

Under the Ontario Electrical Safety Code (OESC), the Electrical Safety Authority (ESA) determines which installations to inspect. Inspections under ESA notifications may be subject to a remote inspection, which is a discretionary alternative to a physical on-site inspection.

In support of this process, customers/contractors provide evidence (i.e. photographs/videos) demonstrating the full scope of the installation and its compliance with the Ontario Electrical Safety Code (OESC).

ESA reserves the right to make the final determination on whether an installation qualifies for a remote inspection and the outcome.

Scope of Guideline

The information provided within this document will assist customers/contractors with registration for Remote Inspection and in the collection of photograph/video evidence. This document does not contain an exhaustive list of all of the requirements to support a remote inspection and not all will be required for all inspection types/stages.

It is the responsibility of the customer/contractor to prove compliance with requirements of the OESC. For additional guidance on what may be required specific to your installation please contact your local Inspector.

What Should the Evidence (photographs/recorded videos) Show?

The photographs and/or recorded videos should capture the relevant elements of the electrical installation. If there is any question as to what is relevant, please discuss with the Inspector. In addition, the photographs and/or recorded videos should:

- Be sufficiently clear and taken at an appropriate distance to allow the Inspector to review the work being shown.
- Not include any people (except to the extent that a hand/arm is necessary to identify or hold something in the image).
- Not capture unrelated documents, photographs, or personal effects adjacent to the work being shown.

If the installation is within an occupied residence, obtain the owner or occupant's permission, if possible, before taking and sending photographs or recorded video to ESA.

For additional details, see [Evidence Required by Inspection Type](#).

Attestation

Upon each submission of evidence, an attestation must be acknowledged that the attached photographs and/or videos were taken on behalf of the notification applicant and that they are a

fair and accurate depiction of the electrical installation and work performed pursuant to the identified notification, at the installation address, at the time they were captured.

Disclaimer

Customers/contractors are advised that the ESA reserves the right to make the final determination on whether an installation qualifies for a remote inspection and the outcome and is not obligated to accept photographs/video as the only form of inspection.

Electrical work shall not continue until the inspection is passed by the Inspector, and confirmation is received by the customer/contractor. This includes closing of walls, backfilling of trenches and connection of power.

Process and Communication to the Customer/Contractor

- Photographs/video taken through the App are temporarily stored within the App (for a period of up to 30 days) until the customer/contractor submits the evidence to ESA.
 - Evidence not submitted through the App to ESA (within the 30-day timeframe), is deleted.
- **Important Note:** Evidence submitted through the App is not available to the Inspector for review until the customer/contractor submits a request for inspection per current process i.e., to schedule an inspection, the customer/contractor must go online or contact ESA's Customer Service Centre.
- When the Inspector reviews the evidence and a determination is made to pass the installation without a physical site visit, a communication will be issued to the customer/contractor, at which time work can resume.
- If the Inspector reviews the evidence and identifies a defect(s), a communication will be issued to the customer/contractor with details and next steps.
- Administrative defects may be issued to the customer/contractor, for communication and tracking purposes, in circumstances where the following has occurred:
 - Code Rule 2-004 11 Information provided does not capture all relevant elements of the electrical installation.
 - Code Rule 2-004 11 Information is of poor quality and the Inspector is unable to review the elements of the electrical installation.
 - Code Rule 2-004 11 Information includes unrelated documents, personal effects or persons and cannot be used to review the elements of the electrical installation.

Note: If the contractor does not receive notice from ESA, they are to assume ESA will attend the site, as scheduled, and ensure there is access to the site until 4:30 pm.

- Customer can review evidence submitted to ESA through the ESA Online portal, if needed.

Evidence Required by Inspection Type

The following is a list of evidence, specific to inspection type, that could be required by the Inspector during a remote inspection.

Photographs/Video evidence captured within the App will be stored for up to 30 days, at which time the evidence will be deleted from the App if not submitted to ESA.

The App limits the user to select up to 12 pieces of evidence (photographs/videos) per notification for submission at one time. The limit includes up to 2 videos (maximum of 15 seconds each in duration).

Rough-In

A rough-in inspection takes place when all branch circuit wiring and outlet boxes are installed, before the wiring is hidden by insulation, vapour barrier, drywall, etc. For new installations, the service inspection and the rough-in inspection are usually completed at the same time.

Rough-In - Images including, but not limited to:

- Metal stud supports
- Ganged, masonry and ceiling boxes and boxes larger than 100mm, showing fastening/support method and location
- Outside light fixture and receptacle(s) locations
- Wide view of each impacted room including hallways (layout if possible)
- Cable/conductor size, supports and protection
- Use of grommets/bushings, as applicable
- Interior of switches and boxes including all conductors/splicing, bonding, as applicable
- Branch circuit layout complies with OESC Section 26 and Section 8
- Type of in floor heating (incl. ratings amperage, voltage), in floor sensor(s), manufacturer's specs
- Additional images that are relevant to your installation or requested by the Inspector

Service

Depending on the installation, this inspection may include the meter base, panel board, ground electrode, trenching, underground conductors, pole(s), overhead conductors, and so on. No part of the installation can be concealed before inspection (e.g. backfilling of trench or overtop of ground electrodes). For new installations, the service inspection and rough-in inspection are completed at the same time, or additional inspection fees may apply.

Before installing any electrical service equipment, each project requires a service layout that sets out what the Local Distribution Company (LDC) supply, install and what is required from the property owner. Contact the LDC for this service layout.

After a successful service inspection, ESA authorizes the LDC to energize the customer service.

Service - Images including, but not limited to:

- Panelboard illustrating working space, height and clearances
- Overall image(s) of the exterior showing the overhead service raceway or meterboard (as applicable), mast installation, point of attachment, and the service head for overhead installation
- Overall meterbase, with cover off
- Conductor size and type marking
- Equipment approvals
- Frost loops/expansion joints
- Interior showing consumer service conductor length
- Image showing installation of duct seal and, if applicable, drain holes
- Terminations in the service entrance compartment
- Service entry compartment
- Grounding electrode installation and terminations at the electrode (water main, ground plate, rods, etc. and at the service entrance neutral), bonding jumper
- Installation is to be left in a safe condition to be energized
- Additional images that are relevant to your installation or requested by the Inspector

Final

Customer/contractor to request the final inspection as soon as possible after completion of the electrical installation. This means all receptacles, switches, cover plates, light fixtures and permanently connected appliances are in place and the panel directory is complete. Any unused openings in panel boards or junction and outlet boxes are filled with suitable fillers.

Where an appliance that will be permanently connected isn't yet on site, the Customer will terminate the cable in a junction box complete with a blank cover, and insulate the ends of the conductors with wire connectors or tape. Where permanent light fixtures aren't yet on site, install temporary light fixtures or a blank cover on lighting outlet boxes.

Once the electrical installation has been reviewed and passed, whoever filed the notification of work will receive an ESA Certificate of Acceptance. This confirms the electrical work complies with the OESC.

Final Inspection - Images including, but not limited to:

- Receptacles, switches, cover plates, lighting fixtures and permanently connected appliances.
- Marking, labels and the panel circuit directory has been completed.
- Unused openings in panel boards or junction and outlet boxes are filled with suitable fillers.
- Where an appliance that is to be permanently connected is not yet on site, the cable is terminated in a junction box complete with a blank cover and the ends of the conductors are insulated with wire connectors or tape.
- All electrical equipment and wiring is suitable for use, and is approved for use in Ontario.
- Disconnecting means, switches, controls, or overcurrent protective devices are installed and sized properly including GFCI and AFCI protection.

- Receptacle outlets are the rated voltage/ampere and configuration for the application.
- Random sample of correct polarity of receptacles, and that required “TR” rated receptacles are used.
- Proper clearances in front of electrical equipment and in electrical rooms.
- Grounding and bonding are complete and compliant.
- Compliance with requirements of hazardous/wet locations when applicable
- Compliance with requirements of patient care areas when applicable.
- Compliance with all requirements of the OESC for special sections for example Fire Alarm, Emergency Systems, etc.
- Additional images that are relevant to your installation or requested by the Inspector

Trench - Images including, but not limited to:

- Depth measurement and location
- Wide view of trench and separation from other systems
- Marking tape
- Configuration and spacing
- Granular backfill
- HV requirement for concrete
- Additional images that are relevant to your installation or requested by the Inspector

HVAC - Images including, but not limited to:

- Electrical characteristics on the nameplate on the AC unit.
- Wiring inside the disconnecting means.
- Far away view of the disconnect, showing AC unit in relation to gas meters, pool/hot tub, etc. (if any).
- Wiring method from the AC unit to the disconnect switch.
- Wiring method between the AC unit and the mini split units (as applicable).
- Wiring method between the panel board and the outside disconnecting means.
- Terminations at the panelboard, identifying the ampacity of the overcurrent device.
- Labelling at the panelboard.
- Sealing of the raceway.
- Conductor size
- Additional images that are relevant to your installation or requested by the Inspector

Signs – Images including, but not limited to:

- Approval marking
- Disconnecting means
- Nameplate
- Supply conductor size
- Additional images that are relevant to your installation or requested by the Inspector

Important: All photos of exposed installation components shall be taken while equipment is in de-energized state. Installations are to be left in a safe condition at the time of the requested inspection.