

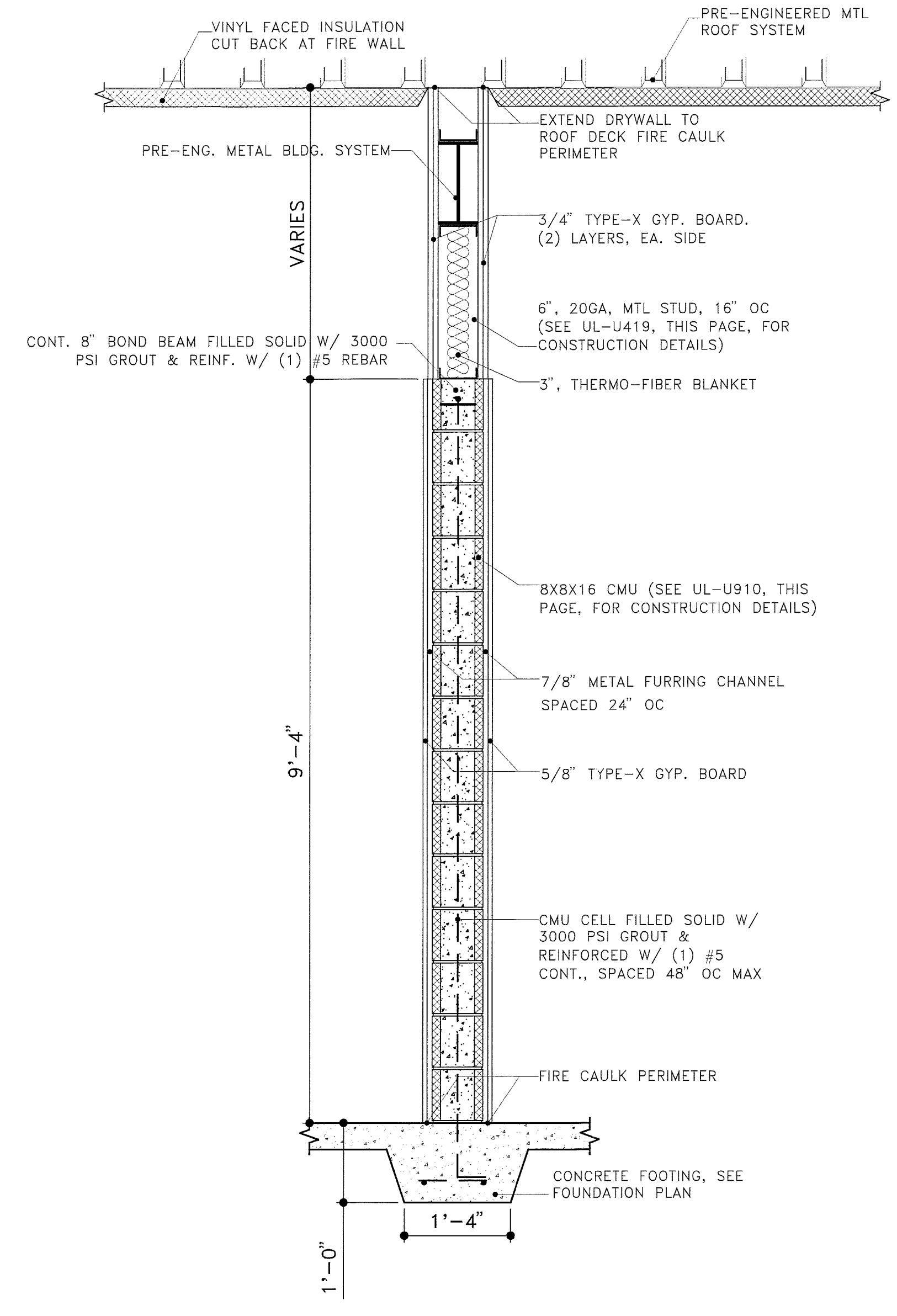
- Concrete Blocks\*** - Various designs. Classification D-2 (2 hr). See Concrete Blocks category for list of eligible manufacturers.
- Mortar** - Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts clear sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.
- Furring Channels** - Min 0.019 in. thick (25 gauge) galv steel, 1-3/8 in. wide on top and 2-3/4 in. wide at bottom by 7/8 in. deep. Spaced 24 in. OC perpendicular to floor with a channel parallel to and approximately 3 in. above floor and 3 in. below ceiling. Clearance between vertical horizontal channels 1/2 in.
- Channel Fasteners** - 1-1/4 in. long masonry screws with 3/16 in. body and 5/16 in. diameter head. Fasteners spaced 24 in. OC with the fasteners staggered on each long leg of the furring channel.
- Steel Framing Members\*** - (Not Shown) - Alternate method used to attach furring channels (Item 3) to concrete blocks (Item 1). Clips spaced 48 in. OC, and secured to blocks with 1/4 in. dia. By 3 in. long concrete expansion anchor (Item 4B) through the center grommet. Furring channels are friction fitted into clips.
  - PAC INTERNATIONAL - Type RSIC-1.
- Concrete Expansion Anchor** - (Not Shown) - 1/4 in. dia. by 3 in. long carbon steel, pre-assembled, nail drive expansion anchor with mushroom head driven into the web of the concrete block. Min. embedment in concrete block of 1-3/8 in. and evaluated in accordance with ASTM E 488 to have ultimate load capacities of 980 lbs (tension) and 1400 lbs (shear) when used in 2000 psi concrete.
- Gypsum Board\*** - 1/2 in. thick, 4 ft. wide, secured to furring channels with wallboard fasteners (Item 6). Gypsum plaster not more than 1/16 in. thick may be applied to wallboard in addition to joint treatment.
  - AMERICAN GYPSUM CO - Types AG-C, AGX-C.
  - BORAL GYPSUM INC - Type BG-C.
  - BFB AMERICA INC
  - BPB CELOTEX - Type FRP.
  - CANADIAN GYPSUM COMPANY - Types C, IP-X2, IPC-AR.
  - CONTINENTAL GYPSUM COMPANY - Types CG-C, CG5-5, CGTC-C.
  - G-P GYPSUM CORP, SUB OF GEORGIA-PACIFIC CORP - Type 5.
  - JAMES HARDIE GYPSUM INC - Type Max"C".
  - LAFARGE NORTH AMERICA INC - Types LGFC-C, LGFC-C/A.
  - NATIONAL GYPSUM CO - Type FSW-C.
  - PABCO GYPSUM, DIV OF PACIFIC COAST BUILDING PRODUCTS INC - Type PG-C.
  - REPUBLIC GYPSUM CO - Type RG-C.
  - STANDARD GYPSUM L L C - Type SG-C.
  - TEMPLE-INLAND FOREST PRODUCTS CORP - Type TG-C.
  - UNITED STATES GYPSUM CO - Types C, IP-X2, IPC-AR.
  - USG MEXICO S A D E C V - Types C, IP-X2, IPC-AR.
- Wallboard Fasteners** - 1 in. long, self-drilling, self-tapping steel screws with bugle heads. Fasteners attached to each furring channel and spaced 8 in. OC at butt joints and 12 in. OC in the field of the board parallel with furring channels. Clearance between fasteners and edges of wallboard 3/4 in.
- Joint System** - (Not shown) - Paper tape embedded in cementitious compound over joints. Paper tape and exposed screw heads covered with two layers of compound. Edges of compound feathered out.

- FLOOR AND CEILING RUNNERS** (OPTIONAL, NOT SHOWN) - CHANNEL SHAPED, FABRICATED FROM MIN 25 MSG (MIN 20 MSG WHEN ITEM 4A IS USED) CORROSION-PROTECTED STEEL, MIN WIDTH TO ACCOMMODATE STUD SIZE, WITH MIN 1 IN LONG LEGS, ATTACHED TO FLOOR AND CEILING WITH FASTENERS 24 IN OC MAX.
- STEEL STUDS** CHANNEL SHAPED, FABRICATED FROM MIN 25 MSG (MIN 20 MSG WHEN ITEM 4A IS USED) CORROSION-PROTECTED STEEL, MIN WIDTH AS INDICATED UNDER ITEM 4, MIN 1-1/4 IN FLANGES AND 1/4 IN RETURN, SPACED A MAX OF 24 IN OC. STUDS TO BE CUT 3/8 TO 3/4 IN LESS THAN ASSEMBLY HEIGHT.
- BATTS AND BLANKETS\*** (REQUIRED AS INDICATED UNDER ITEM 4) - MINERAL WOOL BATTS, FRICTION FITTED BETWEEN STUDS AND RUNNERS. MIN NOM THICKNESS AS INDICATED UNDER ITEM 4. SEE BATTS AND BLANKETS (BKNY OR BJZJ) CATEGORIES FOR NAMES OF CLASSIFIED COMPANIES.
- BATTS AND BLANKETS\*** (OPTIONAL) - PLACED IN STUD CAVITIES, ANY GLASS FIBER OR MINERAL WOOL INSULATION BEARING THE UL CLASSIFICATION MARKING AS TO SURFACE BURNING CHARACTERISTICS AND/OR FIRE RESISTANCE. SEE BATTS AND BLANKETS (BKNY OR BJZJ) CATEGORIES FOR NAMES OF CLASSIFIED COMPANIES.
- WALLBOARD, GYPSUM\*** GYPSUM PANELS WITH BEVELED, SQUARE OR TAPERED EDGES, APPLIED VERTICALLY OR HORIZONTALLY. VERTICAL JOINTS CENTERED OVER STUDS AND STAGGERED ONE STUD CAVITY ON OPPOSITE SIDES OF STUDS. VERTICAL JOINTS IN ADJACENT LAYERS (MULTILAYER SYSTEMS) STAGGERED ONE STUD CAVITY. HORIZONTAL EDGE JOINTS AND HORIZONTAL BUTT JOINTS ON OPPOSITE SIDES OF STUDS NEED NOT BE STAGGERED. HORIZONTAL EDGE JOINTS AND BUTT JOINTS IN ADJACENT LAYERS (MULTILAYER SYSTEMS) STAGGERED A MIN OF 12 IN. THE THICKNESS AND NUMBER OF LAYERS FOR THE 1, 2, AND 4 HR RATINGS ARE AS FOLLOWS:

RATING	MIN STUD DEPTH	No. OF LAYERS AND THICKNESS OF PANELS	MIN THICKNESS OF INSULATION (ITEM 3)
1	3-1/2	1 LAYER, 5/8 IN	OPTIONAL
1	2-1/2	1 LAYER, 1/2 IN	1-1/2 IN
1	1-5/8	1 LAYER, 3/4 IN	OPTIONAL
2	1-5/8	2 LAYERS, 1/2 IN	OPTIONAL
2	1-5/8	2 LAYERS, 5/8 IN	OPTIONAL
2	1-5/8	1 LAYER, 3/4 IN	3 IN
3	1-5/8	3 LAYERS, 1/2 IN	OPTIONAL
3	1-5/8	2 LAYERS, 3/4 IN	OPTIONAL
3	1-5/8	3 LAYERS, 5/8 IN	OPTIONAL
4	1-5/8	4 LAYERS, 5/8 IN	OPTIONAL
4	1-5/8	4 LAYERS, 1/2 IN	OPTIONAL
4	2-1/2	2 LAYERS, 3/4 IN	2 IN

**CANADIAN GYPSUM Co.** 1/2 IN THICK TYPE C, WRC OR IP-X2; 5/8 IN THICK TYPE SCX, SHX, WRX, IP-X1, AR, C, WRC OR IP-X2; 3/4 IN THICK "ULTRACODE" OR TYPE IP-X3.  
**UNITED STATES GYPSUM Co.** 1/2 IN THICK TYPE C, WRC, OR IP-X2; 5/8 IN THICK TYPE SCX, SHX, WRX, IP-X1, AR, C, WRC, OR IP-X2; 3/4 IN THICK "ULTRACODE" OR TYPE IP-X3.  
**YESO PANAMERICANO SA de CV** 1/2 IN THICK TYPE C, WRC, OR IP-X2; 5/8 IN THICK TYPE SCX, SHX, WRX, IP-X1, AR, C, WRC, OR IP-X2; 3/4 IN THICK "ULTRACODE" OR TYPE IP-X3.

- WALLBOARD, GYPSUM\*** (AS AN ALTERNATE TO ITEM 4) - 5/8 IN THICK GYPSUM PANELS, INSTALLED AS DESCRIBED IN ITEM 4 WITH TYPE S-12 STEEL SCREWS. THE LENGTH AND SPACING OF THE SCREWS AS SPECIFIED UNDER ITEM 5.
  - CANADIAN GYPSUM Co: TYPE FRX
  - UNITED STATES GYPSUM Co: TYPE FRX
- FASTENERS** - (NOT SHOWN) - TYPE S OR S-12 SCREWS USED TO ATTACH PANELS TO STUDS (ITEM 2) OR FURRING CHANNELS (ITEM 6).
  - SINGLE LAYER SYSTEMS**- 1 IN LONG FOR 1/2 IN AND 5/8 IN THICK PANELS OR 1-1/4 IN LONG FOR 3/4 IN THICK PANELS, SPACED 8 IN OC WHEN PANELS ARE APPLIED HORIZONTALLY, OR 12 IN OC WHEN PANELS ARE APPLIED VERTICALLY.
  - TWO LAYER SYSTEMS**- FIRST LAYER- 1 IN LONG FOR 1/2 IN AND 5/8 IN THICK PANELS OR 1-1/4 IN LONG FOR 3/4 IN PANELS, SPACED 16 IN OC. SECOND LAYER- 1-5/8 IN LONG FOR 1/2 IN AND 5/8 IN THICK PANELS OR 2-1/4 IN LONG FOR 3/4 IN PANELS, SPACED 16 IN OC WITH SCREWS OFFSET 8 IN FROM FIRST LAYER.
  - THREE LAYER SYSTEMS**- FIRST LAYER- 1 IN LONG FOR 1/2 IN AND 5/8 IN THICK PANELS OR 1-1/4 IN LONG FOR 3/4 IN PANELS, SPACED 24 IN OC. SECOND LAYER- 1-5/8 IN LONG FOR 1/2 IN AND 5/8 IN THICK PANELS OR 2-1/4 IN LONG FOR 3/4 IN PANELS, SPACED 24 IN OC WITH SCREWS OFFSET 8 IN FROM FIRST LAYER. THIRD LAYER- 2-1/4 IN LONG FOR 1/2 IN AND 5/8 IN THICK PANELS, SPACED 24 IN OC WITH SCREWS OFFSET 8 IN FROM FIRST LAYER.
  - FOUR LAYER SYSTEM**- FIRST LAYER- 1 IN LONG FOR 1/2 IN AND 5/8 IN THICK PANELS, SPACED 24 IN OC. SECOND LAYER- 1-5/8 IN LONG FOR 1/2 IN AND 5/8 IN THICK PANELS, SPACED 24 IN OC. THIRD LAYER- 2-1/4 IN LONG FOR 1/2 IN THICK PANELS OR 3 IN LONG FOR 5/8 IN THICK PANELS, SPACED 24 IN OC. FOURTH LAYER- 2-5/8 IN LONG FOR 1/2 IN THICK PANELS OR 3 IN LONG FOR 5/8 IN THICK PANELS, SPACED 12 IN OC. SCREWS OFFSET MIN 6 IN FROM LAYER BELOW.
- FURRING CHANNELS** (OPTIONAL, NOT SHOWN, FOR SINGLE OR DOUBLE LAYER SYSTEMS) - RESILIENT FURRING CHANNELS FABRICATED FROM MIN 25 MSG CORROSION-PROTECTED STEEL, SPACED VETICALLY A MAX OF 24 IN OC. FLANGE PORTION ATTACHED TO EACH INTERSECTING STUD WITH 1/2 IN LONG TYPE S-12 STEEL SCREWS. NOT FOR USE WITH ITEM 4A.
- JOINT TAPE AND COMPOUND** VINYL OR CASEIN, DRY OR PREMIXED JOINT COMPOUND APPLIED IN TWO COATS TO JOINTS AND SCREW HEADS OF OUTER LAYERS. PAPER TAPE, NOM 2 IN WIDE, EMBEDDED IN FIRST LAYER OF COMPOUND OVER ALL JOINTS OF OUTER PANELS.
- SIDING, BRICK OR STUCCO** (OPTIONAL, NOT SHOWN) - ALUMINUM, VINYL OR STEEL SIDING, BRICK VENEER OR STUCCO, MEETING THE REQUIREMENTS OF LOCAL CODE AGENCIES, INSTALLED OVER GYPSUM PANELS. BRICK VENEER ATTACHED TO STUDS WITH CORRUGATED METAL WALL TIES WITH STEEL SCREWS, NOT MORE THAN EACH SIXTH COURSE OF BRICK.
- CAULKING AND SEALANT\*** (OPTIONAL, NOT SHOWN) - A BEAD OF ACOUSTICAL SEALANT APPLIED AROUND THE PARTITION PERIMETER FOR SOUND CONTROL.
  - UNITED STATES GYPSUM Co: TYPE AS
  - \* BEARING THE UL CLASSIFICATION MARKING



4-HR CMU SEPARATION Scale: 1" = 1'-0"

THIS PLAN MUST REMAIN ON JOB SITE

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	BY <b>Many Waters Resource Network, Inc.</b> 11445 Honey Jordan Point INGLIS, FLORIDA 34449 (352) 447-5691 CATHERINE LAWHUN, Contract Administrator (888)-570-1344 cell: (352)-302-3372 email: jesuis4@many-waters.com
7/10/04	SHEET 12 OF 12