Specifying Lightweight Modular Masonry Fireplaces

A Planning and Resource Guide for Design Professionals

Plan the fireplace as a coordinated building system

Successful fireplace integration begins before a product is placed in the drawings. The fireplace system, fuel, opening, structure, chimney or venting path, combustion and makeup air, clearances, finishes, and installation sequence all affect one another.

Early coordination gives the project team more opportunity to protect the design intent while addressing health, safety, welfare, constructability, and project-specific requirements.

This guide summarizes the webinar's principal planning themes and connects design professionals with Mason-Lite's current specification and technical resources. It is an educational reference only. Always use the current model-specific drawing, manual, listing information, and applicable project requirements.

The seven-part planning framework

1. Define the application and design intent

Begin with the architectural and project context:

- Residential, commercial, hospitality, or outdoor application
- New construction or renovation
- Desired opening width, height, depth, and proportion
- Single-sided, see-through, corner, peninsula, bay, or island configuration
- Ground-floor, upper-level, cantilevered, or other structural condition
- Desired finishes and relationship to the surrounding architecture
- Project location, stage, team, and target schedule
- These inputs help the project team evaluate whether a standard or semi-custom system may support the intent or whether a project-specific custom direction should be considered.

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2. Establish the system and fuel direction

Fuel and appliance classification affect the questions the project team must resolve. Wood-burning, decorative gas, vent-free, and custom systems may be governed by different listings, standards, manuals, venting approaches, clearances, and local requirements.

Do not select a fuel or system solely from appearance. Consider:

- Intended use and owner expectations
- Local availability, codes, and restrictions
- Required flexibility for future use
- Venting path and offset constraints
- Combustion and makeup-air needs
- Opening size and configuration
- Applicable product documentation and listings
- If the final direction is not yet known, identify fuel selection as an open design question and involve Mason-Lite, the dealer, and the responsible project professionals early.

3. Treat clearances and support as design inputs

Required clearances vary by product and application. Take them from the current model-specific manual and incorporate them into architectural, framing, and structural coordination. Do not infer them from another fireplace or a past project.

Confirm:

- Side, rear, top, floor, hearth, and chimney or vent clearances
- Combustible versus noncombustible framing conditions
- Required under-unit conditions for combustible floors
- Approved base or support systems where applicable
- Hearth-extension and facing requirements
- Seismic, anchoring, and structural requirements
- Loads imposed by the fireplace, chimney, cladding, and supporting steel

Lightweight masonry is lighter than conventional site-built masonry, but it still imposes meaningful loads. Upper-level, cantilevered, unusually large, or otherwise complex installations may require project-specific structural engineering.

4. Reserve the chimney or venting path early

Consider the chimney or venting system while the building layout is still flexible. Late changes can affect floor plans, roof conditions, framing, finishes, mechanical coordination, and project cost.

Early questions include:

- Which chimney or venting system is being evaluated?
- What are its inner and outer dimensions?
- What clearances are required around it?
- How tall is the system from the fireplace to termination?
- Are offsets or unusual routing conditions anticipated?
- Do the roof or nearby construction affect termination?

- Is the fireplace oversized, see-through, multi-sided, or otherwise draft-sensitive?
- Should electrical preparation for potential draft-assist equipment be considered?

Final sizing and routing must be based on the selected fireplace, current manufacturer documentation, project geometry, local conditions, and applicable requirements.

5. Coordinate combustion and makeup air

Modern buildings can be very tight. Spray foam, mechanical exhaust, building pressure, and other conditions can affect the air available for combustion and draft.

Coordinate the fireplace with the mechanical team and consider:

- Manufacturer-provided outside-air provisions
- HVAC-designed makeup air
- Routing and termination of outside-air components
- Other exhaust equipment and pressure conditions
- The exact fireplace opening and venting configuration

Do not assume that an approach used on another project will perform the same way in a different building.

6. Use current drawings and documentation

Mason-Lite provides specifications, manuals, CAD resources, application details, listings, custom-drawing examples, brochures, and pre-installation resources. Select documents by the exact model and application, verify the revision, and coordinate them with the project requirements.

Custom Drawing Library examples can help teams understand possible configurations, but an existing drawing is not automatically approved for another project. Confirm the correct project-specific drawing and documentation before construction or ordering decisions.

7. Assemble the information needed for coordination

Before advancing the fireplace specification, assemble:

- Project location and application
- Desired opening and configuration
- Fuel direction, if known
- Plans, elevations, sections, and roof information
- Available wall, chase, floor, and structural conditions
- Proposed chimney or venting approach
- Finish and hearth concepts
- Dealer, installer, architect, builder, engineer, and owner contacts
- Confirmed decisions and open technical questions

This information helps Mason-Lite and the project team identify the appropriate product path, current documentation, missing inputs, and next review steps.

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Frequently Asked Questions

How should a project team choose among wood-burning, gas-burning, and vent-free directions?

There is no universal answer. The appropriate direction depends on owner expectations, intended use, local requirements, product classification, venting conditions, available fuel, opening and configuration, and future flexibility. Some wood-burning systems may accommodate an approved gas presentation, while gas-dedicated products cannot be assumed to support wood burning. Review the exact product documentation and coordinate the decision with Mason-Lite, the dealer, and the responsible project professionals.

Can a lightweight modular masonry fireplace be installed on an upper level or combustible floor?

Some systems can be installed in these conditions when the required listed support or base system, clearances, anchoring, and structural capacity are provided. Exact requirements vary by model and application. Do not substitute an improvised solid base for a listed assembly or assume that a detail from another model applies. Use the current manual and involve the project structural engineer where required.

When should chimney and venting design begin?

As early as possible. Fireplace opening area, system type, overall height, offsets, chase space, roof conditions, draft environment, and clearances can all affect the venting approach. Reserving space early helps reduce redesign and coordination conflicts later.

Do see-through or multi-sided fireplaces always require a chimney fan?

Not in every case. These configurations can be more draft-sensitive, and some projects may benefit from planned draft-assist equipment. The need depends on the exact opening, chimney or venting design, height, building conditions, and applicable documentation. Evaluate the project condition rather than assuming a fan is either always required or never required.

How should modular masonry be compared with a metal fireplace system?

Compare the complete project rather than the firebox alone. Relevant factors include desired architectural expression, opening and configuration, structural support, venting, installation, finishes, product documentation, serviceability, warranty, expected use, and total installed scope. Both categories include different products and price levels, so a project-specific comparison is more useful than a universal cost statement.

Are Mason-Lite resources available for Canadian projects?

Product availability, distribution, approvals, and project requirements should be confirmed for the specific Canadian location. Contact Mason-Lite so the team can help identify the appropriate dealer or distribution path and the documentation requiring review.

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