



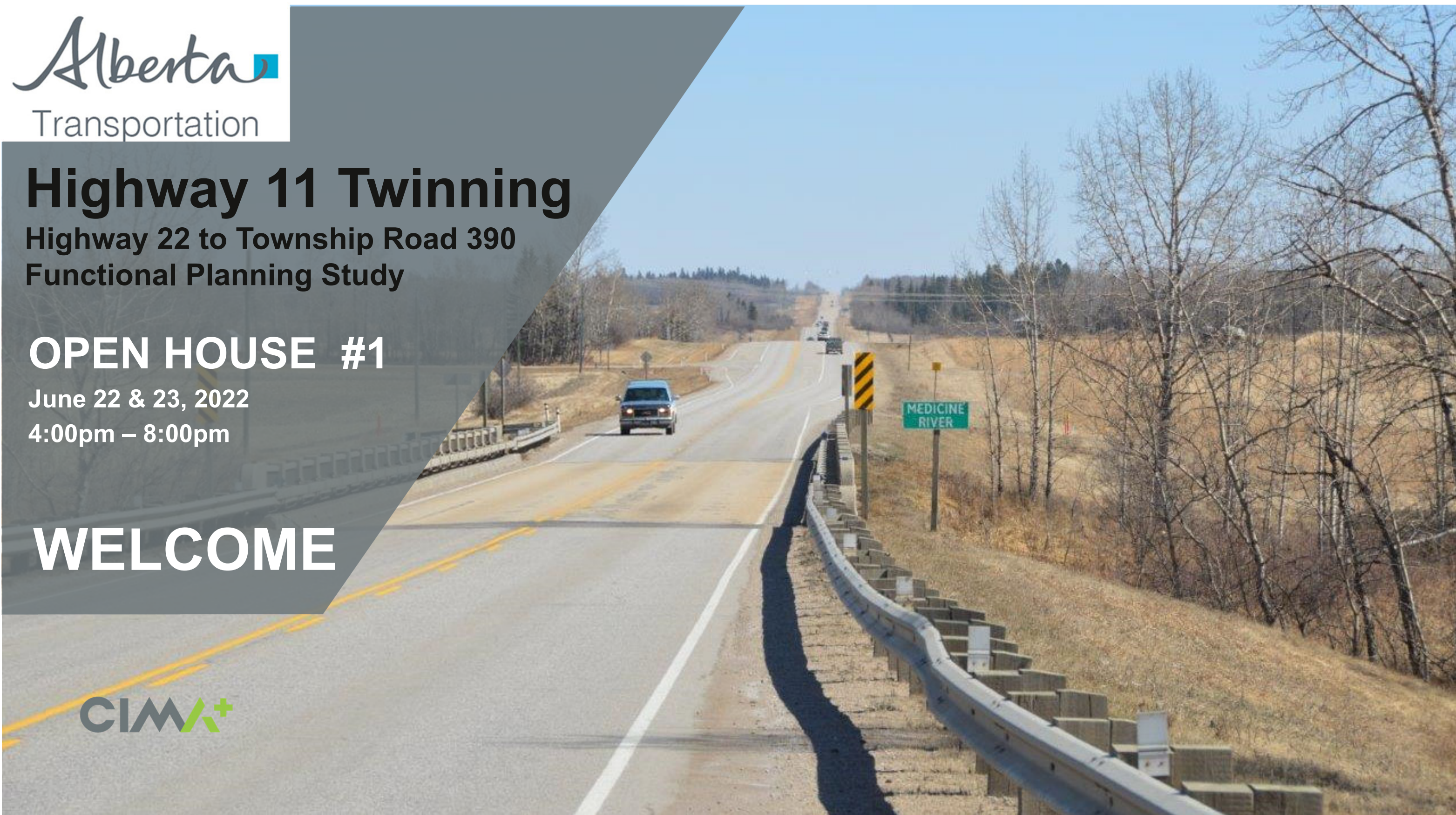
Highway 11 Twinning

Highway 22 to Township Road 390
Functional Planning Study

OPEN HOUSE #1

June 22 & 23, 2022
4:00pm – 8:00pm

WELCOME



Open House Purpose

- ❖ Introduce the project and study process.
- ❖ Share the concepts that were explored for the Highway 11 corridor.
- ❖ Gather the community's feedback and input

Open House Boards

- ❖ Study Objectives, Process & Timeline
- ❖ Highway 11's Role & Classification
- ❖ Problem Statement: Challenges to Twinning
- ❖ Gathering Background Information
- ❖ Public Input – What We Heard in Phase 1
- ❖ Identifying the Preliminary Concepts

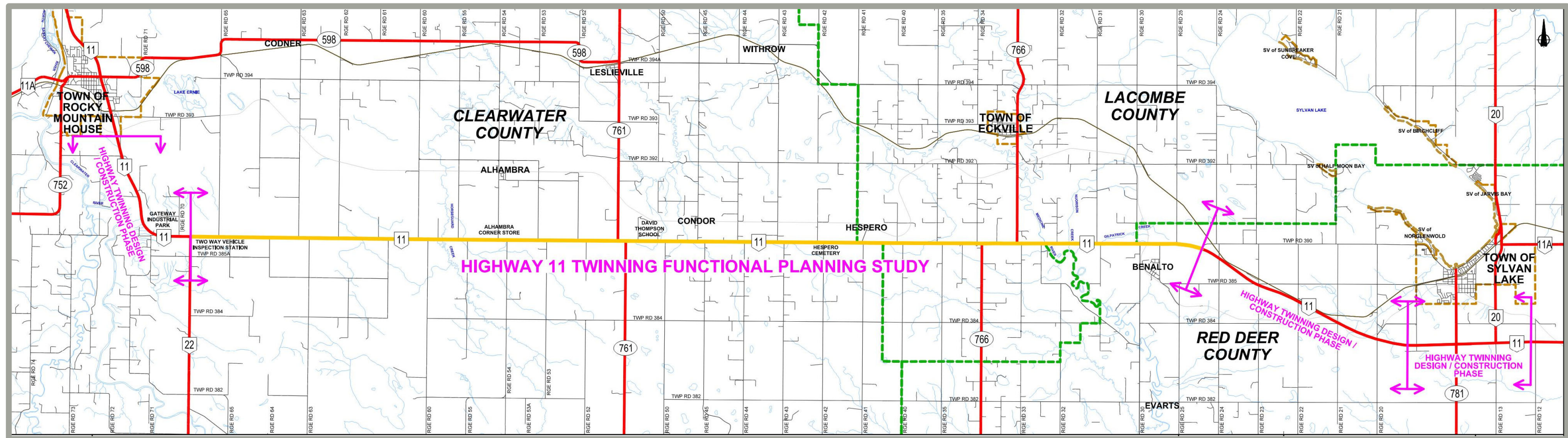
STUDY AREA

❖ Highway Planning: Highway 22 to Township Road 390 (east of Benalto)

- Clearwater County: Highway 22 to Range Road 41 (~28 km)
- Lacombe County: Range Road 41 to Range Road 31 (~9 km)
- Red Deer County: Range Road 31 to Township Road 390 (~5 km)

❖ Highway Twinning Design: By Others

- AECOM Team: Highway 22 to Rocky Mountain House
- WSP Team: Township Road 390 to Sylvan Lake



❖ Initial Stakeholder Input

- Included many suggestions to consider alternatives to twinning along existing Highway 11

❖ Four Preliminary Concepts

1. Twin Existing Highway 11 (original scope)
2. Expand the Existing Passing Lanes
3. Couplet Concept
4. New Highway Alignment

❖ Concepts are Preliminary

- Subject to change
- Will be evaluated by the study team



Horseguard Creek, looking north

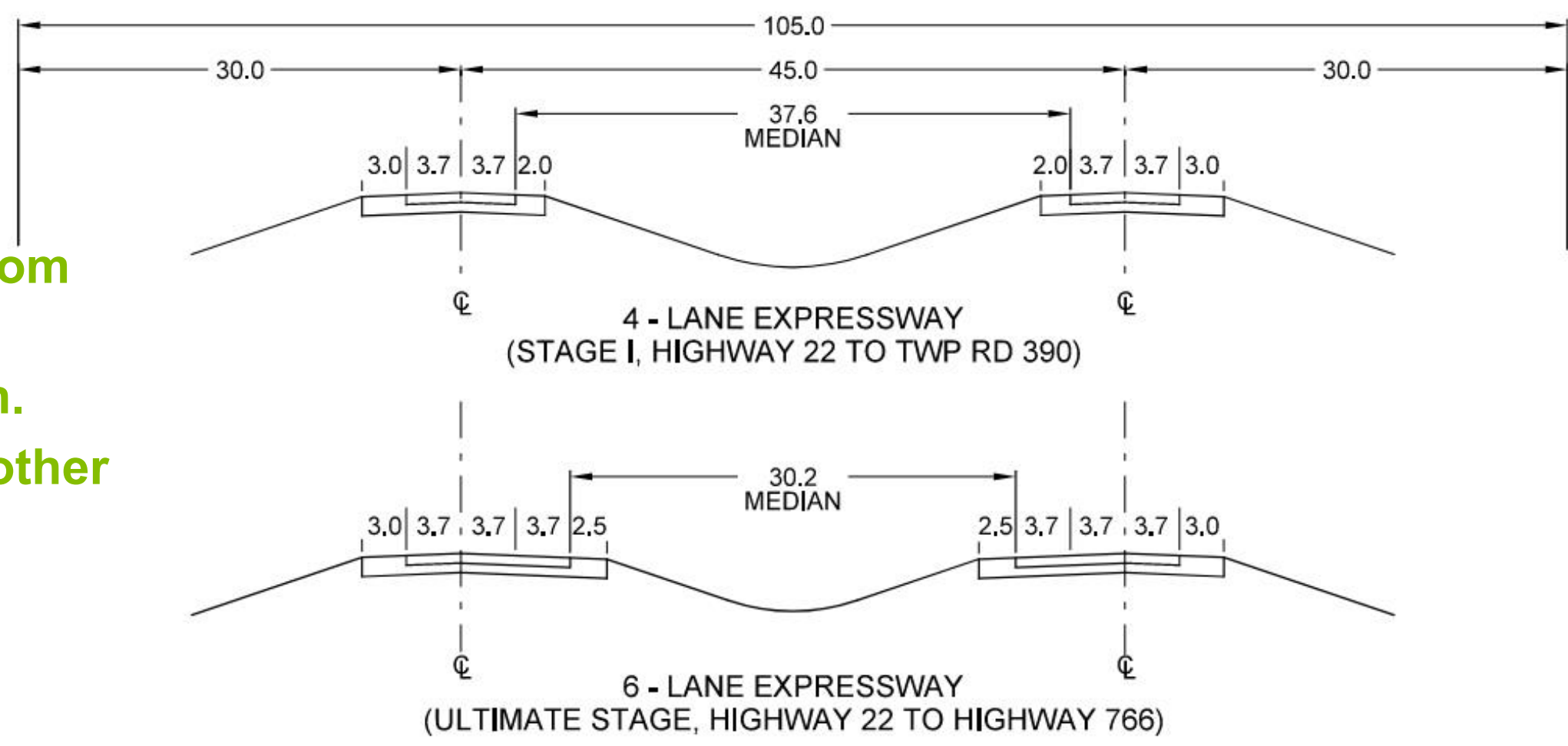
❖ Introduction

- Twinning the existing highway has been anticipated as the likely plan.
- No previous studies to confirm this as necessarily the preferred plan.
- Introduces significant impacts to existing development along the corridor.

❖ Highway Cross-Section & Right-of-Way

Notes:

1. The existing right-of-way is from 40m to 60m wide.
2. Twinning requires 105m width.
3. Frontage roads could add another 30m to one or both sides.



❖ Project Staging

1. Current Plan:

- Highway twinning with intersections and access management.
- Realignments will consolidate the Highway 761, Highway 766 and key county road intersections.
- Frontage roads will consolidate the minor gravel range roads.

2. Future:

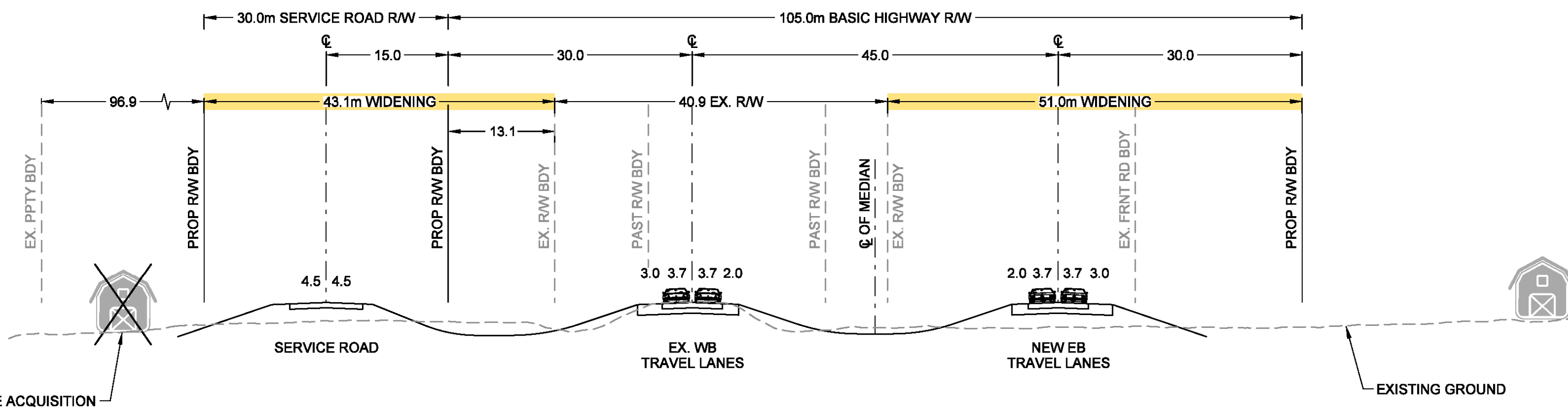
- Medium-term: Intersections upgraded to roundabouts where warranted.
- Long-term: Freeway standards, east from Highway 766 (Eckville) to Sylvan Lake.

❖ Side of Twinning

- Transitions from side-to-side along the corridor based on current understanding of the key constraints.
- The key constraints are identified on the plans.
- Transitions are costly. There may be potential to reduce the number of transitions.

❖ Property Impacts

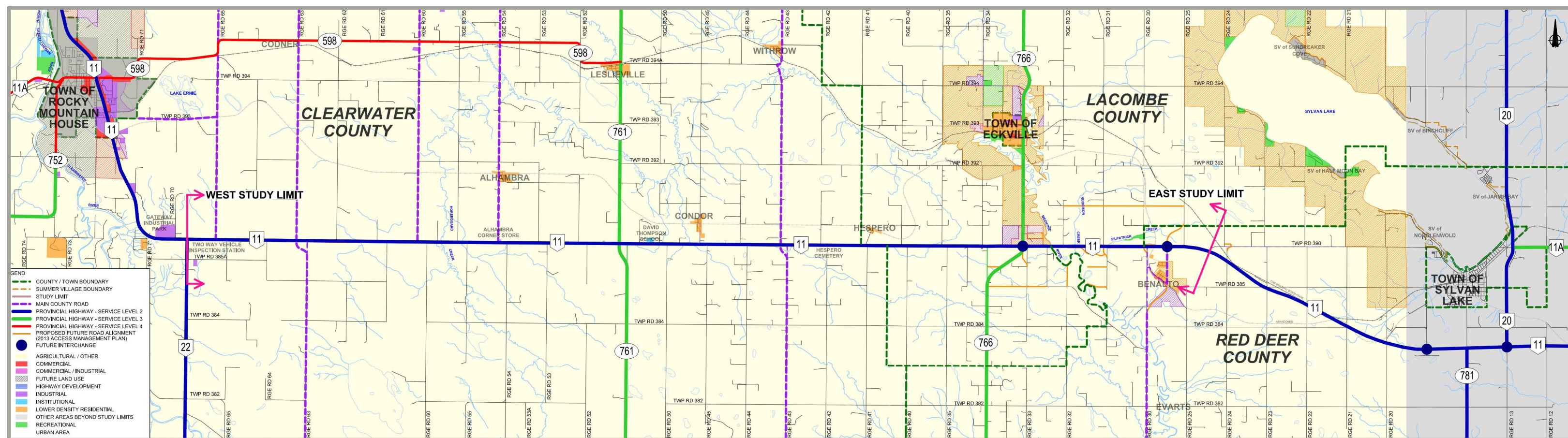
- Side-of-twinning, particularly between Highways 22 and 761, may be modified based on property impacts.
- Changes requiring additional transitions from side-to-side can be difficult to justify.



❖ **Long-Term Plan** for Highway 11 includes the two different segments:

- 10 km long twinning/ultimate freeway plan from Highway 766 (Eckville) to Twp Rd 390.
- 32 km long expressway from Highway 766 to Highway 22 (Rocky Mountain House)

❖ **Options 2, 3 and 4** focus on 32 km long segment from Hwy 766 to Hwy 22.



❖ Rationale

- Can Highway 11's service life be extended sufficiently to support delaying highway twinning.
- It is the passing opportunities that fail along the existing highway, not highway capacity.
- Poor passing opportunities and difficult left-turns onto highway concerned many stakeholders.

❖ Impacts

- Less right-of-way acquisition, less impact to farmsteads and acreages.
- Less initial construction cost.
- Might be better received by the directly impacted stakeholders.
- General public (long distance commuters) will likely prefer full twinning.

❖ Concept Overview

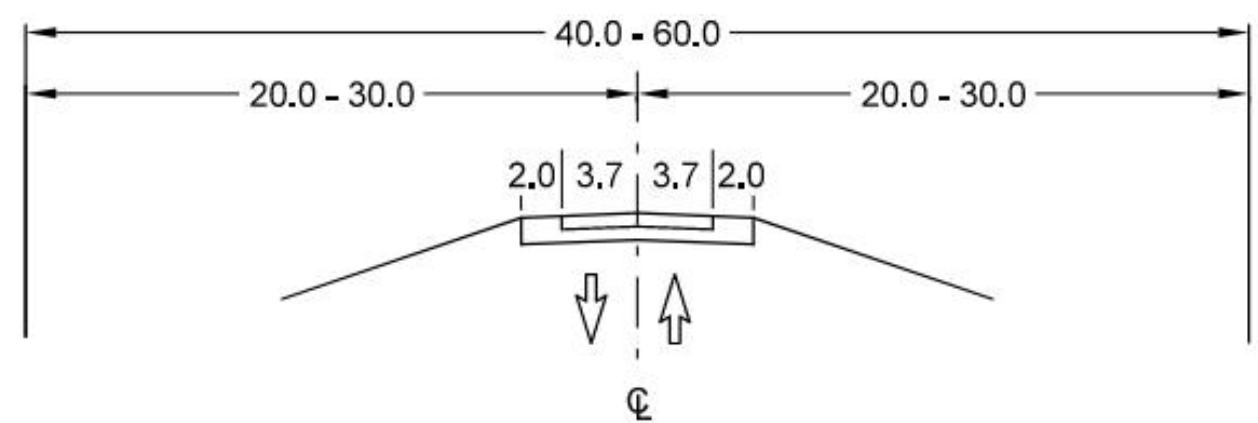
- Avoids the river crossings, key intersection locations and other access considerations.
- Added three passing lane segments (both directions) to the existing two segments and finished at 30% passing zones.
- Exceeds the recommended maximum of 25% passing zones.
- Requires a rigorous access management plan, eliminating all left-off movements from the passing lanes, unless turn slots are provided.



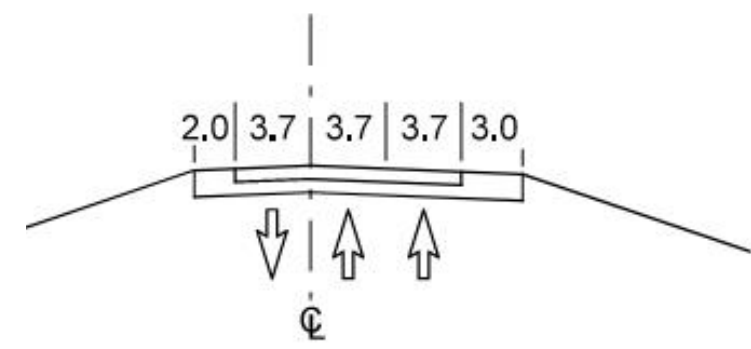
❖ Highway Cross-Section & Right-of-Way

Notes:

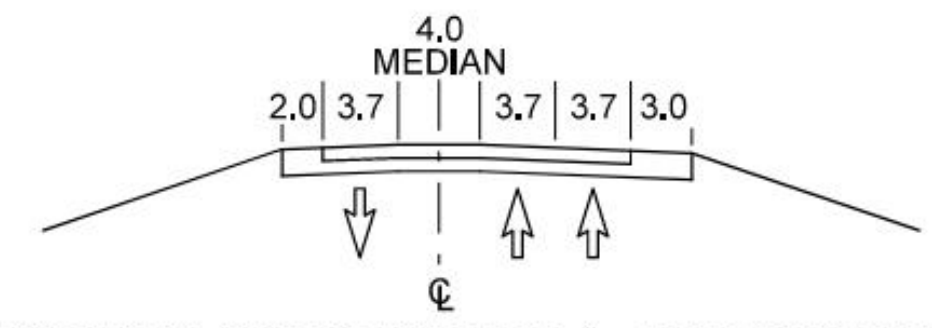
1. The existing right-of-way is from 40m to 60m wide.
2. Except at key intersection locations, passing lanes largely stay inside the existing right-of-way.
3. Frontage roads for access consolidation would still require 30m widening on one or both sides in many locations.
4. Design consistency is important (drive behaviour).
5. 4m paved median shown.



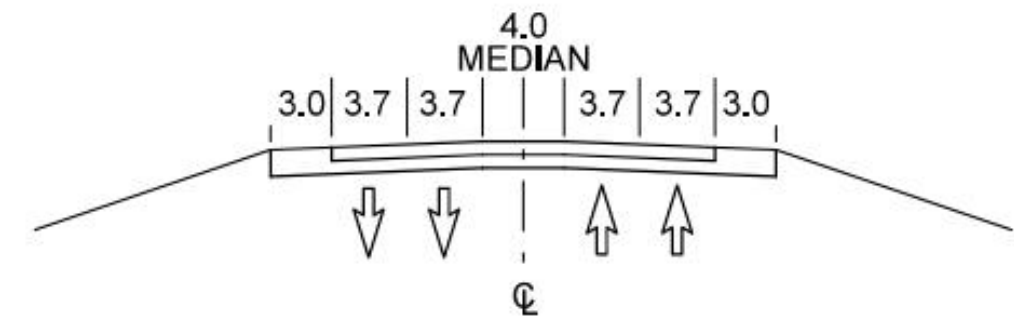
EXISTING TWO LANE CROSS SECTION IS RETAINED BETWEEN PASSING LANE SECTIONS



TYPICAL PASSING LANE IN ONE DIRECTION ONLY



PASSING LANE TO INCLUDE 4m MEDIAN WHERE NECESSARY TO ACCOMMODATE LEFT TURN SLOTS



TYPICAL PARALLEL PASSING LANES

❖ Passing Lane Outcomes

- Some driver frustration is addressed.
- Service levels not significantly improved.
- Planning criteria met at the 20-year planning horizon; not more.
- Driver's experience is not noticeably improved in the long-term.
- Highway performance may not meet driver expectations or be commensurate with the cost and disruption over two years of construction.
- May not serve as an incentive for economic development through the David Thompson region compared with the free-flow travel that conventional twinning would provide.

3.2 km Wide Separation between the Two Directions

❖ Introduction

- Some stakeholders suggested using Township Road 384 as the eastbound travel lanes and converting existing Highway 11 to two westbound lanes.
- 3.2 km offset between the two directions of travel along a 42 km long corridor.
- **Safety Concern:** Significant impact on wayfinding and the risk for wrong-way movements.
- No comparable precedent in the province or elsewhere for a couplet with such a large separation and spanning such a long distance.



3.2 km Wide Separation between the Two Directions

❖ Poor Feasibility - Rejected

- Would not support the first stage twinning already underway along Highway 11 at both ends of the corridor.
- Abandons 8 km of previously acquired right-of-way between Twp Rd 384 and Benalto.
- Not a simple conversion from a gravel to paved road surface.
Requires extensive access management to redirect all driveways and accesses.
- Poor wayfinding. The wide separation is far too large for turnarounds and increases the risk of wrong-way movements.
- Poor staging. The entire 42 km long corridor would need to be constructed at once.
The eastbound corridor's length would increase to 52 km.

800m Wide Separation between the Two Directions

3

❖ Introduction

- There is merit in considering a couplet concept based on a smaller offset between the directions of travel.

❖ Similar Experience

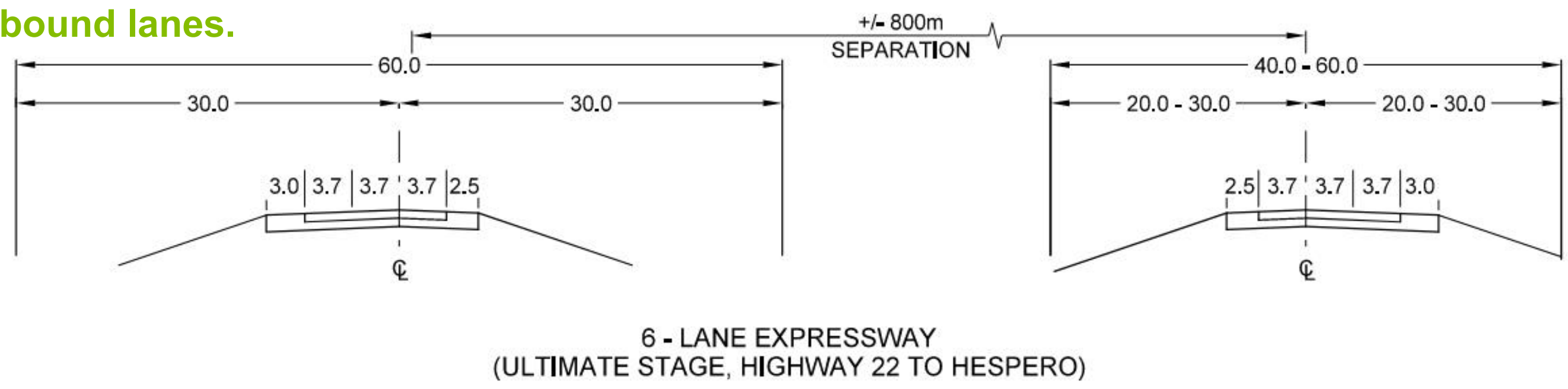
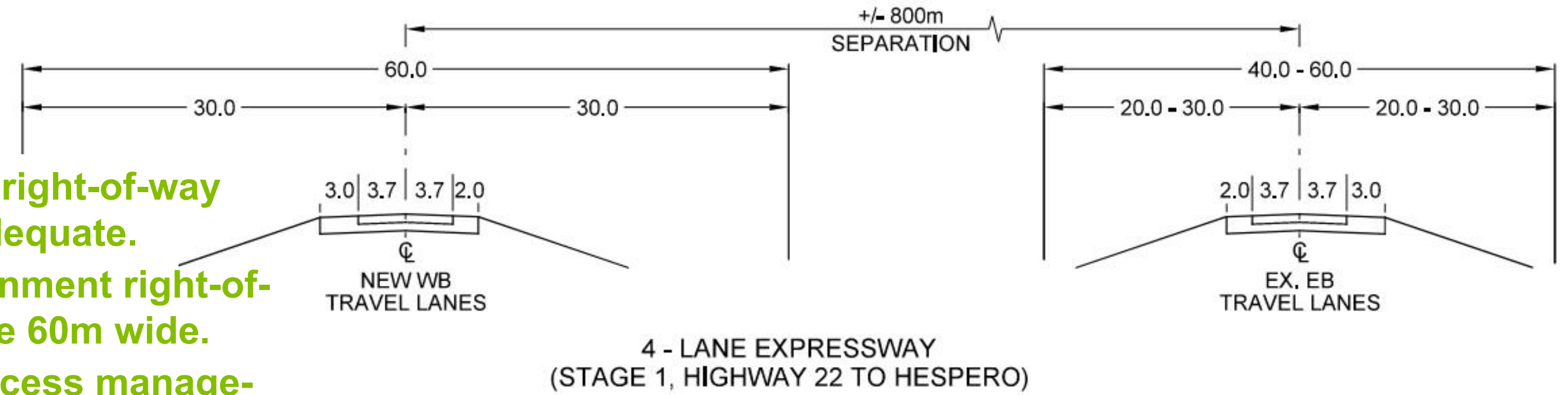
- Existing 20 km long couplet along Highway 16 west of Wildwood.
- Approximately an 800m wide separation between the two directions of travel.
- Comparable traffic volumes.
- No operational concerns from residents or emergency services.



❖ Highway Cross-Section & Right-of-Way

Notes:

- 1. The existing right-of-way should be adequate.
- 2. The new alignment right-of-way would be 60m wide.
- 3. Extensive access management required along the existing eastbound lanes.



800m Wide Separation between the Two Directions

❖ Highway Concept

- Westbound leg follows an alignment 800m north of the existing highway, beginning with abandoned CNR right-of-way near Hespero
- Westbound leg diverts around the Hamlet of Condor.
- Existing highway lanes becomes eastbound.
 - Most driveways along the existing highway are removed.
 - Range road intersections consolidated using frontage roads; similar to twinning plan.
 - Highway 761 and the key paved county roads are realigned, similar to twinning plan.

800m Wide Separation between the Two Directions

❖ Performance

- Should be operationally acceptable. Fewer conflict points at intersections.
- The only conflicts are crossing movements, but drivers need only check one direction.
- Less impact to occupied parcels than twinning existing.
- No roundabouts ever become required, so the travel speed is uninterrupted.

❖ **Note:** If a North Couplet Concept looks favourable, an option 800m south of Highway 11 could also be considered.

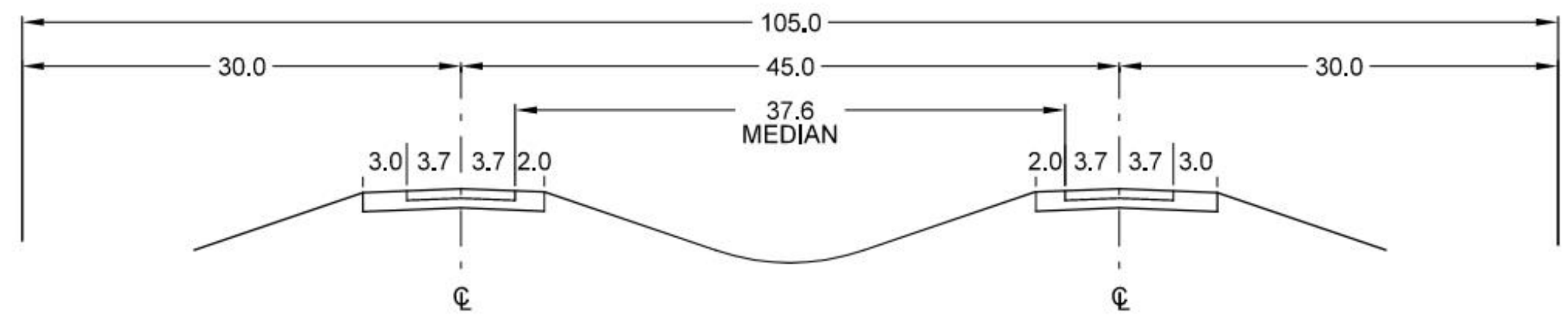
❖ Rationale

- Highway 11 is highly developed for a rural corridor and is a correction line.
- Twinning Existing Highway requires extensive access management and right-of-way, impacting many farmsteads, homesteads and acreages.
- A Couplet Concept disrupts local travel patterns.
- New alignment would not follow a correction line, requiring far less access management.
- New alignment would disrupt fewer farmsteads, homesteads and acreages.
- The existing highway would become a local road serving local mobility needs.

❖ Highway Concept

- 30 km long new expressway would follow an alignment 800m north of the existing highway, beginning with the abandoned CNR right-of-way near Hespero
- Alignment diverts around the Hamlet of Condor, placing the hamlet south, instead of north, of Highway 11.
- Highway 761 would be consolidated to a single intersection with existing Highway 11. No other local road realignments are required.
- Existing highway becomes a local road for access management purposes.
- Considerably less impact on farmsteads, homesteads and acreages than other options.

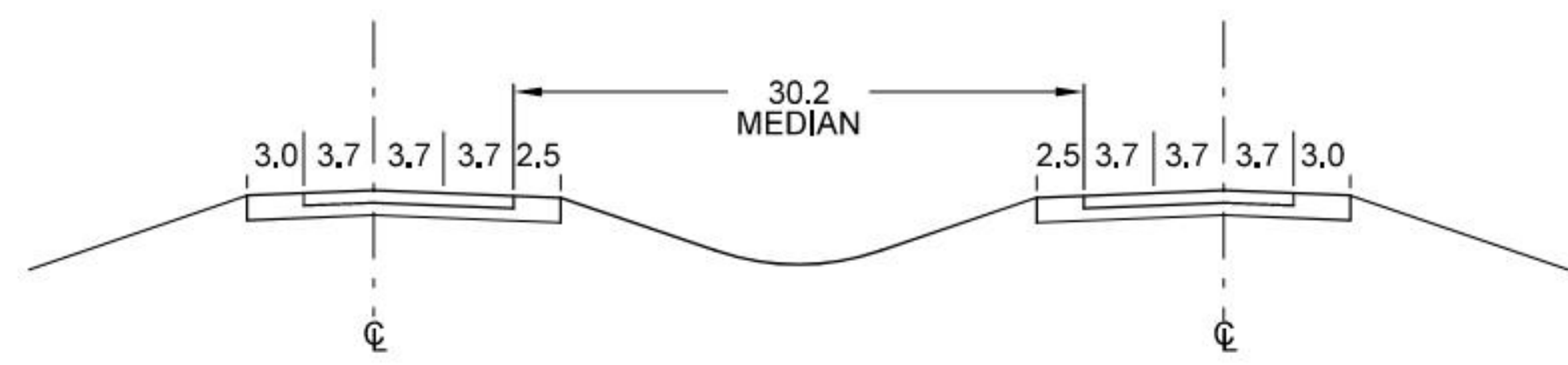
❖ Highway Cross-Section & Right-of-Way



4 - LANE EXPRESSWAY
(STAGE 1, HIGHWAY 22 TO HESPERO)

Notes:

- 1. Requires minimal access management or frontage roads.



6 - LANE EXPRESSWAY
(ULTIMATE STAGE, HIGHWAY 22 TO HESPERO)

- **Twinning Existing Highway 11** is the plan most stakeholders expect to see.
 - Third highest cost and the greatest anticipated property impacts.
- **Passing Lane Strategy** is the lowest cost and impacts the fewest landowners.
 - Results in the lowest level-of-service and the lowest service life.
 - Does not meet typical passing lane system standards.
 - May be preferred by the directly impacted landowners
 - Unlikely to be well received by most long-distance highway users.
 - May present the lowest economic stimulus for the David Thompson region.
- **North Couplet Concept** is unconventional, although there is a precedent in Alberta.
 - Second highest cost and still impacts a surprising number of stakeholders.
 - Good service life; unconventional operation will require careful consideration to mitigate potential safety concerns.
- **New Highway Alignment** is the least disruptive twinning concept.
 - Lowest impact to developed parcels, but the highest cost.
 - Best traffic operations and safety, marginally better than Twinning Existing Highway.

NEXT STEPS

❖ Before You Leave:

- Please review the *Existing Conditions and Constraints Plan*.
- Please review the Concept Plans and discuss with project staff.
- Please fill out the Comment Sheet.

❖ The Study Team:

- Will consider public input in the review and evaluation of the concept plans.
- Return in the fall/winter with a preferred plan.



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**Thank you
for
Attending!**

**The Information Shown
Today Will Be Posted on
the Project Website!**

