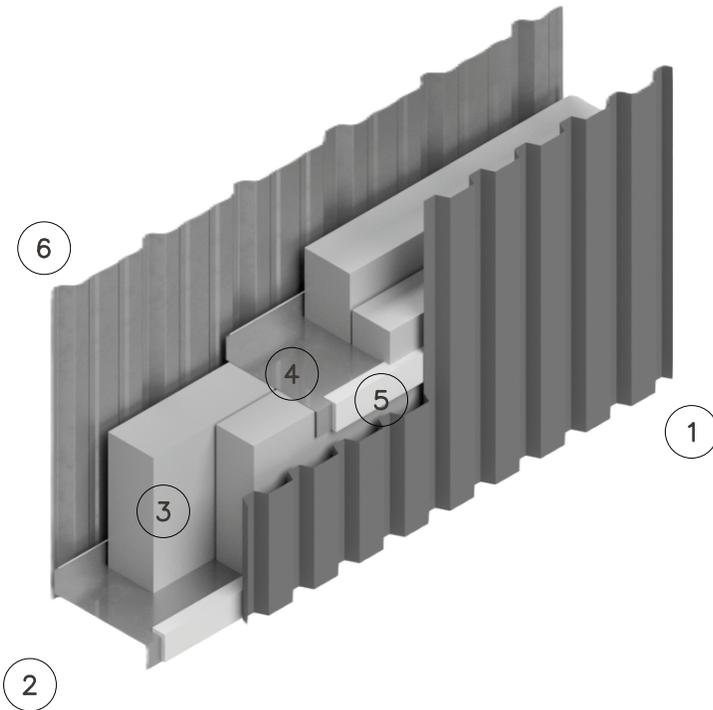


FIREGUARD WALL SYSTEM

LEGEND - Nonbearing Wall



1-HOUR FIRE-RESISTANCE RATING - ULC W605

Equivalent Opening Factor at 2 h (F_{EO}) = 0.02

- 1) 26ga (0.46mm) EXTERIOR CLADDING
- 2) U CHANNEL OR GIRTS SUPPORT
- 3) MINERAL WOOL INSULATION
- 4) GIRTS STRUCTURAL SUPPORT
- 5) CERAMIC FIBRE STRIP
- 6) 24ga (0.61mm) LINER PANEL

2-HOUR FIRE-RESISTANCE RATING - ULC W606

- 1) 24ga (0.61mm) EXTERIOR CLADDING
- 2) U CHANNEL OR GIRTS SUPPORT
- 3) MINERAL WOOL INSULATION
- 4) GIRTS STRUCTURAL SUPPORT
- 5) CERAMIC FIBRE STRIP
- 6) 24ga (0.61mm) LINER PANEL

THE FIREGUARD WALL SYSTEM IS BASED ON A ULC DESIGNATED NON-LOAD BEARING FIRE RATED WALL SYSTEM DESIGNED WITH THE STEEL CLADDING AND ENCLOSED MINERAL WOOL INSULATION TO PROVIDE 1- OR 2-HOUR FIRE RATED WALL. Testing based on CAN/ULC-S101-14-REV3 Standard Fire Endurance Tests of Building Construction Material.

ONE-HOUR FIRE RATED WALL ASSEMBLY (MEETS ULC DESIGN NO. W605)

- 26 GAUGE (0.46mm) MINIMUM EXTERIOR WALL PANEL C/W TEK SCREWS AT 12" (305mm) O.C. AND STITCH SCREWS AT 12" (305mm) O.C.
- GIRTS STRUCTURAL SUPPORT MINIMUM 18ga (1.22mm) NOMINAL THICKNESS.
- GIRTS SPACING OF 48" (1220mm) TO MATCH MINERAL WOOL BATT SIZE OR TO A MAXIMUM OF 60" (1524mm) O.C.
- 1/2" (13mm) THICK CERAMIC FIBRE STRIP LOCATED ON OUTSIDE FACE (FLANGE) FOR ALL EXTERIOR CLADDING SUPPORT FRAMING.
- 24 GAUGE (0.61mm) MINIMUM FULL HEIGHT LINER PANEL WITH MASTIC SEALER TAPE ON SEAM LINES AND ENDS, C/W TEK SCREWS AT 12" (305mm) O.C. AND STITCH SCREWS AT 12" (305mm) O.C.

TWO-HOUR FIRE RATED WALL ASSEMBLY (MEETS ULC DESIGN NO. W606)

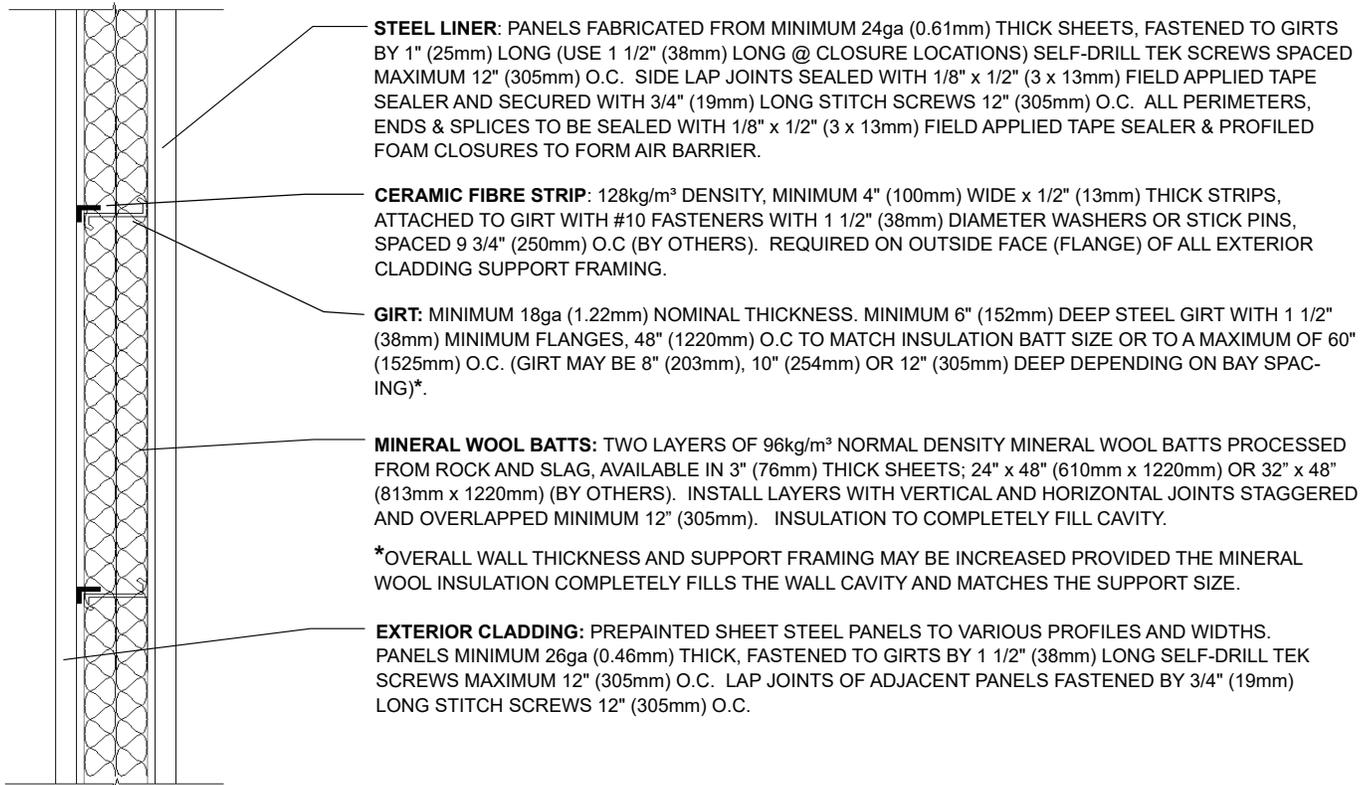
- 24 GAUGE (0.61mm) MINIMUM EXTERIOR WALL PANEL C/W TEK SCREWS AT 12" (305mm) O.C. AND STITCH SCREWS AT 12" (305mm) O.C.
- GIRTS STRUCTURAL SUPPORT MINIMUM 18ga (1.22mm) NOMINAL THICKNESS.
- GIRTS SPACING OF 48" (1220mm) TO MATCH MINERAL WOOL BATT SIZE OR TO A MAXIMUM OF 60" (1524mm) O.C.
- 1/2" (13mm) THICK CERAMIC FIBRE STRIP LOCATED ON OUTSIDE FACE (FLANGE) FOR ALL EXTERIOR CLADDING SUPPORT FRAMING.
- 24 GAUGE (0.61mm) MINIMUM FULL HEIGHT LINER PANEL WITH MASTIC SEALER TAPE ON SEAM LINES AND ENDS, C/W TEK SCREWS AT 12" (305mm) O.C. AND STITCH SCREWS AT 12" (305mm) O.C.

NOTES:

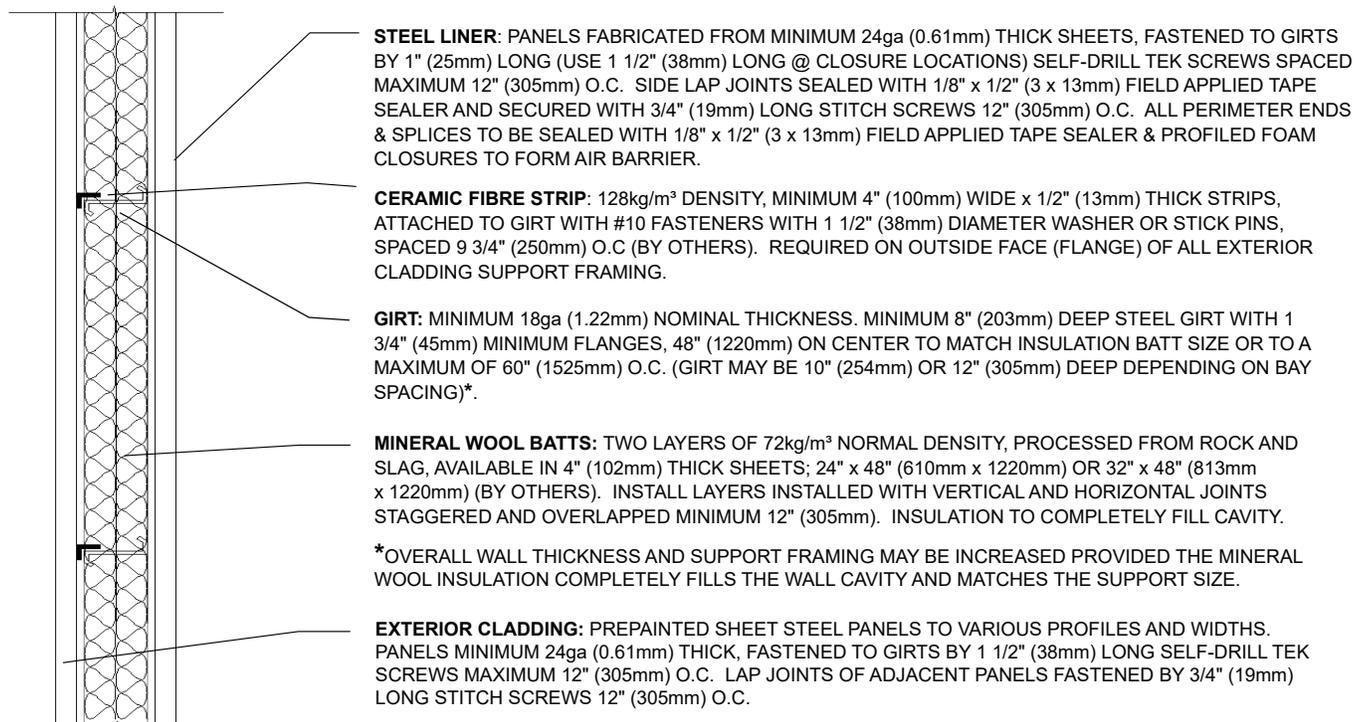
- Design No. W605 1-h can be used with an Equivalent Opening Factor at 2-h (F_{EO}) = 0.02
- See CSSBI FPB-20: Fire Protection Bulletin #20: Fire-Rated Exterior Sheet Steel Walls & FPB-24: Fire Protection Bulletin #24: New (and Better) Limiting Distance Requirements in 1995 NBCC, for additional information on Limiting Distance Requirements for NBCC
- Thermal modeling of fire rated assemblies completed - See BEHLEN Energy Guide for Rigid Frame Steel Buildings. Thermal Effective U-Values performance based on published data by mineral wool suppliers.
- See UL Product IQ BXUVC for other assemblies, including bearing exterior walls; Design No. U418 & U425 and interior partitions; Design No. W610 1-h & W611 2-h

FIREGUARD WALL SYSTEM

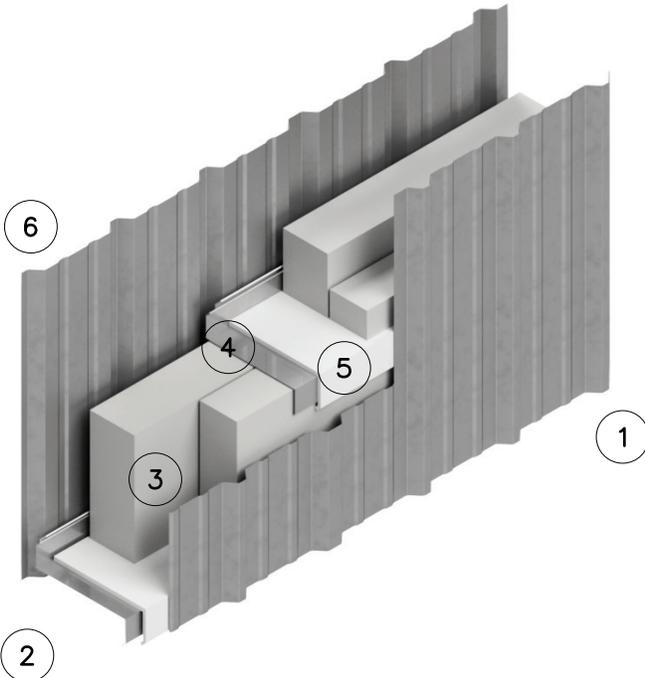
ONE-HOUR FIRE RATED WALL ASSEMBLY (MEETS ULC DESIGN NO. W605)



TWO-HOUR FIRE RATED WALL ASSEMBLY (MEETS ULC DESIGN NO. W606)



FIREGUARD INTERNAL PARTITION WALL SYSTEM



LEGEND - Nonbearing Interior Partition Wall

1-HOUR FIRE-RESISTANCE RATING - ULC W610

Fire side at either side of partition

- 1) 24ga (0.61mm) LINER PANEL
- 2) U CHANNEL OR GIRT SUPPORT
- 3) MINERAL WOOL INSULATION
- 4) GIRT STRUCTURAL SUPPORT
- 5) CERAMIC FIBRE STRIP
- 6) 24ga (0.61mm) LINER PANEL

2-HOUR FIRE-RESISTANCE RATING - ULC W611

Fire side at either side of partition

- 1) 22ga (0.76mm) LINER PANEL
- 2) U CHANNEL OR GIRT SUPPORT
- 3) MINERAL WOOL INSULATION
- 4) GIRT STRUCTURAL SUPPORT
- 5) CERAMIC FIBRE STRIP
- 6) 22ga (0.76mm) LINER PANEL

INTERIOR PARTITION WALL

THE FIREGUARD WALL SYSTEM IS BASED ON A ULC DESIGNATED NON-LOAD BEARING FIRE RATED WALL SYSTEM DESIGNED WITH THE STEEL CLADDING AND ENCLOSED MINERAL WOOL INSULATION TO PROVIDE 1- OR 2- HOUR FIRE RATED INTERIOR PARTITION WALL. **Test based on CAN/ULC-S101-14-REV3 Standard Fire Endurance Tests for Building Construction Material.**

ONE-HOUR FIRE RATED WALL ASSEMBLY (MEETS ULC DESIGN NO. W610)

- 24 GAUGE (0.61mm) MINIMUM LINER PANEL WITH MASTIC SEALER TAPE ON SEAM LINES AND ENDS, C/W TEK SCREWS AT 12" (305mm) O.C. AND STITCH SCREWS AT 12" (305mm) O.C.
- GIRT STRUCTURAL SUPPORT MINIMUM 18ga (1.22mm) NOMINAL THICKNESS.
- GIRT SPACING OF 48" (1220mm) TO MATCH MINERAL WOOL BATT SIZE OR TO A MAXIMUM OF 60" (1525mm) O.C.
- CERAMIC FIBRE STRIP INSTALLED TO ENVELOP THE TOP SURFACE AND BOTH OUTSIDE FACES (FLANGES) OF ALL LINER SUPPORT FRAMING.
- 24 GAUGE (0.61mm) MINIMUM LINER PANEL WITH MASTIC SEALER TAPE ON SEAM LINES AND ENDS, C/W TEK SCREWS AT 12" (305mm) O.C. AND STITCH SCREWS AT 12" (305mm) O.C.

TWO-HOUR FIRE RATED WALL ASSEMBLY (MEETS ULC DESIGN NO. W611)

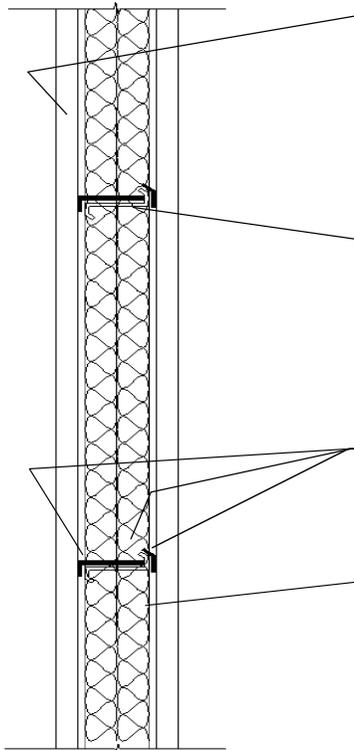
- 22 GAUGE (0.76mm) MINIMUM LINER PANEL WITH MASTIC SEALER TAPE ON SEAM LINES AND ENDS, C/W TEK SCREWS AT 12" (305mm) O.C. AND STITCH SCREWS AT 12" (305mm) O.C.
- GIRT STRUCTURAL SUPPORT MINIMUM 18ga (1.22mm) NOMINAL THICKNESS.
- GIRT SPACING OF 48" (1220mm) TO MATCH MINERAL WOOL BATT SIZE OR TO A MAXIMUM OF 60" (1525mm) O.C.
- CERAMIC FIBRE STRIP INSTALLED TO ENVELOP THE TOP SURFACE AND BOTH OUTSIDE FACES (FLANGES) OF ALL LINER SUPPORT FRAMING.
- 22 GAUGE (0.76mm) MINIMUM LINER PANEL WITH MASTIC SEALER TAPE ON SEAM LINES AND ENDS, C/W TEK SCREWS AT 12" (305mm) O.C. AND STITCH SCREWS AT 12" (305mm) O.C.

NOTES:

- See UL Product IQ BXUVC for other assemblies, including Design No. W605 1-h & W606 2-h for exterior walls, Design No. W447 for 1-h & 2-h Interior Drywall Partitions

FIREGUARD INTERNAL PARTITION WALL SYSTEM

ONE-HOUR FIRE RATED PARTITION WALL ASSEMBLY (MEETS ULC DESIGN NO. W610)



LINER PANEL: PREPAINTED SHEET STEEL PANELS TO VARIOUS PROFILES AND WIDTHS. PANELS MINIMUM 24ga (0.61mm), FASTENED TO GIRTS BY 1 1/2" (38mm) LONG SELF-DRILL TEK SCREWS SPACED MAXIMUM 12" (305mm) O.C. SIDE LAP JOINTS SEALED WITH 1/8" x 1/2" (3 x 13mm) FIELD APPLIED TAPE SEALER AND SECURED WITH 3/4" (19mm) LONG STITCH SCREWS 12" (305mm) O.C. ALL PERIMETER ENDS & SPLICES TO BE SEALED WITH 1/8" x 1/2" (3 x 12mm) FIELD APPLIED TAPE SEALER & PROFILED FOAM CLOSURES TO FORM AIR BARRIER.

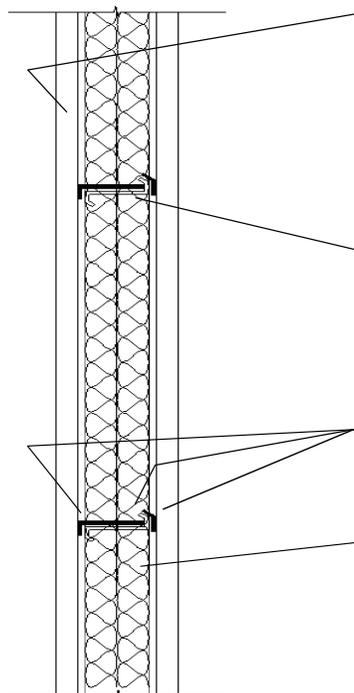
GIRT: MINIMUM 18ga (1.22mm) NOMINAL THICKNESS. MINIMUM 6" (152mm) DEEP STEEL GIRT WITH 1 1/2" (38mm) MINIMUM FLANGES, 48" (1220mm) O.C TO MATCH INSULATION BATT SIZE OR TO A MAXIMUM OF 60" (1525mm) O.C. (GIRT MAY BE 8" (203mm), 10" (254mm) OR 12" (305mm) DEEP DEPENDING ON BAY SPACING)*.

CERAMIC FIBRE STRIP: 128kg/m³ DENSITY, 1/2" (13mm) THICK STRIPS, ATTACHED TO GIRT WITH #10 FASTENERS WITH 1 1/2" (38mm) WASHERS OR STICK PINS, SPACED 9 3/4" (250mm) O.C (BY OTHERS) REQUIRED TO BE INSTALLED TO ENVELOP THE TOP SURFACE AND BOTH FACES (FLANGES) OF ALL LINER SUPPORT FRAMING.

MINERAL WOOL BATTS: TWO LAYERS OF 96kg/m³ NORMAL DENSITY MINERAL WOOL BATTS PROCESSED FROM ROCK AND SLAG, AVAILABLE IN 3" (76mm) THICK SHEETS; 24" x 48" (610mm x 1220mm) OR 32" x 48" (813mm x 1220mm) (BY OTHERS). INSTALL LAYERS WITH VERTICAL AND HORIZONTAL JOINTS STAGGERED AND OVERLAPPED 12" (305mm). INSULATION TO COMPLETELY FILL CAVITY.

*OVERALL WALL THICKNESS AND SUPPORT FRAMING MAY BE INCREASED PROVIDED THE MINERAL WOOL INSULATION COMPLETELY FILLS THE WALL CAVITY AND MATCHES THE SUPPORT SIZE.

TWO-HOUR FIRE RATED PARTITION WALL ASSEMBLY (MEETS ULC DESIGN NO. W611)



LINER PANEL: PREPAINTED SHEET STEEL PANELS TO VARIOUS PROFILES AND WIDTHS. PANELS MINIMUM 22ga (0.76mm), FASTENED TO GIRTS BY 1 1/2" (38mm) LONG SELF-DRILL TEK SCREWS SPACED MAXIMUM 12" (305mm) O.C. SIDE LAP JOINTS SEALED WITH 1/8" x 1/2" (3 x 13mm) FIELD APPLIED TAPE SEALER AND SECURED WITH 3/4" (19mm) LONG STITCH SCREWS 12" (305mm) O.C. ALL PERIMETER ENDS & SPLICES TO BE SEALED WITH 1/8" x 1/2" (3 x 12mm) FIELD APPLIED TAPE SEALER & PROFILED FOAM CLOSURES TO FORM AIR BARRIER.

GIRT: MINIMUM 18ga (1.22mm) NOMINAL THICKNESS. MINIMUM 8" (203mm) DEEP STEEL GIRT WITH 1 3/4" (45mm) MINIMUM FLANGES, 48" (1220mm) O.C TO MATCH INSULATION BATT SIZE OR TO A MAXIMUM OF 60" (1525mm) O.C. (GIRT MAY BE 10" (254mm) OR 12" (305mm) DEEP DEPENDING ON BAY SPACING)*.

CERAMIC FIBRE STRIP: 128kg/m³ DENSITY, 1/2" (13mm) THICK STRIPS, ATTACHED TO GIRT WITH #10 FASTENERS WITH 1 1/2" (38mm) WASHERS OR STICK PINS, SPACED 9 3/4" (250mm) O.C (BY OTHERS). REQUIRED TO BE INSTALLED TO ENVELOP THE TOP SURFACE AND ON BOTH FACES (FLANGES) OF ALL LINER SUPPORT FRAMING.

MINERAL WOOL BATTS: TWO LAYERS OF 72kg/m³ NORMAL DENSITY MINERAL WOOL BATTS PROCESSED FROM ROCK AND SLAG, AVAILABLE IN 4" (102mm) THICK SHEETS 24" x 48" (610mm x 1220mm) OR 32" x 48" (813mm x 1220mm) (BY OTHERS). INSTALL LAYERS WITH VERTICAL AND HORIZONTAL JOINTS STAGGERED AND OVERLAPPED 12" (305mm). INSULATION TO COMPLETELY FILL CAVITY.

*OVERALL WALL THICKNESS AND SUPPORT FRAMING MAY BE INCREASED PROVIDED THE MINERAL WOOL INSULATION COMPLETELY FILLS THE WALL CAVITY AND MATCHES THE SUPPORT SIZE.