OTTAWA CONCRETE PROS

Steps & Stoops

Concrete front steps and stoops under the 2024 Building Code: footings for more than 2 risers, rise and run, handrails, guards and permits

4 Expert Answers from Concrete Pro IQ

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Q1

How many risers can sit on the ground without footings in Ontario?

The 2024 Ontario Building Code allows concrete steps with 1 or 2 risers to be laid on ground level. Steps with more than 2 risers follow the foundation-depth rules in section 9.12 of the Code.

The foundation requirement for those deeper steps depends on the soil under them. In clay or soils that are not clearly defined, section 9.12.2.2 of the Code sets the minimum depth at 1.2 m, but not less than the depth of frost penetration. In coarse-grained soils with good drainage, the Code sets no fixed depth limit, though the bottom of the excavation must be kept from freezing during construction under section 9.12.1.3. The contractor's drawings set the actual depth for the site.

There is also a structural question about how the steps are supported. Section 9.8.9.2 of the Code says exterior concrete stairs with more than 2 risers and 2 treads must be supported on unit masonry or concrete walls or piers not less than 150 mm in cross-section, or cantilevered from the main foundation wall. If they are cantilevered, section 9.8.10.2 requires them to be anchored to a concrete foundation wall not less than 200 mm thick, and section 9.8.10.3 requires precautions during backfilling so that later freezing of the soil does not cause uplift on the underside.

A few other Code requirements apply regardless of how many risers there are. Rise must be between 125 mm and 200 mm, and run between 255 mm and 355 mm, under Table 9.8.4.1. Risers must be uniform, with no more than 5 mm difference between adjacent treads or landings and no more than 10 mm between the tallest and shortest risers in a flight, under section 9.8.4.4. Exterior stairs serving one dwelling unit must be at least 860 mm wide under section 9.8.2.1(4). Treads and landings must be wear-resistant and slip-resistant under section 9.8.9.6. The Code also notes that these dimensional requirements apply regardless of whether a building permit is required.

If the steps serve a building entrance, the City of Ottawa's Landscaping Education Guide says stairs and landings that provide access to a building may need a building permit. The City's Building Code Services can confirm whether a permit is needed for the specific configuration you have in mind.

Since March 1, 2026 the City of Ottawa has required businesses that install concrete steps to hold a hardscaping contractor licence, which costs $319 for 2026 and requires commercial general liability insurance of not less than $2,000,000. Ask to see the licence and check the contractor's name against the City's published list yourself.

For steps, compare quotes on the base depth and compacted granular thickness in writing, the specified concrete strength, the finish, and whether removal of the old steps and disposal of the broken concrete are included or priced separately.

Q2

Do Ottawa concrete steps need two handrails?

For exterior concrete steps serving a single dwelling unit, the 2024 Ontario Building Code requires only one handrail, not two, once the stair has more than 3 risers. Stairs with 3 risers or fewer do not require a handrail at all.

The relevant section is 9.8.7.1, which says handrails are not required on exterior stairs serving a single dwelling unit with not more than 3 risers, and that only one handrail is required on exterior stairs with more than 3 risers serving one dwelling unit. The required handrail must be between 865 mm and 1 070 mm high, per section 9.8.7.4(2).

A guard is a separate question from a handrail. Under section 9.8.8.1, a guard is required on each open side of steps, landings or porches where the difference in elevation between the walking surface and the adjacent surface within 1.2 m (3'-3") is more than 600 mm (2'-0"). Guards for a single dwelling unit are not less than 900 mm high where the walking surface is not more than 1 800 mm above finished ground, and not less than 1 070 mm above that height, per section 9.8.8.3.

A few other Code points apply to exterior concrete steps regardless of whether a permit is required. The rise must be between 125 mm and 200 mm, and the run between 255 mm and 355 mm, per Table 9.8.4.1. Risers must be uniform, with no more than 5 mm difference between adjacent treads and no more than 10 mm between the tallest and shortest risers in a flight, per section 9.8.4.4. The stair must be at least 860 mm wide per section 9.8.2.1(4). Treads and landings must be wear-resistant, slip-resistant, and smooth, even and free from open defects per section 9.8.9.6. Section 9.8.4.4 also notes that where the top or bottom riser adjoins a sloping walking surface, the riser height may vary across the stair by not more than 1 in 12.

If the steps serve a required egress and meet any of the elevation or grade conditions in the City's Building Code Services advisory on landscaping materials, a building permit may be required. The City's Landscaping Education Guide (March 2026) states that stairs and landings that provide access to a building may need a building permit. Ask the City's Building Code Services before work starts if you are replacing or rebuilding front entry steps.

The City of Ottawa's Hardscaping Contractor Licence, in place since March 1, 2026, is required for a business installing concrete steps on private property. Ask any contractor to show you their licence and check the City's published list yourself. Ottawa Concrete Pros does not verify anyone's licence or insurance.

Have a written contract that sets out the full scope and price, any required permit, and a copy of the City's Landscaping Education Guide, which a licensed hardscaping contractor is required to give you.

Q3

Garage-to-house concrete step in an Ottawa home: Code rules?

A step between an attached garage and the house sits inside the building, so the outdoor rules on this site (the City's landscaping advisory, the exterior stair width and the exterior handrail exemption) are not the ones to rely on. We found no City statement on whether building such a step needs a permit, so ask the City's Building Code Services before work begins.

The Code rules that apply come from several sections of O. Reg. 163/24. On dimensions, Table 9.8.4.1 sets the rise at a minimum of 125 mm and a maximum of 200 mm, and the run at a minimum of 255 mm and a maximum of 355 mm. The tread depth must be at least equal to the run and no more than 25 mm deeper than the run (section 9.8.4.2(2)). Risers must be uniform: the maximum difference between adjacent risers is 5 mm, and between the tallest and shortest riser in the flight it is 10 mm (section 9.8.4.4). Treads and landings slope no more than 1 in 50 and must be wear-resistant, slip-resistant, and smooth, even and free from open defects (section 9.8.9.6).

Width, handrails and guards for a step inside the garage are questions to put to the City's Building Code Services and your contractor; we did not research the interior rules for them. A guard is required where the difference in elevation is more than 600 mm within 1.2 m of the walking surface (section 9.8.8.1).

On the concrete itself, section 9.3.1.6(1) sets at least 32 MPa for garage floors and exterior flatwork, with a water-to-cement ratio no higher than 0.45 (section 9.3.1.7(1)); ask the contractor to specify the mix in writing. If the air temperature is below 5 °C when the concrete is placed, section 9.3.1.9 requires it to be kept between 10 °C and 25 °C during mixing and placing, and maintained at not less than 10 °C for 72 hours after placing.

Section 9.35.2.2 also requires an attached garage floor to slope to drain liquids to the outdoors, so the step and the floor need to work together.

Before hiring, ask the City's Building Code Services whether a permit is required for this specific step, and ask the contractor to put the concrete mix strength, footing depth, riser and tread dimensions, and any cold-weather protection plan in writing in the quote.

When you review quotes, ask each contractor to break out the cost of removing the existing step separately from forming, pouring and finishing the new one, so that line does not disappear into a single number.

Q4

May a two-riser stoop sit on grade in Riverside South?

Yes, a two-riser stoop may sit on grade. The 2024 Ontario Building Code, at section 9.12.2.2(3) and (4), permits concrete steps with one and two risers to be laid on ground level, without the deeper foundation required for stairs with more than two risers.

That said, sitting on grade does not mean anything goes. The Code still governs the steps themselves. Each riser must be between 125 mm and 200 mm, and each run must be between 255 mm and 355 mm, per Table 9.8.4.1. Risers must be uniform, with no more than 5 mm difference between adjacent treads or landings and no more than 10 mm between the tallest and shortest risers in the flight, per section 9.8.4.4. The stoop must be at least 860 mm wide, per section 9.8.2.1(4). Treads and the landing surface must be wear-resistant, slip-resistant, and smooth, even and free from open defects, per section 9.8.9.6. Those requirements apply regardless of whether a building permit is required.

On the permit question, the City's Landscaping Education Guide (March 2026) says some hardscape structures need a building permit, including stairs and landings that provide access to a building. The City's Building Code Services advisory on landscaping materials adds that a landscaping structure providing access to an egress is built under a building permit where certain conditions apply, including a difference in elevation of more than 600 mm (2'-0") between adjacent surfaces. A two-riser stoop at a front or side door sits at the threshold of that analysis. The safe step is to ask the City's Building Code Services whether this specific stoop, at this entrance, in Riverside South, needs a permit before any work begins.

Zoning is also in play. Both Zoning By-law 2008-250 and Zoning By-law 2026-50 apply to applications deemed complete on or after March 11, 2026, with the most restrictive provisions from each governing. Soft-landscaping minimums for the front or exterior side yard depend on the yard's setback depth and the lot width. Confirm the rules for the specific lot with the City.

Before anyone digs, even for a shallow base, a locate request must be submitted through Ontario Dig Authority at least five business days before the dig. That is a requirement under the Ontario Underground Infrastructure Notification System Act, 2012, and it applies to any ground-breaking, regardless of depth.

The contractor doing the work must hold a City of Ottawa hardscaping contractor licence, which has been required since March 1, 2026 for businesses installing concrete steps on private property. The licence requires the contractor to carry commercial general liability insurance of not less than $2,000,000 and automobile liability of not less than $2,000,000, and to provide a written contract and a copy of the City's Landscaping Education Guide.

When you are ready to hire, ask the contractor to show you their City of Ottawa hardscaping contractor licence and then confirm their name appears on the City's published list of licensed hardscaping contractors.

Disclaimer: This guide is provided for informational purposes only by Ottawa Concrete Pros. It does not constitute professional advice. Always consult qualified contractors and your local building authority (the City of Ottawa) before starting any concrete project, and request utility locates before anyone digs. Concrete work in Ontario must meet the 2024 Ontario Building Code (O. Reg. 163/24) where it applies. Information is current as of November 15, 2026 and may change. Visit **ottawaconcretepros.ca** for the latest answers.