

October 9th, 2025

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Re: Technical Peer Review, 2nd Submission – Highland Pit TIS, Peer Review Lanark County

Castleglenn Consultants Inc. had completed a Traffic Impact Study (TIS) (September 2022) for the proposed Highland Line Pit Mineral Extraction Site on behalf of Thomas Cavanagh Construction Limited. This report was peer reviewed by D.M Wills Associates Limited on behalf of Lanark County. The peer review document was dated March 18th, 2025 and included consideration of the public comments-&-response matrix (January 15, 2025, prepared by MHBC).

Castleglenn issued a response letter dated May 30th, 2025 to address the comments made within the peer review. On August 7th, 2025 D.M Wills Associates replied to the May 30th, 2025 response letter and indicated satisfaction with all but one of them.

Below is the last outstanding item along with Castleglenn's response.

1. *Truck swept analysis should be provided at the entrances of the development on Highland Line and at the intersection of CR 12 and Highland Line. This is requested at this stage since there are no County approvals in the future stages of this development.*

Response: On August 11th, 2025 surveying was conducted along Highland Line to obtain the necessary information (i.e. property lines, roadway elements, access locations, etc) required to produce the requested truck swept path analysis diagrams. A WB-20 truck was used as a “worst-case scenario” design vehicle which reflects the characteristics of a 40 tonne truck-trailer combination. In actuality, the WB-20 design vehicle is a slightly longer semi-trailer than those used by Thomas Cavanagh Construction Limited staff.

Proposed Accesses: Attachment “A” illustrates the truck swept path analysis diagrams for the accesses to both extraction sites on Highland Line. Both property accesses were designed such that the design vehicle can enter and exit from east or west, without encroaching over the roadway edges or crossing the centreline along Highland Line or the centreline of the access itself. The first 50 meters of the accesses are to be paved with asphalt to reduce mud, dirt, dust and debris being carried onto Highland Line.

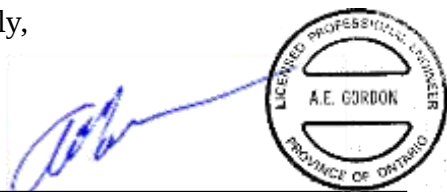
The CR-12 / Highland Line Intersection: Attachment “A” also illustrates the truck swept path at this intersection which is located just over 3.3km to the NE of the proposed Highland extraction areas. The TIS report noted that the heavy haul route involves travelling along the Highland Line corridor and the south leg of the CR-12. This route is also currently used by heavy trucks from the existing pit on Highland Line. As such, the only turning movements analyzed at the CR-12 / Highland Line intersection would be the right turn from Highland Line onto CR-12 and the left turn from CR-12

onto Highland Line. The double red lines represent the existing roadway shoulder and the blueish-green are vehicle tracking lines represents the swept path of the tractor-trailer combination. The aerial-photography is not perfectly mapped to the survey information provided. The exhibit illustrates that improvements can possibly be made to the south-west quadrant of the intersection as eastbound heavy vehicle traffic on Highland Line must swing into westbound lane of Highland Line and the northbound lane of CR-12 to complete the turn to clear the shoulder in the south-west quadrant of the intersection. Traffic volumes are generally light so this manouver is feasible.

Widening of the right turn would be necessary to accomodate the design vehicle's turning movement making the westbound right turn. Attachment "B" illustrates the proposed widening.

Should any new questions or concerns arise, please do not hesitate to contact us at your convenience.

Respectfully,



Mr. Arthur Gordon B.A. P.Eng
Principal Engineer
Castleglenn Consultants Inc.



Mr. Konstantin Joulanov B.A.Sc., M. Eng
Transportation Planner
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Attachment “A”

WB-20 Turning Movement Diagrams

WEST ACCESS
INBOUND

HIGHLAND LINE

64m

R20m

R23m

EDGE OF SHOULDER

EDGE OF ASPHALT

50m OF ASPHALT TO AVOID MUD, DIRT AND DUST ALONG HIGHLAND LINE.

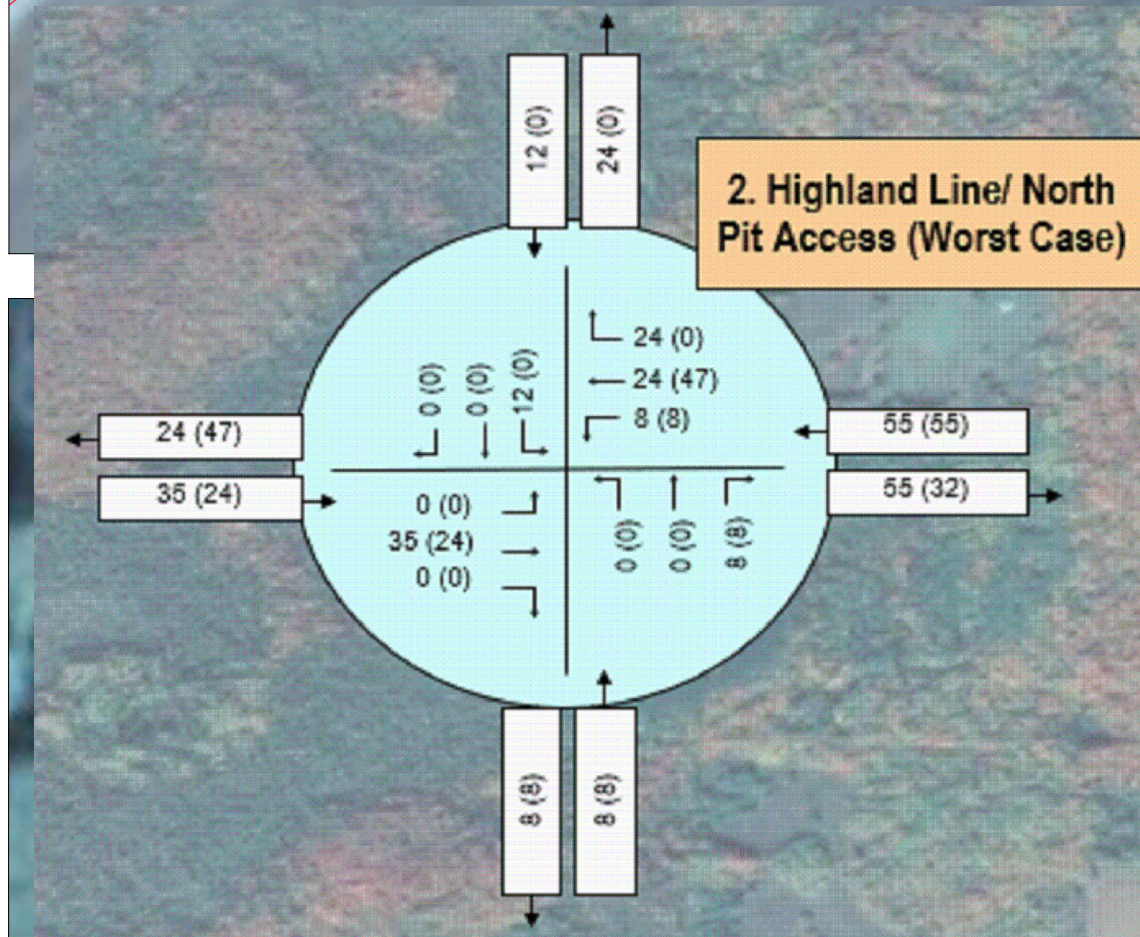
PROPOSED ACCESS

14m

12 (ø)

24 (ø)

2. Highland Line/ North Pit Access (Worst Case)



This aerial view shows the 'WEST ACCESS OUTBOUND' road layout. Key features include:

- Highland Line:** A diagonal line across the upper left portion of the image.
- Proposed Access:** A road segment at the bottom right, 14m wide, leading to a 50m asphalt buffer zone.
- Edges:** The 'EDGE OF SHOULDER' and 'EDGE OF ASPHALT' are clearly marked with yellow and blue lines.
- Curves:** Two curves are identified with radii of R20m and R23m.
- Dimensions:** A 64m dimension is shown for a section of the road, and a 30m dimension is shown for the buffer zone.
- North Arrow:** Located in the top right corner.

**EAST ACCESS
INBOUND**

HIGHLAND LINE

52m

R18

EDGE OF ASPHALT

R20m

50m

EDGE OF SHOULDER

14m

PROPOSED ACCESS

50m OF ASPHALT TO AVOID MUD, DIRT AND DUST ALONG HIGHLAND LINE.

2. Highland Line/ East Extraction Area Access

55 (55) 55 (32) 7 (7) 64 (62) 63 (56)

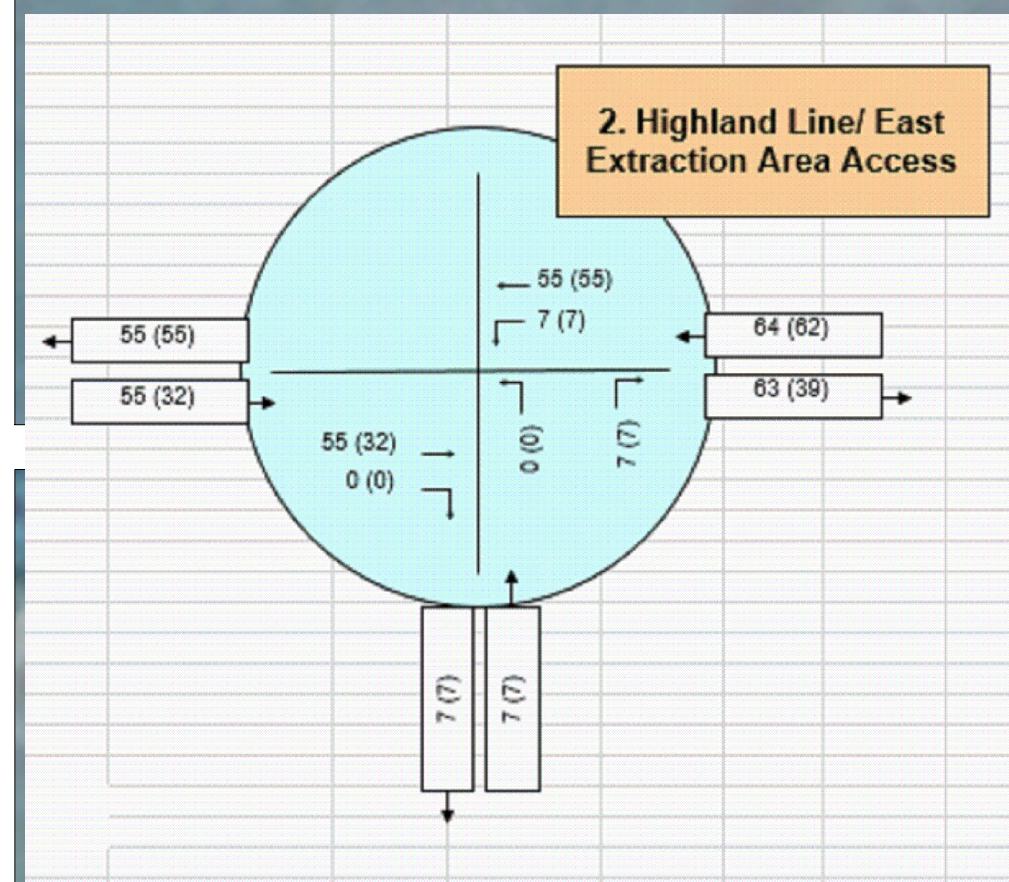
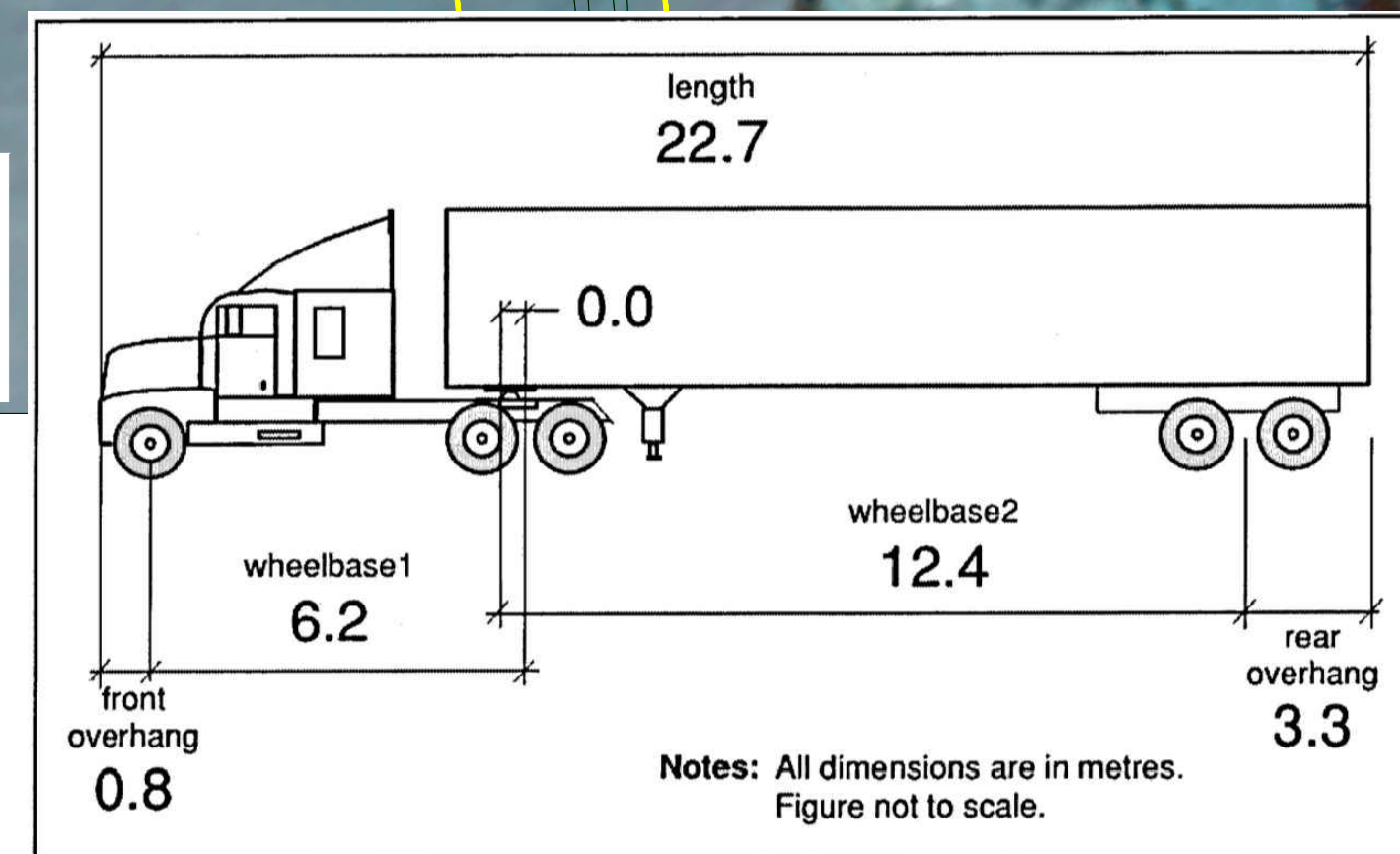


Diagram illustrating a proposed road layout and access point, overlaid on an aerial photograph. The layout includes a main road section labeled "HIGHLAND LINE" and a proposed access point. Key dimensions and features are marked:

- 52m**: Dimension across the top of the main road section.
- EDGE OF ASPHALT**: Label pointing to the outer boundary of the main road.
- EDGE OF SHOULDER**: Label pointing to the boundary of the shoulder area.
- PROPOSED ACCESS**: Label pointing to the access point at the bottom.
- 50m OF ASPHALT TO AVOID MUD, DIRT AND DUST ALONG HIGHLAND LINE.**: Label pointing to a specific section of the road.
- R18** and **R20m**: Radius markers for curved sections of the road.
- 50m**: Dimension along the shoulder area.
- 14m**: Dimension at the bottom of the proposed access point.

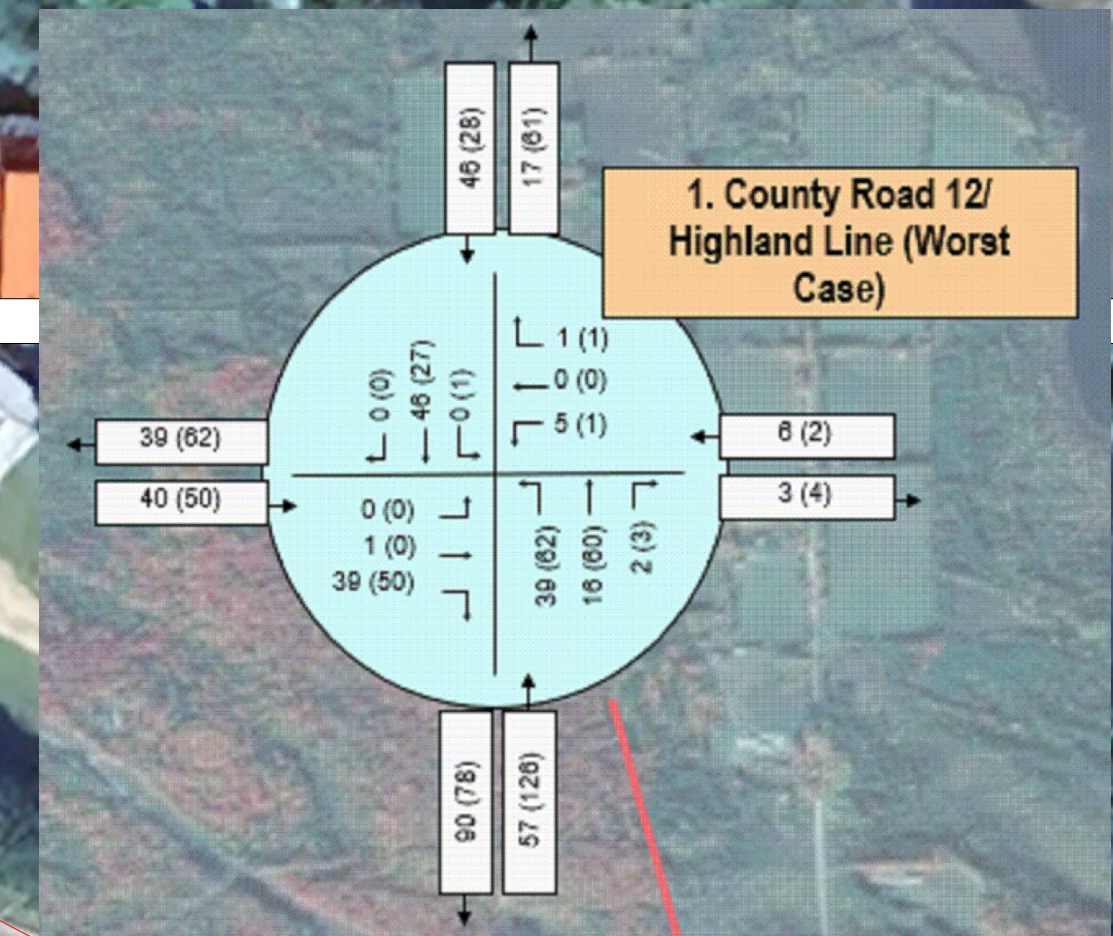
An inset diagram in the top left corner shows a circular cross-section of a road with two lanes, each labeled $7(0)$, and a central dimension of $0(0)$.



WB-20 Tractor-Semitrailer Dimensions

HIGHLAND LINE AND COUNTY ROAD 12 RT FROM HIGHLAND LINE ONTO CR-12

The map displays an aerial view of a wooded area with a proposed road alignment. The alignment is marked with a red line and a dashed yellow line. The road is labeled 'HIGHLAND LINE' and 'COUNTY ROAD 12'. A north arrow is located in the top right corner. A legend in the bottom right corner indicates '1. County Road 12/ Highland Line (Worst Case)' with dimensions 46' (2B) and 17' (B1).

[illegible]

**Castleglenn
Consultants**
Engineers, Project Managers & Planners

— EDGE OF PROPOSED ASPHALT
— EDGE OF PROPOSED SHOULDER

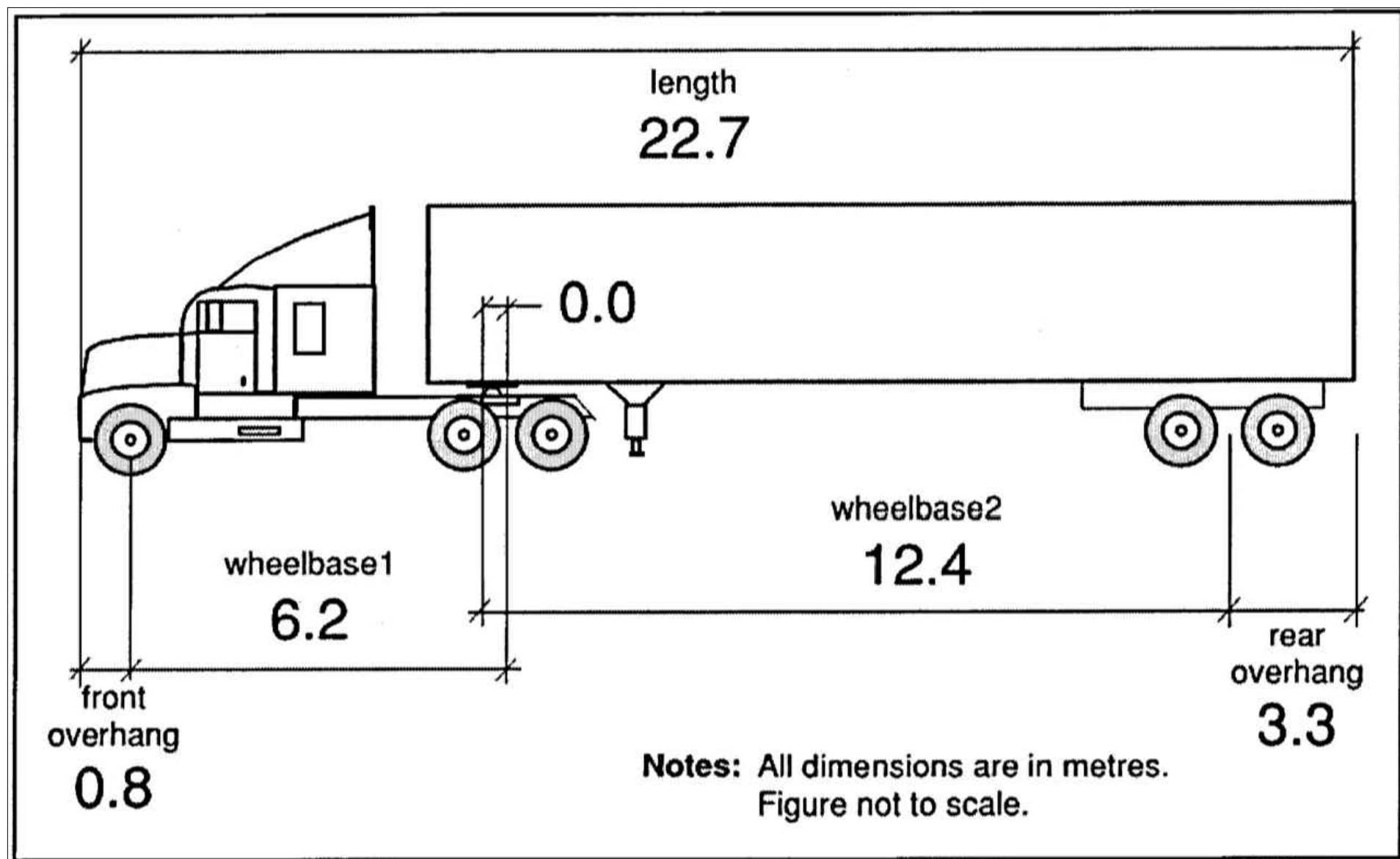
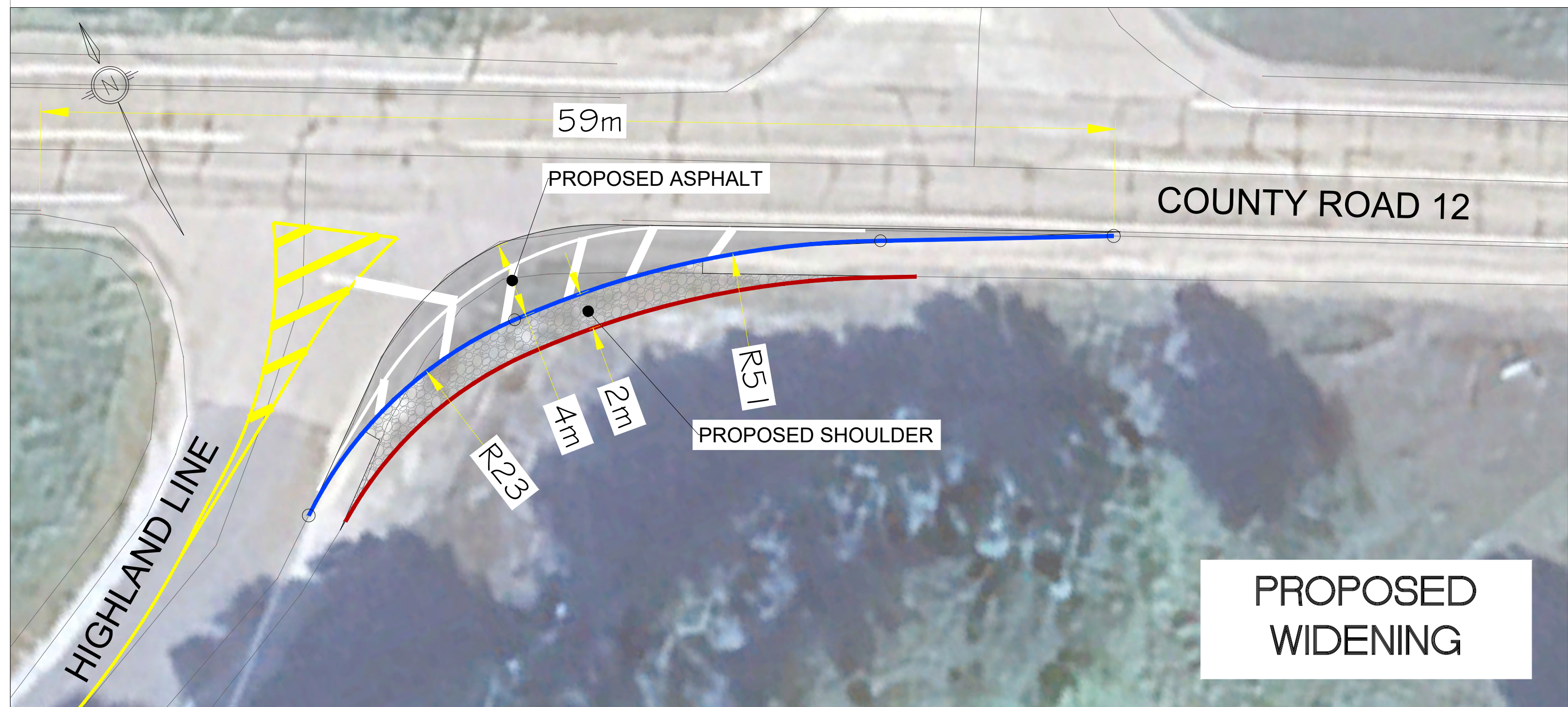
STATUS	DATE	SHEET
	October 9th, 2025	01 OF 01

PLAN NUMBER

Attachment “B”

Highland Line/CR12 Intersection –

Proposed Widening Diagrams



Note: Fifth wheel offset set to zero to yield the maximum swept path in a turn.

WB-20 Tractor-Semitrailer Dimensions

