



Answers to frequently asked questions about the City of Boulder's Snow and Ice Program:

Q: Which roads get cleared first?

When the city's transportation system is impacted by snow and ice, our highest priority is to ensure safety and maintain emergency response capability. The [interactive snow map](#) shows which routes are cleared first. It is important for the community to know that normal transportation conditions cannot always be maintained during all storms.

- Primary Routes are key arterial roadways, including emergency access routes, major arterial streets, access to hospitals, schools, transit and critical infrastructure, neighborhood streets with steep slopes and the multi-use path system.
- Secondary/Collector Routes include remaining arterial and key local roadways which need service because of steep grade, shading, emergency access routes and school access.
 - Both primary and secondary routes require several passes before they are completely clear. This is because turn lanes, multiple lanes and on-street bike lanes also need to be cleared.
- Floater Routes contain residential roads that have been selected based upon critical connections for multimodal options or school access, as well as steep or shady roads.
- Conditional Residential Streets are cleared when there is eight inches or more of snow and the temperatures are forecasted to be below freezing for three days.

Q: How often are roads cleared?

Primary routes are cleared every 2-4 hours, secondary routes every 3-5 hours and residential routes every 6-8 hours (when conditional routes are enacted it can be 10-12 hours). Timeframes may change based on conditions, traffic, time of day the storm hits and snowfall rate.

Q: What about multi-use paths?

There are over 70 miles of multi-use path systems and 100% of them are cleared on a 12-hour shift rotation during and immediately after snow events.

- 38 of these miles are cleared by Public Works.
- The remainder are cleared by Parks & Recreation, University of Colorado and
- contractors.

Q: What is the city's approach to clearing residential streets?

Like other Front Range communities, the city does not typically plow side and residential streets since most snow usually melts within a day or two and because side and residential street plowing would significantly increase costs, impacting other high-priority services. For a typical snowstorm with less than a foot of accumulation, the city does not clear all residential streets. In these cases, motor vehicle activity and the sun will make most residential roadways functional before city plows can get to them. The resources required for staff to be able to plow the 100's of miles of residential roadways is well beyond what can be funded.



With more significant snow events, once primary and secondary routes are relatively clear (travel, turn and bike lanes and bus pullouts) resources can be reallocated to residential streets. This brings its own set of challenges. Many local roadways are narrow and large city trucks can only clear a single center lane, causing large amounts of snow to be piled against parked cars and creating snow walls across driveways. This can make it tough for people to access their vehicles or the road.

The city began its residential street plowing program during the 2014-2015 snow season, incorporating select streets that were prioritized based on an analysis of residential street slopes. When the forecast calls for eight or more inches of snow or three days of temperatures below freezing, the city deploys trucks to plow residential streets in predetermined areas with steep slopes or a lot of shade ([see map](#)). This residential street plowing program is funded from a 2013 voter-approved tax initiative that provides additional transportation funding from 2014 through 2030.

Q: How can I submit a clearing request?

Visit [Inquire Boulder](#) to submit [sidewalk snow and ice removal](#) and [plow requests](#).

The Transportation Maintenance team will inspect the area and will strive to allocate resources to service clearing requests depending on conditions and after prioritized streets and multi-use paths are cleared. Emergency requests and requests from emergency personnel will be prioritized before other requests.

Q: How many vehicles are out clearing roads and multi-use paths?

The city has a total of 19 vehicles used for snow and ice control. This includes:

- 15 heavy vehicles for arterial snow removal
- Two small vehicles to clear bike lanes, collector roadways and priority residential streets
- Two small vehicles and a specialized piece of equipment dedicated to multi-use paths

Q: How do staff snow crew shifts work?

Snow crews are split into two 12-hour shifts and perform snow and ice control occurs around the clock until the event is over. Then, crews return to their normal 8-hour schedule.

- On-road operators and fleet mechanics are on 12-hour shifts. Shift changes occur at noon and midnight.
- Off-road operators are on 12-hour shifts. Shift changes occur at 4:00 a.m. and 4:00 p.m.

Q: Is the city responsible for clearing sidewalks?

No, clearing sidewalks is not a local government responsibility. Like most communities, city property owners, managers and tenants are required to keep their sidewalks, including a 5' path on curb ramps and extensions, clear of snow and ice within 24 hours after snow stops.

Q: What about curb ramps and crosswalks?



It is the responsibility of the adjacent property owner, manager and tenant to clear a 5' path on curb ramps within 24 hours after it stops snowing.

While crosswalks that connect multi-use paths are cleared by city snow crews, normal travel conditions cannot always be maintained during winter storms and snow occasionally may be present in some crosswalks and curb ramps. This happens more frequently if there is a turn lane, as plows and traffic push snow onto the crosswalk and plows cannot access the curb ramp while they are clearing the route. The city contracts hand shoveling snow removal for over 200 locations, including bus stops, crosswalks and more than 100 curb ramps, mostly on islands on major travel corridors. Multiple passes of these areas are typically needed before they are completely clear.

Q: What can be challenging about keeping sidewalks and bike lanes clear?

On many roadways, there is a detached area between the sidewalk and the street. Snow is plowed into this area. However, in heavy storms, the volume of snow is large enough that efforts to clear adjacent travel lanes and bike lanes can result in snow being pushed back onto sidewalks. This is understandably frustrating for adjacent property owners, but is impossible to avoid in all circumstances, especially with heavy accumulations. The situation is complicated when there is no detached area and staff must choose between fully clearing a travel lane or bike lane and impacting an adjacent sidewalk. Staff use what space they can to open as much of a lane while protecting as much of a sidewalk as possible, but with heavy accumulations, this is a challenge.

Q: How is the city's Snow and Ice Program funded?

Funding for the city's Snow and Ice Program comes from the city's Transportation budget. Visit the city's [budget web page](#) to learn more.

Q: How does the city prepare for a storm?

Staff managing snow and ice control have a clear protocol in responding to storms.

- Days Prior:
 - The storm is tracked and if conditions allow roadways may be pretreated.
 - Fleets are prepared.
- Hours Prior:
 - Snow shifts are called.
 - Materials and routes are discussed.
 - The snow phone line is activated to receive calls.
- Storm Start:
 - Operators are on the road.
- Storm Start + 4 hours:
 - Operators are on the road
 - Most primary and secondary routes have been serviced once.
 - Floater routes are more than halfway complete.



- Multi-use paths have been serviced once.
- If it is actively snowing operators focus on keeping main lane(s) open.
 - Deicing materials are applied (most likely to intersections, hills and turn lanes).
- If the storm slows or stops on-road operators begin addressing turn lanes or pockets.
 - Deicing materials are applied as needed.
 - Clean up begins.
- Operators may have recently or will recently return to the shop to reload on materials.
- Depending on the storm (accumulation, time of day, and length of the storm) the city may use contractors to clear select bus stops, cross walks and multimodal connections.
 - This can occur multiple times through and after a storm or can occur once after the storm if the storm is short and brings little accumulation.
- **After the Storm:**
 - Snow operations continue long after the storm stops to complete routes.
 - For some of primary and secondary routes, this includes opening center turn lanes, turn lanes and a portion of on-street bike lanes.
 - Depending on the amount of snow the entire width of the bike lanes may not be open to prevent pushing that snow onto the adjoining sidewalk.
 - Off-road operators will have opened a majority width of multi-use paths (this takes two passes after the snow stops falling).
 - Crews may go back to normal hours once the above is completed.
 - Activities that occur after the dedicated routes are completed include:
 - Removal of snow (in extreme cases, snow may be hauled out of the city).
 - Ice cutting with a road grader on areas where road drainage is impacted, or ice needs to be cut from dedicated routes.
 - Staff begins to remove ice at some cross walks and bus stops by hand.
 - De-icing continues as needed and as conditions allow.
 - Staff begins filling potholes.
 - New potholes may appear after extreme temperature swings, moisture, freezing and thawing.
 - Depending on the storm, crews may respond off route requests.
 - Equipment is emptied, cleaned and repaired.
 - Materials are inventoried and refilled as needed.
 - A full team storm debrief is held to discuss challenges and opportunities.

Q: What's on the road?

When conditions allow, roads and paths are pre-treated to help reduce the buildup of snow and ice. Snow crews may also apply an anti-icer before a storm to minimize icy road conditions.



If a storm starts as rain for multiple hours, pretreatment is ineffective because rain dilutes it and washes it off roadways

Depending on the weather, the city uses several types of de-icers:

- Salt Brine is a pre-treatment that helps reduce buildup of snow and ice
- Ice Slicer RS, a granular de-icer, is made up of complex chlorides that dissolve over time
- Meltdown Apex, a liquid de-icer, is a magnesium chloride solution, a plant nutrient and soil stabilizer that is less corrosive than other de-icing products

The city strives to sweep all primary and secondary streets and on-street bike lanes within three days of the end of a snowstorm to remove any surplus materials.