

TABLE 3 (continued)
UL Fire Resistance Ratings for Brick Masonry Walls

Design Number	Rating ¹	Assembly
Brick Veneer/Steel Stud, Loadbearing (continued)		
V434	1 hr	<ul style="list-style-type: none"> • (1) layer 5/8 in. (15.9 mm) thick gypsum wallboard • 3½ in. (89 mm), 20 gage, steel studs with max. spacing at 24 in. (610 mm) o.c., with 3½ in. (89 mm) thick glass fiber batt insulation • 2 in. (51 mm) max. thick foamed plastic • 1 in. (25.4 mm) min. air space • 4 in. (102 mm) nominal brick veneer with wall anchor ties attached to studs at max. 24 in. (610 mm) o.c.
V454	1 hr	<ul style="list-style-type: none"> • (1) layer 5/8 in. (15.9 mm) thick gypsum wallboard • 3½ in. (89 mm), 20 gage, steel studs at max. spacing of 24 in. (610 mm) o.c. • (1) layer 5/8 in. (15.9 mm) thick gypsum wallboard • 4 in. (102 mm) max. thick rigid polystyrene insulation • 1 in. (25.4 mm) min. air space • 4 in. (102 mm) nominal brick veneer with wall anchor ties attached to studs at max. 24 in. (610 mm) o.c.
V458	45 min	<ul style="list-style-type: none"> • (1) layer 5/8 in. (15.9 mm) thick gypsum wallboard bearing UL Classification Mark • 35/8 in. (92 mm) 18 gage steel studs at max. spacing of 24 in. (610 mm) o.c. with nominal 3.5 pcf mineral wool batt • (1) layer 5/8 in. (15.9 mm) thick gypsum wallboard • 1 in. (25.4 mm) min. air space • 3¾ in. (95 mm) min. thick brick veneer with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick
Brick Veneer/Steel Stud, Non-Loadbearing		
V414	3 hr, interior 1 hr, exterior	<ul style="list-style-type: none"> • (1) layer 5/8 in. (15.9 mm) thick gypsum wallboard • 35/8 in. (92 mm) wide, 15/8 in. (41 mm) legs, 20 gage steel studs, spaced 16 in. (406 mm) o.c., studs cut 3/4 in. (19.1 mm) less than assembly height • 2 in. (51 mm) thick foamed plastic (rigid insulation) • 2 in. (51 mm) air space • 4 in. (102 mm) nominal clay facing brick laid in mortar with metal ties at 16 in. (406 mm) o.c. max. each way
Brick/Concrete Masonry, Loadbearing		
U902	4 hr	<ul style="list-style-type: none"> • 4 in. (102 mm) nominal loadbearing concrete masonry unit laid with full mortar beds and with 9 gage joint reinforcement at 16 in. (406 mm) o.c. vertically • min. 1 in. (25.4 mm) air space with up to 4 in. (102 mm) foamed plastic (rigid insulation) as option • 3/4 in. (19.1 mm) wide, 7 in. (178 mm) long, 26 gage corrugated metal ties spaced at 8 in. (203 mm) o.c. horizontally and 16 in. (406 mm) o.c. vertically or truss or ladder type joint reinforcement of 9 gage wire for full width of wall assembly, cross wires at 16 in. (406 mm) o.c., spaced at 16 in. (406 mm) o.c. vertically • 4 in. (102 mm) nominal clay facing brick laid in mortar

1. Unless noted otherwise, fire resistance rating applies to both sides of assembly.

Other

In addition to assemblies listed above, there are several other assemblies previously tested with results published in past building codes or other publications. A selection of these appears in [Table 4](#).