Wesleyville Road

Interchange Alternatives

A range of interchange alternatives for improving access to and from Highway 401 have been developed. A preliminary screening has been carried out to identify the alternatives that should be carried forward for further consideration.

Carried-forward ✓ Screened-out ✗

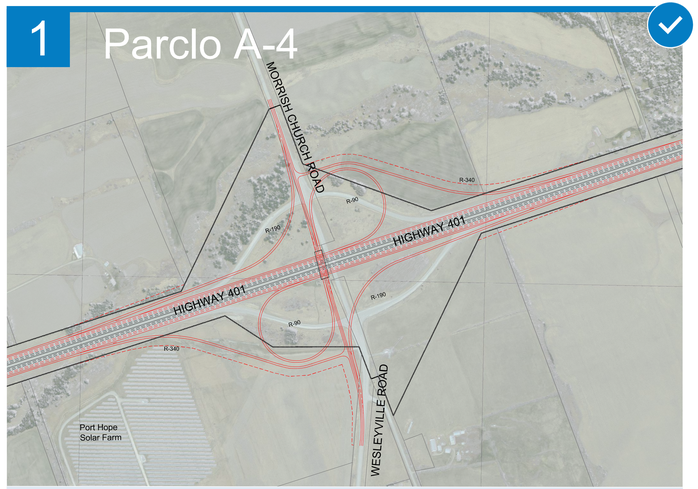
LEGEND

- New roadway
- Property required
- Limit of existing Highway 401 right-of-way

150 m

1:3000

1 Parclo A-4



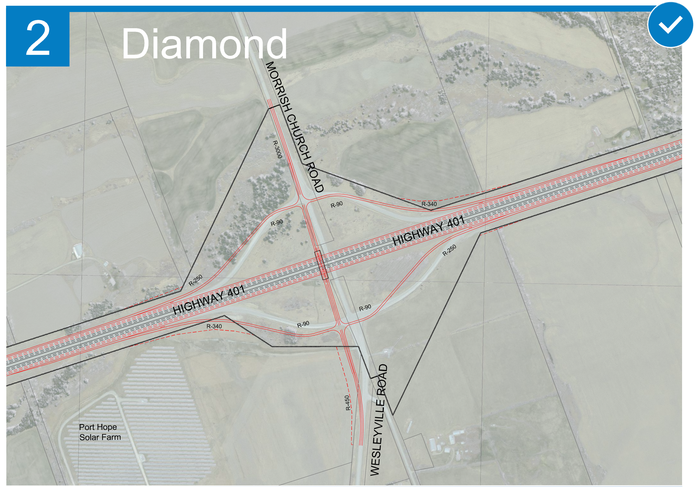
Advantages

- Desirable interchange configuration from a traffic operations perspective
- Ramp configuration provides the most free-flow traffic movements
- Fewer number of conflict points between traffic movements
- Has a smaller footprint compared to Alternative 3 which may reduce potential impacts to social, cultural and natural environment

Disadvantages

- Requires property in the northwest, northeast, southwest and southeast quadrants
- Has a larger footprint compared to Alternative 2, which may increase potential impacts to social, cultural and natural environment
- Higher cost compared to Diamond configuration

2 Diamond



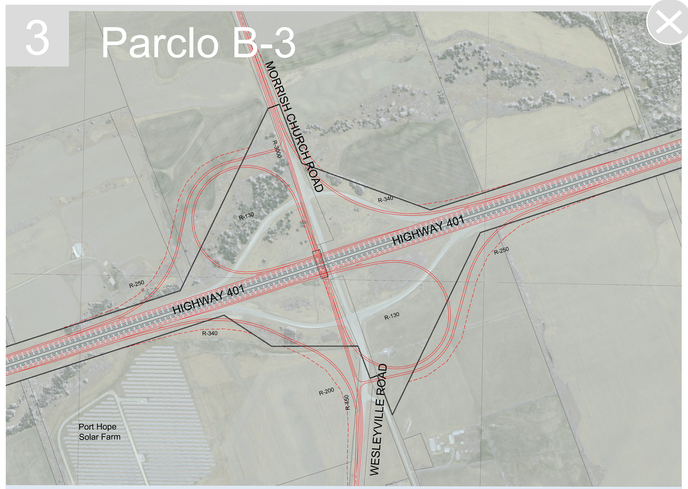
Advantages

- Ramp configuration provides some free-flow traffic movements
- Has the smallest footprint compared to other alternatives, which may reduce potential impacts to social, cultural and natural environment
- Lower cost compared to Parclo configuration

Disadvantages

- Less desirable interchange configuration compared to a Parclo A, from a traffic operations perspective
- More conflict points between traffic movements
- Requires property in the northwest, northeast, southwest and southeast quadrants

3 Parclo B-3



Advantages

- Ramp configuration provides some free-flow traffic movements

Disadvantages

- Less desirable interchange configuration compared to a Parclo A from a traffic operations perspective
- More conflict points between traffic movements
- Loop exit ramps on freeways are less desirable than direct ramps
- Requires significant property in the northwest and southeast quadrants compared to other alternatives
- Requires property in the southwest and northeast quadrants
- Higher cost compared to Diamond configuration

LEGEND

- ✓ Carried-forward
- ✗ Screened-out

Bridge Replacement Alternatives

A range of reasonable alternatives for replacing the existing bridge have been developed. A preliminary evaluation has been carried out to identify the preferred bridge replacement alternative.

Do Nothing

✗ Does not address structural replacement needs.

Replace Bridge on New Alignment to the West

✓ Replacement on a new alignment to the west was selected as the preferred option because:

- It has a more desirable horizontal alignment through the interchange (i.e. tangent alignment between ramp terminals)
- It minimizes impacts to utilities compared to a new alignment to the east, notably to the Hydro One aerial utilities located along the east side of Wesleyville Road
- The new bridge can be constructed with minimal impacts to traffic.

Replace Bridge on Existing Alignment

✗ Replacement on the existing alignment was screened out because replacement of the bridge would require the closure of the crossing road and significant impacts to traffic.

Replace Bridge on New Alignment to the East

✗ Replacement on a new alignment to the east was screened out because:

- It has a less desirable horizontal alignment through the interchange (i.e. south ramp terminal located on a horizontal curve
- It has more significant impacts to utilities compared to a new alignment to the west, notably to the Hydro One aerial utilities located along the east side of Wesleyville Road.