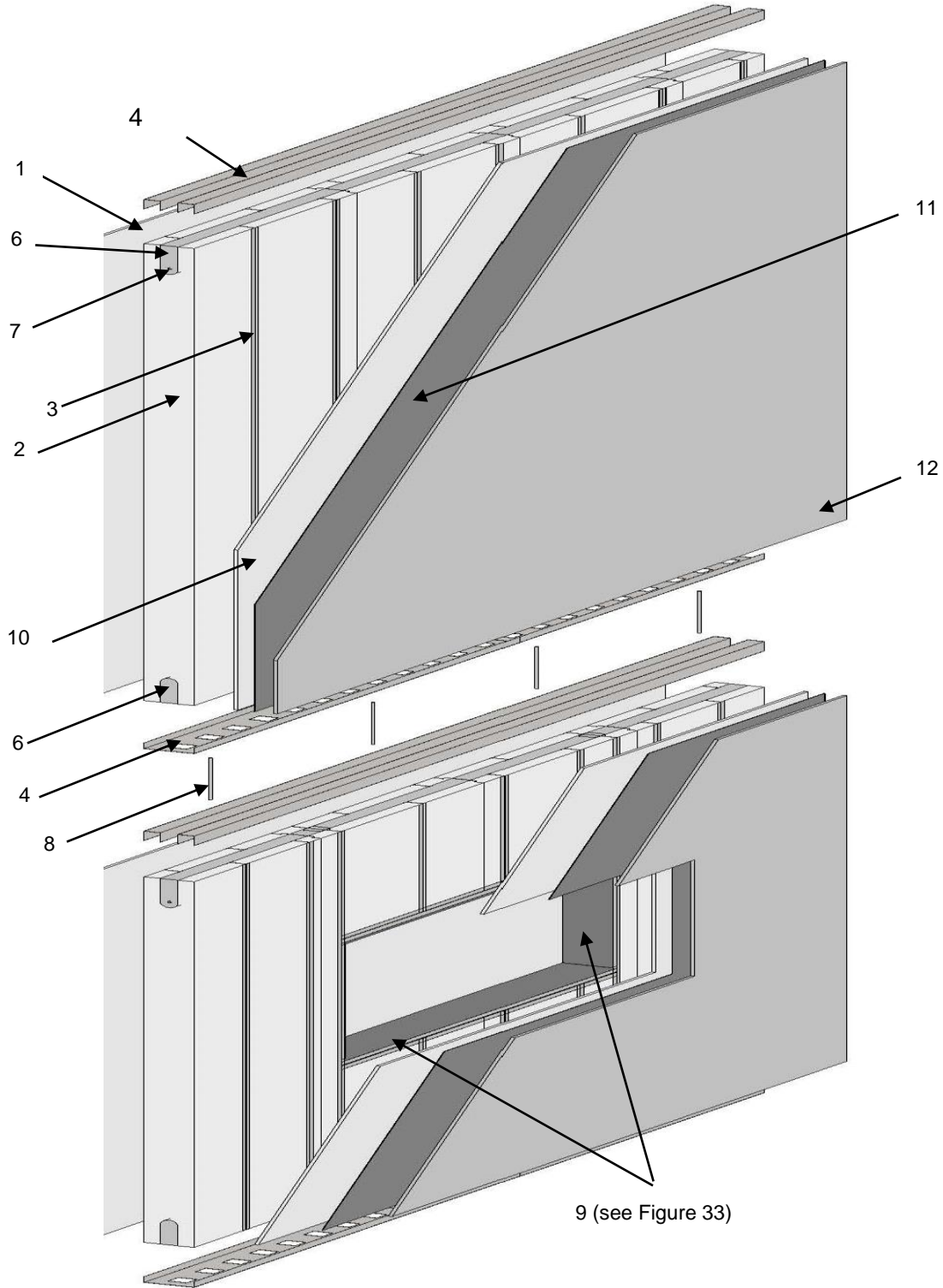
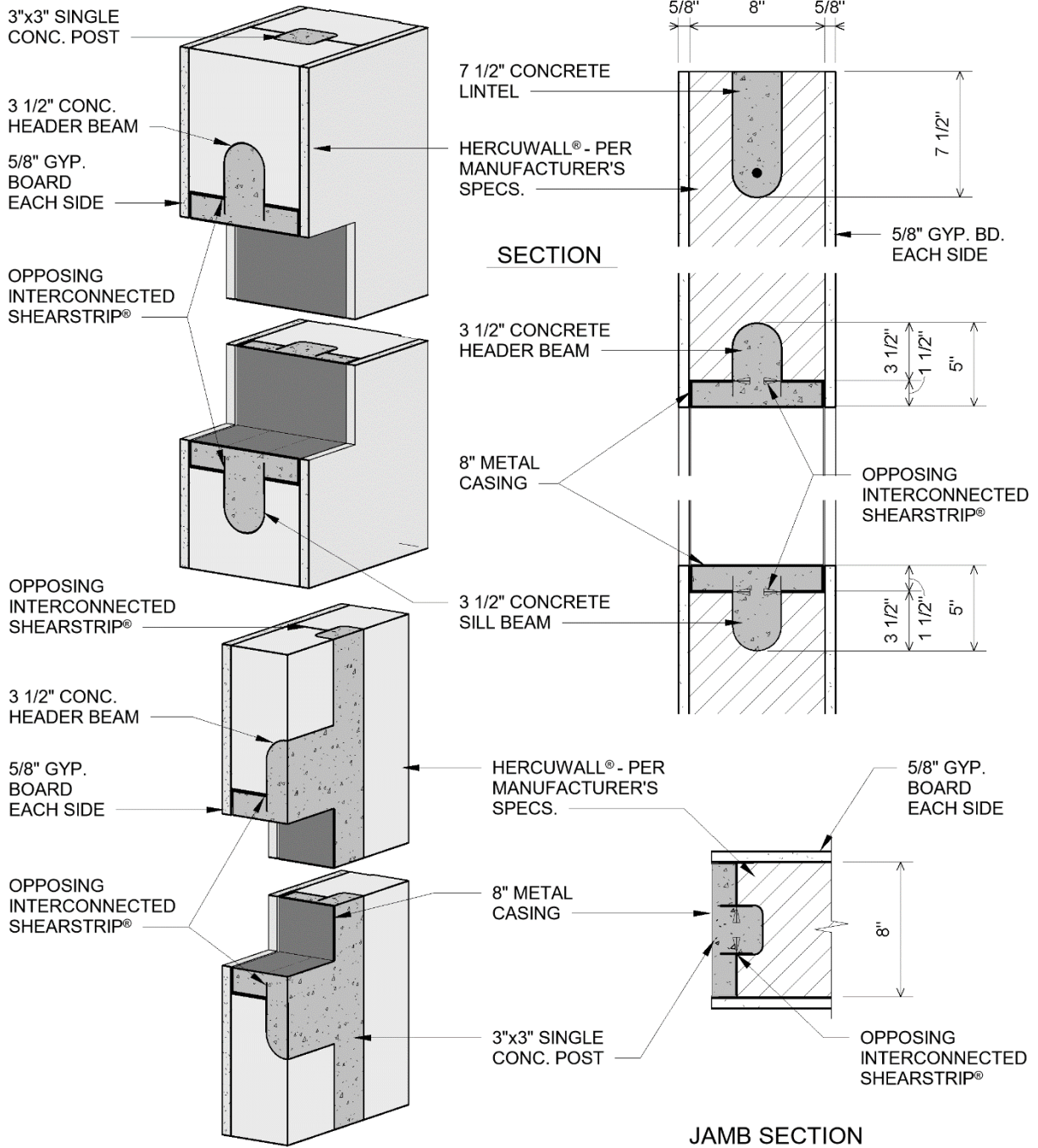


QAI Design B1123-1e – HerculTech Inc. –NFPA 285
HercuWall® Series 8 Panel System
Exterior Wall Assembly





HercuWall® Openings (Window and Door) Opening Design for Types I-V Construction

ITEM	WALL COMPONENT	APPROVED MATERIALS
1	Interior Finish	Minimum 5/8 inch (16 mm) thickness, Type X gypsum wall board complying with ASTM C1396. Gypsum to be anchored into ShearStrip® flanges with #6 1.25 inch length Type S drywall screws at 8" (203 mm) on center around perimeter, and 12" (305 mm) in field. Joints to be taped and mudded.
2	HercuWall® Panel	Type S, Type SW, Type A products of 8 inch (203 mm) thickness, composed of Type II (1.5 lbs/ft ³) nominal density or Solid Shear (not shown) panels of Type IX (2.0 lbs/ft ³ EPS thermal insulation potential heat of 2,250 BTU/ft ² (25.5 MJ/m ²) per 1 inch (25 mm) thickness. Concrete stud spacing of 12" (305 mm), 8 inch (305 mm) or Solid Shear core options.
3	HercuWall® ShearStrip®	HercuWall® ShearStrip® component, alternating in orientation between vertical concrete cavities. See Section 2.2 of this report.
4	HercuWall® Top and Bottom Track	HercuWall® Top and Bottom track component. See Section 2.2 of this report.
5 (not shown)	Concrete Posts	Normal weight 4,000 psi (27.6 MPa) compressive strength at 28 days, See Section 2.2 of this report.
6	HercuWall® Bond Beam and Base Beam	Concrete bond beam and base beam, per figure 33 of this report.
7	Steel Reinforcing	Minimum #4 Grade 60, located in the Bond Beams. Additional steel reinforcing to be applied in accordance with the Engineering Design. Addition rebar inclusion does not reduce or detract from the Type I-IV compliance of the HercuWall® Series 8 assembly. See figure 11 for details.
8	Rebar Dowels	Rebar dowels, of minimum 12 inches (304 mm) length, embedded into top and bottom HercuWall® Series 8 panels to create connections at panel junctions. Spacing of rebar dowels is per Engineering Design for site.
9	HercuWall® Window and Door Casing	HercuWall® door and window casing components. Preparation for ensuring 1-1/2" (38 mm) concrete coverage around openings before application of casings is required. See figure 33. For information on window and door casing, see Section 2.2 of this report.
10	Exterior Sheathing	Minimum 5/8 inch (16 mm) thickness, Type X exterior gypsum board sheathing complying with ASTM C1177 or ASTM C1396. Sheathing to be anchored into ShearStrip® flanges with #6 1.25 inch length Type S drywall screws at 8" (203 mm) on center around perimeter, and 12" (305 mm) in field. Joints to be taped and mudded.
11	Water-Resistive Barrier	An approved water-resistive barrier, complying to 4.3.1.2 of this report.
12	Approved Exterior Claddings ²	<ul style="list-style-type: none"> • Brick Veneer shall be installed with minimum 1 inch (25 mm) (recommended 2 inch (51 mm)) air space. Brick veneer is to be a minimum of 2.625 inches (67 mm) thickness. • Fiber cement lap siding, minimum 0.25 inch (6 mm) thickness complying with ASTM C1186 Type A Grade II labeled by an approved agency classified as non-combustible. • Fiber cement panel siding, minimum 0.25 inch (6 mm) thickness complying with ASTM C1186 Type A Grade II labeled by an approved agency classified as non-combustible. • Glass-fiber reinforced concrete panels, minimum 0.375 inch (9.5 mm) thickness. • Marble slab of minimum 1 inch (25 mm) thickness. • Steel (approved corrosion resistant) of minimum 0.0149 inches (0.38 mm) thickness. • Stone (artificial) of minimum 1.5 inches (38 mm) thickness. • Stone (natural) of minimum 2 inches (51 mm) thickness. • Stucco or Exterior Cement Plaster (see required thickness per substrate type below): <ul style="list-style-type: none"> Three-Coat Work Over: <ul style="list-style-type: none"> ○ Metal Plaster Base – Minimum 0.875 inches (22 mm). ○ Unit Masonry – Minimum 0.625 inches (16 mm). ○ Cast in Place or Precast Concrete – Minimum 0.625 inches (16 mm). Two-Coat Work Over: <ul style="list-style-type: none"> ○ Unit Masonry – Minimum 0.5 inches (13 mm). ○ Cast in Place or Precast Concrete – Minimum 0.375 inches (9.5 mm). • Terra Cotta of minimum 1 inch (25 mm) thickness.

Note 1: HercuWall® Series 8 panel assemblies described above, have been evaluated for load-carrying capacity at 100% allowable loading as outlined in Tables 2- 6 of CER_{US}-1003.

Note 2: Connection of the exterior cladding is to penetrate the ShearStrip® flange and not rely on anchorage into the exterior sheathing. Spacing and fastener type are to match the Engineering Design for resisting intended service loads. Design and connection of exterior cladding is outside the scope of this listing.