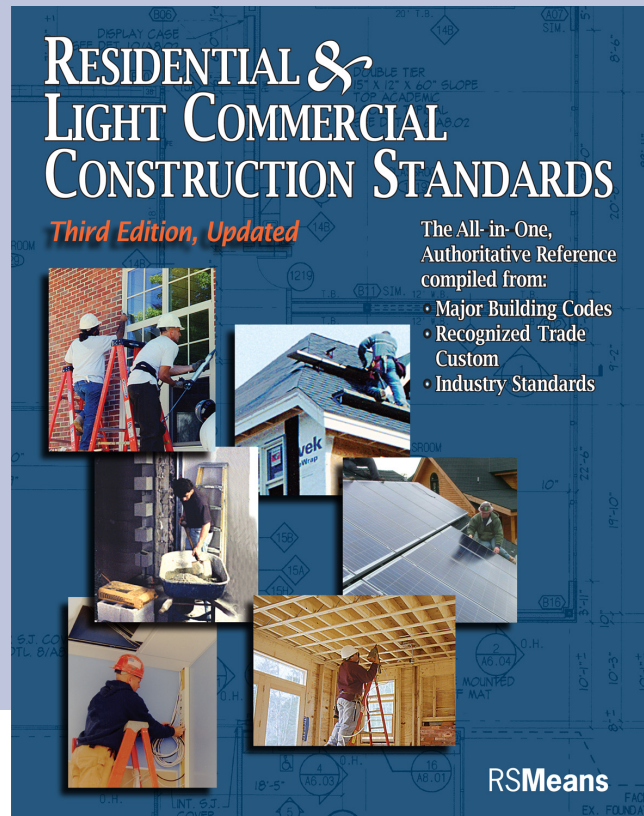


*Residential & Light Commercial
Construction Standards,
Updated Third Edition*

RSMMeans
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8 ROOFING, SIDING, & MOISTURE PROTECTION

Glazed Brick Wall Sections

Brick Veneer: Methods of Thin Brick Installation

Industry Standards

Technical Note 28C—Thin Brick Veneer
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Adhered Veneer
Adhered veneer relies on a bonding agent between the thin brick units and the backup substrate. Adhered veneer construction may be classified as either thin bed or thick bed.

Thin bed is an application of only a few millimeters of mortar. Thick bed may be 1/2" to 1" thick. The mortar is heat cured. A July-August process means mortar must be used.

Stucco
Stucco is a mixture of cement, sand, and water. It is applied in layers over a substrate. Stucco is used for exterior walls and is available in various finishes.

Figure 8.50

SPECIALTIES 13

Supports should be in alignment with the project design requirements for the locker installation. All edges and exposed surfaces, including end units, should be finished with no defects such as scratches or chips in the finish. Doors and hardware should operate freely without chafing or binding. There should be no obstructions in the free swing of the locker door. 90-degree consideration should be made for space allowance between benches and open locker doors.

Typical Boiler Installation

Expansion Tank
Expansion tank
Tank filling and drain
Cool water return
with pressure regulator
Pressure relief valve
Over temperature
shutoff point
System return
Circulating pump
Oil burner
Burner control
Opening control

Figure 13.5

Figure 13.6

MINIMUM SECTIONAL AREA (sq in) OF REINFORCING BARS

HEIGHT, MEASURED FROM TOP OF CONCRETE TO TOP OF FINISH PLASTER (ft)	NO. OF BARS	MINIMUM SECTIONAL AREA (sq in)
10	3	37
11	3	41
12	3	45
13	3	49
14	3	53
15	3	57
16	3	61
17	3	65
18	3	69
19	3	73
20	3	77
21	3	81
22	3	85
23	3	89
24	3	93
25	3	97
26	3	101
27	3	105
28	3	109
29	3	113
30	3	117
31	3	121
32	3	125
33	3	129
34	3	133
35	3	137
36	3	141
37	3	145
38	3	149
39	3	153
40	3	157
41	3	161
42	3	165
43	3	169
44	3	173
45	3	177
46	3	181
47	3	185
48	3	189
49	3	193
50	3	197
51	3	201
52	3	205
53	3	209
54	3	213
55	3	217
56	3	221
57	3	225
58	3	229
59	3	233
60	3	237
61	3	241
62	3	245
63	3	249
64	3	253
65	3	257
66	3	261
67	3	265
68	3	269
69	3	273
70	3	277
71	3	281
72	3	285
73	3	289
74	3	293
75	3	297
76	3	301
77	3	305
78	3	309
79	3	313
80	3	317
81	3	321
82	3	325
83	3	329
84	3	333
85	3	337
86	3	341
87	3	345
88	3	349
89	3	353
90	3	357
91	3	361
92	3	365
93	3	369
94	3	373
95	3	377
96	3	381
97	3	385
98	3	389
99	3	393
100	3	397

For 10' slab = 20 ft. Area, 1 square inch = 144 sq in.

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9 WINDOWS & DOORS

Window/Sliding Glass Door

Windows and sliding glass doors are manufactured products completely assembled in the factory or partially assembled in the field. The components manufactured in the factory can vary in quality due to the stoniness of the aluminum extrusion, the type of joint connection used for corners, the sealants or gaskets used and the quality of the glazing components.

Product integrity is affected by the packing and shipping means used between the factory and the site or between the factory and a distributor. Transportation can cause stress to assembled windows and doors. Distributors, contractors, or installers who recognize this could influence later.

The location on the exterior of the window or door is an important contributing cause for leaks. Wind driven rain from the predominant local storm direction can result in openings facing the weather to demonstrate leakage. In the building design, product selection and methods of installation of window and door openings facing the storm exposure should be considered.

Storm Exposure
The performance of windows and sliding glass doors depends in large part on weather exposure. Manufacturers fabricate products for different weather performances. There are categories for performance established by AAMA. The AAMA publication 101-99, Voluntary Specification for Aluminum and Poly(Vinyl Chloride) (PVC) Prime Windows and Glass Doors provides a method for selecting a performance rating for water resistance based on the location in wind zones around the country and height of the window door above ground level. There are many areas of the country which experience wind speeds up to 70 and 80 mph in conjunction with rain. This should be considered in window selection.

The weather exposure of building openings is often an important contributing cause for leaks. Wind driven rain from the predominant local storm direction can result in openings facing the weather to demonstrate leakage. In the building design, product selection and methods of installation of window and door openings facing the storm exposure should be considered.

Comments
Select thermal requirements for windows based on climate. Also note that government agencies, such as DOE (Department of Energy) and HUD (Department of Housing and Urban Development) and institutions responsible for other publicly funded projects require certain thermal ratings for windows.

IBC-2006

Section 2509 Gypsum Board in Showers and Water Closets
2509.1 Wet areas: Showers and public toilet walls must conform to Sections 1210.2 and 1210.3.
2509.2 Base for tile: Cement, fiber cement, or glass mat gypsum backing in accordance with ASTM C 1178, C 1288, or C 1325 must be used as a base for wall tile in tub and shower areas and wall and ceiling panels in shower areas. When installed in accordance with C-216 or ASTM C 841, water-resistant gypsum backing is to be used for wall tile in water closet compartments. Regular gypsum wallboard is allowed under wall panels in other wall and ceiling areas when installed in accordance with ASTM C 840.
2509.3 Limitations: Water-resistant gypsum backing board should not be used in the following areas:
1. Above a vapor retarder in a bathroom compartment or a shower.
2. In areas with constant high humidity, such as indoor pools, steam rooms, and saunas.
3. On ceilings where frame spacing goes beyond 12 inches on center for 1/2" thick water-resistant gypsum backing board and more than 16" on center for 5/8" thick water-resistant gypsum backing board.

IRC-2006

R702.1 Bathroom and shower spaces: Shower walls must be finished in accordance with Section R307.2.
R702.4.2 Cement, fiber cement, and glass mat gypsum backers: These backers in compliance with ASTM C 1288, C 1325, or C 1178 shall be used for tub and shower wall tile and shower wall panels.

Cement Backer Board/Underlayment

Drains to
Exterior or base outside
Cement mortar
Cementitious backer unit
Wood or metal studs
Plasterboard
1/2" to 1/2"
1/2" to 1/2"
Dimpled tile
Dimpled tile
Weep holes

Figure 10.4

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