of approximately 1.5 in., with differential settlements of about 0.75 in.
- For Phase 1 South (basement), we anticipate that settlement will be less than 0.5 in.

We anticipate that settlement of this magnitude is acceptable. However, Structural Design Consulting, Inc. should determine final acceptability of settlement.

Ground Floor Slab

We recommend that the floor slab for the additions be designed as earth-supported slabs-on-grade. The ground floor slabs should bear on a minimum of 8 in. of Compacted Granular Fill. The first floor slabs should bear on a layer of $\frac{3}{4}$ -in. crushed stone as stated below.

We recommend that all filling within the limits of the building floor slabs be accomplished using Compacted Granular Fill.

Foundation Drainage and Waterproofing

The soils beneath the first floor slabs are expected to be moist. Therefore, normal damproofing of the floor slab is recommended.

The level of the basement floor slab will likely be below normal static groundwater levels. Therefore, we recommend that underslab drains be placed below the basement floor slab (Phase 1 South addition) to relieve hydrostatic pressures. The underslab drainage system should consist of a minimum 4-in. diameter perforated pipe surrounded by a minimum of 6 in.

of ¾-in. crushed stone. We recommend that a geotextile filter fabric be used to separate the subgrade soils and the crushed stone.

Perimeter foundation drains and waterproofing should be provided for basement footings and below grade portions of foundation walls.

Seismic Design Considerations

Based on our experience in the area, we expect that the clay extends to depths of 70 ft or more below ground surface. Therefore, a site coefficient (S) equal to 2.0, an effective peak velocity-related acceleration coefficient (A_v) equal to 0.10, and an effective peak acceleration coefficient (A_s) equal to 0.10 should be used for earthquake design in accordance with the BOCA National Building Code. The subsurface soils at the site are not considered to be liquefaction susceptible.

Static Lateral Earth Pressures and Lateral Foundation Loads

Basement walls should be designed as follows:

- Uniform horizontal earth pressure of 250 psf from 0 to 6 ft below the top of the basement wall.
- Use an equivalent fluid unit weight of 41 pounds per cubic foot (pcf) from 6 ft below the top of the wall and lower. Stresses should be calculated using the top of the basement wall as 0 ft. depth, however, the total uniform horizontal earth pressure will remain 250 psf from 0 to 6 ft.
- Drained backfill is assumed.
- Foundation walls will be unrestrained during construction and restrained after construction. Assuming walls will not be post-tensioned, use the above stated pressure distribution for both before and after construction conditions.
- Limit compaction equipment around the basement walls to a walk-behind plate compactor with a maximum centrifugal force plus static force of 2,500 lbs. For example, a MultiQuip MVC-62H or equivalent may be used.
- For surcharges on walls, the resulting lateral load should be calculated based on a uniform lateral pressure equal to 0.5 times the vertical surcharge pressure acting on the backfilled side of the wall, applied over the full height of the wall.
- Exterior below-grade foundation walls with unbalanced soil loads, should be designed for static lateral pressures of soil calculated using an equivalent fluid unit weight of soil equal to 65 pcf (lbs. per cu. ft.).

We recommend that lateral loads be resisted by sliding resistance between spread footing bases and underlying soil. A coefficient of friction between cast-in-place concrete footing bases and

the bearing stratum equal to 0.3 should be used to calculate mobilized ultimate horizontal sliding resistance.

Compacted Granular Fill

Compacted Granular Fill beneath footings and building slabs, and for backfill adjacent to foundations should consist of bank-run sand and gravel, free of organic material, snow, ice, or other unsuitable materials and should be well-graded within the following limits:

<u>Sieve Size</u>	<u>Percent Finer by Weight</u>
6 in.	100
No. 4	30 to 90
No. 40	10 to 50
No. 200	0 to 8

Compacted Granular Fill should be placed in layers not exceeding 8 in. in loose measure and compacted by self-propelled vibratory equipment at the approximate optimum moisture content to achieve the required maximum dry density (see Construction Consideration Section in this report). In confined areas, the maximum particle size should be reduced to 3 in. and the loose layer thickness should be reduced to 6 in. and compaction performed by hand-guided equipment.

Common Fill

Common Fill should consist of mineral sandy soil, free from organic matter, plastic, metal, wood, ice, snow or other deleterious material and should have the characteristic that it can be readily placed and compacted. Common Fill imported to the site should have a maximum of 80 percent passing the No. 40 sieve and a maximum of 30 percent finer than the No. 200 sieve. The largest particle size for Common Fill should not exceed 2/3 of the loose lift thickness. Silty Common Fill soils may require moisture control during placement and compaction. Common Fill should be placed in maximum 12 in. thick loose lifts using compaction equipment as described above for Compacted Granular Fill.

Drainage Fill

Drainage Fill for use in underslab drain system beneath the basement slab (Phase 1 South) shall consist of durable crushed rock or gravel, free from clay, loam, or other deleterious material, with a maximum size of $\frac{3}{4}$ in. and shall be graded within the following limits:

<u>Sieve Size</u>	<u>Percent Finer by Weight</u>
1 in.	100
$\frac{3}{4}$ in.	90 to 100
$\frac{1}{2}$ in.	10 to 50
$\frac{3}{8}$ in.	0 to 20
No. 4	0 to 5

Reuse of Excavated Soils

Based on the fill samples collected during the test boring program, the sandy fill soil can likely be used as Common Fill outside the building limit.

The naturally-deposited marine soils are not considered to be practicable for reuse as Common Fill because the fine grained soils are difficult to properly place and compact.

CONSTRUCTION CONSIDERATIONS

General

The primary purpose of this section of the report is to comment on items related to excavation, earthwork and related geotechnical aspects of proposed construction. It is written primarily for the engineer having responsibility for preparation of plans and specifications. Since it identifies potential construction problems related to foundations and earthwork, it will also aid personnel who monitor the construction activity. All excavation, dewatering, and other construction activities should conform to the requirements of OSHA, and all other municipal, state and federal regulatory agencies.

Typically, the foundation and slab construction for the new additions will involve the following:

- Stripping off topsoil and fill soils within the zone of influence beneath the footings and beneath slabs (defined below).
- Excavating to subgrade level and preparing soil subgrades.
- Placing and compacting granular fill up to normal footing and slab bearing levels as needed.

- Placing filter fabric, crushed stone and underslab drainage system beneath the basement slab for the Phase 1 South addition.

Excavation, Lateral Support and Control of Water

Based on the existing site topography and the proposed level of the basement floor slab, we anticipate that cuts on the order of 10 to 12 ft will be required to construct the footings and the basement floor slab for the Phase 1 South addition. Excavations of up to 5 ft will be required to construct the footings to support the additions with no basement level.

We anticipate that foundation excavation can be accomplished with sloped open excavation below the floor slab and through the overburden soils, provided safe side slopes can be maintained. Some sloughing and raveling should be anticipated in temporary slopes.

We anticipate that groundwater will be encountered during excavation for footings and for the basement level. In general, the contractor should control groundwater and water from other sources (precipitation and runoff) by methods that prevent disturbance of adjacent soils and allow construction in-the-dry.

Excavation should not be allowed within the zone beneath lines extending from the outer bottom edge of an existing building footing down on a 1H:1V slope.

Subgrade Preparation

The subgrade soil is susceptible to disturbance from construction traffic. Equipment and personnel should not be permitted to travel across exposed footing bearing surfaces or exposed slab subgrades. Any subgrade areas that are disturbed should be recompacted or excavated and replaced with Compacted Granular Fill prior to placing of concrete. Subgrades should be protected against freezing temperatures if exposed during construction. Final excavation to subgrade should be performed using equipment with smooth-edged buckets.

Filling and Backfilling

Filling and backfilling will be required within the proposed building footprint to reach footing and slab bearing levels. In general, we recommend that Compacted Granular Fill be used as fill and backfill beneath footings and slabs to the limits described below. Backfill in the building area should be placed and compacted in lifts as soon as possible after final excavation to avoid disturbance to the prepared bearing surface. Compacted Granular Fill should be used to raise the grade beneath the new floor slabs.

Where backfill is needed below footings, Compacted Granular Fill should be placed beneath the bottom of the footing down to the top of the natural, inorganic undisturbed soils, and within

the zone beneath lines extending from points 2 ft laterally beyond the footing outer bottom edge and down on a 1H:1V slope (herein referred to as the zone of influence (ZOI)).

Where backfill is needed beneath slabs, Compacted Granular Fill should be placed beneath the building footprint, within a minimum of 8. in below the bottom of the level of the finished ground floor slabs.

Compacted Granular Fill on the outside of the foundation walls should extend laterally a minimum of 2 ft from the wall. Backfill beyond this limit on the outside of the building may consist of Common Fill if it is not within the ZOI of the footings/slabs. The top 12-in. of fill on the exterior of the building should consist of low permeability material to minimize water infiltration next to the building. Grading should provide for surface runoff away from the building.

Placement of compacted fills should not be conducted when air temperatures are low enough (approximately 30/F, or below) to cause freezing of the moisture in the fill during or before placement. Fill materials should not be placed on snow, ice or uncompacted frozen soil. Compacted fill should not be placed on frozen soil. No fill should be allowed to freeze prior to compaction. At the end of each day's operations, the last lift of fill, after compaction, should be rolled by a smooth-wheeled roller to eliminate ridges of uncompacted soil.

Recommended compaction requirements are as follows:

<u>Location</u>	<u>Minimum Compaction Requirements</u>
Within the ZOI of footings and floor slabs	95 percent
Landscaped areas	90 percent nominal compaction

Minimum compaction requirements refer to percentages of the maximum dry density determined in accordance with ASTM D1557.

Compacted Granular Fill should be placed in layers not exceeding 8 in. in loose measure and compacted by self-propelled vibratory equipment at the approximate optimum moisture content to achieve the required maximum dry density.

Construction Monitoring

We recommend that a geotechnical engineer or experienced technician be present during construction to:

- Observe preparation of slab, footing and fill bearing surfaces.
- Observe installation of underdrain system under the Phase 1 South basement slab.
- Observe installation of waterproofing and damproofing of below grade foundation walls.

Haley & Aldrich is qualified to provide the recommended monitoring services during construction. This will enable us to observe compliance with the design concepts and assumptions, and to facilitate design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

CONCLUDING COMMENTS

This report has been prepared for specific application to the Proposed Addition to Orthopaedic Associates in Portland, Maine, as understood by Haley & Aldrich at this time. In the event that changes in the design or location of the building or site is planned, the conclusions and recommendations contained in this report should not be considered valid unless they are reviewed and modified or verified in writing by Haley & Aldrich. Our recommendations are based in part upon data obtained from the referenced subsurface explorations. The nature and extent of variations between explorations will not become evident until construction. If significant variations then appear, it may be necessary to re-evaluate the recommendations of this report.

We recommend that Haley & Aldrich be provided the opportunity to review the final plans and specifications in order to confirm that our earthwork and foundation recommendations made in this report were interpreted and implemented as intended.


We appreciate the opportunity to provide engineering services on this project. Please do not hesitate to call if you have any questions or comments.

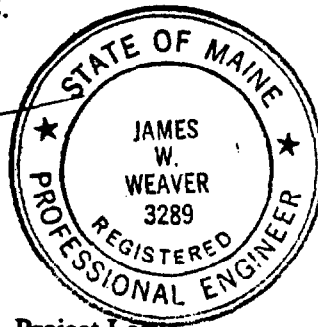
Orthopaedic Associates
3 June 2003
Page 12

Sincerely yours,
HALEY & ALDRICH, INC.

Brian K. Lawrence, P.E.
Staff Engineer

Wayne A. Chadbourne, P.E.
Senior Engineer


James W. Weaver, P.E.
Vice President



Enclosures:

- Figure 1 - Project Locus
- Figure 2 - Site and Exploration Location Plan
- Appendix A - Logs of Test Borings

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REFERENCES

1. "Report on Subsurface and Foundation Investigation, Proposed Orthopaedic Associates Building, Portland, Maine," prepared by Haley & Aldrich, Inc. for Terrien Architects, dated 10 June 1988.

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SITE COORDINATES: 44°59'22" N 70°17'31" W

MAP FROM DELORQUE'S STREET ATLAS USA, VERSION 8.0, YARBOURTH, MAINE, 2000.



HALEY & ADRICH
ENGINEERING & ENVIRONMENTAL SOLUTIONS

PROPOSED ADDITION TO ORTHOPAEDIC ASSOCIATES
SEWALL STREET
PORTLAND, MAINE

PROJECT LOCUS

APPROX. SCALE: 1:25,000

MAY 2003

FIGURE 1

LEGEND

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
////	BUILDING	---
---	SIGN	---
---	EDGE PAVEMENT	---
---	CURBLINE	---
---124---	CONTOURS	---124---
---	GAS	---
---	WATER	---
---	SEWER	---
---12"SD---	STORM DRAIN	---
---	FOUNDATION DRAIN	FD---
---	OVERHEAD ELEC. & TEL.	---
---	UNDERGROUND ELEC. & TEL.	---
---	TRANSFORMER PAD	□
---	GATE VALVE	---
○	LIGHT POLE	---
○	UTILITY POLE	---
○	HYDRANT	---
■	CATCH BASIN	---
---	CULVERT	---12"SD---
---	SPOT GRADE	---
○	DECIDUOUS TREE	---
⊗	CONIFEROUS TREE	---

LEGEND:

⊗ B1 LOCATION AND DESIGNATION OF TEST BORING

NOTES:

1. BASE PLAN PROVIDED BY SEBAGO TECHNICS, INC., DATED 3 MARCH 2003 AND MODIFIED BY HALEY & ALDRICH.
2. TEST BORINGS WERE DRILLED ON 2 AND 6 MAY 2003 BY MAINE TEST BORINGS, INC. OF BREWER, MAINE.
3. TEST BORINGS WERE MONITORED BY HALEY & ALDRICH, INC.
4. BORING LOCATIONS WERE DETERMINED BY HALEY & ALDRICH BY TAPING FROM EXISTING SITE FEATURES.
5. REFER TO APPENDIX A OF THIS REPORT FOR TEST BORING LOGS.



FILE NO. 29972-000

GRAPHIC SCALE

EXISTING OR
REV. 23.40
REV. 23.40
NEW BY H&A
INV. OUT-23.40



PROPOSED ADDITION TO ORTHOPAEDIC ASSOCIATES
SEWALL STREET
PORTLAND, MAINE

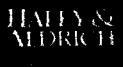
**SITE AND EXPLORATION
LOCATION PLAN**

SCALE: AS SHOWN

JUNE 2003

FIGURE 12

APPENDIX A
Logs of Test Borings



TEST BORING REPORT

Boring No. B2

Project PROPOSED ADDITION, SEWALL STREET, PORTLAND, ME
 Client ORTHOPAEDIC ASSOCIATES
 Contractor MAINE TEST BORINGS, INC.

File No. 29972-000
 Sheet No. 1 of 1
 Start 6 May 2003
 Finish 6 May 2003
 Driller M. Coffin
 H&A Rep. B. Lawrence

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	SS	-	Rig Make & Model: Mobile B53 Bombardier Truck
Inside Diameter (in.)	2 1/2	1.375	-	Bit Type: Cutting Head
Hammer Weight (lb.)	-	140	-	Drill Mud: None
Hammer Fall (in.)	-	30	-	Casing: - Hoist/Hammer: Winch / Safety Hammer

Elevation 35.5
 Datum
 Location See Plan

Depth (ft.)	SPT ¹	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
0	2	S1	0.0	NO WELL INSTALLED	35.2		-TOPSOIL-												
	3	12	2.0		0.3		Loose, brown silty SAND (SM), mps=4 mm, wet			5	5	55	35						
	6				34.5		-FILL-							5	95	N	M		
	6				1.0		Stiff, gray-brown lean CLAY (CL), mps=0.4 mm, frequent silty fine sand pockets												
5	5	S2	5.0				Stiff, gray-brown lean CLAY (CL), mps=0.4 mm, moist							5	95	N	M		
	6	24	7.0				-MARINE DEPOSIT-												
	6																		
	6																		
10	2	S3	10.0			25.0		Medium stiff, gray lean CLAY (CL), mps=0.4 mm, wet						5	95	N	M		
	1	24	12.0			10.5													
	2																		
	2																		
15	WOH	S4	15.0				FV1 at 15.0 ft, Su=560 psf, 2 x 7 in. vane						5	95	N	M			
	WOH	24	17.0				Medium stiff, gray lean CLAY (CL), mps=0.4 mm, wet, black streaks, shells												
	WOH				18.5														
	WOH				17.0		BOTTOM OF EXPLORATION 17.0 FT												
							No refusal												

03_174 UCCLUBA.GLB UCSTB-CORE4.GDT G:\PROJECTS\29972\000\QUANT\29972007B.GPJ 21 May 03

Water Level Data					Sample Identification		Well Diagram		Summary													
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:			O Open End Rod	T Thin Wall Tube	U Undisturbed Sample	S Split Spoon	G Geoprobe	Riser Pipe	Screen	Filter Sand	Cuttings	Grout	Concrete	Bentonite Seal	Overburden (lin. ft.)	Rock Cored (lin. ft.)	Samples		
			Bottom of Casing	Bottom of Hole	Water																	
5/6/03	13:15	0.0	-	16.5	Dry															17.0	-	4S
													Boring No. B2									

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
 Toughness: L-Low, M-Medium, H-High
 Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
 Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High
¹SPT = Sampler blows per ft.
²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).
 Note: Soil Identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.



TEST BORING REPORT

Boring No. B3

Project PROPOSED ADDITION, SEWALL STREET, PORTLAND, ME
Client ORTHOPAEDIC ASSOCIATES
Contractor MAINE TEST BORINGS, INC.

File No. 29972-000
Sheet No. 1 of 2
Start 2 May 2003
Finish 2 May 2003
Driller M. Coffin
H&A Rep. B. Estes

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	SS	-	Rig Make & Model: Mobile B53 Bombardier Truck
Inside Diameter (in.)	2 1/2	1.375	-	Bit Type: Cutting Head
Hammer Weight (lb.)	-	140	-	Drill Mud: None
Hammer Fall (in.)	-	30	-	Casing: HSA 20.0 ft
				Hoist/Hammer: Winch / Safety Hammer

Elevation 37.5
Datum
Location See Plan

Depth (ft.)	SPT	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel					Sand					Field Test			
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength				
0	5	S1	0.0	NO WELL INSTALLED	37.3	SM	Dark brown, silty SAND with organics	15	10	21	20	25	10								
	10	8	2.0		0.2	SW	-TOPSOIL-														
	14							Medium dense, brown well-graded SAND with silt and gravel, moist, mps=1.25 in.													
	11							-FILL-													
						35.0															
						2.5															
5	5	S2	5.0				CL	Very stiff, olive-brown lean CLAY, slightly mottled, slightly fissured with light manganese staining, moist							100	N	L	M			
	8	24	7.0					-MARINE DEPOSIT-													
	9																				
	12																				
10	WOH	S3	10.0				FV1 at 10.0-10.6 ft, Su=1,190 psf, 2 x 7 in. vane							10	90	N	L	M			
	2	18	12.0				Stiff, gray lean CLAY (CL), mps=0.4 mm, wet, black streaks, shells														
	2						-MARINE DEPOSIT-														
	3																				
					24.5																
					13.0																
15	1	S4	15.0			CL	Medium stiff, gray lean CLAY, wet, sticky							100	N	M	M				
	1	22	17.0				-MARINE DEPOSIT-														
	1																				
	1																				
20																					

Water Level Data			Sample Identification			Well Diagram			Summary											
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:			O	T	U	S	G	Riser Pipe	Screen	Filter Sand	Cuttings	Grout	Concrete	Bentonite Seal	Overburden (lin. ft.)	Rock Cored (lin. ft.)	Samples
			Bottom of Casing	Bottom of Hole	Water															
5/2/03	11:00	0.0	20.0	21.7	20.7															
5/2/03	11:30	0.0	Open	19.0	18.1															

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
Toughness: L-Low, M-Medium, H-High
Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High

SPT = Sampler Blows per ft. Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).

Note: Soil identification based on visual-manual methods of the USCS as practiced by HALEY & ALDRICH, INC.

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TEST BORING REPORT

Boring No. **B4**

Project **PROPOSED ADDITION, SEWALL STREET, PORTLAND, ME**
 Client **ORTHOPAEDIC ASSOCIATES**
 Contractor **MAINE TEST BORINGS, INC.**

File No. **29972-000**
 Sheet No. **1 of 1**
 Start **2 May 2003**
 Finish **2 May 2003**
 Driller **M. Coffin**
 H&A Rep. **B. Estes**
 Elevation **36.5**
 Datum
 Location **See Plan**

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	SS	-	Rig Make & Model: Mobile B53 Bombardier Truck
Inside Diameter (in.)	2 1/2	1.375	-	Bit Type: Cutting Head
Hammer Weight (lb.)	-	140	-	Drill Mud: None
Hammer Fall (in.)	-	30	-	Casing: HSA 15.0 ft
				Hoist/Hammer: Winch / Safety Hammer

Depth (ft.)	SPT ¹	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel					Sand					Field Test			
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength				
0	2	S1	0.0	NO WELL INSTALLED	36.0	SM	Dark brown, silty SAND with organics, moist to wet, mps=1.0 in.	5	5	10	60	20									
	4	15	2.0		0.5	SW	-TOPSOIL- Loose, brown well-graded SAND with gravel, moist, mps=2.0 in. -FILL-	15	10	20	20	30	5								
						33.0															
						3.5															
5	1	S2	5.0				CL	Stiff, olive-brown, lean CLAY, slightly mottled, wet										100	N	L	M
	2	21	7.0					-MARINE DEPOSIT-													
10	1	S3	10.0				CL	FV1 at 10.0-10.6 ft, Su=1,190 psf, 2 x 7 in. vane													
	1	23	12.0					Same													
15	1	S4	15.0				CL	FV2 at 15.0-15.6 ft, Su=560 psf, 2 x 7 in. vane													
	1	24	17.0					Medium stiff, gray, lean CLAY wet, with shell particles, sticky													
								-MARINE DEPOSIT-													
								BOTTOM OF EXPLORATION 17.0 FT													
							No refusal														

Water Level Data			Sample Identification			Well Diagram			Summary				
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:			O	T	U	S	G	Overburden (lin. ft.)	Rock Cored (lin. ft.)	Samples
			Bottom of Casing	Bottom of Hole	Water								
5/2/03	08:05	0.0	15.0	17.0	16.1						17.0	-	4S
5/2/03	08:15	0.0	Open	14.4	13.8								

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
 Toughness: L-Low, M-Medium, H-High Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High
¹SPT = Sampler blow per 6 in. ²Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).
 Note: Soil identification based on visual-manual methods of the USCS as practiced by Haley & Aldrich, Inc.

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TEST BORING REPORT

Boring No. **B5**

Project **PROPOSED ADDITION, SEWALL STREET, PORTLAND, ME**
 Client **ORTHOPAEDIC ASSOCIATES**
 Contractor **MAINE TEST BORINGS, INC.**

File No. **29972-000**
 Sheet No. **1 of 1**
 Start **2 May 2003**
 Finish **2 May 2003**
 Driller **M. Coffin**
 H&A Rep. **B. Estes**

Elevation **37.5**
 Datum
 Location **See Plan**

	Casing	Sampler	Barrel	Drilling Equipment and Procedures
Type	HSA	SS	-	Rig Make & Model: Mobile B53 Bombardier Truck
Inside Diameter (in.)	2 1/2	1.375	-	Bit Type: Cutting Head
Hammer Weight (lb.)	-	140	-	Drill Mud: None
Hammer Fall (in.)	-	30	-	Casing: HSA 15.0 ft
				Hoist/Hammer: Winch / Safety Hammer

Depth (ft.)	SPT	Sample No. & Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size ² , structure, odor, moisture, optional descriptions, geologic interpretation)	Gravel		Sand			Field Test						
								% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength		
0	2	S1	0.0	NO WELL INSTALLED	37.3	SM	Dark brown, silty SAND with organics												
	2	18	2.0		0.2	SW	TOPSOIL	10	10	20	25	30	5						
	4				36.5	SM	Loose, brown well-graded SAND with gravel, dry, mps=1.0 in.		10	10	20	40	20						
	5				1.0		FILL Loose, gray-brown silty SAND, moist, mps=0.5 in. FILL												
						34.5													
						3.0													
5	4	S2	5.0				CL	Stiff, olive-brown, lean CLAY, slightly mottled, slightly fissured with light manganese staining, wet						100	N	L	M		
	7	24	7.0					MARINE DEPOSIT											
	8																		
	12																		
10	2	S3	10.0				CL	Medium stiff, olive-brown lean CLAY, slightly mottled, moist to wet						100	N	L	M		
	3	24	12.0					MARINE DEPOSIT											
	2																		
	3																		
15	WOH	S4	15.0				CL	FV1 at 15.0-15.6 ft, Su=740 psf, 2 x 7 in. vane						100	N	M	M		
	WOH	20	17.0					Medium stiff, gray, lean CLAY, wet with shell particles, sticky											
	1							MARINE DEPOSIT											
	2				20.5		MARINE DEPOSIT												
					17.0		BOTTOM OF EXPLORATION 17.0 FT												
							No refusal												

Water Level Data				Sample Identification			Well Diagram			Summary										
Date	Time	Elapsed Time (hr.)	Depth (ft.) to:			O	T	U	S	G	Riser Pipe	Screen	Filter Sand	Cuttings	Grout	Concrete	Bentonite Seal	Overburden (lin. ft.)	Rock Cored (lin. ft.)	Samples
			Bottom of Casing	Bottom of Hole	Water															
5/2/03	09:15	0.0	15.0	16.3	16.0													17.0	-	4S
5/2/03	09:30	0.0	Open	7.8	Dry															

Field Tests: Dilatancy: R-Rapid, S-Slow, N-None
 Toughness: L-Low, M-Medium, H-High
 Plasticity: N-Nonplastic, L-Low, M-Medium, H-High
 Dry Strength: N-None, L-Low, M-Medium, H-High, V-Very High
 SPT = Sampler blows per ft. Maximum particle size (mm) is determined by direct observation within the limitations of sampler size (in millimeters).
 Based on visual manual methods of the USCSP as practiced by HALEY & ALDRICH, INC.

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RES: N.R. — Not required
 N.A. — Not applicable

ADMINISTRATION (Chapter 1)

_____ Complete construction documents
 (107.5, 107.6, 107.7)

_____ Signed/sealed construction documents
 (107.7, 114.1)

BUILDING PLANNING (Chapters 3, 4, 5, 6)

USE OR OCCUPANCY CLASSIFICATION (302.0-313.0)

~~_____~~

Single Use Group

Mixed Use Groups

_____ Specific occupancy areas (302.1.1)

_____ Accessory areas (302.1.2)

GENERAL BUILDING LIMITATIONS (Chapters 5 & 6)

Apply Case 1 to determine the allowable height and area and permitted types of construction for a building containing a single use group or nonseparated mixed use groups. Apply Case 2 to determine the allowable height and area and permitted types of construction for a building containing separated mixed use groups.

AREA MODIFICATIONS TO TABLE 503

% of Allowable tabular area (Table 503)	<u>100%</u>
% Reduction for height (Table 506.4)	<u>- 0%</u>
% Increase for open perimeter (506.2)	<u>+ 150%</u>
% Increase for automatic sprinklers (506.3)	<u>+ 200%</u>
Total percentage factor	= <u>450%</u>
Conversion factor	<u>4.5</u>
	<i>(Total percentage factor/100%)</i>

Open perimeter (506.2)	<u>248'</u>	<u>349.5'</u>	<u>175'</u>	<u>130.5'</u>	
	<i>North</i>	<i>East</i>	<i>South</i>	<i>West</i>	
Open perim.	<u>949</u>	ft.		Perimeter	<u>949</u>
	ft.				ft.
% Open perimeter =	<u>100%</u>				
	<i>(Open perim./perim.) x 100%</i>				
% Tab. area increase = (506.2)	<u>150%</u>				
	<i>2x(% Open perim. -25%)</i>				

CASE 1 — SINGLE USE OR NONSEPARATED MIXED USE GROUPS (313.1.1)

Using Table 503, identify the allowable height and area of the single use group or the most restrictive of the nonseparated mixed use groups. Construction types that provide an allowable tabular area equal to or greater than the adjusted floor area and allowable heights (as modified by Section 504.0) equal to or greater than the actual building height are permitted.

Actual floor area	<u>48,049</u>	ft. ²	Actual building height	<u>38'</u>	feet	<u>2</u>	stories
Adjusted floor area*	<u>10,677.56</u>	ft. ²	Allowable building height	<u>40'</u>	feet	<u>3</u>	stories

*Adjusted floor area = actual floor area/conversion factor

Permitted types of construction _____

Type of construction assumed for review (602.3) 2C

GENERAL NOTES:

- 1. OWNER: FORD RIVER REALTY
P.O. BOX 860
PORTLAND, MAINE 04107-0860
- 2. ADDRESS REFERENCE: TAX MAP NO - D - 7, B, M - B / E - 10, D, M / H - 10
/ G - 7, B, M
- 3. PLAN REFERENCES:
 - A. BOUNDARY: BASED ON PLAN OF LAND/STANDARD BOUNDARY SURVEY ON SMALL STREET, PORTLAND, MAINE FOR ORTHOPAEDIC ASSOCIATES, P.A. BY OWEN HASKELL, INC. DATED MAY 21, 1999 REVISED 4-27-00.
 - B. SITE LAYOUT: BASED ON SITE PLAN BY TERRIN ARCHITECTS DATED JULY 29, 1999.
 - C. AS-BUILT SURVEY OF SOUTHERN PORTION OF SITE BY SEBRGO TECHNICS, INC. DECEMBER 2000.
- 4. TOTAL LOT AREA: 330 AC.
- 5. ZONING DISTRICT: RESIDENTIAL PROFESSIONAL
- 6. SPACE & BLK REQUIREMENTS:

MIN. YARD DIMENSIONS:

FRONT:	-----	30 FEET
REAR:	-----	20 FEET
SIDE- 1 STORY:	-----	10 FEET
2 STORY:	-----	10 FEET
3 STORY:	-----	10 FEET

PERVIOUS SURFACE RATIO CALCULATION

EXISTING	-----	.70%
PROPOSED	-----	.83%
MAX. ALLOWED ADJUTING R-5 ZONE	-----	.80%

7. LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE BASED UPON DESIGN DOCUMENTS NOTED IN NOTE 3.

8. BUILDING FOOTPRINT:

EXISTING BUILDING	40,317 SQ. FT.
PROPOSED BUILDING (TABLE 1)	1,700 SQ. FT.
TOTAL	42,017 SQ. FT.

9. PARKING FOOTPRINT:

EXISTING	100 SPACES
PROPOSED	1 SPACES
TOTAL	101 SPACES
TOTAL REQUIRED:	48,840 SQ. FT. / 11 SPACES/1000 SQ. FT. = 30 SPACES

SHEET 1 OF 4 SITE DRAWINGS
REVISION TO BUILDING AREA TO
REFLECT PHASE 1 OF CONSTRUCTION

- 10. AN APPROVED SET OF PLANS AND ALL APPLICABLE PERMITS MUST BE AVAILABLE AT THE CONSTRUCTION SITE. THE DEVELOPER AND/OR AUTHORIZED AGENT MUST BE AVAILABLE AT ALL TIMES DURING CONSTRUCTION.
- 11. WARNING SIGNS, BARRICADES OR FLASHERS APPROPRIATE FOR THE TYPE OF CONSTRUCTION MUST BE EMPLOYED TO REGULATE TRAFFIC.
- 12. ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE DEVELOPER/CONTRACTOR AT THEIR EXPENSE.
- 13. PROPERTY MARKING AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED AT ALL TIMES DURING CONSTRUCTION TO MAINTAIN THEIR INTEGRITY. IF DAMAGED THEY SHALL BE REPLACED BY A SURVEYOR REGISTERED IN THE STATE OF MAINE AT THE CONTRACTOR/DEVELOPER'S EXPENSE.
- 14. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING FREE FROM TRUCKS AND/OR OTHER EQUIPMENT FROM TO ENTERING PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLEY DIRT, AND TAKE WHATEVER PRECAUTIONS ARE NECESSARY TO INSURE THAT THE STREETS ARE MAINTAINED IN A CLEAN, FREE AND DIRT FREE CONDITION AT ALL TIMES.
- 15. CONTRACTORS SHALL CONTACT DIS. DATE AT LEAST THREE (3) BUT NOT MORE THAN THIRTY (30) DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION TO VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES. CONTRACTORS SHALL BE RESPONSIBLE OF COMPLIANCE BY THE REQUIREMENT OF 25 MRS. 3866-A.
- 16. FILL AREAS UNDER PAVEMENT SHALL BE GRANULAR BOTTOM. ALL OTHER FILL AREAS SHALL BE A COPPER BOTTOM MATERIAL SUITABLE FOR SPANMENT CONSTRUCTION FREE FROM FRESH FRESH MATERIAL, PERMISSIBLE FIBRILE PEAT, ORGANIC MATERIAL, ROCKS LARGER THAN 6" IN DIAMETER, VEGETATION AND OTHER MATERIAL UNSUITABLE FOR ROADWAY AND SIDEWALK CONSTRUCTION. EXCAVATED ON SITE MATERIALS MAY BE USED FOR FILL PROVIDED THE MATERIAL IS FREE FROM UNSUITABLE MATERIAL DESCRIBED IN THIS NOTE AND UPON APPROVAL OF THE ENGINEER. GRANULAR BOTTOM AND COPPER BOTTOM SHALL CONFORM WITH M.D.O.T. SPECIFICATIONS.
- 17. ALL FILL SHALL BE PLACED IN LAYERS NOT MORE THAN 6" LOOSE DEPTH AND COMPACTED BY HEAVY CONSTRUCTION EQUIPMENT. HEAVY CONSTRUCTION SHALL BE 95% OF MAXIMUM DENSITY ASTM D99, MODIFIED AND FIELD DENSITY ASTM D992 (NUCLEAR METHOD).
- 18. PRIOR TO CONSTRUCTION A PRE-CONSTRUCTION MEETING SHALL BE HELD AT THE PROJECT SITE WITH THE CONTRACTOR, DEVELOPER, REVIEW COORDINATOR, PUBLIC WORKS REPRESENTATIVE AND OWNER TO REVIEW THE CONSTRUCTION SCHEDULE AND CRITICAL ASPECTS OF THE SITE. PRIOR AT THAT TIME THE SITE BUILDING CONTRACTOR SHALL PROVIDE THREE (3) COPIES OF A DETAILED CONSTRUCTION SCHEDULE TO THE ATTENDING CITY REPRESENTATIVE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE A FIRMALLY AGREABLE TIME FOR THE PRE-CONSTRUCTION MEETING.

DESIGN CRITERIA:

BUILDING CODE: 1999 BOCA NATIONAL BUILDING CODE

I. DESIGN LOADS:

A. LIVE LOAD:

OFFICES
CORRIDORS

50 PSF (+20 PSF PARTITIONS)
80 PSF

B. SNOW LOAD:

GROUND SNOW LOAD, P_g
SNOW EXPOSURE FACTOR
SNOW LOAD IMPORTANCE FACTOR
ROOF THERMAL FACTOR
FLAT ROOF SNOW LOAD

60 PSF
1.0
1.0 (1.2 AT SURGERY)
1.0
42 PSF (50 PSF AT SURGERY)

C. WIND LOADS:

MAIN WIND-FORCE RESISTING SYSTEM
BASIC WIND SPEED, V
IMPORTANCE FACTOR, I
BASIC VELOCITY PRESSURE, P_v
EXPOSURE
COMPONENTS AND CLADDING
EXPOSURE

85 MPH
1.10
18.5 PSF
C
C

D. SEISMIC DESIGN DATA:

PEAK VELOCITY RELATED ACCELERATION, A_v
PEAK ACCELERATION, A_g
SEISMIC HAZARD EXPOSURE GROUP
SEISMIC PERFORMANCE CATEGORY
SOIL PROFILE TYPE
SITE SOIL COEFFICIENT, S
BASIC STRUCTURAL SYSTEM
RESPONSE MODIFICATION FACTOR, R
DEFLECTION AMPLIFICATION FACTOR, C_d
ANALYSIS PROCEDURE

0.11
0.11
I
C
SI
1.0
CONCENTRICALLY BRACED FRAME
5.0
4.5
EQUIVALENT LATERAL FORCE

COPY OF DESIGN CRITERIA FROM
SHEET S-1