

What Happens Before Opening Day? Testing and Commissioning Explained

With major construction complete, the Gordie Howe International Bridge project team has ramped up work on one of its most important phases: testing and commissioning. This work takes place before the bridge and Ports of Entry open to traffic and focuses on preparing the crossing for safe, secure and reliable operations.

What is Testing and Commissioning?

Testing and commissioning is the process of inspecting, testing, adjusting and re-testing the systems required to operate the Gordie Howe International Bridge, making sure they work as intended on their own and as part of a fully integrated system across all components of the project.

Why is it important?

The Gordie Howe International Bridge is a complex, bi-national transportation system that relies on interconnected technologies working together every day.

Testing and commissioning help to:

- confirm systems are ready for safe and efficient operations from day one
- identify and address issues before the bridge opens to traffic
- demonstrate performance during peak traffic period and other real-world scenarios
- prepare the operations teams to manage the crossing.

This phase supports a smooth opening and helps establish a strong foundation for long-term operations.

Who is involved?

Testing and commissioning is led by the project team with support from contractors, suppliers and the operating staff who will manage the crossing once it opens.

An independent third-party commissioning specialist is also engaged to review, oversee and confirm that testing and commissioning activities are completed and aligned with technical requirements and standards as outlined in the Project Agreement between Windsor-Detroit Bridge Authority and Bridging North America.

Canadian and US partners and regulatory agencies are involved throughout process ensuring systems meet operating and regulatory requirements on both sides of the border.

Step-by-step of the Process

Testing and commissioning take place in stages:

Step One: Checking Installations

Making sure that systems and equipment are installed correctly and align with design and technical requirements.

Step Two: Testing Individual Systems

Confirming each system works properly on its own before being connected to the broader operating system.

Step Three: Integrating Systems

Checking that systems communicate and operate together as one network.

Step Four: Reviewing Under Real-World Conditions

Running controlled simulations to observe how systems perform during typical operations and different scenarios, such as peak traffic period or incidents.

Step Five: Documenting and Approving Readiness

Recording results, addressing any issues and completing required approvals before opening.

This is one reason testing and commissioning takes time; each step is completed on each individual system before it can be integrated into the overall system. That broader system is then re-tested before seeking third-part approval and sign-off. This is also the time when operating manuals and procedures are developed and staff are trained on how to work in their new environment.



What is being tested?

Testing and commissioning is taking place across all components of the Gordie Howe International Bridge project and includes:

Intelligent Transportation System (ITS):

Sensors, cameras, and data systems are calibrated to provide accurate, real-time traffic information.

Toll Infrastructure: Radio-Frequency Identification (RFID) tag readers, payment processing systems, and customer account integration are assessed for reliability.



Traffic Management Centre: Screens, software, and communication tools are tested to manage activity and respond to incidents at toll lanes, both ports of entry and on the bridge.

Dynamic Lane Management: Electronic signs, signals, and barriers are verified to redirect lanes safely based on traffic demand.

Border Inspection Technologies: Scanning, imaging and detection equipment is measured at primary inspection lanes and client processing buildings to meet government-mandated

requirements.

Large-Scale Imaging Technology: X-ray and scanning systems for transport trucks are inspected to ensure accurate, reliable detection for security and customs inspections.

Security Infrastructure: CCTV cameras, access controls, fire alarms and emergency response systems are evaluated to provide fully integrated coverage for safety and security.





Lighting: On-site and aesthetic lighting systems are validated for proper operation, visibility and safety while meeting architectural and visual design standards.

Communications: Roadside messages, public alerts and staff networks are checked to ensure timely, accurate information delivery.

Heating, Ventilation, and Air Conditioning

(HVAC): Systems are audited to maintain proper temperature, airflow and air quality in operational facilities, control rooms and primary inspection booths.

Testing and commissioning is a key part of bringing any new infrastructure project online. It marks a major step before opening, bringing the Gordie Howe International Bridge closer to welcoming travellers and supporting the safe and efficient movement of people and goods across the Windsor-Detroit corridor.

For more information about the Gordie Howe International Bridge project visit GordieHoweInternationalBridge.com or call 1-844-322-1773. Connect with us on LinkedIn at linkedin.com/company/wdba-apwd, like us on Facebook at facebook.com/GordieHoweBridge and follow us on X x.com/GordieHoweBrG.