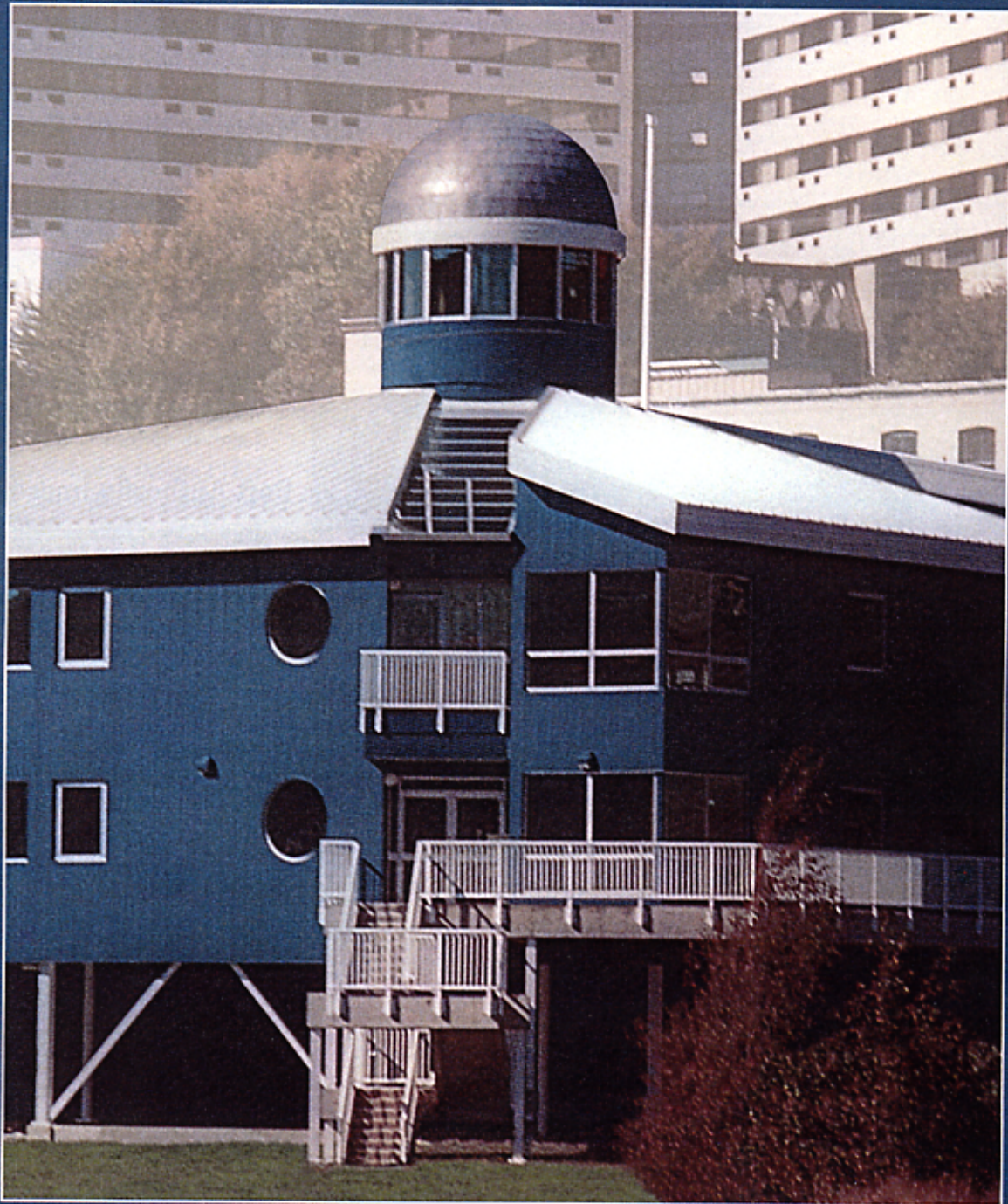


Steel Design

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DOFASCO

Light Steel Framing Provides a Flexible, Construction-Friendly System

Increasingly, light steel framing (LSF) is being incorporated into advanced yet cost-effective building systems. A case in point: the Mega Building System (MBS) by Power MBS Structures Inc. of Mississauga, Ontario. The latest example of MBS is to be found just north of Toronto in the Parklane Condominiums at Woodbridge, an 85-unit project for Windleigh Holdings Corp. The finished project will comprise an H-shaped 4-storey complex with brick veneer and stucco exterior walls and a built-up roof.

The MBS system involves wall panel assemblies incorporating Dofasco's 12-ga (0.1061") to 20-ga (0.0374") galvanized steel with their commensurate strength and rigidity. It also incorporates an open web steel joist (OWSJ) floor system. As Martin McLeod, vice president, business development, for Power MBS Structures Inc., says, "The wall and floor technology we use isn't new—it's already proven itself in the field. But we may be the first to offer it in a single, properly engineered turnkey package including design-assist, supply and install." As well, in this project the

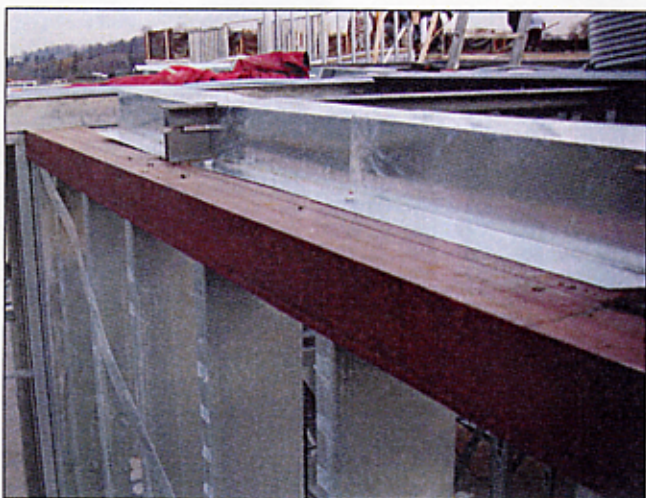


Exterior, corridor, and party wall panel assemblies are built to rigid tolerances on semi-automated panellizing tables using 8", 6" or 3-5/8" LSF.

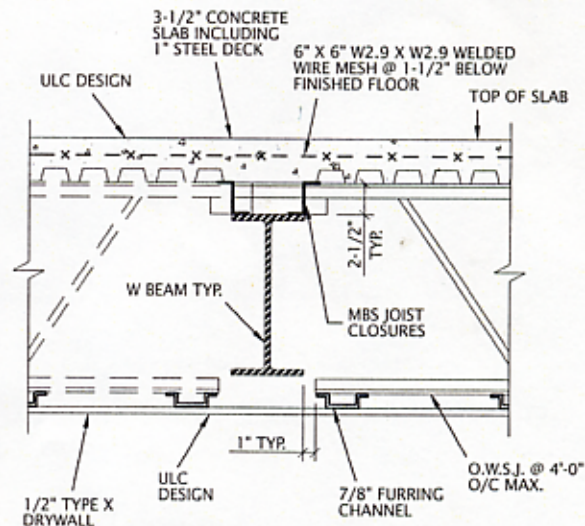
MBS floor system provides the superstructure for the roof (see detail on page 4).

MBS's patented Isolation Beam involves framing a channel atop each party and corridor wall so that when the minimum 2-1/2" lift of concrete is poured for the floor topping, an additional depth of concrete is poured over

those walls to provide a fire and smoke barrier between units and between units and hallways. The MBS system meets or exceeds building code, including fire rating, in all jurisdictions and is well over the STC 50 standard. The floor system achieves a 1- or 2-hour fire rating by combining with the concrete topping



The isolation beam together with the additional 2-1/2" of concrete provides a fire and smoke barrier between units and between units and hallways.



FLOOR SYSTEM DETAIL (1-HR FIRE RATED ASSEMBLY)

and the drywall ceiling attached to the underside of the joists.

Power MBS Structures usually supply their wall panel assemblies for exterior, corridor, and party walls using 8", 6" or 3-5/8" LSF. Wall panels are built to rigid tolerances on semi-automated panelizing tables designed by the company. The distribution angle atop the walls allows the location of a joist to be moved in the field, without special engineering approval, to facilitate a minor design change or assist another trade. Overall, the MBS system offers owners and builders the advantage of a single party supplying and installing the entire superstructure.

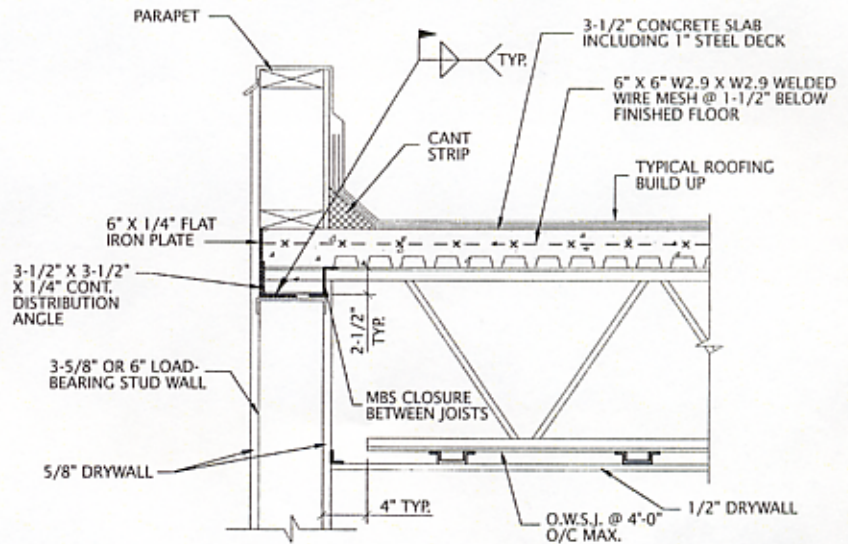
To quote Martin McLeod, "MBS is a high quality product using a very flexible, construction-friendly system. All walls and floors are uniform and dimensionally accurate because everything is prefabricated to exacting standards in controlled factory conditions." He adds that dimensional

In the Parklane Condominiums, open spans in excess of 40' are present.

reliability was a prime consideration in the Parklane project.

MBS also offers potential advantages in terms of speed of erection and year-round construction capability over conventional pour-in-place concrete and masonry block.

Lighter footings and foundations, no bulkheads, no shoring, no canning, no assembling and dismantling of forms and no furring of walls makes the MBS system highly cost competitive on a completed building basis. As well, erection can take place in virtually any temperature and in rain or snow. Nor is the system hindered by material supply issues.



EXTERIOR LOAD-BEARING WALL AT ROOF - DETAIL



Interior load-bearing stud wall (6" LSF) with noise-suppression resilient channel.

Light steel framing and OWSJ are readily available to the MBS group.

Builders find their design flexibility can also be enhanced by having Power MBS Structures run the OWSJ from the exterior to the corridor walls, which allows the relocating of party walls at any time after occupancy to create larger or smaller suites.

Martin McLeod says that the company expects to successfully diversify into new markets. But what won't change is that their system is built around the strength and flexibility of light steel framing.

Design and Construction Team

Owner: Windleigh Holdings Corp.

Architect: Intra Architects Inc.

Engineer: McCavour Engineering

General contractor: Windleigh Millenium Inc.

Structural contractor: Power MBS Structures Inc.

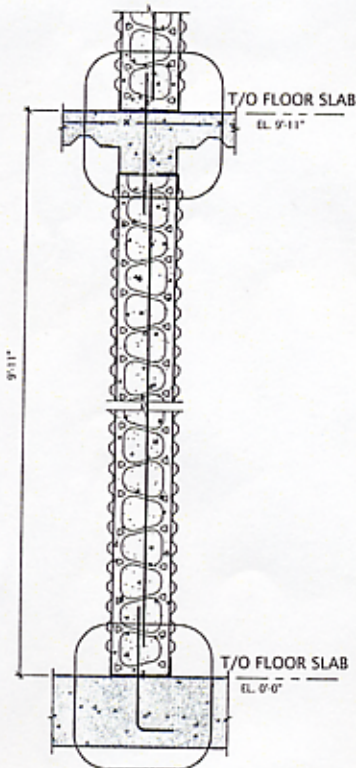
Light steel framing suppliers: Bailey Metal Products Limited; VICWEST Steel

OWSJ and deck suppliers: MBS/Vulcraft

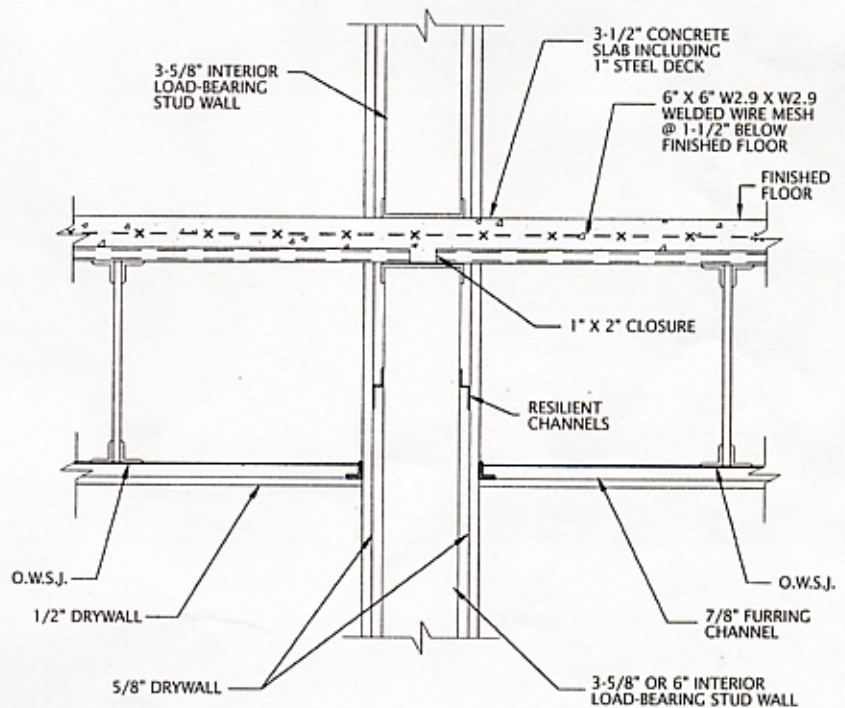


Interior third floor LSF walls being installed with steel framed concrete shear wall in foreground portion.

MARTIN MCLEOD



TYPICAL SHEAR WALL SECTION



INTERIOR NON-JOIST-BEARING FIRE SEPARATION WALL