| DISPLAY THIS CARD | | AGE OF WORK |
|--|--|--|
| Application And Notes, If Any, Attached | OF PORTLANI PERMIT | Permit Number: 060233 MAY - 1 2006 |
| This is to certify that THIRD SPACE LLC /Hap | ry | |
| has permission to Change of use 6 unit to a 4 u | and ma the and from a in become | Tant for Atherina AT DODTI AND |
| AT 151 PINE ST | | OII. |
| of the provisions of the Statutes of the construction, maintenance and this department. | ine and of the cances of e of buildings and suctures, | his permit shall comply with a the City of Portland regulatin and of the application on file i |
| Apply to Public Works for street line and grade if nature of work requires such information. | re this liding or at there is ed or JR 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. () 3-22-0(| | |
| Health Dept. | | |
| Appeal Board | (/ | la 11 de la tradado |
| OtherDepartment Name | <u></u> | Ourector - Building & Inspection Services |

PENALTY FOR REMOVING THIS CARD

| City of Portland, Maine - Bui | ilding or Use | Permit | t Application | n ' ' ' | ···· Nø÷ | Issue Date | issi: | CBT: | |
|--|------------------|-----------------------------------|------------------------|---------------------------------|-----------------|-------------|------------|--------------|--------------------|
| 389 Congress Street, 04101 Tel: | (207) 874-8703 | 3, Fax: (| (207) 874-871 | 6 | 06 0233 | | 10.00 | -1063 C | 011001 |
| Location of Construction: | Owner Name: | | | Owner . | Address: | | | Phone: | |
| 151 PINE ST | THIRD SPAC | THIRD SPACE LLC | | PO B | OX 7665 | MAY - | 1_20 | | |
| Business Name: | Contractor Name | :: | | Contrac | ctor Address | | | Phone | |
| | Hap Cleary | | | 40 Al | dworth St. | Portland | DO.DITI | 1 207797 | 0 219 |
| Lessee/Buyer's Name | Phone: | | | Permit | Туре: | | | ENTAINE. | Zone: |
| | | | | Chan | ige of Use - | Dwellings | | | RHIRL |
| Past Use: | Proposed Use: | | | Permit | Fee: | Cost of Wor | k: (| CEO District | : |
| Multi family | Multi family C | Change o | hange of use 6 unit to | | \$438.00 | \$37,50 | 00.00 | 2 | |
| | I | a 4 unit and modify 3rd floor and | | FIRE DEPT: Approved INSPECTION: | | | • | | |
| | framing in bas | ement fo | or 4th unit | | ſ | Denied | Use Gro | up 🗸 🔪 | Type: |
| | | | | | NEPH | | } | 1/20/11 | |
| | | | | \0 | | . 10 (| | 41.28 | 106 |
| Proposed Project Description: | | | | | | , | | Clik | γ . If |
| Change of use 6 unit to a 4 unit and | modify 3rd floor | and fra | ming in | | ire: Cire | 7 - 14 7 2 | Signature | em | L cruje |
| basement for 4th unit | | | | PEDESTRIAN ACTIVITIES DISTRIC | | | FRICT (P. | T (P.A.D.) | |
| | | | | Action | : Appro | oved App | proved w/C | Conditions [| Denied |
| | | | | Signatu | ıre: | | | Date: | |
| Permit Taken By: Date A | applied For: | | | | Zonin | g Approva | al | | |
| dmartin 0211 | 1312006 | | | | • | | | | |
| 1. This permit application does not | t preclude the | Spe | cial Zone or Revi | ews | Zon | ing Appeal | | | reservation |
| Applicant(s) from meeting applicable State and Federal Rules. | | Shoreland | | | Variance | | [| Not in Dis | strict or Landmark |
| Building permits do not include septic or electrical work. | plumbing, | W | etland | | Miscel | laneous | | Does Not | Require Review |
| 3. Building permits are void if wor within six (6) months of the date | | Flood Zone | | | Conditional Use | | | Requires | Review |
| False information may invalidate permit and stop all work | | Su | bdivision | | Interpr | etation | | Approved | |
| | | Sit | te Plan | | Approv | ved | | Approved | w/Conditions |
| | | Maj [| Minor MM | | Denied | | | Denied | |
| | | ⊖ O⁄r w Date: 3 | icasdition | | late: | | Dat | te: D . A | ideus |
| | | | | | | | | 3/21 | 106 |
| I hereby certify that I am the owner o I have been authorized by the owner t | | med pro | | he propo | | | | | |

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

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

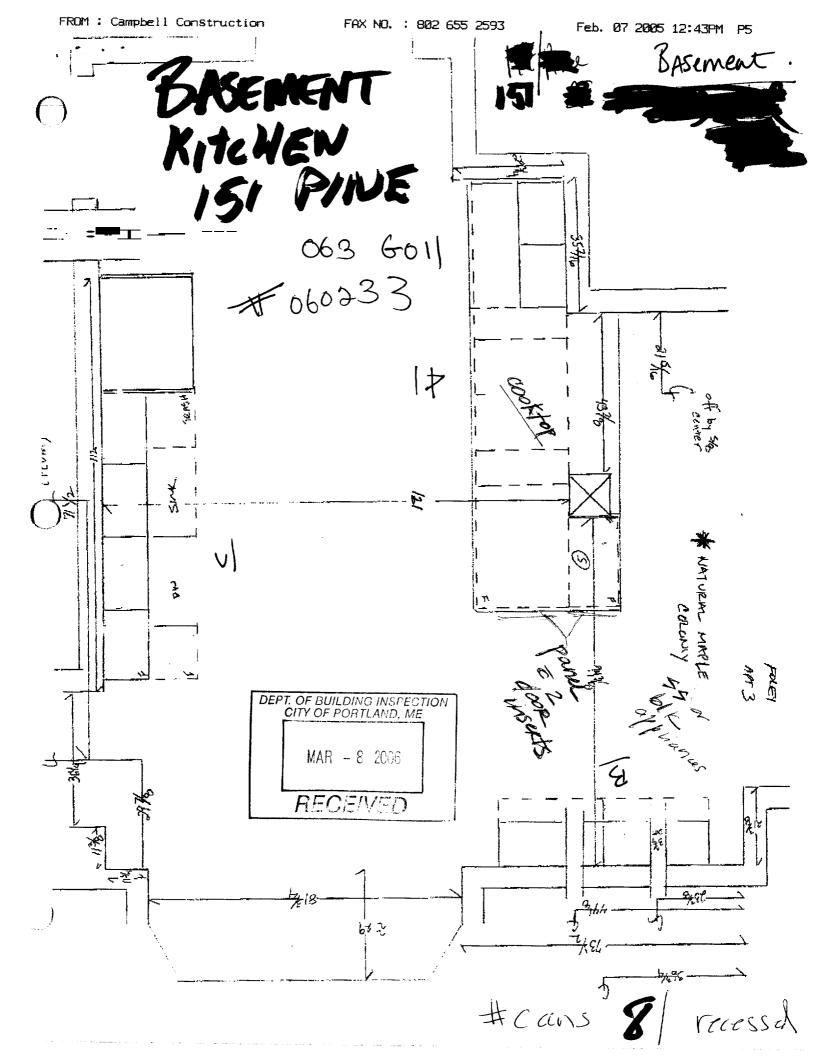
| City of Portland, Maine - B | Building or Use Permi | f | | Permit No: | Date Applied For: | CBL: | |
|---|--|----------------------------|-----------------------|-------------------------------------|-----------------------|---------------------------------|--|
| 389 Congress Street, 04101 Te | O | | -8716 | 06-0233 | 02/13/2006 | 063 G011001 | |
| | | | Owner Address: Phone: | | | | |
| 151 PINE ST | THIRD SPACE LLC | | F | PO BOX 7665 | | | |
| Business Name: | Contractor Name: | | C | ontractor Address: | | Phone | |
| | Hap Cleary | | 4 | 10 Aldworth St. Po | rtland | (207) 797-0219 | |
| Lessee/Buyer's Name | Phone: | | P | Permit Type: | | | |
| | | | | Change of Use - Dwellings | | | |
| Proposed Use: | | 1 | Proposed | Project Description: | | | |
| Multi family Change of use 6 unit and framing in basement for 4th u | • | | _ | of use 6 unit to a nut for 4th unit | 4 unit and modify 3. | rd floor and framing in | |
| Note: This was a 6 residential u and one on the third floor | : Approved with Condition nit building (two units in bac). The two units on the first unit. Once the renovations | asement, tv t floor wer | vo on the | ined into one. The | e two units in the | ate: 03/09/2006 Ok to Issue: | |
| 1) This property shall remain a feapproval. | our family dwelling. Any ch | nange of us | se shall | require a separate | permit application fo | or review and | |
| 2) This permit is being approved work. | on the basis of plans submi | itted. Any | deviati | ons shall require a | separate approval be | efore starting that | |
| 3) ANY exterior work requires a | separate review and approv | val thru Hi | storic P | reservation | | | |
| Dept: Building Status | : Pending | Revi | iewer: | Mike Nugent | Approval Da | ate: | |
| Note: | | | | | | Ok to Issue: | |
| | | | | | | | |
| | | | | | | | |
| • | : Approved with Condition | ns Revi | iewer: | Cptn Greg Cass | Approval Da | | |
| Note: | | | | | | Ok to Issue: | |
| l) All building construction shall A copy of the code is availabl | | | | | | | |

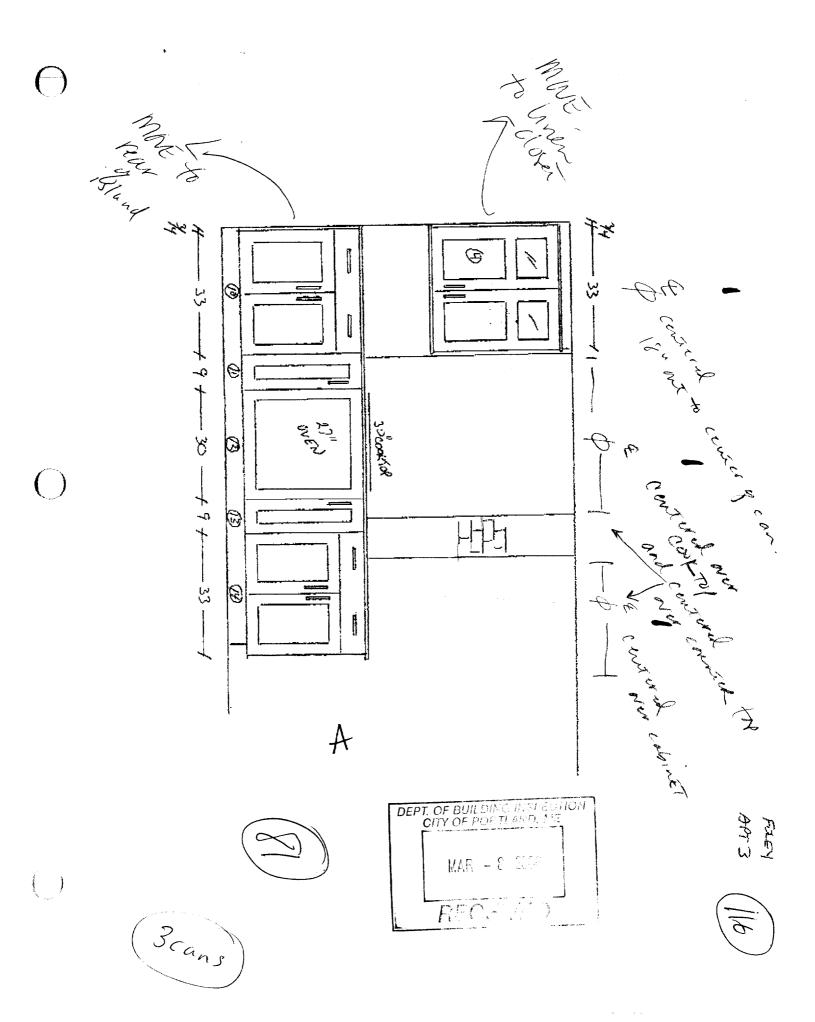
2/24/2006-amachado: I spoke with the owner, Lisa Foley. We need more complete plans for the unit that is going in in the basement.

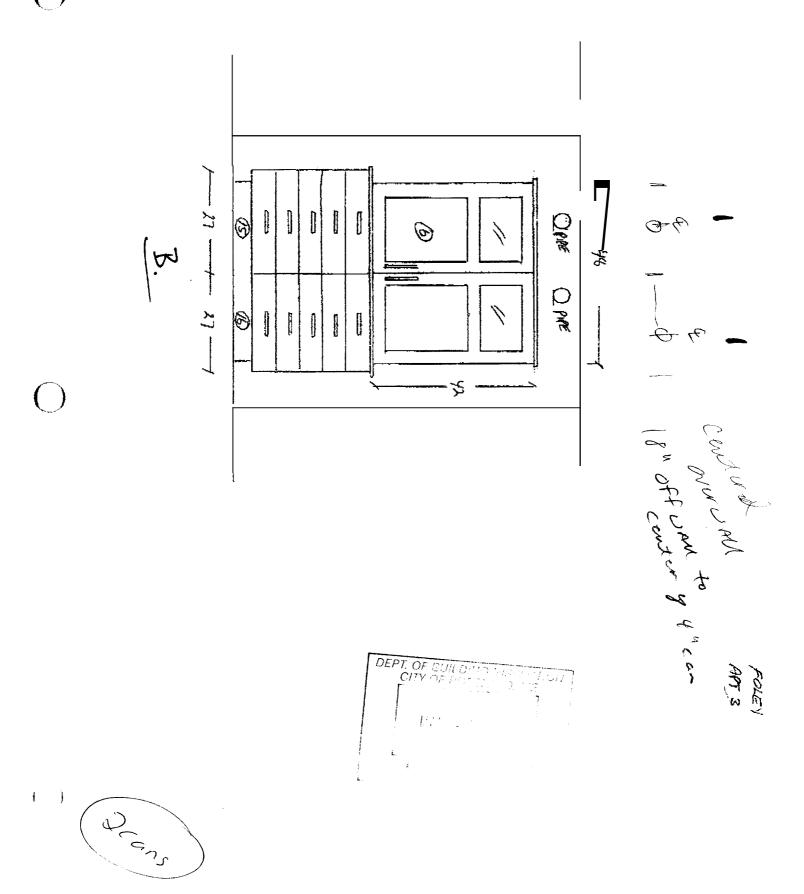
2/27/2006-amachado: I left a message with Lisa Foley. We need a floor plan of the first floor when it was two units which shows what was done to convert it to one. We also need a floor plan of the basement that shows the two units that originally existed and where the second door was that was closed up.

3/8/2006-GG: recieved additional plans. /gg

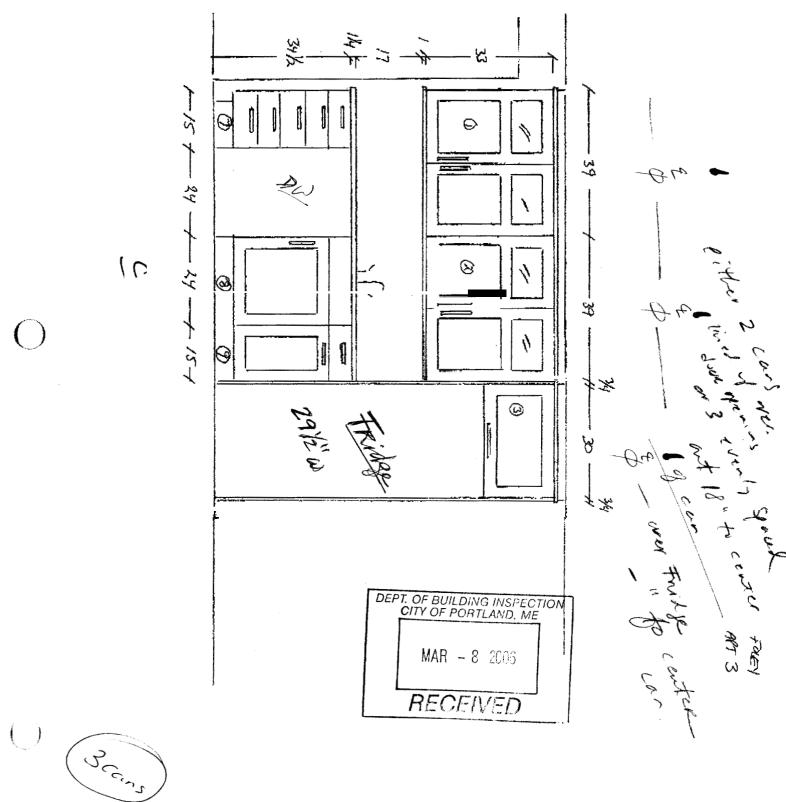
3/29/2006-mjn: Left message with Lisa Foly , have structural questions, Egress and fire separation assemblies.







O



General 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.

| Total Square Footage of Proposed Structure | Sauar | e Footage of Lot | |
|---|-------------------------|-----------------------------|---------------------------------------|
| | 1300 + AR | • | |
| | 1300 + | | |
| Tax Assessor's Chart, Block & Lot | Owner: | | Telephone: |
| Chart# Block# Lot# | 3rd SPACE | | 6 53- 4/49 |
| 63 G 011 | Po Box | 7665 | |
| Lessee/Buyer's Name (If Applicable) | Applicant name, ad | dress & telephone: | cost Of |
| | HAP CLEA | RY | Work: \$ 37500 |
| | | brth st | Fee: \$ 363,00 |
| | Dott | MAINE 04/03 | ree. \$ 335. |
| | POTTANCE | 04/03 | Cof O Fee: \$ |
| | | | |
| | | | |
| Project description: INA ONE | 7-1 | , , | |
| Project description: WODIFY | 37a F | loon, tra | Auring |
| Project description: MODIFY | BASTMEN | For 4 | LINIT |
| 1102 JUNE 1 | | | |
| Use Junit - charge of use | 6-34 | | |
| Contractor's name, address & telephone: | A CIEAD | Y MO ALDW | 2007 N KT |
| Contractor's name, address & telephone: | A CCCAR | MAINE | 201E (19) " 1 |
| Who should we contact when the permit is read | rtland | | |
| Mailing address: | Phone: 797 | 7 02/9 | |
| | | | |
| | | | |
| | | | ITY OF PORTLAND, ME |
| Please submit all of the information outl | | | Lhecklist. |
| Failure to do so will result in the automa | uc demai of your | permu. | FEB 1 3 2006 |
| In order to be sure the City fully understands the full | scope of the project, t | he Planning and Develops | · · · · · · · · · · · · · · · · · · · |
| request additional information prior to the issuance of | f a permit. For further | information visit us on in | DECEIVED |
| www.portlandmaine.gov, stop by the Building Inspec | tions office, mom 315 | City Hall or call \$74-8703 | DECEIVED |
| | | | |

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.

| | | \sim | | j 1 | |
|-------------------------|----------------|-----------------|---------------|----------------------|----|
| Signature of applicant: | | Cha | Date: | 2/13/0 | |
| | | | • | _/ | |
| | | | | | ~3 |
| This is not a permit; | you may not ce | mmence ANY wotl | k until the p | ermit is issued. 📝 🐧 | 72 |

HAP CLEARY 40 ALDWORTH ST. PORTLAND, ME 04102 207-797-0219

INSPECTIONS/ CODE ENFORCE MENT CITY OF PORTLAND

FIRE ASSEMBLIES FOR 151 PINE STREET

BASEMENT INTERIOR WALLS U. L. ASSEMBLY BXUV.U311

BASEMENT EXTERIOR WALLS U.L. ASSEMBLY BXUV, U330

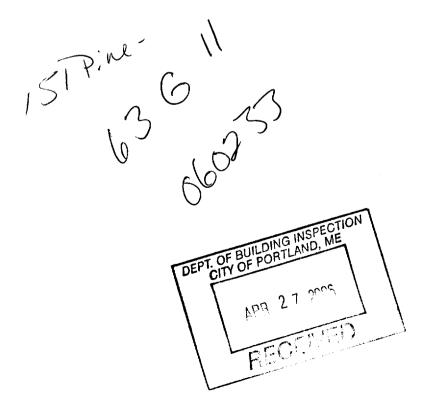
NOTES:

ALL WALLS' DRYWALL TO BE HUNG VERTICALLY.

ALL COLUMNS ARE MASONRY NO WALLS ARE STRUCTURAL

BASEMENT CEILING U.L. ASSEMBLY.BXUV.L569

THIRD FLOOR CEILING U.L. ASSEMBLY BXUV L569



BXUV.U311 Fire Resistance Ratings - AN\$I/UL 263

Page Bottom

Fire Resistance Ratings - AN\$I/UL 263

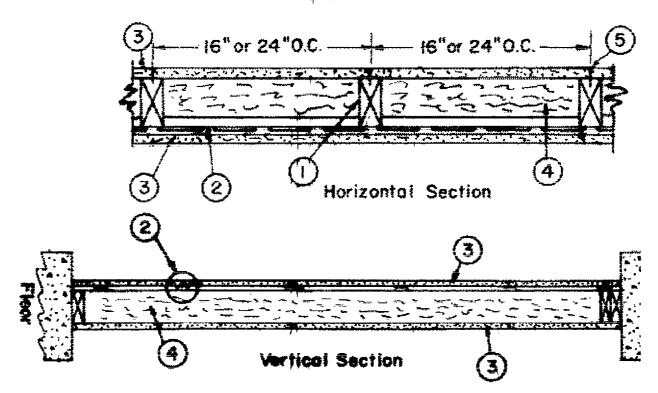
See General Information for Fire Resistance Ratings - ANSI/UL 263

Design Np. U311

Degember 17, 2004

Bearing Wall Rating - 1 HR.

Finish Rating - 23 Min.



- 1. Wood Studs Nom 2 by 4 in.. spaced 16 or 24. OC. Effectively cross braced.
- 2. Resilient Channel 25 MSG galv steel. Resilient channels spaced vertically 24 in. OC, flange portion screw attached to one side of stude with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws.
- 2A. Steel Framing Members (Optional. Not Shown)* As an alternate to Item 2. furring

6 in. and tied together with double strand of Np. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel.

b. Steel Framing Members* Resilient sound isolation clip used to attach furring channels (Itqm a) to studs (Item 1). Clips spaced 48 in. OC. and secured to studs with No. 8 x 2-1/2 in. cogrse drywall screw through me center grommet. Furring channels are triction titted into clips.

PACINTERNATIONAL INC Type RSIC-1.

3. Gypsum Board* 5/8 in. thick, 4 ft wide. Screw attached one side to furring channels with 1 in. long, self-drilling, self-tapping steel Screws spaced 12 in. OC, vertical joints located midway between studs and back blocked with furring channels, attached with 1 in. long, self-drilling, self-Capping screws, spaced 12 in. OC, along each edge. Wallboard attached other side to studs with 1-1/4 in. long diamond shaped point, double lead Phillips head steel screws spaced 12 in. OC, vertical joints located over studs.

AMERICAN GYPSUM CO - Types AG-L.

BPB AUERICA INC - Type FRPC, Prollog Type C.

BPB CANADA INC - ProRoc Type C.

CANADIAN GYPSUM COMPANY - Types C, JP-X2, IPC-AR.

G-P GYPSUM CORP, SUB OF

GEORGIA-PACIFIC CORP - Type 5.

LAFARGE NORTH AMERICA INC - Types LGFC-C, LGFC-C/A.

NATIONAL GYPSUM CO - Types FSK-C, FSW-C, FSW-G.

PABCO BUILDING PRODUCTS L L C, PAA

PABCO GYPSUM — Type C or PG-C.

STANDARD GYPSUM L L C - Type SG-C.

TEMPE-INLAND FOREST PRODUCTS CORR — Type TG-C.

UNITED STATES GYPSUM CO - Types C, IP-X2, IPC-AR.

USG MEXICO S A DE C V — Types *C*, IP-X2, IPC-AR.

ROCK WOOL MANUFACTURING CO - Delta Board.

JOHNS MANVILLE INTERNATIONAL INC

ROXUL INC

THERMAFIBER INC — Type SAFB.

- **4A.** Glass Fiber Insulation (As an alternate to Item 4) 3 in thick glass Rber batts bearing the Ut. Classification Marking as to Surface Burning and/or Fire Resistance, placed to fill the interior of the wall, attached to the 4 in. face of the studs with staples placed 24 in. OC. See Batts and Blankets (BKNV or B2JZ) Categories for names of Classified companies
- 43. Fiber, Sprayed* As an alternate to Batts and Blankets [Item 4) Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3 0 lb/ft³. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft³.

USGREENFIBER LLC - Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)

5. Joints and Screw heads — Wallboard joints covered with paper tape and joint compound. Screw heads covered with joint compound. As an alternate, nom 3/32 in thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

*Bearing the UL Classification Mark

Last Updated on 2004-12-17

Questions?

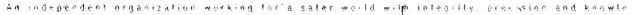
Notice of Disclaimer

Page Tor

Copyright © 2006 Underwriters Laboratories Inc.®

the appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading mariner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Ins." must appear adjacent to the extracted mpterial. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2006 Underwriters Laboratories Inc.®"





BXUV.U330 Fire Resistance Ratings - ANSI/UL 263

Page Borrom

Fire Resistance Ratings - ANSI/UL 263

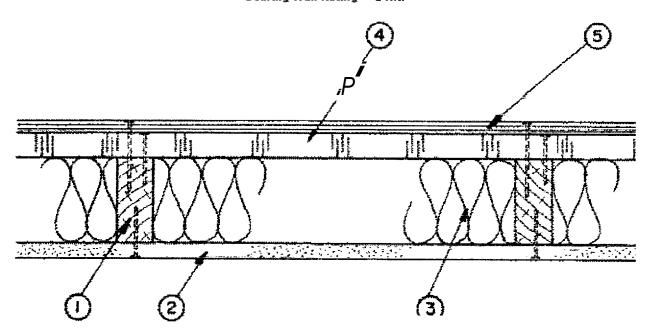
See General Information for Fire Resistance Ratings - ANSI/UL 263

Design No. U330

December 17, 2004

(Exposed to Fire on Interior Face Only)

Bearing Wall Rating - 1 HR.



- 1. Wood Studs Nom 2 by 4 in., spaced 16 in. OC.
- 2. Gypsum Board* 5/8 in. thick (min) 4 ft wide bearing the ULI Classification Marking for Fire Resistance applied vertically. Attached to studs with 6d cement coated nails spaced 7 in. OC at the edges and in the field. Vertical joints located over studs. Joints covered with paper tape and joint compound. Nail heads covered with joint compound.

See Gypsum Board (CKNX) Category for names of Classified Companies.

Batts and pr

application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft³.

U S GREENFIBER L L C - Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)

4 Foamed Plastic* = 1 in thick rigid polystyrene insulation attached to studs with 1-1/2 in long galvanized roofing nails.

THE DOW CHEMICAL CO

OC CELFORTEC INC

OWENS CORNING SPECIALTY & FOAM

PRODUCTS

4A. Foamed Plastic* — 1 in. thick rigid polyisocyanurate insulation attached to studs with 1-1/2 in. long galv roofing nails.

THE DOW CHEMICAL CO - Type Thermax

- 5 Plywood Sheathing (Siding) Min 1/2 in. thick olywood applied vertically with vertical joints located over study. Fastened to study with 10d galvanized nails 6 in OC at edges and 12 in OC in the field.
- 5A Alternate Exterior Hard board Panelina Mineral and Fiber Boards* Untreated panels nom 7/16 or 1/2 in thick, 12 ta 4R in wide Skip lapped panel sidings are fastened to framing members with 10d rust resistant nails thru the lap spaced 6 in O.C. vertically. Butted panel siding fastened to framina members with 10d nails 3/8 in. from edge soaced 6 in. O.C. vertically Lap sidings fastened to framing members with 12d nails 3/8 in from edges spaced 16 in O.C. horizontally (Aluminumjoint molding as required for lap products)

MASONITE CORP

*Bearing the UI Classification Mark

| Questions? | Notice of Disclaimer | Page Top |
|---|--|----------|
| de analysis for the transport of the second | and the second control of the contro | |
| Last Upnated on 2004-12-17 | | |

Copyright © 2006 Underwriters Laboratories Inc.®

The appearance of a comoanv's name or oroduct in this database does not in itself assure that products so identified have keen manufactured under UL's Follow-Up Service. Only those products hearing the UB. Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL oermits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1 The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings! 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. The addition, the reprinted material must include a copyright notice in the following format: "Copyright @ 2006 Underwriters I ahoratories Inc."

An independent organization working for a safer world with integrity, precision and knowle



BXUV.U330Fire Resistance Ratings - ANSI/UL 263

Page Bottom

Fire Resistance Ratings - ANSI/UL 263

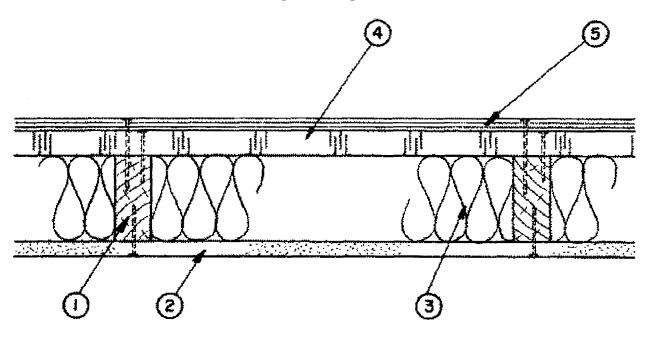
See General Information for The Resistance Ratings - ANSI/UL 263

Design No. U330

December 17, 2004

(Exposed to Fire on Interior Face Only)

Bearing Wall Rating - 1 HR.



- 1. Wood Studs Nom 2 by 4 in., spaced 16 in. OC.
- 2. Gypsum Board* 5/8 in. thick (min) 4 ft wide bearing the ULI Classification Marking For Fire Resistance applied vertically. Attached to studs with 6d cement coated nails spaced 7 in. OC at the edges and in the field. Vertical joints located over studs. Joints covered with paper tape and joint compound. Nail heads covered with joint compound.

See Gypsum Board (CKNX) Category for names of Classified Companies.

3. Batts and Blankets* - Min 3-1/2 in. mineral wool batts placed to fill cavity of wall

See Batts and Blankets (BZJZ) Category for names of Classified Companies.

3A. Fiber, Sprayed* As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3.0 lb/ft³, Alternate

http://database.ul.com/cgi-bin/XYV/template/LISEXT/IFRAME/showpage.html?n... 4/27/2006

and the same and t

application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of $2.5\,$ lb/ $\rm R^3$.

U S GREENFIBER L L C - Cocoon2 Stabilized oi Cocoon-FRM (Fire Rated Material)

4. Foamed Plastic* — i in. tnick rigid polystyrene insulation attached to study with 1-1/2 in. long galvanized loofing nails.

THE DOW CHEMICAL CO

OC CELFORTEC INC

UVERS CORNING SPECIALTY & FOAM

PRUDUCIS

4A. Foamed Plastic* = 1 in. thick rigid polyisocyanurate insulation attached to studs with 1-1/2 in. long galv roofing nails.

THE DOW CHEMICAL CO - Type Thermax

- 5. plywood Sheathing (Siding) Min 1/2 in. thick plywood applied vemcaily with vertical joints located over studs. Fastened to studs with 10d galvanized nails 6 in. OC at edges and 12 in. OC in the field.
- 5A. Aiternate Exterior Hard board Paneling Mineral and fiber Boards* Untreated panels nom 7/16 or 1/2 in. thick, 12 to 46 in. wide. Ship iappea panel sidings are fastened to framing members with 10d rust resistant nails thru the lap spaced 6 in. O.C. vertically. Butted panel siding fastened to framing members with 10d nails 3/8 in. from edge spaced 6 in. O.C. vertically. Lap sidings fastened to framing members with 12d nails 3/8 in. from edges spaced 16 in. O.C. nonzonany. (Automobil) joint moraling as required for lap products).

MASONITE CORP

*Bearing the UL Classification Mark

Last Updated on 2004-12-17

Questions? Notice of Disclaimer

Copyright © 2006 Underwriters Laboratories Inc.®

Page Top

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Always look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a Copyright notice in the following format: "Copyright © B 0 6 United where I advantage is Inc. ©"

BXUV.L569 Fire Resistance Ratings - ANSI/UL 263

Page Bottom

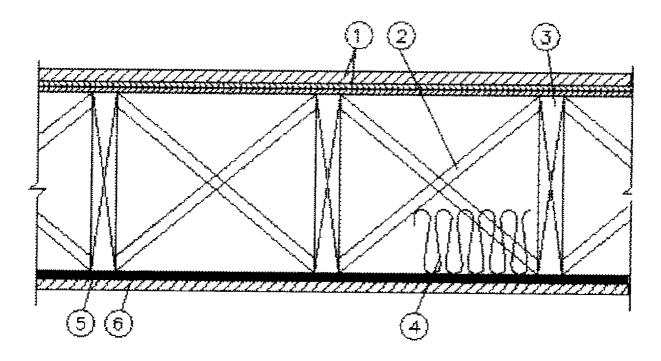
Fire Resistance Ratings - ANSI/UL 263

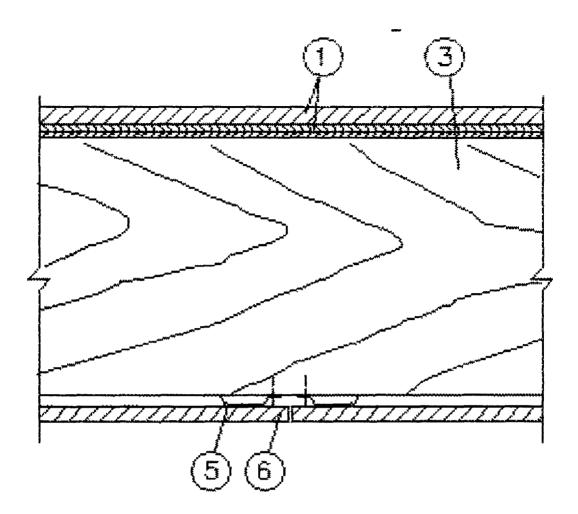
See General Information for Fire Resistance Ratings - ANSI/UL 263

Design No. L569

April 15, 2005

Unrestrained Assembly Rating - 1 Hr.





1. Flooring System The flooring system shall consist of one of the following:

System No. 1

Subflooring — Nom 15/32 in. thick wood structural panels installed perpendicular to the joists with end joints staggered. Plywood or panels secured **to** joists with construction adhesive and No. **6d** ringed shank nails, spaced 12 in. OC along each joist. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier - (Optional) - Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Floor — Min 1 by 4 in. T & G lumber installed perpendicular to the joists, or min 15/32 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panel to be perpendicular to joists with joints staggered.

System No. 2

Subflooring — Nom 15/32 in. thick wood structural panels installed perpendicular to the joists with end joints staggered. Plywood or panels secured to joists with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each joist. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier - (Optional) - Nom 0.030 in. thick commercial asphalt saturated felt.

Floor Mat Materials* - (Optional) - Min 3/8 in. to max 3/4 in. thick floor mat material loosely laid over the subfloor.

UNITED STATES GYPSUM CO - LEVELROCK® Brand Sound Reduction Board

Afternate Floor Mat Materials³ — (Optional) - Norm 1/4 in. thick floor mat material loosely laid over the subfloor.

ONITED STATES SYPSUM CO - LEVELKOCK® Brand Floor Underlayment 5KM-25

Atternate Floor Het Haterials* — (Optional) - Nom 3/8 in. Unick floor mat material loosely laid over the subhour.

SOLUTIA INC - Type SC50

Primate Proof topping Mixture—— Min 1/2 in thickness of floor topping mixture having a min compressive strength of 1500 psi. Refer to manufacturer's instruction—accompanying the material for specific mix design.

UNITEU STATES GYFSUM CO - LEVELKOCK & Brand 2500, LEVELKOCK & Brand RH

System No. 3

Subflooring — Nom 15/32 in, thick wood structural panels installed perpendicular to the joists with end joints staggered. Plywood or panels secured to joists with construction adhesive and No. 6d ringed shank nails, spaced 12 in. OC along each joist. Staples having equal or greater withdrawar and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier - (Optional) - Nom 0.030 in, thick commercial asphalt saturated felt.

Fior Mat Materials* = (Optional) - Min 3/8 in. to max 3/4 in. thick floor mat material loosely laid over the subfloor.

UNITED STATES GYPSUM CO - LEVELROCK® Brand Sound Reduction Board

Akternate Floor Mat Materials* — (Optional) - Norm 1/4 in. thick floor mat material loosely laid over the subfloor.

UNITED STATES GTPSUM CO -- LEVELHOCK(g) Brand Floor Underlayment 5KM-25

Alternate Floor Met Materials* — (Optional) - Norm 3/8 in. Ulick floor met material loosely laid over the subfloor.

SOLUTIA INC - Type SC50

rimsh Flooring - Floor Topping Flocure* — Fin 1/2 in thickness of floor topping mixture, having a min compressive strength of 2100 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO - LEVELRÜCK® Bland 3500, LEVELRÜCK® Brand Commercial RH

Systam No. 4

Subfleoring — Nom 15/32 in, thick wood structural panels installed perpendicular to the joists with end joints staggered. Plywood or panels secured to joists with construction adhesive and No. 6d ringed sharik nails, spaced 12 in. 6C along each joist. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails.

Vapor Barrier — (Optional) - Nom 0.030 in. thick commercial asphalt saturated felt.

Floor flat Materials* — (Optional) - Min 3/8 in. to max 3/4 in. thick floor mat material loosely laid over the subfloor.

UNITED STATES GYPSUM CO - LEVELROCK® Brand Sound Reduction Board

Alternate Floor Mat Materials* — (Optional) - Nom 1/4 in. thick floor mat material loosely laid **over** the subfloor.

UNITED STATES GYPSUM CO - LEVELROCK® Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials* — (Optional) - Nom 3/8 in. thick floor mat material loosely laid over the subfloor.

SOLUTIA INC - Type SC50

Finish Flooring * Floor Topping Mixture* - Min 1/2 in thickness of **floor** topping mixture having a min compressive strength of 3000 psi. Refer to manufacturer's instructions accompanying the material For specific mix design.

UNITED STATES GYPSUM CO - LEVELROCK® Brand 4500

- 2. Cross Bridging 1 by 3 in.
- 3. Wood Joists = 2 by 10 in., spaced 16 in. QC, firestopped. Spacing may increased to 24 in. OC when Item 7, Battens, are used.
- **4. Batts and Blankets*** (Optional) Giass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. When the resilient channels (Item 5) or furring channels (Item 5B) are spaced 16 in. OC, the insulation shall be a max of 3-1j2 in. thick, and **shall** be secured against the subflooring with staples at 12 in. OC or held suspended in the concealed space with 0.090 in. diarn galv steel wires attached to the wood trusses at 12 in. OC. When the resilient channels (Item 5) or furring channels (Item 5B) are spaced a max of 12 in. OC or when the Steel **Framing Members** (Item 5A) are used, there is no **limit** in the overall thickness of insulation, and the insulation can be secured against the subflooring, held suspended in the concealed space or draped over the resilient channels (or Steel Framing Members) and gypsum panel membrane.
- **4A. Loose Fill Material* As** an alternate to Item 5, when the resilient channels (Item 5) **or** furring channels (Item **56**) are spaced a rnax of **12** in. **OC** or when the Steel Framing Members (Item 5A) are used Any loose **fill** material bearing the **UL** Classification Marking **For** Surface Burning Characteristics. There is no limit in the overall thickness of insulation.
- 5. **Resilient Channels** Nom 1/2 In. deep by 2-3/8 in. wide at the base and 1-3/8 in. wide at the face, formed from 0.020 in. thick galv steel. Installed perpendicular to the wood joists, spaced a max of 24 in. OC when no insulation is Rtted in the concealed space. Otherwise, the spacing shall be as specified under Item 4 or 4A. Two courses of resilient channel positioned 6 in. OC at gypsum panel butt-joints (3 in. from each end of panel). Channels oriented opposite at panel butt-joints. Channel splices overlapped 4 in. beneath wood trusses. Channels secured to each truss with 1-1/4 in. long Type S screws.
- **SA. Alternate Steel Framing Members** (Not Shown) As an alternate to Item 5, main runners, cross tees, cross channels and wall angle as listed below.
 - a. **Main Runners** Nom 10 or 12ft long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft. OC. Main runners suspended by min 12 SWG galv steel hanger wires spaced 48 in. OC. Hanger wires to be located adjacent to main runner/cross tee intersections. Hanger wires wrapped and twist-tied on 16d nails driven in to side of joists at least 5 in. above the bottom face.
 - b. Cross Tees Nom 4 ft long, 1-1/2 in. wide face, installed perpendicular to the main runners, spaced 16 in. OC. Additional cross tees or cross channels used at 8 in. from each side of butted gypsum panel end joints.

The cross tees or cross channels may be riveted or screw attached to the wall angle or channel to facilitate the ceiling installation.

- c. Cross Channels Nom 4 or 12 ft long, installed perpendicular to main runners, spaced 16 in. OC.
- d. Wall Angle or Channel Painted or galv steel angle with 1 in. legs or channel with 1 in. legs, 1-9/16 in. deep attached to walls at perimeter of ceiling with fasteners 16 in. OC. To support steel framing member ends and for screw-attachment of the gypsum panels.

CGC INC - Type DGL or RX.

USG INTERIORS INC Type DGL or RX.

- 5B. Alternate Steel Framing Members (Not Shown)* As an alternate to Items 5 and 5A, furring channels and Steel Framing Members as described below.
 - a. Furring Channels Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, installed perpendicular to the wood joists, spaced a max of 24 in. OC when no insulation is fitted in the concealed space. Otherwise, the spacing shall be as specified under Item 4 or 4A. Channels secured to joists as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap.
 - b. **Steel Framing Members*** Used to attach furring channels (Item a) to the wood joists (Item 2). Clips secured to consecutive joists with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction-fitted into clips. Adjoining channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum panel butt joints, as described in Item 8.

PAC INTERNATIONAL INC - Type RSIC-1.

 Gypsum Board* — Nom 5/8 in. thick, 48 in. wide gypsum panels. When resilient channels (Items 5) are used, gypsum panels installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1 in. long Type S bugle head steel screws spaced 12 in. OC and located a min of 1/2 in. from side joints and 3 in. from end joints. End joints secured to both resilient channels as shown in end joint detail. When Steel Framing Members (Item 5B) are used, gypsum panels installed with long dimensions perpendicular to furring channels. Panels attached to the furring channels using 1 in. long Type S bugle-head steel screws spaced 8 in. OC along butted end joints and in the field of the panels. Butted end joints shall be staggered min. 2 ft within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum panel shall be supported by a single length of furring channel equal to the width of the gypsum panel plus 6 in. on each end. The two support furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to underside of the joist with one RSIC-1 clip at each end of the channel. When Steel Framing Members (Item 5A) are used, gypsum panels installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Panels fastened to cross tees with 1 in. long Type S bugle-head steel screws spaced 8 in. OC in the field and 8 in. OC along end joints. Panels fastened to main runners with 1 in, long Type S bugle-head steel screws spaced midway between cross tees. Screws along sides and ends of panels spaced 3/8 to 1/2 in. from panel edge. End joints of panels staggered on adjacent panels not less than 12 in.

CANADIAN GYPSUM COMPANY Types C, IP X2, IPC AR.

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC AR.

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR.

- 7. Battens Nom 6 by 22-1/2 by 5/8 in. thick pieces of gypsum board (Item 6) centered under subfloor joints and fastened with staples spaced 7 in. OC along each edge. Staples formed of 16 SWG (0.062 in. thick) steel with 1-1/8 in. legs and 1/2 in. crown, driven flush with gypsum board batten strips. The battens and staples are optional when the finish flooring consists of **Floor Topping Mixture***.
- 8. **Finishing System** (Not shown) Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum panels.

*Bearing the UL Classification Mark

| Last | Updated | on | 2005-04- | 15 |
|------|---------|----|----------|----|
|------|---------|----|----------|----|

Questions? Notice of Disclaimer

Page Top

Copyright © 2006 Underwriters Laboratories Inc.®

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Listed and covered under UL's Follow-Up Service. Aiways look for the Mark on the product.

UL permits the reproduction of the material contained in the Online Certification Directory subject to the following conditions: 1. The Guide Information, Designs and/or Listings (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc." must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "Copyright © 2006 Underwriters Laboratories Inc.®"

An independent organization working for a safer world with integrity, precision and knowle