

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

Location of Construction: 210 Brackett Ave, Peaks Island		Owner: Mayo, Peter & Mary	Phone: 766-2831	Permit No: 980536
Owner Address: SAA	Lessee/Buyer's Name:	Phone:	BusinessName:	<div style="border: 2px solid black; padding: 5px; text-align: center;"> <b>PERMIT ISSUED</b>                  Permit Issued:  <b>MAY 27 1998</b>  <b>CITY OF PORTLAND</b> </div>
Contractor Name: Keth Halls	Address:	Phone:		
Past Use: 1-fam	Proposed Use:	<b>COST OF WORK:</b> \$ 15,000.00	<b>PERMIT FEE:</b> \$ 95.00	
Proposed Project Description: 4' addition w/gabled dormer adding loft, bath & laundry space		<b>FIRE DEPT.</b> <input type="checkbox"/> Approved <input type="checkbox"/> Denied	<b>INSPECTION:</b> Use Group: Type: C COC 916	Zone: CBL: 088-L-011
		Signature: _____		Signature: _____
		<b>PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)</b>		<b>Zoning Approval</b> Special Zone or Reviews: <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan maj <input type="checkbox"/> minor <input type="checkbox"/> mm
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved with Conditions <input type="checkbox"/> Denied		Date: _____		<b>Zoning Appeal</b> <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied
Permit Taken By: Vicki Dover				<b>Historic Preservation</b> <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review

Plumbing  
 } will have  
 } test on  
 @ 10/1/98

PERMIT ISSUED  
 WITH REQUIREMENTS

I hereby certify that I am the owner of record of the named project 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 provisions of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS:	DATE: 21 May 1998	PHONE:
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE			PHONE:

White-Permit Desk Green-Assessor's Canary-D.P.W. Pink-Public File Ivory Card-Inspector

CEO DISTRICT 6

COMMENTS

6-9-98. Show with owner. He will call when work is framed.

6-24-98 Checked out footing according to plans. Runway

9-22-98 treated with crushed stone  
Toilet 2" washing machine, Tub, lav, on stack size? Size OK  
9-25-98 Talked to Gary Turner. He will add stack thru the roof

Need Engineering Report on cut Trusses 10/1/98 (TER)

Oct. 1-1998 OK to close in upstairs Room and down Stair Bath (TER)

10-20-98 OK on Plumbing test with Gary Turner OK on test

Inspection Record

Type

Date

- Foundation: \_\_\_\_\_
- Framing: \_\_\_\_\_
- Plumbing: \_\_\_\_\_
- Final: \_\_\_\_\_
- Other: \_\_\_\_\_

# BUILDING PERMIT REPORT

DATE: 26 MAY 98 ADDRESS: 210 Brackett Ave. P.T. (Ø88-L-Ø11)  
 REASON FOR PERMIT: 4' addition w gabled dormer  
 BUILDING OWNER: MAYO  
 CONTRACTOR: SAA  
 PERMIT APPLICANT: SAA  
 USE GROUP: R-3 BOCA 1996 CONSTRUCTION TYPE: 5B

## CONDITION(S) OF APPROVAL

This Permit is being issued with the understanding that the following conditions are met:

Approved with the following conditions: \*1, \*2, \*8, \*9, \*10, \*16, \*24, \*26, \*29

- X 1. This permit does not excuse the applicant from meeting applicable State and Federal rules and laws.
- X 2. Before concrete for foundation is placed, approval from the ~~Development Review Coordinator~~ and Inspection Services must be obtained. (A 24 hour notice is required prior to inspection)
3. Precaution must be taken to protect concrete from freezing.
4. It is strongly recommended that a registered land surveyor check all foundation forms before concrete is placed. This is done to verify that the proper setbacks are maintained.
5. Private garages located beneath habitable rooms in occupancies in Use Group R-1, R-2, R-3 or I-1 shall be separated from adjacent interior spaces by fire partitions and floor/ceiling assembly which are constructed with not less than 1-hour fire resisting rating. Private garages attached side-by-side to rooms in the above occupancies shall be completely separated from the interior spaces and the attic area by means of ½ inch gypsum board or the equivalent applied to the garage means of ½ inch gypsum board or the equivalent applied to the garage side. (Chapter 4 Section 407.0 of the BOCA/1996)
6. All chimneys and vents shall be installed and maintained as per Chapter 12 of the City's Mechanical Code. (The BOCA National Mechanical Code/1993).
7. Sound transmission control in residential building shall be done in accordance with Chapter 12 section 1214.0 of the city's building code.
- X 8. Guardrails & Handrails: A guardrail system is a system of building components located near the open sides of elevated walking surfaces for the purpose of minimizing the possibility of an accidental fall from the walking surface to the lower level. Minimum height all Use Groups 42" , except Use Group R which is 36" . In occupancies in Use Group A, B, H-4, I-1, I-2 M and R and public garages and open parking structures, open guards shall have balusters or be of solid material such that a sphere with a diameter of 4" cannot pass through any opening. Guards shall not have an ornamental pattern that would provide a ladder effect. (Handrails shall be a minimum of 34" but not more than 38". Use Group R-3 shall not be less than 30", but not more than 38".) Handrail grip size shall have a circular cross section with an outside diameter of at least 1 1/4" and not greater than 2".
- X 9. Headroom in habitable space is a minimum of 7'6".
- X 10. Stair construction in Use Group R-3 & R-4 is a minimum of 10" tread and 7 3/4" maximum rise. All other Use group minimum 11" tread, 7" maximum rise.
11. The minimum headroom in all parts of a stairway shall not be less than 80 inches. (6' 8")
12. Every sleeping room below the fourth story in buildings of use Groups R and I-1 shall have at least one operable window or exterior door approved for emergency egress or rescue. The units must be operable from the inside without the use of special knowledge or separate tools. Where windows are provided as means of egress or rescue they shall have a sill height not more than 44 inches (1118mm) above the floor. All egress or rescue windows from sleeping rooms shall have a minimum net clear opening height dimension of 24 inches (610mm). The minimum net clear opening width dimension shall be 20 inches (508mm), and a minimum net clear opening of 5.7 sq. ft.
13. Each apartment shall have access to two (2) separate, remote and approved means of egress. A single exit is acceptable when it exits directly from the apartment to the building exterior with no communications to other apartment units.
14. All vertical openings shall be enclosed with construction having a fire rating of at lest one (1)hour, including fire doors with self closer's. (Over 3 stories in height requirements for fire rating is two (2) hours.)
15. The boiler shall be protected by enclosing with (1) hour fire-rated construction including fire doors and ceiling, or by providing automatic extinguishment.
- X 16. All single and multiple station smoke detectors shall be of an approved type and shall be installed in accordance with the

provisions of the City's Building Code Chapter 9, Section 19, 920.3.2 (BOCA National Building Code/1996), and NFPA 101 Chapter 18 & 19. (Smoke detectors shall be installed and maintained at the following locations):

- In the immediate vicinity of bedrooms
- In all bedrooms
- In each story within a dwelling unit, including basements

In addition to the required AC primary power source, required smoke detectors in occupancies in Use Groups R-2, R-3 and I-1 shall receive power from a battery when the AC primary power source is interrupted. (Interconnection is required)

17. A portable fire extinguisher shall be located as per NFPA #10. They shall bear the label of an approved agency and be of an approved type.
18. The Fire Alarm System shall be maintained to NFPA #72 Standard.
19. The Sprinkler System shall maintained to NFPA #13 Standard.
20. All exit signs, lights, and means of egress lighting shall be done in accordance with Chapter 10 Section & Subsections 1023. & 1024. Of the City's building code. (The BOCA National Building Code/1996)
21. Section 25-135 of the Municipal Code for the City of Portland states, "No person or utility shall be granted a permit to excavate or open any street or sidewalk from the time of November 15 of each year to April 15 of the following year".
22. The builder of a facility to which Section 4594-C of the Maine State Human Rights Act Title 5 MRSA refers, shall obtain a certification from a design professional that the plans commencing construction of the facility, the builder shall submit the certification to the Division of Inspection Services.
23. Ventilation shall meet the requirements of Chapter 12 Sections 1210. Of the City's Building Code.
- X24. All electrical, plumbing and HVAC permits must be obtained by a Master Licensed holders of their trade.
25. All requirements must be met before a final Certificate of Occupancy is issued.
- X26. All building elements shall meet the fastening schedule as per Table 2305.2 of the City's Building Code. (The BOCA National Building Code/1996).
27. Ventilation of spaces within a building shall be done in accordance with the City's Mechanical Code (The BOCA National Mechanical Code/1993).
28. Please read and implement the attached Land Use-Zoning report requirements.
- X29. Wood in contact with ground shall meet the requirements of section 2311.5 of the bldg. code
30. \_\_\_\_\_
31. \_\_\_\_\_
32. \_\_\_\_\_



P. Samuel Hoffes, Code Enforcement

cc: Lt. McDougall, PFD  
Marge Schmuckal

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

**Building or Use Permit Pre-Application  
Additions/Alterations/Accessory Structures  
To Detached Single Family Dwelling**

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

**NOTE\*\*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: <b>210 BRACKETT AVE. PEAKS ISLAND</b>			
Tax Assessor's Chart, Block & Lot Number Chart <b>88</b> Block <b>L</b> Lot <b>11</b>		Owner: <b>MARY + PETER MEGO</b>	Telephone: <b>766-2831</b>
Owner's Address: <b>210 BRACKETT AVE</b>		Lessee/Buyer's Name (if Applicable)	Cost Of Work: <b>\$15,000</b> For <b>\$95.00</b>
Proposed Project Description: (Please be as specific as possible) <b>4' addition w/gabled dormer adding loft, bath + laundry space</b>			
Contractor's Name, Address & Telephone		Ins'd By: <b>net</b>	

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

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

You must include the following with you application:

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

If there is expansion to the structure, a complete plot plan (Site Plan) must include:

- The shape and dimension of the lot, all existing buildings (if any), the proposed structure and the distance to the property lines. Structures include decks porches, a bow windows cantilever sections and roof overhangs, pools, garages and any other accessory structures.
- Scale and required zoning district setbacks

**4) Building Plans (Sample Attached)**

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

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

**Certification**

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

Signature of applicant: <b>Mary + Peter Mego</b>	Date: <b>5/21/98</b>
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Call Mary Mego @ works 874-6570 for P/U  
Taxes - OK



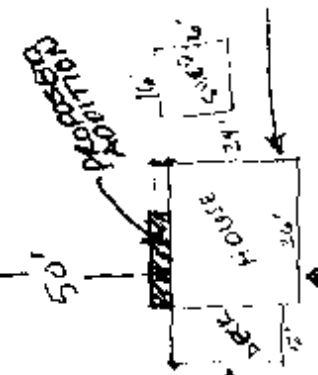


222-222-2222

I.A.P.

I.A.P.

220.00'



22772 N.H.

20.00'

220.00'

I.P.P.  
1/2

BEACON AVENUE

CAMPBELL

1/4 DW

0.00'

I.P.P. 220.00'

I.P.P.

88-19-7

Vol. 10

27-1

[REDACTED]



Applicant: MARY MAGO

Date: 5/22/98

Address: 210 Brackett Ave - P.I. C-B-L: 88-L-11

CHECK-LIST AGAINST ZONING ORDINANCE

Date - Existing 1987 - 1 family

Zone Location - I R-1

Interior or corner lot -

Proposed Use/Work - 4' Addition w/ gabled dormer - adding 6ft, bath & Laundry space  
26'?

Sewage Disposal -

Lot Street Frontage -

Front Yard - 30' req / N/A on rear

Rear Yard - 30' req - 50' shown

Side Yard - 20' req - 36' & 158' shown

Projections -

Width of Lot -

Height - 35' max

Lot Area - ~~29,700~~ 29,700 sq ft

Lot Coverage/ Impervious Surface - 20% coverage

Area per Family -

Off-street Parking - existing

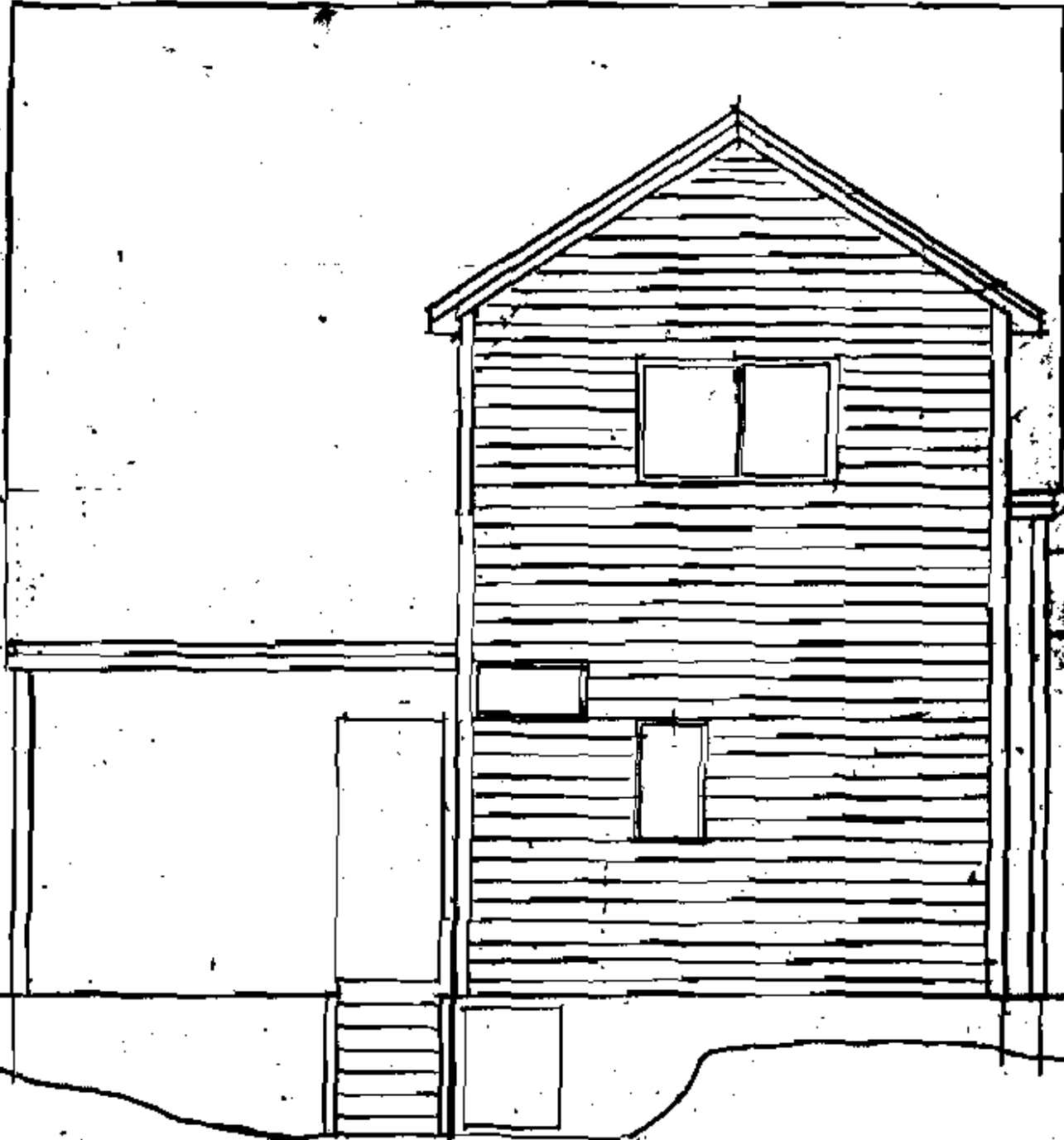
Loading Days - N/A

Site Plan - N/A

Shoreland Zoning/ Stream Protection - N/A

Flood Plains - N/A

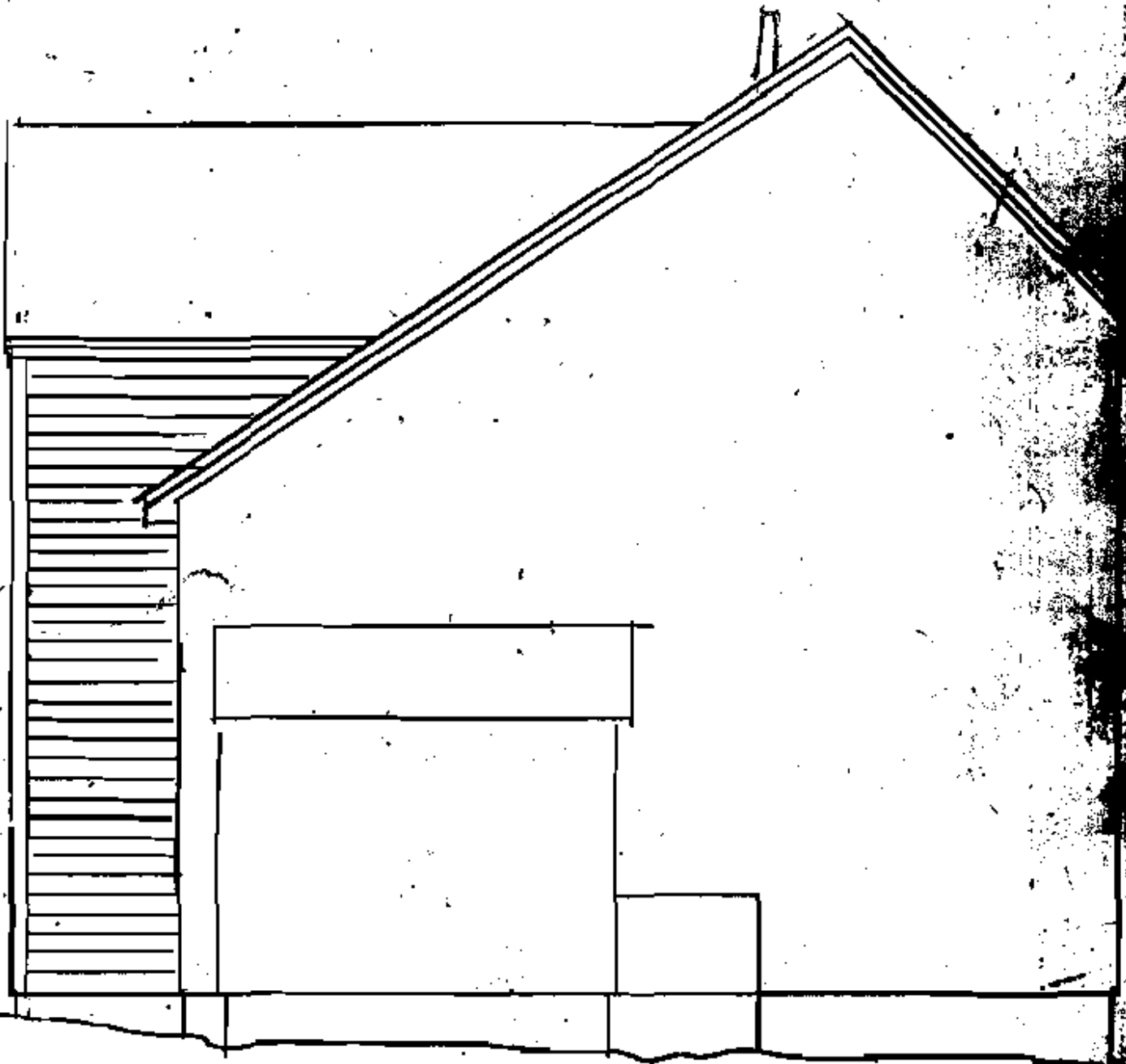
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FRONT ELEVATION

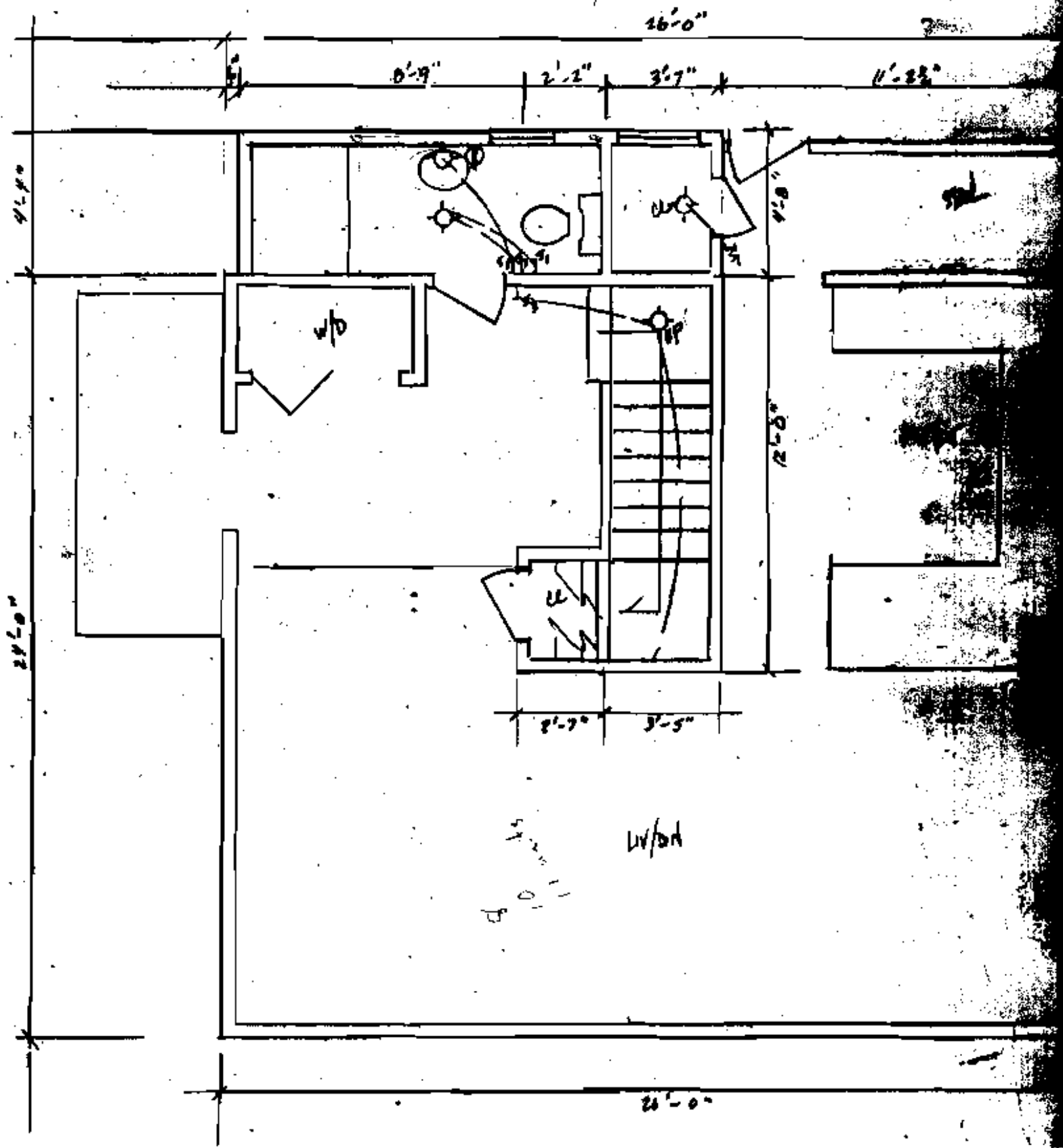
6

[REDACTED]



WEST ELEVATION

[REDACTED]



MAIN FLOOR PLAN  
 SCALE 1/8" = 1'-0"

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

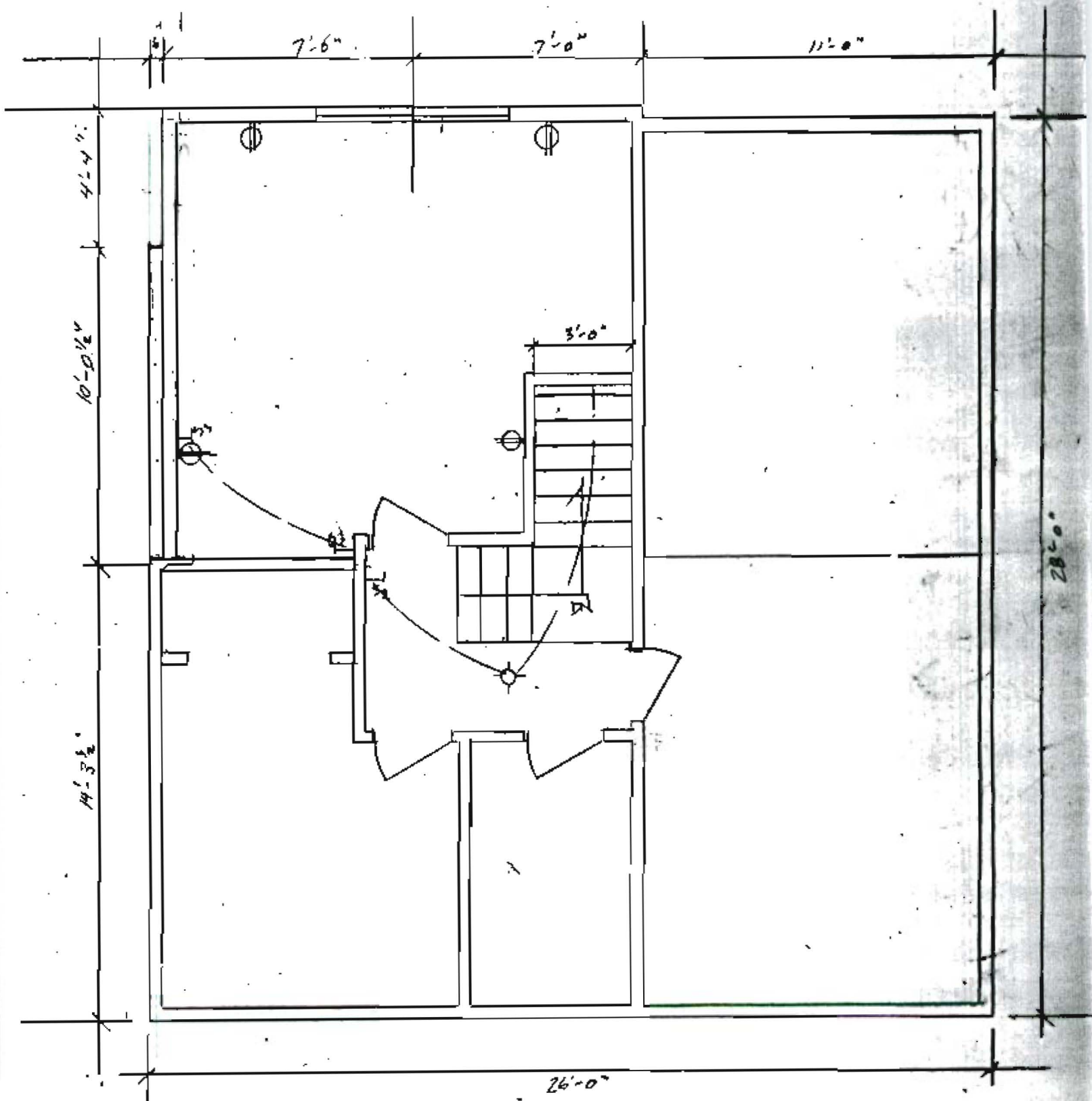
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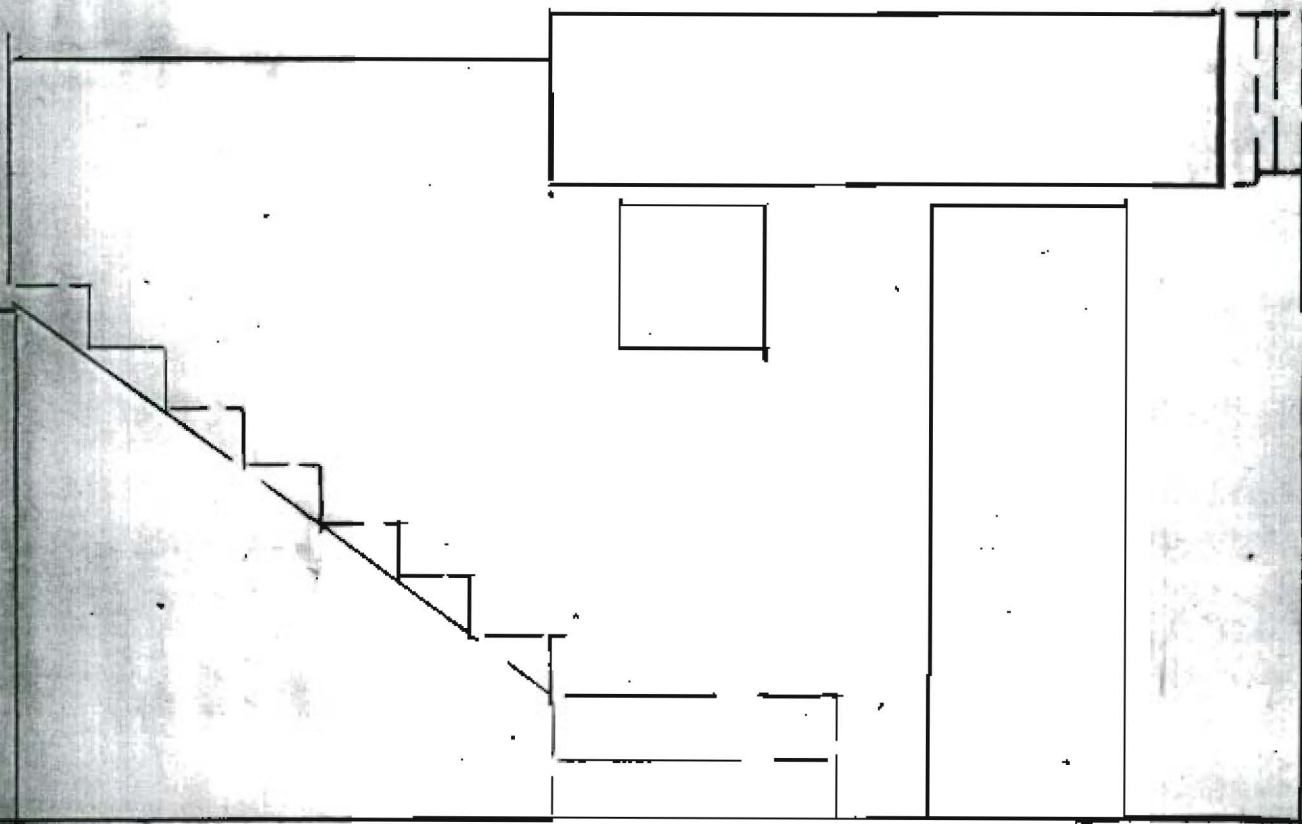
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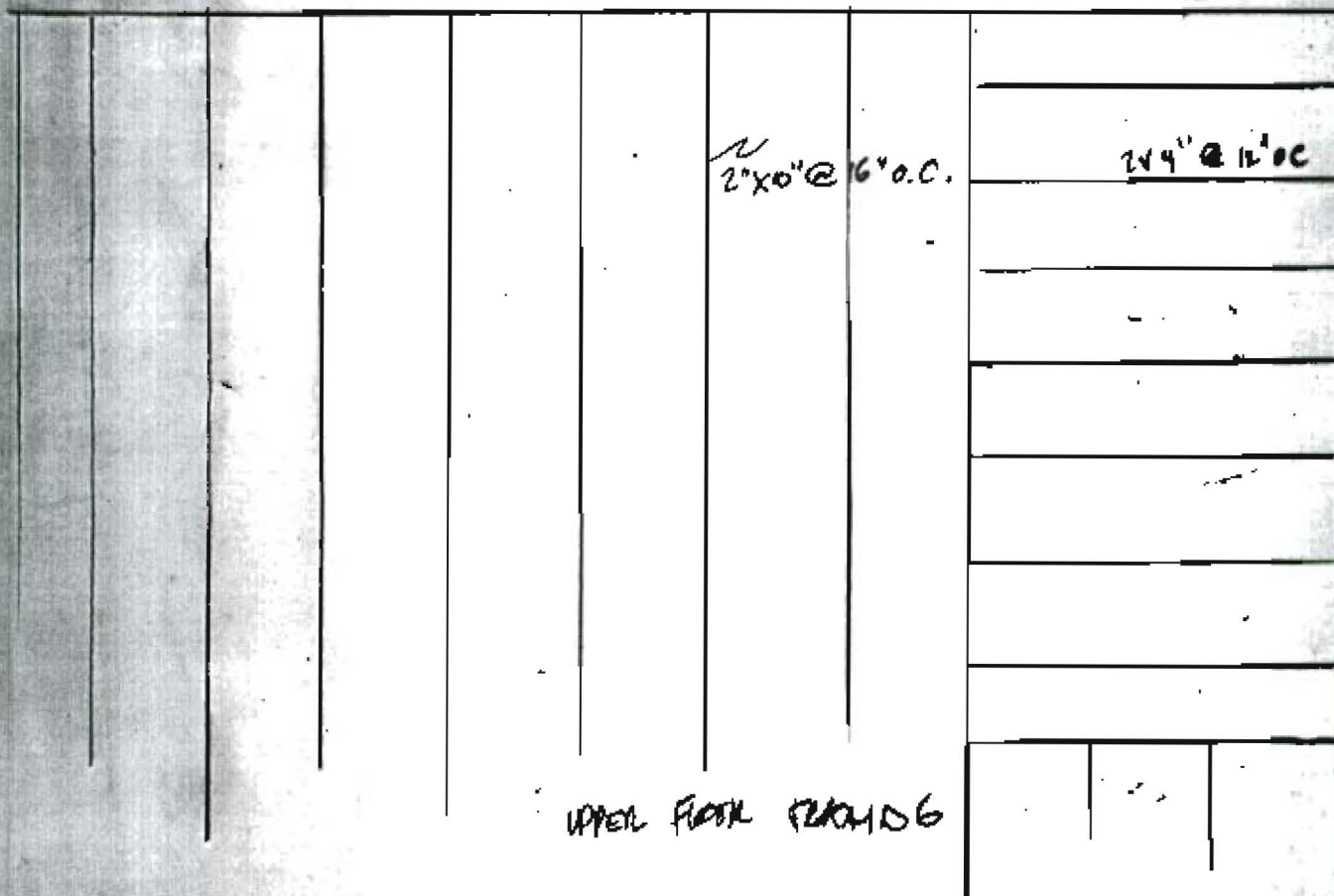


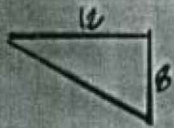


UPPER FLOOR PLAN  
SCALE 1/4" = 1'-0"



add window work





2" x 8" RAFTERS @ 16'

8'-0"

2" x 10" JOISTS @ 16" O.C.

CORNER  
CUTTING  
BOX

2" x 6" @ 16" O.C.

CYC 1/2" BATT

8'-0"

1/2" x 10" JOIST

2" x 6" JOISTS @ 16" O.C.

2" x 6"

1/2" x 10" RAFTERS  
DAMPENER

CURBED STONE

RPPLST6 CAMA Real Property System - Residential Display 5/22/98

RPP092 Parcel Id: 088- - L-011-001 01/01 Acct: M2718099 13:56

Property Address 210 BRACKETT AVE

Owner Name1 MAYO JASON PETER & MARY H JTS (l, f, i)

Name2

Address 210 BRACKETT AVE

City/State/Zip PEAKS ISLAND ME 04108

Entrance Code Land Use 11 # of Units 1

Route 3 Zone IR1 Nbhd 113 District 17 Traffic 1

Total Sq Ft

Utilities 2 6 Desc 88-L-11 Living Area 1,092

BRACKETT AVE

PEAKS ISLAND

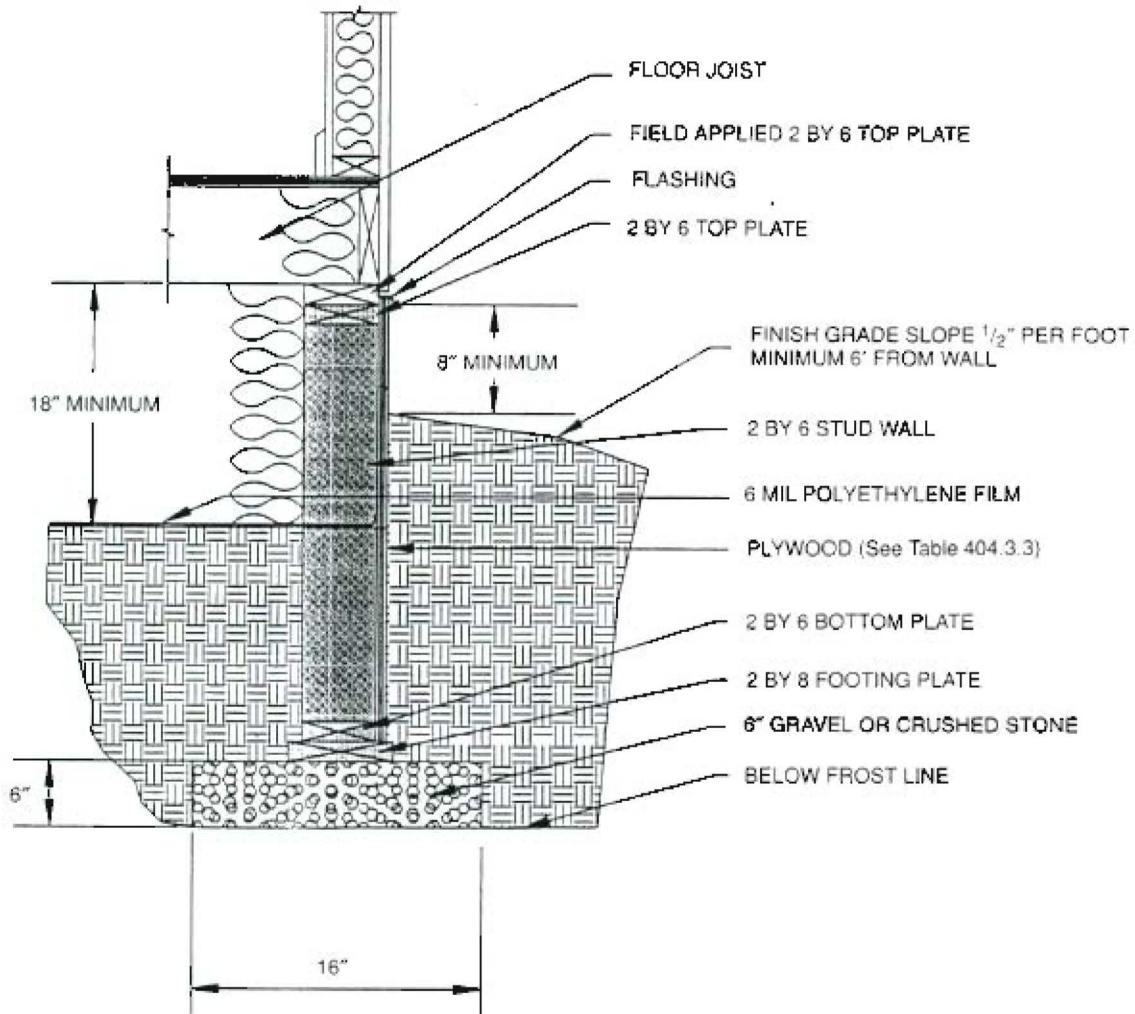
29700 SF

House Style 8 Year Built 1987 Total Rms 04 Total Bedrms 02

Baths Full 1 Half 0 Kitchen Remodeled 2 Bath Remodeled 2 Basement 2

Attic 1 Phy Cond 3 CDU AV Heating Type 2 3 3 Wood/Coal Burn 0

Next Screen [ ] Bldg Sketch Screen [ ] Return [ ]



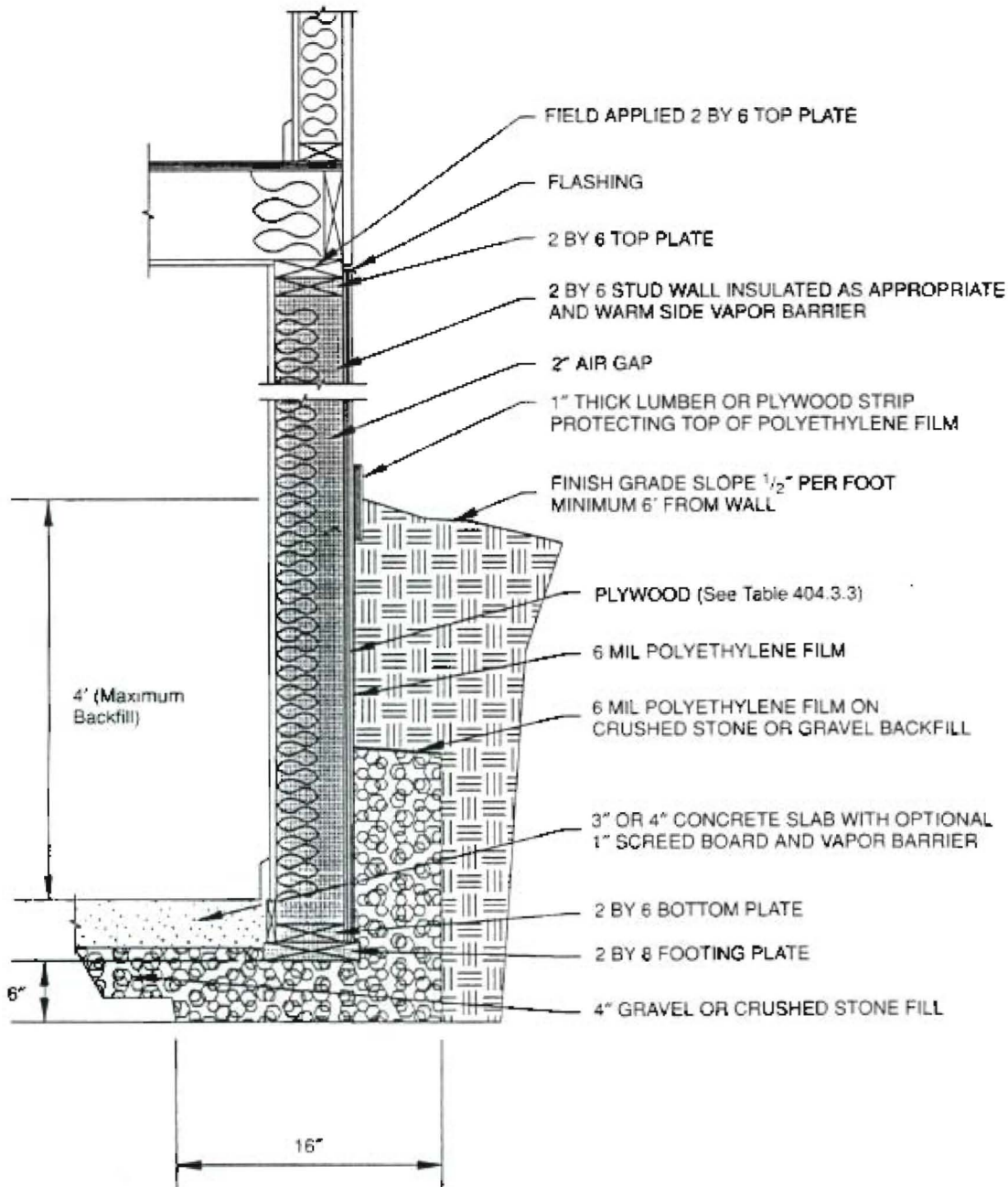
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

**FIGURE 403.1c**  
TYPICAL DETAILS FOR WOOD FOUNDATION CRAWL SPACE WALLS

**TABLE 403.1**  
MINIMUM WIDTH OF CONCRETE OR MASONRY FOOTINGS (Inches)

	LOAD-BEARING VALUE OF SOIL (psf)					
	1,500	2,000	2,500	3,000	3,500	4,000
<b>Conventional Wood Frame Construction</b>						
1-story	16	12	10	8	7	6
2-story	19	15	12	10	8	7
3-story	22	17	14	11	10	9
<b>4-Inch Brick Veneer over Wood Frame or 8-Inch Hollow Concrete Masonry</b>						
1-story	19	15	12	10	8	7
2-story	25	19	15	13	11	10
3-story	31	23	19	16	13	12
<b>8-Inch Solid or Fully Grouted Masonry</b>						
1-story	22	17	13	11	10	9
2-story	31	23	19	16	13	12
3-story	40	30	24	20	17	15

For SI: 1 inch = 25.4 mm, 1 psf = 0.0479 kN/m<sup>2</sup>.



For S1: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

**FIGURE 403.1b**  
TYPICAL DETAILS FOR WOOD FOUNDATION BASEMENT WALLS

**2311.4.5 Clearance:** Clearance between wood siding and earth on the exterior of a building shall not be less than 6 inches (152 mm) except where siding, sheathing and wall framing are of approved *preservative-treated* wood.

**2311.4.6 Posts or columns:** Posts or columns supporting permanent structures and supported by a concrete or masonry slab or footing which is in direct contact with the earth shall be of approved naturally durable or *preservative-treated* wood.

#### Exceptions

1. Posts or columns which are either exposed to the weather or located in *basements* or cellars, supported by concrete piers or metal pedestals projecting at least 1 inch (25 mm) above the slab or deck and 6 inches (152 mm) above exposed earth, and are separated therefrom by an impervious moisture barrier.
2. Posts or columns in enclosed crawl spaces or unexcavated areas located within the periphery of the building, supported by a concrete pier or metal pedestal at a height greater than 8 inches (203 mm) from exposed ground, and are separated therefrom by an impervious moisture barrier.

**2311.5 Wood in contact with the ground:** All wood in contact with the ground (exposed earth) which supports permanent structures that are intended for human occupancy, shall be of approved naturally durable or *preservative-treated* wood using water-borne *preservatives* and shall be treated in accordance with AWPA C2 or C9 listed in Chapter 35 for ground contact, where used in the locations specified in Sections 2311.5.1 and 2311.5.2.

**Exception:** Untreated wood is permitted where such wood is entirely below the ground water level or where continuously submerged in fresh water.

**2311.5.1 Posts or columns:** Sawn posts and columns supporting permanent structures that are intended for human occupancy and which are embedded in concrete in direct contact with the earth or embedded in concrete exposed to the weather, or in direct contact with the earth, shall be of approved *preservative-treated* wood.

**2311.5.2 Wood structural members:** Wood structural members that support moisture-permeable floors or roofs which are exposed to the weather — such as concrete or masonry slabs — shall be of approved naturally durable or *preservative-treated* wood unless separated from such floors or roofs by an impervious moisture barrier.

**2311.6 Geographical areas:** In geographical areas where experience has demonstrated a specific need, approved naturally durable or *preservative-treated* wood shall be utilized for those portions of wood members which form the structural supports of buildings, balconies, porches or similar permanent building *appurtenances* where such members are exposed to the weather without adequate protection from a roof, eave, overhang or other covering to prevent moisture or water accumulation on the surface or at joints between members. Depending on local experience, such members include, but are not limited to, the following:

1. Horizontal members such as girders, joists and decking;

2. Vertical members such as posts, poles and columns; or
3. Both horizontal and vertical members.

**2311.7 Wood used in retaining walls:** Wood installed in retaining or crib walls shall be of approved *preservative-treated* wood treated in accordance with AWPA C2 or C9 listed in Chapter 35 for ground contact, except as indicated in Sections 2311.7.1 through 2311.7.3.

**2311.7.1 Untreated wood:** Where the wall is not more than 2 feet (610 mm) in height and is separated from the *lot line* or a permanent building by a minimum distance equal to the height of the wall, the wall is permitted to be of untreated wood.

**2311.7.2 Naturally durable wood on the lot line:** Where a retaining wall or a crib wall is not more than 2 feet (610 mm) in height and is located on the *lot line*, approved naturally durable wood is permitted.

**2311.7.3 Naturally durable wood separated:** Where a retaining wall or a crib wall is not more than 4 feet (1219 mm) in height and is separated from the *lot line* or a permanent building by a minimum distance equal to the height of the wall, approved naturally durable wood is permitted.

#### SECTION 2312.0 JOIST HANGERS

**2312.1 Test standard:** The vertical loadbearing capacity, torsional moment capacity, and deflection characteristics of joist hangers shall be determined in accordance with ASTM D1761 listed in Chapter 35, using lumber having a specific gravity of 0.49 or greater, but not greater than 0.55, as determined in accordance with AFPA NDS listed in Chapter 35 for the joist and headers.

**2312.2 Vertical load capacity:** The vertical *load* capacity for the joist hanger shall be determined by testing three joist hanger assemblies as specified in ASTM D1761 listed in Chapter 35. If the ultimate vertical load for any one of the tests varies more than 20 percent from the average ultimate vertical load, at least three additional tests shall be conducted. The allowable vertical *load* for a normal *duration of loading* of the joist hanger shall be the lowest value determined from the following:

1. The lowest ultimate vertical load from any test divided by 2.5 (where three tests are conducted and each ultimate vertical load does not vary more than 20 percent from the average ultimate vertical load).
2. The average ultimate vertical load for all tests divided by six (where six or more tests are conducted).
3. The vertical load at which the vertical movement of the joist with respect to the header is 0.125 inch (3 mm) in any test.
4. The allowable design *load* for nails or other fasteners utilized to secure the joist hanger to the wood members.
5. The allowable design *load* for the wood members forming the connection.

**2312.3 Torsional moment capacity:** The torsional moment capacity for the joist hanger shall be determined by testing at least three joist hanger assemblies as specified in ASTM D1761 listed in Chapter 35. The allowable torsional moment for normal *duration of loading* of the joist hanger shall be the average torsional moment at which the lateral movement of the top or

**TABLE 404.1.1a**  
**MINIMUM THICKNESS AND ALLOWABLE DEPTH OF UNBALANCED FILL FOR UNREINFORCED MASONRY AND CONCRETE FOUNDATION WALLS<sup>1,2</sup> WHERE UNSTABLE SOIL OR GROUNDWATER CONDITIONS DO NOT EXIST IN SEISMIC ZONES 0, 1 OR 2**

FOUNDATION WALL CONSTRUCTION	NOMINAL THICKNESS <sup>3</sup> (Inches)	MAXIMUM DEPTH OF UNBALANCED FILL <sup>1</sup> (feet)
Masonry of Hollow Units, UngROUTed	8	4
	10	5
	12	6
Masonry of Solid Units	6	3
	8	5
	10	6
	12	7
Masonry of Hollow or Solid Units, Fully Grouted	8	7
	10	8
	12	8
Plain Concrete	6 <sup>4</sup>	6
	8	7
	10	8
	12	8
Rubble Stone Masonry	16	8
Masonry of hollow units reinforced vertically with No. 4 bars and grout at 24 inches on center. Bars located not less than 4½ inches from pressure side of wall.	8	7

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- <sup>1</sup> Unbalanced fill is the difference in height of the exterior and interior finish ground levels. Where an interior concrete slab is provided, the unbalanced fill shall be measured from the exterior finish ground level to the top of the interior concrete slab.
- <sup>2</sup> The height between lateral supports shall not exceed 8 feet.
- <sup>3</sup> The actual thickness shall not be more than ½ inch less than the required nominal thickness specified in the table.
- <sup>4</sup> Six-inch plain concrete walls shall be formed on both sides.

**TABLE 404.1.1b**  
**REQUIREMENTS FOR MASONRY OR CONCRETE FOUNDATION WALLS SUBJECTED TO NO MORE PRESSURE THAN WOULD BE EXERTED BY BACKFILL HAVING AN EQUIVALENT FLUID WEIGHT OF 30 POUNDS PER CUBIC FOOT LOCATED IN SEISMIC ZONE 3 OR 4 OR SUBJECTED TO UNSTABLE SOIL CONDITIONS**

MATERIAL TYPE	HEIGHT OF UNBALANCED FILL IN FEET <sup>1</sup>	LENGTH OF WALL BETWEEN SUPPORTING MASONRY OR CONCRETE WALLS IN FEET	MINIMUM <sup>2</sup> WALL THICKNESS IN INCHES <sup>3</sup>	REQUIRED REINFORCING	
				Horizontal Bar in Upper 12 inches of Wall	Size and Spacing of Vertical Bars
Hollow Masonry	4 or less	unlimited	8	not required	not required
	more than 4	design required	design required	design required	design required
Concrete or Solid Masonry <sup>4</sup>	4 or less	unlimited	8	not required	not required
	more than 4	less than 8	8	2-No. 3	No. 3 @ 18" o.c.
	8 or less	8 to 10	8	2-No. 4	No. 3 @ 18" o.c.
	8 or less	10 to 12	8	2-No. 5	No. 3 @ 18" o.c.
	more than 8	design required	design required	design required	design required

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per cubic foot (pcf) = 0.1572 kN/m<sup>3</sup>.

- <sup>1</sup> Backfilling shall not be commenced until after the wall is anchored to the floor.
- <sup>2</sup> Thickness of concrete walls may be 6 inches, provided reinforcing is placed not less than 1 inch or more than 2 inches from the face of the wall not against the earth.
- <sup>3</sup> The actual thickness shall not be more than ½ inch less than the required thickness specified in the table.
- <sup>4</sup> Solid masonry shall include solid brick or concrete units and hollow masonry units with all cells grouted.

**404.1.3.1 Backfill placement.** Backfill adjacent to the wall shall not be placed until the wall has sufficient strength and has been anchored to the floor, or has been sufficiently braced to prevent damage by the backfill.

**Exception:** Such bracing is not required for walls having less than 3 feet (914 mm) of unbalanced backfill.

**404.2 Design required.** Foundation walls subject to more lateral pressure than would be exerted by backfill consisting of freely draining sands and gravel classified as Group 1 according to the United States Soil Classification System or soils having and equivalent fluid weight of greater than 30 pounds per cubic foot

(4.72 kN/m<sup>3</sup>) shall be designed in accordance with approved engineering practices.

**404.3 Wood foundation walls.** Wood foundation walls shall be constructed in accordance with the provisions of Sections 404.3.1 through 404.3.5 and with the details shown in Figures 403.1b and 403.1c.

**404.3.1 Wood grade.** All load-bearing lumber and plywood shall conform to applicable standards or grading rules and be identified by a grade mark or certificate of inspection issued by an approved lumber or plywood grading or inspection bureau or agency. Lumber shall conform to DOC PS 20-70.



**TABLE 404.3.3  
PLYWOOD GRADE AND THICKNESS FOR WOOD FOUNDATION CONSTRUCTION  
(30 pcf equivalent-fluid weight soil pressure)**

HEIGHT OF FILL (Inches)	STUD SPACING (Inches)	FACE GRAIN ACROSS STUDS			FACE GRAIN PARALLEL TO STUDS		
		Grade <sup>1</sup>	Minimum Thickness	Identification Index	Grade <sup>1</sup>	Minimum Thickness <sup>2,3</sup>	Identification Index
24	12	B	15/32	32/16	A	15/32	32/16
	16	B	15/32	32/16	B	15/32 <sup>3</sup>	32/16
A					15/32 <sup>3</sup>	32/16	
36	12	B	15/32	32/16	B	19/32 <sup>3</sup> (4, 5 ply)	40/20
					A	15/32	32/16
	16	B	15/32 <sup>3</sup>	32/16	B	15/32 <sup>3</sup> (4, 5 ply)	32/16
					A	19/32 (4, 5 ply)	40/20
48	12	B	15/32 1/2"	32/16	A	19/32	40/20
					B	23/32	48/24
	16	B	19/32 5/8"	40/20	A	15/32 <sup>3</sup>	32/16
					A	19/32 <sup>3</sup> (4, 5 ply)	40/20
					A	19/32 <sup>3</sup>	40/20
					A	23/32	48/24

For SI: 1 inch = 25.4 mm, 1 pound per cubic foot = 0.1572 kN/m<sup>3</sup>.

<sup>1</sup> Plywood shall be of the following minimum grades in accordance with DOC PS 1 or DOC PS 2:

- (i) DOC PS 1 Plywood grades marked:
  - a. Structural I C-D (Exposure 1)
  - b. C-D (Exposure 1)
- (ii) DOC PS 2 Plywood grades marked:
  - a. Structural I Sheathing (Exposure 1)
  - b. Sheathing (Exposure 1)
- (iii) Where a major portion of the wall is exposed above ground and a better appearance is desired, the following plywood grades marked Exterior are suitable:
  - a. Structural I A-C, Structural I B-C or Structural I C-C (Plugged) in accordance with DOC PS 1
  - b. A-C Group 1, B-C Group 1, C-C (Plugged) Group 1 or MDO Group 1 in accordance with DOC PS 1
  - c. Single Floor in accordance with DOC PS 2

<sup>2</sup> Minimum thickness 15/32 inch, except crawl space sheathing may be 3/8 inch for face grain across studs 16 inches on center and maximum 2-foot depth of unequal fill.

<sup>3</sup> For this fill height, thickness and grade combination, panels which are continuous over less stud spacings require blocking 16 inches above the bottom plate. Offset adjacent blocks and fasten through corrosion-resistant nails at each end.

**404.3.2 Stud size.** The studs used in foundation walls shall be 2 by 6 (51 by 153) members. When spaced 16 inches (406 mm) on center, a wood species with an  $F_b$  value of not less than 1,250 (8612 kPa) as listed in Table 502.3.1c shall be used. When spaced 12 inches (305 mm) on center, an  $F_b$  of not less than 875 (6029 kPa) shall be required.

**404.3.3 Height of backfill.** The height of backfill against a foundation wall shall not exceed 4 feet (1219 mm). When the height of fill is more than 12 inches (305 mm) above the interior grade of a crawl space or floor of a basement, the thickness of the plywood sheathing shall meet the requirements of Table 404.3.3.

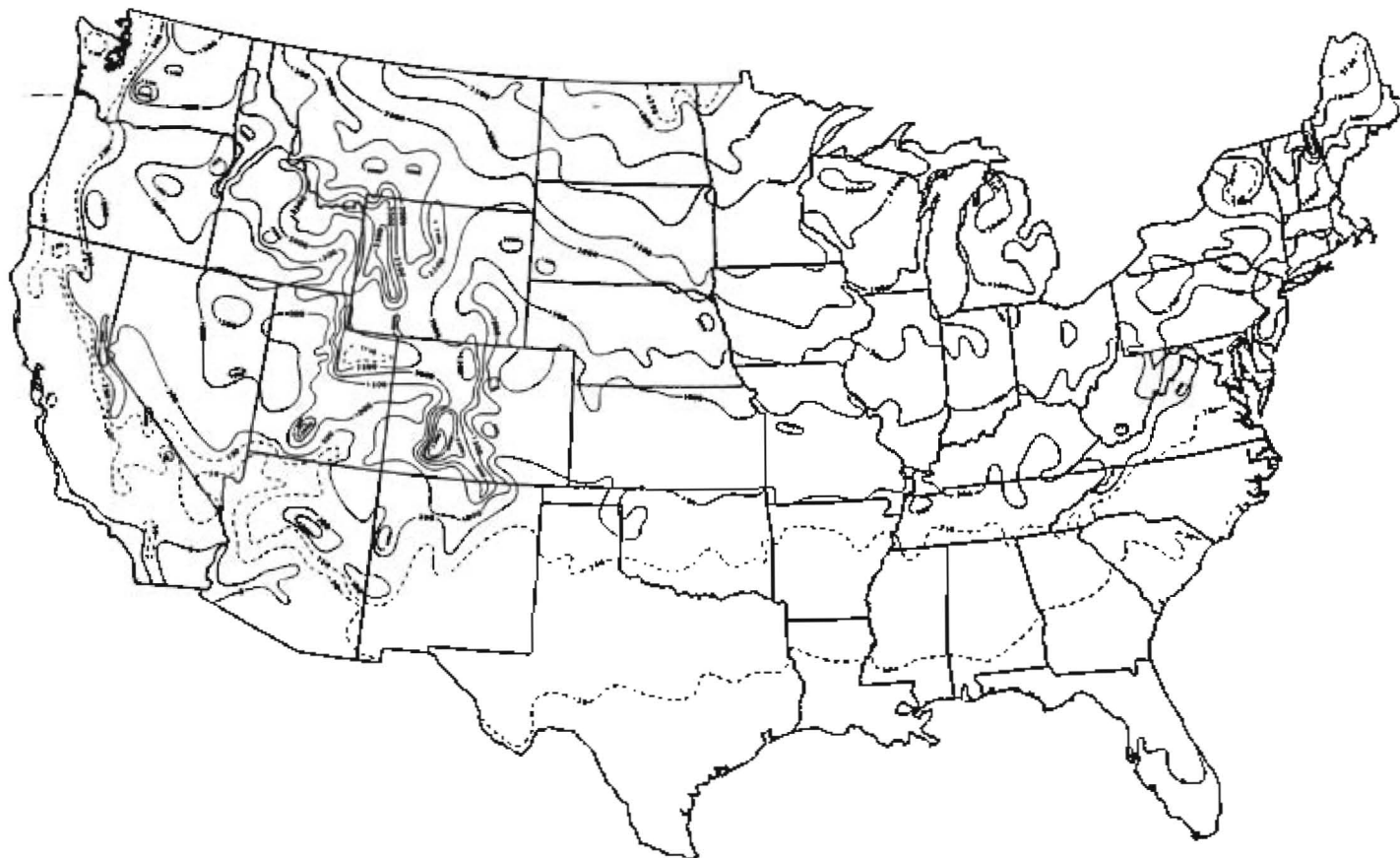
**404.3.4 Backfilling.** Wood foundation walls shall not be backfilled until the basement floor and first floor have been constructed or the walls have been braced. For crawl space construction, backfill or bracing shall be installed on the interior of the walls prior to placing backfill on the exterior.

**404.3.5 Drainage and dampproofing.** Wood foundation basements shall be drained and dampproofed in accordance with Section 405 and Section 406, respectively.

## SECTION 405 FOUNDATION DRAINAGE

**405.1 Concrete or masonry foundations.** Drains shall be provided around all concrete or masonry foundations enclosing habitable or usable spaces located below grade. Drainage tiles, gravel or crushed stone drains, perforated pipe or other approved systems or materials shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into an approved drainage system. Gravel or crushed stone drains shall extend at least 1 foot (305 mm) beyond the outside edge of the footing and 6 inches (153 mm) above the top of the footing and be covered with an approved filter membrane material. The top of open joints of drain tiles shall be protected with strips of building paper, and the drainage tiles or perforated pipe shall be placed on a minimum of 2 inches (51 mm) of washed gravel or crushed rock at least one sieve size larger than the tile joint opening or perforation and covered with not less than 6 inches (153 mm) of the same material.

**Exception:** A drainage system is not required when the foundation is installed on well-drained ground or sand-gravel mixture soils according to the Unified Soil Classification System, Group I Soils, as detailed in Table 405.1.



The air-freezing index is defined as cumulative degree days below 32°F. It is used as a measure of the combined magnitude and duration of air temperature below freezing. The index was computed over a 12-month period (July-June) for each of the 3,044 stations used in the above analysis. Data from the 1951-80 period were fitted to a Weibull probability distribution to produce an estimate of the 100-year return period.

For SI: °F = 1.8°C + 32.

**FIGURE 403.3b**  
**AIR-FREEZING INDEX (°F)**  
An estimate of the 100-year return period

## SECTION 404 FOUNDATION WALLS

**404.1 Concrete and masonry foundation walls.** Foundation walls shall be constructed in accordance with the provisions of this section or in accordance with ACI 318, ACI 318.1, NCMA TR68-A or ACI 530/ASCE 5/TMS 402 or other approved structural systems.

**Exception:** When ACI 530/ASCE 5/TMS 402 is used to design masonry foundation walls, project drawings, typical details and specifications are not required to bear the seal of the architect or engineer responsible for design.

**404.1.1 Masonry and concrete wall construction.** Masonry and concrete foundation walls shall be constructed using the following criteria:

1. Masonry or concrete foundation walls located in Seismic Zone 0, 1 or 2, as established in Table 301.2a, shall be constructed as set forth in Table 404.1.1a.

**Exception:** Where unstable soil conditions exist or where the foundation extends to or below the seasonal high groundwater table, foundation walls shall be constructed in accordance with Table 404.1.1b.

2. Masonry or concrete foundation walls located in Seismic Zone 3 or 4, as established in Table 301.2a, shall be constructed as set forth in Table 404.1.1b.

**404.1.2 Design required.** Foundation walls subject to more pressure than would be exerted by backfill having an equivalent fluid weight of 30 pounds per cubic foot (141 kN/m<sup>3</sup>) shall be designed in accordance with accepted engineering practice.

**404.1.3 Backfill.** Foundation walls shall extend at least 6 inches (153 mm) above the finished grade adjacent to the foundation at all points.

**Exception:** Where masonry veneer is used, foundation walls shall extend a minimum of 4 inches (102 mm) above the finished grade.

TABLE 405.1  
PROPERTIES OF SOILS CLASSIFIED ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM

SOIL GROUP	UNIFIED SOIL CLASSIFICATION SYSTEM SYMBOL	SOIL DESCRIPTION	DRAINAGE CHARACTERISTICS <sup>1</sup>	FROST HEAVE POTENTIAL	VOLUME CHANGE POTENTIAL EXPANSION
Group I	GW	Well-graded gravels, gravel sand mixtures, little or no fines.	Good	Low	Low
	GP	Poorly graded gravels or gravel sand mixtures, little or no fines.	Good	Low	Low
	SW	Well-graded sands, gravelly sands, little or no fines.	Good	Low	Low
	SP	Poorly graded sands or gravelly sands, little or no fines.	Good	Low	Low
	GM	Silty gravels, gravel-sand-silt mixtures.	Good	Medium	Low
	SM	Silty sand, sand-silt mixtures.	Good	Medium	Low
Group II	GC	Clayey gravels, gravel-sand-clay mixtures.	Medium	Medium	Low
	SC	Clayey sands, sand-clay mixture.	Medium	Medium	Low
	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.	Medium	High	Low
	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.	Medium	Medium	Medium <sup>2</sup> to Low
Group III	CH	Inorganic clays of high plasticity, fat clays.	Poor	Medium	High <sup>2</sup>
	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.	Poor	High	High
Group IV	OL	Organic silts and organic silty clays of low plasticity.	Poor	Medium	Medium
	OH	Organic clays of medium to high plasticity, organic silts.	Unsatisfactory	Medium	High
	Pt	Peat and other highly organic soils.	Unsatisfactory	Medium	High

For SI: 1 inch = 25.4 mm.

<sup>1</sup> The percolation rate for good drainage is over 4 inches per hour, medium drainage is 2 to 4 inches per hour, and poor is less than 2 inches per hour.

<sup>2</sup> Dangerous expansion might occur if these two soil types are dry but subject to future wetting.

**405.2 Wood foundations.** Wood foundations enclosing habitable or usable spaces located below grade shall be adequately drained in accordance with Sections 405.2.1 through 405.2.3.

**405.2.1 Base.** A porous layer of gravel, crushed stone or coarse sand shall be placed to a minimum thickness of 4 inches (102 mm) under the basement floor. Provision shall be made for automatic draining of this layer and the gravel or crushed stone wall footings.

**405.2.2 Moisture barrier.** A 6-mil-thick (0.15 mm) polyethylene moisture barrier shall be applied over the porous layer with the basement floor constructed over the polyethylene.

**405.2.3 Drainage system.** In other than Group I soils, a sump shall be provided to drain the porous layer and footings. The sump shall be at least 24 inches (610 mm) in diameter or 20 inches square (0.0129 m<sup>2</sup>), shall extend at least 24 inches (610 mm) below the bottom of the basement floor and shall be capable of positive gravity or mechanical drainage to remove any accumulated water. The drainage system shall discharge into an approved sewer system or to daylight.

## SECTION 406 FOUNDATION WATERPROOFING AND DAMPPROOFING

**406.1 Concrete and masonry foundation dampproofing.** Except where required to be waterproofed by Section 406.2, foundation walls enclosing habitable or storage space shall be dampproofed from the top of the footing to the finished grade. Masonry walls shall be dampproofed by applying not less than  $\frac{3}{8}$  inch (9.5 mm) portland cement parging to the exterior of the

wall. The parging shall be covered with a bituminous coating, 3 pounds per square yard (1.63 kg/m<sup>2</sup>) of acrylic modified cement,  $\frac{1}{8}$ -inch (3.2 mm) coat of surface-bonding mortar complying with ASTM C 887 or any material permitted for waterproofing in Section 406.2. Concrete walls shall be dampproofed by applying any one of the above listed dampproofing materials or any one of the waterproofing materials listed in Section 406.2 to the exterior of the wall.

**406.2 Concrete and masonry foundation waterproofing.** In areas where a high water table or other severe soil-water conditions are known to exist, exterior foundation walls enclosing habitable or storage space shall be waterproofed with a membrane extending from the top of the footing to the finished grade. The membrane shall consist of 2-ply hot-mopped felts, 55 pound (25 kg) roll roofing, 6-mil (0.15 mm) polyvinyl chloride, 6-mil (0.15 mm) polyethylene or 40-mil (1 mm) polymer-modified asphalt. The joints in the membrane shall be lapped and sealed with an adhesive compatible with the waterproofing membrane.

**406.3 Dampproofing for wood foundations.** Wood foundations enclosing habitable or usable spaces located below grade shall be dampproofed in accordance with Sections 406.3.1 through 406.3.5.

**406.3.1 Panel joint sealed.** Plywood panel joints in the foundation walls shall be sealed full length with a caulking compound capable of producing a moistureproof seal under the conditions of temperature and moisture content at which it will be applied and used.

**406.3.2 Below grade moisture barrier.** A 6-mil-thick (0.15 mm) polyethylene film shall be applied over the below-grade portion of exterior foundation walls prior to backfilling. Joints in the polyethylene film shall be lapped 6 inches (153 mm) and

# PLUMBING APPLICATION

Department of Human Services  
Division of Health Engineering

088-L-011

## PROPERTY ADDRESS

Town Or Plantation: Peaks Island  
Street Subdivision Lot #: 210 Brackett Street

## PROPERTY OWNERS NAME

Last: Mayo First: Peter

Applicant Name: GARY Turner

Mailing Address of Owner/Applicant (If Different): 467 Greely Rd Ext. Cumberland Ctr. Me 04021

PORTLAND PERMIT # 6570 STATE COPY

Date Permit Issued: 8.13.98 \$ 112.00  Double Fee Charged

L.P.I. # 01124

TRB  
Local Plumbing Inspector Signature

## Owner/Applicant Statement

I certify that the information submitted is correct to the best of my knowledge and understanding that any falsification is reason for the Local Plumbing Inspector to deny a Permit.

Gary Turner  
Signature of Owner/Applicant Date: 8/13/98

## Caution: Inspection Required

I have inspected the installation authorized above and found it to be in compliance with the Maine Plumbing Rules.

Local Plumbing Inspector Signature: \_\_\_\_\_ Date Approved: \_\_\_\_\_

## PERMIT INFORMATION

### This Application is for

1.  NEW PLUMBING
2.  RELOCATED PLUMBING

### Type Of Structure To Be Served:

1.  SINGLE FAMILY DWELLING
2.  MODULAR OR MOBILE HOME
3.  MULTIPLE FAMILY DWELLING
4.  OTHER — SPECIFY \_\_\_\_\_

### Plumbing To Be Installed By:

1.  MASTER PLUMBER
2.  OIL BURNERMAN
3.  MFG'D. HOUSING DEALER / MECHANIC
4.  PUBLIC UTILITY EMPLOYEE
5.  PROPERTY OWNER

LICENSE # 24911

Hook-Up & Piping Relocation Maximum of 1 Hook-Up	Column 2 Number      Type of Fixture	Column 1 Number      Type of Fixture
<p><b>HOOK-UP:</b> to public sewer in those cases where the connection is not regulated and inspected by the local Sanitary District.</p> <p style="text-align: center; font-size: 2em;"><b>OR</b></p> <p><b>HOOK-UP:</b> to an existing subsurface wastewater disposal system.</p>		
<p><b>PIPING RELOCATION:</b> of sanitary lines, drains, and piping without new fixtures.</p>		
<p style="font-size: 2em;"><b>OR</b></p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> <p>TRANSFER FEE (\$6.00)</p> </div> <p style="text-align: center; font-weight: bold;">SEE PERMIT FEE SCHEDULE FOR CALCULATING FEE</p>	Hosebibb / Sillcock	Bathtub (and Shower)
	Floor Drain	Shower (Separate)
	Urinal	Sink
	Drinking Fountain	Wash Basin
	Indirect Waste	Water Closet (Toilet)
	Water Treatment Softener, Filter, etc.	Clothes Washer
	Grease / Oil Separator	Dish Washer
	Dental Cuspidor	Garbage Disposal
	Bidet	Laundry Tub
	Other: _____	Water Heater
<b>Fixtures (Subtotal) Column 2</b>	<b>5</b>	<b>Fixtures (Subtotal) Column 1</b>
	<b>0</b>	<b>Fixtures (Subtotal) Column 2</b>
	<b>5</b>	<b>Total Fixtures</b>
	\$	<b>Fixture Fee</b>
	\$	<b>Transfer Fee</b>
	\$	<b>Hook-Up &amp; Relocation Fee</b>
	\$ <b>20.</b>	<b>Permit Fee (Total)</b>