

City of Portland, Maine - Building or Use Permit Application

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

Permit No: 02-0962	Issue Date: OCT 3 2002	CBL: 153 A025001
Owner Name: Sturdivant Lawrence J	Owner Address: 15 Garsoe Rd	Phone: 207-878-0680
Contractor Name: Nial Construction	Contractor Address: 15 Garsoe Drive Portland	Phone: 2078780680
Lessee/Buyer's Name n/a	Phone: n/a	Permit Type: Multi Family
		Zone: R-3 PRUD

Location of Construction: 191 Harvard St	Owner Name: Sturdivant Lawrence J	Owner Address: 15 Garsoe Rd	Phone: 207-878-0680
Business Name: n/a	Contractor Name: Nial Construction	Contractor Address: 15 Garsoe Drive Portland	Phone: 2078780680
Lessee/Buyer's Name n/a	Phone: n/a	Permit Type: Multi Family	Zone: R-3 PRUD

Past Use: Vacant	Proposed Use: New 33 Unit PRUD / Application for units 11, 12, 13, 14, 15, 16, 17 and 18. Builds 4 and 5.
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Permit Fee: \$6,896.00	Cost of Work: \$938,000.00	CEO District: 2	Zone: R-3 PRUD
FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: R3 Type: 3B		

Proposed Project Description:
New 33 unit PRUD / Application for units, 11, 12, 13, 14, 15, 16, and 17. Builds 4 and 5.

Signature: *[Signature]*

Signature: *[Signature]*

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)

Action: Approved Approved w/Conditions Denied

Signature: _____ Date: _____

Permit Taken By: gg	Date Applied For: 08/27/2002
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Zoning Approval

- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- 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

Shoreland *NA*

Wetland

Flood Zone *Travel Zone X*

Subdivision

Site Plan *2002-0060*

Maj Minor MM

ok with conditions

Zoning Appeal

Variance

Miscellaneous

Conditional Use

Interpretation

Approved

Denied

Historic Preservation

Not in District or Landmark

Does Not Require Review

Requires Review

Approved

Approved w/Conditions

Denied

Date: *[Signature]*

[Signature] 9/3/02

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
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RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE	DATE	PHONE
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020962

All Purpose Building Permit Application

If 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: VICINITY OF 267 HARVARD ST		
Total Square Footage of Proposed Structure: 15,040 units 11-18 ⁴³⁵	Square Footage of Lot: 369,389 A	
Tax Assessor's Chart, Block & Lot Chart# 153 Block# A Lot# 025	Owner: NIAL CONSTRUCTION 15 GARSOE DRIVE PORTLAND ME 04103	Telephone: 617.835.2707 207.876.0680
Lessee/Buyer's Name (If Applicable)	Applicant name, address & telephone: LARRY STURDIVANT NIAL CONSTRUCTION SAME AS ABOVE	Cost Of Work: \$ 938,000 Fee: \$ 6896
Current use: WOOD LOT Buildings "4"5"		
If the location is currently vacant, what was prior use: WOOD LOT 8 units		
Approximately how long has it been vacant: ALWAYS		
Proposed use: 33 UNIT PRUD		
Project description: (Radcliffe Glen Condos)		
Contractor's name, address & telephone:		
Who should we contact when the permit is ready: Lawrence Sturdivant		
Mailing address: 15 GARSOE DRIVE PORTLAND ME 04103		
We will contact you by phone when the permit is ready. You must come in and pick up the permit and review the requirements before starting any work, with a Plan Reviewer. A stop work order will be issued and a \$100.00 fee if any work starts before the permit is picked up. PHONE: 617.835.2707		

IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APPROVE THIS PERMIT.

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: 2/26/02
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This is NOT a permit, you may not commence ANY work until the permit is issued. If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall



CITY OF PORTLAND, MAINE
Department of Building Inspections

2/27 20 08

Received from NIAM Const.

Location of Work 2167 Howard St

Cost of Construction \$ 938,000

Permit Fee \$ 6,589-

307.00
640

pd 6,896

Building (I1) Plumbing (I5) Electrical (I2) Site Plan (U2)

Other _____

CBL: 153-A0015

Check #: 1746

Difference to
be put against
cost
Total Collected \$ 6896-

THIS IS NOT A PERMIT

No work is to be started until PERMIT CARD is actually posted upon the premises. Acceptance of fee is no guarantee that permit will be granted. PRESERVE THIS RECEIPT. In case permit cannot be granted the amount of the fee will be refunded upon return of the receipt less \$10.00 or 10% whichever is greater.

WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK
CITY OF PORTLAND

Please Read
Application And
Notes, If Any,
Attached

BUILDING DEPARTMENT

PERMIT

Permit Number: 020962

This is to certify that Sturdivant Lawrence J / Staff Construction
has permission to New 33 unit PRUD / Application for units 11, 12, 14, 15, and 17. Builds 4 and 5.
AT 191 Harvard St L 153 A025001

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 written permission procured before this building or part thereof is laid 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. WMM
Health Dept. _____
Appeal Board _____
Other _____
Department Name

[Signature] 9/30/02
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

Application ID Number: 2-0962

Delete Save Close

Department: Building

Status: Approved with Conditions

Reviewer: Mike Nugent

Comments:

[Empty text box for comments]

Approval Date: 09/30/2002

Given On Date: 09/03/2002

OK to Issue Permit Name: Mike Nugent Date: 09/30/2002 Date 2: [Empty]

Conditions Section: Add New Condition From Add New Condition Delete Condition

Must provide Code Compliant Attic Access plan prior to framing.
Must provide Code Compliant foundation Perimeter drain plan prior to commencement of foundation.

[Large empty text area for additional conditions or notes]

Create Date: 08/28/2002 By: gg Update Date: 09/30/2002 By: mjn

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

2002-0060

Application I. D. Number

3/5/2002

Application Date

Radcliffe Glen PRUD

Project Name/Description

Lawrence Sturdivant

Applicant

15 Garsoe Drive, Portland, ME 04103

Applicant's Mailing Address

Sebago Technics

Consultant/Agent

Agent Ph: 856-0277

Agent Fax: 856-2206

Applicant or Agent Daytime Telephone, Fax

191 - 191 Harvard St, Portland, Maine

Address of Proposed Site

153 A025001

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) **36 units PRUD**

61671 sq. ft.

Proposed Building square Feet or # of Units

369495 sq. ft

Acreeage of Site

R3/R5

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 Pla **\$500.00** Subdivision _____ Engineer Review **\$8,570.44** Date **8/16/2002**

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 checked="" type="checkbox"/> Performance Guarantee Accepted	8/16/2002 date	\$428,522.00 amount	8/14/2004 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	



Michael Charek Architects
25 Hartley Street
Portland, ME 04103
207-761-0556
Fax 207-761-7260

9/23/02
ATTN: JODINE

FAX BEING RE-SENT
WAS SENT 9/18/02
TO 874-8716

TRANSMITTAL

Project: Radcliffe Glen

Project No.:

TO: Inspector of Buildings
City of Portland

DATE: 9/18/02

If enclosures are not as noted, please inform us immediately.

We Transmit:

- Herewith
- By fax: 4 pages including this one
- Under separate cover via:

For your:

- Approval
- Review & Comment
- Use
- Distribution to parties
- Record
- Information

The following:

- Drawings
- Specifications
- Change Order
- Shop Drawings
- Correspondence
- Minutes
- Samples
- Product Literature
- Other

Copies	Date	Rev. No.	Description	Action
1			Statement of Designer	E.
1			Building Code Certificate	E.
1			Accessibility Certificate	E.

Action Codes:

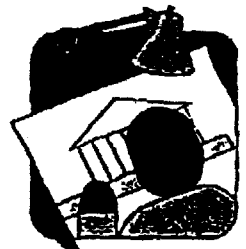
- A. Action indicated on item transmittal.
- B. No action required.
- C. For signature and return to this office.
- D. For signature and forwarding as noted below under Remarks.
- E. See Remarks below.

Remarks: These documents are transmitted in support of the application for building permit.

Copies to:

(with enclosures)

By: Michael R. Charek



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: Michael F. Charek
Michael Charek Architects

DATE: 9/10/02

Job Name: Radcliffe Glen

Address of Construction: Harvard St, Portland, ME

THE BOCA NATIONAL BUILDING CODE/1999 Fourteenth EDITION

To the best of my belief,

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

Building Code and Year BOCA 1999 Use Group Classification(s) R-3
Type of Construction 5B Bldg. Height 26'-0" ± to ridge Per bldg. Bldg. Sq. Footage 2nd Floor = 1752 sf
Ground Floor = 6160 sf

Seismic Zone _____ Group Class I-C

Roof Snow Load Per Sq. Ft. Pf = 50 Dead Load Per Sq. Ft. 15

Basic Wind Speed (mph) 90 Effective Velocity Pressure Per Sq. Ft. 20.7

Floor Live Load Per Sq. Ft. 50

Structure has full sprinkler system? Yes _____ No X Alarm System? Yes _____ No X
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 _____

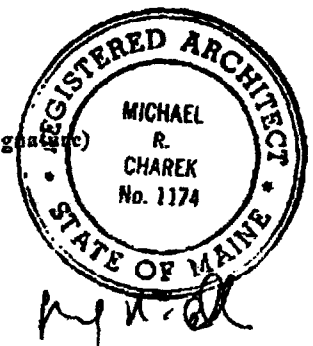
List Occupant loading for each room or space, designed into this Project.

→ Seismic Hazard Exposure Group = 1
Seismic Performance Category = C

PSH 6/07/2K

occupant load 200 sf/person
of gross building area

(Designers Stamp & Signature)





**CITY OF PORTLAND
ACCESSIBILITY CERTIFICATE**

Designer: Michael R. Charek

Address of Project Harvard St, Portland, ME

Nature of Project Planned Residential Unit Development /
Condominium

Date 9/18/02

The undersigned, to the best of his knowledge, agrees that

The technical submissions covering the proposed construction work as described above have been designed in compliance with applicable referenced standards found in the Maine Human Rights Law and Federal Americans with Disability Act.

(SEAL)

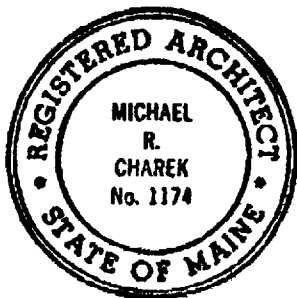
Signature [Handwritten Signature]

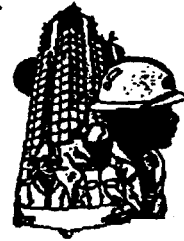
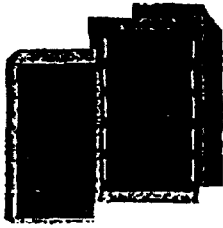
Title Principal

Firm Michael Charek Architects

Address 25 Hartley St
Portland, ME 04103

Telephone 761-0556





**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: Michael R. Charek

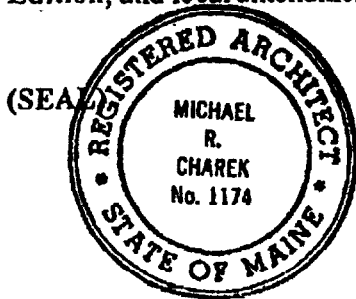
RE: Certificate of Design

DATE: 9/10/02

These plans and/or specifications covering construction work on:

Redcliffe Glen
Harvard St, Portland, ME

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. and, to the best of his knowledge and belief, in accordance with



Signature Michael R. Charek

Title Principal

Firm Michael Charek Architects

Address 25 Hartley St
Portland, ME 04103

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.

NIAL CONSTRUCTION MEMO

DATE: 08/26/02
TO: Mike Nugent
FROM: Larry Sturdivant
RE: Radcliffe Glen Condominiums, 267 Harvard Street

Mike,

I have sent along the building permit application for units 11, 12, 13, 14, 15, 16, 17, 18 along with a check for the building permit. - BLDGS [REDACTED]

I have divided out the construction cost on a per unit cost including all trades. I have posted the site improvement bond with planning. I have also paid the cost of the improvement inspection. At the present time I have included the total construction cost including the site improvements in my building permit cost calculations. If I should not have done that let me know and we can make an adjustment in the next check.

I have included two full sized sets of documents. Let me know if you need any more. I did deliver 7 sets to planning. The eleven by seventeen I will send along either tomorrow or Wednesday.

↳ included

Please call me directly with any questions @ 617 835 2707

Quitclaim Deed With Covenant

KNOW ALL BY THESE PRESENTS THAT I, Lawrence J. Sturdivant of Portland, County of Cumberland and State of Maine, in consideration of one dollar (\$1.00) and other good and valuable consideration paid by **NIAL Construction, Inc.** a Massachusetts corporation with a place of business in Portland, County of Cumberland and State of Maine, the receipt whereof it does hereby acknowledge, do hereby remise, release, bargain, sell and convey with *Quitclaim Covenants* to the said **NIAL Construction, Inc.**, its successors and assigns forever, the land and buildings in the City of Portland, County of Cumberland, State of Maine more particularly described as follows:

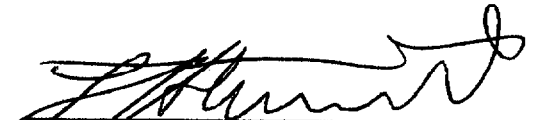
SEE ATTACHED SCHEDULE A

TO HAVE AND TO HOLD the same, together with all the privileges and appurtenances thereunto belonging to the said **NIAL Construction, Inc.** its successors and assigns forever.

IN WITNESS WHEREOF, I have hereunto set my hand this 16 day of August, 2002.



Witness



Lawrence J. Sturdivant

STATE OF MAINE
COUNTY OF CUMBERLAND

On this 16 day of August, 2002 personally appeared before me the above-named **Lawrence J. Sturdivant** and acknowledged the foregoing to be his free act and deed.



Notary Public/Attorney at Law
Jonathan T. Harris

My Commission Expires:

RADCLIFFE GLEN
EXHIBIT A

A certain lot or parcel of land situated easterly of Harvard Street in the City of Portland, County of Cumberland and State of Maine, as shown on a plan entitled "Subdivision Plan of Radcliffe Glen" made for Lawrence J. Sturdivant by Sebago Technics, Inc., dated June 25, 2002 recorded in the Cumberland County Registry of Deeds in Plan Book 202, Page 518, hereinafter referred to as "said plan", said parcel being more particularly bounded and described as follows:

Beginning at a 5/8 inch rebar found flush on the easterly side of Harvard street and being the northwesterly corner of land now or formerly of Sara Schwartz as described in Cumberland County Registry of Deeds Volume 3344, Page 214;

Thence S 74°-35'-15" E, along the northerly line of Schwartz, a distance of 125.00 feet to a corner;

Thence S 15°-24'-45" W, along land of Schwartz and land now or formerly of Marjorie Fecas and Deborah Vickers as per Cumberland County Registry of Deeds Volume 15123, Page 263, a distance of 270.00 feet to a corner;

Thence N 74°-35'-15" W, along land of Fecas and Vickers, a distance of 125.00 feet to a corner on the easterly sideline of Harvard Street;

Thence S 15°-24'-45" W, along the sideline of Harvard Street, 50.00 feet to a point at the northwesterly corner of land now or formerly of Lois Haney as per Cumberland County Registry of Deeds Volume 6259, Page 213;

Thence S 74°-35'-15" E, along land of Haney, a distance of 125.00 feet to a corner;

Thence S 15°-24'-45" W, continuing along land of Haney and land now or formerly of Vincenzo Depaolo as per Cumberland County Registry of Deeds Volume 3578, Page 189 and Volume 4236, Page 72, a distance of 240.00 feet to a corner and land of Portland Water District as per Cumberland County Registry of Deeds Volume 4548, Page 81;

Thence S 74°-35'-15" E, along land of Portland Water District, a distance of 20.00 feet to a corner;

Thence S 41°-51'-47" W, continuing along land of Portland Water District, 55.84 feet to a corner;

Thence S 15°-23'-13" W, continuing along land of Portland Water District, 611.70 feet to a corner and land now or formerly of Thomas and Autumn Poulin as per Cumberland County Registry of Deeds Volume 15090, Page 254;

Thence S 73°-01'-47" E, continuing along land of Poulin and land now or formerly of J. B. Brown & Sons, a distance of 62.81 feet to a corner and other land now or formerly of J. B. Brown & Sons as per Cumberland County Registry of Deeds Volume 12284, Page 271;

Thence N 38°-55'-39" E, along land of J. B. Brown & Sons, a distance of 391.06 feet to a corner;

Thence N 61°-48'-54" E, continuing along land of J. B. Brown & Sons, a distance of 7.89 feet to a corner;

Thence N 15°-58'-34" E, along land of J. B. Brown & Sons and land now or formerly of the First Baptist Church, Portland, Maine as per Cumberland County Registry of Deeds Volume 7459, Page 165, a distance of 1,311.57 feet to a point at the southeasterly corner of land now or formerly of Stephen and Alexandra Murphy as per Cumberland County Registry of Deeds Volume 9653, Page 172;

Thence N 71°-43'-51" W, along land of Murphy and land now or formerly of Edward and Ellyne Fleshner as per Cumberland County Registry of Deeds Volume 4812, Page 229, a distance of 233.12 feet to a corner, also being the northeasterly corner of land now or formerly of John and Chiaolian Glover as per Cumberland County Registry of Deeds Volume 14051, Page 25;

Thence S 15°-24'-45" W, along land of Glover, a distance of 113.75 feet to a corner;

Thence N 74°-35'-15" W, continuing along land of Glover, a distance of 125.00 feet to a point on the easterly sideline of Harvard Street;

Thence S 15°-24'-45" W, along the sideline of Harvard Street, a distance of 50.00 feet to a point and the northwesterly corner of land now or formerly of Gernaine Gervais as per Cumberland County Registry of Deeds Volume 2988, Page 350;

Thence S 74°-35'-15" E, along land of Gervais, a distance of 125.00 feet to a corner;

Thence S 15°-24'-45" W, continuing along land of Gervais and land now or formerly of Stephen and Linda Morris as per Cumberland County Registry of Deeds Volume 13983, Page 259, a distance of 250.00 feet to a corner;

Thence N 74°-35'-15" W, continuing along land of Morris, a distance of 125.00 feet to a point on the easterly sideline of Harvard Street;

Thence S 15°-24'-45" W, along the sideline of Harvard Street, 50.00 feet to the point of beginning.

Said parcel contains approximately 369,495 square feet.

Subject to a pedestrian access easement to be conveyed to Portland Trails, varying in width from 6 feet to 8 feet and as shown on said plan.

Subject to a portion of a 50 foot wide sewer easement as shown on said plan. Further reference is made to "Plan of Milliken Branch Combined Sewer" by the PPW dated September 17, 1962 and on file in PPW Book 67, Page 18.

Subject to a proposed easement to the Portland Water District as shown on said plan being more particularly bounded and described as follows:

Beginning at a 5/8 inch rebar found flush marking a corner of the Grantor's property on the easterly sideline of Harvard Street, also being the northwesterly corner of land now or formerly of Sara Schwartz as recorded in the Cumberland County Registry of Deeds in Book 3344, Page 214;

Thence S 74°-35'-15" E, along the line of Schwartz, a distance of 125.00 feet to a corner;

Thence S 15°-24'-45" W, along land of Schwartz, along land now or formerly of Marjorie Fecas and Deborah Vickers (as recorded in said Registry in Book 15123, Page 263), across land of the Grantor, along land now or formerly of Lois Haney (as recorded in Book 6259, Page 213), and along land now or formerly of Vincenzo DePaolo (as recorded in Book 3578, Page 189 and Book 4236, Page 72), a distance of 560.00 feet to a corner and land of the Portland Water District as recorded in Book 4548, Page 81;

Thence S 74°-35'-15" E, along land of the Portland Water District, 20 feet to a corner;

Thence S 41°-51'-47" W, continuing along land of the Portland Water District, a distance of 55.84 feet to a corner;

Thence S 74°-35'-15" E, through land of the Grantor, a distance of 34.87 feet to a point;

Thence N 15°-24'-45" E, through land of the Grantor, a distance of 960.00 feet to a point;

Thence N 74°-35'-15" W, through land of the Grantor, a distance of 30.00 feet to the southeasterly corner of land now or formerly of John Chiaolian Glover as recorded in Book 14051, Page 25;

Thence S 15°-24'-45" W, through land of the Grantor, along land now or formerly of Germaine Gervais as recorded in Book 2988, Page 350; land now or formerly of Stephen and Linda Morris as recorded in Book 13938, Page 259; and through land of the Grantor, a distance of 320.00 feet to a corner;

Thence N 74°-35'-15" W, along land of Morris, a distance of 125.00 feet to a point in the sideline of Harvard Street;

Thence S 15°-24'-45" W, along the sideline of Harvard Street, 30.00 feet to the point of beginning.

The area of said easement is approximately 35,800 square feet.

Subject to a driveway access easement to be granted to Sara Schwartz, as shown on said plan, being more particularly bounded and described as follows:

Beginning at a 5/8 inch rebar found flush on the easterly side of Harvard Street at a corner of land of the Grantor, said 5/8 inch rebar also being the northwesterly corner of land now or formerly of Sara Schwartz, hereinafter called the Grantee, as described in the Cumberland County Registry of Deeds in Book 3344, Page 214;

Thence S 74°-35'-15" E, along land of the Grantee, a distance of 55.38 feet to a point;

Thence N 15°-24'-45" E, through land of the Grantor, a distance of 36.97 feet to a point;

Thence N 74°-35'-15" W, through land of the Grantor, a distance of 55.38 feet to a point in the easterly sideline of Harvard Street;

Thence S 15°-24'-45" W, along the sideline of Harvard Street, a distance of 36.97 feet to the point of beginning.

Said parcel contains approximately 2,047 square feet.

Subject to a driveway access easement to be granted to John and Chiaolian Glover, as shown on said plan, being bounded and described as follows:

Beginning at a point in the easterly sideline of Harvard Street at a corner of land of the Grantor, said point also being the southwesterly corner of land now or formerly of John and Chiolian Glover, hereinafter called the Grantee, as recorded in the Cumberland County Registry of Deeds in Book 14051, Page 25;

Thence S 15°-24'-45" W, along Harvard Street, a distance of 33.21 feet to a point;

Thence S 74°-35'-15" E, through land of the Grantee, a distance of 65.93 feet to a point;

Thence N 15°-24'-45" E, through land of the Grantor, a distance of 33.21 feet to a point in the sideline of the Grantee;

Thence N 74°-35'-15" W, along land of the Grantee, a distance of 65.93 feet to the point of beginning.

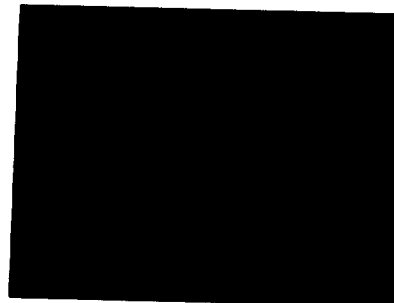
Meaning and intending to convey an easement over a parcel of land containing approximately 2,190 square feet.

CITY OF PORTLAND, MAINE
PLANNING BOARD

Jaimey Caron, Chair
Deborah Krichels, Vice Chair
Mark Malone
Orlando E. Delogu
Sarah Luck
Kevin Beal
Lee Lowry III

July 30, 2002

Mr. Larry Sturdivant
15 Garsoe Drive
Portland, ME 04103



Re: Radcliffe Glen, 33-Unit Planned Residential Unit Development, Vicinity of 267 Harvard Street
(Application #2002-0060, CBL 153 A025001)

Dear Mr. Sturdivant:

At a public hearing held on July 9, 2002, the Planning Board voted 4-1, (Caron opposed, Krichels, Luck absent) that the proposed development is in conformance with the Subdivision Ordinance of the Land Use Code with the following conditions:

1. *That the subdivision plat be amended to include the City of Portland definition of subdivision as required by state law.*
2. *That the subdivision plat be amended to show the pedestrian access easement dedicated to Portland Trails in a manner acceptable to Corporation Counsel.*
3. *That the subdivision plat be amended to show an access easement to Lot 153-23, N/F Sarah Schwartz*
4. *That the tree-save areas delineate the extent of disturbance.*
5. *That the subdivision plat be amended to show an access easement to Lot 153-20, N/F John Glover.*

The Planning Board also voted 5-0, (Krichels and Luck absent) that the proposed development meets the standards for the issuance of a DEP Stormwater Permit under delegated authority.

At a public hearing held on July 23, 2002, the Planning Board voted 5-2, (Caron and Luck opposed) that the proposed development is in conformance with the Site Plan Ordinance of the Land Use Code with the following conditions.

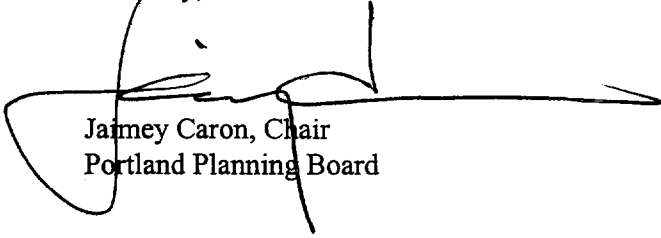
1. *That the homeowner's documents be revised upon a complete review by Corporation Counsel.*
2. *That the applicant amend the landscape treatment plan for the area between to the passive recreation trail and the southerly abutter currently consisting of six Fraser Fir to include a variety of species.*
3. *That the site plan be amended to remove the one way/do not enter sign proposed in the vicinity of University Street to allow both ingress and egress.*
4. *That speed bumps be installed with the location and design submitted to the Planning Authority for review and approval.*

Please note the following provisions and requirements for all site plan approvals:

1. A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.
2. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.
3. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
4. Prior to construction, a preconstruction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the preconstruction meeting.
5. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)
6. The Development Review Coordinator (874-8300 ext. 8722) must be notified five (5) working days prior to date required for final site inspection. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

The approval is based on the submitted application, site plan, and stated conditions. If there are any questions, please contact the planning staff.

Sincerely,



Jaimey Caron, Chair
Portland Planning Board

cc: Lee D. Urban, Planning and Development Department Director
Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Program Manager
Jonathan Spence, Planner
Jay Reynolds, Development Review Coordinator
Marge Schmuckal, Zoning Administrator
Jodine Adams, Inspections
William Bray, Director of Public Works
Larry Ash, Traffic Engineer
Tony Lombardo, Project Engineer
Eric Labelle, City Engineer
Jeff Tarling, City Arborist
Penny Littell, Associate Corporation Counsel
Lee Urban, Director of Economic Development
Lt. Gaylen McDougall, Fire Prevention
Don Hall, Appraiser, Assessor's Office
Susan Doughty, Assessor's Office
Approval Letter File
Correspondence File

CITY OF PORTLAND, MAINE
PLANNING BOARD

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Lee Lowry III

August 15, 2002

Mr. Robert Cain
PROP
510 Cumberland Avenue
Portland, ME 04101

RE: PROP 4-Unit Subdivision, Cumberland Avenue
ID #2002-0141, CBL #022-L-019

Dear Mr. Cain:

On August 13, 2002, the Portland Planning Board voted 6-0 (Beal absent) to approve your application for a 4-unit Subdivision located at 135 Cumberland Avenue. The Board found that the application met the standards of the Subdivision and Site Plan ordinance of the Land Use Code.

The approval was granted for the project with the following conditions:

Site Plan

- i. that the applicant provide underground utilities.
- ii. that the applicant submit a photometric plan to staff to determine if the proposed lighting meets the City's technical standards and submit a lighting fixture which is a full cut-off light.

The Planning Board also waived the Technical Standards "if the estimated post-development peak rate of stormwater runoff from the affected land is calculated to be greater than the pre-development runoff peak rates, in any watershed within the boundaries of the affected land during any phase of development, then a detention basin should be designed and constructed to maintain pre-development runoff peak rates from the site"

The approval is based on the submitted site plan and the findings related to subdivision and site plan review standards as contained in Planning Report #53-02, which is attached.

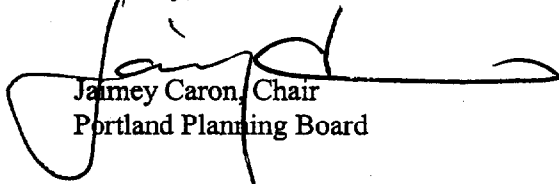
Please note the following provisions and requirements for all site plan approvals:

1. A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

2. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.
3. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
4. Prior to construction, a preconstruction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the preconstruction meeting.
5. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)
6. The Development Review Coordinator must be notified five (5) working days prior to date required for final site inspection. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

If there are any questions, please contact the Planning Staff.

Sincerely,



Jaimey Caron, Chair
Portland Planning Board

cc: Lee D. Urban, Planning and Development Department Director
Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Program Manager
Kandice Talbot, Planner
Jay Reynolds, Development Review Coordinator
Marge Schmuckal, Zoning Administrator
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CITY OF PORTLAND, MAINE
PLANNING BOARD

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Sarah Luck
Kevin Beal
Lee Lowry III

August 15, 2001

Mr. Robert Cain
PROP
510 Cumberland Avenue
Portland, ME 04101

RE: PROP 9-Unit Subdivision, Anderson Street
ID #2002-0140, CBL #012-B-009

Dear Mr. Cain:

On August 13, 2002, the Portland Planning Board voted 6-0 (Beal absent) to approve your application for a 9-unit Subdivision located at Anderson Street. The Board found that the application met the standards of the Subdivision and Site Plan ordinance of the Land Use Code and that the proposed Sectional Recording of two phases does meet the requirements of Section 14-495(h) of the subdivision ordinance.

The approval was granted for the project with the following conditions:

Site Plan

- i. That the applicant provide to staff an easement from Portland Housing Authority allowing access through their site for access to the applicant's dumpster.
- ii. That the applicant provide, or provide evidence of, a utility easement for the utility line running through the existing passageway located on the property.
- iii. That the applicant revise the landscape plan to reflect the City Arborist's memo dated August 9, 2002 for review and approval by the City Arborist.
- iv. That the applicant provide the height of the pole mounted light in the parking area and provide an overall photometric plan for the site for review by staff.

The approval is based on the submitted site plan and the findings related to subdivision and site plan review standards as contained in Planning Report #52-02, which is attached.

Please note the following provisions and requirements for all site plan approvals:

1. A performance guarantee covering the site improvements as well as an inspection fee payment of 2.0% of the guarantee amount and 7 final sets of plans must be submitted to and approved by the

Planning Division and Public Works prior to the release of the building permit. If you need to make any modifications to the approved site plan, you must submit a revised site plan for staff review and approval.

2. The site plan approval will be deemed to have expired unless work in the development has commenced within one (1) year of the approval or within a time period agreed upon in writing by the City and the applicant. Requests to extend approvals must be received before the expiration date.
3. A defect guarantee, consisting of 10% of the performance guarantee, must be posted before the performance guarantee will be released.
4. Prior to construction, a preconstruction meeting shall be held at the project site with the contractor, development review coordinator, Public Work's representative and owner to review the construction schedule and critical aspects of the site work. At that time, the site/building contractor shall provide three (3) copies of a detailed construction schedule to the attending City representatives. It shall be the contractor's responsibility to arrange a mutually agreeable time for the preconstruction meeting.
5. If work will occur within the public right-of-way such as utilities, curb, sidewalk and driveway construction, a street opening permit(s) is required for your site. Please contact Carol Merritt at 874-8300, ext. 8828. (Only excavators licensed by the City of Portland are eligible.)
6. The Development Review Coordinator must be notified five (5) working days prior to date required for final site inspection. Please make allowances for completion of site plan requirements determined to be incomplete or defective during the inspection. This is essential as all site plan requirements must be completed and approved by the Development Review Coordinator prior to issuance of a Certificate of Occupancy. Please schedule any property closing with these requirements in mind.

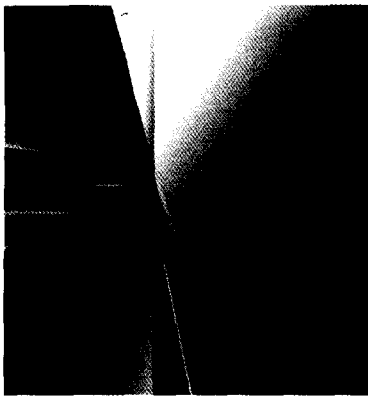
If there are any questions, please contact the Planning Staff.

Sincerely,



Jaimy Caron, Chair
Portland Planning Board

CC: Lee D. Urban, Planning and Development Department Director
Alexander Jaegerman, Planning Division Director
Sarah Hopkins, Development Review Program Manager
Kandice Talbot, Planner
Jay Reynolds, Development Review Coordinator
Marge Schmuckal, Zoning Administrator
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Don Hall, Appraiser, Assessor's Office
Susan Doughty, Assessor's Office
Approval Letter File
Correspondence File



Michael Charek Architects

25 Hartley Street
Portland, ME 04103
Phone 207 761 0556
Fax 207 761 7260
www.charekarchitects.com

September 25, 2002

Michael Nugent
Inspection Services Manager
Housing and Neighborhood Services
Portland City Hall, Room 315
389 Congress Street
Portland, ME 04101

Re: Radcliffe Glen

Dear Mr. Nugent:

I am writing in response to the memo you faxed me yesterday. In response to the questions you raised, I offer the attached set of full-size and reduced drawings, which include updated information. Regarding the specific questions, please note the following:

- Fire wall and partition details: See sheets A305 and A306 for sections through those walls. See also the attached brochure from USG with information about the two-hour area separation walls. The walls and partitions are fireblocked in the stud cavities at each level by continuous 2 x 4 plates. In addition, the space between stud walls will be fireblocked at each level with firesafing insulation. STC rating for the two-hour walls is approximately 60; STC rating for the one-hour partitions is approximately 49.
- I believe there is no need for draftstopping in the first floor because there is no ceiling in the basement. The concealed spaces in the second floor are subdivided by floor girders into areas not larger than 500 square feet. The attic spaces are subdivided by area separation walls or fire partitions into areas smaller than 3,000 square feet.
- The stairs are all 3'-0" wide, with 10" treads and a maximum riser dimension of 7-3/4". There will be a 3/4" nosing on the treads. Headroom is a minimum of 7'-0".
- Foundation anchorage details can be found on Sheet S2.
- Garages will be separated from the living units by one-hour rated partitions and floor-ceiling assemblies. The door from the unit into the garage is

MICHAEL R. CHAREK
PRINCIPAL
Member
The American
Institute
Of Architects

Michael Nugent
9/25/02

Page 2

scheduled as a metal door with a minimum 20-minute fire rating, which I believe exceeds the requirements of 407.6. The door that is likely to be used actually carries a B label, for a 90-minute fire rating.

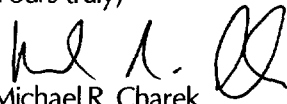
NOT ENOUGH.

WHAT ABOUT EXTERIOR WALLS

- Heating systems will be oil-fired boilers, attached to masonry chimneys.
- Headers and fasteners are noted in the structural drawings.
- Egress windows are noted on the Window Schedule on Sheet A601.
- Column spacings and girder sizes have been designed by a Maine licensed structural engineer, not selected from a table. If you need to see structural calculations I could arrange for them to be sent to you.

I hope this answers all of your questions satisfactorily. If you need any other information, please let me know.

Yours truly,


Michael R. Charek
Encl.

Applicant: Student

Date: 9/3/02

Address: Nicholas Court -
Radcliff Glen

C-B-L: 153-A-25
154-B-16

CHECK-LIST AGAINST ZONING ORDINANCE

Date - New

This part is in R-3 PRUD

02-0962

Zone Location -

Interior or corner lot -

Proposed Use/Work - Construct 2-unit Bldgs of a larger project

Sewage Disposal - City

Lot Street Frontage - 1 min bldg setback from external subdivision property

Front Yard - (R-3) → 4 max units in a bldg - 35' min req - 38' scaled

Rear Yard - II - MAX length of Bldg - 140' for Bldgs with garage 140' shown

Side Yard -

Projections - III min Distance between detached PRUD DU.

Width of Lot - 35' max 20.5' to side scaled 16' min req - 70' scaled

Height - IV recreation areas req. to be 25' from D.U.

Lot Area - (R-3) - 26' scaled

Lot Coverage/ Impervious Surface - min 3 Gross Acres req - 6.37 Acres shown

Area per Family - (R-3) Net Land Area = 182,520 sq ft ÷ 6,500 = 28 Allowed / 26 shown

Off-street Parking - 88 spaces shown in total

Loading Bays - 2 x 33 = 66 + 6 = 72 min req

Site Plan - YES Major subdivision # 2002-0060

Shoreland Zoning/ Stream Protection - N/A

Flood Plains - panel 7 - Zone X



Michael Charek Architects
25 Hartley Street
Portland, ME 04103
207-761-0556
Fax 207-761-7260

MEMORANDUM

Project: Radcliffe Glen

Project No.:

TO: Michael Nugent
Inspection Services Manager
City of Portland

DATE: 9/30/02

Mr. Nugent:

Attached please find a copy of the memo from Summit Geoengineering Services outlining the details of the foundation drainage system.

Also please note that attic access openings with minimum dimension of 22 inches by 30 inches will be located in each unit, in an area to be determined during construction.

SENT BY FAX: 5 PAGES TOTAL

Copies to:

Larry Sturdivant

(with enclosures)

By: Michael R. Charek

Based on soil conditions encountered at TP-12 and proposed slab elevations, bedrock excavation will likely be required to construct the basement slabs and footings. Removal of rock for footing trenches could create low areas in the rock that will collect groundwater. In addition, fracturing of bedrock could provide pathways for groundwater to flow below upgradient footing drains. Therefore, internal footing drains are recommended at steps in elevation of the partition wall footings.

Underdrains should consist of 4 inch rigid perforated PVC surrounded by a minimum of 6 inches crushed stone wrapped in filter fabric to prevent clogging from the migration of the fine soil particles from the native soils and Foundation Backfill. The crushed stone should be placed up to the bottom of the Structural Fill. The footing underdrains should be graded to provided positive drainage to a free-flowing outlet. Depending on the grading of the perimeter foundation drains, it may be possible to connect the internal foundation drains to the perimeter foundation drain system. The ends of the underdrain pipes exposed to the atmosphere should be covered with screening or other device to prevent nesting of wildlife.

It is our understanding perimeter foundation wall profile could allow for the internal foundation drain outlet pipe to be routed around steps in the perimeter foundation. Where the internal foundation drain outlet pipe will pass below a footing, we recommend that the outlet pipe be carried beneath the footing in a ductile steel pipe casing or encased in reinforced concrete to protect the drain pipe from concentrated foundation loads. The steel casing should only be larger enough to pass the drain pipe through the casing.

Weep tubes through foundation walls are not necessary provided that internal foundation drains are used as recommended above. Please do not hesitate to contact me if you have any questions.

SUMMIT GEOENGINEERING SERVICES

640 Main Street
Lewiston, Maine 04240
Telephone: 207/795-6009
Fax: 207/795-6128

MEMORANDUM

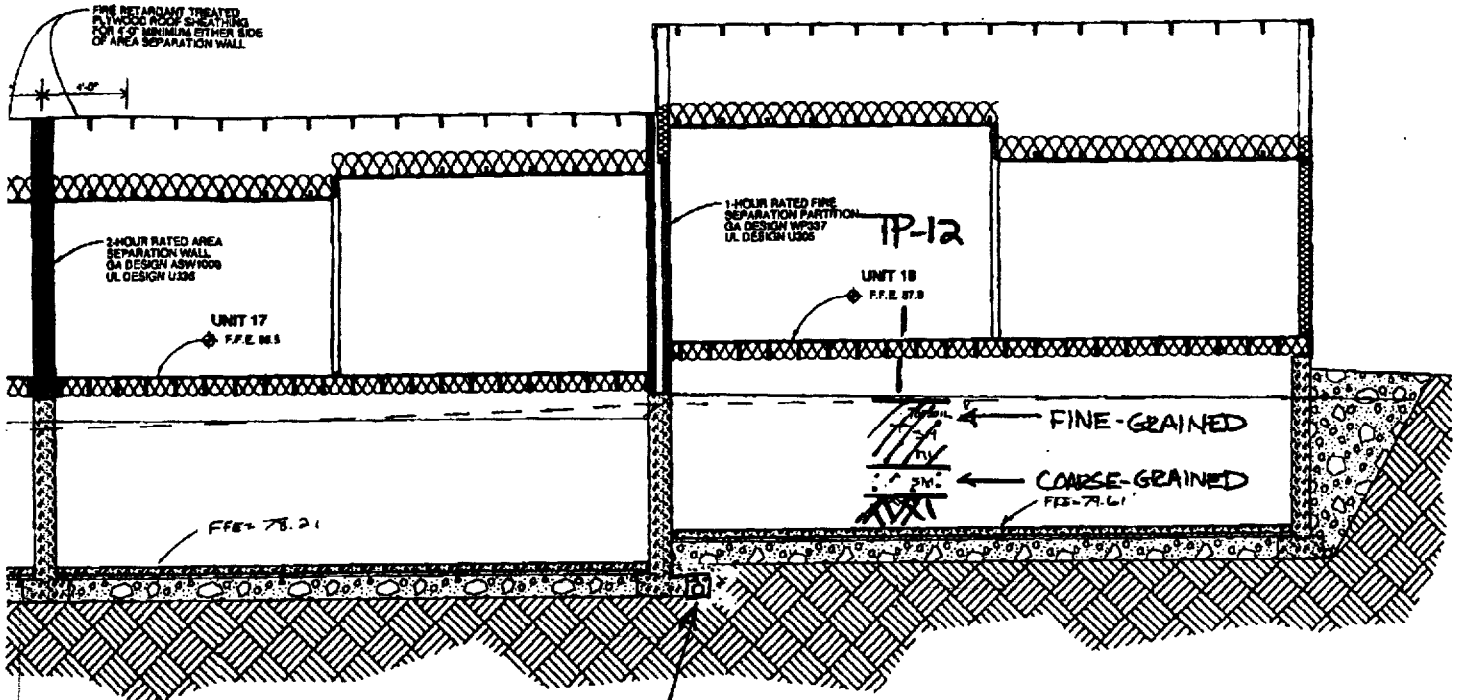
Date: September 16, 2002
JN: 7516.1
To: Ed Cundy, P.E. Swift Engineering
Cc: Michael R. Charek, Architect
Dan L. Riley, P.E., Sebago Technics
From: Erik J. Wiberg, P.E. *EJW*
RE: Foundation Plan Review, Units 11 through 18, Radcliffe Glen Condominiums

As requested and authorized by Mr. Dan Riley, we have reviewed design plans for Units 11 through 18 relative to foundation and slab-on-grade drainage. Summit reviewed Sebago Technics' Sheets 5 & 6, Revision E dated 8/2/02 and architectural and structural drawing set provided by Michael R. Charek dated 8/15/02. Summit conducted the review based on the above referenced plans and previously conducted geotechnical evaluation. This memorandum summarizes the results our evaluation and our conversation on Friday, September 13, 2002.

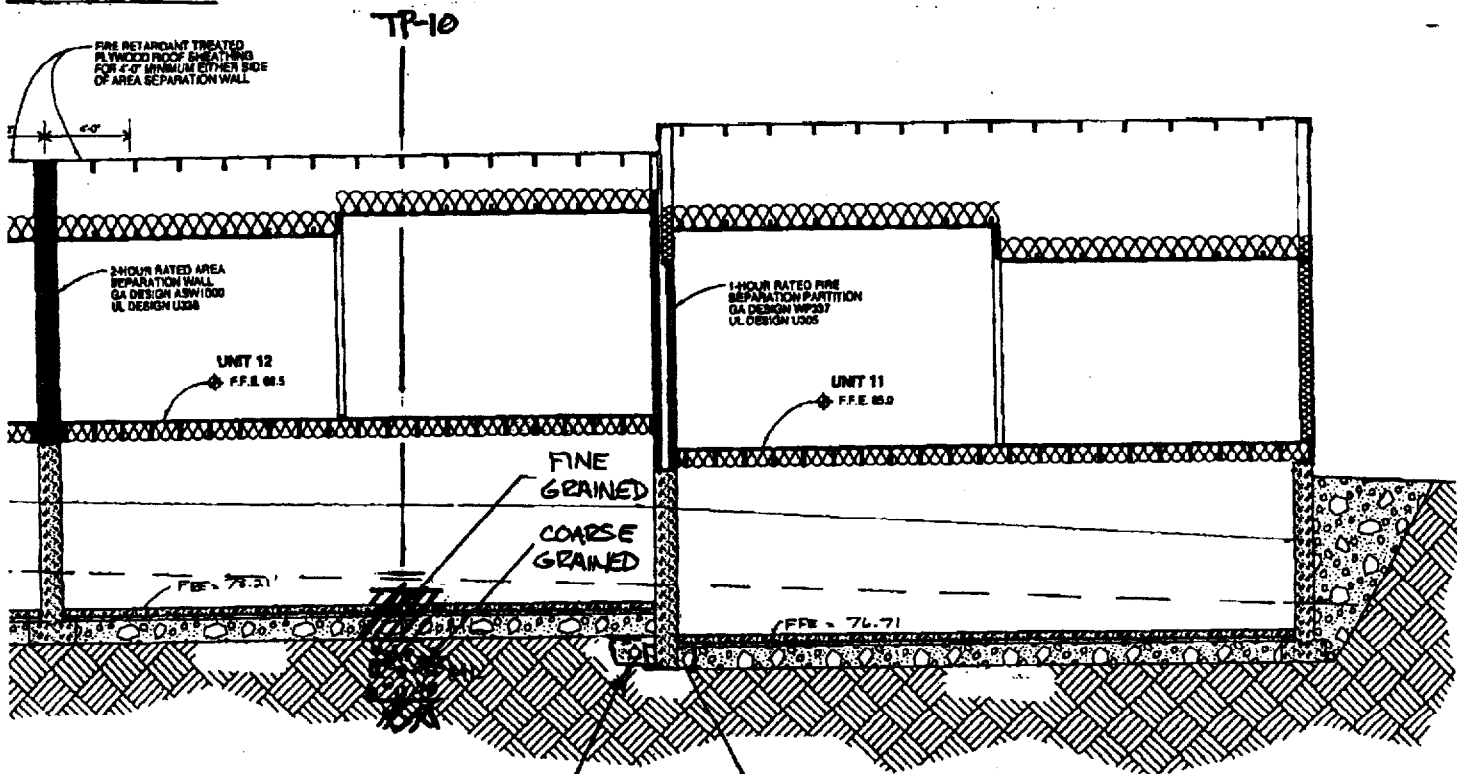
Foundation and Slab-on-Grade Drainage

Based on subsurface conditions encountered at test pit TP-10, which was excavated within the footprint of the Units 11-14 building, and TP-12, which was excavated within the footprint of the Units 15-18 building, and the proposed finish floor elevations of the units, we recommend that foundation drains be placed at the bottom of footings where the basement slabs-on-grade step down in elevation in addition to the perimeter foundation drains recommended in our geotechnical report dated June 14, 2002. The proposed internal foundation drain locations are illustrated on Figure 1.

The internal wall footings at Units 11-14 could be located in coarse-grained glacial marine stratum overlying bedrock based on the proposed elevations and profile illustrated on Section A304. At the time of the exploration, groundwater levels were below the projected bottom of footings. Depending on the prevailing hydrogeologic conditions, the bottom of the footings could be located in groundwater during wetter periods of the year. Internal foundation drains will provide drainage relief for migrating groundwater and prevent buildup of groundwater behind the internal footings.



EQUAL FOOTING DRAINS
 B-ON-GRADE ELEVATION
 WATER FLOW

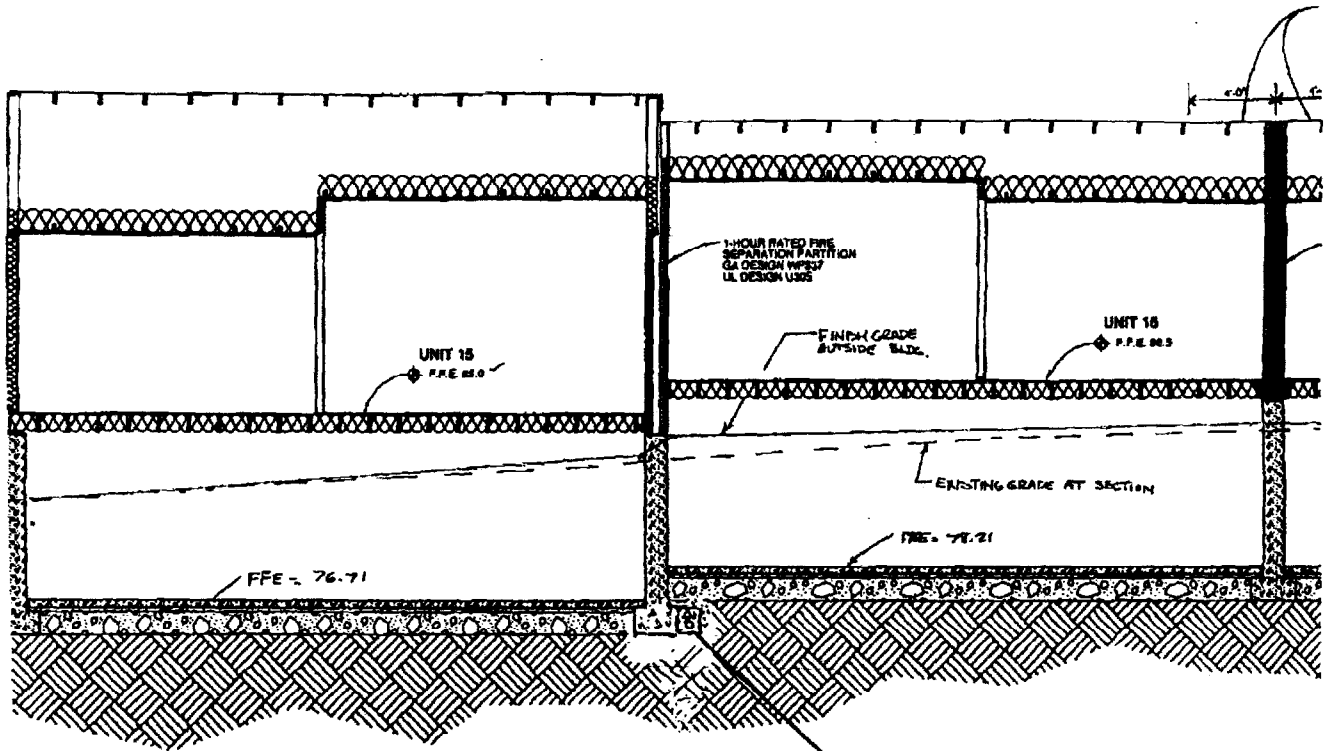


ALL FOOTING DRAINS
 B-ON-GRADE ELEVATION
 DW

FOOTING TO BE RAISED
 TO BELOW SLAB PER
 CODE

7516.1 9/16/02

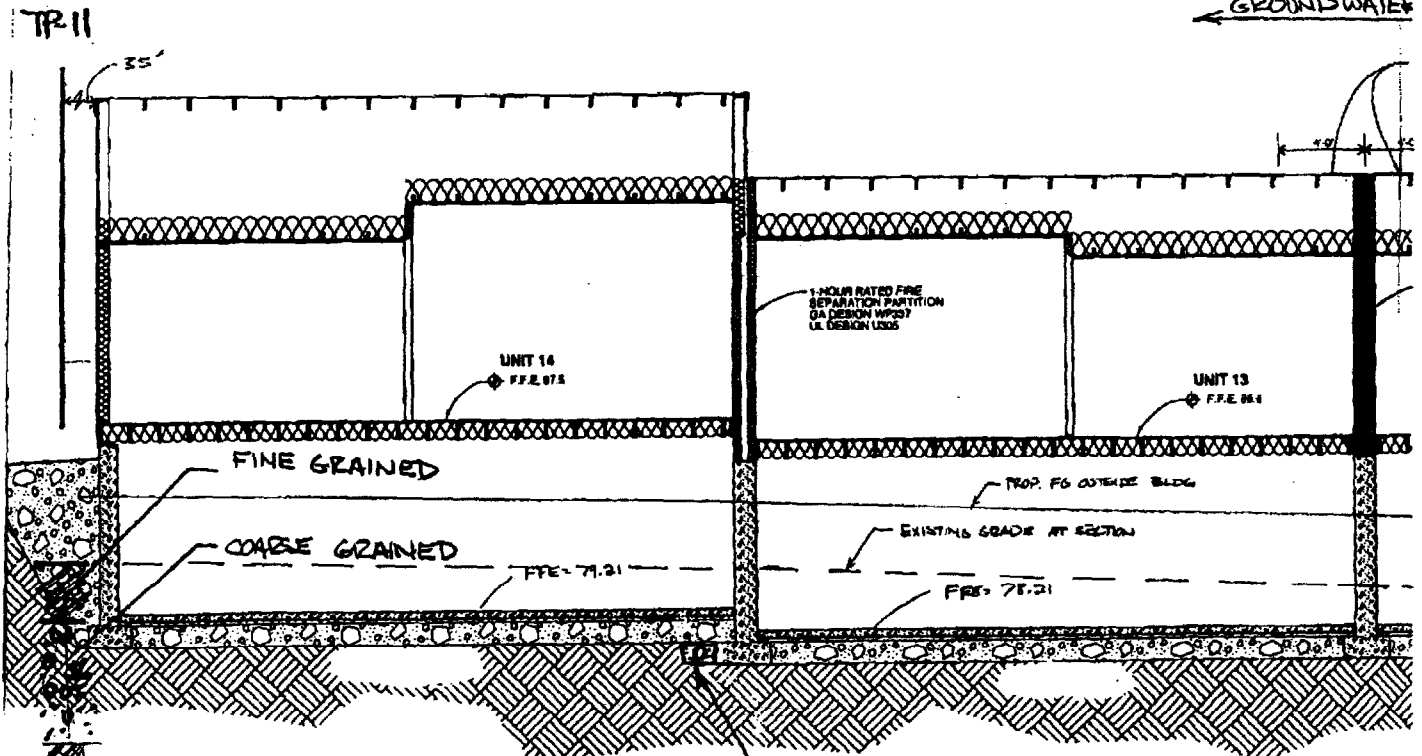
FIGURE 1



2 BUILDING SECTION UNITS 15-18
SCALE: 1/4" = 1'-0"

RECOMMENDED INTERNAL AT STEPS IN SLAB-ON

← GROUNDWATER



1 BUILDING SECTION UNITS 11-14
SCALE: 1/4" = 1'-0"

RECOMMENDED INTERNAL F AT STEPS IN SLAB-ON-GRA

GROUNDWATER FLOW

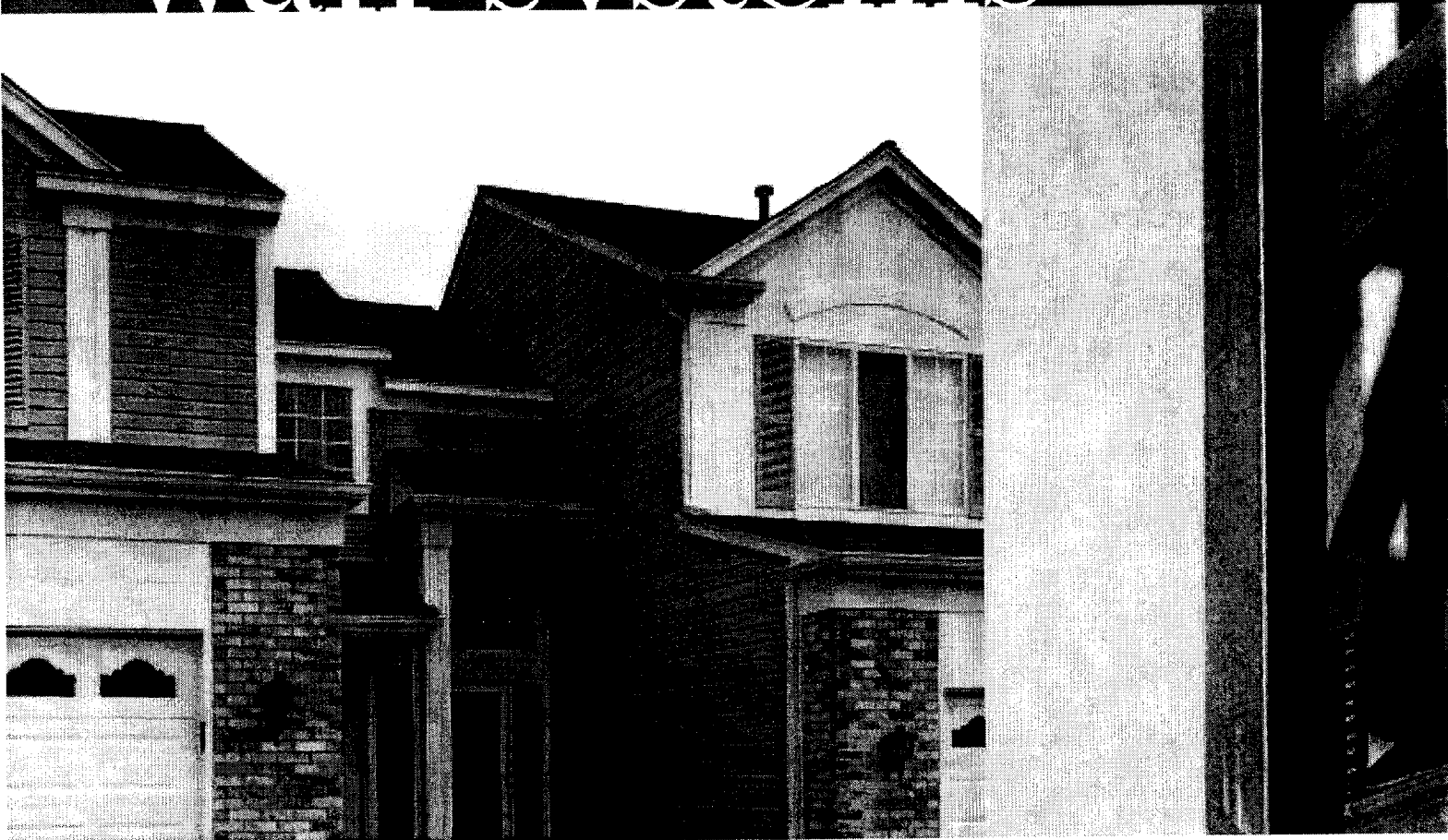
SA925 09250

Fire Wall/Party Wall



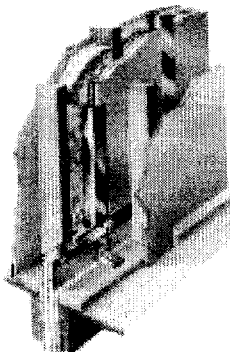
area separation

wall systems

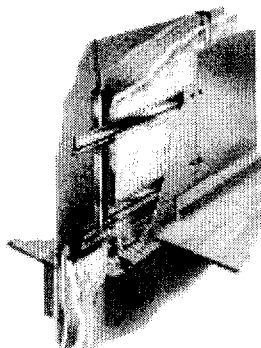


USG Area Separation Fire Wall/Party Wall Systems

Description



Solid-type



Cavity-type

USG Area Separation Fire Walls/Party Walls are used for constructing common walls with fire-resistive protection for adjacent properties. These lightweight, non-load-bearing gypsum drywall assemblies are designed as vertical fire barriers for fire walls and party walls separating occupancies in wood-frame apartments and townhouses. Large-size gypsum panels used in conjunction with steel studs and runners quickly become thin, space-saving walls offering excellent privacy. Their engineered performance and low labor and material costs make these systems superior to masonry construction.

Available in two basic systems both providing fire-resistant walls from ground level to roof:

Solid Type, with independently framed interior gypsum panel surfaces both sides of fire wall or party wall.

Cavity Type, with integral interior gypsum panel surfaces for commonly shared party walls between apartments.

Solid-Type Wall consists of two 1" thick SHEETROCK Brand Gypsum Liner Panels installed vertically between 2" USG Steel C-Runners. Panel edges are inserted in 2" USG Steel H-Studs spaced 24" o.c. C-runners are installed at top and bottom of wall and back-to-back between vertical panels at a convenient height above each intermediate floor. H-Studs are attached on both sides to adjacent wood framing at intermediate floors, the bottom chords of attic trusses, and at the roof line with 0.063" USG aluminum angle clips designed to break away when exposed to fire, thus permitting a fire-damaged structure to fail while the fire barrier remains intact. Refer to specifications for exact clip placement.

With aluminum angle clips attached on both sides of 25 gauge H-studs, the assemblies are suitable for spans (between clip angle supports) up to 10' under 5 psf lateral load without exceeding L/240 allowable deflection (for walls with exterior exposure, see section 3.4 of the specification).

With 2" THERMAFIBER Sound Attenuation Fire Blankets (SAFB) stapled each side of liner panels, the assembly has obtained a 3 hr. fire resistance rating allowing separate selection and construction of tenant walls.

Cavity-Type Wall consists of steel C-H Studs and SHEETROCK Brand Gypsum Liner Panels set in steel runners and faced both sides with SHEETROCK Brand Gypsum Panels, Water-Resistant, FIRECODE C Core. Liner panels, 1" thick, are erected vertically with ends set into 2-1/2" USG C-Runners and edges inserted into specially formed 2-1/2" USG Steel C-H Studs. C-runners are installed singly at top and bottom of wall and back-to-back between vertical liner panels on a line above each intermediate floor, the bottom chords of attic trusses, and at roof line. Aluminum clips, which attach the C-H Studs on both sides to adjacent wood framing, break away in the same fashion as with solid-type walls. To improve sound transmission loss, THERMAFIBER SAFB are inserted in the stud cavity and RC-1 Resilient Channels or equivalent may be used to isolate the face layer on the cavity side.

With aluminum angle clips attached on both sides of 212CH25 steel studs, the assemblies are suitable for spans (between clip angle supports) up to 10' under 5 psf lateral load without exceeding L/240 allowable deflection (for walls with exterior exposure see section 3.4 of the specification).

Components used in these systems are designed to permit temporary exposure to inclement weather during construction.

USG STEEL H-stud slides in place over SHEETROCK Brand Gypsum Liner Panels.



USG Steel C-Runner fits over studs and panels. Second C-runner is then screw-attached back-to-back to lower runner to hold next level of studs and liner panels.



USG Aluminum Breakaway Clip is screw-attached to studs and framing. Under fire exposure, clip breaks away, permits fire-damaged wall to fail, leaving separation wall intact.



USG Area Separation Fire Wall/Party Wall Systems

Features

These systems may be used in buildings up to four stories high (44') and with all common floor-ceiling heights found in multi-family housing. Both cavity and solid types are suitable for exterior walls with appropriate weather-resistant cladding when building offsets are desired.

Fire Resistance: Both types of Separation Walls offer 2 hr. and 3 hr. fire ratings.

Sound Isolation: STC ratings up to 60 with the solid system and 57 with the cavity system are available.

Lightweight: These drywall assemblies weigh at least 50% less than masonry walls, allowing rapid installation.

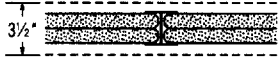
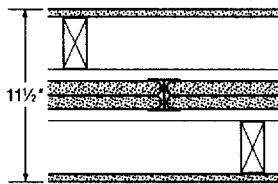
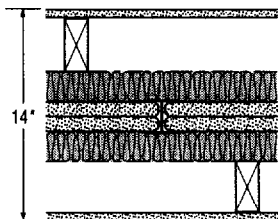
Space-Saving: Use of these assemblies gains valuable floor space. Thickness is 3-1/2" to 4" for Cavity Type Walls, compared to 8" to 12" for a masonry wall without interior finish.

Weather Resistance: Moisture-resistant components permit temporary exposure to inclement weather during construction.

Code Compliance: In compliance with fire resistance requirements under evaluation reports of BOCA Report No. 89-13 and SBCCI PST ES Report No. 9834.

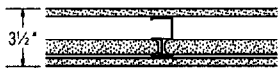


Limitations

Non-load-bearing; max. frame spacing: 24"; not to be used for shear walls; max. wall height: 44'.

Test Data— Solid Walls	Fire-rated Construction		Acoustical Performance			
	Fire Rating	Detail & Physical Data	Description & Test No.	STC	Description & Test No.	System Reference
	2 hr.*		Solid Area Separation Wall—two 1" SHEETROCK Brand Gypsum Liner Panels set betw USG H-Studs 24" o.c.—min. 3/4" air space both sides separating liner panels from adjacent framing— UL Des U336	N/A		A
	2 hr.*		Solid Area Separation Wall—two 1" SHEETROCK Brand Gypsum Liner panels set in USG H-Studs 24" o.c. 2 x 4 wd studs 16" o.c. each side on 2 x 4 plates min. 3/4" from liner panels—optional 1/2" SHEETROCK Brand Gypsum Panels— UL Des U336	46 54 58 57 60 45 54 57	TL-88-353 Based on 2" THERMAFIBER on one side— TL-88-348 Based on 2 x 4s and 2" SAFB on both sides— TL-88-347 Based on 2 x 4s and 3" SAFB on one side— TL-88-351 Based on 2 x 4s and 3" SAFB both sides— TL-88-350 Based on 2 x 3s, 5/8" gypsum panels, no SAFB— BBN-730104 Based on 2 x 3s, 5/8" gypsum panels, 2" SAFB one side— BBN-730103 Based on 2 x 3s, 5/8" gypsum panels, 2" SAFB both sides— BBN-730102	B
	3 hr.*		Solid Area Separation Wall—two 1" SHEETROCK Brand Gypsum Liner Panels set in USG H-Studs 24" o.c.—2" THERMAFIBER SAFB both sides—bltks appl horiz with joints stag and staple-att to liner panels— WHI-495-0393/0394	N/A		C

*These systems do not provide a fire rating for adjacent wood-stud wall construction.

**USG Area Separation
Fire Wall/Party Wall
Systems**

Test Data— Cavity Walls	Fire-rated Construction			Acoustical Performance		
	Fire Rating	Detail & Physical Data	Description & Test No.	STC	Description & Test No.	System Reference
2 hr.		Cavity Area Separation Wall—1/2" SHEETROCK Brand Gypsum Panels, FIRECODE C core, both sides—1" SHEETROCK Brand Gypsum Liner Panels in USG 25 ga. C-H Studs 24" o.c.—single layer panels ea side appl vert & screw att—joints of gypsum panels stag on opp sides & fin—perim caulked— UL Des U415 wt 9 width 3-1/2"	47	Based on 1" SAFB in cavity— BBN-750704	A	
2 hr.		Cavity Area Separation Wall—1/2" SHEETROCK Brand Gypsum Panels, FIRECODE C core—1" SHEETROCK Brand Gypsum Liner Panels set in USG 25 ga. C-H Studs 24" o.c.—RC-1 chan or equivalent 24" o.c. screw att to side opp liner panels—1-1/2" THERMAFIBER SAFB optional for fire rating—single layer panels ea side appl vert & screw att—joints stag on opp sides & fin—perim caulked— UL Des U415 wt 10 width 4"	50	Based on 1-1/2" SAFB in cavity	B	
3 hr.		Cavity Area Separation Wall—5/8" SHEETROCK Brand Gypsum Panels, FIRECODE C core—1" SHEETROCK Brand Gypsum Liner Panels in USG 25 ga. C-H Studs 24" o.c., one side—1-1/2" THERMAFIBER SAFB optional for fire rating—RC-1 chan 24" o.c. screw att to side opp liner panels—2 layers of 5/8" SHEETROCK Brand Gypsum Panels, FIRECODE C Core, screw att to RC-1 chan—joints fin—perim caulked— UL DES U415 wt 14 width 4-7/8"	57	Based on 1-1/2" SAFB in cavity BBN-730622	C	

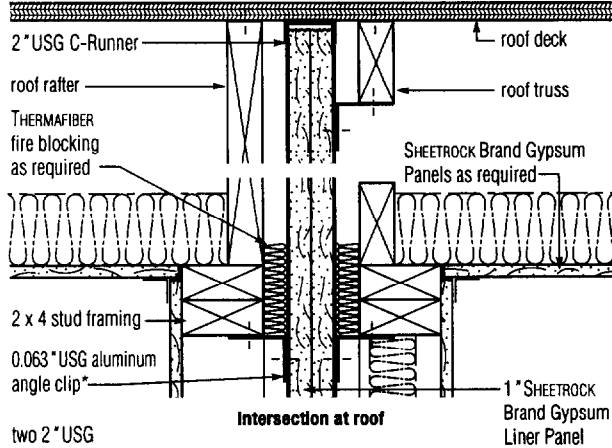
Where RC-1 Resilient Channel is indicated, RC-1 or an equivalent may be used. Where insulation is shown in assembly drawings, the specific product is required in the assembly to achieve the stated fire rating. Glass fiber insulation cannot be substituted for THERMAFIBER insulation.

Sound Transmission Loss	Solid Wall Sound Transmission Loss—db	Band center frequency—Hz																		
		Test no.	Method	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	STC
		TL-88-350	Lab	40	45	50	49	53	53	55	57	62	65	67	69	72	70	68	71	60
		TL-88-347	Lab	34	40	48	48	50	52	55	56	61	64	66	69	72	70	69	73	58
		BBN-730102	Lab	36	38	46	52	53	56	57	56	59	59	60	59	57	58	66	57	
		TL-88-351	Lab	36	36	45	47	51	52	54	56	61	64	66	69	72	71	69	73	57
		BBN-730103	Lab	34	33	43	51	52	54	57	56	60	60	58	60	60	57	58	66	54
		TL-88-348	Lab	31	33	42	45	48	49	52	54	59	63	65	68	70	68	67	71	54
		TL-88-346	Lab	29	32	44	45	49	49	50	51	57	62	65	68	71	69	67	69	53
		TL-88-344	Lab	29	29	37	43	46	44	47	49	55	61	64	66	70	70	69	71	50
		TL-88-234	Lab	31	28	31	34	38	42	44	49	52	55	58	60	61	62	61	63	47
		TL-88-353	Lab	26	25	29	35	39	45	47	52	58	61	65	69	71	67	67	70	46
		BBN-730104	Lab	28	24	28	37	40	46	50	53	58	60	59	60	58	57	59	66	45
	Cavity Wall Sound Transmission Loss—db	Band center frequency—Hz																		
		Test no.	Method	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	STC
		BBN-730622	Lab	35	38	44	50	51	55	56	55	61	63	62	65	65	60	57	64	57
		BBN-750411	Lab	26	32	42	44	48	51	53	54	58	60	59	61	61	57	56	60	50
		BBN-750704	Lab	23	26	35	39	43	48	49	51	54	58	58	60	60	55	51	53	47

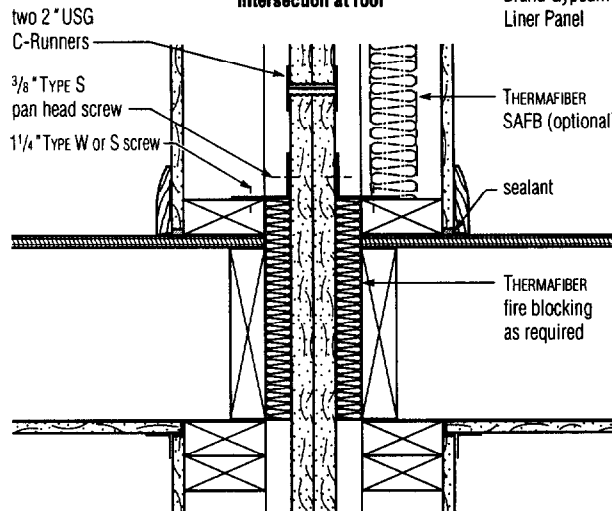
USG Area Separation Fire Wall/Party Wall Systems

Solid System

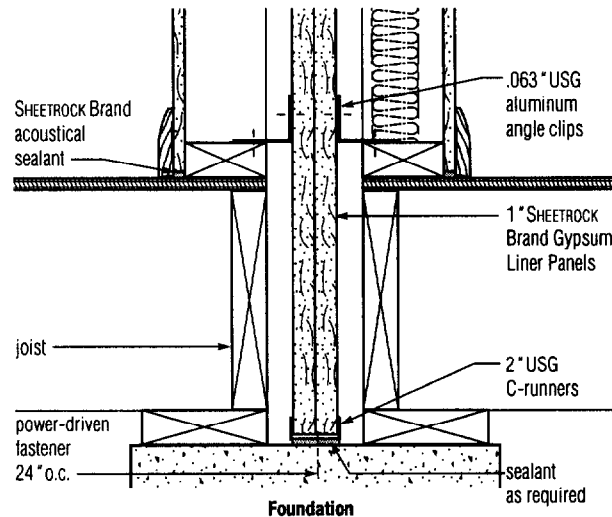
Note: As required by code, 5/8" SHEETROCK Brand gypsum panels, FIRECODE core, may be used as underlayment to untreated roof sheathing with panels extending 4' on both sides of area separation wall and possibly roof side at rake end. Clip placement below is for typical construction.



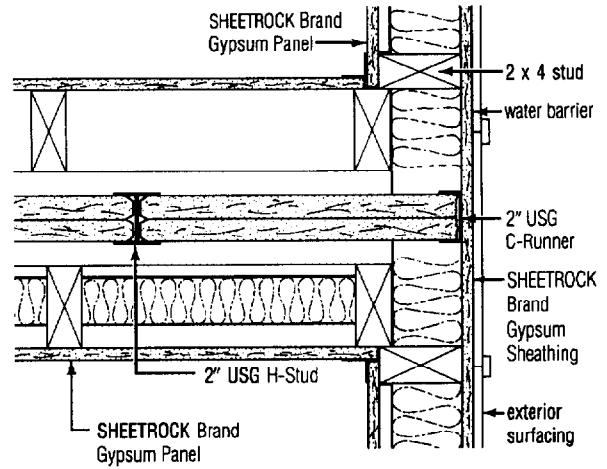
Intersection at roof



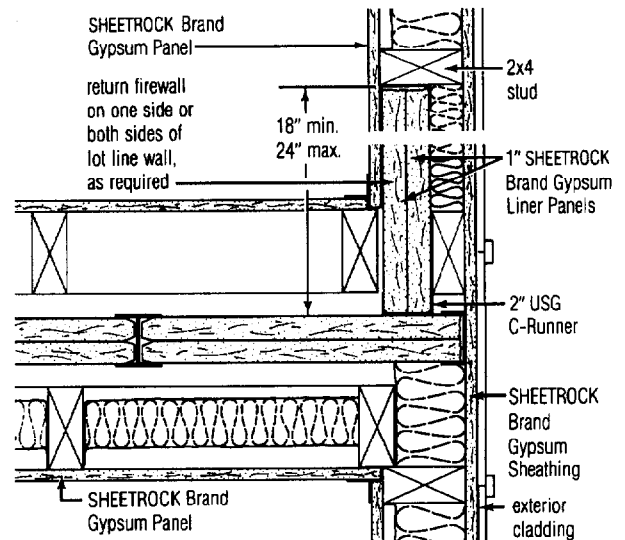
Intermediate floor



Foundation



Exterior wall intersection
(as required)

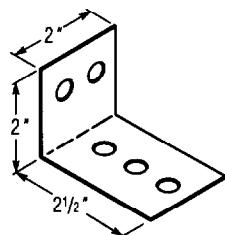
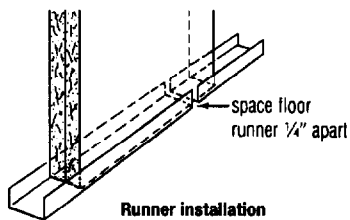
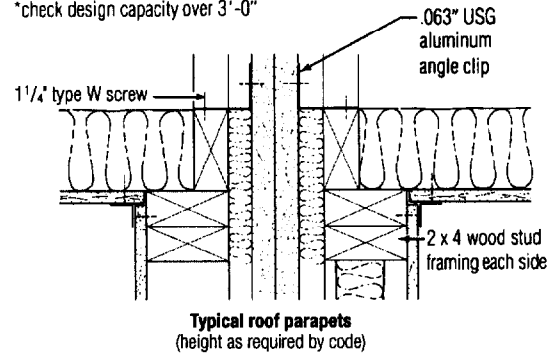
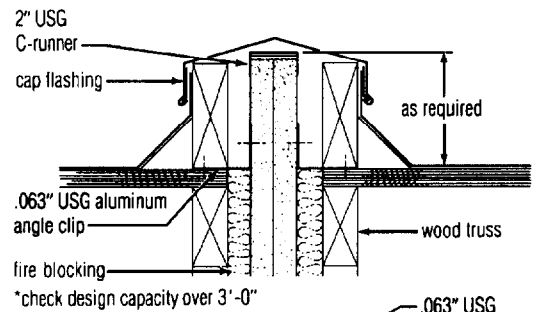
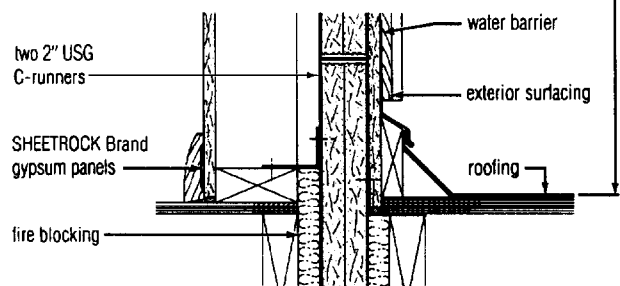
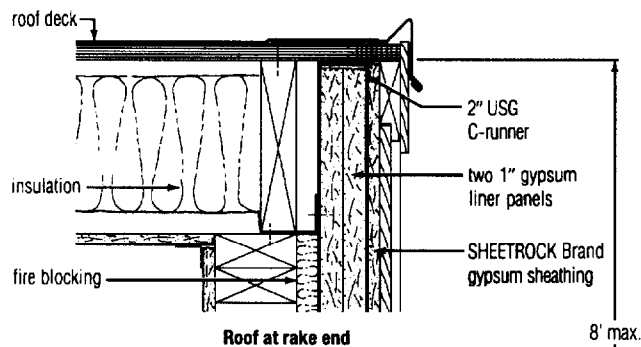


Exterior wall intersection
(as required)

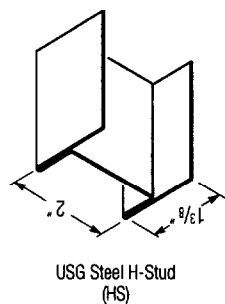
*Note: See illustration on p. 8 for clip spacing requirements.

USG Area Separation Fire Wall/Party Wall Systems

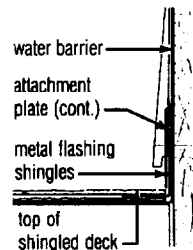
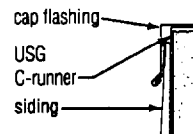
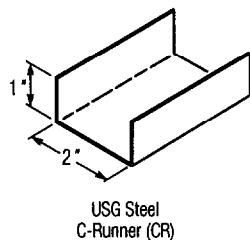
Solid System



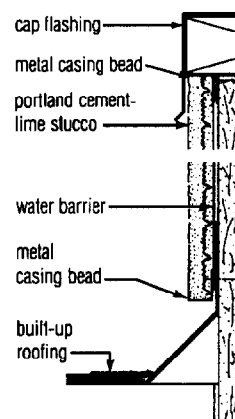
.063" USG Aluminum Breakaway Clip



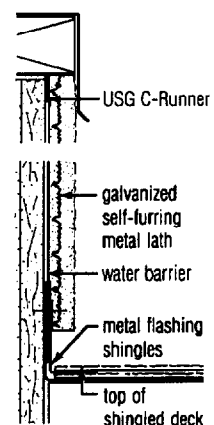
Steel components (solid wall)



Wood siding



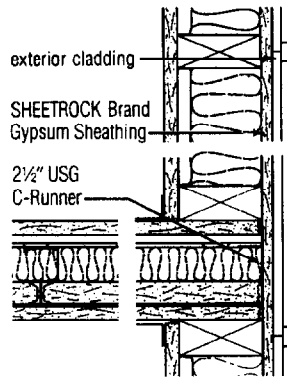
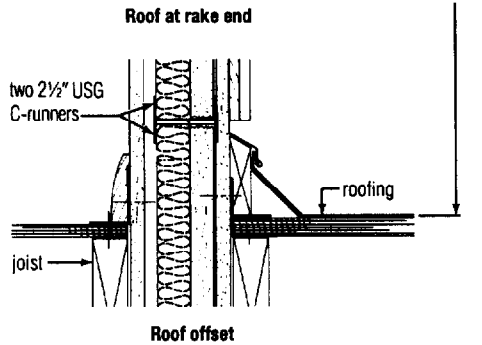
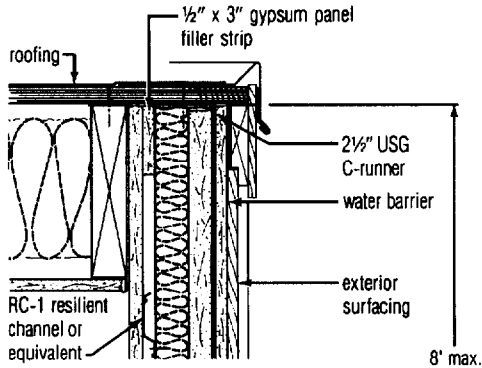
Stucco



Stucco

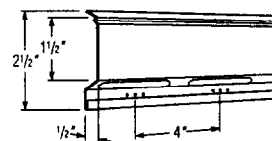
USG Area Separation Fire Wall/Party Wall Systems

Cavity System

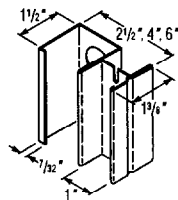


Exterior wall intersection
(as required)

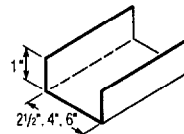
Steel Components (cavity wall)



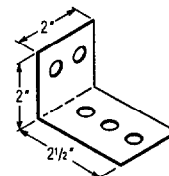
RC-1 Resilient Channel (or equivalent)



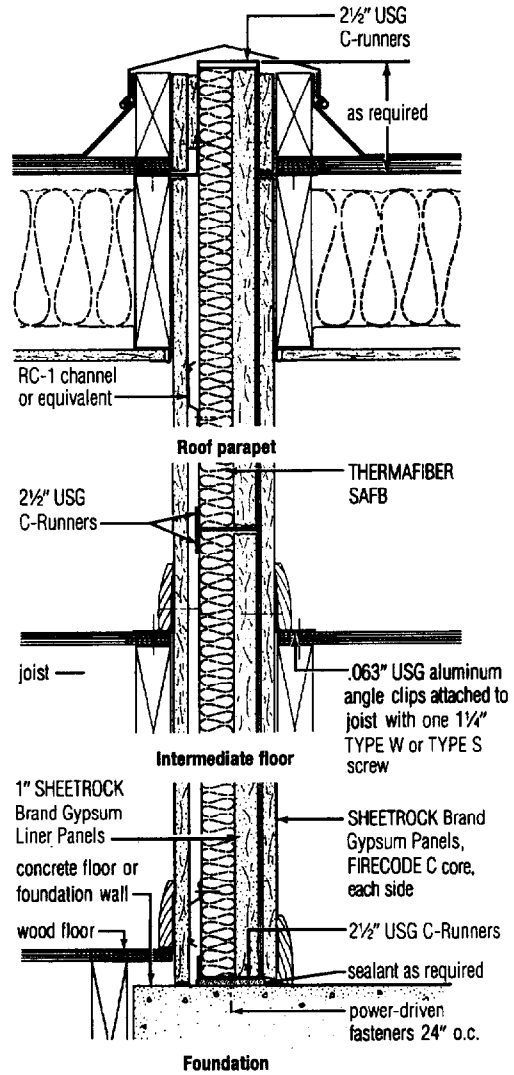
USG Steel C-H Stud (CH)



USG Steel C-Runner (CR)

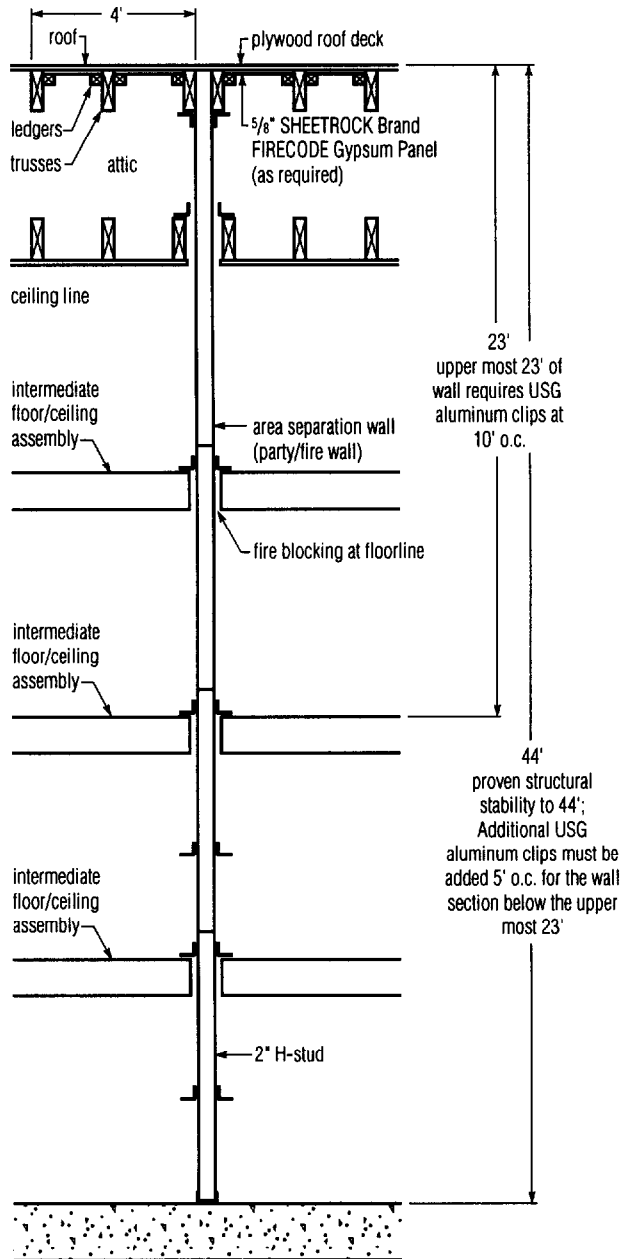


.063" USG Aluminum Angle Clip



**USG Area Separation
Fire Wall/Party Wall
Systems**

2" Solid System Clip Spacing Requirements



USG Area Separation Fire Wall/Party Wall Systems

Good Design Practices	This section is an overview of design, application, installation and safety concerns that should be addressed when USG's products and systems are used at professional construction sites or at home in do-it-yourself projects. This section is not intended to be a comprehensive review but instead outline some major issues. No attempt is made at completeness. We recommend that architects and contractors seek the assistance of safety professionals, especially at the professional construction site, because there are many factors to be considered that are not included here. In addition, for more detailed information and references, please refer to Chapter 13 of the USG Gypsum Construction Handbook, Centennial Edition.
Solid and Cavity Systems	<p>1 System Performance United States Gypsum Company will provide certification for published fire, sound and structural data covering systems designed and constructed according to its published specifications. Tests are conducted on USG products manufactured and assembled to meet performance requirements of established test procedures specified by various agencies. System performance following substitution of materials or compromise in assembly design cannot be certified; failure may result under critical conditions.</p>
2 Clip Attachment	<p>Both solid and cavity area separation wall systems require attachment of aluminum breakaway clips to adjacent wood framing on both sides of the H-Stud or CH-Stud. Clips are attached to each stud and vertical C-Runners (not resilient channel) with one 3/8" TYPE S screw, and to adjacent framing with one 1-1/4" TYPE W or TYPE S screw. These systems may be stacked to a maximum height of 44', and normally require a vertical clip spacing of 10' o.c. max. However, when the solid area separation wall has a stacked height exceeding 23', clip spacing along each stud below the 23' stacked height must be reduced to 5' o.c. max. (see illustration on p. 8).</p> <p>When the solid or cavity area separation wall system is used as an exterior wall, with adjacent wood framing on only one side, clips must be spaced as noted in Section 3.4 of the specifications. Note, for this case, that two 3/8" TYPE S screws are required for clip attachment to the vertical steel framing members.</p>
3 Sound Control Construction	For maximum sound control with both the solid and cavity wall systems, seal the entire perimeter and between the horizontal, back-to-back C-Runners at the intermediate levels with a minimum 1/4" bead of SHEETROCK Brand Acoustical Sealant. Carefully seal around all gaps and cutouts for lights, cabinets, pipes, ducts, electrical boxes, etc. to minimize sound leakage. Back-to-back penetrations of the gypsum panel diaphragm and flanking paths should be eliminated.
4 Fixture Attachment	Lightweight fixtures and trim should be installed using expandable anchors for screw attachment. Medium and heavyweight fixtures are not recommended on resilient surfaces, but, if required, they should be supported from the primary framing.
5 Additional Information	See technical folders in this series: <i>Construction Selector</i> SA100 for fire and sound-rated systems; <i>Gypsum Panels and Accessories</i> Folder SA927 for information on systems components; <i>Textures and Finishing Products</i> Folder SA933 for texturing information; <i>THERMAFIBER Life-Safety Fire Containment Systems</i> Folder SA707 for insulation specifications.
Specifications	
Part 1: General	<p>1.1 Scope Specify to meet project requirements.</p> <p>1.2 Qualifications</p> <ul style="list-style-type: none"> A All materials, unless otherwise indicated, shall be manufactured by United States Gypsum Company, and shall be installed in accordance with its current printed directions. B System must be built in accordance with applicable model code research reports. <p>1.3 Delivery and Storage of Materials All materials shall be delivered in their original unopened packages and stored in an enclosed shelter providing protection from damage and exposure to the elements. Damaged or deteriorated materials shall be removed from the premises. Installed panels should be protected from the environment and dry before enclosing the wall. Warning: Store all SHEETROCK Brand Gypsum Panels flat. Panels are heavy and can fall over, causing serious injury or death. Do not move unless authorized.</p> <p>1.4 Environmental Conditions In cold weather during gypsum panel joint finishing, temperature within the building shall be maintained within the range of 55 to 70 °F (13 to 21 °C). Adequate ventilation shall be provided to carry off excess moisture.</p>

**USG Area Separation
Fire Wall/Party Wall
Systems**

Part 2: Products	2.1 Materials	<p>A Gypsum Board—48" wide, (1/2") (5/8") thick (Regular) SHEETROCK Brand (Water-Resistant) (FIRECODE C) (FIRECODE) Gypsum Panels—lengths as required.</p> <p>B Liner Panel—24" wide, 1" SHEETROCK Brand Gypsum Liner Panels, beveled edge, lengths as required.</p> <p>C USG Steel H-Studs (200HS25), hot-dipped galvanized, lengths as required.</p> <p>D USG Steel C-H Studs (212CH25) (212CH20), hot-dipped galvanized, lengths as required.</p> <p>E USG Steel C-Runners (200CR25) (212CR25), hot-dipped galvanized, x 10' length.</p> <p>F USG Aluminum Angle Clip—2" x 2-1/2" x 0.063" Aluminum Breakaway Clips.</p> <p>G Joint Treatment—(select a United States Gypsum Company Joint System).</p> <p>H Fasteners—Screws (1-1/4" Type W) (1", 1-1/4", 1-5/8" Type S) (3/8" Type S, pan head) (Galvanized staples, 9/16" crown, 1-1/2" leg).</p> <p>I RC-1 Resilient Channel or equivalent.</p> <p>J THERMAFIBER Sound Attenuation Fire Blankets (1") (1-1/2") (2") (3") x 16" or 24" x 48".</p> <p>K SHEETROCK Brand Acoustical Sealant.</p>
Part 3: Execution	3.1 Solid Wall	<p>A Foundation—Position 2" C-Runner and securely attach to foundation with power-driven fasteners at both ends and spaced 24" o.c. Space adjacent runner sections 1/4" apart. When specified, caulk under runner at foundation with min. 1/4" bead of acoustical sealant.</p> <p>B First Floor—Install H-studs and liner panels to a convenient height (max. 2') above the floor line. Install two thicknesses of 1" liner panels vertically in C-Runner with long edges in H-Stud. Erect H-Studs and liner panels alternately until wall is completed. Cap top of panels with horizontal C-Runner. Fasten C-Runner flanges at all corners both sides with 3/8" Type S screws.</p> <p>C Intermediate Floors and Bottom of Trusses—Cap top of liner panels and H-Studs with C-Runner. Attach C-Runner for next row of panels to the C-Runner below with end joints staggered at least 12". Fasten the C-Runners together with double 3/8" screws at ends and 24" o.c. Attach all H-Studs to adjacent framing with an aluminum breakaway clip. Clips attaching H-Studs and vertical C-Runners to adjacent wood framing on both sides require attachment to the H-Stud and C-Runner with one 3/8" Type S screw. Clips attaching H-Studs and vertical C-Runners to adjacent wood framing on only one side and with exterior exposure on the other side require attachment to the H-Stud and C-Runner with two 3/8" Type S screws. Attachment to the wood framing is with one 1-1/4" Type W or Type S screw. Locate horizontal C-Runner joint within 2' of the intermediate floor. Install fire blocking between the solid wall system and adjacent framing at floor lines, bottom of truss line, and any other locations required by the applicable code.</p> <p>D Roof—Continue erecting H-Studs and liner panels for succeeding stories as described. Cut the liner panels and H-Studs to roof pitch and length as necessary to follow the roof pitch. At roof, cap liner panels and H-Studs with C-Runner. Attach all H-Studs to adjacent framing with an aluminum breakaway clip. Clips attaching H-Studs and vertical C-Runners to adjacent wood framing on only one side and with exterior exposure on the other side require attachment to each vertical framing member with two 3/8" Type S screws.</p> <p>E Sound Attenuation Fire Blankets—For direct attachment to 1" liner panels, install blankets with joints staggered and attach blankets with seven staples driven through each blanket. Blanket installation within cavities is friction fit between stud framing.</p> <p>F Interior Finish—Apply specified gypsum panels to wood studs and joists in conventional manner.</p>
	3.2 Cavity Wall	<p>A Foundation—Position 2-1/2" C-Runner at floor and attach to foundation with power-driven fasteners at both ends and spaced 24" o.c. When specified, caulk under runner at foundation with min. 1/4" bead of SHEETROCK Brand Acoustical Sealant.</p> <p>B First Floor—Install 1" liner panels and steel studs to a convenient height (max. 2') above floor line. Erect liner panels vertically in C-Runner with long edges in groove of C-H stud. Install C-H Studs between panels. Cap top of panels with horizontal C-runner, and cap ends of the wall with C-Runner. Fasten C-Runner flanges at all corners on both sides with 3/8" Type S screws both sides.</p>

USG Area Separation Fire Wall/Party Wall Systems

- C Intermediate Floors and Bottom of Trusses**—Cap top of liner panels and CH-Studs with C-Runner and fasten CH-Studs to the C-Runner flanges on alternate sides with 3/8" Type S screws. Attach C-Runner for next row of panels to the C-Runner below with end joints staggered at least 12" o.c. Fasten the C-Runners together with double 3/8" screws at ends and 24" o.c. Attach all CH-Studs to adjacent framing with an aluminum breakaway clip. Clips attaching CH-Studs to adjacent wood framing on both sides require attachment to the CH-Stud (not the resilient channel) with one 3/8" Type S screw. Clips attaching CH-Studs and vertical C-Runners to adjacent wood framing on only one side and with exterior exposure on the other side require attachment to the CH-Stud and C-Runner (not the resilient channel) with two 3/8" Type S screws. Attachment to the wood framing is with one 1-1/4" Type W or Type S screw. Locate horizontal C-Runner joint within 2' of the intermediate floor. As required by the applicable code, install fire blocking in the wall cavity at floor lines, bottom-of-truss line, and any other required locations.
- D Roof**—Continue erecting CH-Studs and liner panels for succeeding stories as described. Cut the liner panels and CH-Studs to roof pitch and length as necessary to follow the roof pitch. At roof, cap liner panels and CH-Studs with C-Runner. Attach all CH-Studs and vertical C-Runners to adjacent framing with an aluminum breakaway clip. Clips attaching CH-Studs and C-Runner to adjacent wood framing on only one side and with exterior exposure on the other side require attachment to the CH-Stud and vertical C-Runner (not the resilient channel) with two 3/8" Type S screws.
- E Sound Attenuation Fire Blankets**—When specified, install blankets in cavity butting blankets closely and filling all voids.
- F Resilient Channels**—When specified, install RC-1 Resilient Channels or equivalent horizontally to face side of studs, 6" below ceiling joists and max. 24" o.c. Attach channels to C-H Studs with 3/8" Type S screws driven through holes in mounting flange. Extend channels to ends of runs and attach to C-Runners. Splice channel by nesting directly over stud; screw-attach through both flanges. Reinforce with screws at both ends of splice.
- G Gypsum Panels**—Apply 1/2" SHEETROCK Brand Gypsum Panels, FIRECODE C Core, vertically to both sides of C-H Studs. Stagger joints on opposite partition sides. Fasten panels with 1" Type S screws spaced 12" o.c. in field and along edges and runner flanges.
- H Resilient Single-layer**—Apply 1/2" SHEETROCK Brand Gypsum Panels, FIRECODE C Core vertically to resilient channels and fasten with 1-1/4" Type S screws placed 6" from C-H Studs and 12" o.c. Do not place screws directly over C-H Studs.
- I Resilient Double-layer**—Apply 5/8" SHEETROCK Brand Gypsum Panels, FIRECODE C Core base layer perpendicular to resilient channels with joints staggered; fasten with 1-1/4" Type S screws placed 6" away from stud and 12" o.c. Apply 5/8" gypsum panel face layer vertically over base layer with edge joints staggered and attach with 1-5/8" Type S screws spaced 12" o.c. and staggered from those in base layer.

3.3 Accessory Application

- A Joint System**—Finish all face panel joints and internal angles with a United States Gypsum Company Joint System installed according to manufacturer's directions. Treat exposed fasteners on face layers and finish corner bead, control joints, and trim as required.
- B Metal Trim**—Where partition or ceiling terminates against masonry or other dissimilar material, apply metal trim over drywall edge; fasten with nails or galvanized staples 9" o.c.
- C Control Joints**—Gap gypsum panels behind joint and back with double framing. Attach control joint on the face layer with nails, screws, or 9/16" galvanized staples spaced 6" o.c. on both flanges along entire length of joint.

3.4 Exterior Wall

Both solid and cavity systems are suitable for exterior walls with an appropriate water barrier installed over the system and under an exterior cladding. Exterior exposure is limited to 15 psf wind load and requires vertical clip spacing of 4' o.c. maximum. Exterior exposure requires attachment of the aluminum breakaway clips to each vertical steel framing member (do not attach clips to resilient channels) with two 3/8" Type S screws. Attachment of the clips to adjacent wood framing is with one 1-1/4" Type W or Type S screw. Uppermost clips should be placed as close to the roof line as practical attachment allows.



Technical Service

800 USG.4YOU

Website

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Samples/Literature

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Samples/Literature E-mail

samplit@usg.com

Samples/Literature/Fax

888 874.2348

Customer Service

800 950.3839

Metric Specifications

USG Corporation, through its operating subsidiaries, will provide metric conversions on its products and systems to help specifiers match metric design sizes. In addition, some products are available in metric dimensions from selected manufacturing plants. Refer to SA100 *Construction Selector* for additional information and a Table of Metric Equivalents.

Trademarks

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Notice

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived

unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

Note

All products described here may not be available in all geographic markets. Consult your local sales office or representative for information.

Safety First!

Follow good safety and industrial hygiene practices during handling and installing all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.



Manufactured by
United States Gypsum Company
125 South Franklin Street
Chicago, IL 60606

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Michael Charek Architects

September 27, 2002

25 Hartley Street
Portland, ME 04103
Phone 207 761 0556
Fax 207 761 7260
www.charekarchitects.com

Michael Nugent
Inspection Services Manager
Housing and Neighborhood Services
Portland City Hall, Room 315
389 Congress Street
Portland, ME 04101

Re: Radcliffe Glen

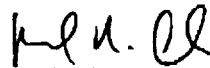
Dear Mr. Nugent:

The following should address questions you raised in the memo you faxed this morning, and will confirm the telephone conversation we had:

- Exterior walls of garages will have 5/8" firecode GWB on their interior surface.
- Door from unit into garage will have at least 45 minute rating; as I stated in my previous letter they will likely have a 90 minute rating.
- No penetrations of dwelling unit separation walls are presently contemplated. If penetrations are made, they will be firestopped with appropriate materials and details to maintain the fire resistance rating of the wall.
- See attached literature on deck railing materials and details.
- Second floor bathroom windows will be provided with safety glazing.

I hope this answers all of your questions satisfactorily. If you need any other information, please let me know.

Yours truly,


Michael R. Charek
Encl.

MICHAEL R. CHAREK
PRINCIPAL
Member
The American
Institute



Michael Charek Architects
 25 Hartley Street
 Portland, ME 04103
 207-761-0556
 Fax 207-761-7260

TRANSMITTAL

Project: Radcliffe Glen

Project No.:

TO: Michael Nugent
 Inspection Services Manager
 City of Portland

DATE: 9/27/02
 If enclosures are not as noted, please inform us immediately.

We Transmit:

- Herewith Under separate cover via:
 By fax: 12 pages including this one

For your:

- Approval Distribution to parties Information
 Review & Comment Record
 Use

The following:

- Drawings Shop Drawings Samples
 Specifications Correspondence Product Literature
 Change Order Minutes Other

Copies	Date	Rev. No.	Description	Action
1	9/27/02		Copy of letter	E.
1			Copy of 10 pages from Certainteed literature	E.

Action Codes:

- A. Action indicated on item transmittal. D. For signature and forwarding as noted below
 B. No action required. under Remarks.
 C. For signature and return to this office. E. See Remarks below.

Remarks: These documents are transmitted in response to the memo you faxed me today.

Copies to: _____ (with enclosures)

By: Michael R. Charek

6

Boardwalk® Composite Railing Systems

Railing Assemblies and Railing Components

Boardwalk Composite Railing Systems are designed to complement the use of Boardwalk Composite Decking planks. Together they provide the complete low maintenance decking system.

Boardwalk Composite Railing Components include:

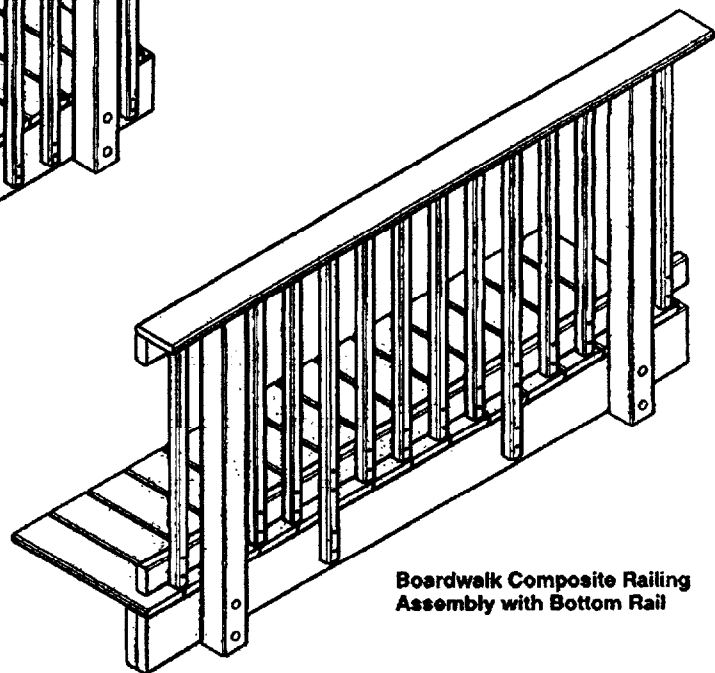
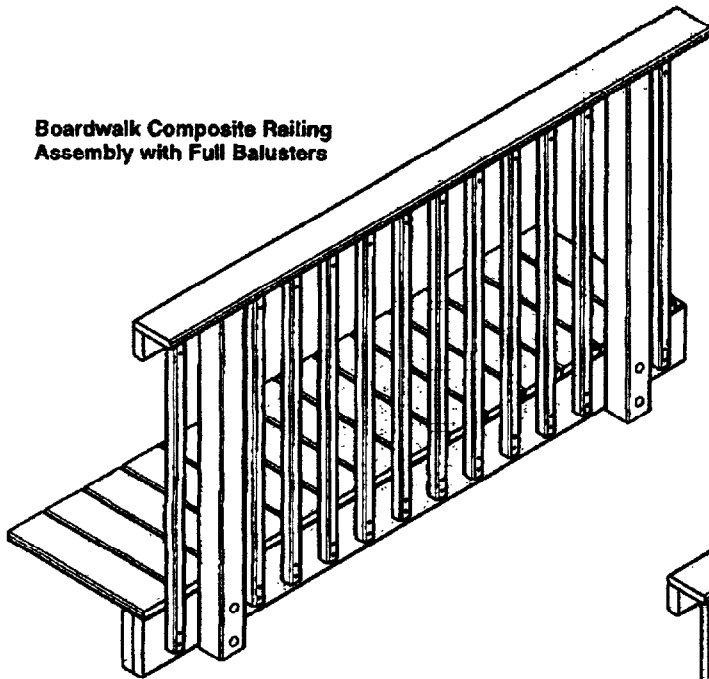
- Boardwalk 2x2 Baluster
- Boardwalk 2x4 Rail
- Boardwalk 4x4 Post
- Boardwalk Post Cap

Boardwalk Composite Railing Systems have been designed and tested to meet building code requirements including BOCA, SBC/SBCCI, UBC/ICBO and IBC. When designed and built in accordance with the following instructions, Boardwalk Composite Railing Systems meet the lateral load requirements of the codes listed including the applicable required safety factors. Check with your local building code official for actual railing requirements.

Design and construction of Boardwalk Composite Railing Systems outside the scope of these instructions must be reviewed and approved prior to construction in accordance with your local building codes. Check with your local building code official for actual railing requirements.

Boardwalk Composite Railing Assemblies

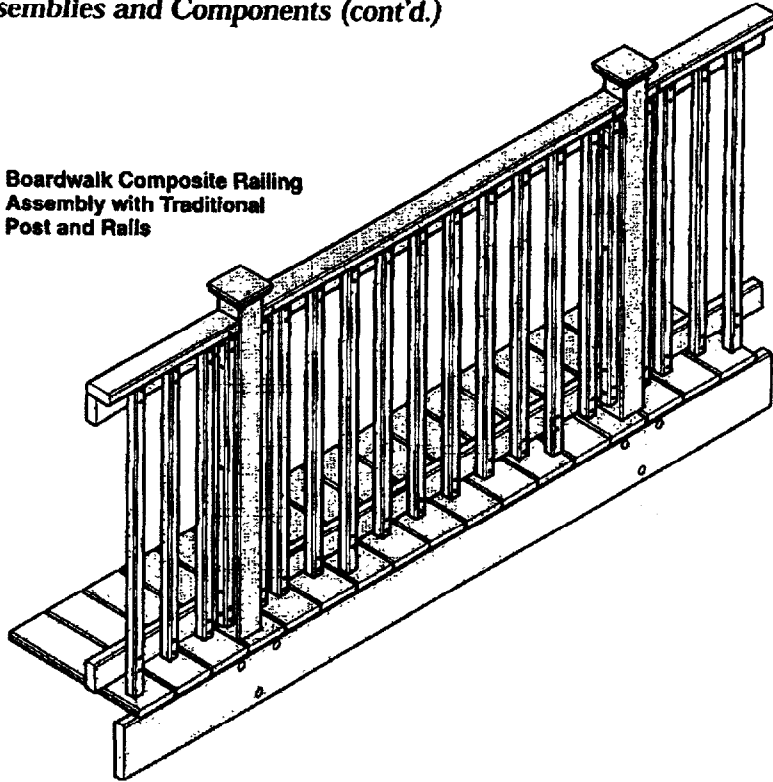
Boardwalk Composite Railing
Assembly with Full Balusters



Boardwalk Composite Railing
Assembly with Bottom Rail

Railing Assemblies and Components (cont'd.)

Boardwalk Composite Railing Assembly with Traditional Post and Rails



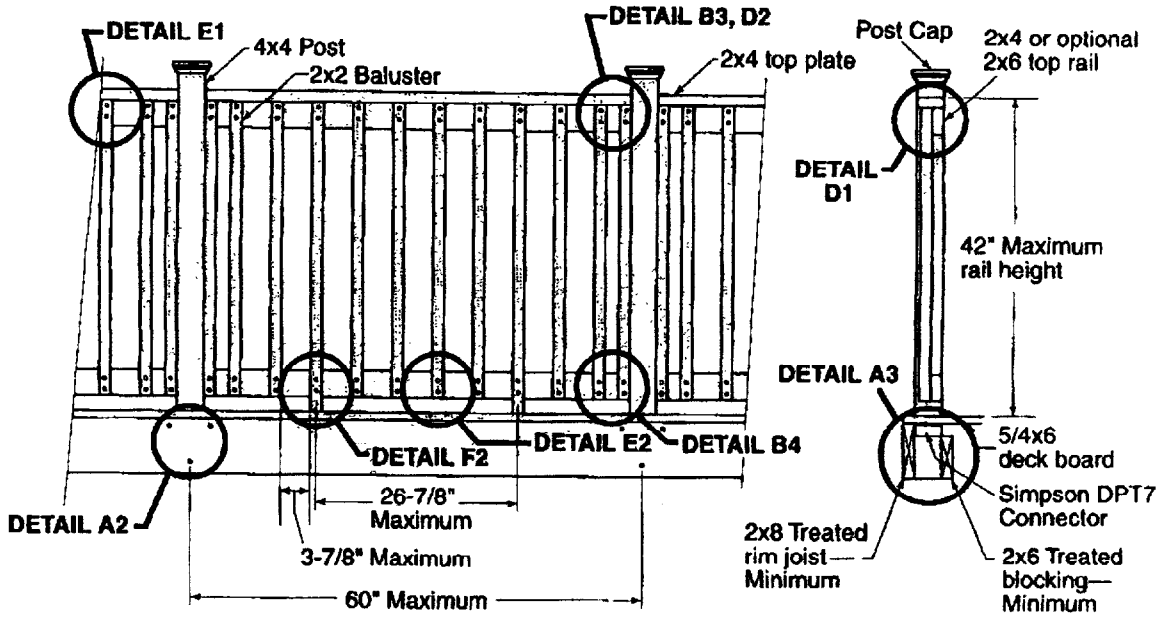
Boardwalk Composite Railing Components

Whether you are building the Boardwalk Composite Railing Assembly with full balusters, bottom rail or traditional post and rails, consult the table below for the component descriptions and installation requirements. Note that the railing components listed include the Boardwalk 5/4x6 and 2x6 Composite Decking planks. They are included as part of the assemblies and offer you aesthetic and cost options in the design and construction of your Boardwalk Composite Railing Assembly.

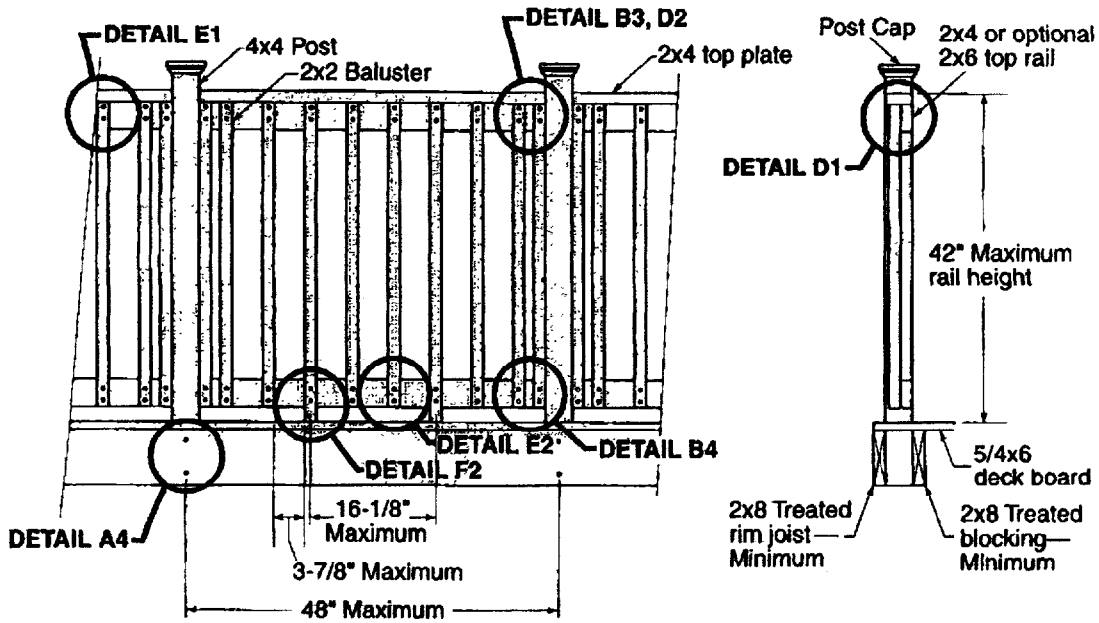
COMPONENT		INSTALLATION REQUIREMENTS
Posts		Boardwalk 4x4. Maximum post spacing shall be 4 to 6 feet (48"-72") on center (see Railing Assembly Illustrations). Posts shall not be notched.
Railings	Top Plate	Boardwalk 5/4x6, 2x6 or 2x4. The 2x4 is the top plate for the Traditional Post and Rail Assembly.
	Top Rail	Boardwalk 2x4 or 2x6.
	Bottom Rail	Boardwalk 2x4 or 2x6. Bottom rails shall be supported and/or attached to the deck structure at a maximum of 26-7/8" on center. Supports must be equally spaced over the railing span. Bottom rail is not required when full-length balusters are attached directly to the deck structure.
Balusters		Boardwalk 2x2. Balusters shall be spaced at a maximum of 5-3/8" on center. BALUSTERS FABRICATED FROM MODIFIED 2X2 OR ANY OTHER BOARDWALK COMPOSITE LUMBER PROFILES ARE NOT PERMITTED.
Post Caps		Boardwalk Post Cap. Post Caps are used at the top of 4x4 posts in traditional post and rail assembly.

Railing Installation Instructions (cont'd.)

Boardwalk Composite Railing Assembly with Traditional Post and Rails (5 ft. Maximum Span)



Boardwalk Composite Railing Assembly with Traditional Post and Rails (4 ft. Maximum Span)



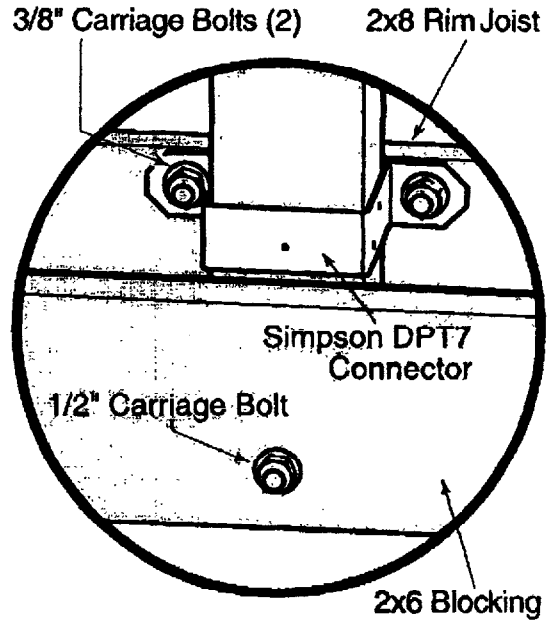
Railing Installation Instructions (cont'd.)

DETAIL A3

Fastening Boardwalk 4x4 Posts to Rim Joists

Detail A3 illustrates the backside of the fastening method outlined in Detail A2. It shows the required carriage bolts, Simpson DPT7 Strong Tie Connector and 2x6 blocking.

NOTE: VIEW SHOWN IS FROM THE INTERIOR WITH THE DECKING PLANKS REMOVED.



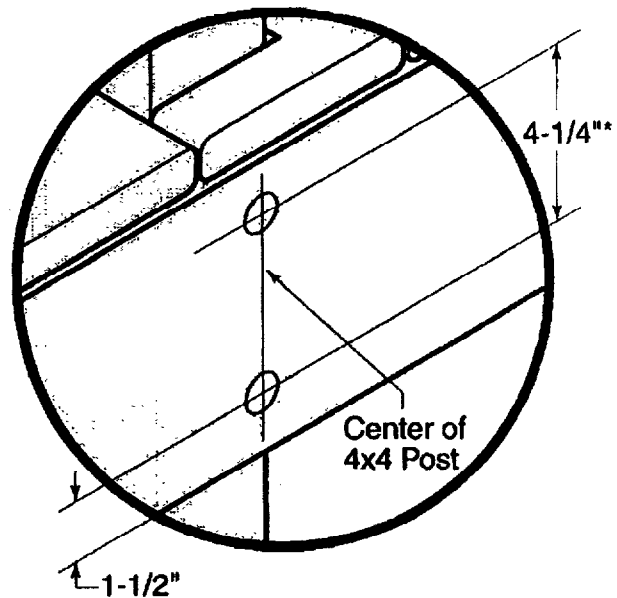
DETAIL A4

Fastening Boardwalk 4x4 Posts to Rim Joists

Detail A4 illustrates the fastening method for the traditional post and rail assembly (4 ft. maximum span). The 4x4 posts are mounted inboard of the 2x8 rim joist. The posts must be thru-bolted to the deck rim joist using two (2) 1/2 inch carriage bolts. Clearance holes are required at the dimensions shown—9/16 inch diameter maximum. To provide proper load bearing, the posts must be bolted to a minimum 2x8 rim joist with minimum 2x8 blocking at the backside of the 4x4 post. Post spans must not exceed the maximum spans shown on the assembly illustrations.

*The 4-1/4 inch minimum dimension shown is from the fastener center to the centerline. It is based on the minimum 2x8 joist framing and this dimension may be adjusted for 2x10 and 2x12 joist framing.

NOTCHING OF BOARDWALK 4X4 POSTS IS NOT PERMITTED.



Railing Installation Instructions (cont'd.)

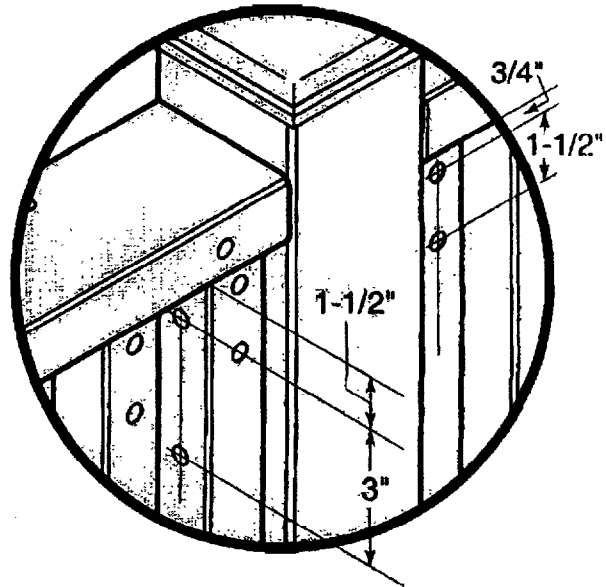
DETAIL B3

Fastening Boardwalk Top Rail to 4x4 Post

The top rail for the traditional post and rail assemblies are anchored to the 4x4 posts through the end 2x2 baluster. Use the specified deck screws at the 1-1/2 inch and 3 inch locations shown to anchor the end baluster to the 4x4 post. The bottom of the end baluster is anchored similarly (see Detail B4, below).

Once the end balusters are anchored, the top rail is positioned between the 4x4 posts and anchored using the specified deck screws at the 3/4 inch and 1-1/2 inch locations shown at right.

NOTE: THE END BALUSTER MUST ALSO BE ANCHORED TO THE 4X4 POST AT ITS VERTICAL MIDPOINT IN THE SAME FASHION AS THE 1-1/2 INCH AND 3 INCH LOCATIONS SHOWN.

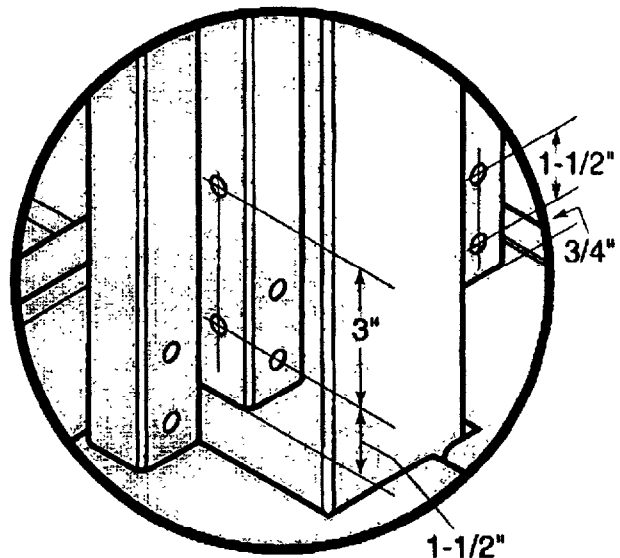


DETAIL B4

Fastening Boardwalk Bottom Rail to 4x4 Post

Similar to the top rail anchoring method described above, the bottom rail of the traditional post and rail assemblies are anchored to the 4x4 posts through the end 2x2 baluster. Use the specified deck screws at the 1-1/2 inch and 3 inch locations shown to anchor the end baluster to the 4x4 post.

Once the end balusters are anchored, the bottom rail is positioned between the 4x4 posts and anchored using the specified deck screws at the 3/4 inch and 1-1/2 inch locations shown.



Railing Installation Instructions (cont'd.)

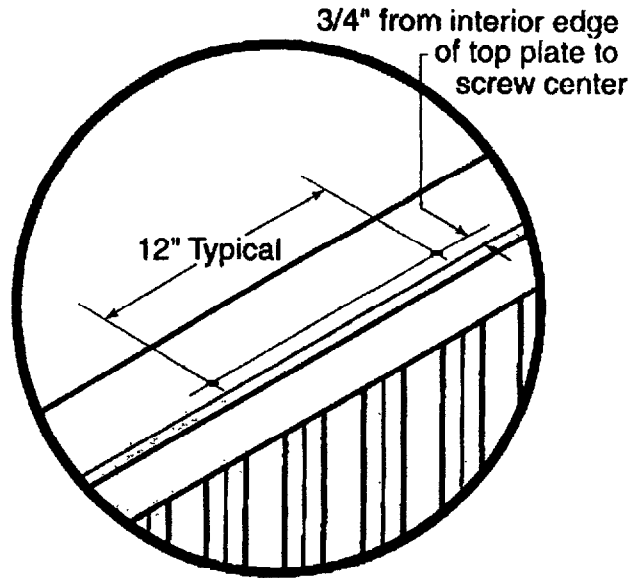
DETAIL D1

Fastening Boardwalk Top Plate to Top Rail

(Viewed from interior)

After the Boardwalk top plate is fastened to the 4x4 posts, use the specified deck screws at the locations shown to fasten the top plate continuously to the top rail. The interior surface of the top plate should be flush with the interior surface of the top rail.

The 5/4x6 decking plank is shown; the 2x6 plank is an optional top plate. See the Boardwalk Composite Railing Component table.

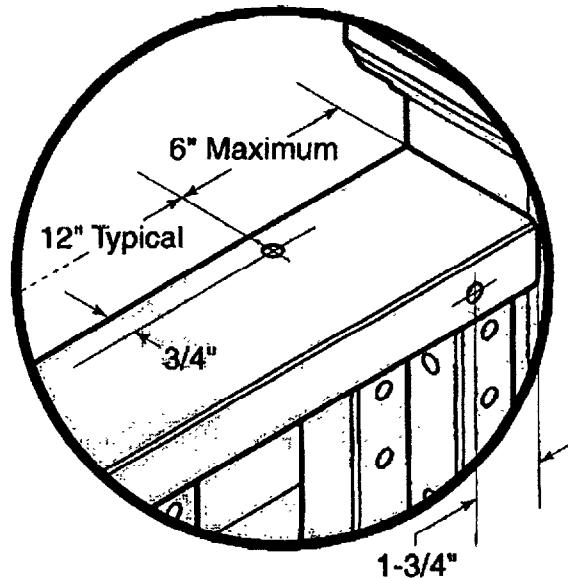


DETAIL D2

Fastening Boardwalk Top Plate to Top Rail

Fasten the 2x4 top plate to the 4x4 post and top rail of the traditional post and rail assemblies at the locations shown with the specified deck screws.

NOTE: THE FASTENERS AT THE 1-3/4 INCH LOCATION SHOWN ARE INSTALLED AT AN APPROXIMATE 45 DEGREE ANGLE INTO THE 4X4 POST. PRE-DRILLING IS RECOMMENDED FOR PROPER APPLICATION. TWO FASTENERS ARE REQUIRED AT EACH END (ONE INTERIOR AND ONE EXTERIOR).



16

Railing Installation Instructions (cont'd.)

DETAIL E1

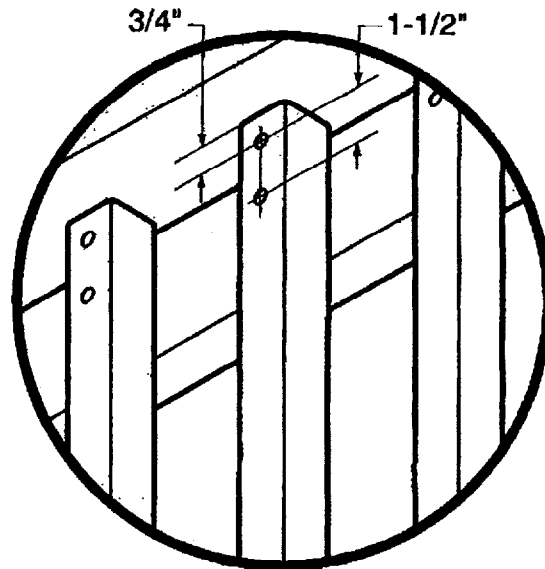
Fastening Boardwalk 2x2 Balusters to Top Rail

(Viewed from underside)

The Boardwalk 2x2 balusters are the last components installed in the deck railing assembly.

Using the maximum 3-7/8 inch spacing shown in the Assembly Illustrations, center the appropriate number of balusters between the 4x4 post spans. Make sure that the spacing from the last baluster to the 4x4 post on each end also meets the maximum 3-7/8 inch requirement. Hint: A block of wood cut to the desired spacing works well to locate each baluster while fastening.

Use the specified deck screws at the locations shown to fasten the balusters to the top rail. The top surface of the baluster should be tight to the underside of the top plate.



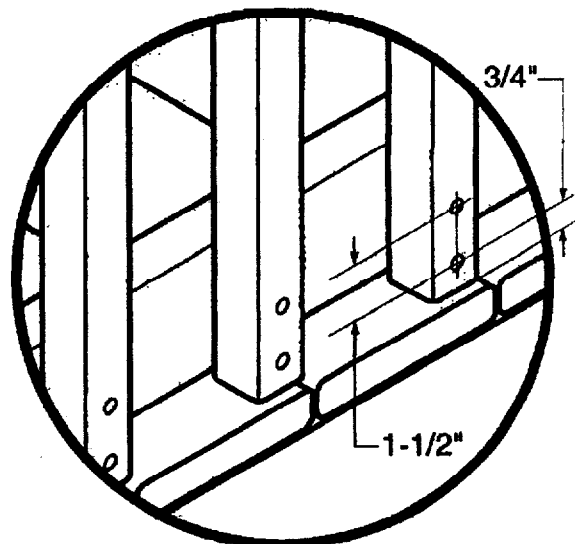
DETAIL E2

Fastening Boardwalk 2x2 Balusters to Bottom Rail

If your assembly includes a bottom rail, fasten the bottom of the Boardwalk 2x2 balusters to the bottom rail.

With the same maximum 3-7/8 inch spacing and layout used for the top rail connection, fasten the balusters to the bottom rail using the specified deck screws at the locations shown. The bottom surface of the baluster should be flush with the underside of the bottom rail.

NOTE: TO PROVIDE THE NECESSARY VERTICAL SUPPORT, AT LEAST TWO BALUSTERS IN THIS ASSEMBLY MUST BE CUT LONG ENOUGH TO BE ANCHORED TO THE BOTTOM RAIL AND THE RIM JOIST. SEE THE RAILING ASSEMBLY ILLUSTRATIONS FOR LOCATION AND MAXIMUM SPACING. SEE DETAIL F FOR ADDITIONAL FASTENING INSTRUCTIONS.



Railing Installation Instructions (cont'd.)

DETAIL F1

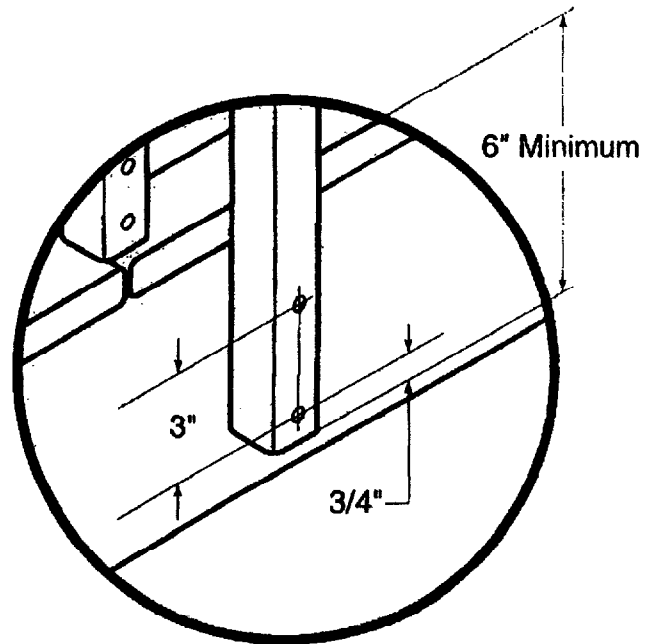
Fastening Boardwalk 2x2 Balusters to Rim Joist

If your assembly does not include a bottom rail, all of the balusters must be fastened to the rim joist.

With the same maximum 3-7/8 inch spacing and layout used for the top rail connection, fasten the balusters to the rim joist using the specified deck screws at the locations shown.

NOTE: THE LENGTH OF EACH BALUSTER MUST OVERLAP THE RIM JOIST A MINIMUM OF 6 INCHES AS SHOWN. THIS DIMENSION IS MEASURED FROM THE TOP OF THE DECK PLANK TO THE BOTTOM OF THE BALUSTER.

AS NOTED IN DETAIL E2: If your assembly includes a bottom rail, a minimum of two Boardwalk balusters must be fastened to the rim joist for vertical support. Use the same procedure noted above for baluster length, fastener type and location.

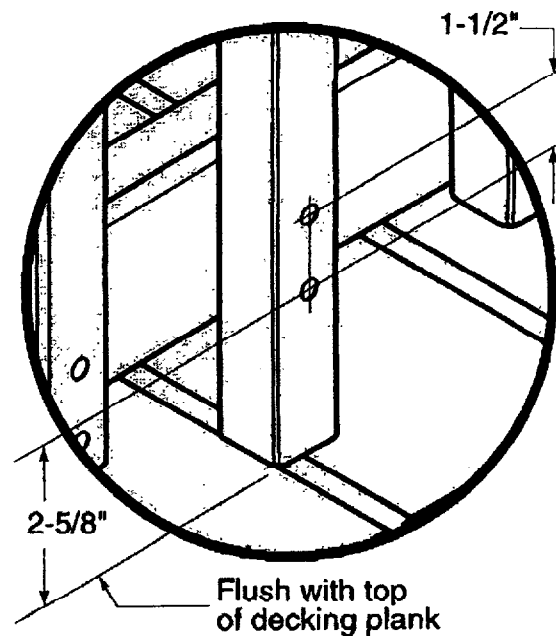


DETAIL F2

Fastening Boardwalk 2x2 Balusters to Deck Surface

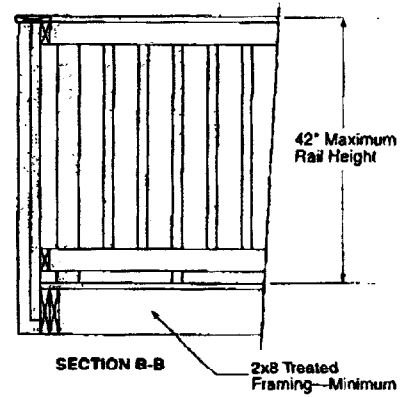
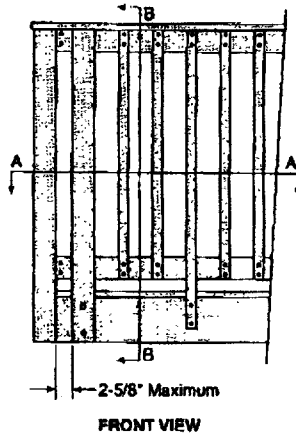
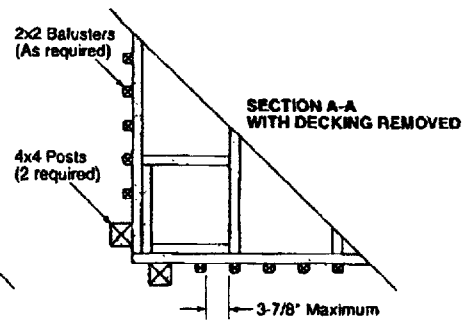
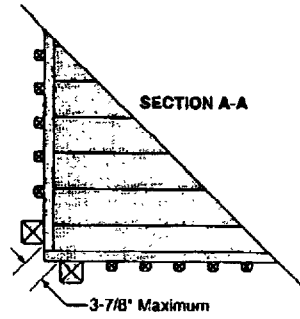
As noted in the Railing Assembly Illustrations, two of the 2x2 balusters in the traditional post and rail assemblies must be cut long enough to extend to the deck surface to provide vertical support. They are anchored to the bottom rail using the specified deck screws and same 3-7/8 inch spacing noted in Detail E1 at the locations shown.

NOTE: THE TWO LONGER-LENGTH BALUSTERS REST ON THE TOP SURFACE OF THE DECKING PLANKS. THEY ARE NOT ANCHORED TO THE DECK SURFACE.

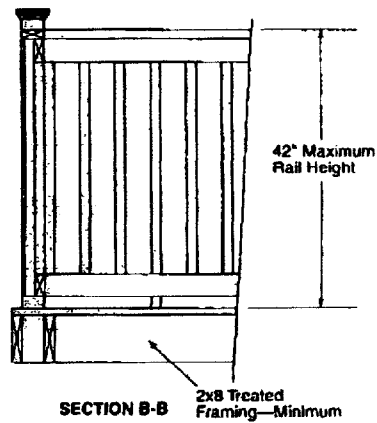
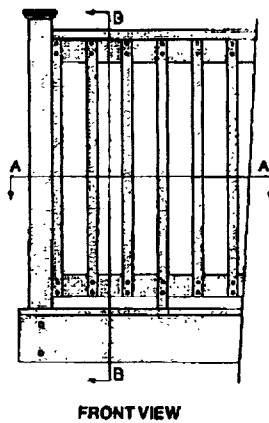
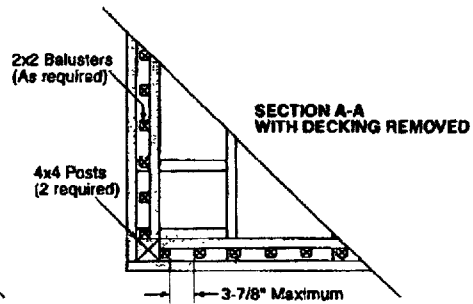
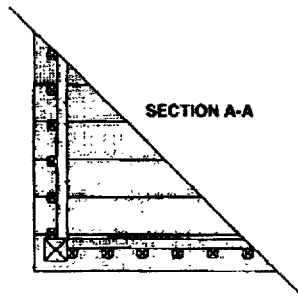


Railing Installation Instructions (cont'd.)

Boardwalk Composite Railing Corner Assembly with Bottom Rail



Boardwalk Composite Railing Corner Assembly with Traditional Post and Rails



20

Railing Installation Instructions (cont'd.)**Boardwalk® Composite Railing Systems****Fastener Schedule**

Use the fasteners specified in the table below to construct the Boardwalk Composite Railing Assemblies. See the referenced details for complete fastener location and spacing.

LOCATION	QTY.	TYPE	SPACING	DETAIL
4x4 Post to Rim Joist	2	1/2" Carriage Bolt, Flat Washer and Nut	1-1/2" from bottom, 4-1/4" on center vertically	A1, A4
4x4 Post to Rim Joist	1	1/2" Carriage Bolt, Flat Washer and Nut	1-1/2" from bottom,	A2, A3
	1	Simpson DPT7 Strong Tie Connector	6-1/2" from bottom to centerline	
	2	3/8" Carriage Bolt, Flat Washer and Nut	6-1/2" from bottom to centerline	
2x4 or 2x6 Top/Bottom Rail to 4x4 Post	2	#8x3" Deck Screw	2" on center vertically	B1, B2
5/4x6 or 2x6 Top Plate to 4x4 Post	2	#8x3" Deck Screw	2" on center	C1, C2
2x4 Top Plate to 4x4 Post	2	#9x3" Deck Screw	2" each end at approx. 45 degree angle	D2
5/4x6 or 2x6 Top Plate to Top Rail	1	#8x2-1/2" Deck Screw	Every 12" on center	D1
2x4 Top Plate to Top Rail	1	#8x3" Deck Screw	Every 12" on center	D2
2x2 Baluster to Top/Bottom Rail	2	#8x2-1/2" Deck Screw	1-1/2" on center vertically	B3, B4 E1, E2, F2
2x2 Baluster to Rim Joist	2	#8x2-1/2" Deck Screw	3" on center vertically	F1
2x2 End Baluster to 4x4 Post	5	#9x3-1/2" Deck Screw	1-1/2" from top and bottom 3" center to center vertically and midpoint of baluster length	B3, B4
Post Cap to 4x4 Post	N/A	Construction Adhesive	N/A	N/A

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

facsimile transmittal

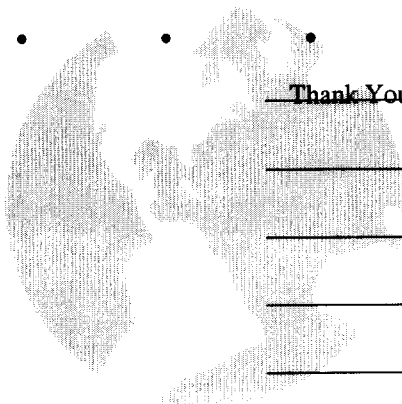
To: Michael Charek **From:** Mike Nugent

Fax: 761-7260 **Date:** September 27, 2002

Phone: _____ **Pages:** 1

Re: Radeliffe Glenn (153 A025)

Urgent For Review Please Comment Please Reply Please Recycle



• • • • •
Thank You for the information I have a couple of questions as I wrap this up;

- 1) The exterior walls of the residential garages must be one hour rated.
- 2) A 20. Minute garage to living space door would not work in this circumstances. (see Table 717.1.) Because the wall is a one hour fire partition, the door must be 45 min.
- 3) Will there be any penetrations in the dwelling unit separation walls?
- 4) Can we get product information and installation guidelines on the Guardrails for the decks?
- 5) The second floor bathroom windows in 11,14, 15 & 18 must be safety glazing (see section 2406.2(5))

• • • • •



Land Use Consultants, Inc.

David A. Kamila PE
Frederic J. Licht PE
Thomas N. Emery RLA
J. David Haynes RLA

COPY

September 26, 2002

1420.05

*p l a n n e r s
e n g i n e e r s
l a n d s c a p e
a r c h i t e c t s*

Jay Reynolds, Development Review Coordinator
Department of Planning and Development
City Hall
389 Congress Street
Portland, ME 04101

Ron & Sandy Fitch – Lot 5 Diamond Cove

Dear Jay:

I am pleased to submit the attached Site Plan (4 copies, 1 mylar original) on behalf of my clients Ron and Sandy Fitch. As we have discussed, they are in the process of renovating an old building, which was part of the old Fort McKinley complex. Their lot (No. 5) is part of the approved subdivision plan of Diamond Cove Phase II and shown on 2nd Amended Recording Plat, Sheet 2 of 3, which was recorded in the Cumberland County Registry of Deeds in Plan Book 198 Page 389 on December 22, 1998. This Site Plan is intended to serve as their development plan for the lot as well as an amendment to the existing Record Plat.

The reason for the amendment is to allow the existing building footprint to be reconstructed as it is. The Record Plat shows a designated building window on their lot which does not include all of the existing building footprint, in particular the portion nearest West Shore Drive which is an existing road that was part of the original Fort McKinley complex. The existing building is an existing non-conforming structure from the standpoint of right-of-way set back. It does, however meet the minimum set back of 75 feet from normal high water.

We have also added details for supplemental plantings to the plan based on our site visit on August 22, 2002 to observe the existing trees and landscaping on the lot. During that visit we observed 17 white birch trees ranging in size from 3 to 6 inches, 1 10 inch red pine and 1 6 inch poplar growing in front of the existing structure. these trees are shown on the photographs that Sandy Fitch sent to you under separate cover. We have shown some additional plantings along the top of the embankment consisting of 4 white birch trees separated by two planting beds which will each be planted with 6 Rosa Rugosa, 3 Bayberry and 7 Bar Harbor Junipers.

966 RIVERSIDE STREET
PORTLAND, MAINE 04103

voice (207) 878 3313
f a x (207) 878 0201
www.landuse@gwi.net

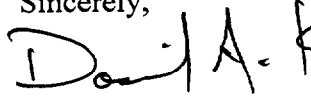


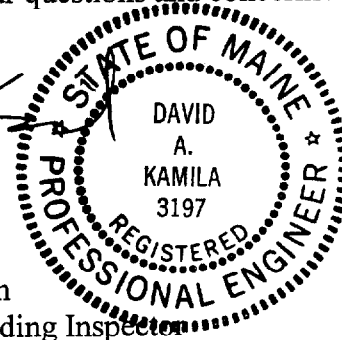
I have previously prepared a Plumbing Permit Application (HHE-200) for a new subsurface disposal system on the lot to serve their new home. The proposed disposal bed is shown on the site plan along with proposed grading, drainage, other utilities and the driveway. The lot was surveyed by Survey & Geodetic Consultants Inc. and includes their seal and signature. I have also included a signature block for the Director's signature. We will file this plan in the registry of deeds..

The Fitch's would like to proceed with replacement of their windows as soon as possible so their building will be closed in before cold weather set in. It is my understanding that upon approval of this plan that Mike Nugent will be able to issue them a permit for that work. We would appreciate your timely review of this plan so they may proceed with their work as soon as possible.

I am available at your convenience to discuss this matter in more detail. Please feel free to call me with your questions and concerns.

Sincerely,


David A. Kamila, P.E.
President



Cc: Ron & Sandy Fitch
Mike Nugent, Building Inspector
Tim Patch, PLS

Enclosures

NOTES: 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)

R-3 USE OR OCCUPANCY CLASSIFICATION (302.0-313.0)

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)	<u>100%</u>
% Reduction for height (Table 506.4)	- <u>0%</u>
% Increase for open perimeter (506.2)	+ <u>0%</u>
% Increase for automatic sprinklers (506.3)	+ <u>0%</u>
Total percentage factor	= <u>100%</u>
Conversion factor	<u>1 x 100% = 100%</u> (Total percentage factor/100%)

Open perimeter (506.2)	North	East	South	West
Open perim. _____ ft.	Perimeter _____ ft.			
% Open perimeter = $\frac{\text{Open perim.}}{\text{perim.}} \times 100\%$				
% Tab. area increase = $2 \times (\% \text{ Open perim.} - 25\%)$ (506.2)				

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.

Actual floor area <u>6160 ÷ 2 = 3080</u> ft. ²	Actual building height <u>22</u> feet	<u>2</u> stories
Adjusted floor area* <u>4800</u> ft. ²	Allowable building height <u>35</u> feet	<u>2</u> stories

*Adjusted floor area = actual floor area/conversion factor

Permitted types of construction ALL Type of construction assumed for review (602.3) FB

ATRIUMS'

- Automatic sprinkler system (404.2)
- Occupancy (404.3)
- Smoke control (404.4)
- Enclosure (404.5)
- Fire alarm system (404.6)
- Travel distance (404.7)

OTHER SPECIAL USE AND OCCUPANCY

- Underground structures (405.0)
- Open parking structures (406.0)

2 Private garages (407.0)

- N/A Public garages (408.0)
- Use Group I-2 (409.0)
- Use Group I-3 (410.0)
- Stages and platforms (412.0)
- Special amusement buildings (413.0)
- HPM facilities (416.0)
- Hazardous materials (307.8, 417.0)
- Use Groups H-1, H-2, H-3 and H-4 (418.0)
- Swimming pools (421.0)

FIRE PROTECTION (Chapters 6, 7, 8, 9)

FIRERESISTANT MATERIALS AND CONSTRUCTION (Chapter 7 and Table 602)

Note: Entry in indicates required rating in hours. NC indicates noncombustible construction required.

COMBUSTIBILITY (603.0, 604.0, 605.0, 606.0)

- Exterior walls
- Interior elements
- Roof

CONSTRUCTION DOCUMENTS (703.0)

UL listed Fire tests (704.0)

EXTERIOR WALLS (507.2, 705.0, 719.5)

	North	East	South	West
Fire separation distance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Loadbearing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nonloadbearing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

N/R Exterior opening protectives (705.3, 706.0)

N/R Parapet walls (705.6)

FIRE SEPARATION ASSEMBLIES

N/A Exit enclosures (709.0, 710.0, 1014.11)

N/A Other shafts (709.0, 710.0)

N/A Mixed use and fire area separations (313.1.2)

N/A Other separation assemblies (302.1.1, Table 602)

FIRE PARTITIONS

- N/A Exit access corridors (711.0, 1011.4)
- N/A Tenant separations (711.0)
- 1 HR + 2 HR Dwelling unit separations (711.0)
- N/A Guestroom separations (711.0)

OTHER FIRERESISTANT CONSTRUCTION

- 2 HR Fire and party walls (707.0 and Table 707.1) *to Div 05 Sub 01*
- N/A Smoke barriers (712.0)
- 0 Nonloadbearing partitions (Table 602)
- 0 Interior loadbearing walls, columns, girders, trusses (716.0)
- 0 Supporting construction (716.0)
- 0 Floor construction (713.0, 1006.3.1)
- 0 Roof construction (713.0, 715.0)
- ? Penetrations (714.0) *not shown*
- Opening protectives (717.0, 719.0, 720.0)
- N/A Fire dampers (718.0)
- SEE MEMO Fireblocking/draftstopping (721.0)
- 49+60 Thermal and sound-insulating materials (723.0) *STC*

STANDPIPE SYSTEMS

- Building height (915.2.1)
- Building area (915.2.2)
- Malls (915.2.3)
- Stages (915.2.4)
- Approved system (915.3, 915.3.1)
- Piping design (915.4)
- Water supply (915.5)
- Control valves (915.6)
- Hose connection (915.7)

FIRE DEPARTMENT CONNECTIONS

- Required (916.1)
- Connections (916.2)

YARD HYDRANTS

- Fire hydrants (917.1)

FIRE ALARM SYSTEMS

- Approval (918.3)
- Assembly (A-4), Educational (E) (918.4.1)
- Business (B) (918.4.2)
- High-hazard (H) (918.4.3)
- Institutional (I) (918.4.4)
- Residential (R-1) (918.4.5)
- Residential (R-2) (918.4.6)
- Location/details (918.5)
- Power supply/wiring (918.6, 918.7)
- Alarm-notification appliances (918.8)
- Voice/alarm signaling system (918.9)

AUTOMATIC FIRE DETECTION SYSTEMS

- Approval (919.3)
- Institutional (I) (919.4.1, 919.4.2, 919.4.3)
- Residential (R-1) (919.4.4)
- Sprinklered buildings exception (919.5)
- Zones (919.6)

SINGLE- AND MULTIPLE-STATION SMOKE DETECTORS

- Residential (R-1) (920.3.1)
- Residential (R-2, R-3) (920.3.2)
- Institutional (I-1) (920.3.3)
- Interconnection (920.4)
- Battery backup (920.5)

FIRE EXTINGUISHERS

- Approval (921.1)
- Required (921.2)

SMOKE CONTROL SYSTEMS

- Passive system (922.2.1)
- Mechanical system (922.2.2)
- Smoke removal (922.3)
- Activation (922.4)
- Standby power (922.5)

SMOKE AND HEAT VENTS

- Size and spacing (923.2)

SUPERVISION

- Fire suppression systems (924.1)
- Fire alarm systems (924.2)

ROOFS AND ROOF STRUCTURES (Chapter 15)

<u>✓</u>	Performance requirements (1505.0)	<u>No</u>	Low-slope roof coverings (1507.5)
<u>CLASS C</u>	Fire classification (1506.0)	<u>YE</u>	Flashing (1508.0)
<u>NO</u>	Steeep-slope roof coverings (1507.4)	<u>CROSSES</u>	Roof structures (1510.0)

STRUCTURAL SYSTEMS (Chapters 16, 17, 18)

STRUCTURAL LOADS (Chapter 16)

DESIGN LOADS ON CONSTRUCTION DOCUMENTS (1603.1)

Uniformly distributed floor live loads (1603.2, 1606.0)

Floor Area Use	Loads Shown
<u>1ST FLOOR CORRIDOR</u>	<u>50 + 10</u>
<u>2ND BEDROOM</u>	<u>50 + 10</u>
<u>STAIRS</u>	<u>60</u>
_____	_____
_____	_____

NONE Live load reduction (1603.2, 1606.7)

50 Roof live loads (1603.3, 1607.0)

Roof snow loads (1603.4, 1608.0)
60 - DESIGNED FOR
 Ground snow load, P_g (1608.3)

50 If $P_g > 10$ psf, flat-roof snow load, P_f (1608.4)

1.0 If $P_g > 10$ psf, snow exposure factor, C_e (Table 1608.4)

_____ Sloped roof snowload, P_s (1608.5)

1.1 If $P_g > 10$ psf, snow load importance factor, I (Table 1609.5)

Wind loads (1603.5, 1609.0)
90 DESIGNED FOR
 Basic wind speed (1609.3)

B Wind exposure category (1609.4)

1.1 Wind importance factor, I (Table 1609.5)

2017 Wind design pressure, P (1609.7)

Earthquake loads (1603.6, 1610.0)

0.1 Peak velocity-related acceleration, A_v (1610.1.3)

0.1 Peak acceleration, A_a (1610.1.3)

I Seismic hazard exposure group (1610.1.5)

C Seismic performance category (1610.1.7)

_____ Soil-profile type (Table 1610.3.1)

LIGHT FRAMED WALLS
 Basic structural system and seismic-resisting system (Table 1610.3.3)

0.5/4 Response modification factor, R , and deflection amplification factor, C_d (Table 1610.3.3)

ELFP Analysis procedure (1610.4, 1610.5)

Other loads

_____ Attic load (1606.2.2, 1606.2.3)

_____ Partition loads (1606.2.4)

N/A Concentrated loads (1606.3)

N/A Impact loads (1606.6)

_____ Misc. loads (1606.4, 1606.8, 1606.9, 1607.5, 1612.0)

STRUCTURAL DESIGN CALCULATIONS

YES Submitted for all structural members (107.7)

YES Signed/sealed (107.7, 114.1)

YES Deflection limits considered (1604.5)

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)

_____ 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)

WOOD FRAME CONSTRUCTION

_____ Fastening and construction details (2305.0, Table 2305.2)

_____ Wind bracing design required (2305.7)

_____ Prefabricated components (2313.1, 2313.3.1, 2313.3.2)

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

NONSTRUCTURAL MATERIALS (Chapters 24, 25, 26)

GLASS AND GLAZING (Chapter 24)

_____ Skylights (2404.0)

11 + 14 A102
SHEET A104 UNIT 15 + 16 BARRIS

_____ 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)

Diffusing systems (2604.5)

Wall panels (2605.0)

Unprotected openings (2606.0)

Roof panels (2607.0)

Skylight glazing (2608.0)

BUILDING SERVICES (Chapters 28, 30)

MECHANICAL SYSTEMS (Chapter 28)

Waste- and linen-handling systems (2807.0)

Refuse vaults (2808.0)

ELEVATORS AND CONVEYING SYSTEMS (Chapter 30)

Construction standard specified (3001.2)

Venting (3007.3 - 3007.6)

Elevator emergency operation (3006.2)

Opening protectives (3008.2)

Hoistway enclosure (3007.1)

Conveyors and escalators (3010.0, 3011.0)

SPECIAL DEVICES AND CONDITIONS (Chapters 31, 34)

SPECIAL CONSTRUCTION (Chapter 31)

Membrane structures (3103.0)

PEDESTRIAN WALKWAYS (3106.0)

Flood-resistant construction (3107.0)

Construction and use (3106.1 - 3106.3)

Towers (3108.0)

Separation (3106.4)

Local approval (3106.5)

Egress and size (3106.6 - 3106.8)

EXISTING STRUCTURES (Chapter 34)

ADDITIONS, ALTERATIONS OR CHANGE OF OCCUPANCY

General requirements (3402.0)

Additions/alterations (3403.0, 3404.0)

Structural loads (1614.0, 3402.5)

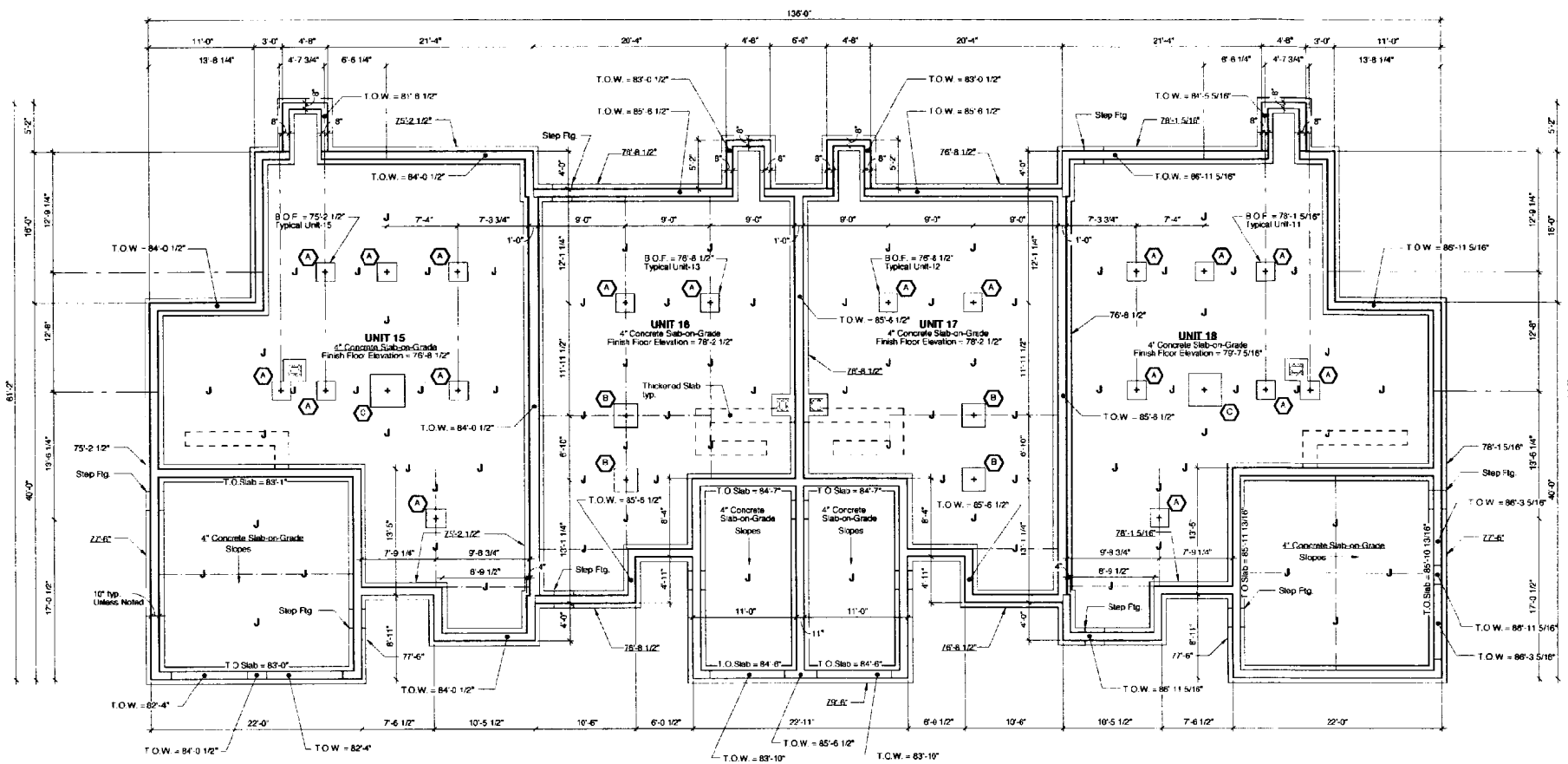
Change of occupancy (1110.3, 3405.0)

Accessibility (1110.0, 3402.7)

Compliance alternative evaluation (3408.0)

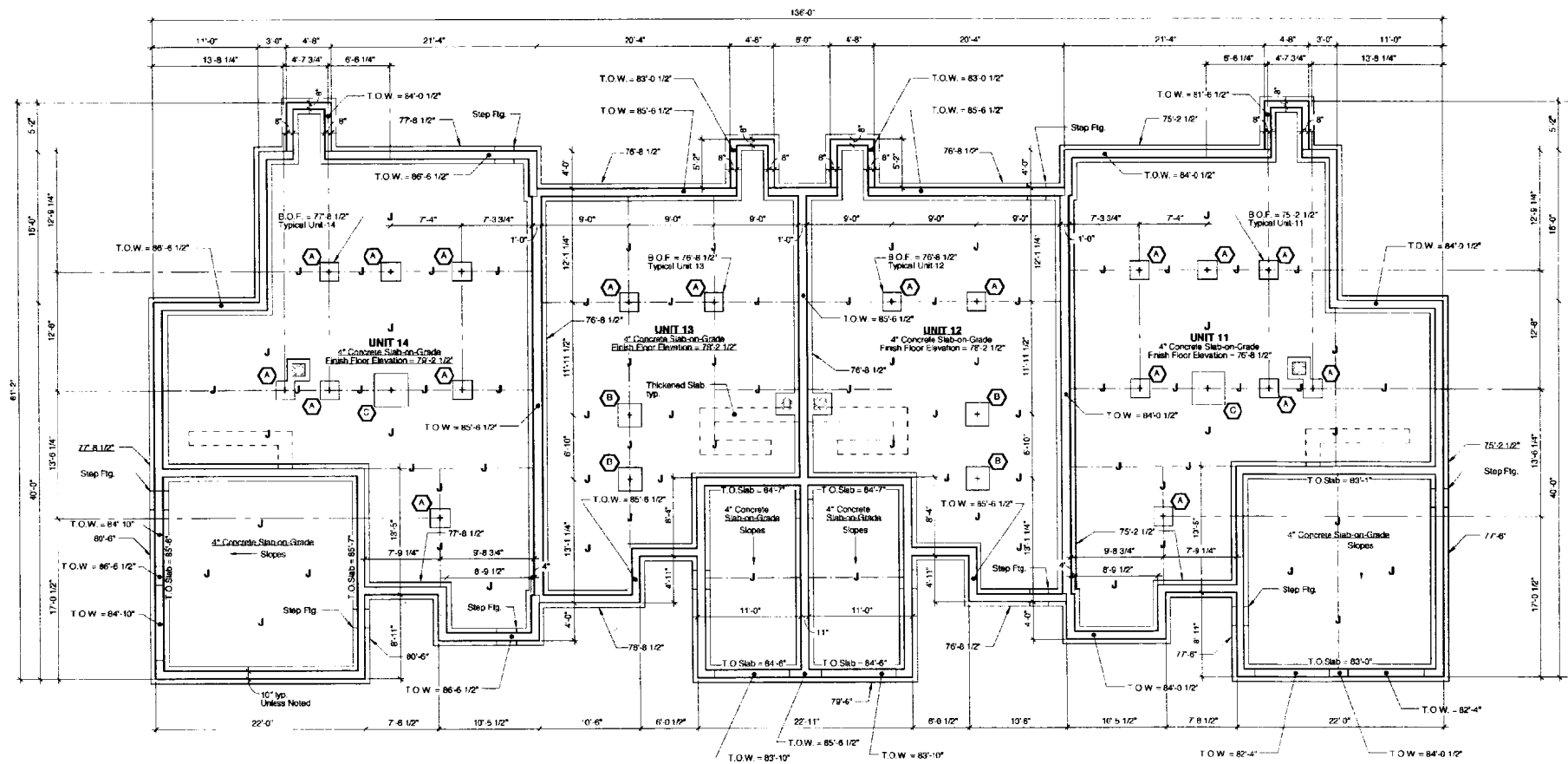
BUILDING EVALUATION SUMMARY (Table 3408.7)

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 _____
Fire-resistance rating of vertical opening enclosures _____	
Type of HVAC system _____	_____ serving number of floors _____



Foundation Plan - Building 5 - Units 15-18

Scale: 1/8" = 1'-0"



Foundation Plan - Building 4 - Units 11-14

Scale: 1/8" = 1'-0"

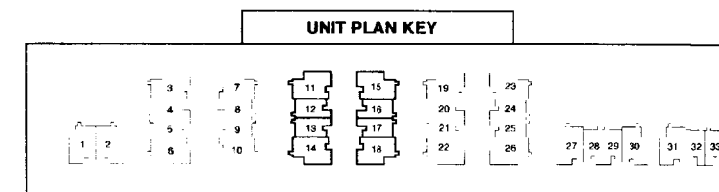
GENERAL DESIGN NOTES

1. ROOF LOADS
DEAD LOAD: 15 PSF
SNOW LOAD: 50 PSF, $C_e = 1.0$, $C_t = 1.1$, $I_s = 1.0$, $R = 50$ PSF. DRIFT LOAD WHERE REQUIRED OR AS SHOWN ON PLANS
2. FLOOR LOADS
DEAD LOAD: 10 PSF
LIVE LOAD: 50 PSF, FLOORS; 60 PSF, STAIRS
3. WIND LOAD
BASIC WIND SPEED: 90 MPH, $I_s = 1.1$, EXPOSURE B, COMPONENTS AND CLADDING: EXPOSURE C, $R_w = 20.7$ PSF
4. SEISMIC LOAD:
 $A_v = 0.1$, $A_h = 0.1$, SEISMIC HAZARD EXPOSURE GROUP I, SEISMIC PERFORMANCE CATEGORY C, SEISMIC SITE COEFFICIENT 1.0, SEISMIC RESISTING SYSTEM: LIGHT-FRAMED WALLS WITH SHEAR PANELS, $R = 6.5$, $C_d = 4$, ANALYSIS: EQUIVALENT LATERAL FORCE PROCEDURE
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ERECTION PROCEDURE AND SEQUENCE AND PROVIDE ADEQUATE TEMPORARY SUPPORTS AND BRACING NECESSARY TO INSURE THE SAFETY OF THE STRUCTURE DURING CONSTRUCTION.
6. ALL DIMENSIONS AND ELEVATIONS NOTED ON THE STRUCTURAL DRAWINGS ARE TO BE COORDINATED BY THE CONTRACTOR WITH THE ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING.

FOUNDATION NOTES

1. SOIL BEARING CAPACITY: 3000 PSF
2. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS
EXTERIOR SLABS: 4000 PSI
WALLS, FOOTINGS, INTERIOR SLABS: 3000 PSI
3. ALL CONCRETE REINFORCING TO BE GRADE 60 NEW DEFORMED BARS
4. ALL SLAB SAW CUT JOINTS TO BE 1/4" OF SLAB THICKNESS, MIN.
5. REFER TO GEOTECHNICAL REPORT PREPARED BY SUMMIT GEOTECHNICAL SERVICES ENTITLED "PROPOSED RADCLIFFE GLEN CONDOMINIUMS, HARVARD STREET, PORTLAND, MAINE, FOR INFORMATION ON SUBSURFACE CONDITIONS AND GEOTECHNICAL REQUIREMENTS.
6. PROVIDE 3/4" DIAMETER BY 8-INCH HOOKED ANCHORS AT 6" o.c. ALONG ALL EXTERIOR FOUNDATION WALLS.

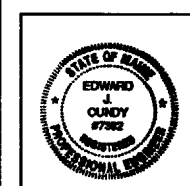
FOOTING SCHEDULE		
Mark	Size	Reinforcing
(A)	2'-0" x 2'-0" x 1'-0"	-----
(B)	2'-6" x 2'-6" x 1'-0"	3-#4s Each Way
(C)	3'-0" x 3'-0" x 1'-0"	4-#4s Each Way



Structural Consultants:
Swift Engineering
331 Main Street
Norway, ME 04268
207-743-5665

Michael R. Charek
Architect

25 Hardley Street
Portland, Maine 04103
(207) 761-0556



Radcliffe Glen
Harvard Street, Portland, ME

Larry Sturdivant
15 Garces Drive
Portland, ME 04103

Title
FOUNDATION PLANS
BUILDINGS 4&5
UNITS 11-18

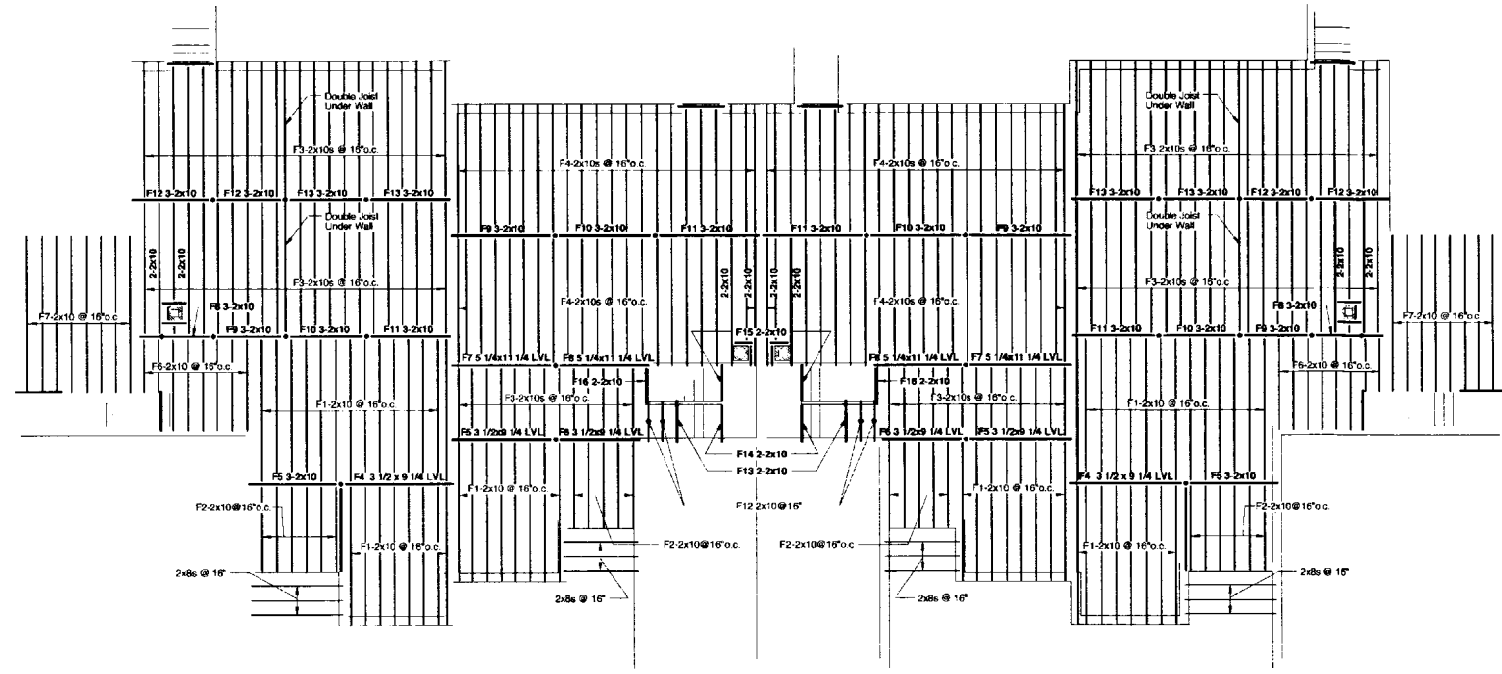
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Date: 8/15/02

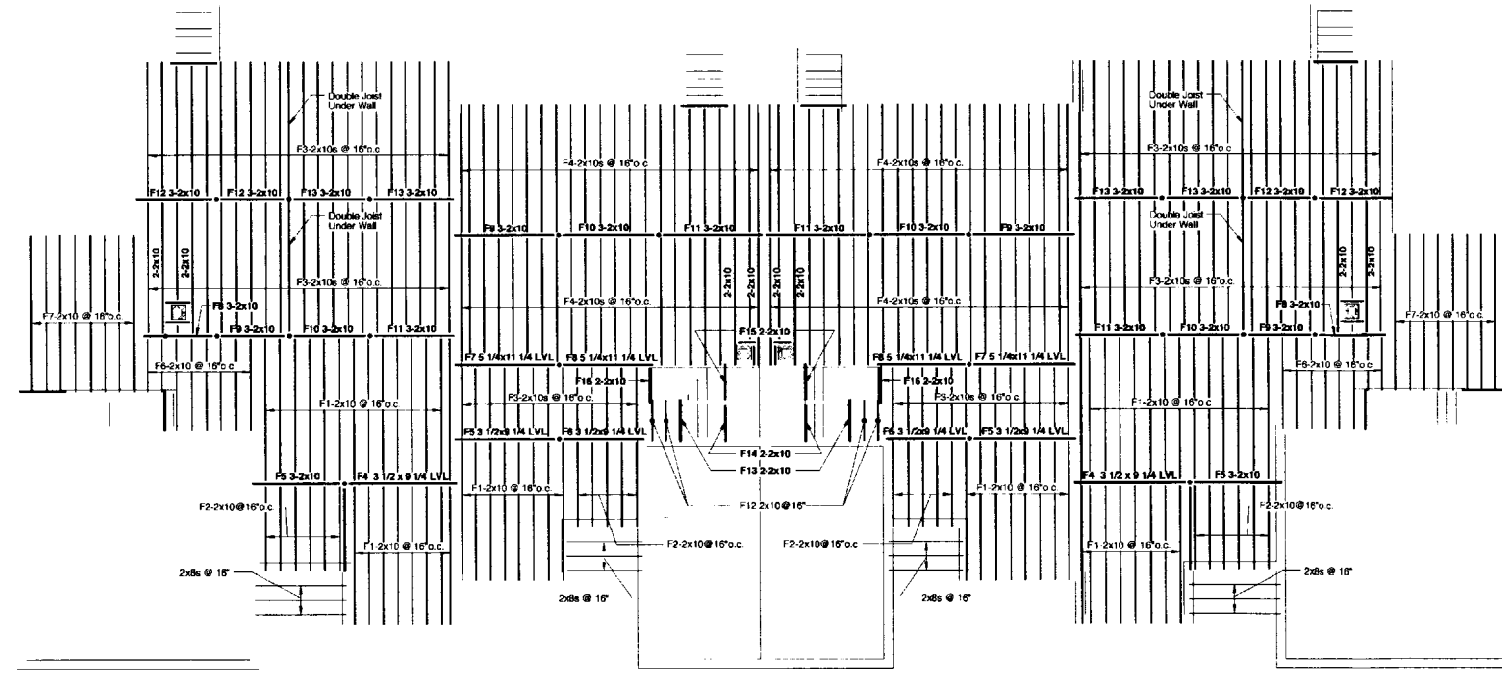
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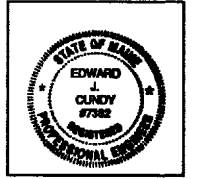
First Floor Framing Plan - Building 5 - Units 15-18
Scale: 1/8" = 1'-0"



First Floor Framing Plan - Building 4 - Units 11-14
Scale: 1/8" = 1'-0"

Structural Consultants:
Swift Engineering
331 Main Street
Norway, ME 04268
207-749-5885

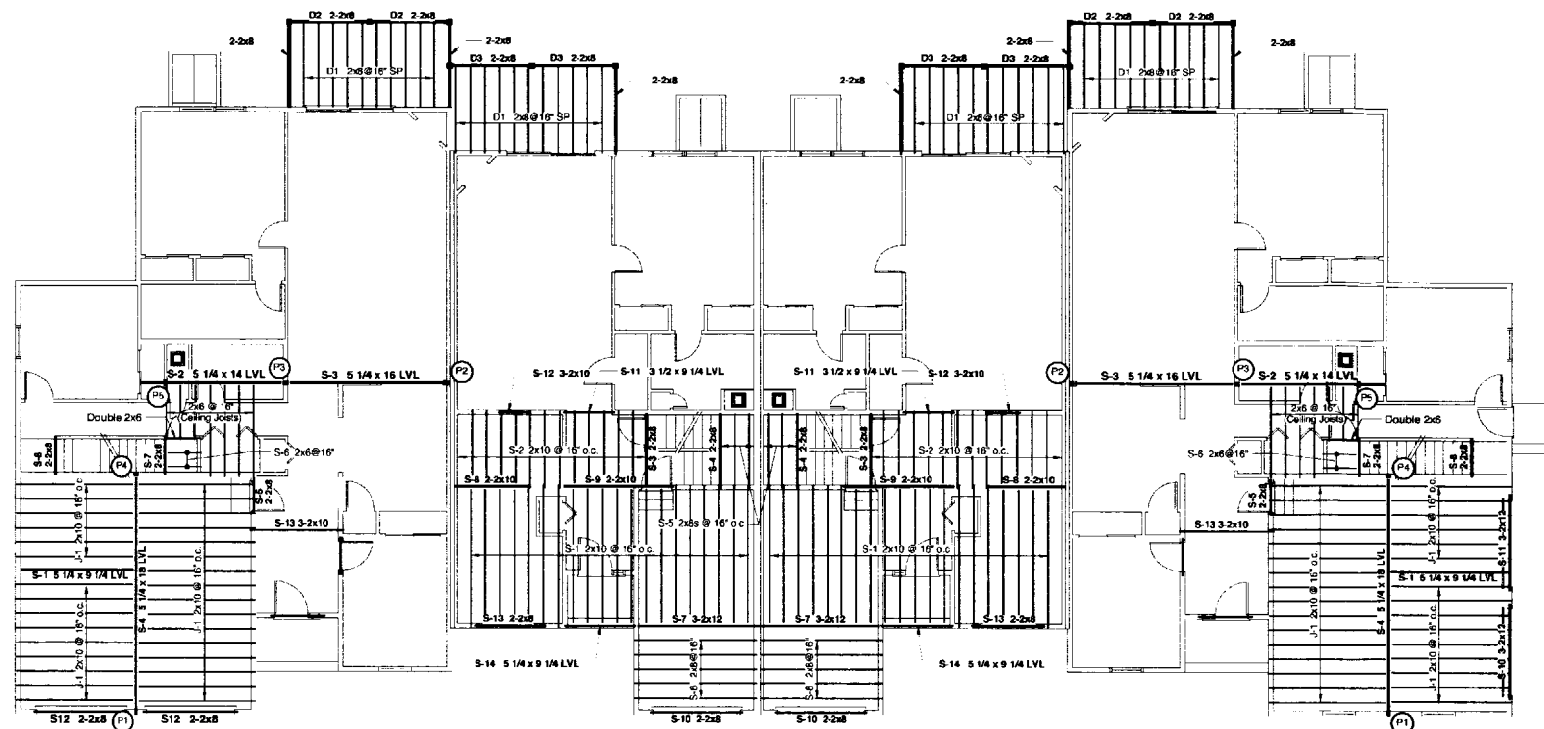
**Michael R. Charek
Architect**
25 Hartley Street
Portland, Maine 04103
(207) 761-0556



Radcliffe Glen
Harvard Street, Portland, ME

Larry Sturdivant
15 Garcoe Drive
Portland, ME 04103

Title	FIRST FLOOR FRAMING PLANS BUILDINGS 4&5 UNITS 11-18
Scale:	As Shown
Date:	8/15/02
Revisions	ISSUED FOR PERMIT
Sheet	S2



Second Floor Framing Plan - Building 5 - Units 15-18

Scale: 1/8" = 1'-0"

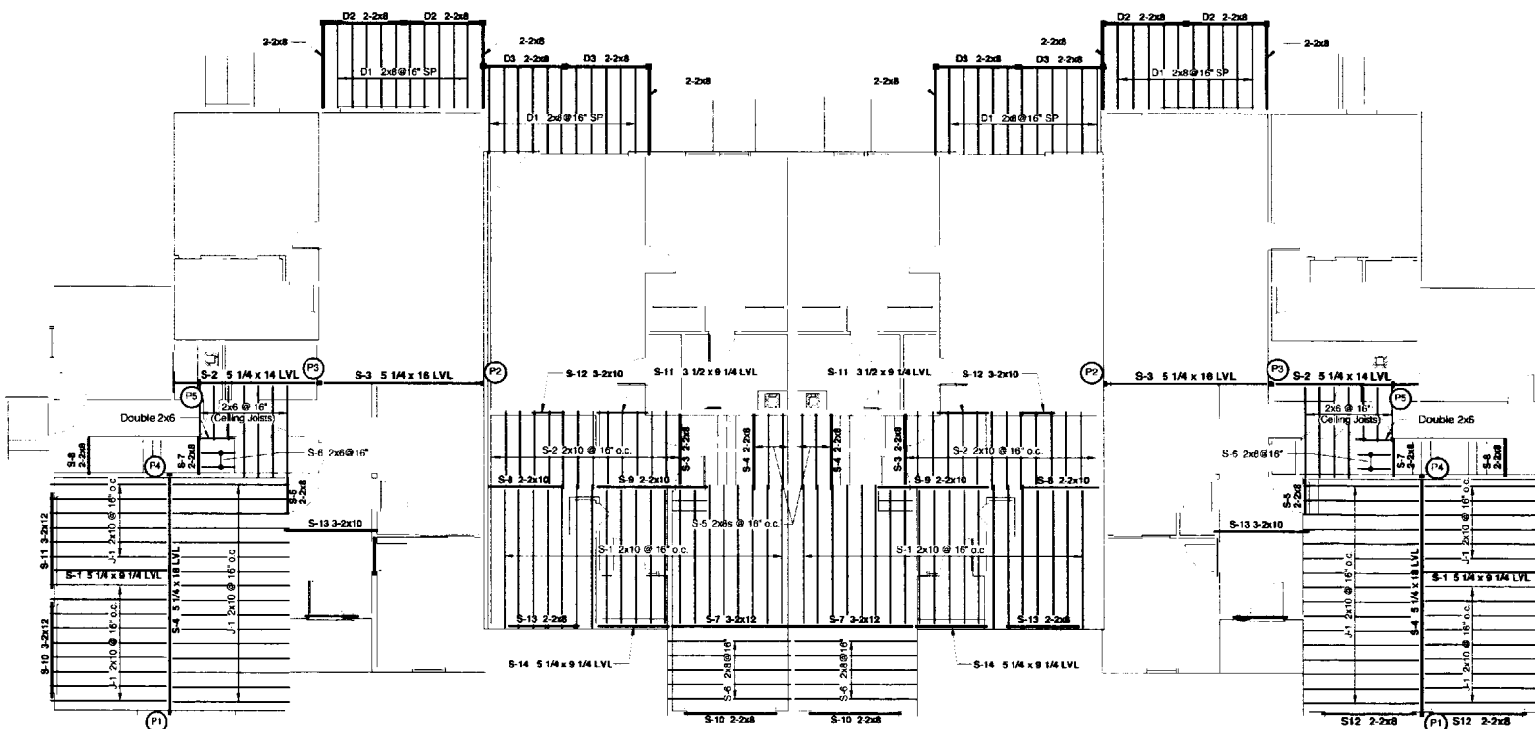
WOOD FRAMING NOTES

- REQUIRED WOOD SPECIES:
 SPRUCE-PINE-FIR: SPF #1/#2, GRADED ACCORDING TO NLGA RULES WITH THE FOLLOWING BASE DESIGN PROPERTIES:
 F_b = 875 psi
 F_v = 70 psi
 F_{c parallel} = 1150 psi
 F_{c perpendicular} = 425 psi
 E = 1400 ksi
 SOUTHERN YELLOW PINE: SYP #2, SPI GRADE STAMP WITH THE FOLLOWING BASE DESIGN PROPERTIES:
 F_b = 1250 psi
 F_v = 90 psi
 F_{c parallel} = 1800 psi
 F_{c perpendicular} = 595 psi
 E = 1800 ksi
 LAMINATED VENEER LUMBER (LVL) WITH THE FOLLOWING BASE DESIGN PROPERTIES:
 Beams:
 F_b = 2800 psi
 F_v = 290 psi
 F_{c parallel} = 3000 psi
 F_{c perpendicular} = 550 psi
 E = 2000 ksi
 Columns:
 F_b = 2200 psi
 F_v = 285 psi
 F_{c parallel} = 3000 psi
 F_{c perpendicular} = 900 psi
 E = 1800 ksi
 EACH PIECE MUST BEAR THE APPROPRIATE GRADE STAMP. UNGRADED OR UNMARKED LUMBER WILL NOT BE ACCEPTED.
- THE TOP PLATES OF ALL BEARING WALLS MUST BE DOUBLE 2X6 SOUTHERN YELLOW PINE #2.
- ROOF SHEATHING IS TO BE 5/8" APA RATED SHEATHING, EXPOSURE 1 WITH A SPAN RATING OF 4020. PANEL CLIPS ARE REQUIRED BETWEEN TRUSSES AND OTHER ROOF FRAMING MEMBERS.
- WALL SHEATHING IS TO BE 1/2" APA RATED SHEATHING, EXPOSURE 1. SHEATHING IS TO BE APPLIED HORIZONTALLY. THE SHEATHING MUST OVERLAP THE STUDS AND TOP AND BOTTOM WALL PLATES.
- WALL AND ROOF SHEATHING IS TO BE NAILED AT 6 INCHES ON CENTER ALONG SUPPORTED PANEL EDGES, 12 INCHES ON CENTER WITHIN THE PANELS. USE 8D COMMON NAILS.
- UNLESS INDICATED OTHERWISE, PROVIDE ONE STUD IN A COLUMN FOR EACH LAMINATION OF A BUILDING WOOD BEAM OR HEADER. FOR EXAMPLE, FOR A THREE 2X10 HEADER, PROVIDE A THREE STUD BUILDUP COLUMN.
- UNLESS INDICATED OTHERWISE, USE SIMPSON AC AND ACE TYPE POST CAPS TO CONNECT SCHEDULED WOOD COLUMNS TO WOOD BEAMS.

POST SCHEDULE	
P1	3 1/2" x 5 1/4" LVL
P2	3 1/2" x 5 1/4" LVL
P3	5 1/4" x 5 1/4" LVL
P4	3 1/2" x 5 1/4" LVL

TRUSS DESIGN NOTES

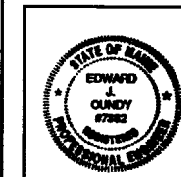
- TOP CHORD LIVE LOAD = 40 PSF
 TOP CHORD DEAD LOAD = 10 PSF
 BOTTOM CHORD LIVE LOAD = 0 PSF
 BOTTOM CHORD DEAD LOAD = 10 PSF
- ALL LUMBER TO BE #2 GRADE OR BETTER 2X4" MIN. SIZE.
- THE SHOP DRAWING SUBMITTAL IS TO INCLUDE AN ERECTION PLAN. SHOP DRAWINGS SUBMITTED WITHOUT A MAINE PROFESSIONAL ENGINEER'S STAMP WILL NOT BE REVIEWED.
- PROVIDE 2X4" HORIZONTAL WEB BRACING TO WEBS AS REQUIRED BY THE TRUSS DESIGN. AT WEB BRACING LOCATIONS, PROVIDE 2 X 4S AT 45° TO THE BACK SIDE OF THE WEBS. THIS DIAGONAL BRACING IS TO BE PROVIDED AT EACH END OF A TRUSS RUN AND AT MID-RUN. IF THE TRUSS DESIGN DOES NOT REQUIRE WEB BRACING, PROVIDE A MINIMUM OF TWO ROWS, ONE ON EACH SIDE OF THE RIDGE. ALL BRACING IS TO BE NAILED TO EACH TRUSS WITH 2-16D NAILS.
- SET-ON TRUSSES: SHEATH ALL TRUSSES BELOW SET-ON TRUSSES. THE VERTICAL WEBS OF SET-ON TRUSSES ARE TO BE NO MORE THAN 2'-0" ON CENTER, AND THE BOTTOM CHORD IS TO BE A 2X6.
- PROVIDE MINIMUM 2X6 SOUTHERN YELLOW PINE BEARING PLATES, UNLESS OTHERWISE NOTED, AT EACH TRUSS TO PLATES WITH SIMPSON #25 FRAMING ANCHORS AT ALL BEARING POINTS, BOTH INTERIOR AND EXTERIOR. AT EXTERIOR BEARING POINTS, INSTALL ANCHORS ON THE INSIDE OF THE WALL.



Second Floor Framing Plan - Building 4 - Units 11-14

Scale: 1/8" = 1'-0"

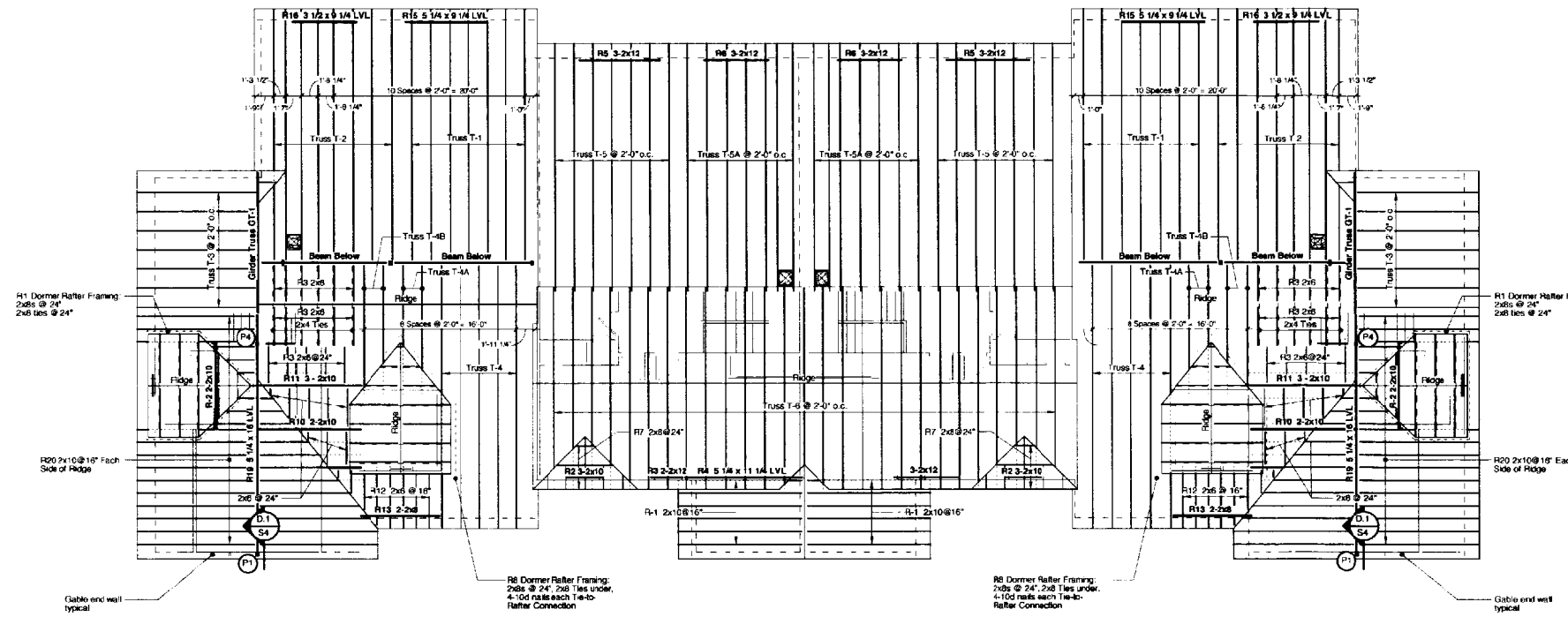
Michael R. Charek
 Structural Consultants:
 Architect
 Swift Engineering
 331 Main Street
 Norway, ME 04268
 207-745-5885



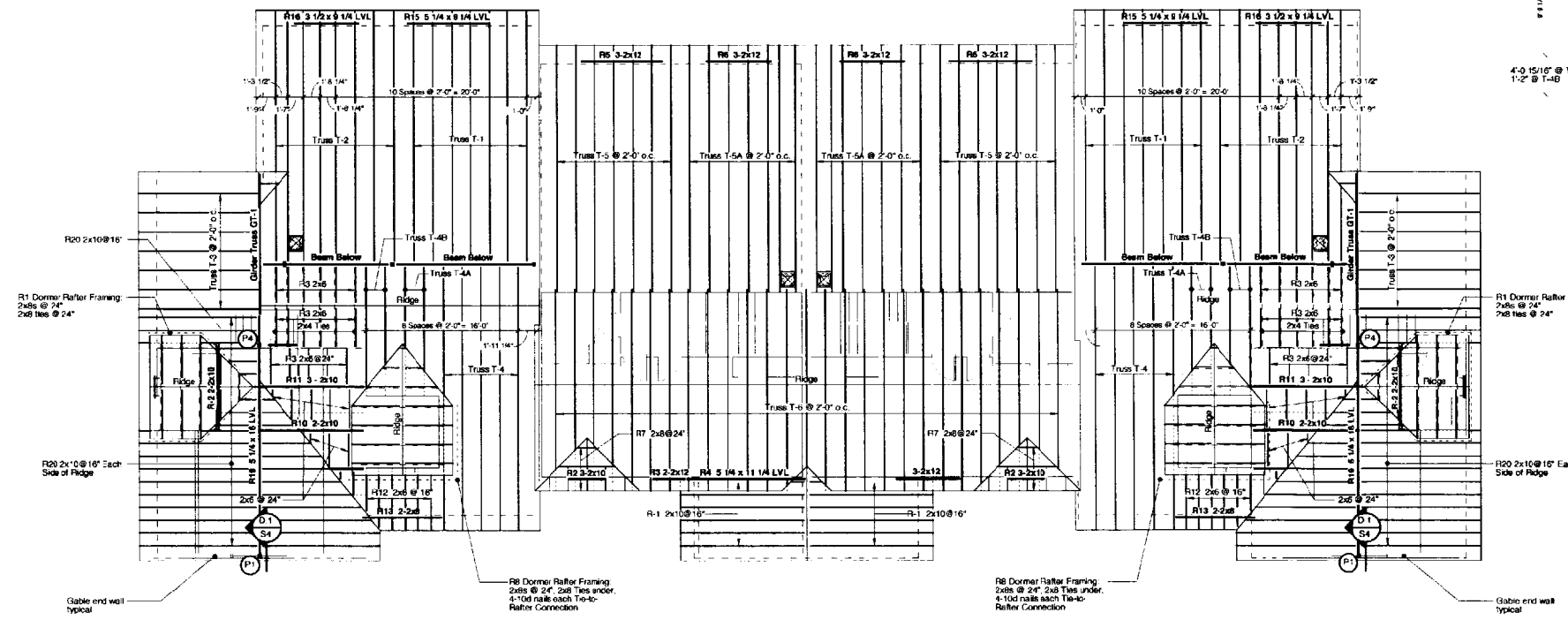
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 Harvard Street, Portland, ME

Larry Sturdivant
 15 Garsoe Drive
 Portland, ME 04103

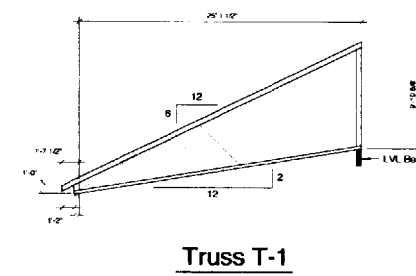
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Revisions	ISSUED FOR PERMIT
Sheet	S3



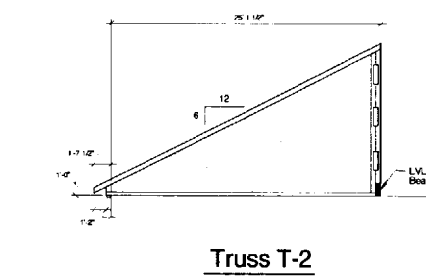
Roof Framing Plan - Building 5 - Units 15-18
Scale: 1/8" = 1'-0"



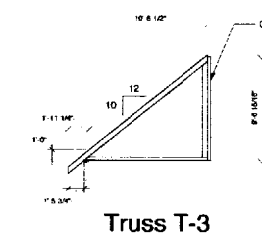
Roof Framing Plan - Building 4 - Units 11-14
Scale: 1/8" = 1'-0"



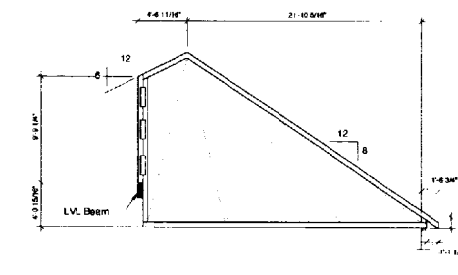
Truss T-1



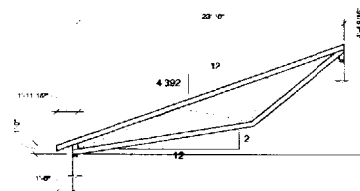
Truss T-2



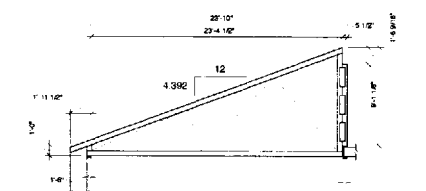
Truss T-3



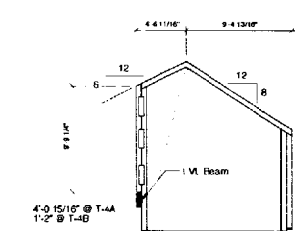
Truss T-4



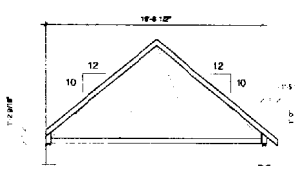
Truss T-5



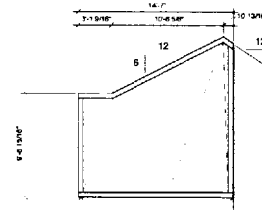
Truss T-5A



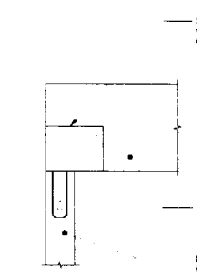
Truss T-4A, T-4B



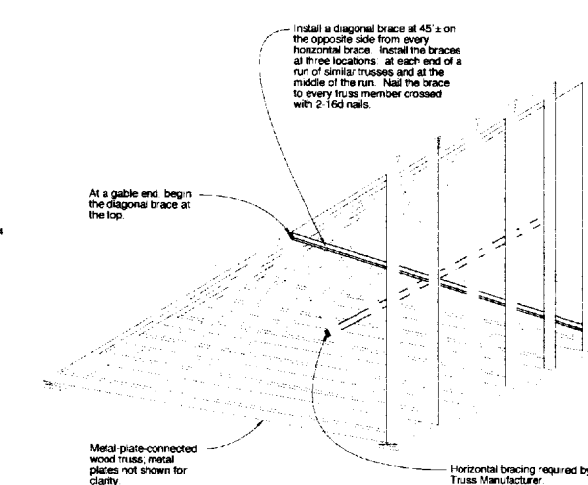
Truss T-6



Girder Truss GT-1



SECTION S4
SCALE: 3/4" = 1'-0"



Truss Brace Schematic

Structural Consultants:
Michael R. Charek
Swift Engineering
331 Main Street
Norway, ME 04268
207-743-6885

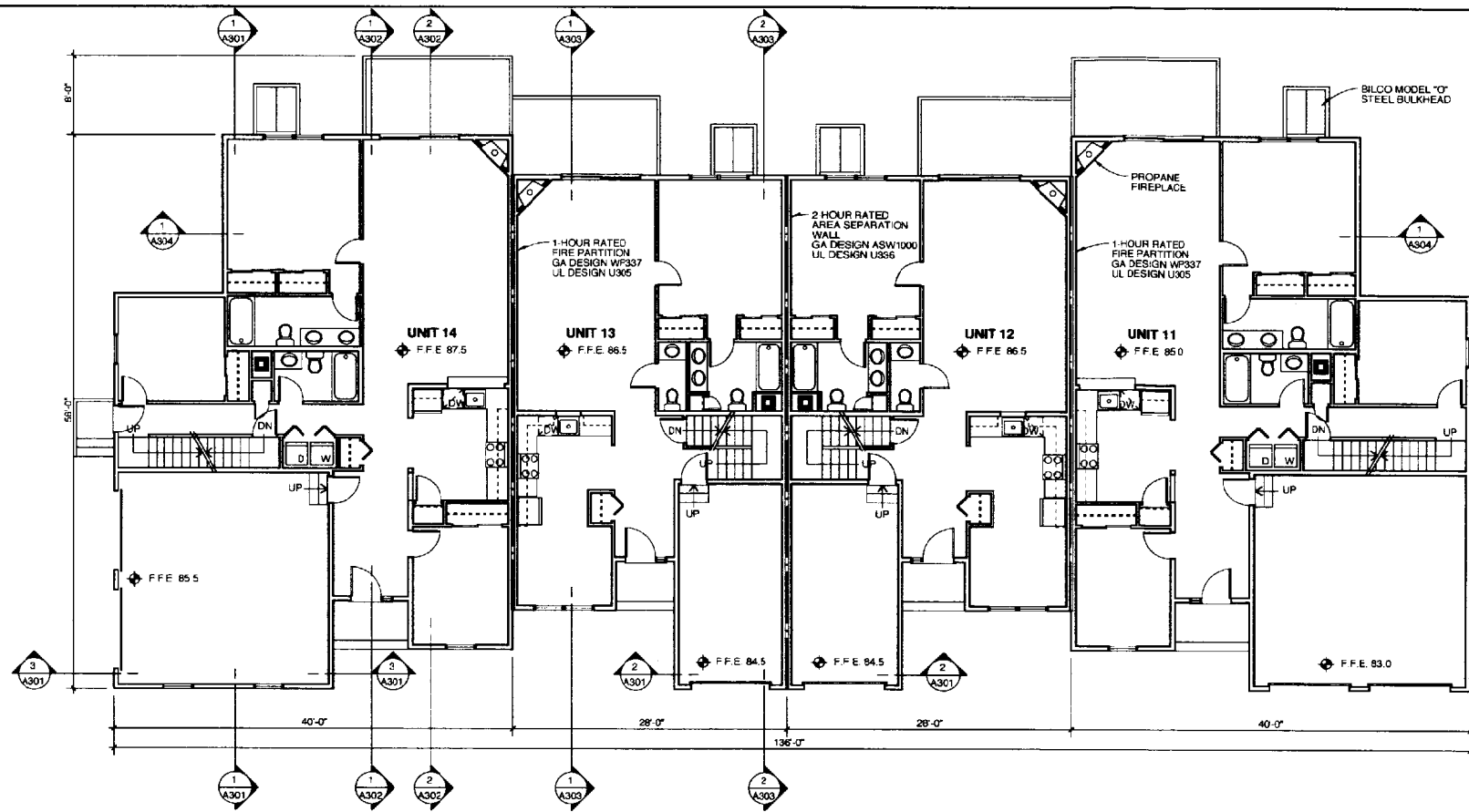
Architect
Michael R. Charek
25 Hartley Street
Portland, Maine 04103
(207) 761-0556



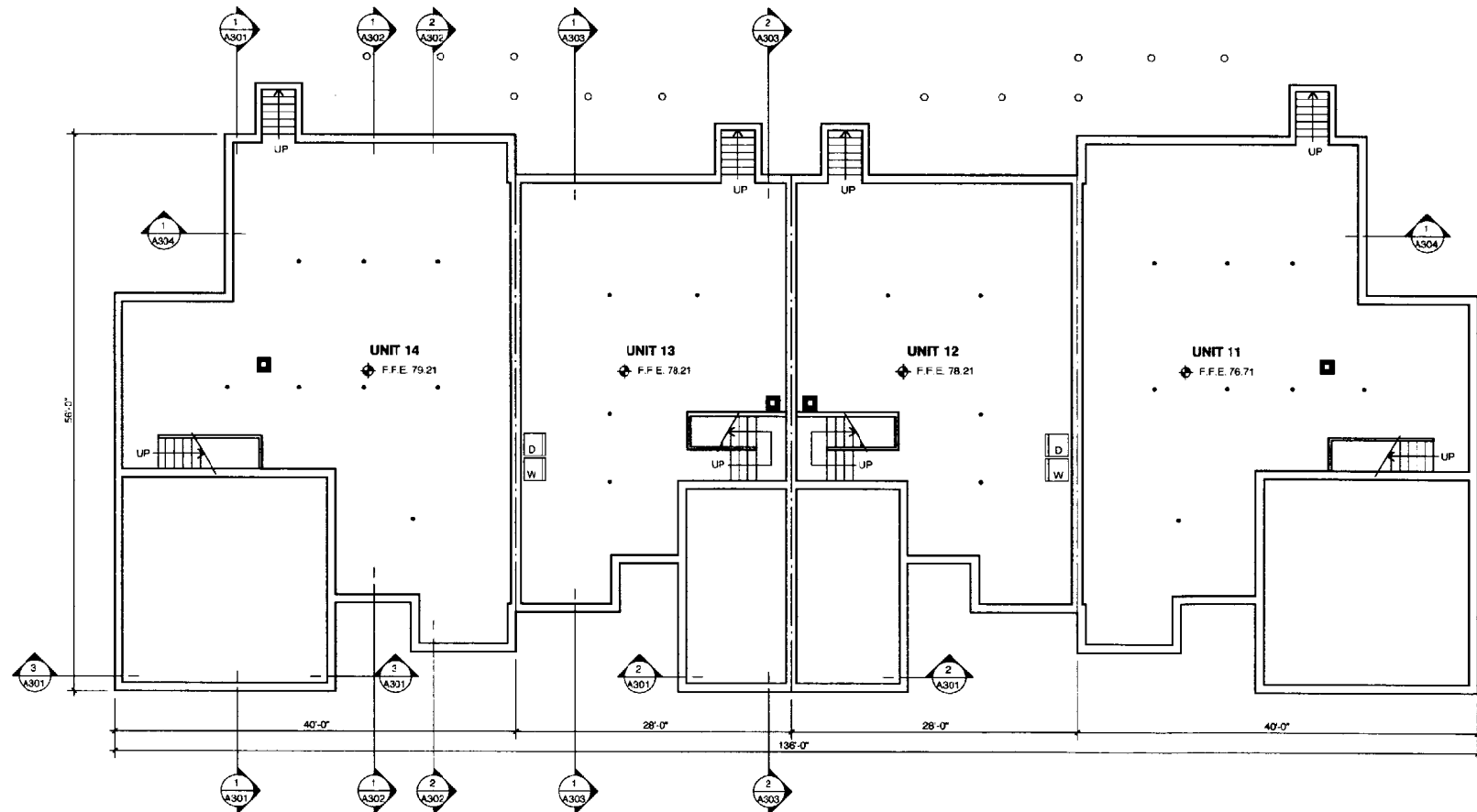
Radcliffe Glen
Harvard Street, Portland, ME

Larry Sturdivant
15 Garscoe Drive
Portland, ME 04103

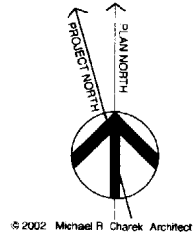
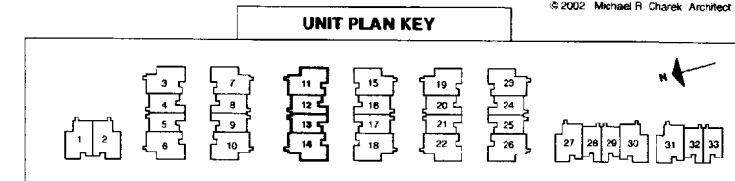
Title	ROOF FRAMING PLANS BUILDINGS 4&5 UNITS 11-18
Scale:	As Shown
Date:	8/15/02
Revisions	
ISSUED FOR PERMIT	
Sheet	S4



2 FIRST FLOOR PLAN UNITS 11-14
SCALE: 1/8" = 1'-0"



1 BASEMENT FLOOR PLAN UNITS 11-14
SCALE: 1/8" = 1'-0"



Structural Consultants:
Swift Engineering
331 Main Street
Norway, ME 04268
207-743-5865

**Michael R. Charek
Architect**
25 Hartley Street
Portland, Maine 04103
(207) 781-0556



Radcliffe Glen
Harvard Street, Portland, ME

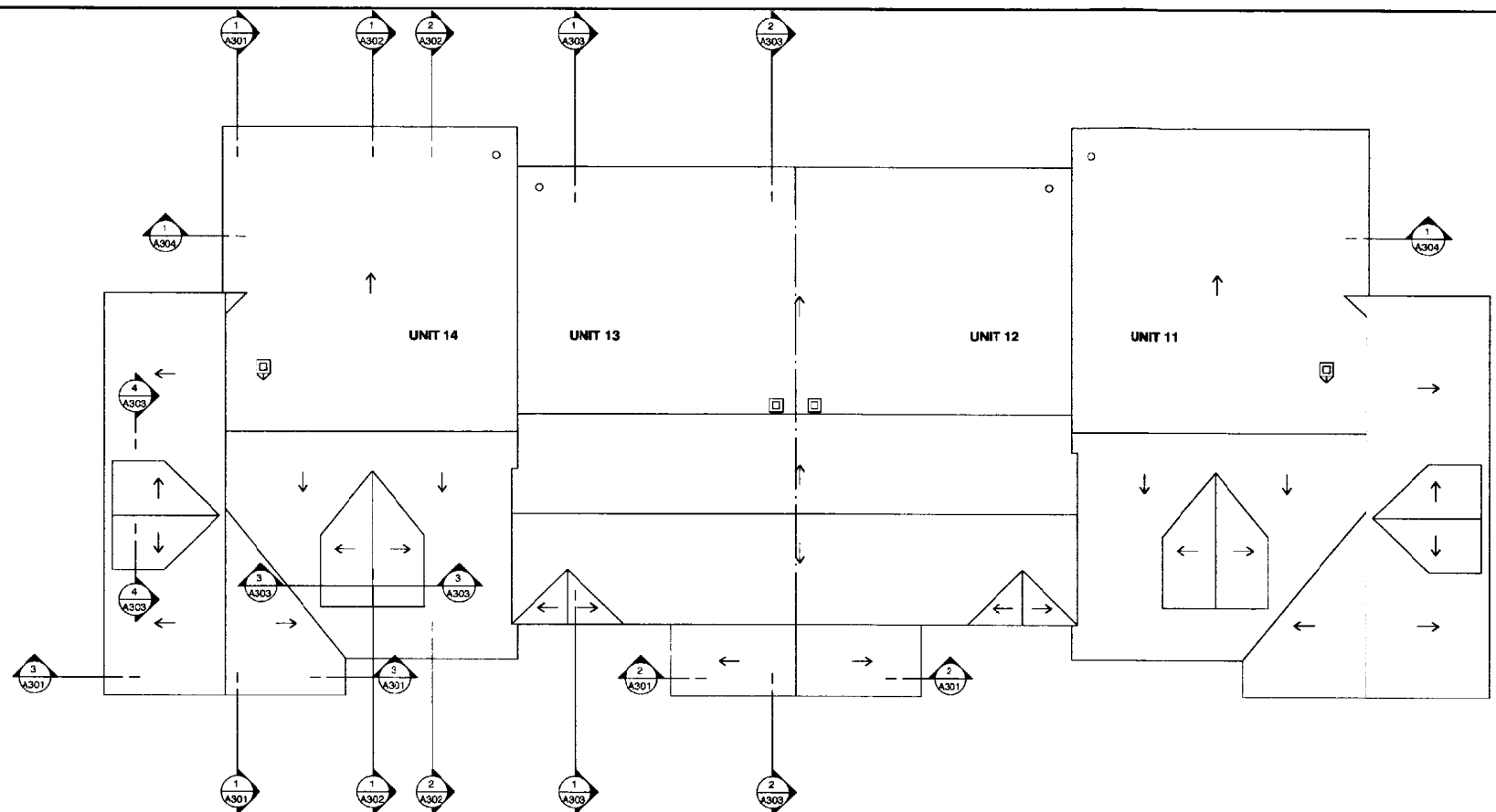
Larry Sturdivant
15 Garsco Drive
Portland, ME 04103

Title
BASEMENT AND FIRST FLOOR
PLANS
UNITS 11 - 14

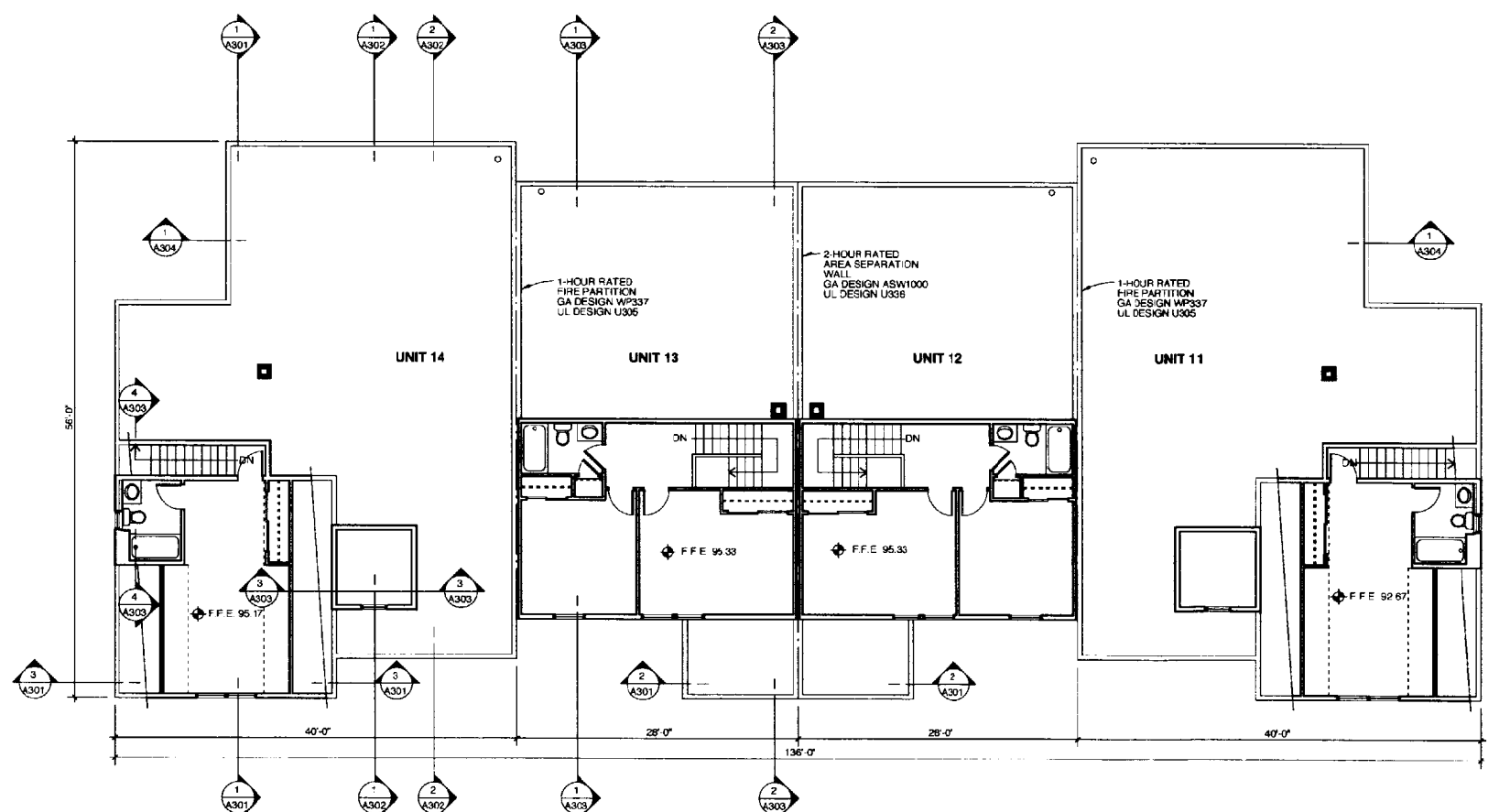
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Date: 8/15/02

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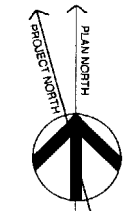
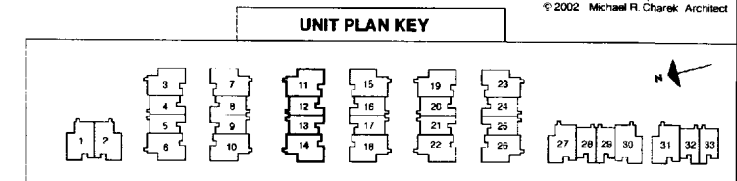
Sheet
A101



2 ROOF PLAN UNITS 11-14
SCALE: 1/8" = 1'-0"



1 SECOND FLOOR PLAN UNITS 11-14
SCALE: 1/8" = 1'-0"



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Structural Consultants:
Swift Engineering
331 Main Street
Norway, ME 04268
207-743-5885

**Michael R. Charek
Architect**
25 Hartley Street
Portland, Maine 04103
(207) 761-0556



Radcliffe Glen
Harvard Street, Portland, ME

Larry Sturdivant
15 Garsoe Drive
Portland, ME 04103

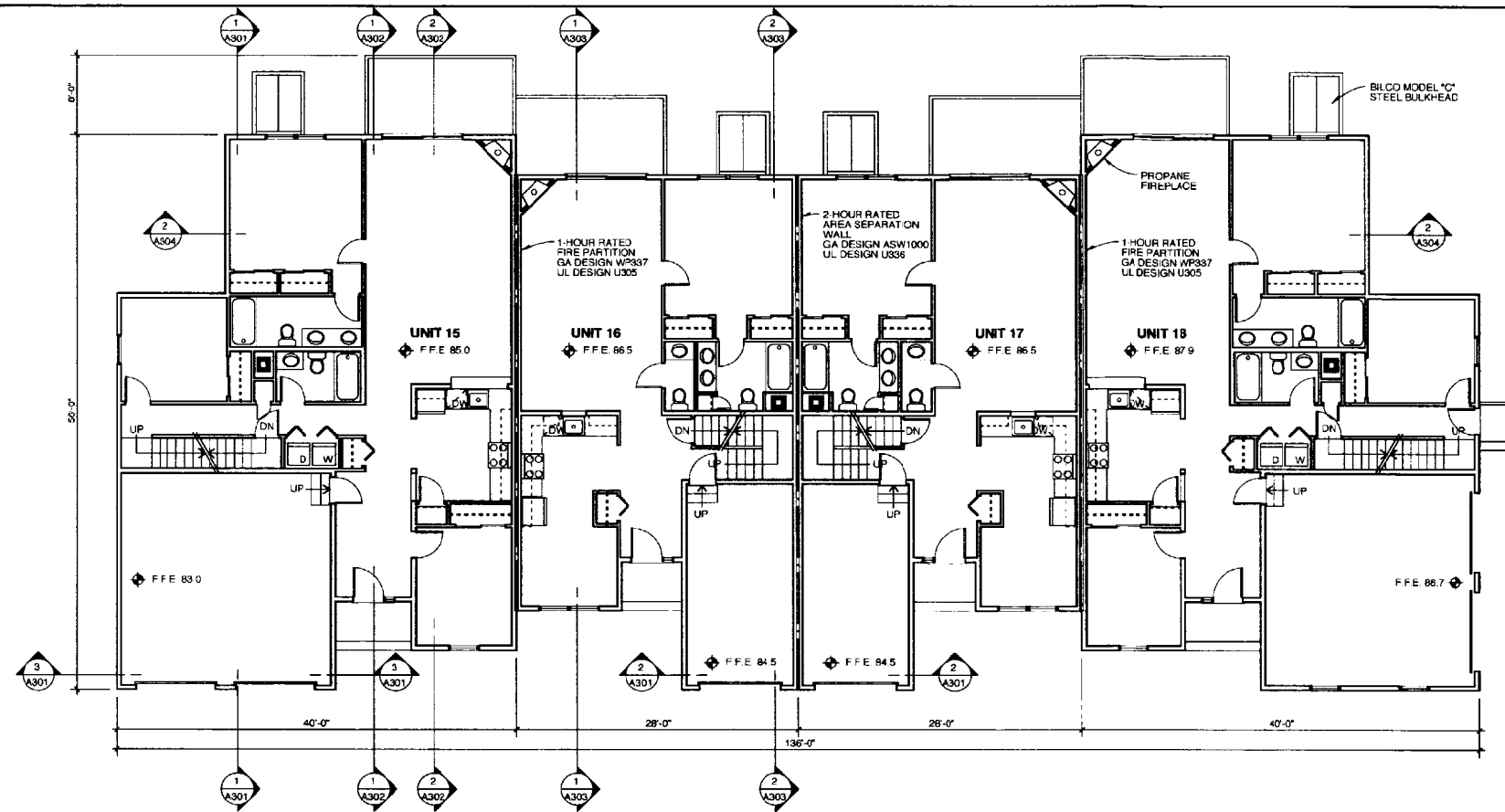
Title
SECOND FLOOR
AND ROOF PLANS
UNITS 11-14

Scale: 1/8" = 1'-0"

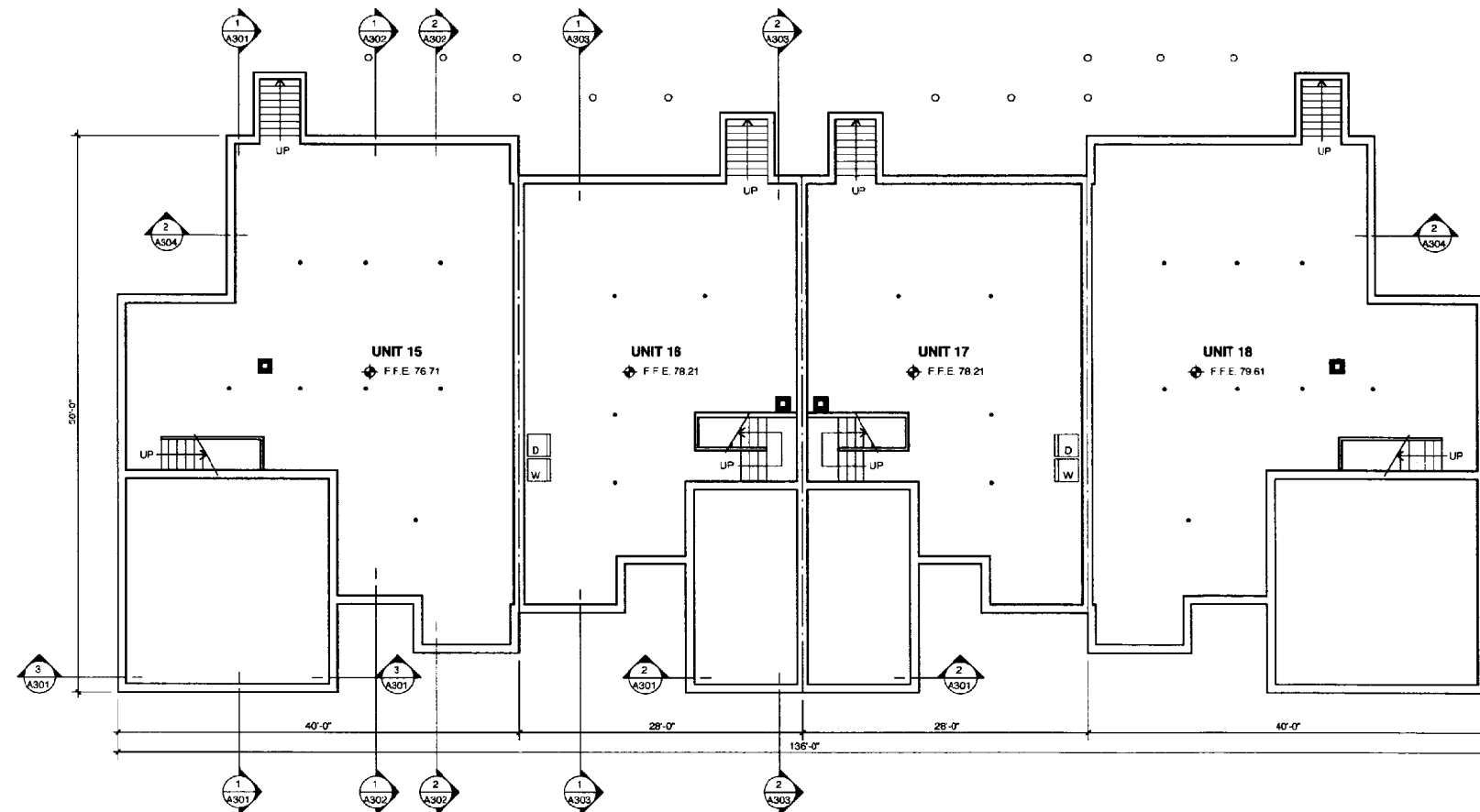
Date: 8/15/02

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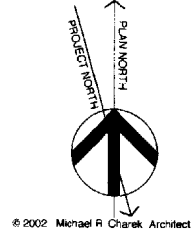
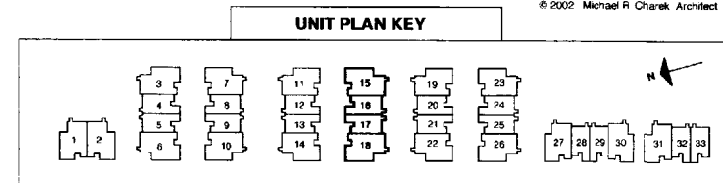
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2 FIRST FLOOR PLAN UNITS 15-18
SCALE: 1/8" = 1'-0"

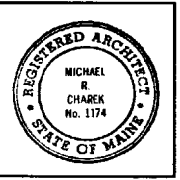


1 BASEMENT FLOOR PLAN UNITS 15-18
SCALE: 1/8" = 1'-0"



Structural Consultants:
Swift Engineering
331 Main Street
Norway, ME 04268
207-743-5885

**Michael R. Charek
Architect**
25 Hartley Street
Portland, Maine 04103
(207) 781-0556



Radcliffe Glen
Portland, ME
Harvard Street, Portland, ME

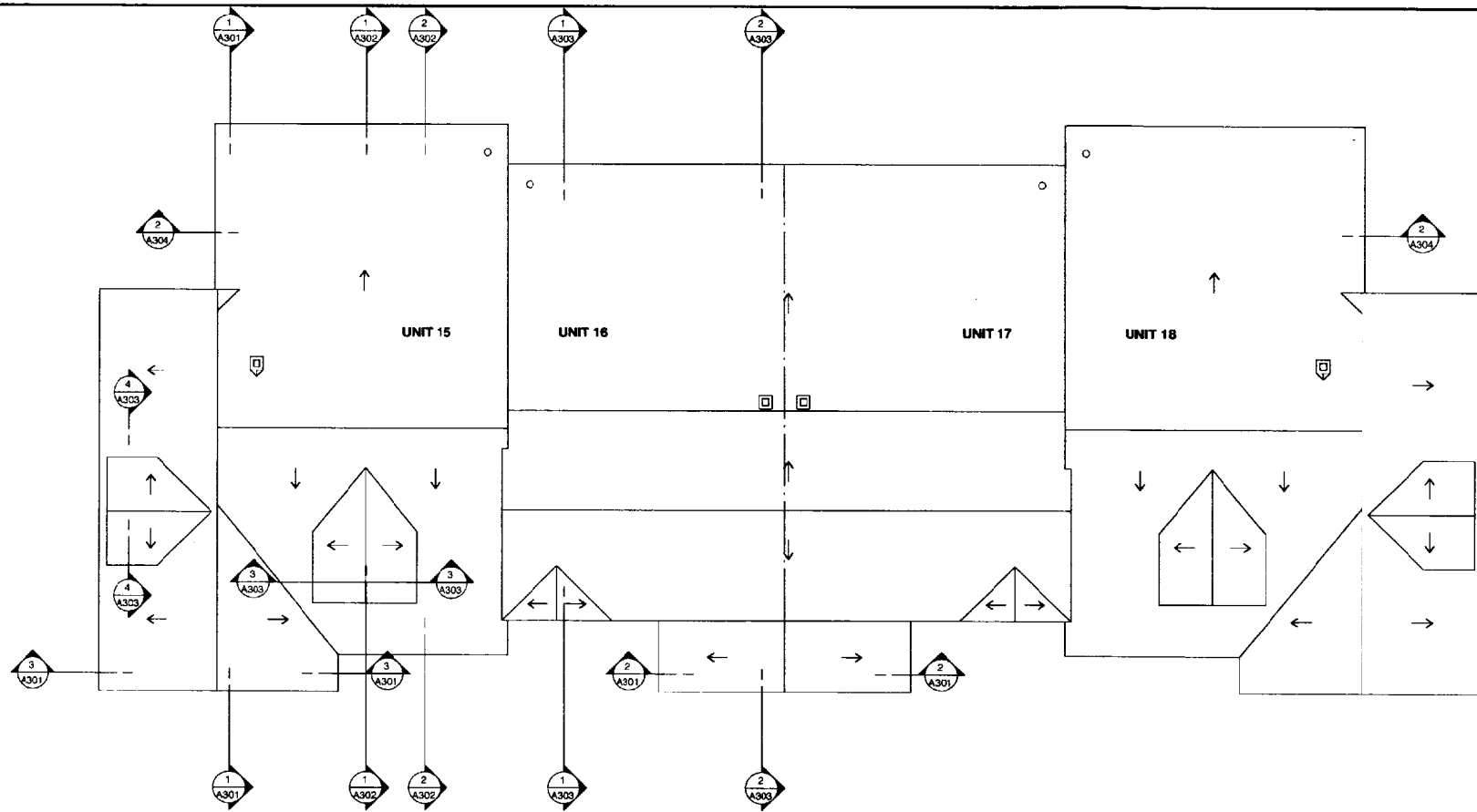
Larry Sturdivant
15 Garsoe Drive
Portland, ME 04103

Title
BASEMENT AND
FIRST FLOOR
PLANS
UNITS 15-18

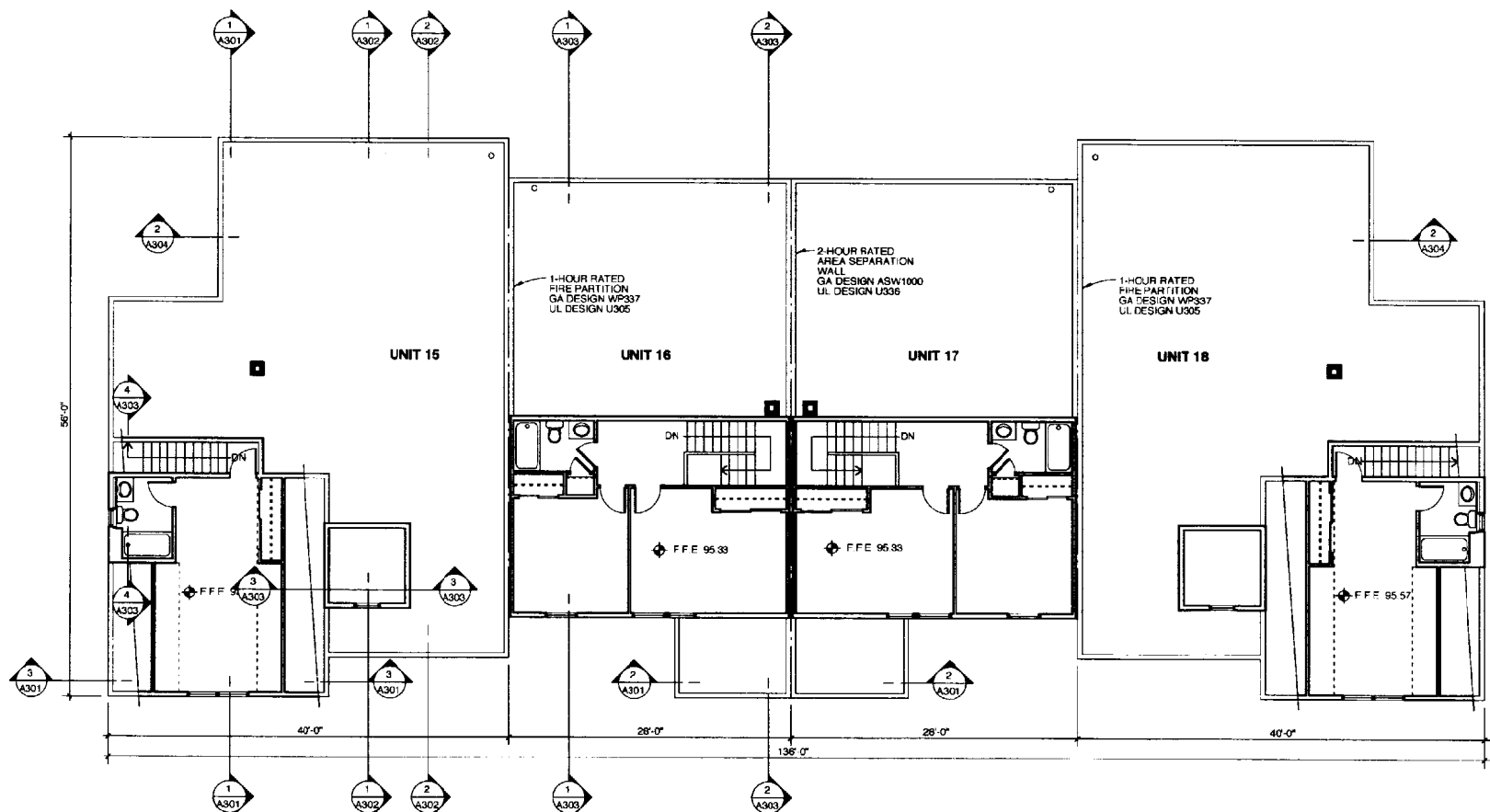
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Date: 8/15/02

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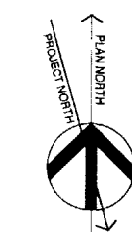
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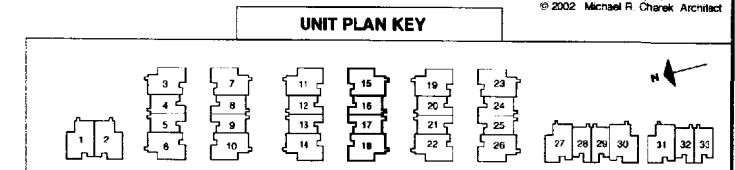
2 ROOF PLAN UNITS 15-18
SCALE: 1/8" = 1'-0"



1 SECOND FLOOR PLAN UNITS 15-18
SCALE: 1/8" = 1'-0"

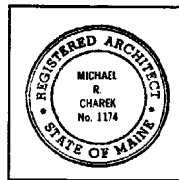


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Structural Consultants:
Swift Engineering
331 Main Street
Norway, ME 04268
207-743-5885

**Michael R. Charek
Architect**
25 Hartley Street
Portland, Maine 04103
(207) 761-0558



**Radcliffe Glen
Harvard Street, Portland, ME**

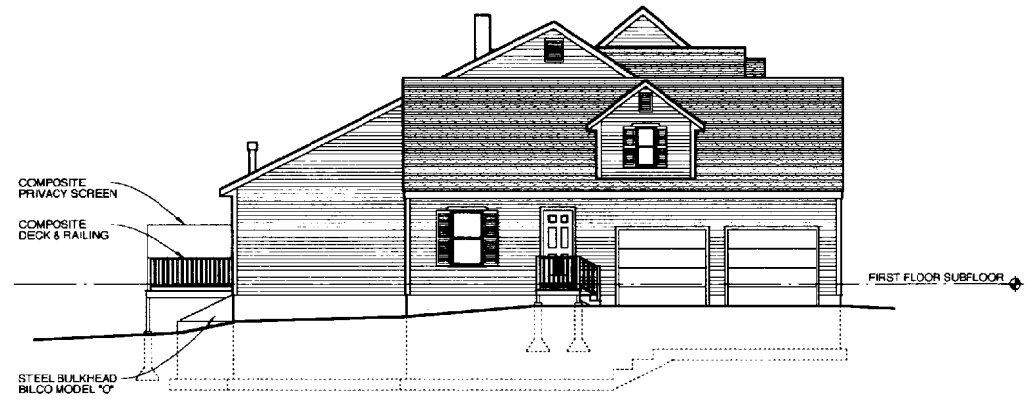
Larry Sturdivant
15 Garsone Drive
Portland, ME 04103

Title
SECOND FLOOR
AND ROOF PLANS
UNITS 15-18

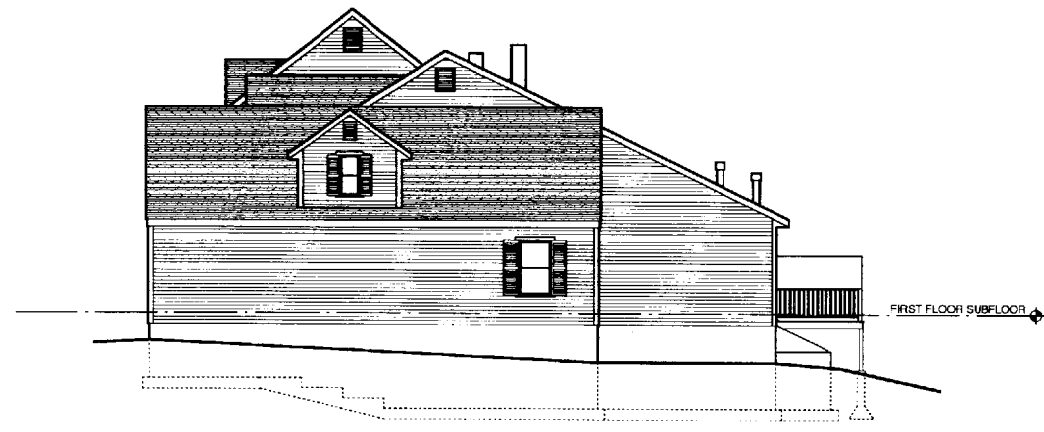
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Date: 8/15/02

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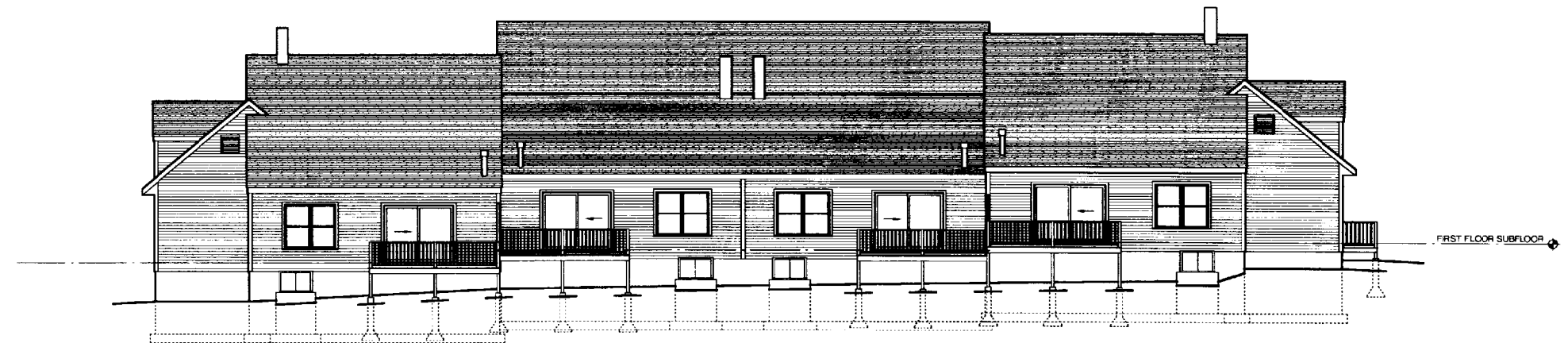
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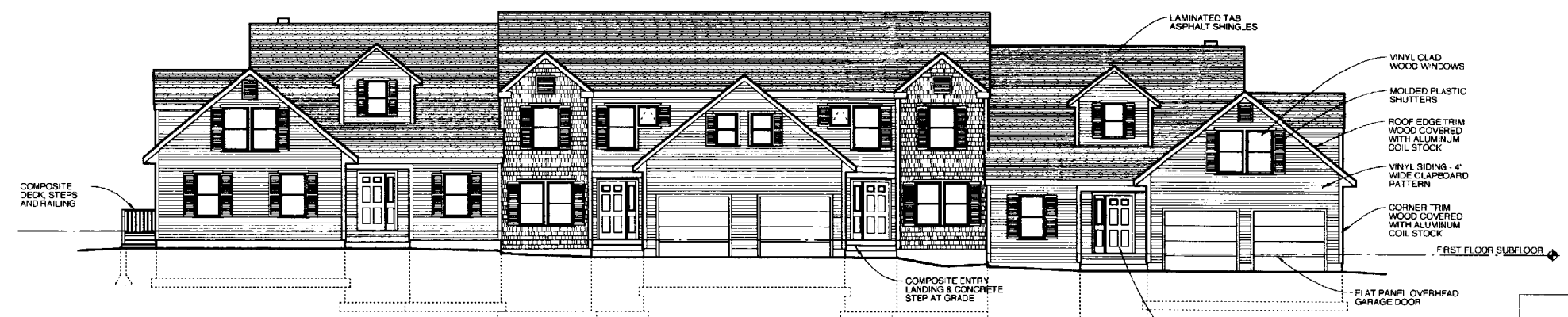
3 WEST ELEVATION UNITS 11-14
SCALE: 1/8" = 1'-0"



4 EAST ELEVATION UNITS 11-14
SCALE: 1/8" = 1'-0"



2 NORTH ELEVATION UNITS 11-14
SCALE: 1/8" = 1'-0"



1 SOUTH ELEVATION UNITS 11-14
SCALE: 1/8" = 1'-0"

FOUNDATION OUTLINE - SEE STRUCTURAL FOR FOUNDATION AND FOOTING DIMENSIONS.

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UNIT PLAN KEY

Michael R. Charek
Architect
25 Hartley Street
Portland, Maine 04103
(207) 761-0556



Radcliffe Glen
Harvard Street, Portland, ME
Larry Sturdivant
15 Garsoe Drive
Portland, ME 04103

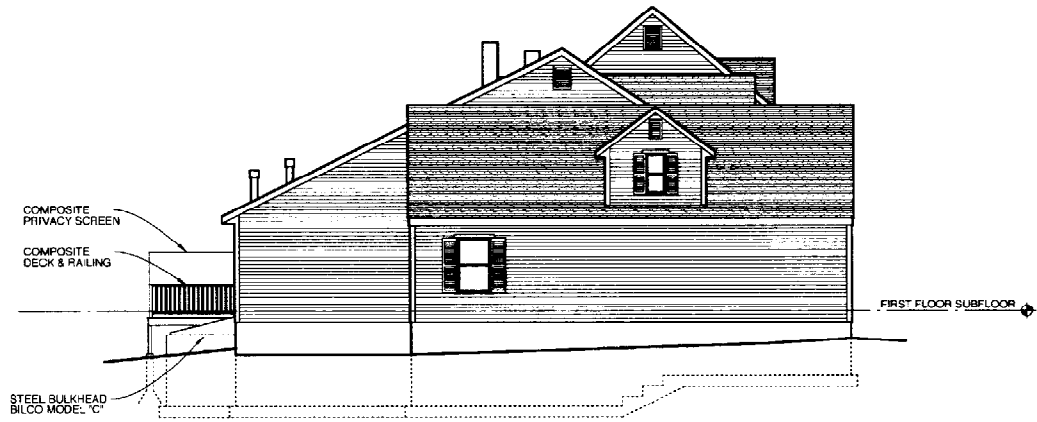
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Scale: 1/8" = 1'-0"

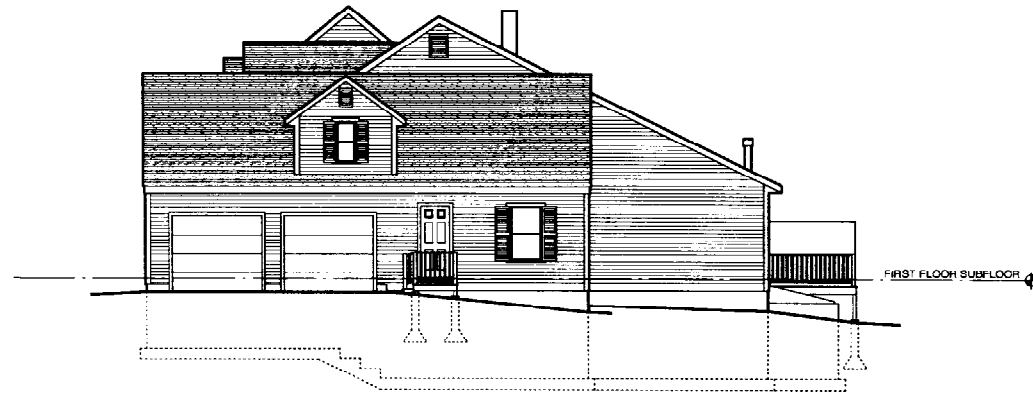
Date: 8/15/02

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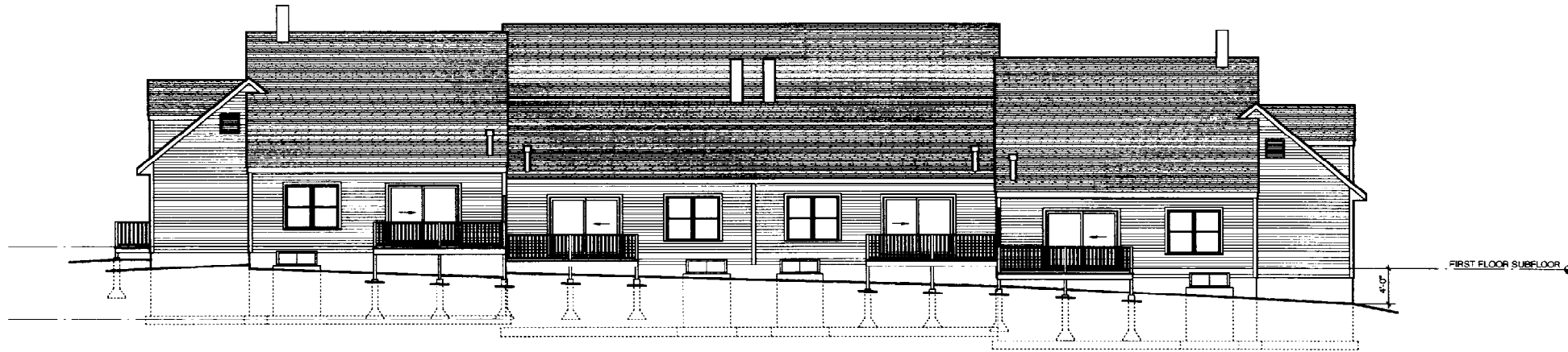
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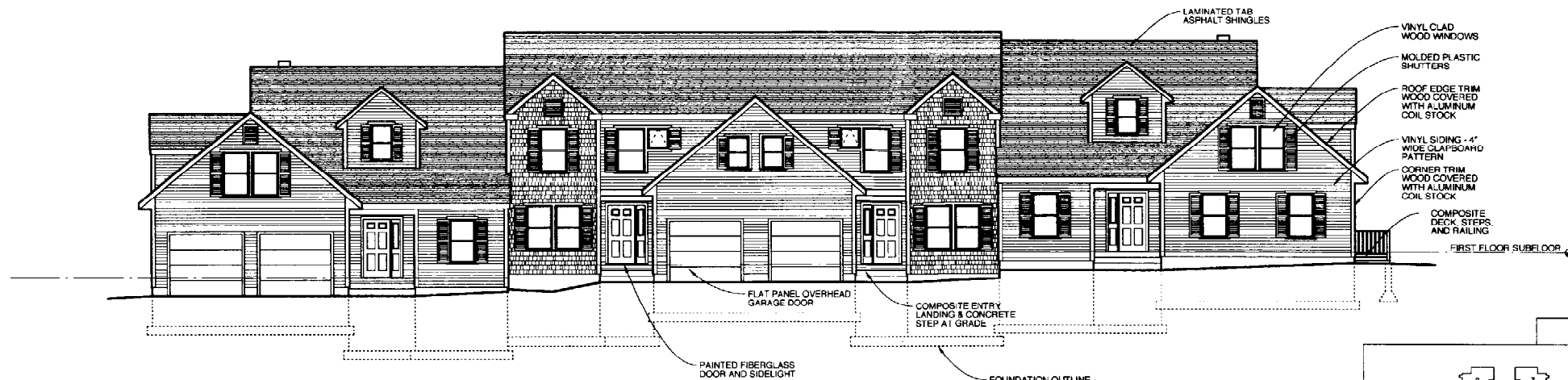
3 WEST ELEVATION UNITS 15-18
SCALE: 1/8" = 1'-0"



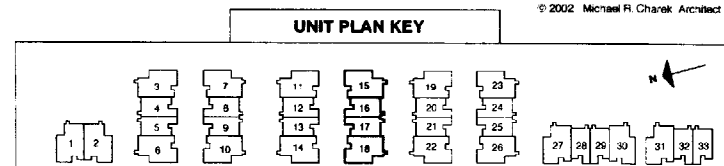
4 EAST ELEVATION UNITS 15-18
SCALE: 1/8" = 1'-0"



2 NORTH ELEVATION UNITS 15-18
SCALE: 1/8" = 1'-0"



1 SOUTH ELEVATION UNITS 15-18
SCALE: 1/8" = 1'-0"



Michael R. Charek
Architect

25 Hartley Street
Portland, Maine 04103
(207) 761-0556



Radcliffe Glen
Harvard Street, Portland, ME

Larry Sturdivant
15 Garsoe Drive
Portland, ME 04103

Title

BUILDING
ELEVATIONS
UNITS 15-18

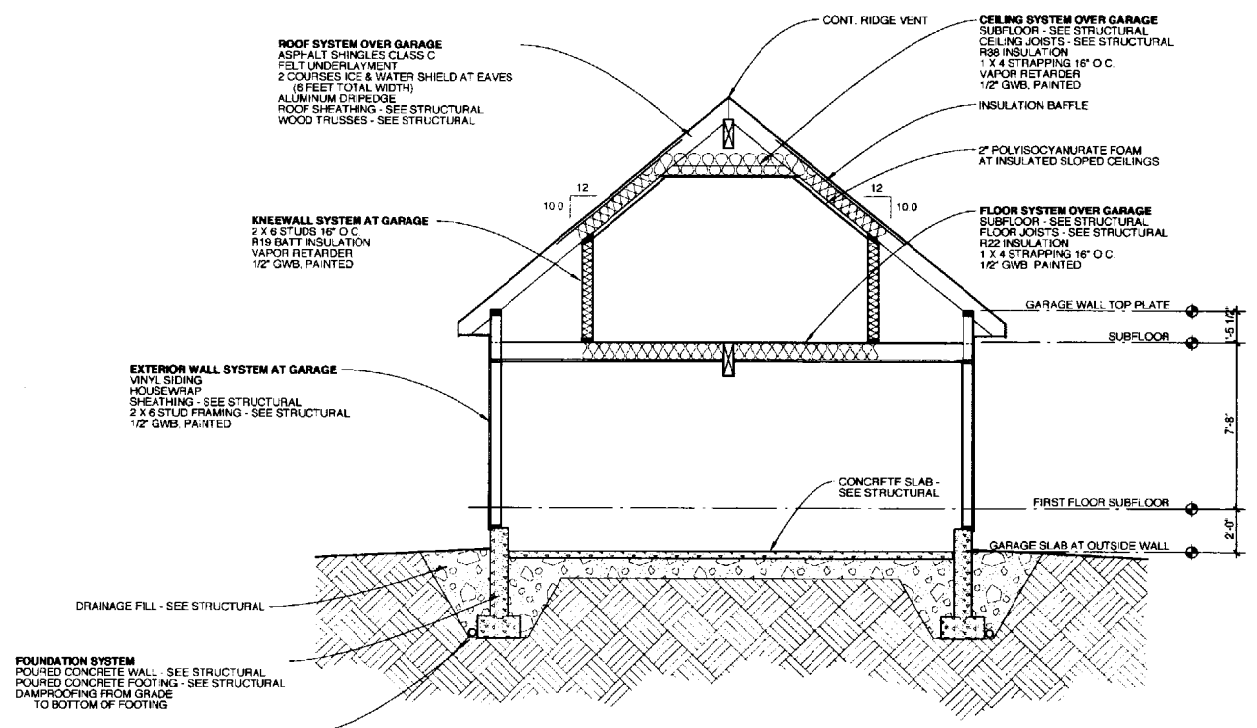
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Date: 8/15/02

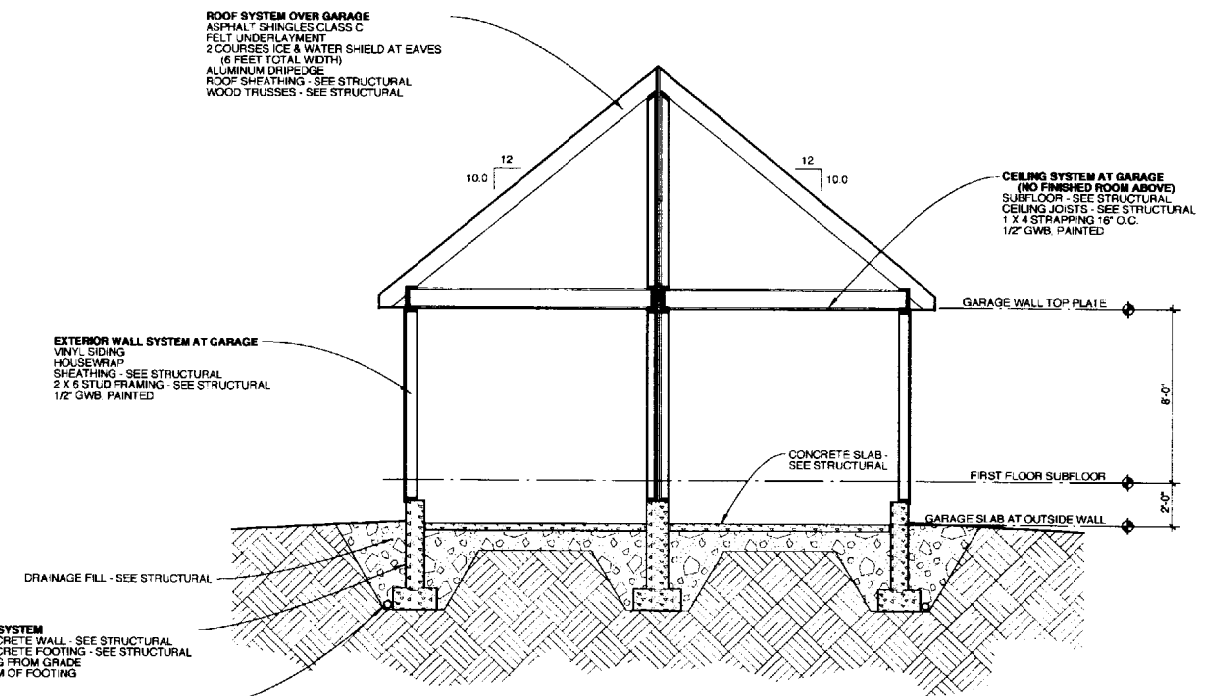
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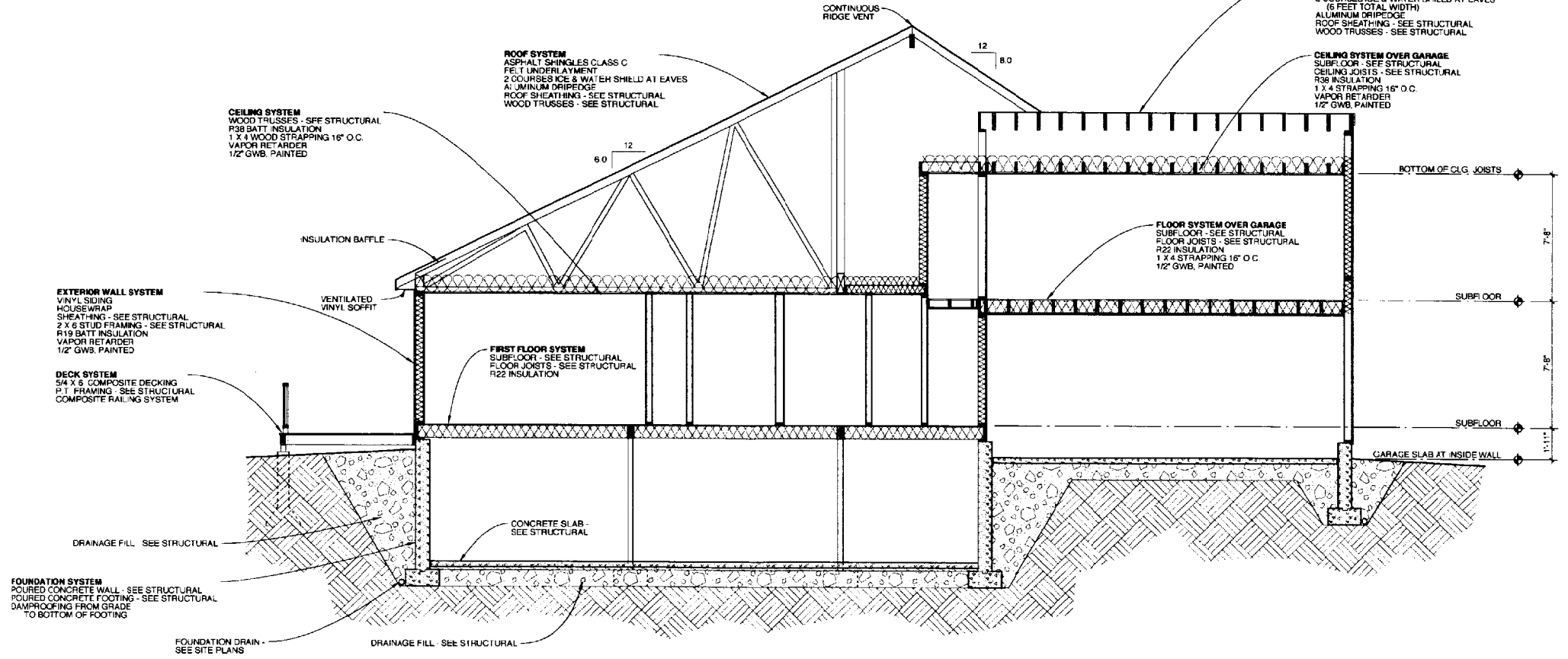
A202



3 BUILDING SECTION
 SCALE: 1/4" = 1'-0"



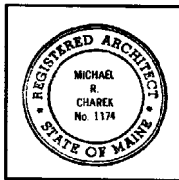
2 BUILDING SECTION
 SCALE: 1/4" = 1'-0"



1 BUILDING SECTION
 SCALE: 1/4" = 1'-0"

Structural Consultants:
 Swift Engineering
 331 Main Street
 Norway, ME 04268
 207-743-5885

Michael R. Charek
 Architect
 25 Hartley Street
 Portland, Maine 04103
 (207) 761-0585



Radcliffe Glen
 Harvard Street, Portland, ME

Larry Sturdivant
 15 Garwood Drive
 Portland, ME 04103

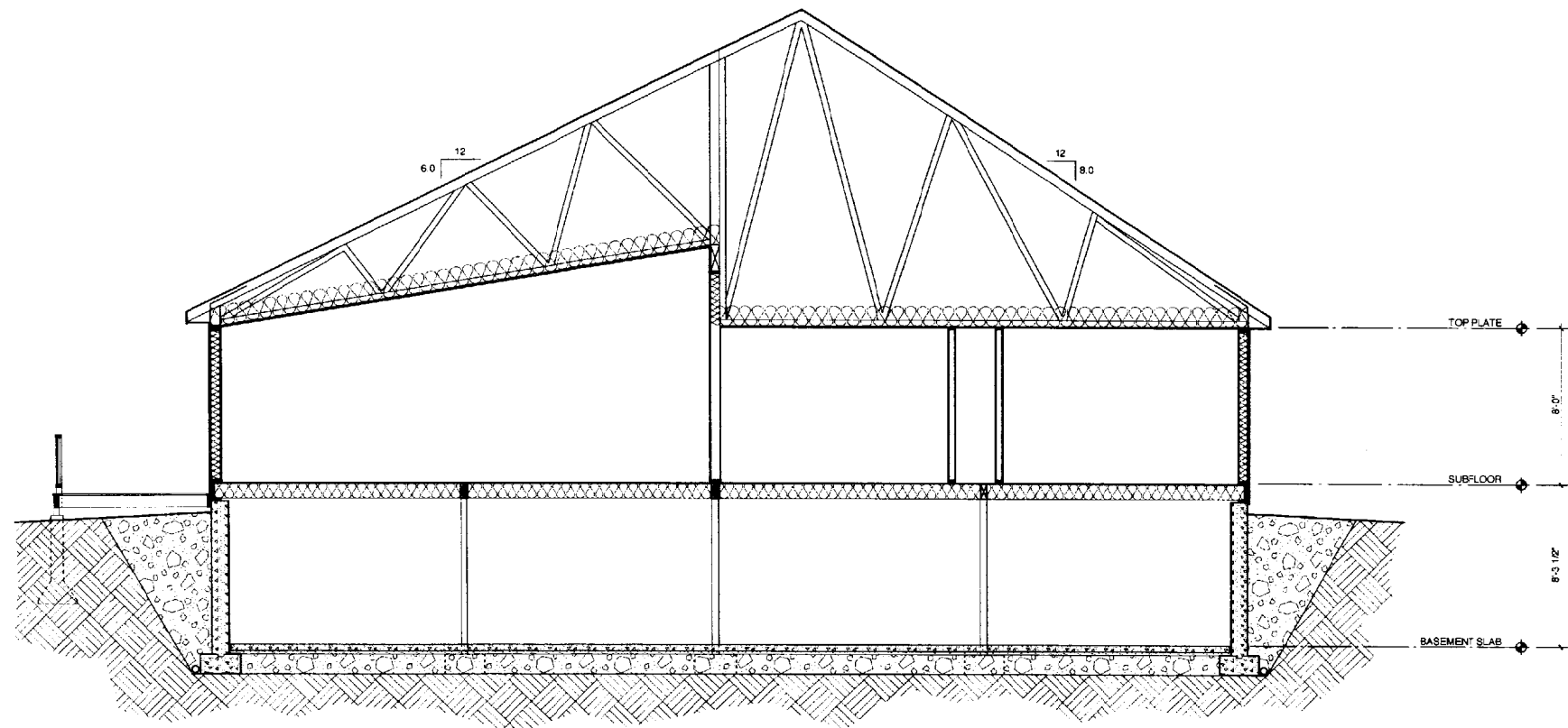
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Scale: 1/4" = 1'-0"

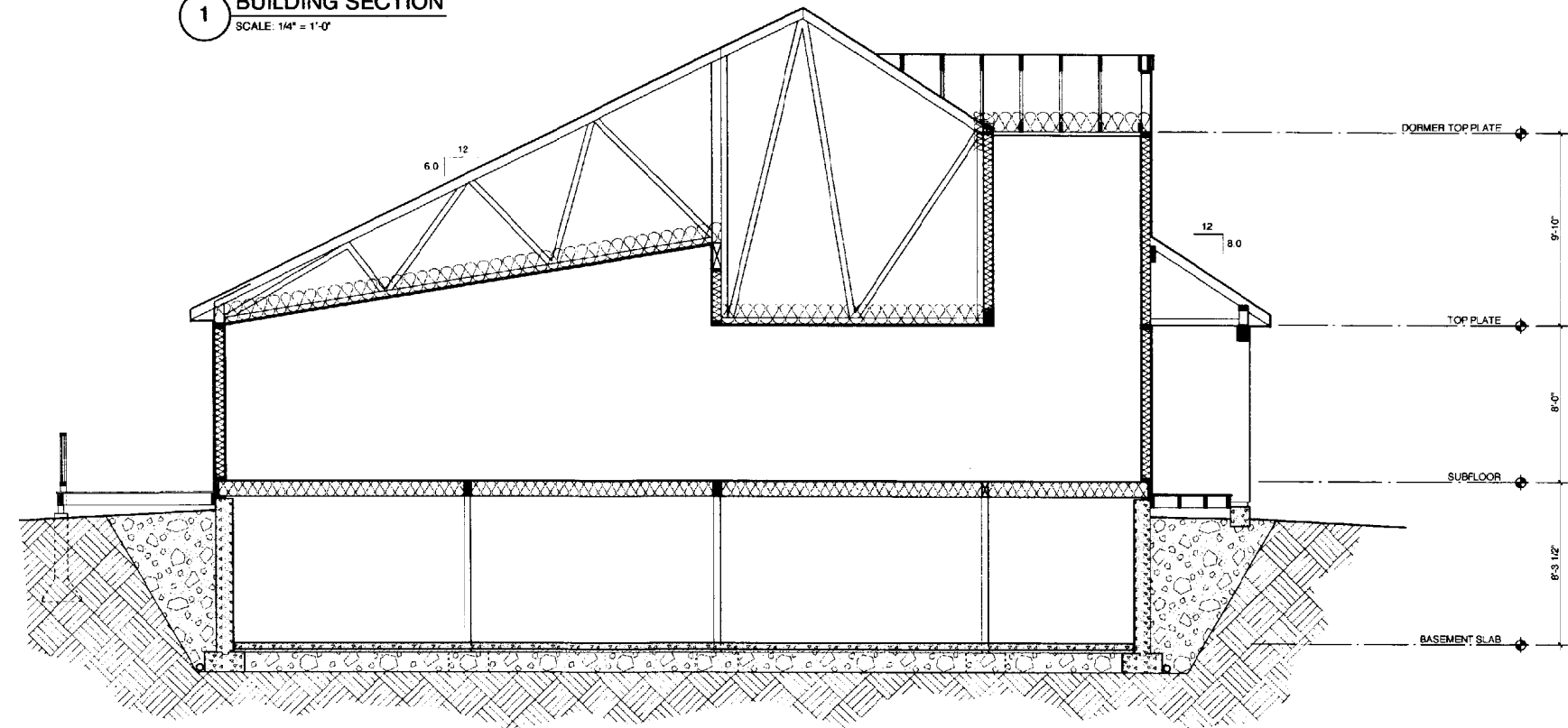
Date: 8/15/02

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A301



1 BUILDING SECTION
SCALE: 1/4" = 1'-0"



2 BUILDING SECTION
SCALE: 1/4" = 1'-0"

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Norway, ME 04268
207-743-5885

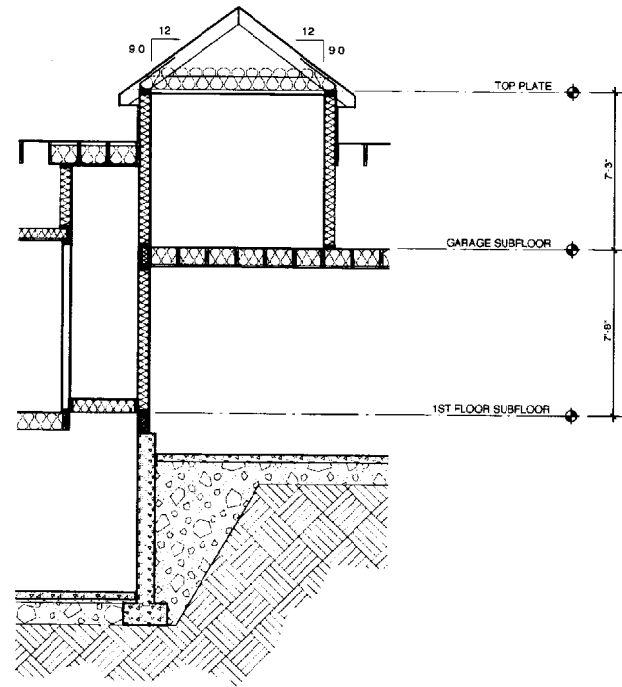
**Michael R. Charek
Architect**
25 Hartley Street
Portland, Maine 04103
(207) 781-0556



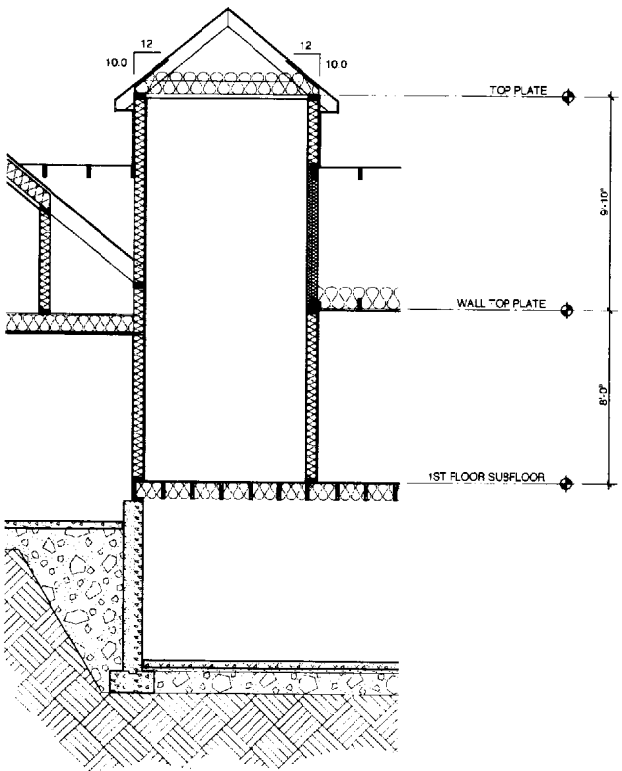
**Radcliffe Glen
Harvard Street, Portland, ME**

Larry Sturdivant
15 Garose Drive
Portland, ME 04103

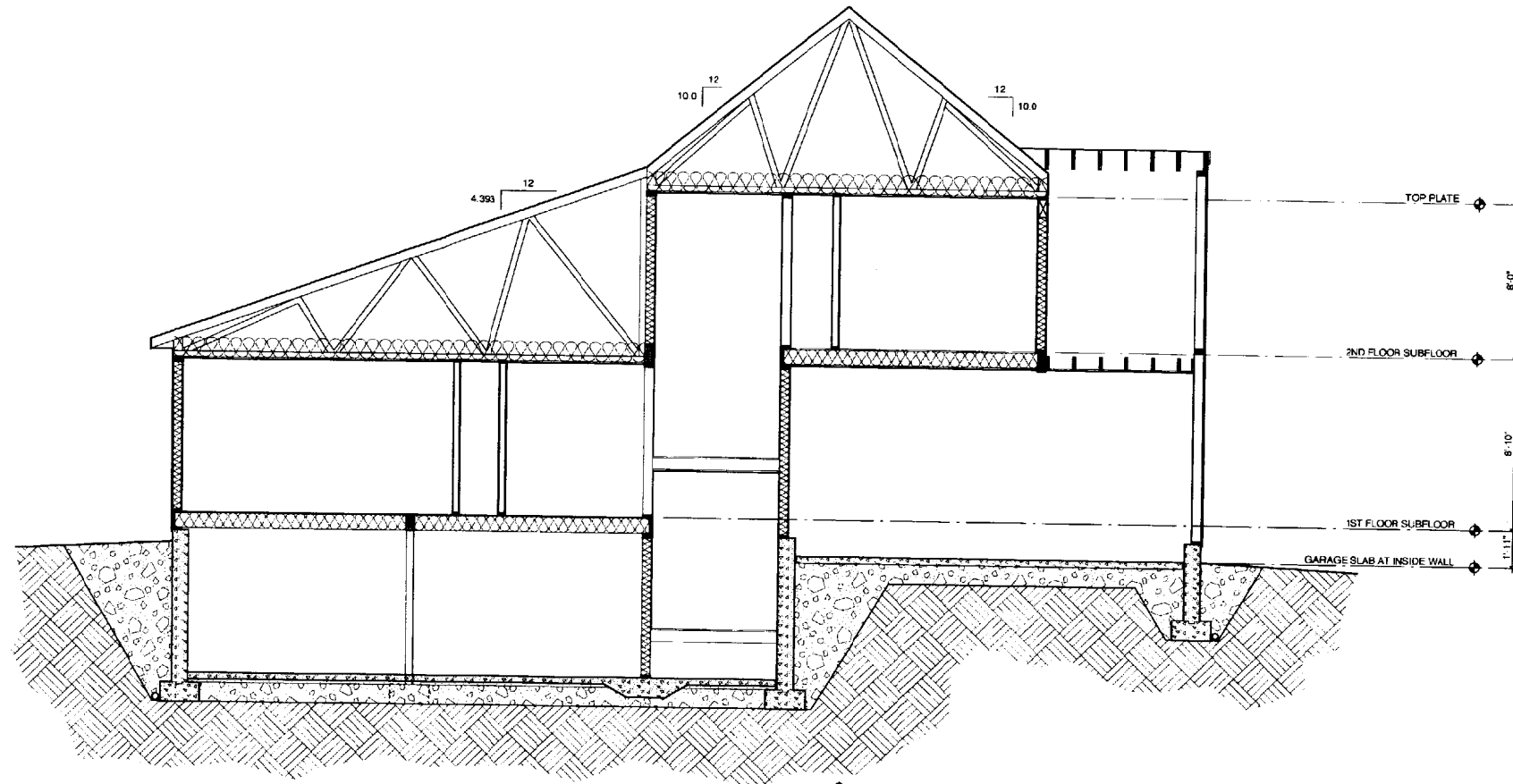
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Scale:	1/4" = 1'-0"
Date:	8/15/02
Revisions	ISSUED FOR PERMIT
Sheet	A302



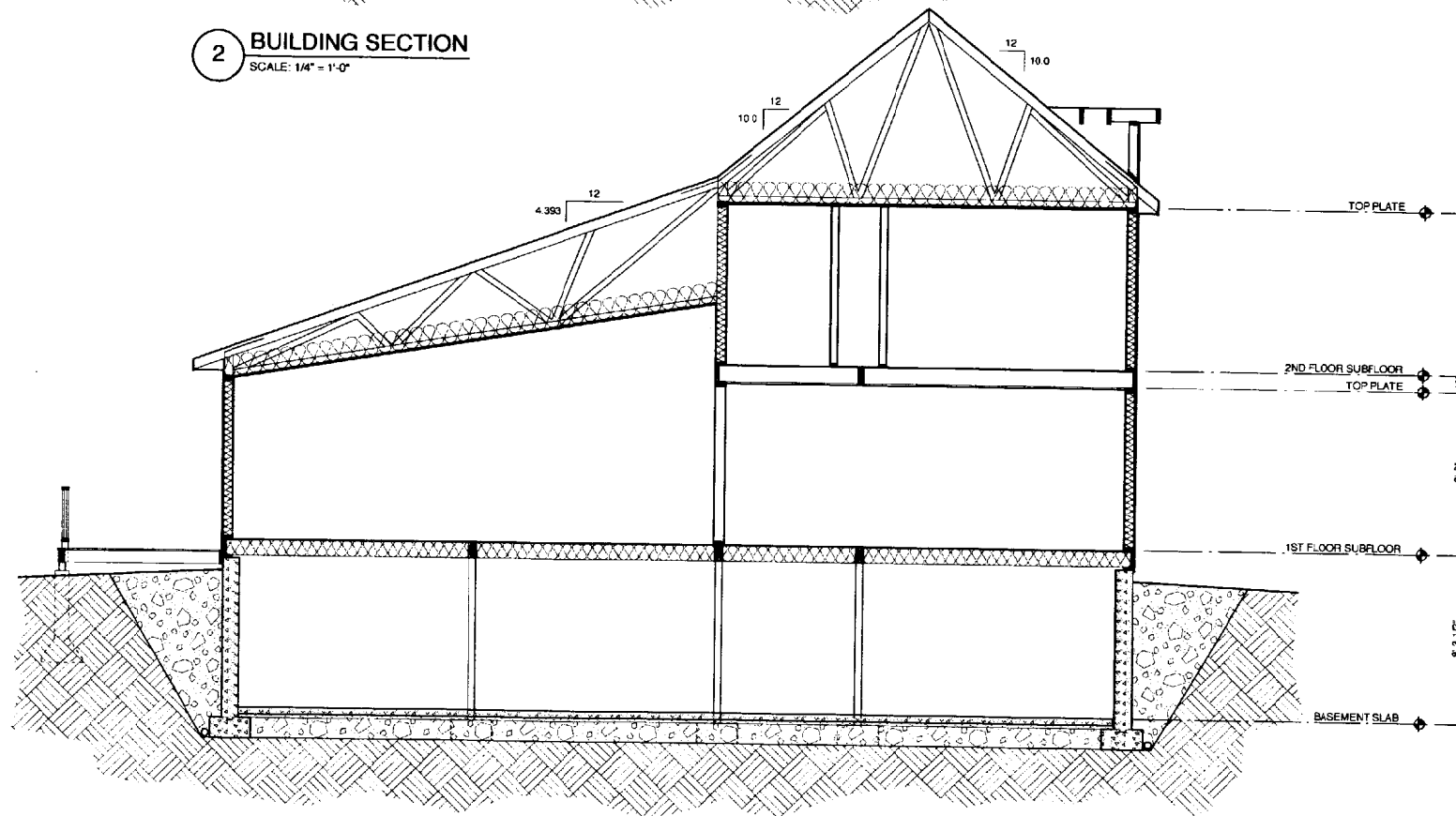
4 SECTION - SECOND FLOOR BATH DORMER
SCALE: 1/4" = 1'-0"



3 SECTION - DORMER OVER ENTRY
SCALE: 1/4" = 1'-0"



2 BUILDING SECTION
SCALE: 1/4" = 1'-0"



1 BUILDING SECTION
SCALE: 1/4" = 1'-0"

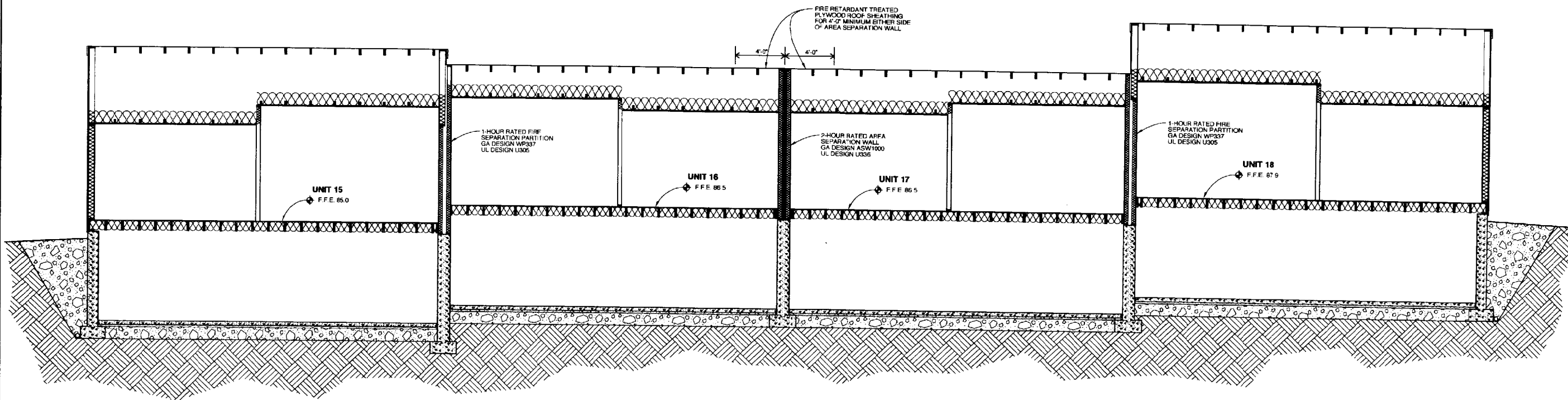
Structural Consultants:
Swift Engineering
331 Main Street
Norway, ME 04268
207-743-5665

Michael R. Charek
Architect
25 Hartley Street
Portland, Maine 04103
(207) 781-0558

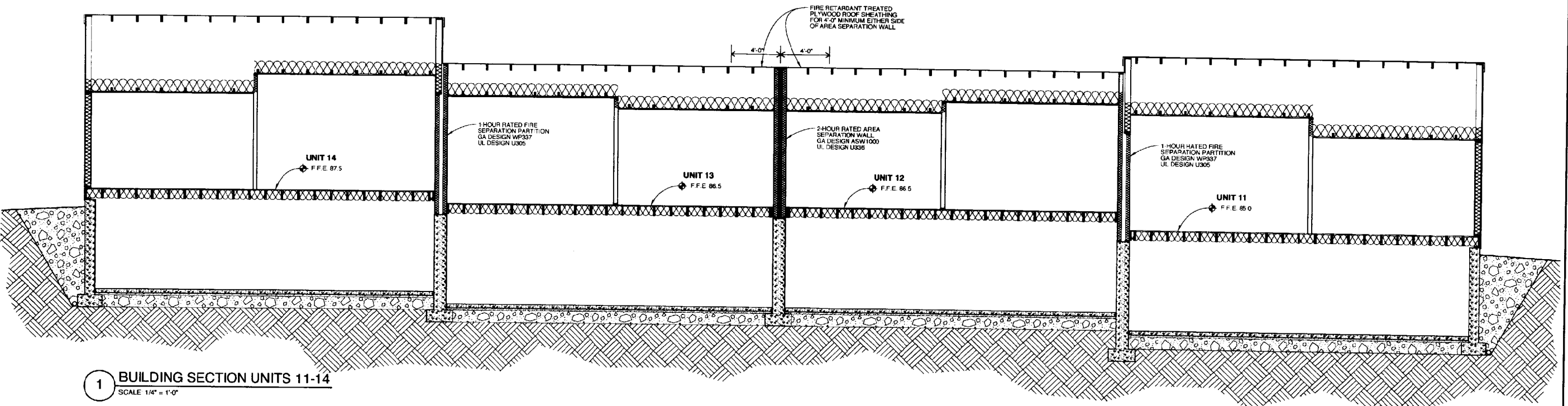


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Larry Sturdivant
15 Garsco Drive
Portland, ME 04103

Title
BUILDING SECTIONS
Scale: 1/4" = 1'-0"
Date: 8/15/02
Revisions
Sheet
A303



2 BUILDING SECTION UNITS 15-18
SCALE: 1/4" = 1'-0"



1 BUILDING SECTION UNITS 11-14
SCALE: 1/4" = 1'-0"

Structural Consultants:
Swift Engineering
331 Main Street
North Portland, ME 04268
207-743-5865

**Michael R. Charek
Architect**
25 Hartley Street
Portland, Maine 04103
(207) 761-0556



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Harvard Street, Portland, ME

Larry Sturdivant
15 Garroo Drive
Portland, ME 04103

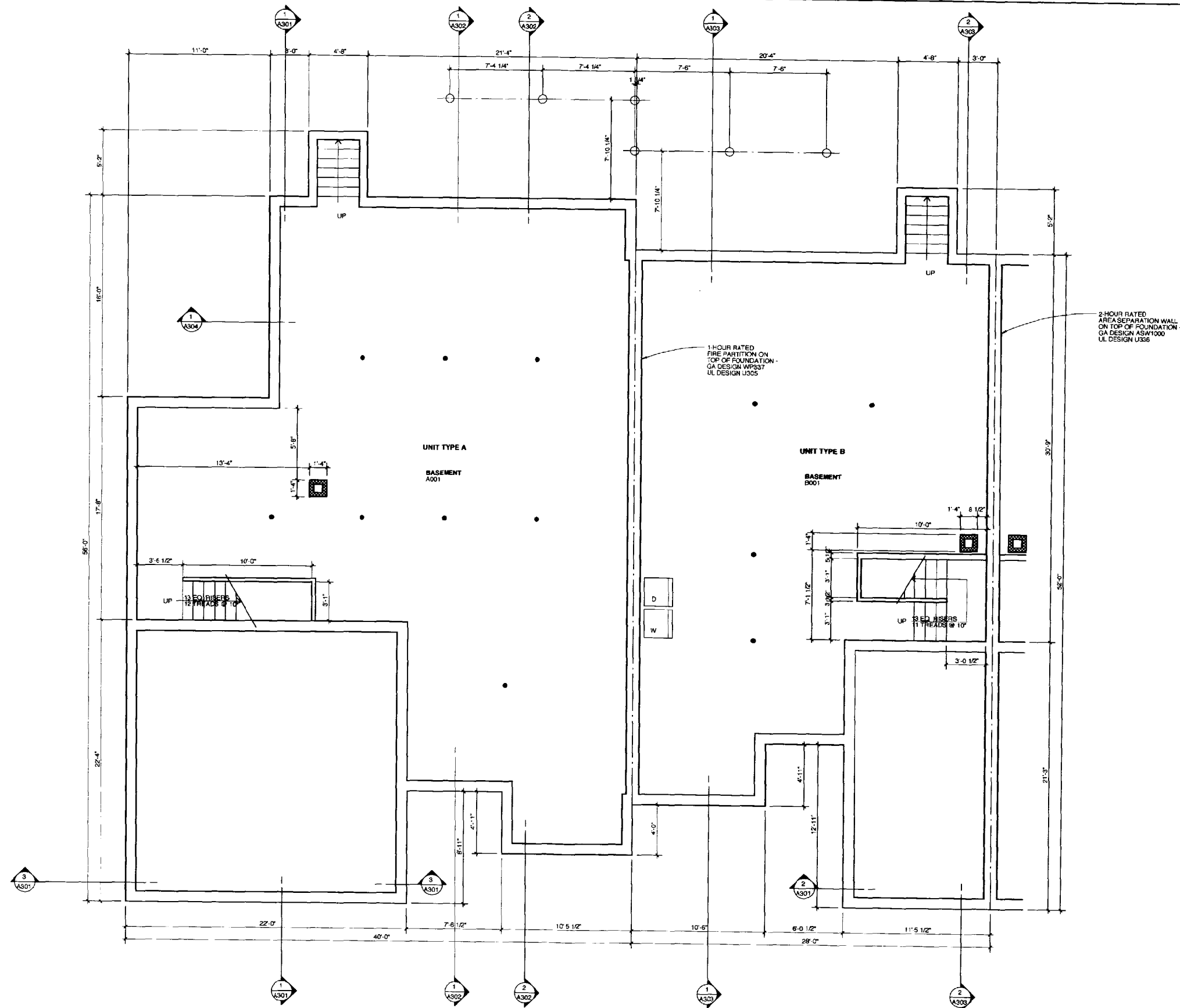
Title
BUILDING SECTIONS - UNITS 11-18

Scale: 1/4" = 1'-0"

Date: 8/15/02

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A304



1 ENLARGED BASEMENT FLOOR PLAN - UNIT TYPES A & B
SCALE: 1/4" = 1'-0"

Michael R. Charek
Architect
25 Hartley Street
Portland, Maine 04103
(207) 761-0556



Radcliffe Glen
Harvard Street, Portland, ME
Larry Sturdivant
15 Garsoe Drive
Portland, ME 04103

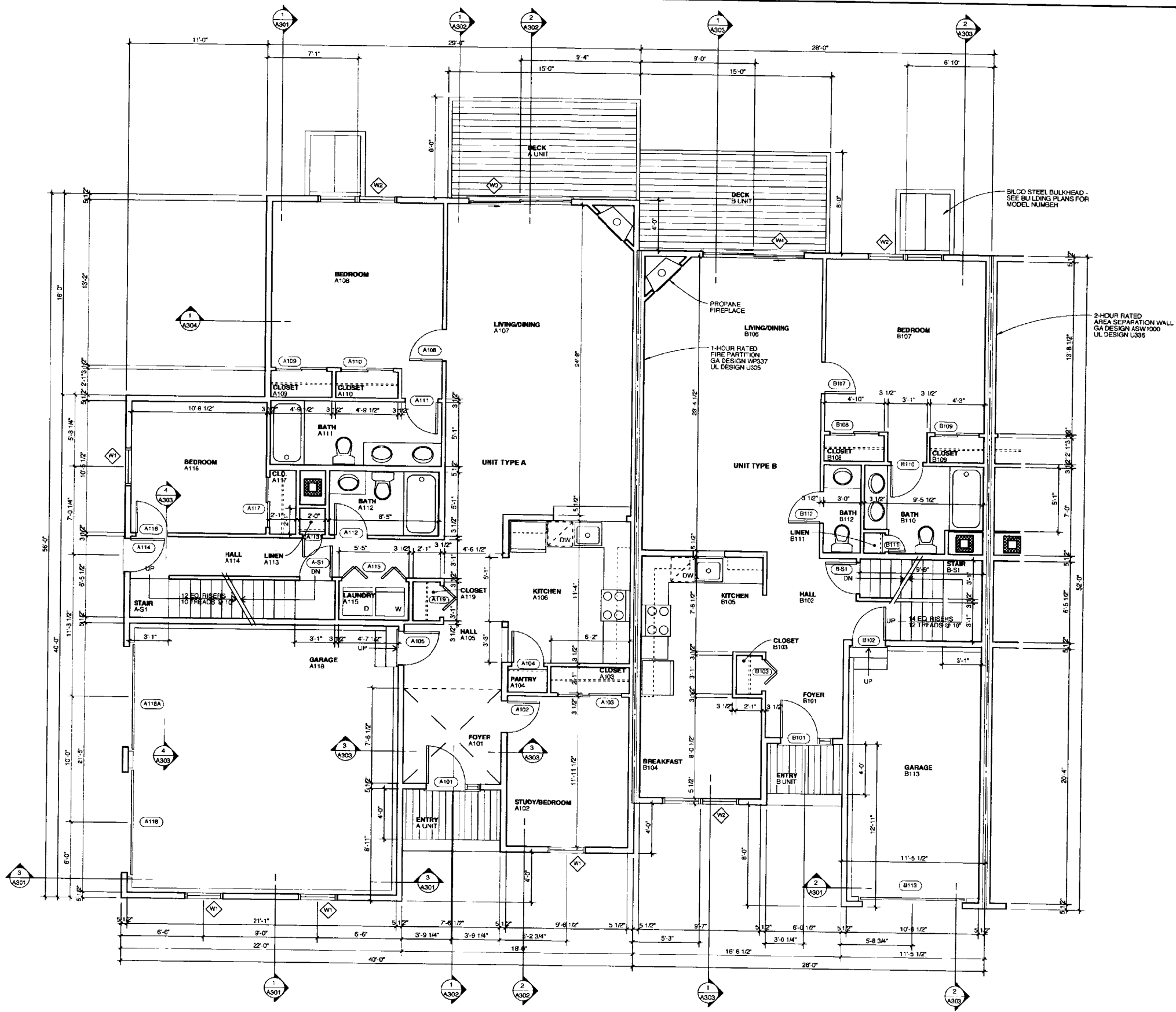
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ENLARGED FLOOR PLAN - BASEMENT

Scale: 1/4" = 1'-0"

Date: 8/15/02

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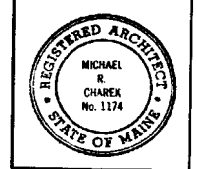
Sheet
A401



1 ENLARGED FIRST FLOOR PLAN - UNIT TYPES A & B
SCALE: 1/4" = 1'-0"

**Michael R. Charek
Architect**

25 Hartley Street
Portland, Maine 04103
(207) 781-0556



**Radcliffe Glen
Harvard Street, Portland, ME**

Larry Sturdivant
15 Garosoe Drive
Portland, ME 04103

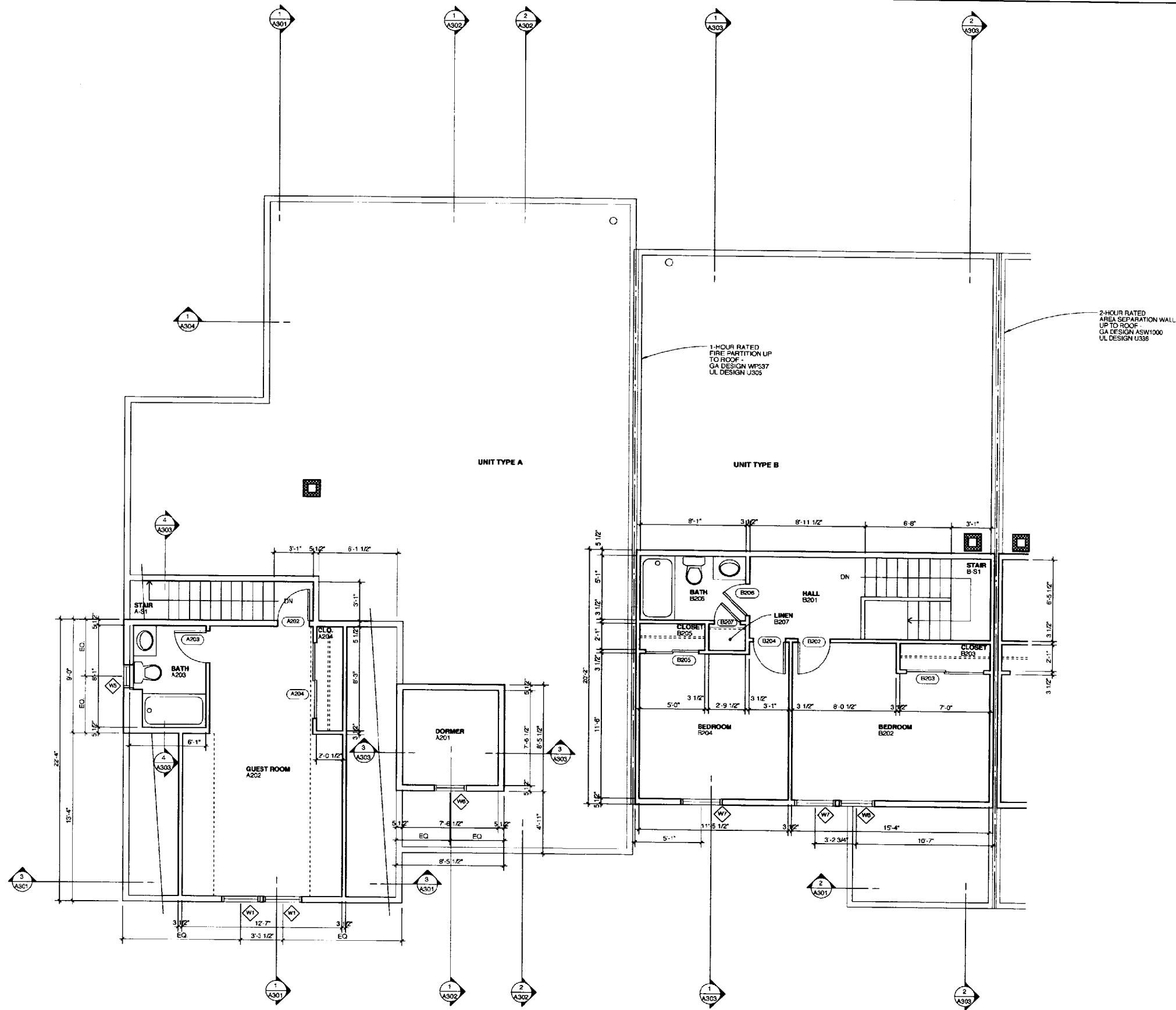
Title
ENLARGED FLOOR PLAN - FIRST FLOOR

Scale: 1/4" = 1'-0"

Date: 8/15/02

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Sheet
A402



1 ENLARGED SECOND FLOOR PLAN - UNIT TYPES A & B
SCALE: 1/4" = 1'-0"

Michael R. Charek
Architect

25 Hertley Street
Portland, Maine 04103
(207) 761-0556



Radcliffe Glen
Harvard Street, Portland, ME

Larry Sturdivant
15 Garose Drive
Portland, ME 04103

Title
ENLARGED FLOOR PLAN - SECOND FLOOR

Scale: 1/4" = 1'-0"

Date: 8/15/02

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Sheet
A403

NO	DOOR	MAT	FIN	WIDTH	HEIGHT	THICK	FRAME	MAT	FIN	HDWR	FIRE RATING	NOTES
A-51	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A101	2	FG-INSUL	PTD	3'-0"	6'-8"	1-3/4"	B	WD	PTD			1
A102	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A103	3	M.LD-SC	PTD	PR 2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A104	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A105	1	METL-INSUL	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD		20 MIN	
A106	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A109	3	M.D-SC	PTD	PR 2'-0"	6'-8"	1-3/8"	A	WD	PTD			
A110	3	M.D-SC	PTD	PR 2'-0"	6'-8"	1-3/8"	A	WD	PTD			
A111	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A112	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A113	8	M.LD-SC	PTD	1'-6"	6'-8"	1-3/8"	A	WD	PTD			
A114	4	FG-INSUL	PTD	2'-8"	6'-8"	1-3/8"	A	WD	PTD			
A115	5	M.LD-SC	PTD	PR 2'-6"	6'-8"	1-3/8"	A	WD	PTD			1
A116	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A117	3	M.LD-SC	PTD	PR 2'-0"	6'-8"	1-3/8"	A	WD	PTD			
A118A	7	M.LD-INSUL	PTD	8'-0"	7'-0"	--	--	WD	PTD			2
A118B	7	M.LD-INSUL	PTD	8'-0"	7'-0"	--	--	WD	PTD			2
A119	6	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A202	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A203	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
A204	3	M.LD-SC	PTD	PR 3'-0"	6'-8"	1-3/8"	A	WD	PTD			

MATERIAL/FINISH ABBREVIATIONS

METL METAL
FG FIBERGLASS FACE
HC HOLLOW CORE
INSUL INSULATED
MLD MOLDED WOOD FIBER FACE
PTD PAINTED
SC SOLID CORE
WD WOOD

NOTES

- 1 INSULATED EXTERIOR DOOR
- 2 INSULATED OVERHEAD DOOR

NO	NAME	FLOORS		BASE		WALLS		CEILING		NOTES	
		MAT	FIN	MAT	FIN	MAT	FIN	MAT	FIN		
A-51	STAIR	WD/CPT	UN/FF	WD	PTD	GWB	PTD	HT	GWB	PTD	1
A001	BASEMENT	CONC	UNF	--	--	CONC	UNF	7'-5 1/2"	--	--	2
A101	FOYER	CER	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A102	STUDY/BEDROOM	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A103	CLOSET	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A104	PANTRY	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A105	HALL	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A106	KITCHEN	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A107	LIVING/DINING	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A108	BEDROOM	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	3
A109	CLOSET	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A110	CLOSET	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A111	BATH	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A112	BATH	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A113	LINEN	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A114	HALL	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A115	LAUNDRY	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A116	BEDROOM	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A117	CLOSET	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
A118	GARAGE	CONC	UNF	--	--	GWB	PTD	8'-8"	GWB	PTD	
A201	DORMER	--	--	--	--	GWB	PTD	7'-7 1/2"	GWB	PTD	
A202	GUEST ROOM	CPT	FF	WD	PTD	GWB	PTD	--	GWB	PTD	4
A203	BATH	VIN	FF	WD	PTD	GWB	PTD	7'-0"	GWB	PTD	4
A204	CLOSET	CPT	FF	WD	PTD	GWB	PTD	--	GWB	PTD	4

MATERIAL/FINISH ABBREVIATIONS

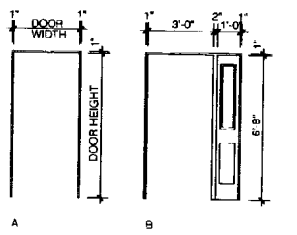
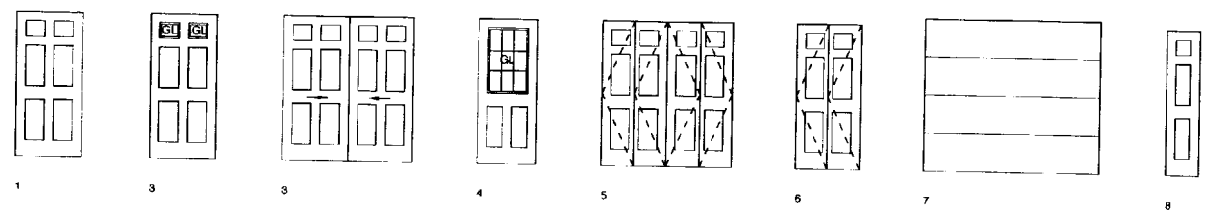
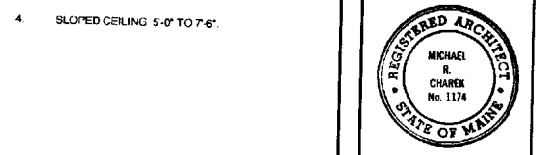
CER CERAMIC TILE
CONC CONCRETE
CPT CARPET
FF FACTORY FINISH
GWB GWB
HDWD HARDWOOD
POLY POLYURETHANE
PTD PAINT
VIN SHEET VINYL
UNF UNFINISHED
WD WOOD

FINISH NOTES

- 1 CONCRETE WALLS WHERE STAIR RUNS AGAINST FOUNDATION
- 2 GWB ON PART OF WALLS WHERE FIRE WALLS EXTEND INTO BASEMENT
- 3 SLOPED CEILING 7'-10 1/2" TO 12'-0"
- 4 SLOPED CEILING 5'-0" TO 7'-6"

NO	DOOR	MAT	FIN	WIDTH	HEIGHT	THICK	FRAME	MAT	FIN	HDWR	FIRE RATING	NOTES
B-51	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
B101	2	FG-INSUL	PTD	3'-0"	6'-8"	1-3/4"	B	WD	PTD			
B102	1	METL-INSUL	PTD	2'-8"	6'-8"	1-3/4"	A	WD	PTD		20 MIN	
B103	6	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
B107	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
B108	3	M.LD-SC	PTD	PR 2'-0"	6'-8"	1-3/8"	A	WD	PTD			
B109	3	M.LD-SC	PTD	PR 1'-10"	6'-8"	1-3/8"	A	WD	PTD			
B110	1	M.LD-SC	PTD	2'-8"	6'-8"	1-3/8"	A	WD	PTD			
B111	8	M.LD-SC	PTD	1'-4"	6'-8"	1-3/8"	A	WD	PTD			
B112	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
B113	7	M.LD-INSUL	PTD	8'-0"	7'-0"	--	--	WD	PTD			2
B202	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
B203	3	M.LD-SC	PTD	PR 3'-0"	6'-8"	1-3/8"	A	WD	PTD			
B204	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
B205	3	M.LD-SC	PTD	PR 2'-0"	6'-8"	1-3/8"	A	WD	PTD			
B206	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			
B207	1	M.LD-SC	PTD	2'-6"	6'-8"	1-3/8"	A	WD	PTD			

NO	NAME	FLOORS		BASE		WALLS		CEILING		NOTES	
		MAT	FIN	MAT	FIN	MAT	FIN	MAT	FIN		
B-51	STAIR	WD/CPT	UN/FF	WD	PTD	GWB	PTD	HT	GWB	PTD	1
B001	BASEMENT	CONC	UNF	--	--	CONC	UNF	7'-5 1/2"	--	--	2
B101	FOYER	CER	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B102	HALL	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B103	CLOSET	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B104	BREAKFAST	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B105	KITCHEN	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B106	LIVING/DINING	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B107	BEDROOM	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	3
B108	CLOSET	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B109	CLOSET	HDWD	POLY	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B110	BATH	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B111	LINEN	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B112	BATH	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B113	GARAGE	CONC	UNF	--	--	GWB	PTD	9'-10"	GWB	PTD	
B201	HALL	CPT	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B202	BEDROOM	CPT	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B203	CLOSET	CPT	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B204	BEDROOM	CPT	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B205	CLOSET	CPT	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B206	BATH	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	
B207	LINEN	VIN	FF	WD	PTD	GWB	PTD	7'-10 1/2"	GWB	PTD	



SYMBOL	MANUFACTURER	CATALOG #	TYPE	ESCAPE WINDOW
W1	ANDERSEN	TW2104-10	DOUBLE HUNG	YES
W2	ANDERSEN	TW2104-10-2	DOUBLE HUNG	YES
W3	ANDERSEN	257GD9068R	PATIO DOOR	YES
W4	ANDERSEN	257GD9068L	PATIO DOOR	YES
W5	ANDERSEN	TW1836	DOUBLE HUNG	NO
W6	ANDERSEN	TW24310	DOUBLE HUNG	NO
W7	ANDERSEN	TW30410	DOUBLE HUNG	YES
W8	ANDERSEN	AW251	AWNING	NO

Michael R. Charek
Architect
25 Hartney Street
Portland, Maine 04103
(207) 761-0556

Radcliffe Glen
Harvard Street, Portland, ME
Larry Sturdivant
15 Garces Drive
Portland, ME 04103

Title
SCHEDULES

Scale: AS NOTED

Date: 8/15/02

Revisions

ISSUED FOR PERMIT

Sheet
A601

External
subdivision
property line

LIMITS OF CLEARING

35' scaled
NICHOLAS
COURT

R-3 Zone
PRUD

EXISTING-TIME
TREES TO BE
PRESERVED
(SEE NOTE 2)

TREE
SAVE

TREE
SAVE

ACTIVE
RECREATION
AREA

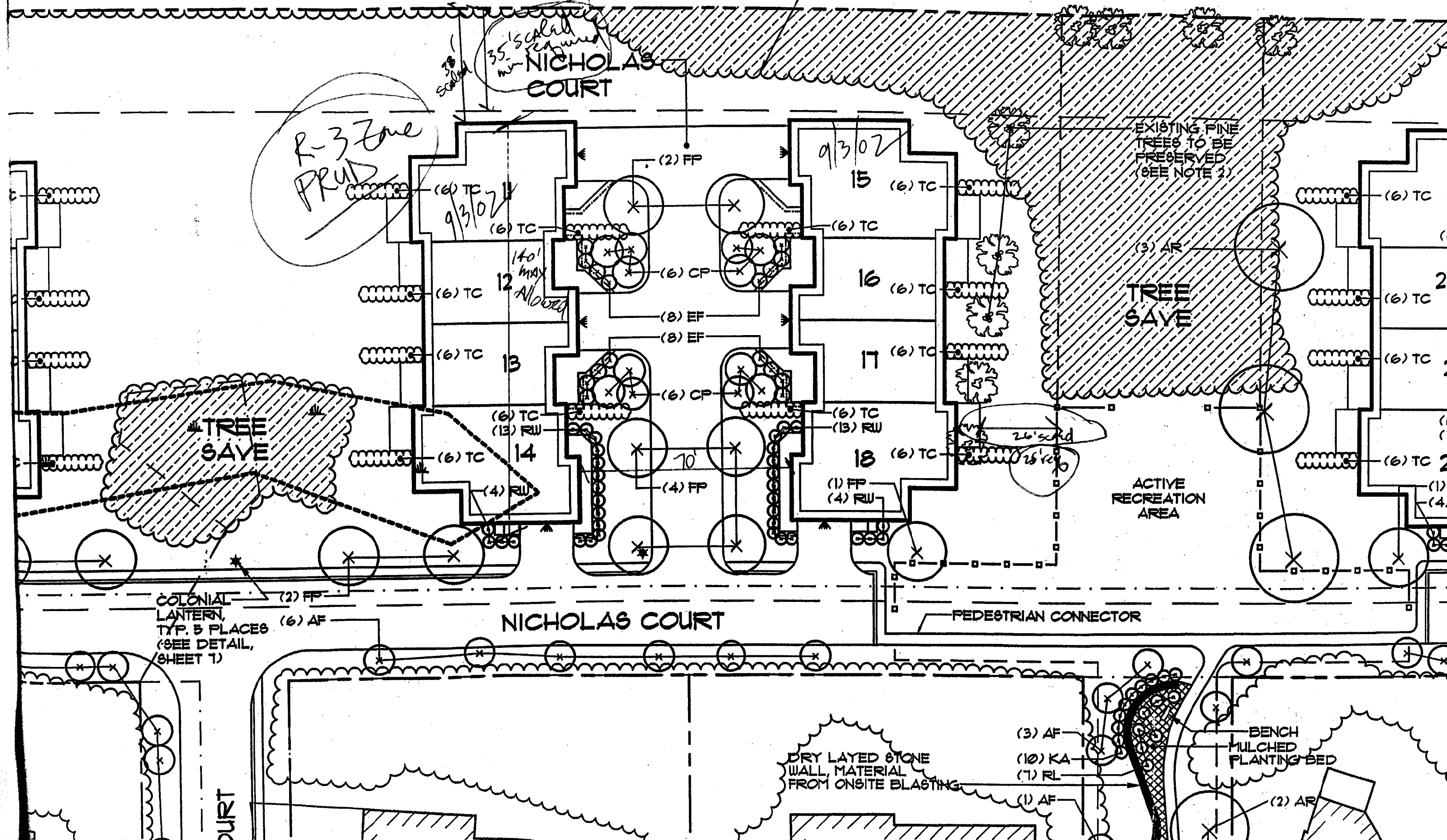
NICHOLAS COURT

PEDESTRIAN CONNECTOR

COLONIAL
LANTERN,
TYP. 5 PLACES
(SEE DETAIL,
SHEET 1)

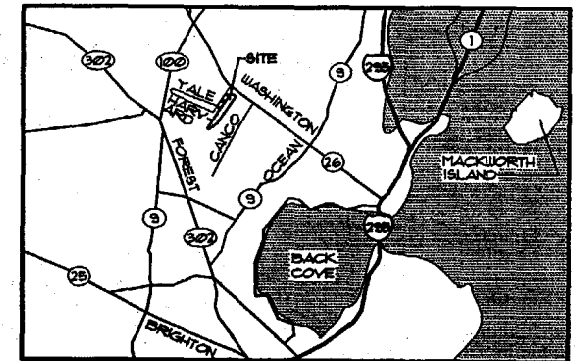
DRY LAYED STONE
WALL, MATERIAL
FROM ONSITE BLASTING

BENCH
MULCHED
PLANTING BED



RADCLIFFE GLEN

A PLANNED RESIDENTIAL UNIT DEVELOPMENT
HARVARD STREET, PORTLAND, MAINE



LOCATION MAP

N.T.S.

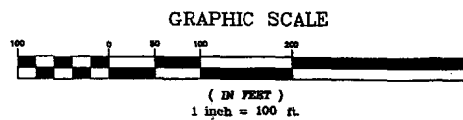
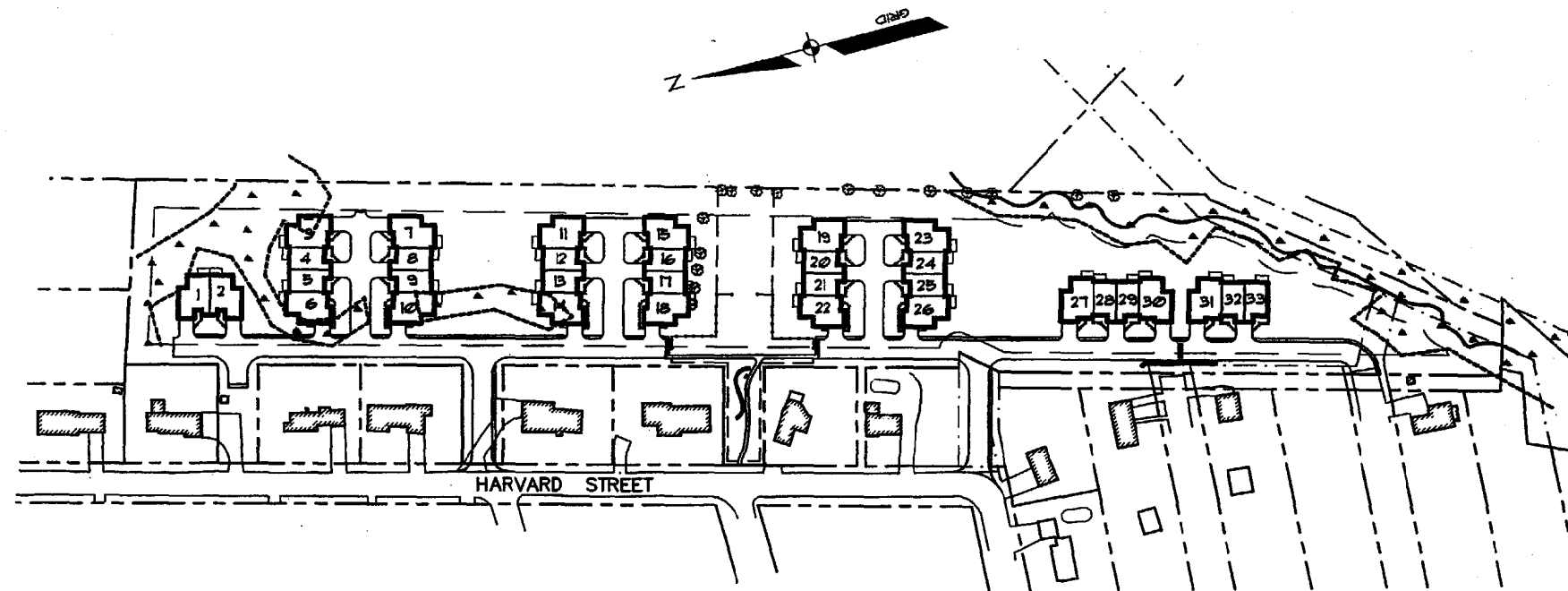
APPLICANT:
LARRY STURDIVANT
15 GARSOE DRIVE
PORTLAND, MAINE 04103

SURVEYOR/ENGINEER:

Sebago Technics
Engineering & Planning for the Future
ONE CHABOT STREET
WESTBROOK, ME 04098-1339
TEL (207) 856-0277

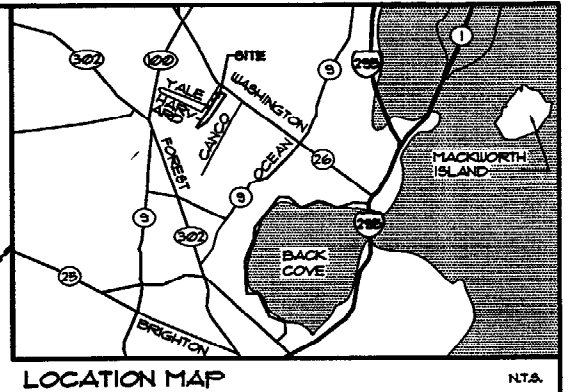
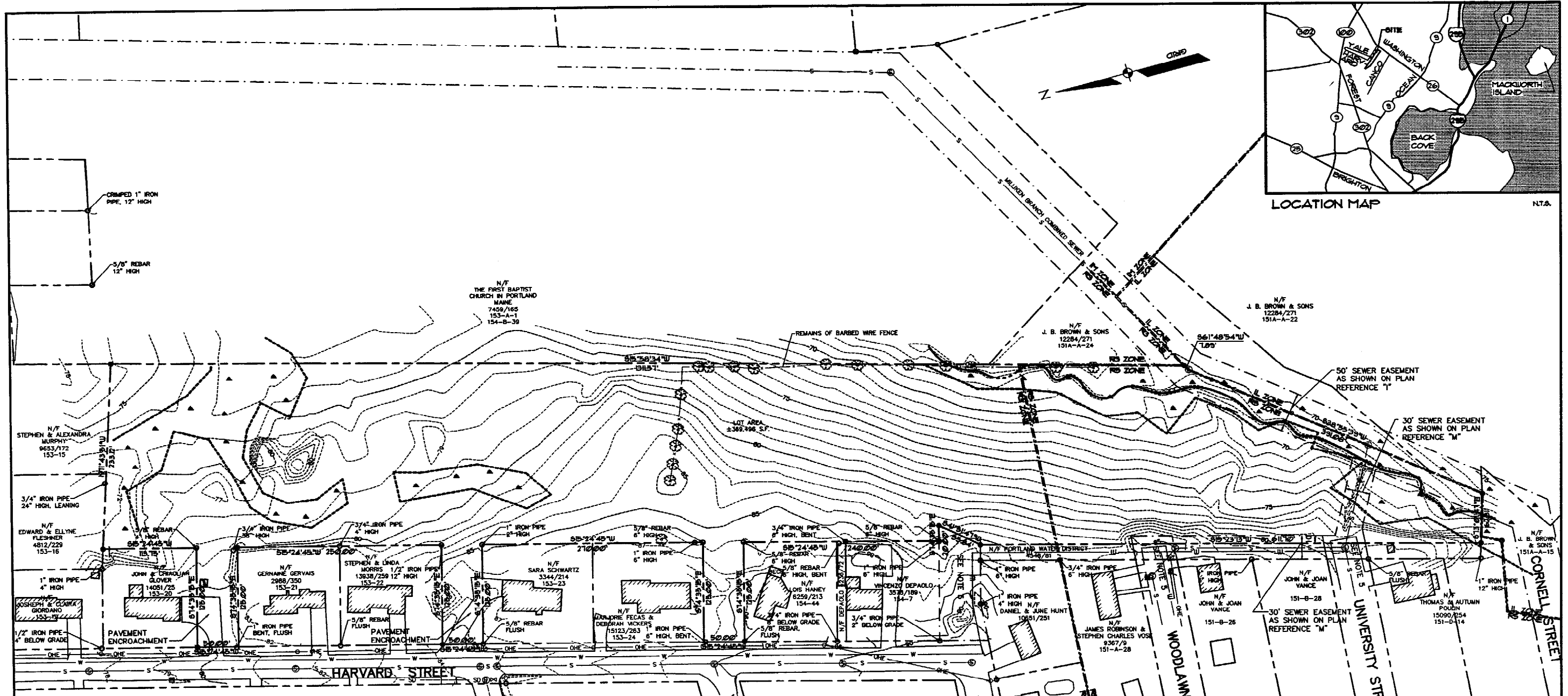
LEGEND (TYPICAL ALL SHEETS)

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	BUILDING	---
▲	WETLANDS	
---	EDGE WETLAND	
---	EDGE PAVEMENT	
---	GRAVEL ROAD	
---	CURBLINE	
○	DECIDUOUS TREE	
⊗	CONIFEROUS TREE	



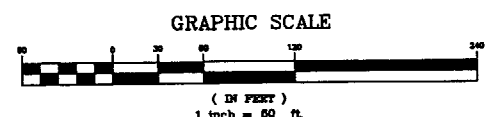
SHEET INDEX

- 1 COVER SHEET
- 2 EXISTING CONDITIONS
- 3 SUBDIVISION PLAN
- 4 SITE PLAN
- 5 GRADING & UTILITY PLAN
- 6 GRADING & UTILITY PLAN
- 7 PROFILE SHEET
- 8 PROFILE SHEET
- 9 LANDSCAPE PLAN
- 10 LANDSCAPE PLAN
- 11 DETAILS
- 12 DETAILS
- 13 DETAILS



LEGEND

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	CURVE/LINE NO.	---
---	BUILDING	---
---	WETLANDS	---
---	EDGE WETLAND	---
---	STREAM	---
---	EDGE PAVEMENT	---
---	GRAVEL ROAD	---
---	TREELINE	---
---	CONTOURS	---
---	12" WATER	---
---	8" SEWER	---
---	12" STORM DRAIN	---
---	OVERHEAD ELEC. & TEL.	---
---	GATE VALVE	---
---	UTILITY POLE	---
---	HYDRANT	---
---	CATCH BASIN	---
---	MANHOLE	---
---	POTABLE WELL	---
---	CULVERT	---
---	30.20 SPOT GRADE	---
---	CHAIN LINK FENCE	---
---	BARB WIRE FENCE	---
---	STOCKADE FENCE	---
---	DECIDUOUS TREE	---
---	CONIFEROUS TREE	---
---	ZONE LINE	---
---	BENCHMARK	---



GENERAL NOTES

- THE RECORD OWNER OF THE PROPERTY IS LAWRENCE J. STURDIVANT, BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS (CCRD) IN BOOK 17210 PAGE 76.
- THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND TAX ASSESSORS MAP # 153 AS LOT 25 AND MAP 154 AS LOT 16.
- THE TOPOGRAPHIC INFORMATION HEREIN IS BASED ON AN ON THE GROUND SURVEY BY SEBAGO TECHNICS, PERFORMED IN DECEMBER OF 2001. THE ELEVATIONS ARE BASED ON NAVD 83. THE SEVERAL OF THE HOUSES SHOWN OUTSIDE THE LOT'S PROPERTY WERE DIGITIZED FROM AERIAL PHOTOS AND ARE APPROXIMATE ONLY.
- THE WETLANDS SHOWN HEREIN WERE DELINEATED BY SWEET ASSOCIATES.
- ACCESS EASEMENTS OVER THE PROJECTIONS OF HARVARD STREET, WOODLAWN AVE. AND UNIVERSITY STREET, WERE RESERVED IN DEED BOOK 4548 PAGE 61.
- UTILITY INFORMATION SHOWN HEREIN IS TAKEN FROM SURFACE UTILITY LOCATION AND PLAN INFORMATION PROVIDED BY LOCAL UTILITIES. DMS SAFE SHOULD BE CONTACTED PRIOR TO ANY EXCAVATION.
- THE PROPERTY IS LOCATED IN THE CITY OF PORTLAND RS AND RS ZONES AS SHOWN ON THIS PLAN.
- THE SPACE AND BULK CRITERIA FOR THE RS AND RS ZONES ARE AS FOLLOWS:

NOTES CONTINUED

- PLAN REFERENCES:
 - PLAN OF PROPERTY FOR CAMPUS REALTY CO., BY H. L. & E. C. JORDAN, DATED SEPTEMBER 11, 1909, AND RECORDED IN THE CCRD IN PLAN BOOK 92 PAGE 16.
 - STANDARD BOUNDARY SURVEY, A SUBDIVISION PLAN FOR DONIBURY INC., BY STEVENS, MORTON, ROSE, & THOMPSON, DATED JUNE 5, 1907, LAST REVISED JULY 17, 1907, AND RECORDED IN THE CCRD IN PLAN BOOK 104 PAGE 46, AND THE PORTLAND PUBLIC WORKS (PPW) IN BOOK 902 PAGE 10.
 - PLAN OF SUBDIVISION OF ADDITION TO HAWTHORNE HEIGHTS EXTENSION FOR GEORGE EDWARDS REAL ESTATE CO. BY PERCY RICHARDSON, DATED NOVEMBER 1921, AND RECORDED IN THE CCRD IN PLAN BOOK 14 PAGE 17, AND THE PPW IN BOOK 495 PAGE 28.
 - PLAN OF LOTS AT UNIVERSITY PARK FOR PORTLAND WHARF AND LAND CO., BY CHARLES MOORE, DATED APRIL 1937, AND RECORDED IN THE CCRD IN PLAN BOOK 24 PAGE 28, AND AT THE PPW IN BOOK 471 PAGE 15.
 - LAYING OUT PLAN OF HARVARD AND YALE STREETS, BY THE PPW, DATED SEPTEMBER 25, 1934, STREETS ACCEPTED NOVEMBER 19, 1934, ON FILE AT THE PPW IN BOOK 235 PAGE 6.
 - PORTLAND SEWER SYSTEM INFILTRATION-BLOWUP ANALYSIS, SYSTEM BASE MAPPING, STUDY AREA 1, BY HUNTER BALLEW ASSOCIATES, DATED AUGUST 1979, AND LAST REVISED AUGUST 1, 1988, ON FILE AT THE PPW IN BOOK 905 PAGE 1.
 - PLAN AND PROFILE OF UNIVERSITY STREET, BY THE PPW, DATED OCTOBER 1979, AND ON FILE AT THE PPW IN BOOK 979 PAGE 24.
 - PLAN OF WOODLAWN AVE & UNIVERSITY STREET OUTLET SEWER RIGHT OF WAY, BY THE PPW, DATED SEPTEMBER 6, 1983, AND ON FILE AT THE PPW IN BOOK 491 PAGE 18.
 - PLAN OF MILLIKEN BRANCH COMB. SEWER, BY THE PPW, DATED SEPTEMBER 17, 1982, AND ON FILE IN THE PPW IN BOOK 667 PAGE 15.
 - PLAN OF MILLIKEN BRANCH SEWER-RIGHT-OF-WAY, END OF CORNELL ST. TO MORRILL ST., BY THE PPW, DATED JUNE 20, 1978, AND ON FILE AT THE PPW IN BOOK 790 PAGE 17.
 - PORTLAND WATER DISTRICT WATER LINE MAP OF DEERING SECTION 30, LAST REVISED APRIL 15, 1988.
 - COMPOSITE PLAN OF J. B. BROWN & SONS PARCELS, BY H. L. & E. C. JORDAN, DATED SEPT. 14, 1909, AND RECORDED IN THE CCRD IN PLAN BOOK 132 PAGE 10.
 - WOODLAWN AVE & UNIVERSITY STREET OUTLET SEWER RIGHT OF WAY, BY THE CITY OF PORTLAND PUBLIC WORKS DEPARTMENT, DATED JULY 1988, AND ON FILE AT THE PPW IN BOOK 491 PAGE 18.

DATE: 5/14/02
SCALE: 1"=60'

REV.	BY:	DATE:	STATUS:
E	DLR	8/2/02	SUBMITTED FOR PLANNING BOARD SIGNATURE
D	DLR	7/5/02	SUBMITTED FOR PUBLIC HEARING
C	DLR	6/11/02	SUBMITTED FOR SITE PLAN SUBMISSION
B	DLR	05/14/02	SUBMITTED FOR 5/28/02 PLANNING BOARD WORKSHOP
A	DLR	04/17/02	SUBMITTED FOR 4/23/02 PLANNING BOARD WORKSHOP

Sebago Technics
 Engineering Expertise You Can Build On
 One Chubb Street
 Westbrook, ME 04090-1339
 Tel: (207) 888-0277

PROJECT NO. DMC NAME FLD, BK DESIGN DRAWN
 171406 171406 171406 171406

EXISTING CONDITIONS PLAN
 OF:
RADCLIFFE GLEN
 HARVARD STREET
 PORTLAND, MAINE
 FOR:
LARRY STURDIVANT
 15 GARSDO DRIVE
 PORTLAND, MAINE 04103

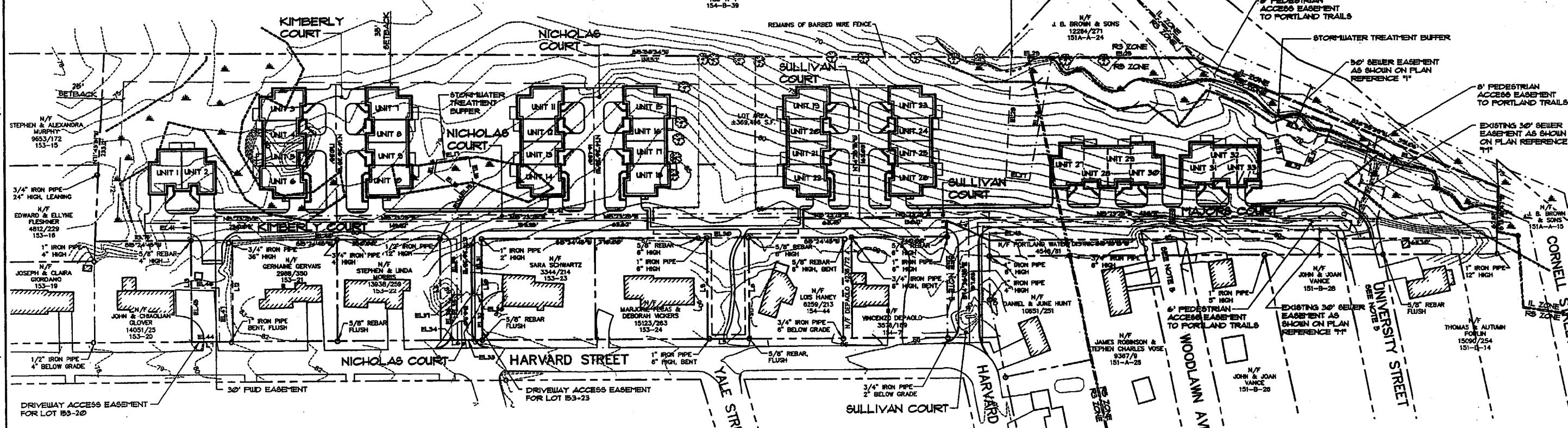
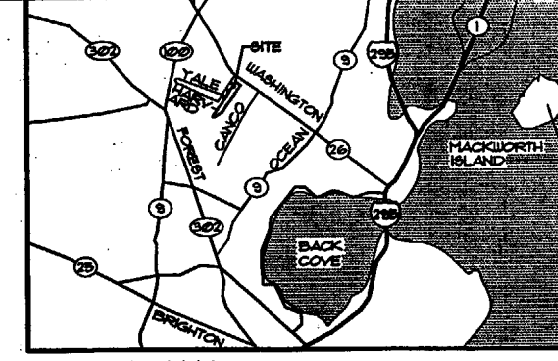
CENTERLINE DATA		
LINE	BEARING	LENGTH
L1	N81°14'05"W	4.16'

CENTERLINE CURVE DATA				
CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C1	40.51'	30.00'	N84°04'40"E	31.50'

PROPERTY LINE DATA		
LINE	BEARING	LENGTH
L2	S61°40'54"W	1.89'
L3	S74°39'18"E	20.00'
L4	S41°51'41"W	58.84'
L5	S85°24'45"W	50.00'
L6	S85°24'45"W	50.00'
L7	S85°24'45"W	50.00'
L8	S74°39'18"E	20.00'
L9	S74°39'18"E	20.00'
L10	S74°39'18"E	20.00'
L11	S74°39'18"E	20.00'
L12	S74°39'18"E	20.00'
L13	S74°39'18"E	20.00'

EASEMENT LINE DATA		
LINE	BEARING	LENGTH
EL14	S44°11'16"E	19.90'
EL15	S85°20'18"W	46.32'
EL16	N64°23'43"W	11.09'
EL17	N89°34'20"E	36.39'
EL18	S62°18'31"E	39.56'
EL19	S28°43'55"E	5.92'
EL20	N82°31'15"E	27.19'
EL21	S81°24'21"E	43.11'
EL22	S82°11'53"W	24.42'
EL23	N86°41'38"W	56.63'
EL24	N89°58'39"E	51.51'
EL25	N8°56'34"E	119.18'
EL26	S84°24'01"E	184.84'
EL27	S23°01'20"W	21.93'
EL28	N71°56'35"W	149.33'
EL29	N8°56'34"E	48.18'
EL30	S85°24'45"W	6.91'
EL31	S85°24'45"W	6.91'
EL32	S85°24'45"W	30.00'
EL33	N85°24'45"E	33.21'
EL34	S74°39'18"E	69.93'
EL35	N74°39'18"W	69.93'

P.U.D. EASEMENT LINE DATA		
LINE	BEARING	LENGTH
EL36	S85°24'45"W	56.00'
EL37	S74°39'18"E	69.62'
EL38	S74°39'18"E	55.39'
EL39	S85°24'45"W	30.00'
EL40	S74°39'18"E	55.39'
EL41	S74°39'18"E	69.62'
EL42	N85°24'45"E	30.00'
EL43	S85°24'45"W	56.00'
EL44	N85°24'45"E	33.21'
EL45	S74°39'18"E	34.81'



GENERAL NOTES

- THE RECORD OWNER OF THE PROPERTY IS LAWRENCE J. STURDIVANT, BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS (BOOK 1210 PAGE 16).
- THE PROPERTY IS LOCATED ON THE CITY OF PORTLAND TAX ASSESSORS MAP # B3 AS LOT 25 AND MAP #4 AS LOT 18.
- THE TOPOGRAPHIC INFORMATION HEREON IS BASED ON AN ON THE GROUND SURVEY BY SEBAGO TECHNICS, PERFORMED IN DECEMBER OF 2002. THE ELEVATIONS ARE BASED ON NAVD 83. THE SEVERAL OF THE HOUSES SHOWN OUTSIDE THE LOT'S PROPERTY WERE DIGITIZED FROM AERIAL PHOTOS AND ARE APPROXIMATE ONLY.
- THE SETBACKS SHOWN HEREON WERE DELINEATED BY GUEST ASSOCIATES.
- ACCESS EASEMENTS OVER THE PROJECTIONS OF HARVARD STREET, WOODLAWN AVE, AND UNIVERSITY STREET, WERE RESERVED IN DEED BOOK 48-48 PAGE 81.
- UTILITY INFORMATION SHOWN HEREON IS TAKEN FROM SURFACE UTILITY LOCATION AND PLAN INFORMATION PROVIDED BY LOCAL UTILITIES. DIG SAFE SHOULD BE CONTACTED PRIOR TO ANY EXCAVATION.
- THE PROPERTY IS LOCATED IN THE CITY OF PORTLAND RS AND RD ZONES AS SHOWN ON THIS PLAN.
- THE SPACE AND BULK CRITERIA FOR THE RS AND RD ZONES ARE AS FOLLOWS:

	RS-3 ZONE (FRU/D)	RS-3 ZONE (FRU/D)
MIN. LOT SIZE (RESIDENTIAL)	6,500 SF.	6,500 SF.
MIN. LOT SIZE (FRU/D)	3 AC. 0.0000 AC.	3 AC. 0.0000 AC.
MIN. LOT AREA PER DWELLING UNIT (D.U.)	6,500 SF. OF NET LAND AREA	6,500 SF. OF NET LAND AREA
MAX. LOT COVERAGE	25% OF LOT AREA	40% OF LOT AREA
MAX. BUILDING HEIGHT	35 FT.	35 FT.
MAX. HEIGHT OF ATTACHED ACCESSORY BUILDING	10 FT.	10 FT.
MAX. NO. OF UNITS PER BUILDING	6 UNITS	3 UNITS
MAX. AVG. NO. OF UNITS IN A BUILDING	3 UNITS	3 UNITS
MAX. LENGTH OF BUILDING	140 FT.	140 FT.
MIN. BLDG. SETBACK FROM EXTERNAL SUB. E	25 FT.	25 FT. (BUILDING LENGTH 100' OR LESS)
4 OR MORE UNITS PER BUILDING	35 FT.	35 FT. (BUILDING LENGTH MORE THAN 100')
MIN. DISTANCE BETWEEN DETACHED BUILDINGS	16 FT.	N/A
- NET LAND AREA CALCULATIONS:

	RS-3 ZONE (FRU/D)	RS-3 ZONE (FRU/D)
GROSS AREA	771.78 SF.	771.78 SF.
STORMWATER MANAGEMENT AREA	10.00 SF.	0 SF.
ACCESSIBLE AREA	0 SF.	0 SF.
WETLANDS	33.62 SF.	11.79 SF.
EXISTING EASEMENTS	89 SF.	11.79 SF.
SUBTOTAL	4,782 SF.	2,806 SF.
30% OF SUBTOTAL	1,435 SF.	842 SF.
NET LAND AREA	10,217 SF.	10,217 SF.
NO. OF DWELLING UNITS ALLOWED	26 (6,500 SF./UNIT)	14 (10,000 SF./UNIT)
TOTAL NO. OF DWELLING UNITS PROPOSED	26	14 (10,000 SF./UNIT)

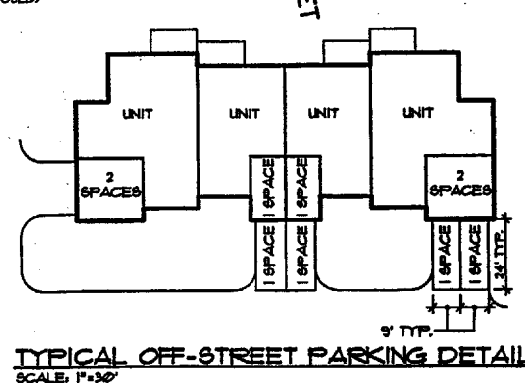
GENERAL NOTES (CONT.)

- MAXIMUM LOT COVERAGE CALCULATION:

	RS ZONE	RD ZONE
MAX. LOT COVERAGE (RS ZONE)	25% OF NET LAND AREA = 25% x 10,217 SF. = 2,554 SF. (4,366 PROPOSED)	40% OF NET LAND AREA = 40% x 10,217 SF. = 4,087 SF. (1,719 PROPOSED)
TOTAL LOT COVERAGE	6,641 SF.	5,806 SF.
PROPOSED LOT COVERAGE	14,356 SF.	14,356 SF.
- MINIMUM RECREATION OPEN SPACE REQUIREMENTS:

	RS ZONE	RD ZONE
300 SF. PER DWELLING UNIT x 33 DWELLING UNITS	9,900 SF.	9,900 SF.
PROPOSED RECREATION OPEN SPACE AREA	23,000 SF.	23,000 SF.
- PARKING SPACES:

	RS ZONE	RD ZONE
2 OFF-STREET SPACES PER UNIT x 33 UNITS x 2	66 SPACES	66 SPACES
1 SPACE PER 6 UNITS = 33 UNITS	6 SPACES	6 SPACES
TOTAL NO. PARKING SPACES REQUIRED	72 SPACES	72 SPACES
PROPOSED PARKING SPACES (GARAGE)	50 SPACES	50 SPACES
DRIVEWAY SPACES (SEE DETAIL THIS SHEET)	22 SPACES	22 SPACES
TOTAL NO. PARKING SPACES PROPOSED	72 SPACES	72 SPACES
- LANDSCAPING SHALL MEET THE "AGRICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE AND LANDSCAPE GUIDELINES" OF THE CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES.
- ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR REGRADING.
- THE ENTIRE SITE SHALL BE DEVELOPED AND/OR MAINTAINED AS DEPICTED ON THE SITE PLAN. APPROVAL OF THE PLANNING BOARD OR PLANNING BOARD SHALL BE REQUIRED FOR ANY ALTERATION TO THE APPROVED SITE PLAN INCLUDING, WITHOUT LIMITATION, TOPOGRAPHY, DRAINAGE, LANDSCAPING, RETENTION OF WOODED OR LAWN AREAS, ACCESS, SIZE, LOCATION AND SURFACING OF PARKING AREAS, AND LOCATION AND SIZE OF BUILDINGS.
- ALL ELECTRIC, TELEPHONE AND CABLE TV SERVICES SHALL BE UNDERGROUND AND IN CONFORMANCE WITH THE STANDARDS OF THE ATLANTIC TELEPHONE CO. AND THE BARNER CABLE TV CO. STANDARDS.
- ALL WATER MAINS, SERVICES AND ASSOCIATED APPURTENANCES SHALL BE IN CONFORMANCE WITH PORTLAND WATER DISTRICT STANDARDS.
- RADCLIFFE GLEN IS A PRIVATE DEVELOPMENT. LIGHTING, TRASH REMOVAL, SNOW REMOVAL AND STREET MAINTENANCE WILL BE THE RESPONSIBILITY OF THE HOMEOWNERS ASSOCIATION.
- SOLID WASTE REMOVAL SHALL BE CURBSIDE PICKUP BY PRIVATE CONTRACTOR.
- A SUBDIVISION SHALL BE DEFINED AS THE DIVISION OF A LOT, TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE LOTS, INCLUDING LOTS OF FORTY (40) ACRES OR MORE, WITHIN ANY FIVE-YEAR PERIOD UNLESS APPROVED BY SALE, LEASE, DEVELOPMENT, BUILDING OR OTHERWISE AND AS FURTHER DETAILED IN 30-A M.R.S.A. SECTION 4402. THE TERM SUBDIVISION SHALL ALSO INCLUDE THE DIVISION OF A NEW STRUCTURE OR STRUCTURES ON A TRACT OR PARCEL OF LAND INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD AND THE DIVISION OF AN EXISTING STRUCTURE OR STRUCTURES PREVIOUSLY USED FOR COMMERCIAL OR INDUSTRIAL USE INTO THREE (3) OR MORE DWELLING UNITS WITHIN A FIVE-YEAR PERIOD. THE AREA INCLUDED IN THE EXPANSION OF AN EXISTING STRUCTURE IS DEEMED TO BE A NEW STRUCTURE FOR THE PURPOSES OF THIS PARAGRAPH. A DWELLING UNIT SHALL INCLUDE ANY PART OF A STRUCTURE WHICH IS USED OR INTENDED FOR HUMAN HABITATION INCLUDING SINGLE-FAMILY AND MULTI-FAMILY HOUSING CONDOPINUMS, TIME-SHARE UNITS AND APARTMENTS.



GENERAL NOTES (CONT.)

- FOR BUILDING UNIT AND LIMITED COMMON ELEMENT DIMENSIONS SEE CONDOMINIUM PLAN OF RADCLIFFE GLEN DEVELOPMENT TO BE RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS.

LEGEND

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY ROW	---
---	SETBACK	---
---	EASEMENT	---
---	CENTERLINE	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	CURVELINE NO.	---
---	BUILDING	---
---	WETLANDS	---
---	EDGE WETLAND SIGN	---
---	STREAM	---
---	EDGE PAVEMENT	---
---	CURVELINE	---
---	TRAILLINE	---
---	BARBED WIRE FENCE	---
---	STOCKADE FENCE	---
---	ZONE LINE	---
---	CONTOURS	---

APPROVAL - CITY OF PORTLAND PLANNING BOARD

August 13, 2002 DATE

[Signature]

STATE OF MAINE
CUMBERLAND COUNTY SS REGISTRY OF DEEDS
RECEIVED AUGUST 14 2002
AT 3:30 P.M. AND RECORDED IN
PLAN BOOK 222 PAGE 512

ATTEST JACK O'BRIEN REGISTER

Sebago Technics
Engineering Excellence You Can Build On
One Oxbow Street
Westbrook, ME 04091-1339
Tel: (207) 686-0077

PROJECT NO. DWG NAME: FLD. BK1 DESIGN: DRAWN

DATE: 8/2/02
SUBMITTED FOR PLANNING BOARD SIGNATURE: [Signature]
DATE: 7/25/02
SUBMITTED FOR PUBLIC HEARING: [Signature]
DATE: [Blank]
STATUS: [Blank]

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS.

SUBDIVISION PLAN
RADCLIFFE GLEN
PORTLAND, MAINE
FOR: LARRY STURDIVANT (RECORD OWNER)
15 GARRY DRIVE
PORTLAND, MAINE

DATE: 6-25-02 SCALE: 1"=60'

SHEET 3 OF 1

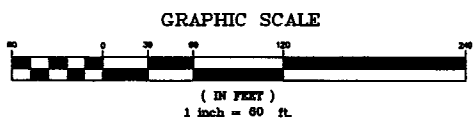
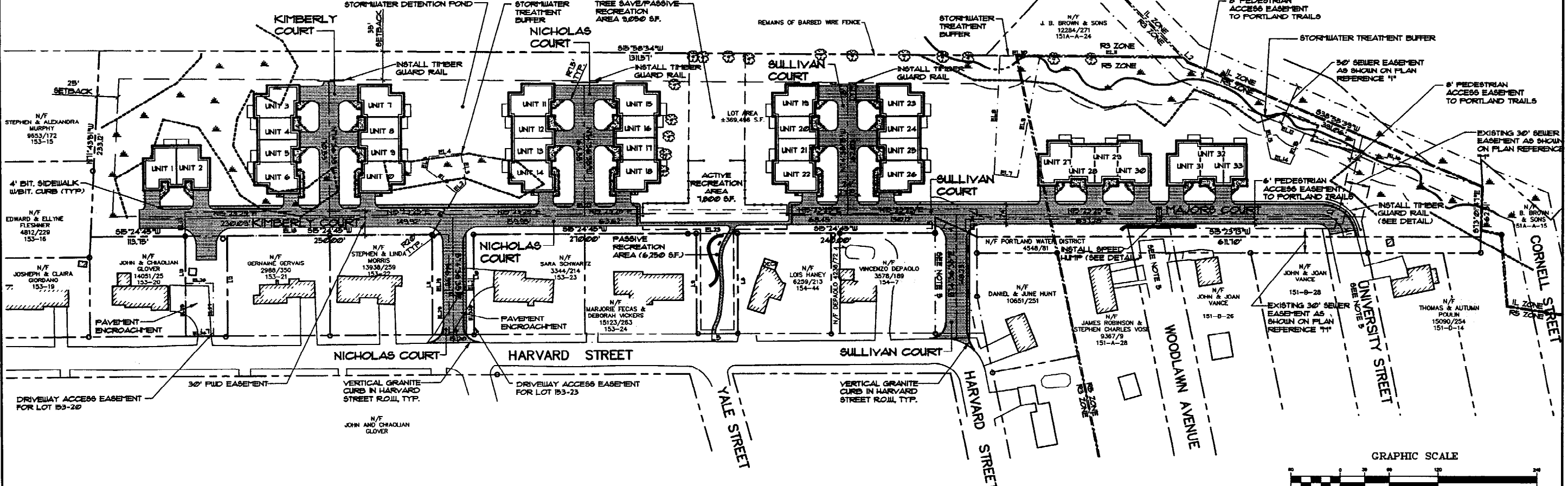
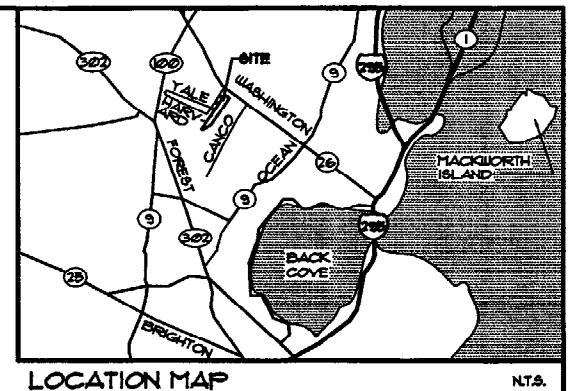
CENTERLINE DATA		
LINE	BEARING	LENGTH
L1	S81°14'05"E	4.76'

PROPERTY LINE DATA		
LINE	BEARING	LENGTH
L2	S61°48'54"W	1.99'
L3	S14°39'35"E	20.00'
L4	S41°51'47"W	55.84'
L5	S5°24'45"W	50.00'
L6	S5°24'45"W	50.00'
L7	S5°24'45"W	50.00'
L8	S14°39'35"E	125.00'
L9	S14°39'35"E	125.00'
L10	S14°39'35"E	125.00'
L11	S14°39'35"E	125.00'
L12	S14°39'35"E	125.00'
L13	S14°39'35"E	125.00'

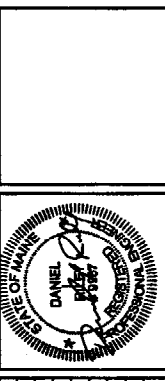
CENTERLINE CURVE DATA				
CURVE	LENGTH	RADIUS	CRD. BEARING	CRD. DIST.
C1	40.51'	30.00'	N54°04'40"E	37.50'

EASEMENT LINE DATA		
LINE	BEARING	LENGTH
EL1	S44°51'18"E	59.90'
EL2	S28°43'55"E	5.92'
EL3	S62°56'37"E	39.56'
EL4	N09°34'00"E	38.39'
EL5	N64°03'43"W	11.09'
EL6	S55°09'19"W	46.32'
EL7	S23°01'20"W	21.93'
EL8	N11°56'39"W	149.33'
EL9	S64°24'01"E	154.84'
EL10	N5°58'24"E	48.18'
EL11	N5°58'24"E	113.8'
EL12	N38°59'39"E	5'13.1'
EL13	N86°47'39"W	56.63'
EL14	S32°11'53"W	24.42'
EL15	S81°04'21"E	43.1'
EL16	N32°31'15"E	227.58'
EL17	S14°35'15"E	65.93'
EL18	N5°24'45"E	33.21'
EL19	N5°24'45"E	33.21'
EL20	N5°24'45"E	33.21'
EL21	S14°35'15"E	65.93'
EL22	S5°23'25"W	36.91'
EL23	S14°35'15"E	59.38'

FUD EASEMENT LINE DATA		
LINE	BEARING	LENGTH
ELT1	N14°35'15"W	30.00'
ELT2	N5°24'45"E	30.00'
ELT3	S14°35'15"E	125.00'
ELT4	S5°24'45"W	30.00'
ELT5	S14°35'15"E	125.00'
ELT6	S5°24'45"W	30.00'
ELT7	S14°35'15"E	125.00'
ELT8	S5°24'45"W	30.00'
ELT9	S14°35'15"E	125.00'
ELT10	S5°24'45"W	30.00'
ELT11	S14°35'15"E	125.00'
ELT12	S5°24'45"W	30.00'
ELT13	S14°35'15"E	125.00'
ELT14	S5°24'45"W	30.00'



LEGEND		
EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY ROW	---
---	SETBACK	---
---	EASEMENT	---
---	CENTERLINE	---
○	MONUMENT	●
○	IRON PIPE/ROD	●
---	C1/L1 CURVE/LINE NO.	---
---	BUILDING	---
▲	WETLANDS	---
---	EDGE WETLAND SIGN	---
---	STREAM	---
---	EDGE PAVEMENT	---
---	CURBLINE	---
---	TREELINE	---
---	BARB WIRE FENCE	---
---	STOCKADE FENCE	---
---	ZONE LINE	---



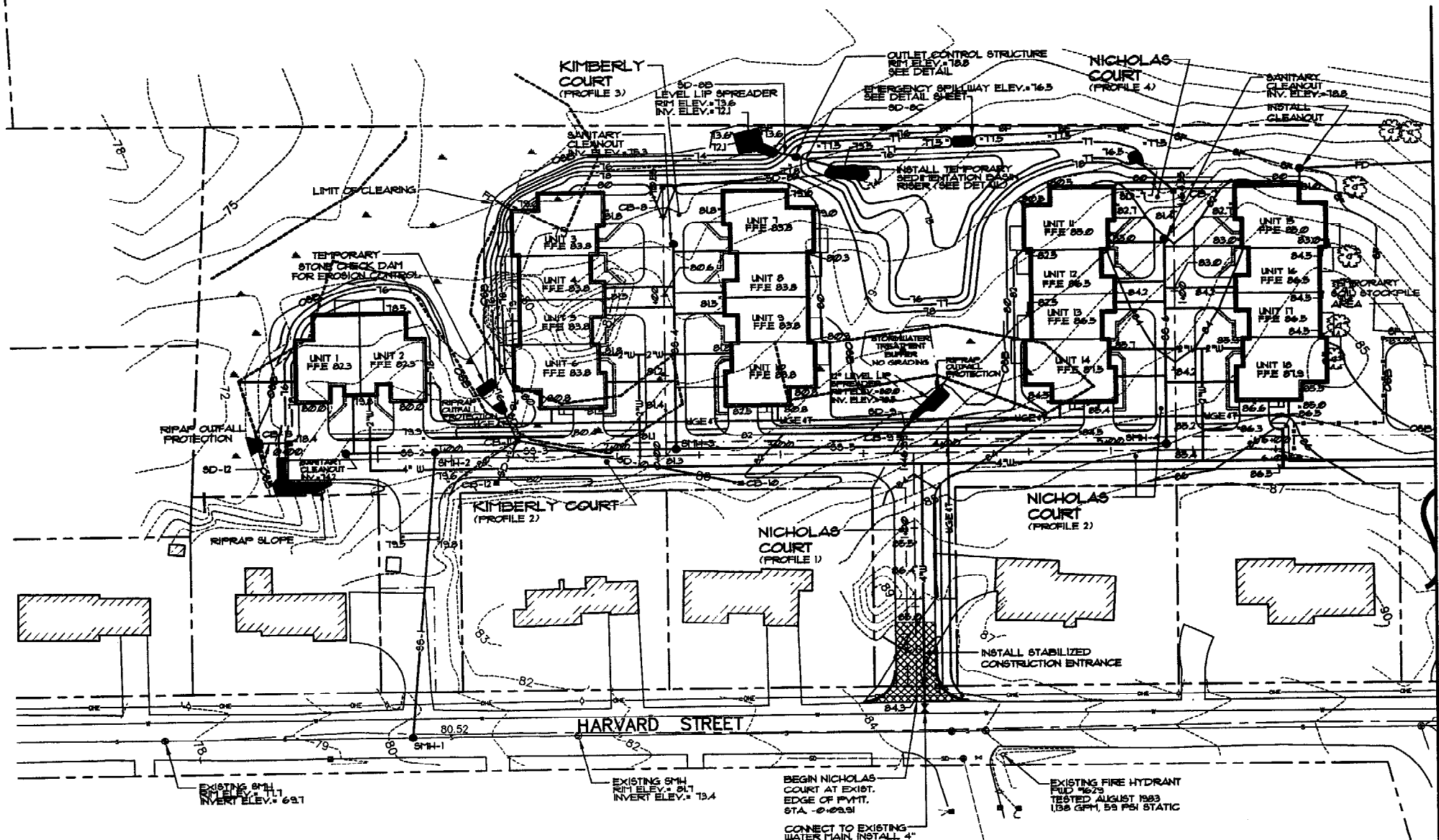
DATE	BY	REVISION
8/2/02	DLR	SUBMITTED FOR PLANNING BOARD SIGNATURE
7/5/02	DLR	SUBMITTED FOR PUBLIC HEARING
6/11/02	DLR	SUBMITTED FOR SITE PLAN SUBMISSION
6/14/02	DLR	SUBMITTED FOR 5/28/02 PLANNING BOARD WORKSHOP
6/17/02	DLR	SUBMITTED FOR 4/23/02 PLANNING BOARD WORKSHOP

Sebago Technics
 Engineering Experts You Can Build On
 One Chestnut Street
 Westbrook, Me 04090-1339
 Tel (207) 866-0277

SITE PLAN
58 RADCLIFFE GLEN
 HARVARD STREET
 PORTLAND, MAINE
 FOR: **LARRY STURDIVANT**
 15 GARSDALE DRIVE
 PORTLAND, MAINE 04103

LEGEND

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	CENTERLINE	---
▨	BUILDING	▨
▨	WETLANDS	▨
▨	EDGE WETLAND SIGN	▨
---	STREAM	---
---	EDGE PAVEMENT	---
---	CURBLINE	---
---	TREELINE	---
124	CONTOURS	124
FD	FOUNDATION DRAIN	FD
8"W	WATER	8"W
8"S	SEWER	8"S
12"SD	STORM DRAIN	12"SD
OHE	OVERHEAD ELEC. # TEL.	OHE # T
UGE	UNDERGROUND ELEC. # TEL.	UGE # T
⊗	GATE VALVE	⊗
⊙	LIGHT POLE	⊙
⊙	UTILITY POLE	⊙
⊙	HYDRANT	⊙
⊙	CATCH BASIN	⊙
⊙	MANHOLE	⊙
⊙	CULVERT	⊙
30x20	SPOT GRADE	30x20
---	RIPRAP	---
---	SILT FENCE	---
---	ORGANIC SEDIMENT BARRIER	---



SEE SHEET 4 OF 9 FOR MATCHLINE

STORM DRAIN STRUCTURE AND PIPE SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	71.2	---	72.3
CB-2	71.2	72.3	72.3
CB-3	83.2	---	78.0
CB-4	83.5	71.7	71.7
CB-5	83.0	---	80.0
CB-6	71.2	---	74.0
CB-7	81.1	---	71.0
CB-8	78.8	---	76.0
CB-9	82.9	---	80.0
CB-10	80.2	---	71.0
CB-11	80.0	76.2	76.2
CB-12	78.5	---	76.5
CB-13	78.3	---	74.1

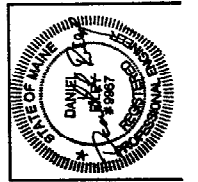
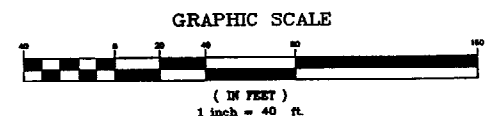
PIPE	SIZE (IN)	LENGTH (FT.)	SLOPE
SD-1	18	20	0.010
SD-2	24	36	0.009
SD-3	12	23	0.012
SD-4	12	30	0.013
SD-5	12	6.7	0.02
SD-6	12	42	0.02
SD-7	12	23	0.042
SD-8A	12	9.1	0.005
SD-8B	18	10	0.01
SD-8C	18	28	0.007
SD-9	12	11	0.005
SD-10	12	135	0.005
SD-11	12	20	0.01
SD-12	12	8	0.005
SD-13	12	25	0.012

NOTES: 1. INSTALL CATCH BASIN HAY BALE BARRIER AT ALL INLET LOCATIONS. SEE DETAIL SHEET
2. LIMIT OF CLEARING IS THE SAME AS SILT FENCE / ORGANIC SEDIMENT BARRIER LOCATION UNLESS OTHERWISE INDICATED

SANITARY SEWER STRUCTURE AND PIPE SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	80.5	72.2	71.9
SMH-2	79.5	73.7	73.6
SMH-3	81.3	74.5	74.4
SMH-4	85.5	71.7	71.7
SMH-5	82.4	72.9	72.4
SMH-6	82.9	71.2	71.1
SMH-7	71.5	69.5	69.4
SMH-8	74.7	68.7	68.5

PIPE	SIZE (IN)	LENGTH (FT.)	SLOPE
SS-1	8	116	0.008
SS-2	8	50	0.01
SS-3	8	142	0.005
SS-4	8	125	0.006
SS-5	8	294	0.011
SS-6	8	128	0.003
SS-7	8	125	0.005
SS-8	8	250	0.005
SS-9	8	210	0.006
SS-10	8	85	0.008



DATE	BY	REVISION
8/2/02	DLR	SUBMITTED FOR PLANNING BOARD SIGNATURE
7/5/02	DLR	SUBMITTED FOR PUBLIC HEARING
6/1/02	DLR	SUBMITTED FOR SITE PLAN SUBMISSION
5/17/02	DLR	SUBMITTED FOR 5/28/02 PLANNING BOARD WORKSHOP
04/17/02	DLR	SUBMITTED FOR 4/23/02 PLANNING BOARD WORKSHOP

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 Tel: (207) 886-0077

PROJECT NO. 01.008
 DWG NAME: 01.008
 FLD: BK
 DESIGN: DRAWN: LJS
 DATE: 05/14/02

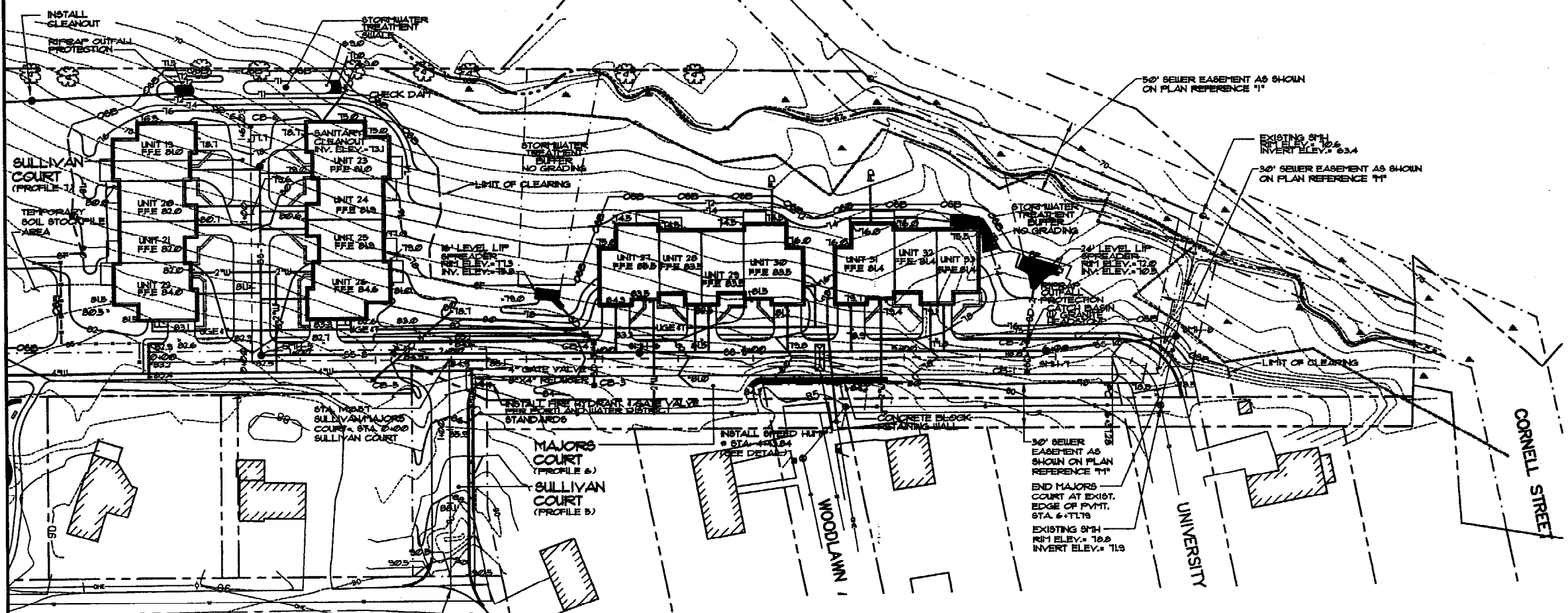
GRADING & UTILITY PLAN
 OF:
RADCLIFFE GLEN
 HARVARD STREET
 PORTLAND, MAINE
 FOR:
LARRY STURDIVANT
 15 GARSOE DRIVE
 PORTLAND, MAINE 04103



LEGEND

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	CENTERLINE	---
---	BUILDING	---
---	WETLANDS	---
---	EDGE WETLAND	---
---	SIGN	---
---	STREAM	---
---	EDGE PAVEMENT	---
---	CURBLINE	---
---	TREELINE	---
---	124	124
---	CONTOURS	---
---	FOUNDATION DRAIN	---
---	12" W	12" W
---	WATER	---
---	8" S	8" S
---	SEWER	---
---	12" SD	12" SD
---	STORM DRAIN	---
---	OVERHEAD	---
---	ELEC. 4 TEL	---
---	ONE FT	---
---	UNDERGROUND	---
---	ELEC. 4 TEL	---
---	GATE VALVE	---
---	LIGHT POLE	---
---	UTILITY POLE	---
---	HYDRANT	---
---	CATCH BASIN	---
---	MANHOLE	---
---	CULVERT	---
---	30" X 10	---
---	SPOT GRADE	---
---	RIPRAP	---
---	SILT FENCE	---
---	ORGANIC SEDIMENT BARRIER	---

SEE SHEET 5 OF 9 FOR MATCHLINE



STORM DRAIN STRUCTURE AND PIPE SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
CB-1	71.2	---	72.5
CB-2	71.2	72.3	72.3
CB-3	83.2	---	78.0
CB-4	83.5	71.1	71.1
CB-5	83.0	---	80.0
CB-6	71.2	---	74.0
CB-7	81.1	---	71.0
CB-8	78.5	---	76.0
CB-9	82.3	---	80.0
CB-10	80.2	---	71.0
CB-11	80.0	76.2	76.2
CB-12	75.3	---	76.3
CB-13	78.3	---	74.1

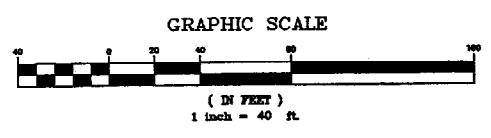
PIPE	SIZE (IN)	LENGTH (FT.)	SLOPE
SD-1	18	20	0.010
SD-2	24	36	0.008
SD-3	12	23	0.010
SD-4	12	36	0.009
SD-5	12	61	0.01
SD-6	12	42	0.01
SD-7	12	23	0.042
SD-8A	12	31	0.005
SD-8B	18	10	0.01
SD-8C	18	28	0.001
SD-9	12	11	0.005
SD-10	12	135	0.00
SD-11	12	20	0.01
SD-12	12	5	0.005
SD-13	12	25	0.01

NOTES: 1. INSTALL CATCH BASIN HAY BALE BARRIER AT ALL INLET LOCATIONS. SEE DETAIL SHEET
 2. LIMIT OF CLEARING IS THE SAME AS SILT FENCE / ORGANIC SEDIMENT BARRIER LOCATION UNLESS OTHERWISE INDICATED

SANITARY SEWER STRUCTURE AND PIPE SCHEDULE

STRUCTURE	RIM	INV. IN	INV. OUT
SMH-1	80.5	72.2	71.9
SMH-2	79.5	73.7	73.6
SMH-3	81.5	74.5	74.4
SMH-4	85.5	71.1	71.1
SMH-5	82.4	72.5	72.4
SMH-6	82.9	71.2	71.1
SMH-7	71.5	68.5	68.4
SMH-8	74.1	68.7	68.5

PIPE	SIZE (IN)	LENGTH (FT.)	SLOPE
SS-1	8	116	0.006
SS-2	8	50	0.01
SS-3	8	25	0.006
SS-4	8	75	0.006
SS-5	8	234	0.011
SS-6	8	75	0.009
SS-7	8	75	0.006
SS-8	8	280	0.005
SS-9	8	210	0.006
SS-10	8	85	0.006

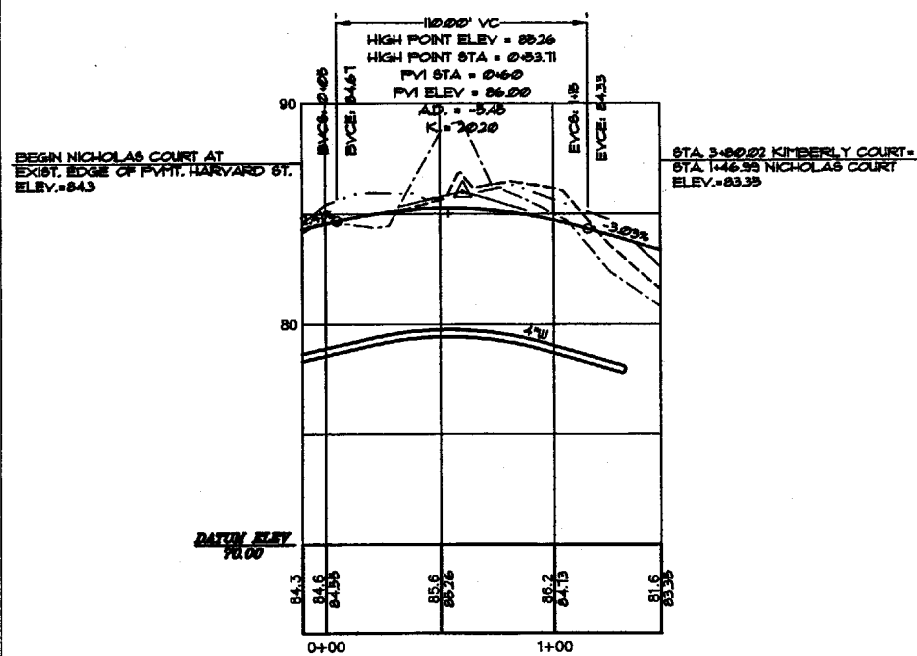


DATE	BY	STATUS
8/2/02	DR	SUBMITTED FOR PLANNING BOARD SIGNATURE
7/5/02	DR	SUBMITTED FOR PUBLIC HEARING
6/11/02	DR	SUBMITTED FOR SITE PLAN SUBMISSION
5/14/02	DR	SUBMITTED FOR 5/28/02 PLANNING BOARD WORKSHOP
04/17/02	DR	SUBMITTED FOR 4/23/02 PLANNING BOARD WORKSHOP

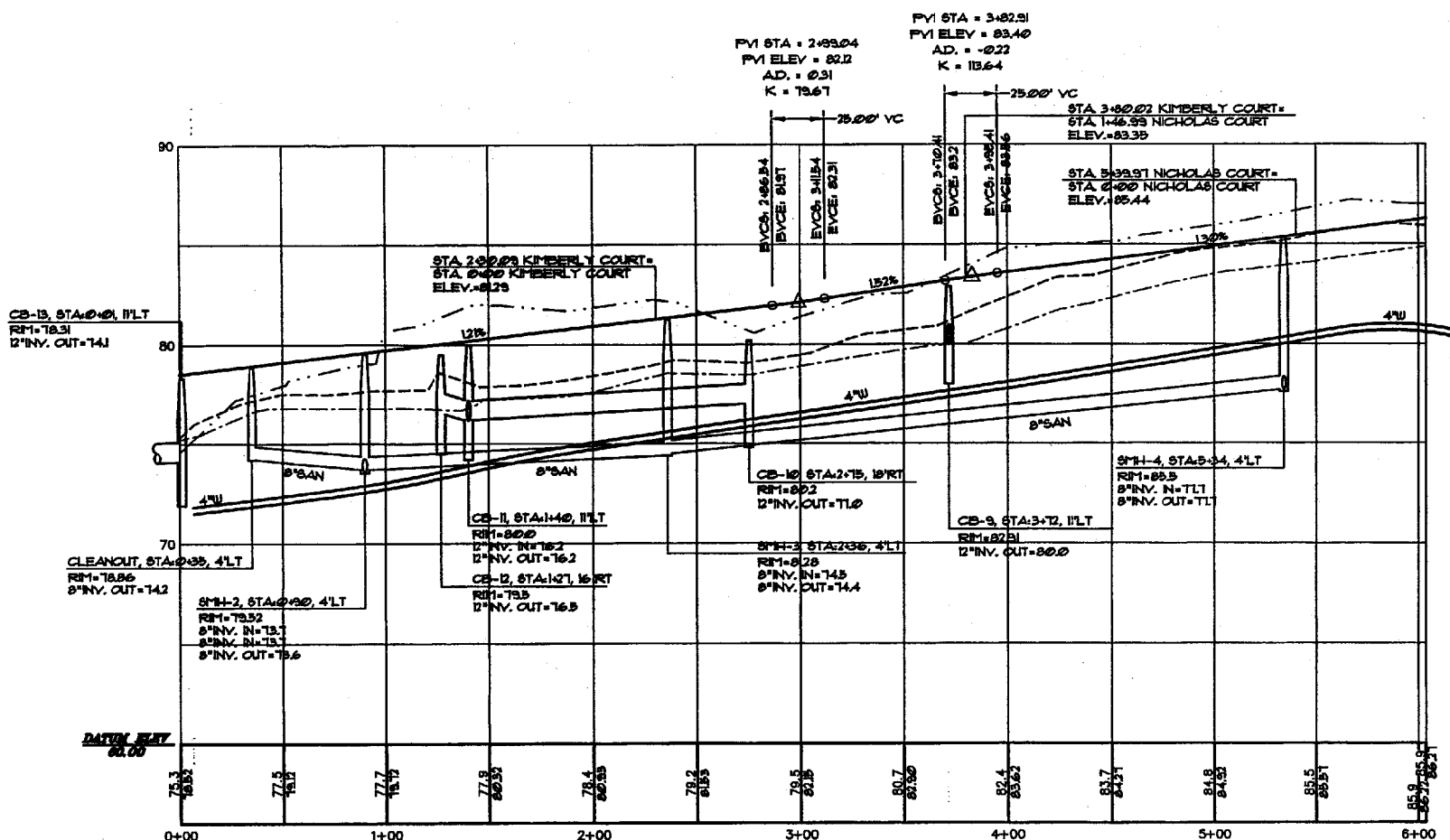
Sebago Technics
 Engineering Services You Can Build On
 One Seabrook Way, Scarborough, ME 04074
 Tel: (207) 898-0277

PROJECT NO: DWG NAME: FLD. BK. DESIGN DRAWN: []

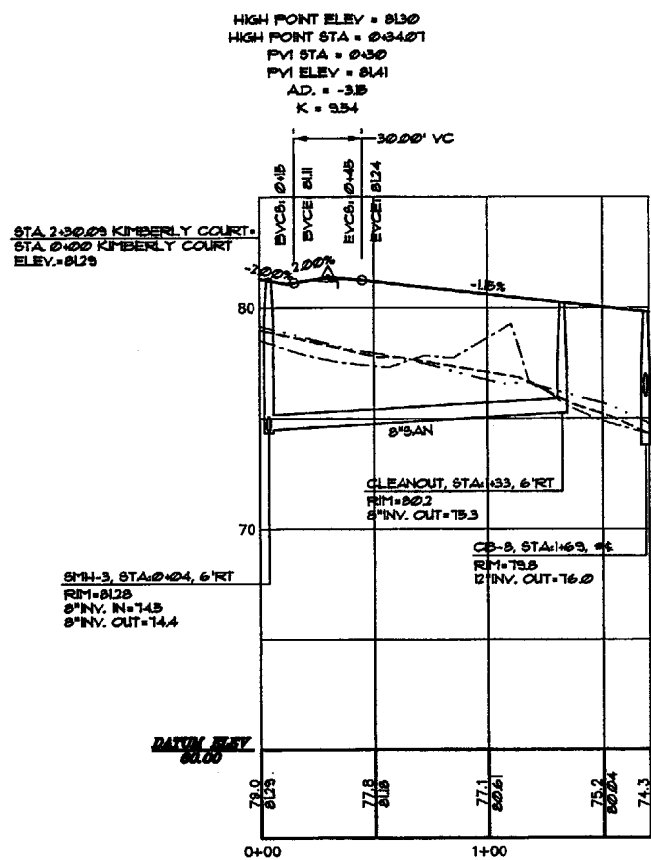
OF: GRADING & UTILITY PLAN
 OF: RADCLIFFE GLEN
 HARVARD STREET
 PORTLAND, MAINE
 FOR: LARRY STURDIVANT
 15 GARROSE DRIVE
 PORTLAND, MAINE 04103



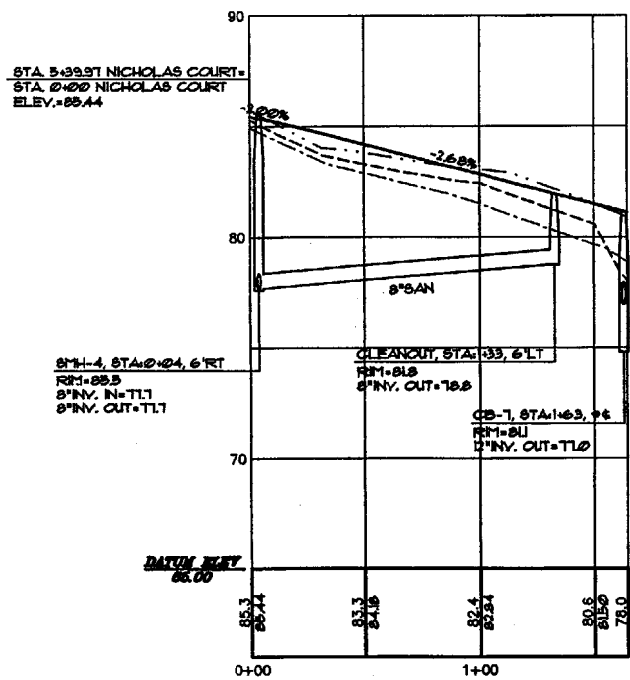
PROFILE 1: NICHOLAS COURT
SCALE: HORIZONTAL, 1"=40'
VERTICAL, 1"=4'



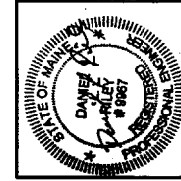
PROFILE 2: KIMBERLY COURT/NICHOLAS COURT
SCALE: HORIZONTAL, 1"=40'
VERTICAL, 1"=4'



PROFILE 3: KIMBERLY COURT
SCALE: HORIZONTAL, 1"=40'
VERTICAL, 1"=4'



PROFILE 4: NICHOLAS COURT
SCALE: HORIZONTAL, 1"=40'
VERTICAL, 1"=4'



REV.	DATE	BY	STATUS
A	04/17/02		SUBMITTED FOR 4/23/02 PLANNING BOARD WORKSHOP
B	05/14/02		SUBMITTED FOR 5/28/02 PLANNING BOARD WORKSHOP
C	07/17/02		SUBMITTED FOR SITE PLAN SUBMISSION
D	07/25/02		SUBMITTED FOR PUBLIC HEARING
E	08/22/02		SUBMITTED FOR PLANNING BOARD SIGNATURE

Sebago Technics
Engineering Expenses You Can Build On
One Orchard Street
Westbrook, Me 04096-1339
Tel (207) 886-0277

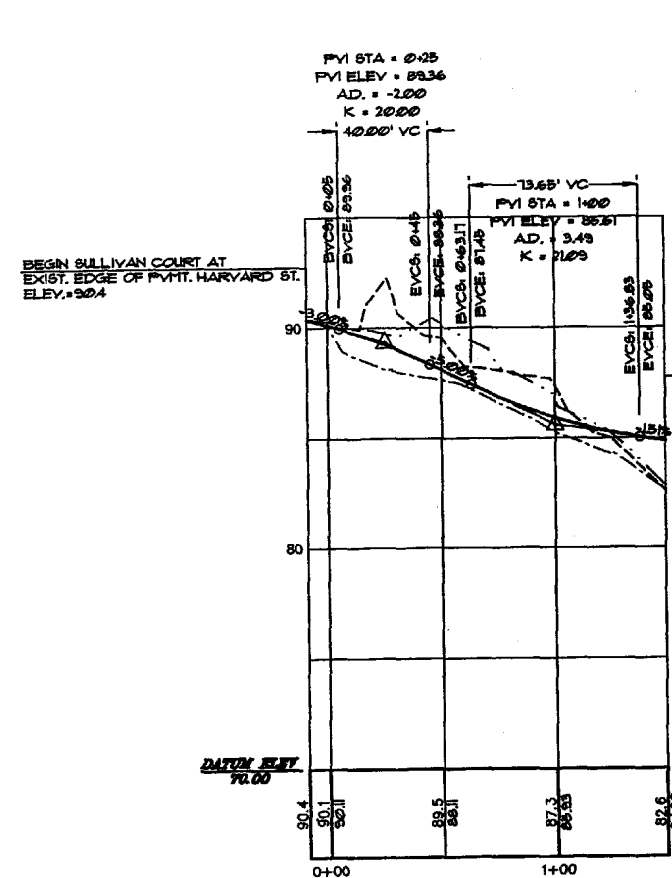
PROJECT NO. DWG NAME | FLD. BCL. DESIGN | DRAWN

PROFILE SHEET
OF:
RADCLIFFE GLEN
HARVARD STREET
PORTLAND, MAINE

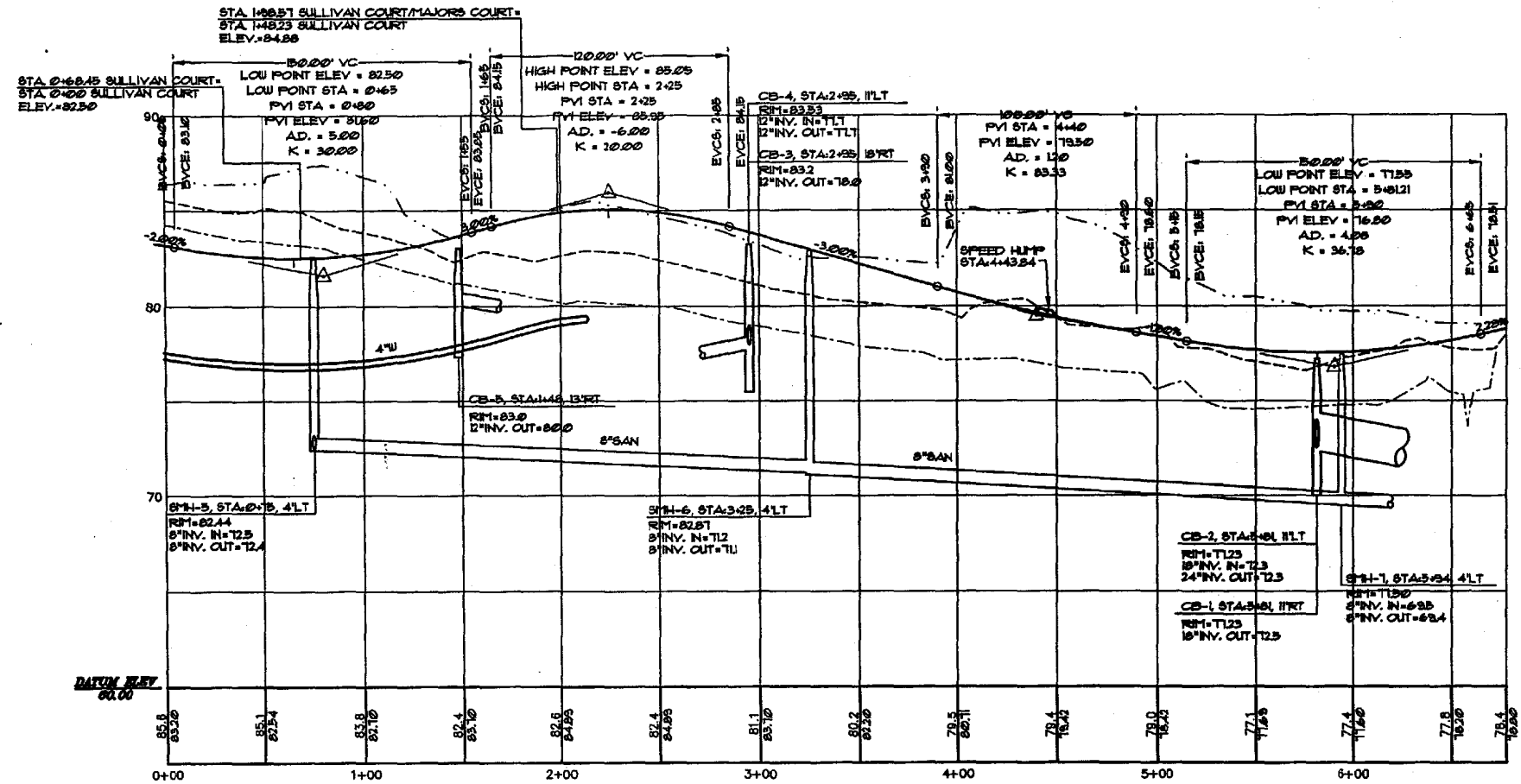
FOR:
LARRY STURDIVANT
15 CARSOE DRIVE
PORTLAND, MAINE 04107

DATE: 05/24/02
SCALE: AS NOTE

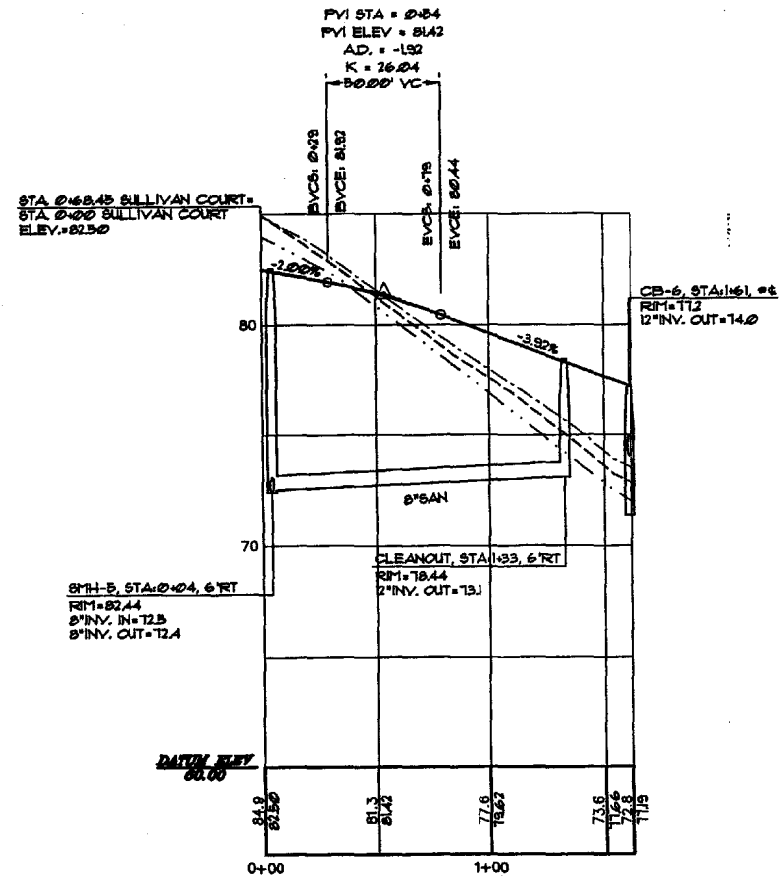
SHEET 7 OF 1.



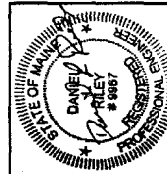
PROFILE 5: SULLIVAN COURT
SCALE: HORIZONTAL, 1"=40'
VERTICAL, 1"=4'



PROFILE 6: MAJORS COURT/SULLIVAN COURT
SCALE: HORIZONTAL, 1"=40'
VERTICAL, 1"=4'



PROFILE 7: SULLIVAN COURT
SCALE: HORIZONTAL, 1"=40'
VERTICAL, 1"=4'



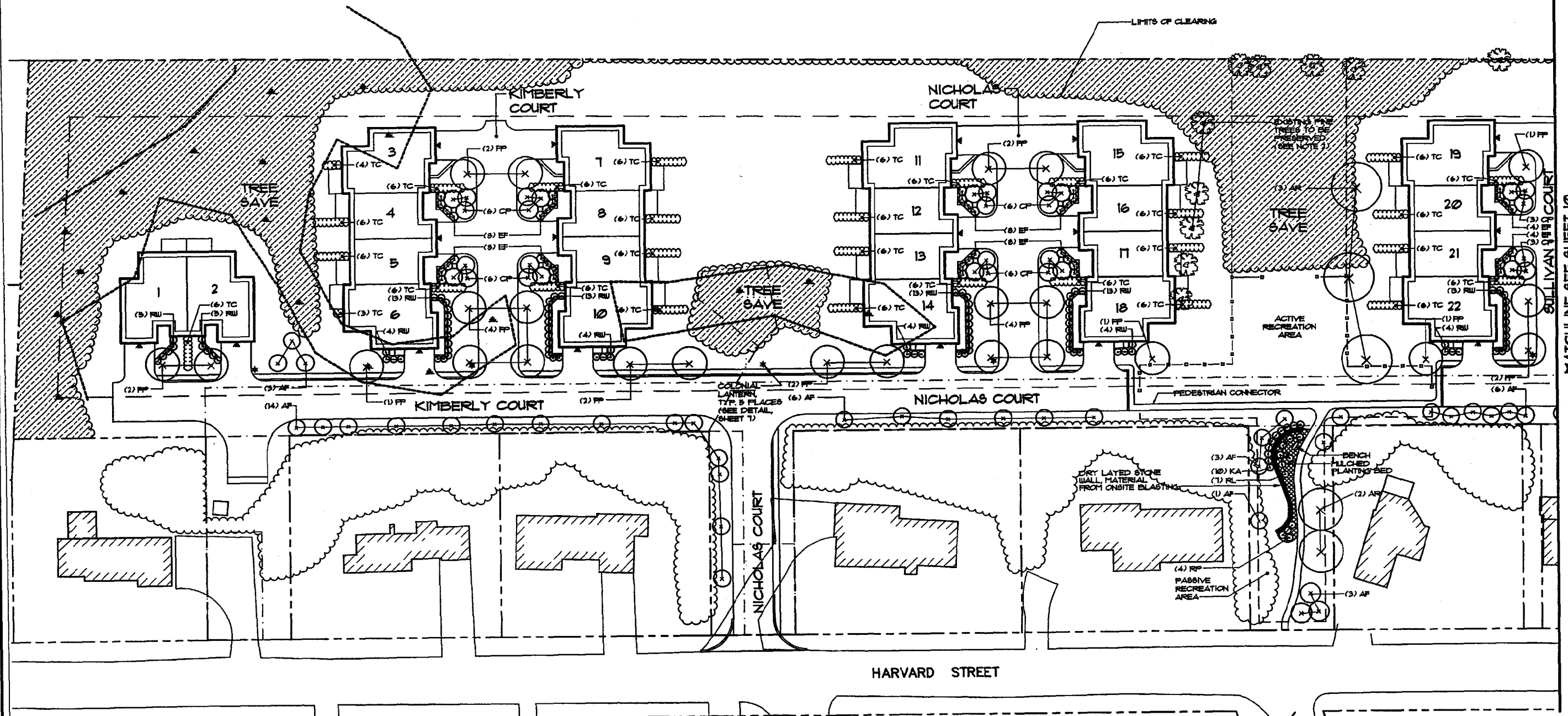
E	DLR	8/2/02	SUBMITTED FOR PLANNING BOARD SIGNATURE
D	DLR	7/5/02	SUBMITTED FOR PUBLIC HEARING
C	DLR	6/11/02	SUBMITTED FOR SITE PLAN SUBMISSION
B	DLR	05/14/02	SUBMITTED FOR 5/28/02 PLANNING BOARD WORKSHOP
A	DLR	04/17/02	SUBMITTED FOR 4/23/02 PLANNING BOARD WORKSHOP
REV.	BY:	DATE:	STATUS:

Sebago Technica
Engineering Experiences You Can Build On
One Quont Street
Portland, ME 04101
Tel (207) 858-0277

PROJECT NO. DWG NAME F.I.D. BK. DESIGN DRAWN

PROFILE SHEET
OF
RADCLIFFE GLEN
HARVARD STREET
PORTLAND, MAINE
FOR:
LARRY STURDIVANT
15 GARSOE DRIVE

DATE	SCALE
05/24/02	AS NOT

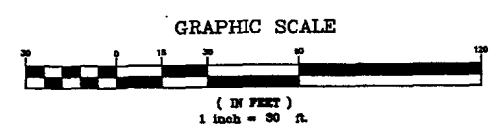


MATCHLINE SEE SHEET 10

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	BUILDING	---
---	WETLANDS	---
---	EDGE WETLAND	---
---	STREAM	---
---	EDGE PAVEMENT	---
---	GRAVEL ROAD	---
---	CURBLINE	---
---	EDGE WATER	---
---	STOCKADE FENCE	---
○	DECIDUOUS TREE	○
⊗	CONIFEROUS TREE	⊗
---	SILT FENCE	---
---	MATCH LINE	---
---	ZONE LINE	---

PLANTING SCHEDULE		
SYMBOL	BOTANICAL / COMMON NAME	SIZE
TC	TSUGA CANADENSIS 'GENTSCH WHITE' / HEMLOCK	NO. 2
CP	CHAMAECYPARIS PISIFERA CYANO-VIRIDIS / FALSE CYPRESS	NO. 6
EF	EUCONYMIUS FORTUNEI 'SAR COXIE' / EUCONYMIUS	18"-24"
AR	ACER RUBRUM / RED MAPLE	1 1/2" CAL.
FP	FRAXINUS PENNSYLVANICA 'SUMMIT' / GREEN ASH	2" CAL.
RU	RHODODENDRON 'INDISCREANT' / RHODODENDRON	NO. 2
AF	ABIES FRASERI / FRASER FIR	5'-6" HT.
KA	KALMIA ANGSTOLIA / SHEEP LAUREL	NO. 1
RL	RHODODENDRON LAETEVIRENS / WILSON RHODODENDRON	2"-15"
RP	RHODODENDRON 'PURPLE GEM' / RHODODENDRON	NO. 1

NOTES:
 1. BEFORE CONSTRUCTION OF DEVELOPMENT BEGINS, THE APPLICANT WILL FLAG TREE SAVE AREAS AND NOTIFY THE CITY ARBORIST AT THAT TIME. THE CITY ARBORIST WILL DETERMINE WHETHER THESE TREES MAY BE SAVED. PROTECTIVE BARRIERS SHALL BE ERRECTED OUTSIDE THE DRIP-LINE OF THE INDIVIDUAL GROUPINGS OF TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION.
 2. THE EXISTING ROW OF TREES SHOWN ON THIS PLAN BEHIND UNITS 10-19 ARE IDENTIFIED FOR POTENTIAL PRESERVATION. IF THESE TREES CANNOT BE PRESERVED, THEY SHALL BE REPLACED WITH RED MAPLES SIMILAR TO THOSE SHOWN BEHIND UNITS 10-22.
 3. TREE SAVE AREAS DESIGNATED BY THE APPLICANT AND CONFIRMED BY THE CITY ARBORIST SHALL CONSTITUTE THE LIMITS OF CLEARING ON THE SITE.



Sebago Technics
 Engineers/Architects You Can Build On
 100 Depot Street
 Westbrook, ME 04092-1339
 Tel: (207) 858-0277

PROJECT NO: DWG NAME: P.L.D. BR. DESIGN DRAWN: []
 DATE: 05/14/02 SCALE: 1"=30'

E	D.L.R.	8/2/02	SUBMITTED FOR PLANNING BOARD SIGNATURE
D	D.L.R.	7/25/02	SUBMITTED FOR PUBLIC HEARING
C	D.L.R.	06/17/02	SUBMITTED FOR SITE PLAN REVIEW
B	D.L.R.	05/14/02	SUBMITTED FOR 5/28/02 PLANNING BOARD WORKSHOP
A	D.L.R.	04/17/02	SUBMITTED FOR 4/23/02 PLANNING BOARD WORKSHOP

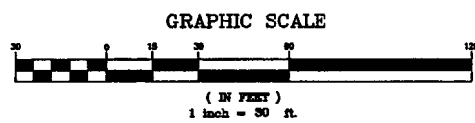
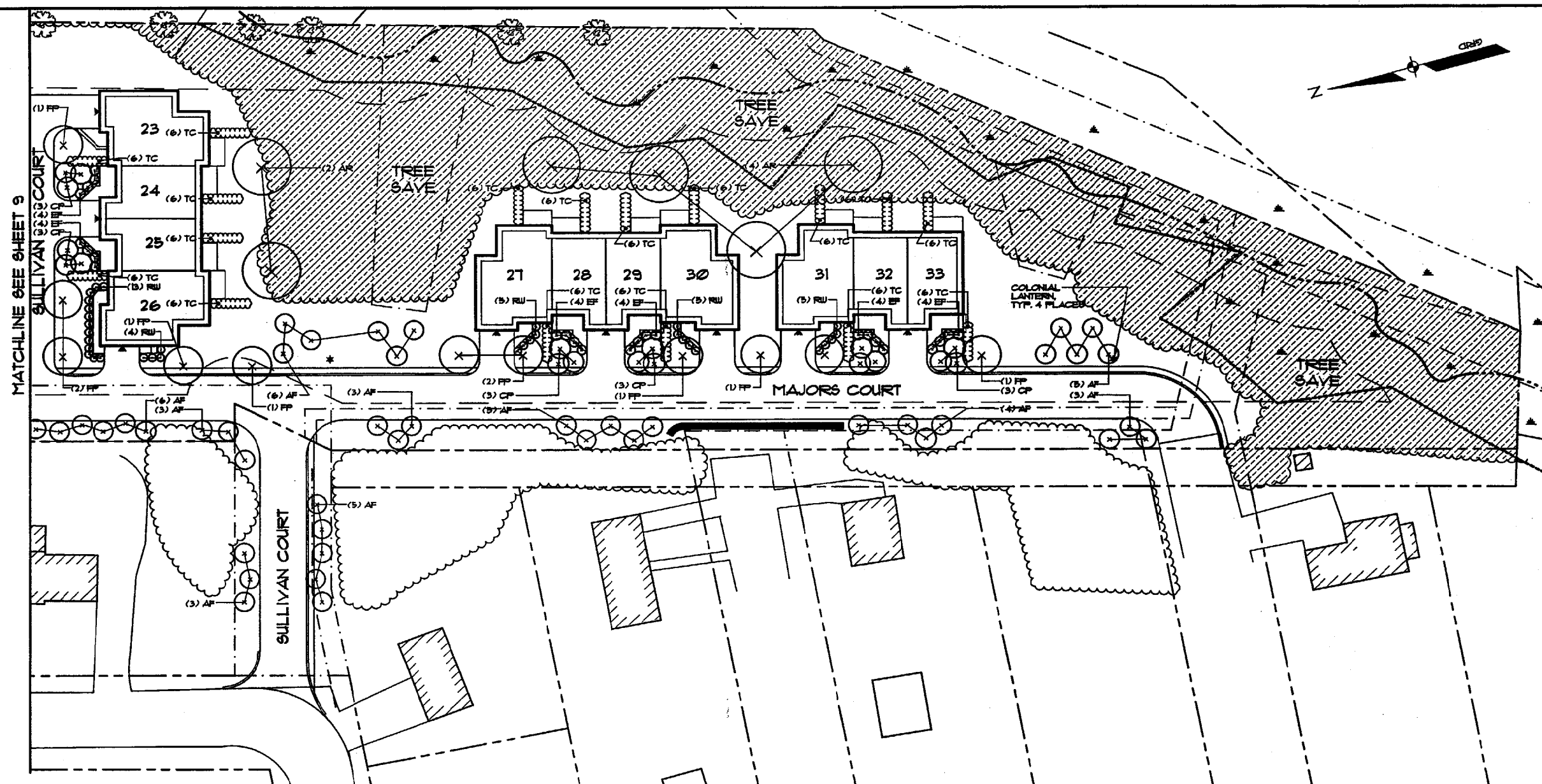
REV. BY: DATE: STATUS:
 THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS.

LANDSCAPE PLAN
 OF:
RADCLIFFE GLEN
 HARTFORD STREET
 PORTLAND, MAINE

FOR:
LARRY STURDIVANT
 15 GARSOE DRIVE
 PORTLAND, MAINE 04103

DATE: 05/14/02 SCALE: 1"=30'

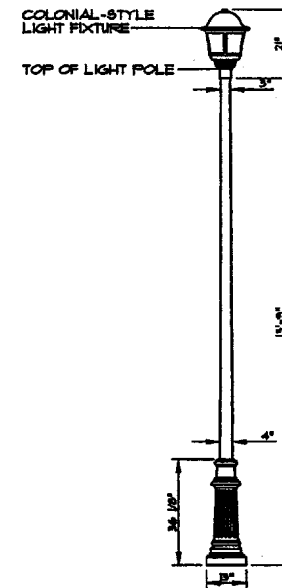
SHEET 9 OF 13



PLANTING SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME	SIZE
TC	TSUGA CANADENSIS 'GENTSCH WHITE' / HEMLOCK	NO. 2
CP	CHAMAECYPARIS FISIFERA CYANO-VIRIDIS / FALSE CYPRESS	NO. 6
EF	EUONYMUS FORTUNEI 'SAR COXIE' / EUONYMUS	18"-24"
AR	ACER RUBRUM / RED MAPLE	1 1/2" CAL
FP	FRAXINUS PENNSYLVANICA 'SUMMIT' / GREEN ASH	2" CAL
RU	RHODODENDRON 'WINDBEAM' / RHODODENDRON	NO. 2
AF	ABIES FRASERI / FRASER FIR	5'-6" HT.
KA	KALMIA ANGUSTIFOLIA / SHEEP LAUREL	NO. 1
RL	RHODODENDRON LAETEVIRENS / WILSON RHODODENDRON	12"-15"
RP	RHODODENDRON 'PURPLE GEM' / RHODODENDRON	NO. 1

- NOTES:**
- BEFORE CONSTRUCTION OF DEVELOPMENT BEGINS, THE APPLICANT WILL FLAG TREE SAVE AREAS AND NOTIFY THE CITY ARBORIST AT THAT TIME. THE CITY ARBORIST WILL DETERMINE WHETHER THESE TREES MAY BE SAVED. PROTECTIVE BARRIERS SHALL BE ERECTED OUTSIDE THE DRIP-LINE OF THE INDIVIDUAL GROUPINGS OF TREES DESIGNATED FOR PRESERVATION PRIOR TO THE ONSET OF CONSTRUCTION.
 - THE EXISTING ROW OF TREES SHOWN ON THIS PLAN BEHIND UNITS 15-18 ARE IDENTIFIED FOR POTENTIAL PRESERVATION. IF THESE TREES CANNOT BE PRESERVED, THEY SHALL BE REPLACED WITH RED MAPLES SIMILAR TO THOSE SHOWN BEHIND UNITS 15-18.
 - TREE SAVE AREAS DESIGNATED BY THE APPLICANT AND CONFIRMED BY THE CITY ARBORIST SHALL CONSTITUTE THE LIMITS OF CLEARING ON THE SITE.



TYPICAL LIGHT POLE DETAIL
NOT TO SCALE

LEGEND

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY/ROW	---
---	SETBACK	---
---	EASEMENT	---
---	BUILDING	---
▲	WETLANDS	---
---	EDGE WETLAND	---
---	STREAM	---
---	EDGE PAVEMENT	---
---	GRAVEL ROAD	---
---	CURBLINE	---
---	EDGE WATER	---
---	STOCKADE FENCE	---
○	DECIDUOUS TREE	○
⊗	CONIFEROUS TREE	⊗
---	SILT FENCE	---
---	MATCH LINE	---
---	ZONE LINE	---

REV.	DATE	BY:	STATUS:
E	8/2/02	DLR	SUBMITTED FOR PLANNING BOARD SIGNATURE
D	7/5/02	DLR	SUBMITTED FOR PUBLIC HEARING
C	06/11/02	DLR	SUBMITTED FOR SITE PLAN REVIEW
B	05/14/02	DLR	SUBMITTED FOR 5/23/02 PLANNING BOARD WORKSHOP
A	04/17/02	DLR	SUBMITTED FOR 4/23/02 PLANNING BOARD WORKSHOP

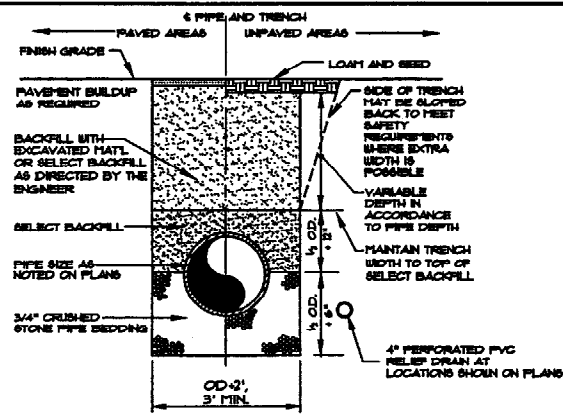
Sebago Technics
Engineering Expertise You Can Build On
One Great Street
Westbrook, ME 04098-1339
Tel (207) 666-0277

PROJECT NO. DWG NAME [F.L.D. BK.] DESIGN [DRAWN] DATE 04/03 04/03 04/03 04/03

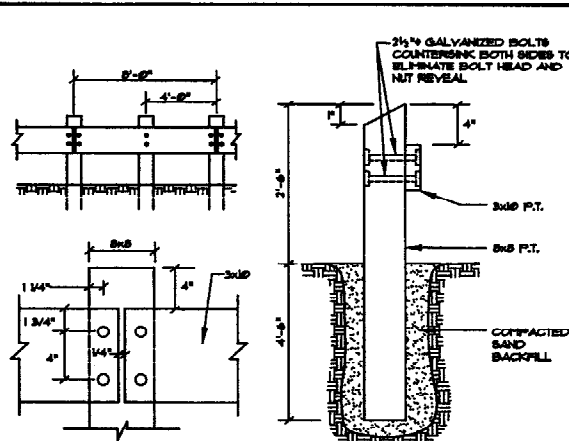
LANDSCAPE PLAN
OF:
RADCLIFFE GLEN
HARVARD STREET
PORTLAND, MAINE
FOR:
LARRY STURDIVANT
15 GARSIDE DRIVE
PORTLAND, MAINE 04103

DATE	SCALE
05/14/02	1"=30'

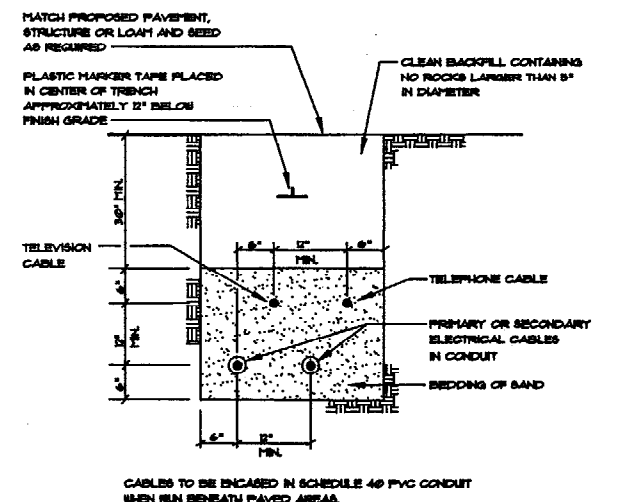
SHEET 10 OF 13



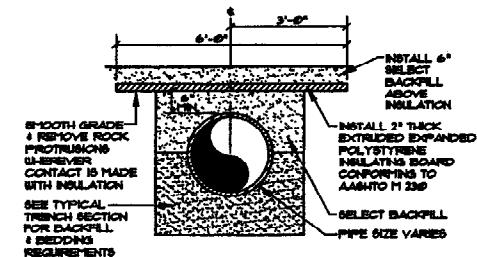
TYPICAL TRENCH SECTION
NOT TO SCALE



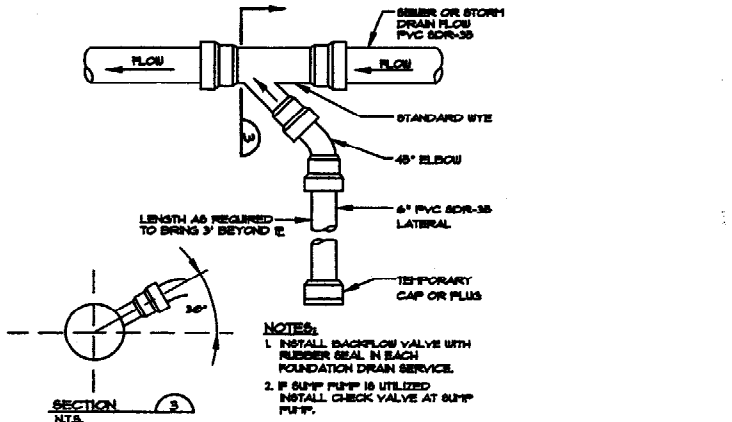
PRESSURE TREATED WOOD GUARDRAIL
NOT TO SCALE



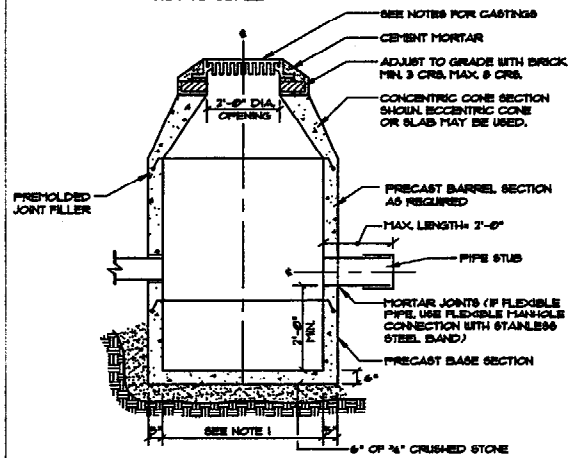
TYPICAL UNDERGROUND CABLE INSTALLATION
NOT TO SCALE



PIPE INSULATION DETAIL
NOT TO SCALE

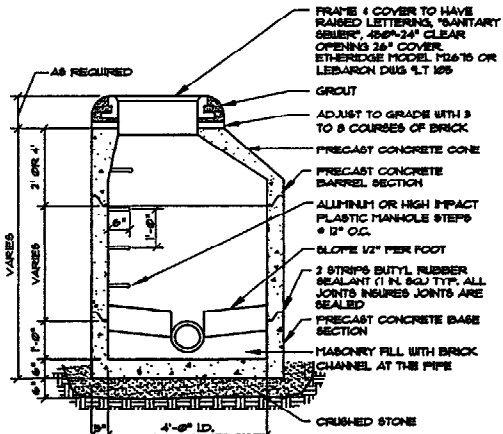


SEWER / FOUNDATION DRAIN SERVICE CONNECTION
NOT TO SCALE



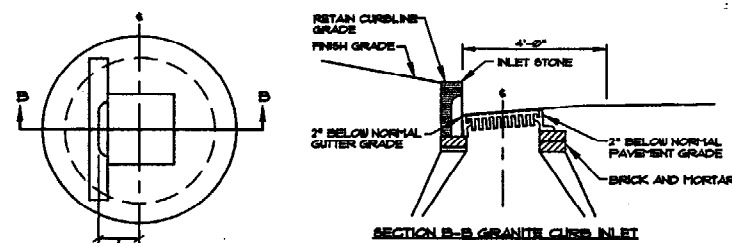
- NOTES:**
1. 4'-0" ID. TYPICAL. SOME STRUCTURES MAY REQUIRE LARGER ID. PROVIDE SHOP DRAWINGS.
 2. DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
 3. PIPE SIZES AND INVERTS AS NOTED ON PLANS.
 4. CATCH BASIN FRAME AND GRATE TO BE ETHERIDGE FOUNDRY 84248, TYPE M OR C OR APPROVED EQUAL.
 5. DRAINAGE MANHOLE FRAME AND COVER TO BE ETHERIDGE FOUNDRY M5486 OR APPROVED EQUAL. COVER SHALL BE MARKED "DRAIN".

TYPICAL CATCH BASIN
NOT TO SCALE

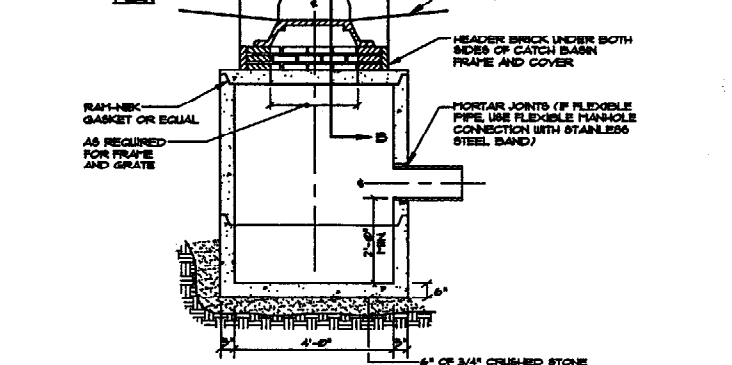


NOTE: PIPE CONNECTIONS SHALL BE WATER-TIGHT FLEXIBLE BOOT CONNECTORS PROVIDES LEAK-PROOF CONNECTION

PRECAST MANHOLE
NOT TO SCALE

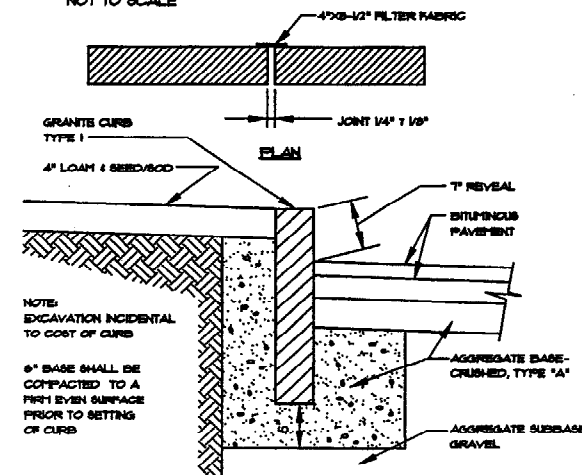


SECTION B-B GRANITE CURB INLET

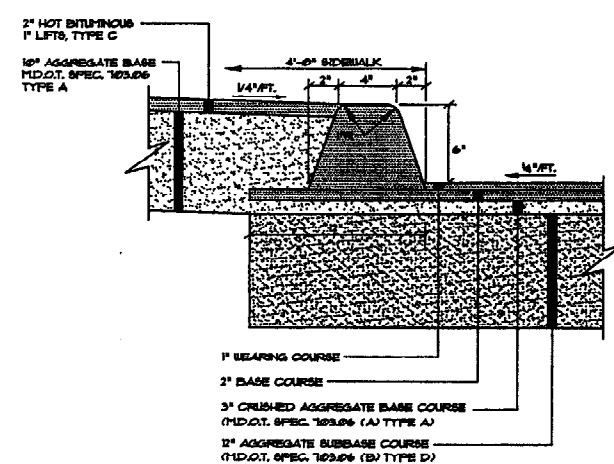


- NOTES:**
1. 4'-0" ID. TYPICAL. SOME STRUCTURES MAY REQUIRE LARGER ID. PROVIDE SHOP DRAWINGS FOR APPROVAL.
 2. DRAINAGE STRUCTURES TO BE DESIGNED FOR H-20 LOADING.
 3. PIPE SIZES AND INVERTS AS NOTED ON PLANS.
 4. CATCH BASIN FRAME AND GRATE TO ACCOMMODATE 2" MIN. GRATE EQUAL TO ETHERIDGE FOUNDRY 84248 TYPE M NAVY STANDARD. (H-20 LOADING & BICYCLE BARS) PROVIDE SHOP DRAWINGS FOR ENGINEER'S / OWNER REPRESENTATIVE'S APPROVAL.
 5. INSTALL CATCH BASIN W/ HEADSTONE AT LOCATION CB-2, CB-3 AND CB-4 SHOWN ON THE PLANS.

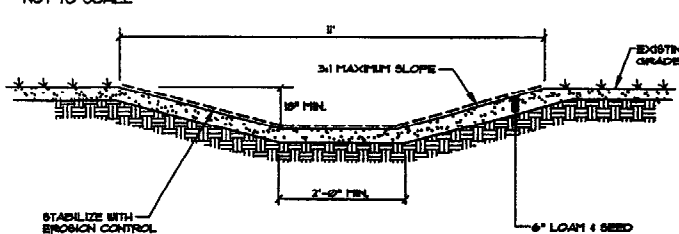
CATCH BASIN W/ GRANITE HEADSTONE
NOT TO SCALE



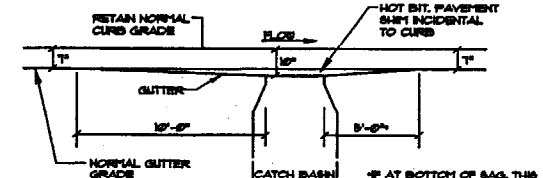
SECTION GRANITE CURB DETAIL
NOT TO SCALE



BITUMINOUS CURB / SIDEWALK SECTION
NOT TO SCALE

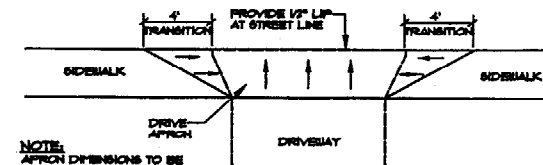


GRASSED SWALE
NOT TO SCALE

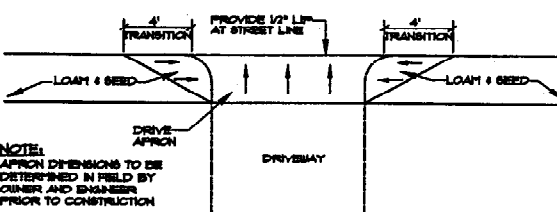


NOTE: CATCH BASIN GRATES SHALL BE DEPREESSED 2" BELOW THE NORMAL GUTTER GRADE UNLESS THIS DEPRESSION INTERFERES WITH TRAFFIC. PARALLEL BAR GRATES SHALL BE INSTALLED ON A LEVEL GRADIENT. DIMENSIONS ARE INTENDED TO BE NOMINAL.

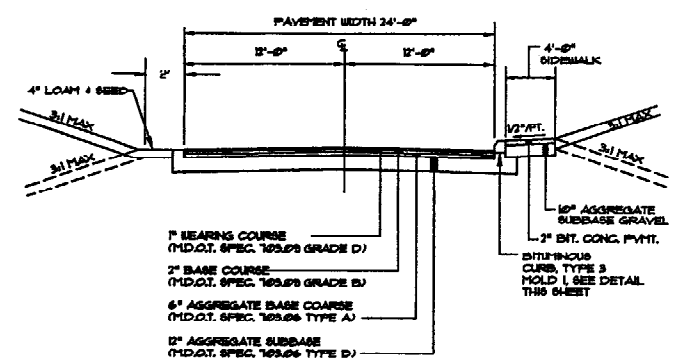
GUTTER GRADE TRANSITION AT CATCH BASIN
NOT TO SCALE



TYPICAL DRIVE APRON WITH SIDEWALK
NOT TO SCALE

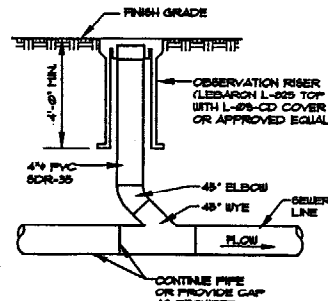


TYPICAL DRIVE APRON WITHOUT SIDEWALK
NOT TO SCALE

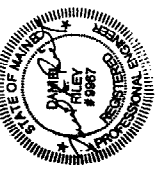


NOTE: 1. CROSS SLOPE ON ROADWAY TO BE 2% MIN. IN THE DIRECTION INDICATED ON THE PLANS.

TYPICAL ROADWAY SECTION
NOT TO SCALE



SEWER CLEANOUT
NOT TO SCALE



DATE	SCALE
05/14/02	AS SHOWN

PROJECT NO. DWG. NAME (FLD, BK, DESIGN, DRAWN) 4.00

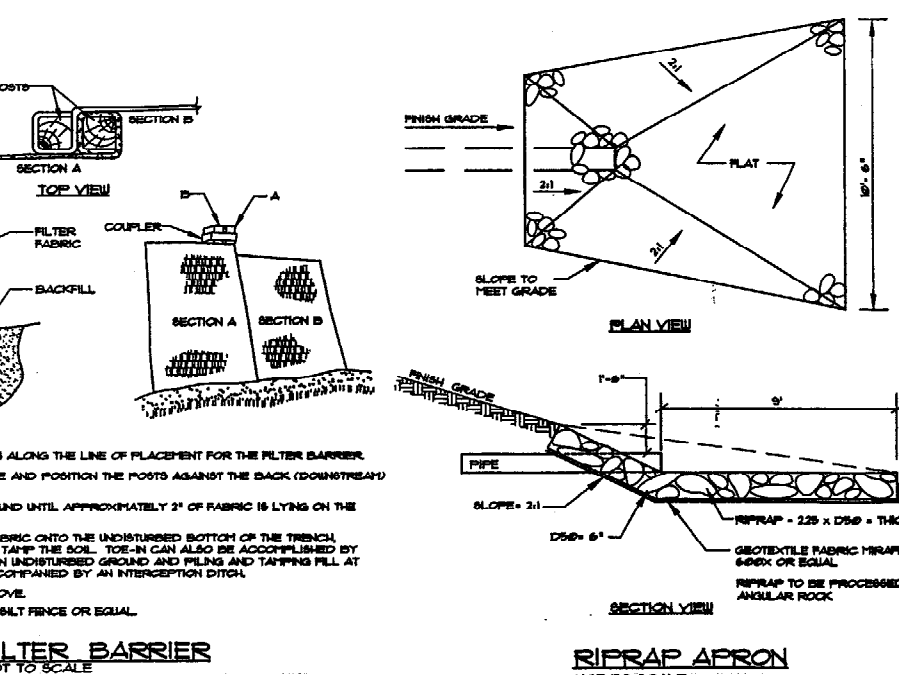
Segabo Technics
Engineering Expenses You Can Build On
One Chelton Street
Westbrook, ME 04090-1339
Tel (207) 868-0277

DETAILS
GLEN RADCLIFFE
HARVARD STREET
PORTLAND, MAINE
FOR LARRY STURDIVANT
15 GARSOE DRIVE
PORTLAND, MAINE 04103

EROSION AND SEDIMENTATION CONTROL PLAN

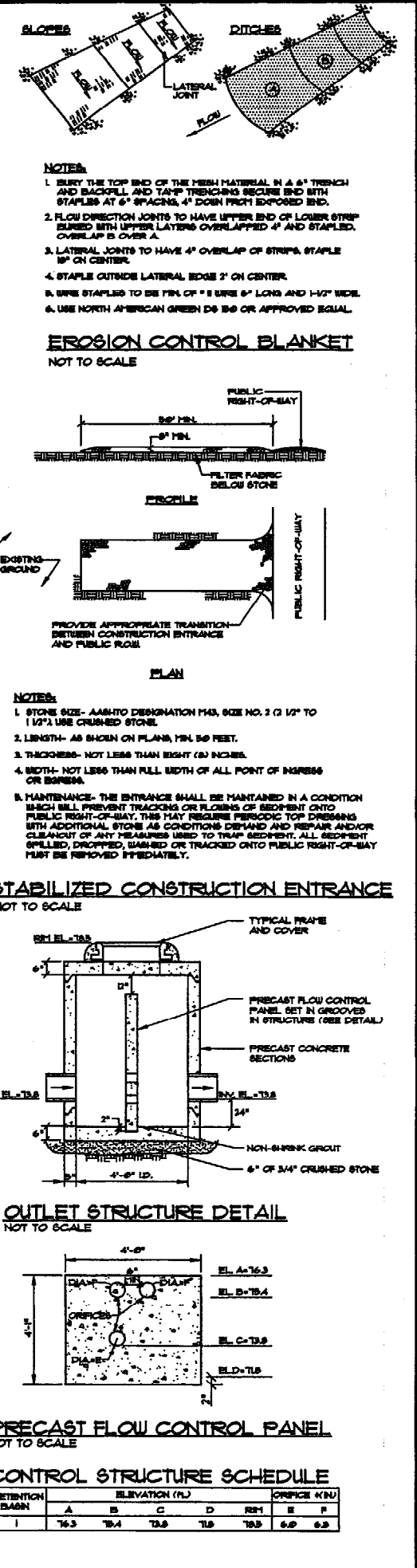
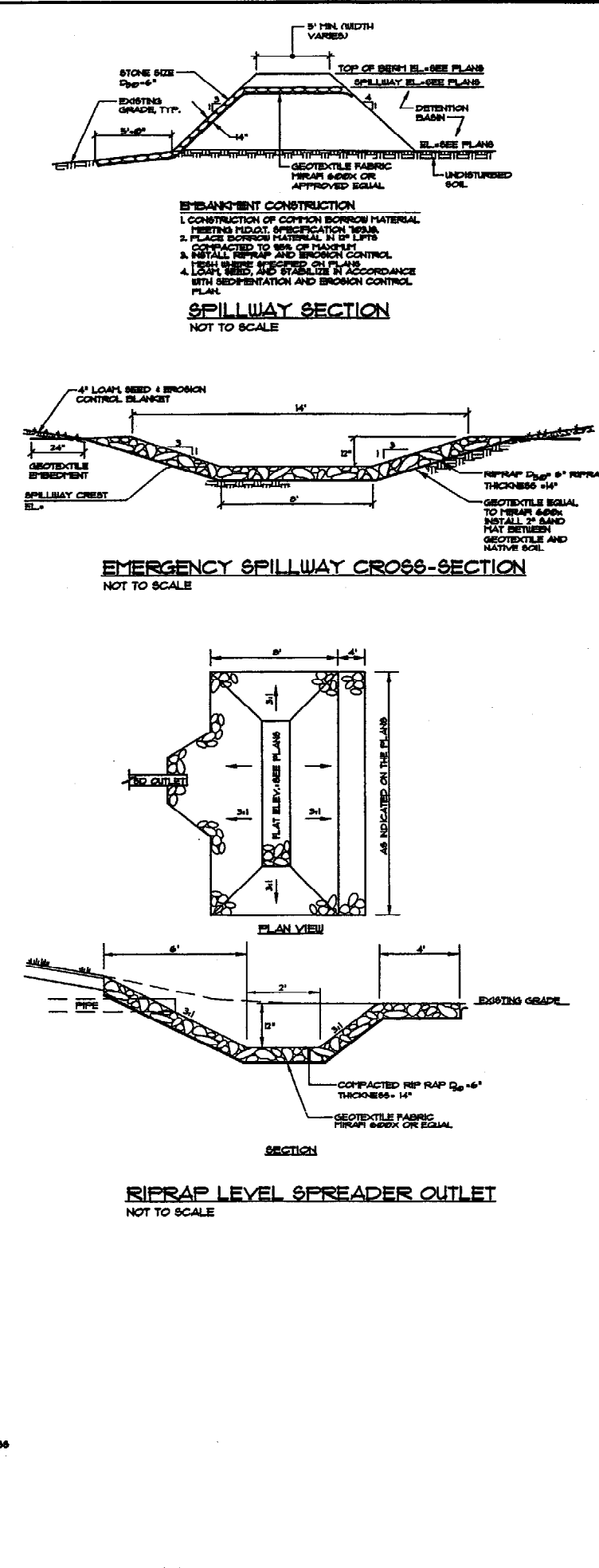
- PRE-CONSTRUCTION PHASE**
1. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, FILTER FABRIC FENCING WILL BE STAKED ACROSS THE SLOPES, ON THE CONTOUR, AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND JUST ABOVE ANY ADJACENT WATERWAY. FENCING WILL BE MAINTAINED TO PROTECT AGAINST CONSTRUCTION RELATED EROSION. THE PLACEMENT OF SILT FENCES SHALL BE COMPLETED IN ACCORDANCE WITH GUIDELINES ESTABLISHED IN BEST MANAGEMENT PRACTICES AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN. THE FENCING IN THE PLAN SET, THIS NETWORK IS TO BE MAINTAINED BY THE CONTRACTOR UNTIL ALL EXPOSED SLOPES HAVE AT LEAST 85% VIGOROUS PERENNIAL VEGETATIVE COVER TO PREVENT EROSION.
 2. PRIOR TO ANY CLEARING OR GRUBBING, A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT THE LOCATION(S) SHOWN ON THE PLAN TO AVOID TRACKING OF MUD, DIRT AND DEBRIS FROM THE SITE.
 3. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED UP PLAN INDICATING AREAS AND COMPONENTS OF THE WORK AND KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF THE WORK. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING SPECIAL ATTENTION SHALL BE GIVEN TO THE 14 DAY LIST OF DISTURBANCE IN THE SCHEDULE ADDRESSING TEMPORARY AND PERMANENT VEGETATION MEASURES.
 4. THE FOLLOWING EROSION CONTROL MEASURES SHALL BE FOLLOWED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION OF THIS PROJECT.
 5. CONSTRUCTION AND POST-CONSTRUCTION SHALL ONLY EXPOSE THAT AMOUNT OF FRESH SOIL NECESSARY FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION AND SHALL NOT EXCEED 14 DAYS. AREAS THAT WILL NOT BE EXPOSED (COVERED AND/OR FRESH GRADED) WITHIN FOURTEEN (14) DAYS OF DISTURBANCE SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL MEASURES WITHIN SEVEN (7) DAYS OF DISTURBANCE. TEMPORARY EROSION CONTROL SHALL INCLUDE EROSION CONTROL MESH, NETTING OR MULCH AS DIRECTED BY THE INSPECTING ENGINEER AND AS SHOWN ON THE DESIGN PLANS. IF MESH IS USED, IT SHALL BE STAKED PER MESH MANUFACTURER'S RECOMMENDATIONS OR STAKED AT THE RATE OF 3 SILES PER 1000 SQUARE FEET. APPLICATION AREA SHALL BE SUFFICIENTLY COVERED WITH MULCH TO AVOID ANY VISIBLE SOIL EXPOSURE. MULCH SHALL BE KEPT MOIST TO AVOID LOSS DUE TO WIND. MULCH AND NETTING SHALL BE APPLIED IN THE BASE OF ALL GRASSED WATERWAYS (I.E. ROADWAY DITCHES) AND IN SLOPES WHICH EXCEED 5% AND ANY DISTURBED AREAS WITHIN 15' OF BETA LANE OR STRAIGHTS.
 6. IF DISTURBED AREAS DO NOT RECEIVE FINAL SEEDING BY SEPTEMBER 15TH OF THE YEAR OF CONSTRUCTION, THEN ALL DISTURBED AREAS SHALL BE SEEDING WITH A WINTER COVER CROPP OF RYE AT THE RATE OF 3 LBS/1000 SQ. FT. TO PROVIDE WINTER PROTECTION. WINTER PROTECTION SHALL BE COVERED WITH EROSION CONTROL MESH (MULCH AND NETTING), HEAVY GRADED MATS SHALL BE USED IN THE BASE OF ALL GRASSED WATERWAYS, ON SLOPES EQUAL TO OR GREATER THAN 8%, AND ANY DISTURBED AREAS BETWEEN STRAIGHTS OR STRAIGHTS, MULCH AND NETTING SHALL ALSO BE APPLIED FOR ADDITIONAL WINTER PROTECTION ALONG SIDE SLOPES OF GRASSED WATERWAYS AND IN ALL AREAS EQUAL TO OR GREATER THAN 8% SLOPE.
 7. DURING WINTER CONDITIONS, AREAS THAT WILL NOT BE COMPLETED (COVERED AND/OR FRESH GRADED) WITHIN SEVEN (7) DAYS OF DISTURBANCE SHALL BE ANCHORED WITH TEMPORARY EROSION CONTROL MEASURES WITHIN SEVEN (7) DAYS OF DISTURBANCE. TEMPORARY EROSION CONTROL SHALL INCLUDE EROSION CONTROL MESH, NETTING OR MULCH AS DIRECTED BY THE INSPECTING ENGINEER AND AS SHOWN ON THE DESIGN PLANS. IF MESH IS USED, IT SHALL BE STAKED PER MESH MANUFACTURER'S RECOMMENDATIONS OR STAKED AT THE RATE OF 3 SILES PER 1000 SQUARE FEET. APPLICATION AREA SHALL BE SUFFICIENTLY COVERED WITH MULCH TO AVOID ANY VISIBLE SOIL EXPOSURE.
 8. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, SEEDING WITH RYE AT 3 LBS/1000 SQ. FT. AND MULCHED, AND RE-USED AS GRADIENT FROM STOCKPILED SOIL. SOIL SHALL BE STOCKPILED AT LOCATIONS DESIGNATED BY THE OWNER AND INSPECTING ENGINEER.
 9. ALL SILT FENCES AND EROSION CONTROL MEASURES SHALL BE MAINTAINED ACCORDING TO THIS PLAN. THESE SHALL BE MAINTAINED DURING DEVELOPMENT TO REMOVE SEDIMENT FROM RUNOFF WATER. ALL THE SILT FENCES AND EROSION CONTROL MEASURES SHALL BE INSPECTED BEFORE AND AFTER ANY RAINFALL OR RUNOFF EVENT, MAINTAINED AND CLEANED UNTIL ALL AREAS HAVE AT LEAST 85% VIGOROUS PERENNIAL VEGETATIVE COVER OF GRASSES.
 10. A CONSTRUCTION ENTRANCE SHALL BE BUILT AT HARVARD STREET, ROADWAY AREAS SHALL BE PERIODICALLY GROOMED TO AVOID TRACKING OF MUD, DIRT OR DEBRIS FROM THE CONSTRUCTION AREA DUST CONTROL DURING CONSTRUCTION SHALL BE ACHIEVED BY THE USE OF A WATERING TRUCK TO PERIODICALLY SPRINKLE THE EXPOSED ROADWAY AREAS AS NECESSARY TO REDUCE DUST DURING THE DRY MONTHS.
 11. STONE CHECK DAMS MAY BE REMOVED ONLY AFTER THE ROADWAYS ARE PAVED AND THE VEGETATED SWALES ARE ESTABLISHED WITH AT LEAST 85% TO 90% OF VIGOROUS PERENNIAL GROWTH.
 12. ALL AREAS SHALL BE SEEDING AND STABILIZED IN ACCORDANCE WITH THE FOLLOWING VEGETATION PLAN.

- REVEGETATION MEASURES SHALL CONSIST OF THE FOLLOWING:**
1. FOUR INCHES OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND SMOOTHED TO A UNIFORM SURFACE. LOAM SHALL BE FREE OF SUBSOIL, CLAY LUMPS, STONES AND OTHER OBJECTS OVER 1/2" IN DIAMETER AND WITHOUT WEEDS, ROOTS OR OTHER OBJECTIONABLE MATERIAL.
 2. SOIL TESTS SHALL BE TAKEN AT THE TIME OF SOIL STRIPPING TO DETERMINE FERTILIZATION REQUIREMENTS. SOIL TESTS SHALL BE TAKEN PROPERLY AS TO NOT INTERFERE WITH THE 14 DAY LIST ON SOIL EXPOSURE BASED TEST RESULTS. SOIL AMENDMENTS SHALL BE INCORPORATED INTO THE SOIL PRIOR TO FINAL SEEDING. IN LIEU OF SOIL TESTS, SOIL AMENDMENTS MAY BE APPLIED AS FOLLOWS:
- | ITEM | APPLICATION RATE |
|---|--------------------|
| 10-20-20 FERTILIZER (7-22-50) OR EQUAL | 104 LBS/1000 SQ FT |
| 10-20-20 FERTILIZER (7-22-50) OR EQUAL | 104 LBS/1000 SQ FT |
| GROUND LIFESTONE (36% CALCIUM) 1" THICKNESS | 150 LBS/1000 SQ FT |
3. FOLIAR FEED BED PREPARATION SHALL INCLUDE FILL AREAS AND BACK SLOTTED SHALL BE SEEDING AT A RATE OF 3 LBS/1000 SQ FT WITH A MIXTURE OF 30% CHEERING RED FESCUE, 65% RED TOP 246, KENTUCKY BLUEGRASS, 10% PERENNIAL RYEGRASS, 20% ANNUAL RYEGRASS AND 5% WHITE DUTCH CLOVER.
 4. EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FRESH SEEDING AREAS AS SPECIFIED ON THE DESIGN PLANS.
 5. ALL MAY EROSION CONTROL MEASURES WILL REMAIN IN PLACE UNTIL SEEDING HAVE BECOME 85% - 90% ESTABLISHED AND THEN REMOVED WITHIN 10 DAYS.
 6. THE INSPECTING ENGINEER AT HIS/HER DISCRETION, MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES AND/OR SUPPLEMENTARY VEGETATION. PROVISIONS TO MAINTAIN STABILITY OF EARTRHOES AND FINISH GRADED AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY SUPPLEMENTAL MEASURES AS DIRECTED BY THE INSPECTING ENGINEER. FAILURE TO COMPLY WITH THE ENGINEER'S DIRECTIONS WILL RESULT IN DISCONTINUATION OF CONSTRUCTION ACTIVITIES.
- D. CONSTRUCTION SCHEDULE**
- NOTE: IMPROVEMENTS WILL MOST LIKELY BEGIN IN AUGUST 2002
- | SCHEDULE | 12 MONTHS |
|--|-------------------------------|
| 1. ESTIMATED CONSTRUCTION TIME | |
| 2. EROSION CONTROL MEASURES PLACED. | WEEK 1 - WEEK 2 |
| 3. SITE CLEARING AND GRUBBING. | WEEK 2 - WEEK 9 |
| 4. CONSTRUCTION OF ROAD SUBGRADE FOR ACCESS. | WEEK 8 - WEEK 10 |
| 5. STORMWATER MANAGEMENT AREA CONSTRUCTION. | WEEK 7 - WEEK 9 |
| 6. UTILITY IMPROVEMENTS AND ROADWAY CONSTRUCTION. | WEEK 7 - WEEK 24 |
| 7. MULCH SPREAD FOR WINTER EROSION CONTROL. | OCT. 5 OF CONSTRUCTION YEAR |
| 8. START FINAL SEEDINGS ON PREPARED AREAS (DURING GROWING SEASON). | WEEK 8 |
| 9. BIWEEKLY MONITORING OF VEGETATIVE GROWTH. | WEEK 10 |
| 10. RE-SEEDING OF AREAS, IF NEEDED. | WEEK 10 |
| 11. REMOVAL OF EROSION CONTROL DEVICES. | UPON FINAL PROJECT COMPLETION |
- NOTE: DATES ARE SUBJECT TO CHANGE AT THE DISCRETION OF THE ENGINEER, DEPENDING ON CONSTRUCTION PROGRESS.
- E. INSPECTIONS/MONITORING**
- INSPECTIONS/MONITORING MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, THE CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES. THE CONTRACTOR SHALL PERFORM REPAIRS AS NEEDED TO ALLOW CONTINUED PROPER FUNCTIONING OF THE EROSION CONTROL MEASURE. THE CONTRACTOR SHALL PROVIDE THE MUNICIPALITY WITH WRITTEN DOCUMENTATION DESCRIBING DATES OF INSPECTIONS AND NECESSARY FOLLOW-UP WORK TO MAINTAIN EROSION CONTROL MEASURES MEETING THE REQUIREMENTS OF THIS PLAN.
- FOLLOWING THE TEMPORARY AND/OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA PERIODICALLY UNTIL THE SEEDINGS HAVE BEEN ESTABLISHED. ESTABLISHED MEANS A MINIMUM OF 85%-90% OF AREAS VEGETATED WITH VIGOROUS GROWTH. RESEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW-UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.



CONSTRUCTION NOTES

1. ALL WORK SHALL CONFORM TO THE APPLICABLE CODES AND ORDINANCES.
2. CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIM OR HERSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR PARALLELING HIM OR HERSELF WITH ALL CONTRACT DOCUMENTS, FIELD DETERMINATIONS AND CONDITIONS THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
3. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND IN THE FIELD.
4. INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND OWNERS REQUIREMENTS UNLESS SPECIFICALLY OTHERWISE INDICATED OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.
5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE ENGINEER.
6. CONTRACTOR SHALL CLEAN AND REMOVE DEBRIS AND SEDIMENT DEPOSITED ON PUBLIC STREETS, SIDEWALKS, ADJACENT AREAS, OR OTHER PUBLIC BAYS DUE TO CONSTRUCTION.
7. CONTRACTOR SHALL INCORPORATE PROVISIONS AS NECESSARY IN CONSTRUCTION TO PROTECT EXISTING STRUCTURES, UTILITIES, RELIABLE, AND MAINTAIN SITE STABILITY DURING CONSTRUCTION. CONTRACTOR SHALL RESTORE ALL AREAS TO ORIGINAL CONDITION AND AS DIRECTED BY DESIGN DRAWINGS.
8. SITE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION.
9. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THESE SPECIFICATIONS, MATERIALS, RELIABLE, AND MAINTAIN SITE STABILITY. BEST MANAGEMENT PRACTICES PUBLISHED BY THE GREENLAND COUNTY SOIL AND WATER CONSERVATION DISTRICT AND HADSE DEPARTMENT OF ENVIRONMENTAL PROTECTION. MARSH FOR LATEST EDITION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A COPY OF THE EROSION CONTROL PLAN AT ALL TIMES.
10. THE CONTRACTOR IS HEREBY CAUTIONED THAT ALL SITE FEATURES SHOWN HEREON ARE BASED ON FIELD OBSERVATIONS BY THE SURVEYOR AND BY INFORMATION PROVIDED BY UTILITY COMPANIES. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CONTACT HIS/HER CONTRACTOR AT LEAST THREE (3) DAYS PRIOR TO ANY EXCAVATION, TRENCHING, OR CONSTRUCTION OF ANY EXCAVATION OR DESTRUCTION TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES. CONTRACTORS SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE REQUIREMENTS OF 23 FRS 3468-A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE APPROPRIATE UTILITIES TO OBTAIN AUTHORIZATION PRIOR TO RELIANCE OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS. IF A UTILITY CONFLICT ARISES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER, THE MUNICIPALITY AND APPROPRIATE UTILITY COMPANY PRIOR TO PROCEEDING WITH ANY RELOCATION.
11. ALL PAVEMENT MARKINGS AND DIRECTIONAL SIGNAGE SHOWN ON THE PLAN SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) STANDARDS.
12. ALL PAVEMENT JOINTS SHALL BE SAUCUT PRIOR TO PAVING TO PROVIDE A DURABLE AND UNIFORM JOINT.
13. NO HOLES, TRENCHES OR STRUCTURES SHALL BE LEFT OPEN OVERNIGHT IN ANY EXCAVATION ACCESSIBLE TO THE PUBLIC OR IN PUBLIC RIGHTS-OF-WAY.
14. THE PROPOSED LIMITS OF CLEARING SHOWN HEREON ARE APPROXIMATE BASED UPON THE NORMAL FOREST MANAGEMENT ACTIVITIES OUTSIDE OF THE CLEARING LIST AS SHOWN. THESE REMOVAL OUTSIDE OF THE LIMITS OF CLEARING MAY BE NECESSARY TO REMOVE DEAD OR DYING TREES OR TREE LIMBS. THIS REMOVAL IS DUE TO POTENTIAL SAFETY HAZARDS AND TO PROMOTE PROPER FOREST GROWTH.
15. IMMEDIATELY UPON COMPLETION OF CUTFILLS, THE CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH EROSION CONTROL NOTES AND AS SPECIFIED ON PLANS.
16. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR THE REMOVAL, REPLACEMENT AND RECTIFICATION OF ANY DAMAGED OR DEFECTIVE MATERIAL AND WORKMANSHIP IN CONNECTION WITH THE CONTRACT WORK. THE CONTRACTOR SHALL REPLACE OR REPAIR AS DIRECTED BY THE OWNER ALL SUCH DAMAGED OR DEFECTIVE MATERIALS WHICH APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
17. ALL WORK PERFORMED BY THE GENERAL CONTRACTOR AND/OR TRADE SUBCONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF LOCAL, STATE OR FEDERAL LAWS, AS WELL AS ANY OTHER GOVERNING REQUIREMENTS, WHETHER OR NOT SPECIFIED ON THE DRAWINGS.
18. WHERE THE TERMS "APPROVED EQUAL," "OTHER APPROVED," "EQUAL TO," "ACCEPTABLE" OR OTHER GENERAL QUALIFYING TERMS ARE USED IN THESE NOTES, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULES AND JUDGMENT OF SEBAGO TECHNIQS, INC.
19. THE GENERAL CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTION FOR THE WORK UNTIL TURNED OVER TO THE OWNER.
20. THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF CONSTRUCTION DRAWINGS ON SITE DURING ALL PHASES OF CONSTRUCTION FOR USE OF ALL TRADES.
21. THE CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ANY CHANGES AND DEVIATION OF APPROVED PLANS NOT AUTHORIZED BY THE ARCHITECT/ENGINEER AND/OR CLIENT/OWNER.
22. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. ANY MODIFICATION TO SUIT FIELD DIMENSION AND CONDITION SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY WORK.
23. BEFORE THE FINAL ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND MATERIALS, REPAIR OR REPLACE PRIVATE OR PUBLIC PROPERTY WHICH MAY HAVE BEEN DAMAGED OR DESTROYED DURING CONSTRUCTION, CLEAN THE AREAS WITHIN AND ADJACENT TO THE PROJECT WHICH HAVE BEEN OBSTRUCTED BY HEAVY OPERATIONS, AND LEAVE THE PROJECT AREA NEAT AND PRESENTABLE.



CITY OF PORTLAND
DEPARTMENT OF PUBLIC WORKS

SUBMITTED FOR PLANNING BOARD SIGNATURE
8/2/02
D.L.R.

SUBMITTED FOR PUBLIC HEARING
7/5/02
D.L.R.

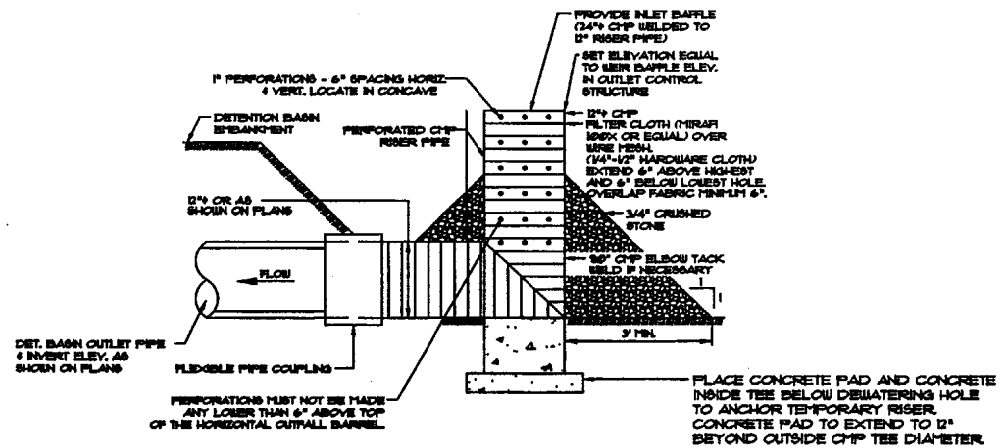
SUBMITTED FOR SITE PLAN SUBMISSION
6/1/02
D.L.R.

SUBMITTED FOR 5/28/02 PLANNING BOARD WORKSHOP
05/14/02
D.L.R.

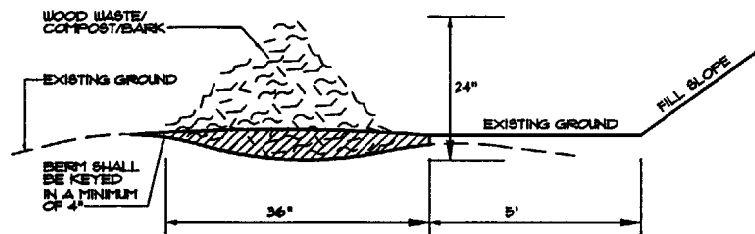
SUBMITTED FOR 4/23/02 PLANNING BOARD WORKSHOP
04/17/02
D.L.R.

REV. BY: DATE STATUS

Sebago Technics
Engineering Experts You Can Build On
One Onondaga Street
Portland, Maine 04101
Tel: (207) 866-0877



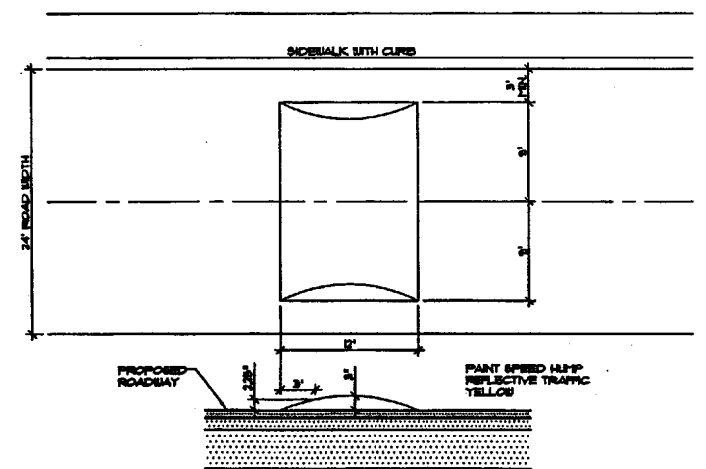
TEMPORARY SEDIMENT RISER PIPE
NOT TO SCALE



ORGANIC SEDIMENT BARRIER

NOTES:

1. THE WOOD WASTE SHALL CONFORM TO THE FOLLOWING STANDARDS:
 - A. MOISTURE CONTENT - 30-60%
 - B. PH=5.0-8.0
 - C. SCREEN SIZE - 100% LESS THAN 3", MAX. 10% LESS THAN 1"
 - D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION
 - E. NO STONES LARGER THAN 2" IN DIAMETER
2. THE COMPOST BERM SHALL BE PLACED, UNCOMPACTED ALONG A RELATIVELY LEVEL CONTOUR.
3. THE WOOD WASTE COMPOST/BARK FILTER MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, EDGE CUTCROPS, VERY FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.
4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS COMPLETED OR 10% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT THE NATIVE EARTH CAN BE SEEN BELOW.



- NOTE:**
1. SPEED HUMP SHALL BE INSTALLED PERPENDICULAR TO ROADWAY CENTERLINE.
 2. SPEED HUMP SHALL TAPER TO TERMINATE A MINIMUM OF 3 FEET FROM CURB/ EDGE OF PAVEMENT.

SPEED HUMP DETAIL
NOT TO SCALE



REV.	DATE	BY	STATUS
E	9/2/02	DJR	SUBMITTED FOR PLANNING BOARD SIGNATURE
D	7/5/02	DJR	SUBMITTED FOR PUBLIC HEARING
C	6/11/02	DJR	SUBMITTED FOR SITE PLAN SUBMISSION
B	05/14/02	DJR	SUBMITTED FOR 5/29/02 PLANNING BOARD WORKSHOP
A	04/17/02	DJR	SUBMITTED FOR 4/23/02 PLANNING BOARD WORKSHOP

Sebago Technics
Engineering Experts You Can Build On
One Chesnut Street
Westbrook, Me 04098-1339
Tel (207) 888-0377

PROJECT NO. DWG. NAME: FLD. BK. DESIGN DRAWN: LCO
PLANNED BY: LARRY STURDIVANT

DETAILS
OF: **RADCLIFFE GLEN**
HARVARD STREET
PORTLAND, MAINE
FOR: **LARRY STURDIVANT**
15 GARSIDE DRIVE
PORTLAND, MAINE 04103

DATE: 05/14/02
SCALE: AS SHOWN