

Credit Valley Sanitary Trunk Sewer Relocation Schedule 'B' Municipal Class Environmental Assessment

Online Public Engagement

February 10, 2021

Welcome!

The Purpose of this Online Public Engagement is to:

Project Overview



Provide a project overview and explain why the project is being undertaken.

Receive Feedback



Provide details and seek input on the alternative solutions developed

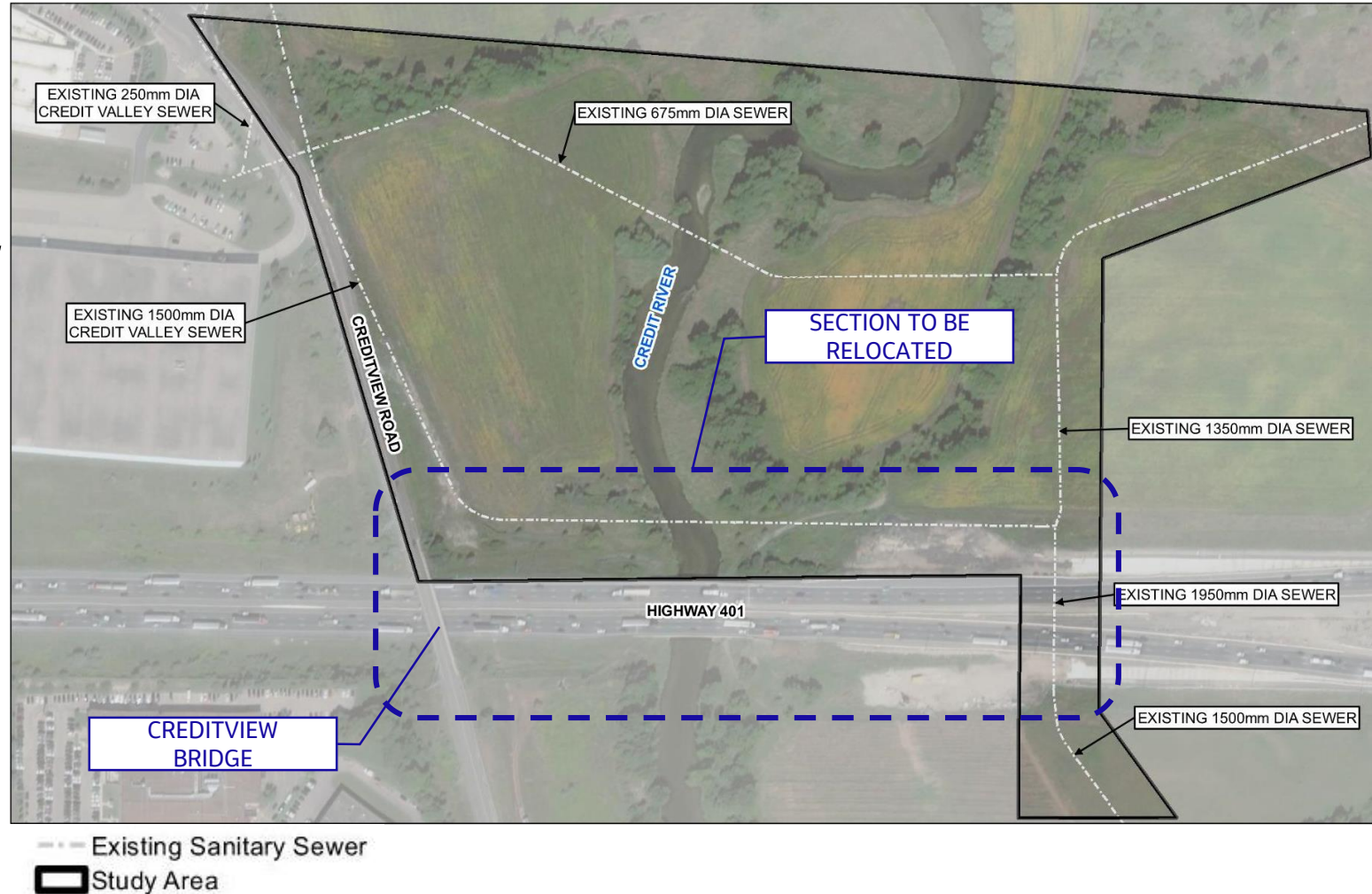
Next Steps



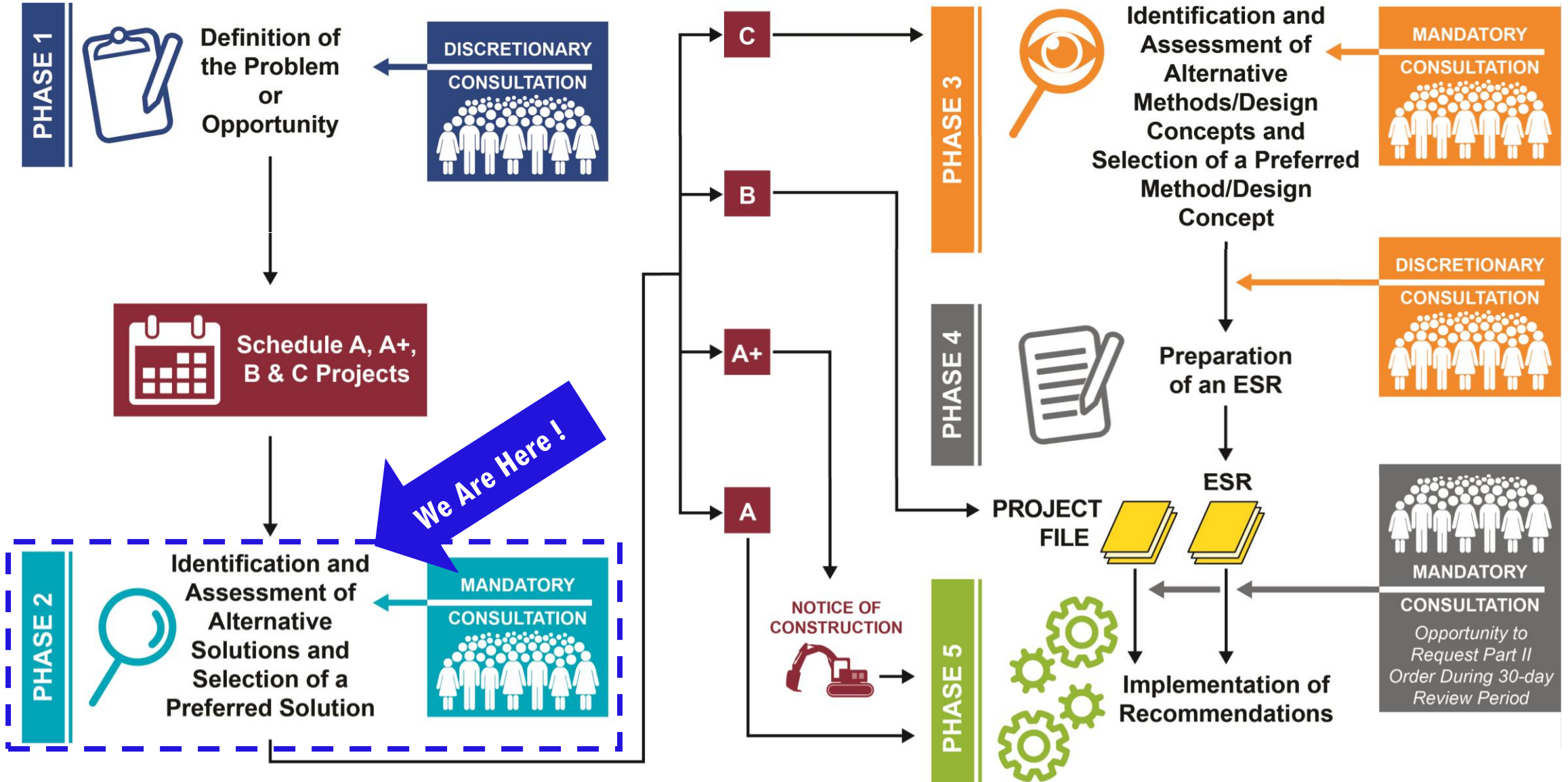
Provide information on the next stages of the project.

Project Overview: What, why and how?

- The Credit Valley Sanitary Trunk Sewer (CVSTS) is integral to the Region's wastewater collection system.
- A section of it from east of Creditview Road to south of Highway 401 in the City of Mississauga needs to be relocated due to the Province's widening of Highway 401 and reconstruction of the widened Creditview Bridge.
- A Schedule 'B' Municipal Class Environmental Assessment (EA) Study is being undertaken to identify the preferred alignment for the section to be relocated.



Class Environmental Assessment Process



Problem Statement: Why are we doing this?



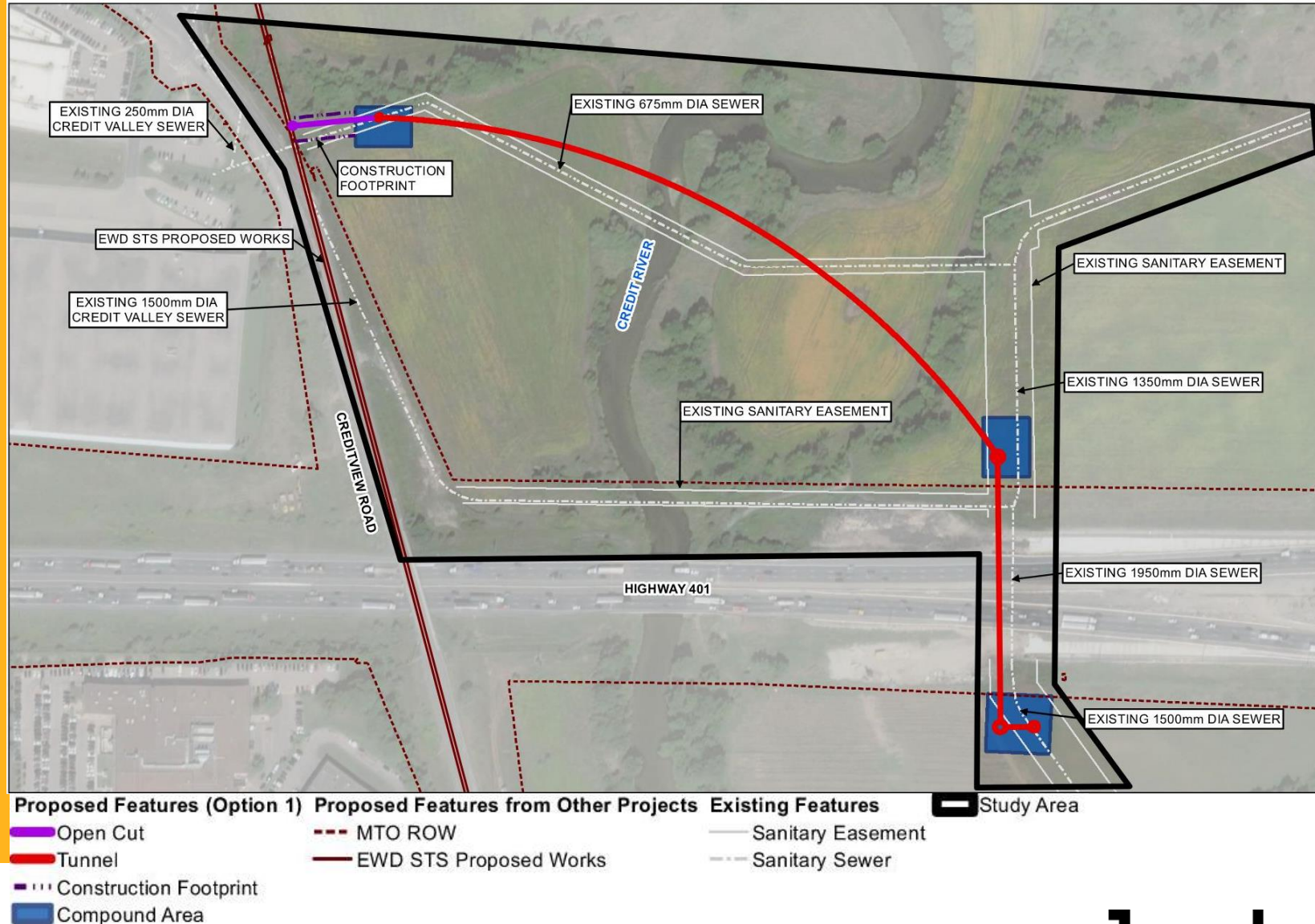
Due to the widening of Highway 401 and the reconstruction of the Creditview Bridge, accessibility for operation and maintenance of the existing CVSTS along the highway will be very difficult. The highway works could also impact the structural integrity of the existing CVSTS.

An existing 675 mm sewer that crosses the Credit River within the study area is at risk of being exposed by stream flow. An opportunity exists to remove this sewer and reroute flows into the new realigned 1500 mm sewer.

Identification of Alternatives

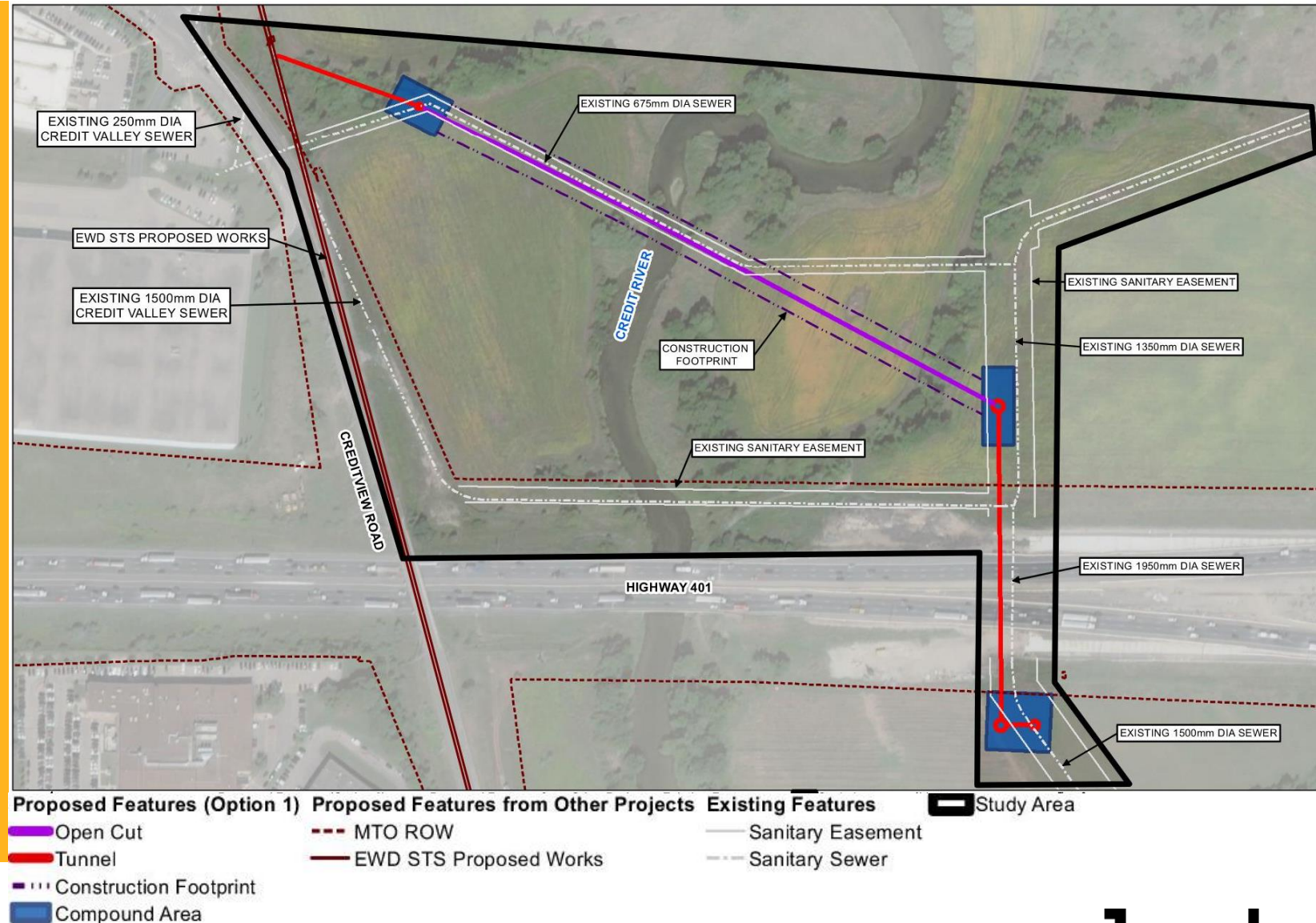
Alternative No. 1: 70 m Open-Cut and 640 m Tunnel

- Replace existing 1,500 mm sewer with a new sewer installed in a new easement for a 500 m radius tunnel.
- Consists of approximately 70 m open-cut section and 640 m of tunnelling.
- Requires a new permanent easement.
- Allows for tunneled crossing of the Credit River; however, there may be some construction challenges due to the shallow depth at the crossing.
- Existing 675 mm sewer is left in place.



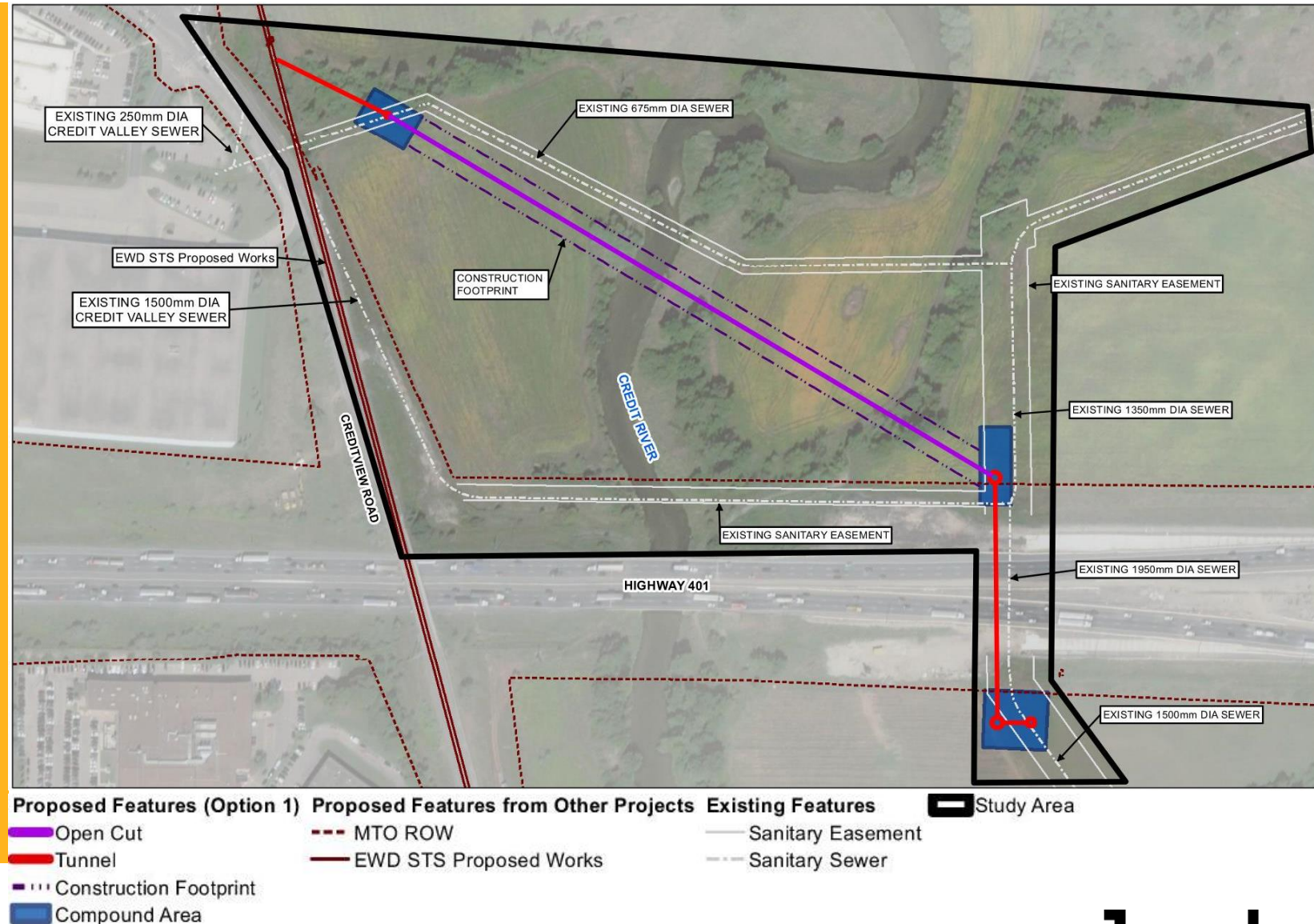
Alternative No. 2: 510 m Open-Cut and 200 m Tunnel for Highway 401 Crossing

- Replace existing 1,500 mm sewer with a new sewer installed in the easement for the existing 675 mm sewer.
- New sewer to be installed in 510 m long open-cut trench with 200 m long tunnel for Highway 401 crossing.
- Allows for open-cut crossing of Credit River to avoid technical challenges of tunneled crossing.
- Existing 675 mm sewer will be decommissioned and removed



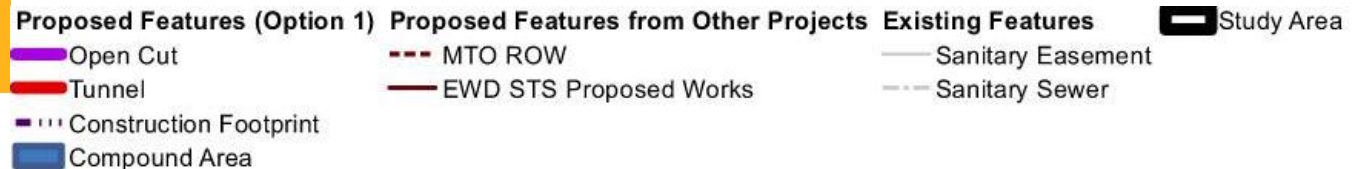
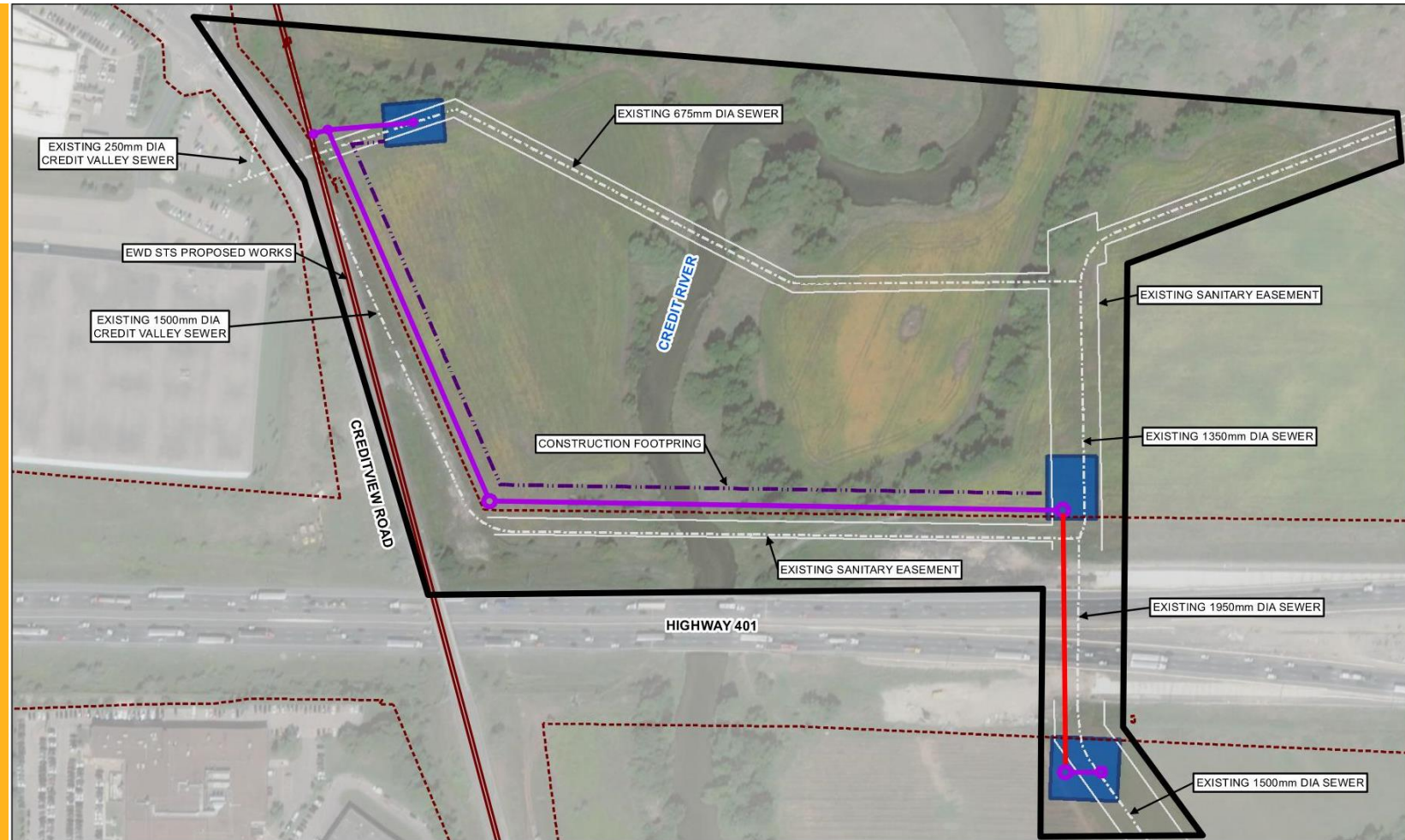
Alternative No. 2A: 530 m Open-Cut and 155 m Tunnel for Highway 401 Crossing

- Replace existing 1,500 mm sewer with a new sewer installed in a new easement south of the existing 675 mm sewer.
- New sewer to be installed in 530 m long open-cut trench with 155 m long tunnel for Highway 401 crossing.
- Requires a new permanent easement.
- Allows for open-cut crossing of Credit River to avoid technical challenges of tunneled crossing.
- Existing 675 mm sewer is left in place.



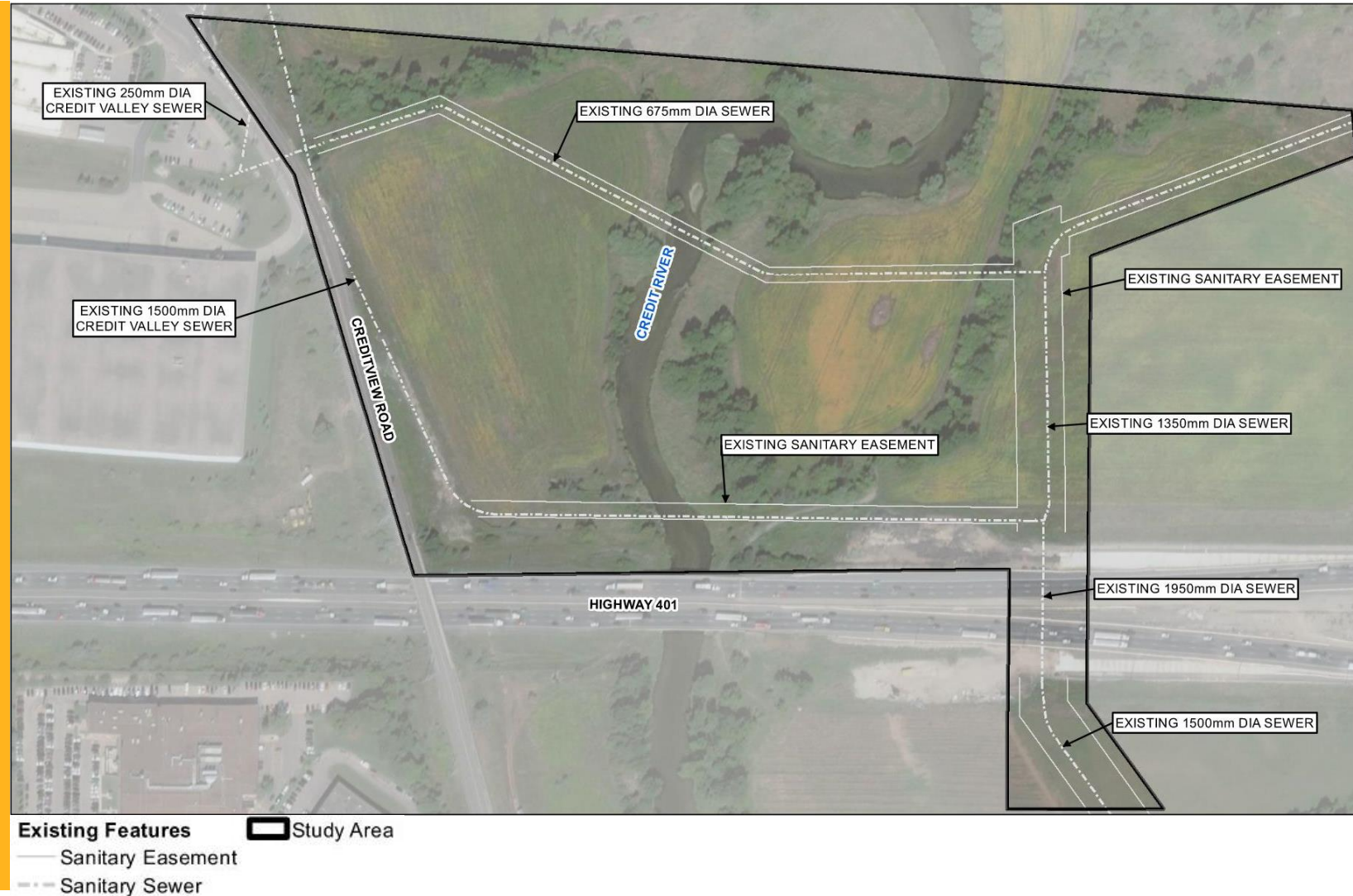
Alternative No. 3 600 m Open-Cut and 155 m Tunnel for Highway 401 Crossing

- Replace existing 1,500 mm sewer with a new sewer installed in new easement adjacent to Highway 401.
- New sewer to be installed in 600 m long open-cut trench with 155 m long tunnel for Highway 401 crossing.
- Requires a new permanent easement.
- Allows for open-cut crossing of Credit River to avoid technical challenges of tunneled crossing.
- Existing 675 mm sewer is left in place.



Alternative No. 4: Do Nothing Alternative

- The existing 1,500 mm sewer would be left in place, creating constructability issues during the Highway 401 Expansion project.
- Sewer maintenance activities will result in traffic flow restrictions during those periods.
- In the event of sewer failure, leakages could result in damage/ failure of highway embankment or retaining wall.
- Existing 675 mm sewer is left in place.








Evaluation of Alternatives

Evaluation of Alternatives

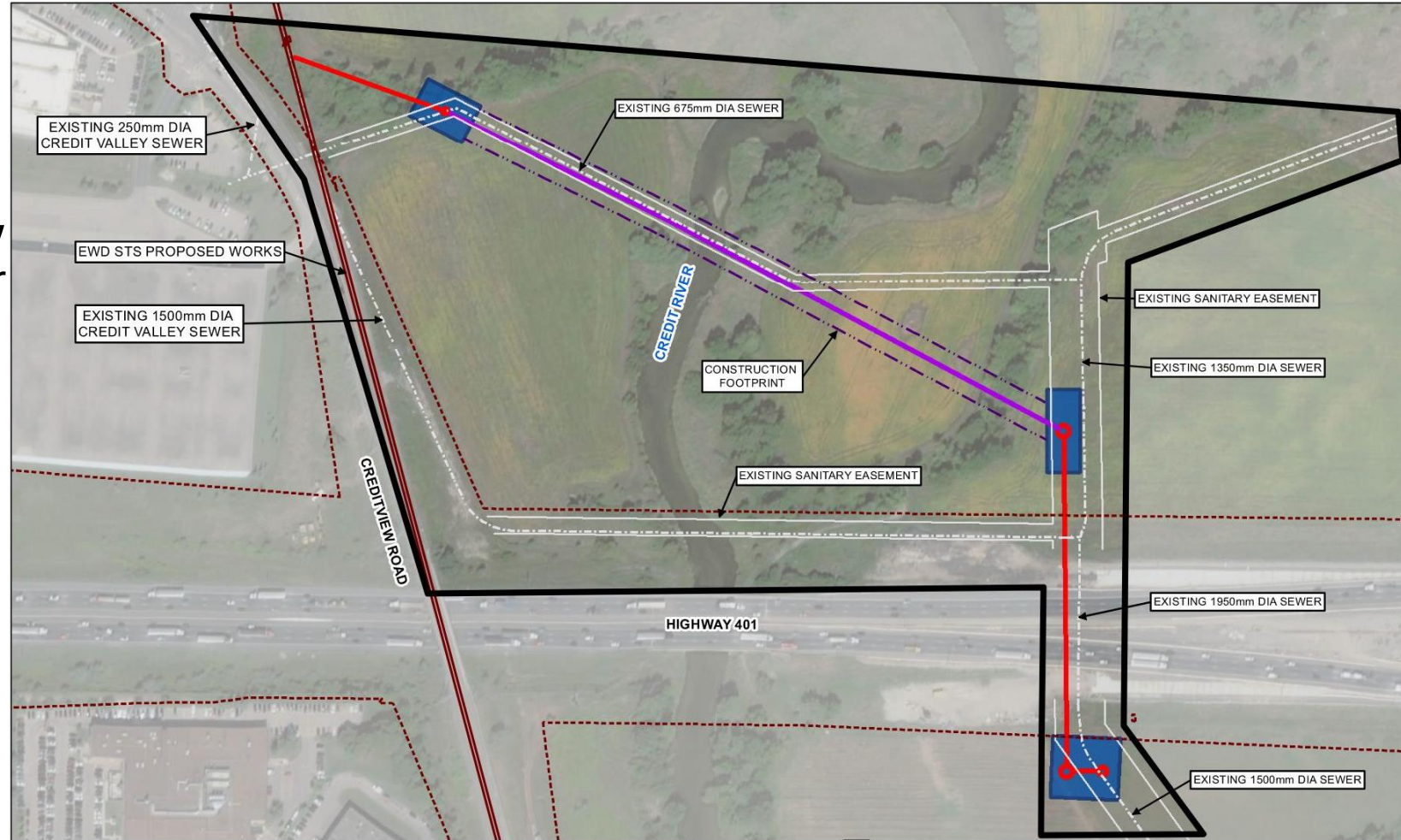
Category	Evaluation Criteria	Alternative No. 1	Alternative No. 2	Alternative No. 2A	Alternative No. 3	Alternative No. 4	
Technical Considerations	<ul style="list-style-type: none"> Ability to address problem/ opportunity statement Technical viability/constructability Impact to existing infrastructure and utilities Opportunity to coordinate other improvements Future operations and maintenance 						
Natural Environment	<ul style="list-style-type: none"> Disturbance of terrestrial species and features Disturbance of aquatic species and features Direct effects on terrestrial species at risk Direct effects on aquatic species at risk Effects on water quality or quantity 						<p>Most Favourable </p> <p>Moderately Favourable </p> <p>Least Favourable </p>
Socio-Cultural Environment	<ul style="list-style-type: none"> Health and safety (H&S) Noise and vibration during construction Air and greenhouse gas emissions during construction Impacts to heritage or cultural resources Property acquisition and easement requirements Compliance with applicable planning policies, preferences and legislature Impacts to existing land use Impact to future land use or development 						
Economic Factors	<ul style="list-style-type: none"> Construction costs Operation and maintenance (O&M) costs 						
Alternative Ranking		3	1	2	3	4	

Summary Score of Alternatives

Alternatives	Alternative No. 1	Alternative No. 2	Alternative No. 2A	Alternative No. 3	Alternative No. 4
Overall Score	Moderately Preferred 	Most Preferred 	Moderately Preferred 	Moderately Preferred 	Least Preferred 
Key Factors	<ul style="list-style-type: none"> Trenchless construction results in potential for frac-out Potential exposure of 675 mm sewer in the river due to erosion A new, permanent easement is required; more property acquisition More expensive: trenchless construction No additional measures or time needed for O&M Some disturbance to the environment 	<ul style="list-style-type: none"> Open-cut construction is preferred and eliminates frac-out potential Existing 675 mm sewer to be removed; no exposure in the river Maximizes existing easement; minimal property acquisition Less expensive: open-cut No additional measures or time for O&M More disturbance to the environment 	<ul style="list-style-type: none"> Open-cut construction is preferred and eliminates frac-out potential Potential exposure of 675 mm sewer in the river due to erosion A new, permanent easement is required; more property acquisition Less expensive: open-cut No additional measures or time for O&M More disturbance to the environment 	<ul style="list-style-type: none"> Open-cut construction is preferred and eliminates frac-out potential Potential exposure of 675 mm sewer in the river due to erosion A new, permanent easement is required; more property acquisition Less expensive: open-cut Some additional measures or time for O&M More disturbance to the environment 	<ul style="list-style-type: none"> Impacts existing sewer infrastructure Potential exposure of 675 mm sewer in the river due to erosion No new easement required; no property acquisition No construction costs Significant additional measures or time for O&M No disturbance to natural environment

Preliminary Preferred Alternative

- Alternative No. 2 (510 m Open-Cut and 200 m Tunnel for Highway 401 Crossing) is the preliminary preferred alternative
- Infrastructure is not within Highway 401's widened ROW; safe access for O&M.
- Allows Region to optimize the utilization of the existing easement for the 675 mm sanitary sewer.
- Open-cut installation will be more cost effective than tunnelling the entire length.
- Open-cut crossing will be engineered to mitigate environmental impacts to Credit River.



Next Steps

- Receive input from the public and stakeholders
- Finalize the preferred alternative
- Prepare and publish the Project File for review
- Issue Notice of Completion
- Complete the Class EA
- Implement the realignment of the Credit Valley Sanitary Sewer Relocation (Detailed Design and Construction)



How to Stay Connected and Involved?

Reach out to us anytime with comments and questions on this study.

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- Feedback on this Online Public Engagement is open until March 3, 2021
- If you would like to be kept updated on this project:



<https://www.peelregion.ca/pw/water/assess/relocation-of-credit-valley-sanitary-trunk-sewer.asp>



<https://twitter.com/peelpublicworks?lang=en>



<https://www.facebook.com/regionofpeel>