

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

Location of Construction: *** 108 Westminster Ave Portland 04103		Owner: John Gazy		Phone: 772-3958		Permit No: 991089	
Owner Address: SAA		Lessee/Buyer's Name:		Phone:		BusinessName:	
Contractor Name: American Profiles		Address: 20 Blaine Street Manchester NH		Phone: 800-639-7902		Permit Issued: ISSUED OCT 1 1999	
Past Use: 1-Family		Proposed Use: Same		COST OF WORK: \$ 10,000		PERMIT FEE: \$ 84.00	
				FIRE DEPT. <input type="checkbox"/> Approved <input type="checkbox"/> Denied		INSPECTION: Use Group B3 Type SB BOCA 96	
				Signature:		Signature: <i>Huffman</i>	
Proposed Project Description: 3 season 9x10 sun room and 6x5 deck				PEDESTRIAN ACTIVITIES DISTRICT (PAD.)		Zone: 181-B-012	
				Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved with Conditions <input type="checkbox"/> Denied		Zoning Approval: 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 <input type="checkbox"/>	
Permit Taken By: UB		Date Applied For: September 20 1999 K					

1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal rules.
2. Building permits do not include plumbing, septic or electrical work.
3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..

Call Pick up American Profiles 1-800-639-7903

**PERMIT ISSUED
WITH REQUIREMENTS**

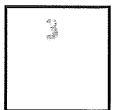
CERTIFICATION

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 provisions of the code(s) applicable to such permit

SIGNATURE OF APPLICANT	ADDRESS:	DATE: 9/20/99	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



COMMENTS

8/20/24. all work has been completed & appears to meet permit requirements. JMK

Close out → CBLA 181-B-12
Permit # 99-1089

Inspection Record	
Type	Date
Foundation: _____	_____
Framing: _____	_____
Plumbing: _____	_____
Final: _____	_____
Other: _____	_____

BUILDING PERMIT REPORT

20 Sept. 99 ADDRESS: 108 Westminster Ave. CBL: 181-B-012
 SON FOR PERMIT: 9'x10' Sunroom 6'x5' deck
 BUILDING OWNER: John Gray
 PERMIT APPLICANT: Contractor American Profiles
 USE GROUP R-3 CONSTRUCTION TYPE 5B

The City's Adopted Building Code (The BOCA National Building Code/1996 with City Amendments)
 The City's Adopted Mechanical Code (The BOCA National Mechanical Code/1993)

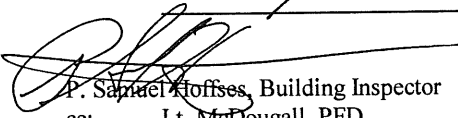
CONDITION(S) OF APPROVAL

This permit is being issued with the understanding that the following conditions are met: *1, *2, *11, *12, *13,

Approved with the following conditions:

- *1. This permit does not excuse the applicant from meeting applicable State and Federal rules and laws.
- *2. Before concrete for foundation is placed, approvals from the Development Review Coordinator and Inspection Services must be obtained. (A 24 hour notice is required prior to inspection) **"ALL LOT LINES SHALL BE CLEARLY MARKED BEFORE CALLING."**
- 3. Foundation drain shall be placed around the perimeter of a foundation that consists of gravel or crushed stone containing not more than 10 percent material that passes through a No. 4 sieve. The drain shall extend a minimum of 12 inches beyond the outside edge of the footing. The thickness shall be such that the bottom of the drain is not higher than the bottom of the base under the floor, and that the top of the drain is not less than 6 inches above the top of the footing. The top of the drain shall be covered with an approved filter membrane material. Where a drain tile or perforated pipe is used, the invert of the pipe or tile shall not be higher than the floor elevation. The top of joints or top of perforations shall be protected with an approved filter membrane material. The pipe or tile shall be placed on not less than 2" of gravel or crushed stone, and shall be covered with not less than 6" of the same material. Section 1813.5.2
- 4. Foundations anchors shall be a minimum of 1/2" in diameter, 7" into the foundation wall, minimum of 12" from corners of foundation and a maximum 6' o.c. between bolts. (Section 2305.17)
- 5. Waterproofing and dampproofing shall be done in accordance with Section 1813.0 of the building code.
- 6. Precaution must be taken to protect concrete from freezing. Section 1908.0
- 7. 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.
- 8. 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 1/2 inch gypsum board or the equivalent applied to the garage means of 1/2 inch gypsum board or the equivalent applied to the garage side. (Chapter 4, Section 407.0 of the BOCA/1996)
- 9. 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). Chapter 12 & NFPA 211
- 10. Sound transmission control in residential building shall be done in accordance with Chapter 12, Section 1214.0 of the City's Building Code.
- *11. 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 3e4" 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". (Sections 1021 & 1022.0) - Handrails shall be on both sides of stairway. (Section 1014.7)
- *12. Headroom in habitable space is a minimum of 7'6". (Section 1204.0)
- *13. 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. (Section 1014.0)
- 14. The minimum headroom in all parts of a stairway shall not be less than 80 inches. (6'8") 1014.4
- 15. 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. (Section 1018.6)

16. 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. (Section 1010.1)
17. All vertical openings shall be enclosed with construction having a fire rating of at least one (1) hour, including fire doors with self closer's. (Over 3 stories in height requirements for fire rating is two (2) hours.) (Section 710.0)
18. The boiler shall be protected by enclosing with (1)hour fire rated construction including fire doors and ceiling, or by providing automatic extinguishment. (Table 302.1.1)
19. 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 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) Section 920.3.2.
20. 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. (Section 921.0)
21. The Fire Alarm System shall maintained to NFPA #72 Standard.
22. The Sprinkler System shall maintained to NFPA #13 Standard.
23. All exit signs, lights and means of egress lighting shall be done in accordance with Chapter 10 Section & Subsections 1023.0 & 1024.0 of the City's Building Code. (The BOCA National Building Code/1996)
24. 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".
25. 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 the Division of Inspection Services.
26. Ventilation shall meet the requirements of Chapter 12 Sections 1210.0 of the City's Building Code. (Crawl spaces & attics).
27. All electrical, plumbing and HVAC permits must be obtained by a Master Licensed holders of their trade. **No closing in of walls until all electrical (min.72 hours notice) and plumbing inspections have been done.**
28. All requirements must be met before a final Certificate of Occupancy is issued.
- *29. 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).
30. Ventilation of spaces within a building shall be done in accordance with the City's Mechanical Code (The BOCA National Mechanical Code/1993). (Chapter M-16)
31. Please read and implement the attached Land Use Zoning report requirements.
- *32. Boring, cutting and notching shall be done in accordance with Sections 2305.4.4, 2305.5.1 and 2305.5.3 of the City's Building Code.
33. Glass and glazing shall meet the requirements of Chapter 24 of the building code.
34. All signage, shall be done in accordance with Section 3102.0 signs of the City's Building Code, (The BOCA National Building Code 1996).
- *35. *The proposed pier Foundation shall be placed on Footings with Fasteners between The Two. Also Fasteners shall be used between piers and columns & deck Framing.*
- A36 *Care shall be Taken in where The Two roof Framing members Connect - the proposed roof shall have full bearing on The Dwellings wall.*


 P. Samuel Hoffes, Building Inspector
 cc: Lt. McDougall, PFD
 Marge Schmuckal, Zoning Administrator

PSH 7/24/99

****On the basis of plans submitted and conditions placed on these plans any deviations shall require a separate approval.**

AFFIDAVIT

I, the undersigned, the owner of the property at 108 Westminster Ave
hereby verify that I have authorized Lee Stephens/American Profiles to apply to the
Building Department of the City of Portland, OR
City State
to act as agent obtaining building permit and, or any zoning requirements needed to obtain
permits.

Signature of Owner X John E. Gray
X John Gray

Address of Owner 108 Westminster Ave

Date 8/3/99

100 - Please report this installed ASAP! They're

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.

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

Location/Address of Construction: <u>108 Westminister Ave</u> <u>04103</u>
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Tax Assessor's Chart, Block & Lot Number Chart# <u>181</u> Block# <u>B</u> Lot# <u>012</u>	Owner: XXXX <u>John/Teann Gray</u>	Telephone#: <u>772-3458</u>
Owner's Address: <u>108 Westminister</u>	Lessee/Buyer's Name (If Applicable):	Cost Of Work: <u>\$10,000</u> Fee: <u>\$84</u>

Proposed Project Description:(Please be as specific as possible)
build 3 season 9'x10' sun Room (pre Fgb Alum) and 6'x5' PT Deck

Contractor's Name, Address & Telephone call for P/U 800-639-7902 Rec'd By: UB
American Profiles 20 Blaine St Manchester NH 03102 800-639-7902

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)

**call for P/U
American Profiles
800-639-7902*

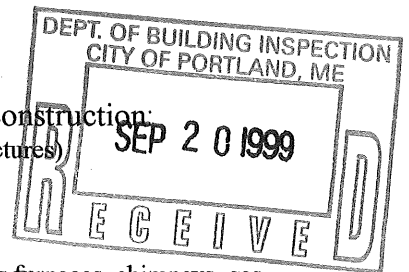
If there is expansion to the structure, a complete plot plan (Site Plan) must include:

- The shape and dimension of the lot, all existing buildings (if any), the proposed structure and the distance from the actual property lines. Structures include decks porches, a bow windows cantilever sections and roof overhangs, as well as, sheds, 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

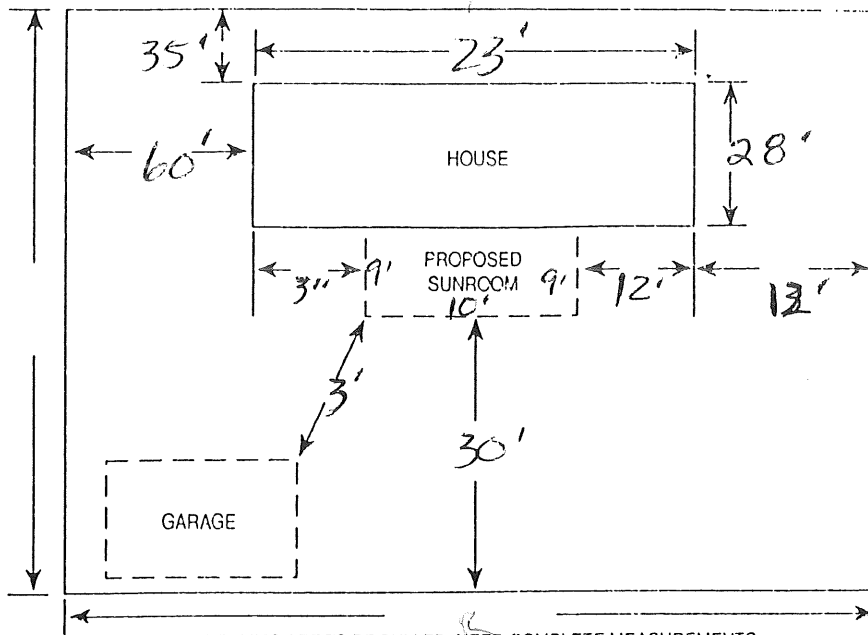
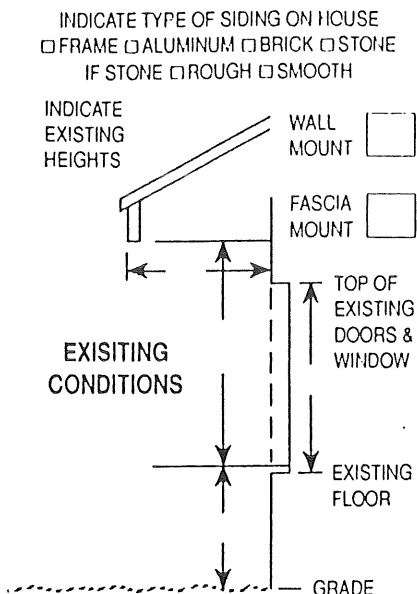
I hereby certify that I am the Owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, 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: <u>[Signature]</u>	Date: <u>9-23-99</u>
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Building Permit Fee: \$30.00 for the 1st \$1000.cost plus \$6.00 per \$1,000.00 construction cost thereafter.

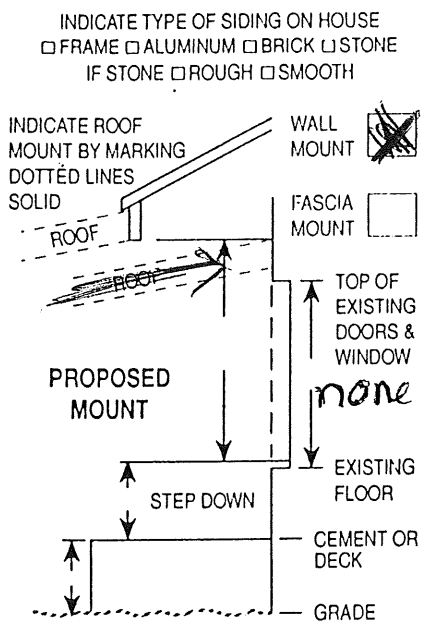
4. *If no mortgage survey -- all dimensions are required.

1.

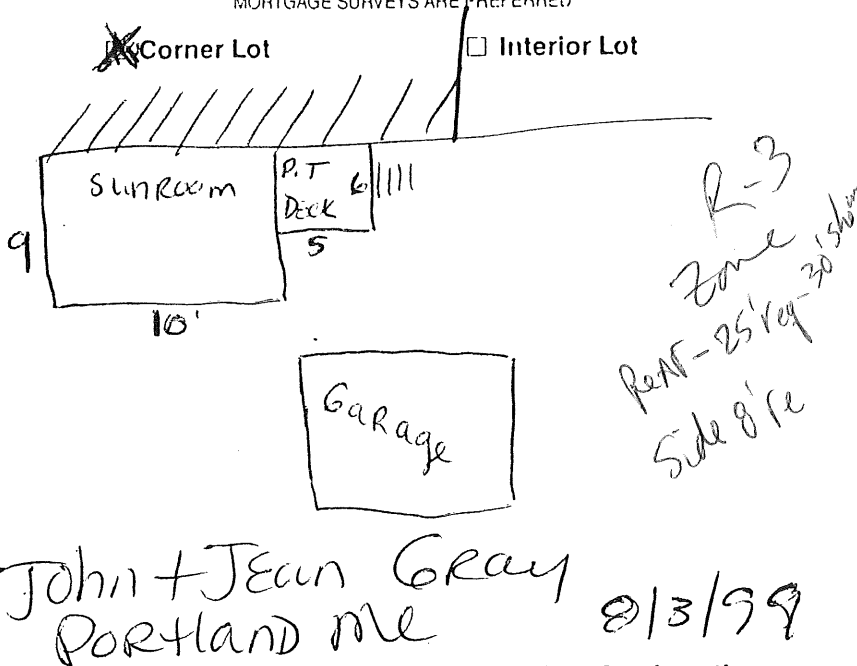


IF PERMITS ARE TO BE PULLED, NEED COMPLETE MEASUREMENTS.
 MORTGAGE SURVEYS ARE PREFERRED

2.



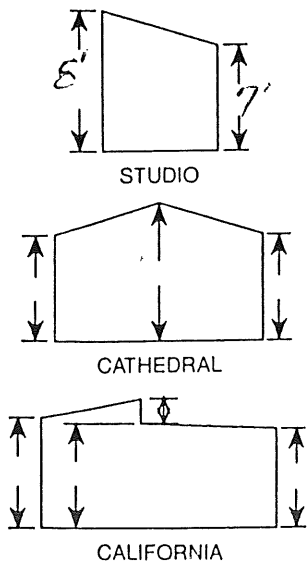
5.



Draw Layout of Room — Door Locations, Skylights, Spa Location

- Locate breakthrough and size
- Dimension existing slabs, sidewalks and steps
- Identify interior room being enclosed
- Locate existing pool

3.

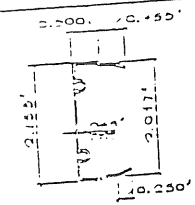


6. SURVEY CHECKLIST

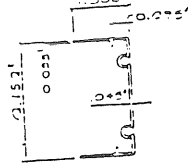
- Mortgage survey
- Existing footings
- Necessary photos for access into rear yard
- Photo of electric panel and meter
- Steps by:
 - Homeowner
 - Tony V's

EXISTING CONDITIONS:

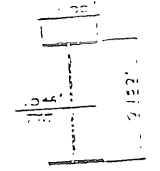
- Overhead lines
- H2O Spicket
- Dryer Vent
- A/C
- Septic Lines
- Lights
- Tree
- Sprinkler lines
- BBQ
- Cable
- Phone
- Existing Home Slab Crawl Basement
- What condition is existing roof on home? _____
- Overhead meter
- Underground meter
- Move required



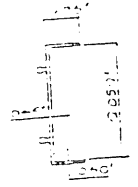
STANDARD MALE (1)



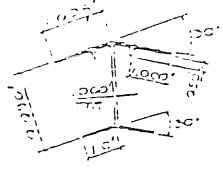
STANDARD FEMALE (2)



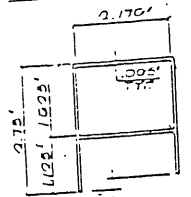
1/4" CHANNEL (3)



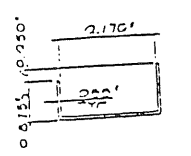
PANEL ADAPTOR (4)



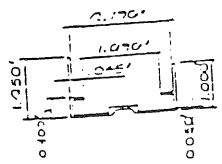
BOTTOM MULLION (5)



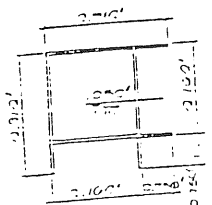
BEARING EXPANDER (6)



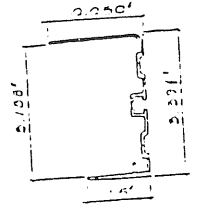
1" EXPANDER (7)



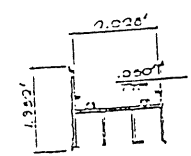
BASE EXPANDER (8)



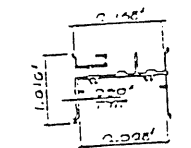
CORNER MULLION (9)



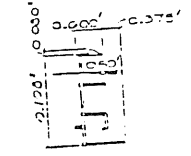
HANGING RAIL (10)



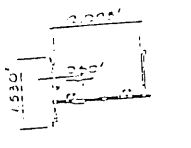
WINDOW HEAD (11)



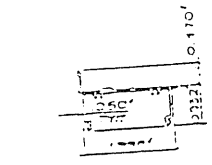
WINDOW SILL (12)



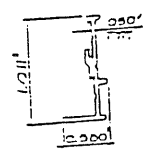
WINDOW JAMB (13)



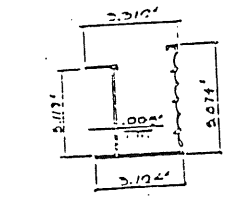
TRANSON HEAD (14)



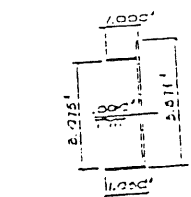
TRANSON SILL (15)



TRANSON JAMB (16)



PANEL GUTTER (17)



PANEL FASCIA (18)

GENERAL NOTES & SPECIFICATIONS

- THIS PATIO COVER & ENCLOSURE SYSTEM IS LIMITED TO RECREATION AND OUTDOOR LIVING PLANTINGS AND IS NOT TO BE USED AS A CARPORT, GARAGE, OR HABITABLE ROOM.
- THIS ENCLOSURE SYSTEM IS TO BE INSTALLED UNDER THE PATIO COVER ADD'N PANEL SHOWN ON DRAWING NO. 3501.
- DESIGN LOADS: SEE TABLES FOR DESIGN LOADS.
- FASTENERS: 1/4" DIA. BOLT, WHERE SHOWN, SHALL BE 5000 ALUMINUM BOLT WITH CHADON STEEL PLATED HANDBOL ALUMINUM NUTS OF THE U.S.C. CODE. SHEET METAL ANCHORS MANUFACTURED BY THE U.S.C. CODE SHALL BE 304 STAINLESS STEEL. ZINC PLATED, GALVANIZED STEEL OR 3024-T4 ALUMINUM.
- ALL STRUCTURAL COMPONENTS OF THIS ENCLOSURE SYSTEM (EXCEPT SOLID PANELS) ARE OF ALUM. TEMPER SYSTEM 6063-T6 UNLESS SPECIFICALLY NOTED OTHERWISE.
- THE SOLID WALL PANELS SHOWN SHALL COMPLY WITH A CURRENTLY RECOGNIZED I.C.S.O. EVALUATION SERVICE INC. REPORT. ALL EXTERIOR PORTIONS OF THE SOLID WALL PANEL WHICH ARE SUBJECT TO WATER INTRUSION SHALL BE FULLY CAULKED.
- WHERE ENCLOSURE IS REQUIRED TO BE LEFT OPEN IN SECTION 3110, THE OPEN AREA OF THE LOWER PER AND ONE ADDITIONAL WALL SHALL BE A MINIMUM OF 35 PERCENT OF THE AREA BELOW A MINIMUM OF 3 FEET 6 INCHES OF EACH WALL, MEASURED FROM THE FLOOR. IF OPEN IS DEFINED AS INSECT SCREENING AND/OR REMOVABLE TRANSPARENT OR TRANSLUCENT PLASTIC NOT MORE THAN 1/8 OF ANCH IN THICKNESS. SEE NOTE #8 BELOW FOR OPTIONAL GLAZING.
- PORTIONS OF THE WALL NOT REQUIRED TO BE PLASTIC (SEE NOTE #7 ABOVE) MAY BE GLASS THAT COMPLIES WITH CHAPTER 24 OF THE UNIFORM BUILDING CODE, WHEN APPROVED BY THE BUILDING OFFICIAL. GLASS COMPLIING WITH CHAPTER 24 OF THE CODE MAY BE SUBSTITUTED BY THE PLASTIC INDICATED IN NOTE #7, AS SUBSTITUTED BY SECTION 102.3 OF THE CODE FOR EQUIVALENT MATERIALS OF CONSTRUCTION. (* SEE NOTE #13)
- BACK PATIO COVER & ENCLOSURE SYSTEM SHALL HAVE PERMANENTLY AFFIXED AN IDENTIFICATION TAG GIVING THE NAME & ADDRESS OF THE MANUFACTURER, DESIGN LOADS, AND I.C.S.O. E.S. REPORT NO.
- THE BEARING SYSTEM MULLIONS HAVE BEEN DESIGNED FOR LOAD COMBINATIONS REQUIRED BY CHAPTER 16 OF THE UNIFORM BUILDING CODE.
- ALL ALUMINUM IN CONTACT WITH DISSIMILAR MATERIALS SHALL BE PROTECTED PER U.S.C. SECTION 0011.02.
- EXPANSION ANCHORS SHALL BE RAWL-BLIND ANCHORS OR EQUIVALENT PER I.C.S.O. EVALUATION REPORT 1020M. 1/4" ANCHORS SHALL HAVE A MINIMUM TENSION VALUE (IN CONCRETE) OF 300 POUNDS. THE 3/8" ANCHORS SHALL HAVE A MINIMUM TENSION VALUE (IN CONCRETE) OF 500 POUNDS.
- TEMPERED GLASS WITH A THICKNESS NOT TO EXCEED 1/2 INCHES IS AN ACCEPTABLE ALTERNATE TO PLASTIC INDICATED IN NOTE #7. ALL TEMPERED GLASS SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 24 OF THE U.S.C. (* I.C.S.O. EVALUATION SERVICE, INC. ACCEPTABLE).

Terno Inc.
 ENCLOSURE SYSTEM
 PARTS DETAIL 9
 350

DATE: 97W202 01/15/97

MIN. 24" SNOW & ICE SHIELD

36" METAL FLASHING

SHINGLES OVER 50# FELT WHICH EXTENDS 12" BEYOND INSIDE FACE OF EXTERIOR WALL

METAL FLASHING (SEE DETAIL AT LEFT)

check bearing

EXISTING ROOF (WHERE APPLICABLE)

TRMO FLOOR PANEL (12" MAX. OVERHANG) SIZE PER FTG. PLAN

8'-0"

EXISTING HOUSE

TRMO ROOF

(2) 1 1/2" SCREWS PER PANEL SECTION INTO STRONGBACKS

EXTERIOR WALL

1 1/2" SCREWS INTO EACH STRONGBACK

SKIRT FLASHING

12" MAX.

(2) 2 x P.T. STRONGBACK FULL DECK LENGTH W/(2) 1/4" x 8" THRU BOLTS OR (4) 1/4" x 3" LAG SCREWS (2 EACH SIDE OF POST)

4 x 4 P.T. POST (SEE PLAN FOR SPACING)

GRADE

2 x 4 LAGGED TO 2 x LEDGER (SEE PLAN FOR SIZE) FASTENED TO EXIST. BLDG. PER MANUF. SPEC'S (BASED ON EXIST. CONDITIONS)

concrete BACKFILL 8" MIN. 8" DIA. CONC. PIER BASE

48" (FROST DEPTH)

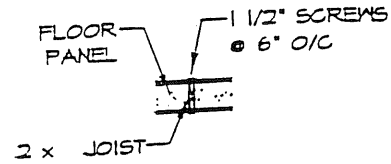
concrete

WOOD FRAME 1/2" x 4" LAG SCREWS @ 16" O/C STAGGERED.

BRICK - CUT NAILS @ 24" O/C W/1/4" x 3 1/2" EXPAN. ANCHOR @ 24" O/C STAGGERED INTO MORTAR JOINTS

NOTE: WHERE NO PIERS ARE SET NEAR EXISTING HOUSE (AS SHOWN) LEDGER ATTACHMENT TO EXIST. WALLS SHALL BE THRU-BOLTED TO FRAME OF STRUCTURE

NOTE: ALL STRUCTURAL LUMBER TO BE PRESSURE TREATED



PANEL SPLICE DETAIL

SECTION 'A'

1" LAYER OF PEA STONE ON 6" MIL VAPOR BARRIER

REVISIONS	DATE	PH. ()	CLIENT/PROJ.	SCALE: NONE

DRAWN BY: DAVID CENTORBI CK'D BY: MEASURED BY: DATE:

**ALLOWABLE TRANSVERSE LOADS (PSF)
FOR STRUCTURAL INSULATED PANELS**

Panels are made of two equal layers of APA rated sheathing, either OSB or 5-ply plywood. The core is nominal 1.0 pcf density (min. 0.9 pcf) EPS (expanded polystyrene foam) adhered to the sheathing with glue and set under pressure. Each panel has splines that are nailed to the skin as described below.

SPLINE PARAMETERS					
Spline Configuration	Spline spacing	Spline material		Spline nailing	
Single Spline	48 " o/c	SYP #2		6d @ 6"o/c	
STRUCTURAL INSULATED PANEL DIMENSIONS					
Skin thickness	7/16"	7/16"	7/16"	7/16"	7/16"
Core thickness	3-5/8"	5-5/8"	7-3/8"	9-3/8"	11-3/8"
Panel depth	4 -1/2"	6 -1/2"	8 -1/4"	10-1/4"	12-1/4"
Spline size	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12
SPAN (ft)	ALLOWABLE TRANSVERSE LOAD (psf)				
4	145	224	297	387	481
5	116	179	238	309	385
6	96	149	198	258	321
7	83	128	170	221	275
8	72	112	149	193	241
9	64	99	132	172	214
10	50	89	119	155	193
11	39	81	108	141	175
12	31	67	99	129	160
13	25	54	88	119	148
14	20	44	72	110	138
15	17	37	61	94	128
16	14	31	51	80	114
17		26	43	68	98
18		22	37	58	84
19		19	32	51	73
20		17	28	44	64
21		15	24	38	56
22		13	21	34	49
23			19	30	44
24			17	27	39
25			15	24	35
26			13	21	31
27				19	28
28				17	25

Deflection criterion of L/360 was used. Some allowable loads are not based on deflections. No multipliers for other deflection criteria are allowed. All values are for normal duration loads. No increases for other durations are allowed.

Table T.6 - Transverse Loads on Splined S.I. Panels

12/20/92

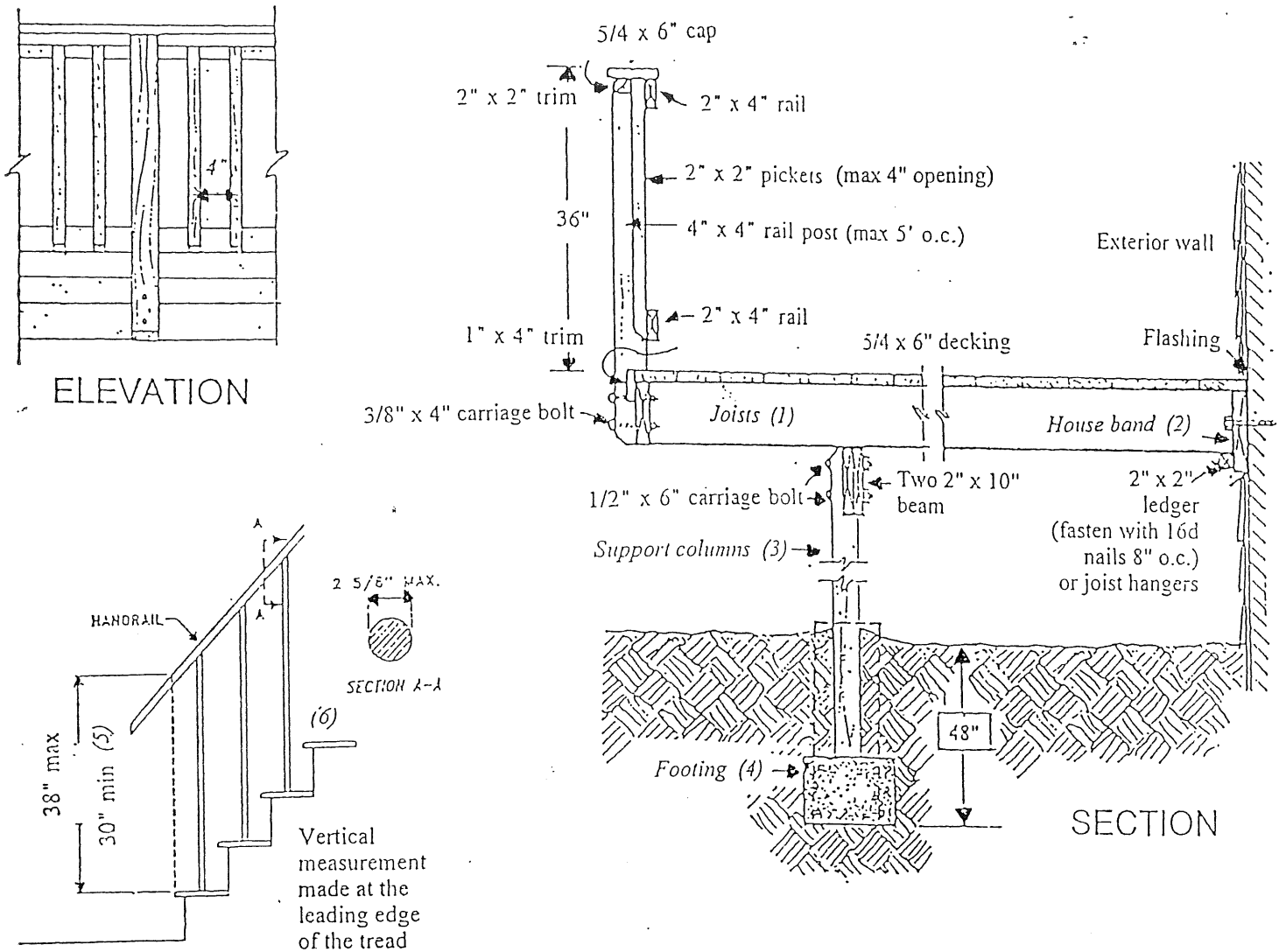
6d @ 6"o/c
SYP #2
Single Spline
7/16" skin
Transverse Load



Typical Deck and Rail Details

1 and 2 Family Dwellings

If the deck you wish to build will be significantly different than the one duplicated, so inform the Plans Examiner.



1) The sizing of load bearing members is based on lumber having an F_b (fiber bending) value of 1400 psi (pounds per square inch). Pressure treated lumber is required for the load bearing lumber and does meet this bending strength requirement. Joists should not overhang a beam more than 2 feet. The most important issue is to provide for adequate support and connections.

2" x 8" may span 13'6" }
 2" x 10" may span 17'2" } Spaced 16" o.c. (on center)
 2" x 12" may span 21' }

2) Fasten with 3/8" x 5" lag screw 16" o.c. and three 16d nails per 16" space

3) Spaced 7' o.c. typical. Size determined by elevation or tributary load

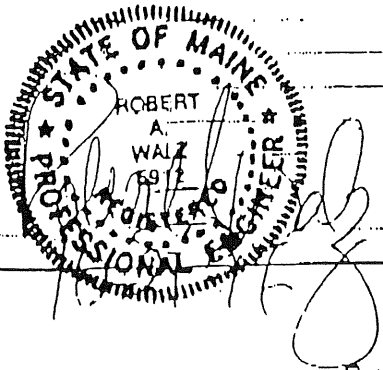
4) 12" x 12" x 8" precast or poured block or sono tube (minimum 2500 psi concrete) 2000 psf is presumed allowed soil pressure to determine footing size.

5) Open sides of stairs with a total rise of more than 30" above the floor or grade below shall have guardrails not less than 34" in height measured vertically from the nosing of the treads.

6) When risers are closed, all treads may have a uniform projection not to exceed 1 1/2"; 8 1/4" maximum height risers, 10" minimum tread exclusive of nosing

ROOF SPAN CALCULATIONS

RIOUX			
SPAN (feet)	12.00		
LIVE LOAD (psf)	50.00		
DEAD LOAD (psf)	2.00		
TOTAL LOAD (psf)	52.00		
		One Pound Foam	Two Pound Foam
Foam Dimension - C (inches)	4.25		
Foam Density (pcf)	2.00		
E _c (psi)	480	200	480
F _v (psi)	35	20	35
G _c (psi)	620	300	620
T1 (inches)	0.032		
T2 (inches)	0.032		
H (inches)	4.31		
A1 (inches) ²	0.384		
A2 (inches) ²	0.384		
E (psi)	10,100,000		
Aluminum Working Stress (psi)	11,818		
Y (inches)	2.16		
I (inches) ⁴	3.52		
S (inches) ³	1.63		
Bending Stress (psi)	6,882		
Shear Stress (psi)	6.07		
Skin Buckling (psi)	7,215		
Allowable Deflection (inches)	1.20		
Actual Deflection (inches)	1.03		



ROOF SPAN CALCULATIONS

A	RIOUX SPAN (feet)	12.00		
B	LOADING CONDITIONS			
	LIVE LOAD (psf)	50.00		
	DEAD LOAD (psf)	2.00		
	TOTAL LOAD (psf)	52.00		
C	MATERIAL SPECIFICATIONS			
	FOAM CORE THICKNESS (inches)	4.25		
	FOAM CORE DENSITY (pcf)	2.00		
	E_c (psi)	480		
	F_y (psi)	35		
	G_c (psi)	620		
	ALUMINUM THICKNESS (inches)	0.032		
	E (psi)	10,100,000		
D	SECTION PROPERTIES			
	C (inches)	4.25		
	T_1 (inches)	0.032		
	T_2 (inches)	0.032		
	H (inches)	4.31		
	A_1 (inches) ²	0.384		
	A_2 (inches) ²	0.384		
E	ALUMINUM WORKING STRESS (psi)	11,818		
F	Y (inches)	2.16		
	I (inches) ⁴	3.52		
	S (inches) ³	1.63		
G	BENDING STRESS (psi)			
	$F_b = 1.5WL^2/S$	6,882	IS LESS THAN	11,818
		Bending Stress is Acceptable		
H	SHEAR STRESS (psi)			
	$F_v = WL/(H+C)12$	6.07	IS LESS THAN	35
		Shear Stress is Acceptable		
I	SKIN BUCKLING STRESS (psi)			
	$C_{cr} = 0.5(\text{cube root})(E)(E_c)(G_c)$	7,215	IS GREATER THAN	6,882
		Skin Buckling Stress is Acceptable		
J	ALLOWABLE DEFLECTION (inches)			
	DEFLECTION = $L/120$	1.20		
	TOTAL DEFLECTION (inches)			
	$5WL^4(1728)/384EI + WL^2/4(H+C)G_c$	1.03	IS LESS THAN	1.20
		Deflection is Acceptable		

