

## Safety Codes Inspection Efficiencies (SCIE) - What You Need to Know

The City of Edmonton uses various compliance monitoring methods under the Safety Codes Act, including automated and machine-assisted approaches. One such method is SCIE (pronounced "Sky"), an artificial intelligence (AI) model. SCIE analyzes data to predict the outcomes of discretionary inspections. It identifies inspections with a high probability of passing. These inspections are then determined not to receive an on-site inspection. This allows limited inspection resources to be reallocated to higher-risk projects, creating efficiencies and contributing to improved timelines.

Effective January 23, 2025, SCIE's scope has expanded to include:

- Framing First Inspection (single and semi-detached houses)
- Insulation and Vapour Barrier (VB) Inspection (single and semi-detached houses)
- Semi-detached building types (for all existing inspections)

These additions expand on the existing inspections SCIE has been assessing for single-detached houses since October 2019:

- Plumbing Stacks Inspection
- Plumbing Ground Work Inspection
- HVAC Stack Inspection
- HVAC Concealed Duct Inspection

We are working to expand this approach to more inspections.

## Frequently Asked Questions about SCIE:

### How does this work for permit holders?

You still need to request all inspections listed in the 'inspections' tab of the project dashboard at [selfserve.edmonton.ca](https://selfserve.edmonton.ca). They become listed there after a permit is issued.

When you request an inspection, the model determines its probability of passing.

- If SCIE determines an on-site inspection *is* required, we'll send a reminder email the morning of your requested inspection day, and an inspector will visit the site as usual.
- If SCIE determines an on-site inspection is *not* required, we'll notify you by email around 10 am on the scheduled inspection day with instructions on how to proceed to the next construction phase.

### **Do I need to sign up for this new process?**

No, all permit holders for new single and semi-detached house construction are automatically included.

### **How does the City decide if an inspection is needed?**

The decision is based on several factors, including:

- Contractor history (e.g., 12-month first-time pass rate and inspection volume)
- Project details (e.g., house size and design, lot size, location)
- Other factors (e.g., neighbourhood, inspection type, time since permit submission)

### **Why do all my inspections still require on-site inspection?**

On-site inspections are the default. SCIE uses data to identify inspections that have a high likelihood of passing. A contractor's 12-month first-time pass rate is a key factor. Improving this rate may lead to fewer on-site inspections. The following inspection checklists can help you prepare:

- [Plumbing Ground Work Inspection](#)
- [Plumbing Stacks Inspection](#)
- [Framing First Inspection](#)
- [Insulation and Vapour Barrier \(VB\) Inspection](#)
- [HVAC Stack Inspection](#)
- [HVAC Concealed Duct Inspection](#)

Low inspection volumes for some contractors may also prevent SCIE from making accurate predictions, thus requiring on-site inspections.

### **What's not changing?**

- Compliance monitoring through various methods does *not* relieve the owner, building permit holder or contractors of the responsibility to meet all applicable requirements.
- All work and materials must meet all applicable Codes and Standards.
- Dual inspections (same day/discipline) can still be requested.

### **Is this software being monitored?**

Yes, the City regularly audits and monitors the performance of this technology.

### **What if I want an inspection even if it's not required?**

Contact the Building, Plumbing or HVAC Supervisor to schedule an additional inspection (fees may apply).

### **Can inspectors still check work even if an on-site inspection wasn't initially required?**

Yes, the City of Edmonton reserves the right to audit a project at any time, even after a "no inspection required" notification. Deficiencies found during other inspections may also trigger additional inspections.

### **Will this affect safety?**

Builders and contractors remain responsible for ensuring their work is safe, correct, and up to code. All mandatory and most discretionary inspections will continue, with Safety Codes Inspectors supporting homeowner safety by verifying code compliance.

### **Will this affect permit fees?**

No, permit fees are not changing.

### **Where can I find more information about inspections?**

- [edmonton.ca/residentialinspections](https://edmonton.ca/residentialinspections)
- [edmonton.ca/commercialinspections](https://edmonton.ca/commercialinspections)

### **Who else is supportive of this work?**

The Safety Codes Council supports the software and process. The Machine Learning Institute at the University of Alberta reviewed and validated the software's technical soundness.