



BRUCE
county

Durham Street Bridge No.0419550, Walkerton

February 1, 2024 - 3rd Party
Review Update

3rd Party Review Technical Team Members

Triton Engineering Services Limited – Lead Consultant

- Chris Clark, P.Eng

Burgess Engineering Inc. – Sub-Consultant

- Andrew Burgess, P.Eng

HAL Group Inc. – Sub-Consultant

- Abbas Haghbin, P.Eng

Work Completed To-Date

Burgess Engineering
Independent Inspection

- August 2023

HAL Group
Detailed Bridge Condition Survey

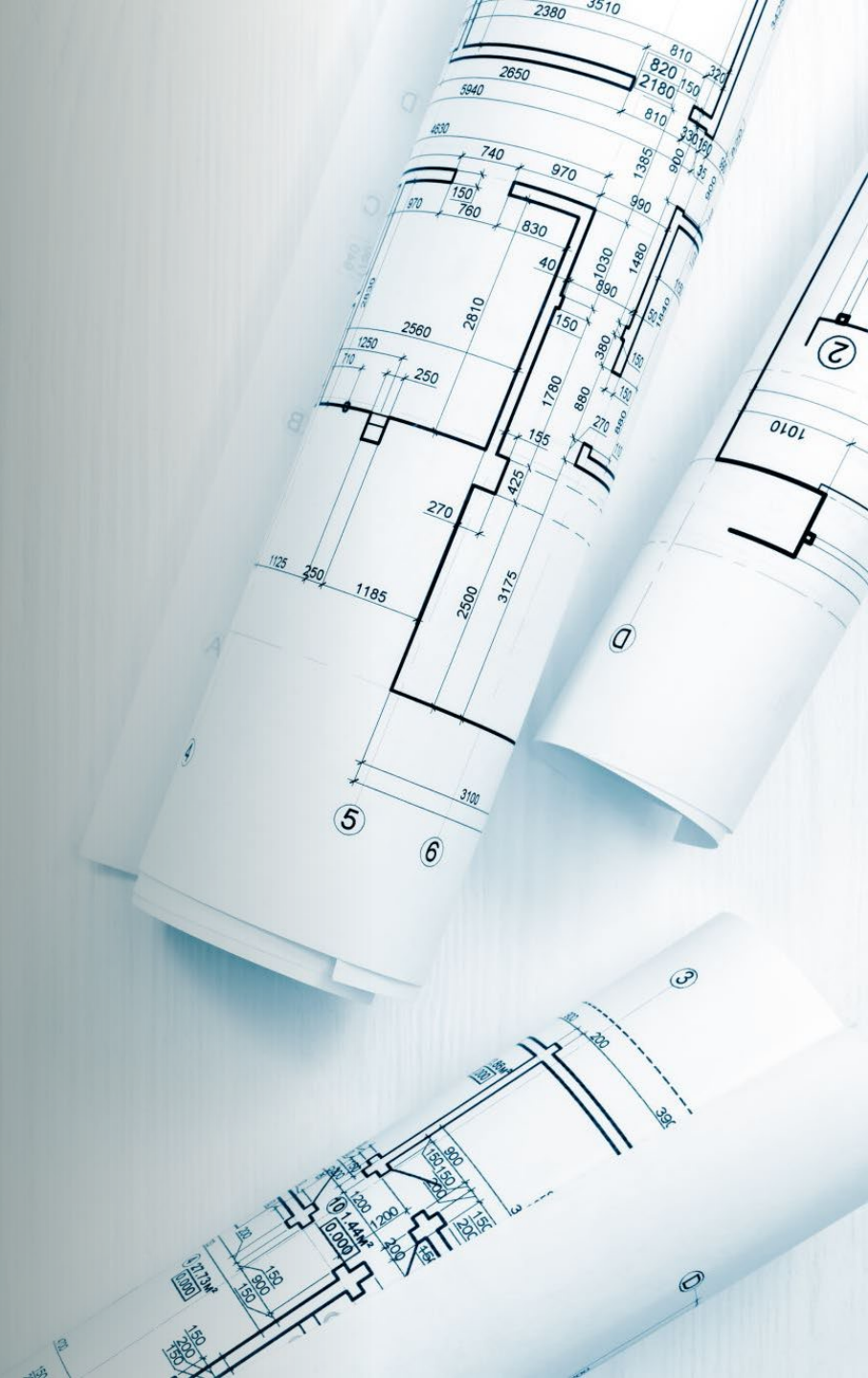
- October 2023 – January 2023

Burgess Engineering
Recommendation Letter

- January 2024

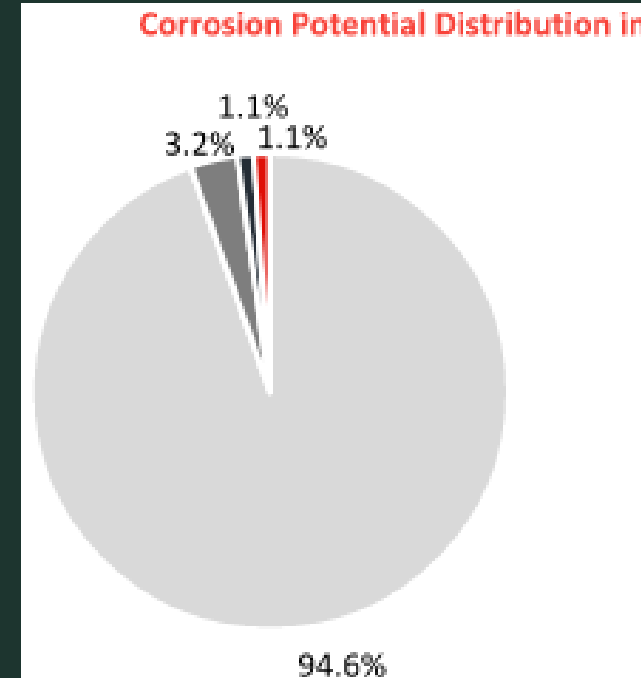
Triton Engineering
Update to 3rd Party Review

- February 1, 2024



Bridge Condition Survey Existing Condition Summary

- Concrete Core Samples of Deck Indicate:
 - Low Corrosion Potential
 - Concrete Compressive Strength is High (76.8 MPa)
- Soffit & Girders Inspection
 - signs of delamination
- Half-Joints Inspection
 - Visual signs of leaking






Bridge Condition Survey Burgess Recommendations

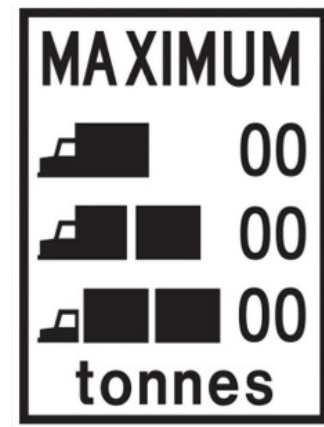
- Bridge Condition, Generally Structurally Sound
- Rehabilitation of Bridge a Potential Viable Option
- Noted Concrete Deterioration and Repetitive Heavy Impact Loading on Half-Joints
- Address Half-Joint Repair or Rehabilitation
- Apply a 3-Level Load Limit (15, 25 & 30 tonnes) to Bridge and Provide Alternate Heavy Truck Route
- Provide Quarterly Half-Joint Visual Inspections



Bridge Weight Restrictions

- Post “MAXIMUM TONNES” Signage Per Ontario Traffic Manual Book 5 for “3 Level Load Limit
- Develop and Implement an Alternate Truck Route (ATR) & Advanced Warning
- County to Amend Existing By-Law to Limit Heavy Trucks from Passing over Bridge
- Weight Restrictions & ATR In-Place until Half-Joint Repairs Completed

DURHAM STREET BRIDGE	MAXIMUM  00  00  00 tonnes
WEIGHT RESTRICTION	
HEAVY TRUCKS TO FOLLOW	
D1, D2, D3 ROUTE	
EFFECTIVE FEBRUARY ##, 2024	



Alternate Truck Route Detour Plan

Impacted Road Networks

Municipality of Brockton

Concession 8

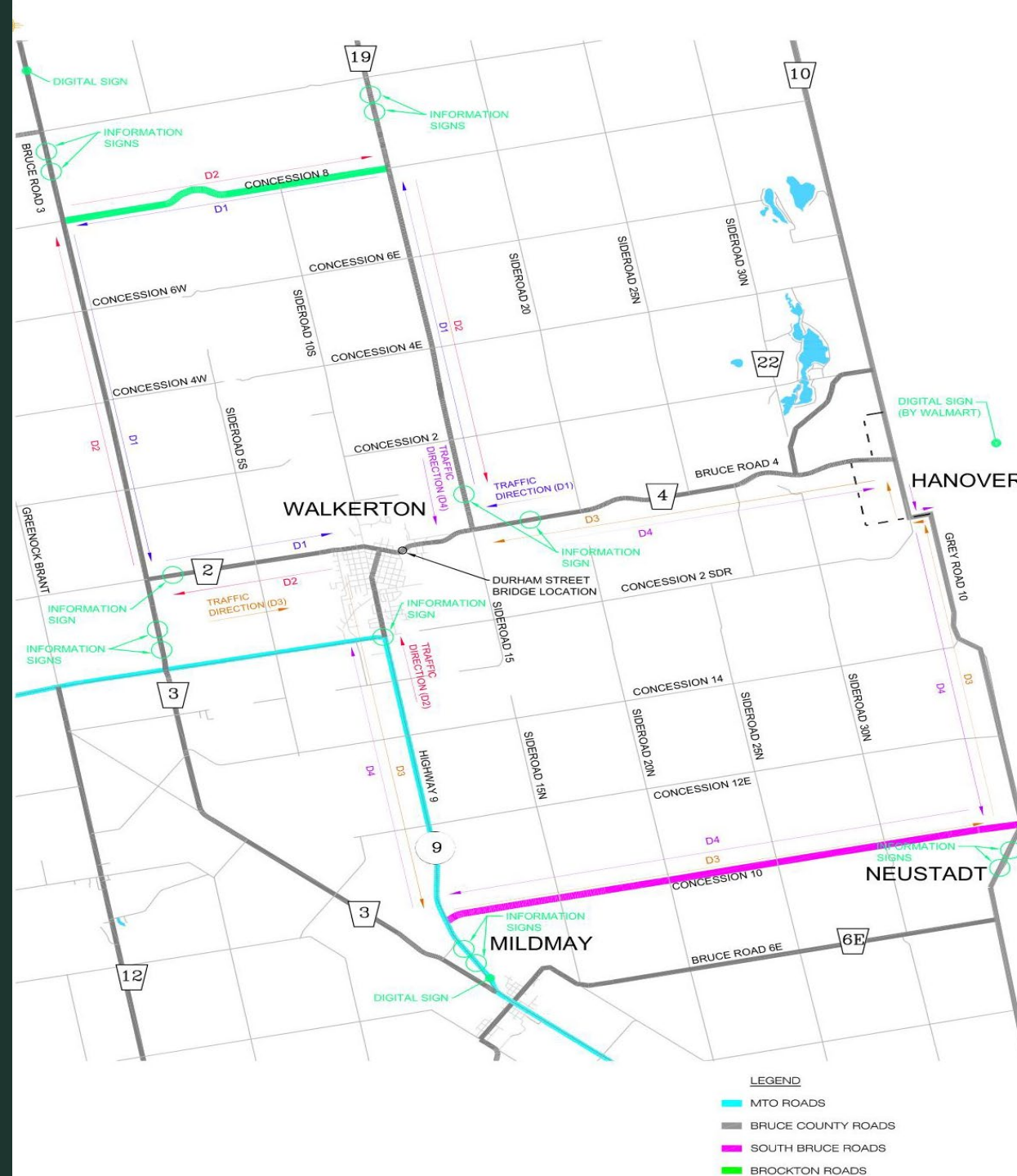
Municipality of South Bruce Concession 10

Ministry of Transportation (MTO)

Highway 9

Grey County
Grey Road 10

Bruce County Various Roads



LEGEND

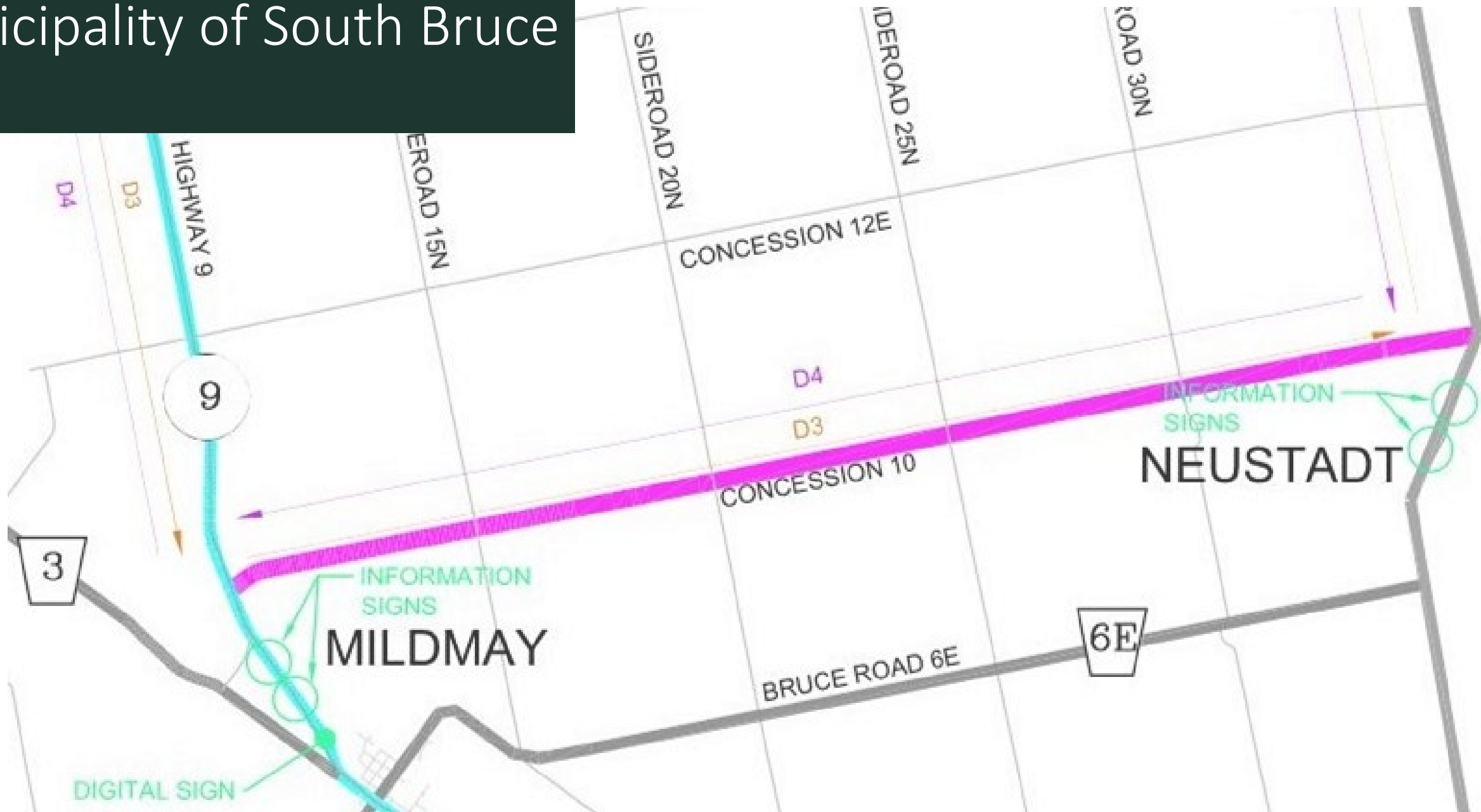
MTO ROADS

BRUCE COUNTY ROADS

SOUTH BRUCE BOARDS

BROCKTON BOARDS

Alternate Truck Route Municipality of South Bruce



Alternate Truck Route Municipality of Brockton





Next Steps

Form ATR Road-Use
Agreements with
Affected Tiers
February 2024



Implement Alternate
Heavy Truck Route
(ATR)
February 2024



Complete 3rd Party
Review
Early March 2024



Complete Design for
Half Joint Repair or
Rehabilitation
Spring/Summer 2024



Questions?

