

OTTAWA ADDITIONS

HVAC & Mechanical

Questions about heating, cooling, ventilation,
plumbing and electrical extensions for home
additions

14 Expert Answers from Addition IQ

ottawaadditions.com/construction-brain

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Does an Ottawa addition need its own heating zone?

A dedicated heating zone for your addition is not always legally required, but in Ottawa's climate it is almost always the right choice — and experienced local builders will typically recommend it strongly.

Why Ottawa's Climate Makes Zoning Critical

Ottawa's winters are genuinely extreme. Temperatures can sit below minus 20 degrees Celsius for weeks at a time, and your heating system works hardest precisely when the stakes are highest. When you add square footage to a home, you are asking your existing furnace and duct system to serve more space than it was originally designed for. In a mild climate, an undersized heating system is an inconvenience. In Ottawa, it means rooms that never reach a comfortable temperature, pipes that can freeze in exterior walls, and energy bills that climb steadily because the system runs constantly trying to keep up.

The practical question is whether your existing furnace has the capacity to handle the additional load. A typical Ottawa home furnace is sized to maintain roughly 21 degrees Celsius inside when it is minus 30 outside — that is the design condition engineers use. Adding 300 square feet of new living space, especially if it has significant exterior wall exposure or large windows, increases the heating load meaningfully. If your furnace is already running near capacity on the coldest days, the addition will be noticeably cold unless you either upgrade the furnace or add supplemental heating.

A separate heating zone — whether through a branch off your existing forced-air system with its own thermostat, a ductless mini-split heat pump, electric baseboard heaters, or in-floor radiant heating — gives you independent temperature control over the new space. This matters for comfort, but it also matters for energy efficiency. If your addition is a home office used only during the day, or a guest suite used occasionally, you do not want to heat it to the same temperature as the rest of the house at all times. Zoning lets you dial it back when the space is unoccupied.

Ductless mini-split heat pumps have become a popular choice for Ottawa additions in the past several years. Modern cold-climate mini-splits from manufacturers like Mitsubishi and Daikin maintain full heating capacity down to minus 25 or minus 30 degrees Celsius, which makes them genuinely viable as a primary heat source for an addition rather than just a supplement. A single-zone mini-split installed in an addition typically costs **\$4,000 to \$7,500 installed**, and it provides both heating and cooling — a real advantage given Ottawa's hot, humid summers.

In-floor radiant heating is another excellent option for additions with tile or hardwood flooring, particularly kitchen extensions or sunrooms. A hydronic radiant system tied into a boiler costs **\$8,000 to \$15,000** for a typical addition, but provides exceptionally even, comfortable heat with no drafts and no ductwork running through the new space.

From a permit standpoint, any new HVAC equipment or gas line extension requires a **TSSA permit** in Ontario, and the work must be done by a licensed gas fitter. Electrical baseboard heaters require an **ESA permit** and a licensed electrician. Your building permit application for the addition should include the mechanical plan showing how the new space will be heated.

A licensed HVAC contractor should perform a **Manual J heat load calculation** for the addition before you commit to a heating approach — this is the engineering calculation that tells you exactly how much heating capacity the new space requires based on its size, insulation values, window area, and Ottawa's design temperatures. This calculation costs relatively little and prevents expensive mistakes.

If you are looking for HVAC contractors experienced with Ottawa additions, the Ottawa Construction Network directory at **justynrookcontracting.com** lists mechanical contractors you can contact directly for quotes and assessments.

Q2

How do I ensure my addition is properly air-sealed for Ottawa's extreme cold?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- Justyn Rook Contracting
- JC Carpentry
- Renovatios
- Somar Contracting Inc.
- Pure Flow Water Solutions inc.

[View all contractors ?](#)

Q3

Should I install backup electric baseboard heating in my Ottawa addition?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- Homeupgraders
- RenoMotion Inc.
- Renovo Construction
- Diamond renovations
- Best Hand2Hand moving company

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Q4

What are the ESA requirements for electrical work in my Ottawa home addition?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- Homeupgraders
- RenoMotion Inc.
- Titley Construction
- The Granite shop
- Capital City Drywall

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Q5

Is a heat recovery ventilator necessary for a well-insulated addition in Ottawa?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- 613Bins
- RenoMotion Inc.
- Denys Builds Designs Renovations
- Titley Construction
- Elie The Carpet Guy Inc.

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Q6

What TSSA requirements apply to gas line extensions for an Ottawa addition?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- 613Bins
- JC Carpentry
- Elie The Carpet Guy Inc.
- ALM Construction & Landscaping Inc.
- The Next Reno

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Q7

Do I need a separate hot water heater for my in-law suite addition in Ottawa?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- Luxe Painting and Renovations
- JC Carpentry
- Denys Builds Designs Renovations
- L.L. Renovation
- Callandgone

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Q8

Should I install radiant floor heating in my Ottawa addition for comfort?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- Homeupgraders
- JC Carpentry
- MAK Construction and Development Inc
- Renovo Construction
- Custom By Arie

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Q9

What R-value insulation do I need for addition walls in Ottawa?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- Homeupgraders
- RenoMotion Inc.
- Diamond renovations
- Home Front Services
- Valcor Construction

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Q10

Do I need to upgrade my 100-amp electrical panel for an addition in Ottawa?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- 613Bins
- RenoMotion Inc.
- Best Hand2Hand moving company
- Denys Builds Designs Renovations
- Vanguard Environmental

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Q11

How do I extend my existing ductwork into a home addition in Ottawa?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- Luxe Painting and Renovations
- JC Carpentry
- Rrenovations
- Best Hand2Hand moving company
- Nic's D.U.C.T Works Inc

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Q12

Should I install a separate mini-split heat pump in my Ottawa addition?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- 613Bins
- JC Carpentry
- Humble Homes - property maintenance
- Custom By Arie
- ALTIOR CONSTRUCTION

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Q13

What size furnace do I need after adding 500 square feet to my Ottawa home?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- 613Bins
- JC Carpentry
- Pure Flow Water Solutions inc.
- Estra Design
- ARTEXPRO Tile & Finishes

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Q14

Can my existing furnace handle a home addition or do I need a new one in Ottawa?

Looking for experienced contractors? The Ottawa Construction Network connects homeowners with qualified professionals:

- Luxe Painting and Renovations
- JC Carpentry
- The Deck Store Inc
- Renovo Construction
- Somar Contracting Inc.

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