# Blue Water Bridge
## Electric Vehicle Fire Workshop

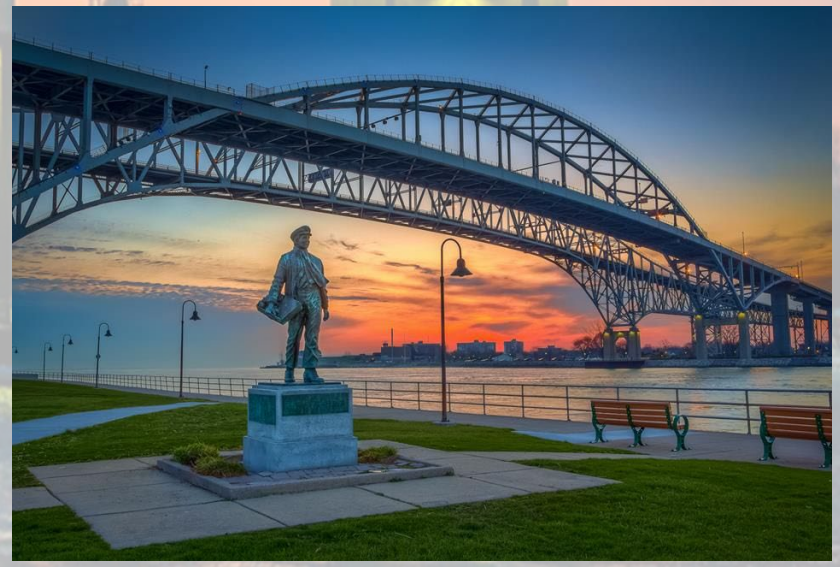
MDOT Michigan Department of Transportation

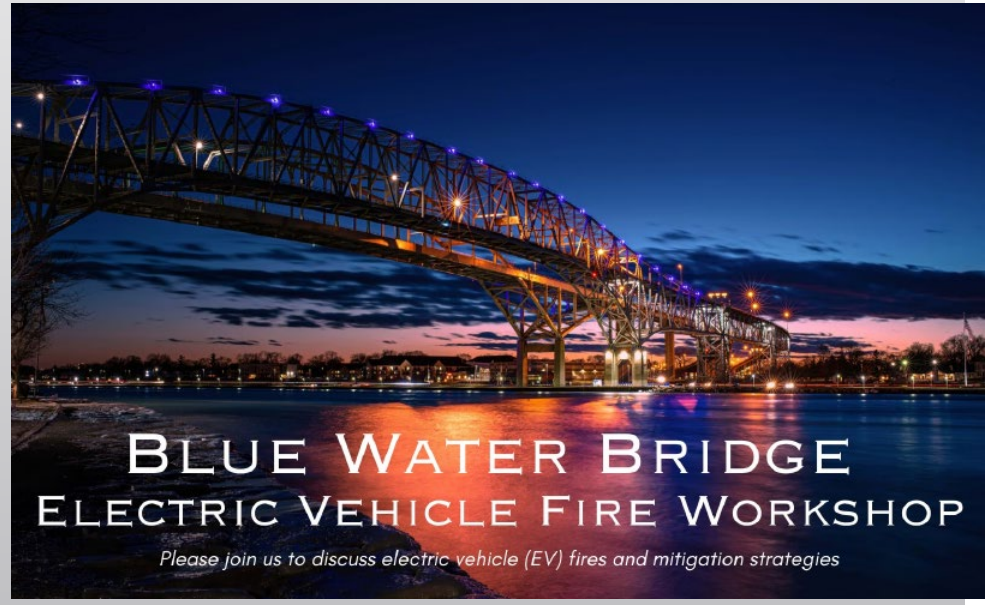
BWBTOC Blue Water Bridge Transportation Operations Center

AECOM

# About the Bridge

- Major port of entry
- Twin-span international Bridge
- Span 1 (westbound to US): est. 1938; Span 2 (eastbound to Canada): est. 1997
- Annual numbers






- **8:45 - 9 - Arrival, Networking, and Refreshments**
- **9-9:05 - Welcome**
  - Andrea McCabe, AECOM
- **9:05-9:15 - Blue Water Bridge (BWB) Introduction & Overview**
  - Amy Winn, MDOT – BWB Director
- **9:15-9:50 - BWB EV Fire Mitigation Working Group**
  - Jim Comfort, AECOM
- **9:50-10:25 - MSP EV Fire Best Practices**
  - Lt. Tim Ketvirtis & John Plotzke, MSP
- **10:25-10:35 - Break**
- **10:35-10:50 - CBP Hazardous Material Overview**
  - Supervisor Paul Raska, CBP
- **10:50-11:05 - Emergency Response Considerations for EVs**
  - Gary Sharp, Safeware, Inc.
- **11:05-11:40 - Intro: MDOT Safety & Security Administration**
  - Todd Bechler, MDOT
- **11:40-12 - Next Steps and Final Thoughts**
  - Bob Murphy, AECOM

**Date**: Friday, November 21, 2025

**Time**: 9am-12pm

BWBTOC
BLUE WATER BRIDGE
Transportation Operations Center

Blue Water Bridge Annex Building
2127 11th Avenue
Port Huron, MI 48060

MDOT Michigan Department of Transportation

PLEASE RSVP BY **NOVEMBER 7**:
**ANDREA.MCCABE@AECOM.COM**

AECOM

# Why EV Fires Matter

- EV fires are rare but high-impact

- Battery fires burn hotter and longer than gasoline fires

- Can cause catastrophic bridge damage

- Major economic and safety implications

# Blue Water Bridge Risk Profile

- Largest commercial US–Canada border crossing
- ~60% commercial traffic
- Limited detour options
- Structural steel vulnerable to extreme heat

# EV Fire Behavior

- Thermal runaway temperatures

- Steel loses strength

- Concrete spalling at high heat

- Fires self-generate oxygen and fuel

# Life Safety Hazards

- Hydrogen fluoride (HF) and toxic gases

- Hot zone minimum

- SCBA required in hot zone

- Wind direction critical

# Firefighting Strategy

- Defensive cooling approach

- Let vehicle contents burn

- Focus on cooling deck and battery exterior

- Water only – no foam

# Water & Environmental Issues

- Average gallons required
- Zero-discharge policy to St. Clair River
- Runoff contents
- Containment and vacuum recovery needed

# Traffic & Operations Impacts

- Full closure likely in both directions

- Bridge width falls within hot zone

- Traffic queue evacuation required

- Long-duration closures possible

# Technology & Early Detection

- Camera technology
- Automated traffic stop alerts
- ITS integration
- Faster EV identification for responders

# Training & Coordination

- SOPs must be known and practiced
- Multi-agency coordination essential
- Hands-on EV training encouraged
- Exercises before incidents occur

# Thank You

Questions/Comments:
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