



## Report of the Public Works Department

St-Jean Road Exchange with the City of Clarence-Rockland

Report No.: TP-013-2023

Meeting Date: October 25, 2023

## **Executive Summary**

This report recommends a road exchange between the United Counties of Prescott and Russell (UCPR) and the City of Clarence-Rockland (CCR) to enhance the road maintenance level of service, streamline administrative processes and strengthen the road network connectivity for both entities. This proposed exchange involves transferring a portion of County Road 21, known as St-Jean Street, located directly in the City of Rockland and a portion of County Road 1 known as St-Pascal Road to the City of Clarence-Rockland in exchange for a portion of Baseline Road.

This recommended exchange would mark a significant milestone in our ongoing efforts to enhance maintenance operations and service delivery, particularly concerning a matter that has been under discussion for several years but not yet acted upon.

The UCPR's Public Works Department is therefore seeking Council's approval for the said road exchange, despite the additional capital costs involved for the UCPR. We believe that the long-term benefits, improved road maintenance and system connectivity justifies the investment and will greatly benefit our community.

## **Options and Recommendation**

### Options

#### Option 1:

- Keep the status quo and not proceed with a road exchange with the City of Clarence-Rockland.

#### Option 2: (recommended)

- That the Council of the United Counties of Prescott and Russell approve the road exchange, subject to the following conditions:
  - a) Accept the transfer of Baseline Road from Canaan Road to Joanisse Road (County Road 21) from the City of Clarence-Rockland.
  - b) Accept the transfer of Baseline Road from St-Jean Street (County Road 21) to County Road 8 (Landry Street) from the City of Clarence-Rockland.
  - c) Require a payment from the City of Clarence-Rockland in the amount of \$1.4 million starting in year 2025 and ending on December 31, 2027, and that such payment could be done by means of UCPR keeping the UCPR Roads Transfer fund for the same value.
  - d) Accept to transfer a portion of County Road 21 from Laurier Street to Baseline Road, known as St-Jean Street, located directly in the City of Rockland and a portion of County Road 1 from Du Lac Road in the Village of St-Pascal going east to the end of the road to the City of Clarence-Rockland.
  - e) Enter into a road transfer agreement with the City of Clarence-Rockland to specify the terms and conditions of the road transfer, including a shared cost of 50/50 to cover legal or other transfer fees.
  - f) Require that the said road transfer agreement be brought back to UCPR Council for approval by way of by-law.

- g) Acknowledge and confirm that no other type of financial contribution from the UCPR will be transferred or provided to the City of Clarence-Rockland for any ongoing or any future work on St-Jean Street.
- h) Require a resolution from the Council of the City of Clarence-Rockland stating their approval with the above-mentioned conditions relating to the road transfer.
- i) Once the resolution of the Council of the City of Clarence-Rockland is received by the United Counties of Prescott and Russell, authorize the Public Works Director to prepare all required by-laws to officialize the road transfer.

Recommendation

Be it resolved that the Council of the United Counties of Prescott and Russell approve Option 2, as indicated in Report TP-013-2023.

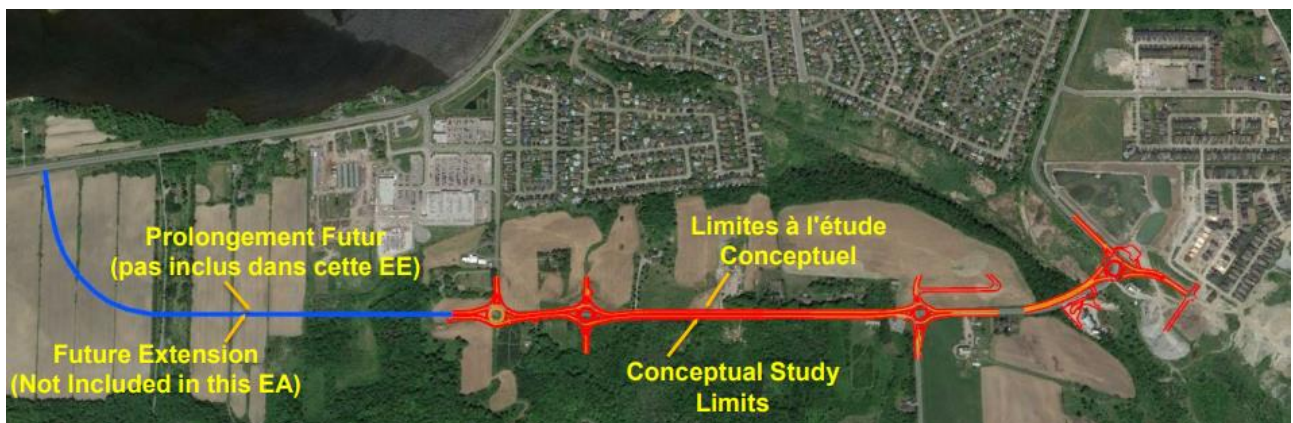
**Background Information and Analysis**

The City of Clarence-Rockland has been experiencing significant residential growth for the past 10 years, which has major impacts on the local transportation network mainly on County Road 21 known as St-Jean Street. Appendix A represents the future development area which mainly surrounds the St-Jean Street corridor totalling approximately 4,000 units.

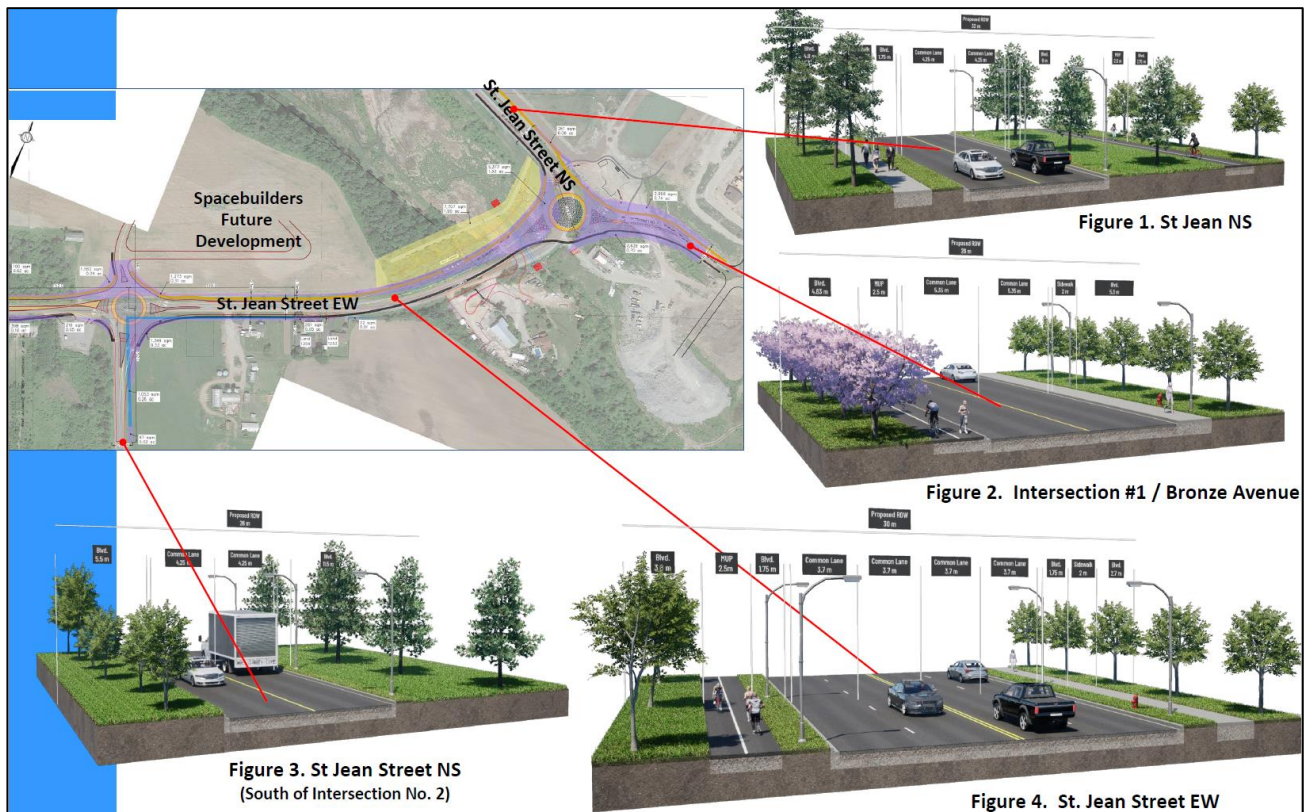
Pursuant to subdivision draft plan applications from land developers along the St-Jean corridor (County Road 21), it was identified that multiple roadway improvements on St-Jean Street were required to accommodate traffic volume increase and access to subject developments.

In April 2020, the CCR informed the UCPR that they would complete the major roadway improvements along St-Jean Street on behalf of the developers under its Development Charges (DC) By-law. It was therefore agreed between the CCR and the UCPR that any roadway improvement along St-Jean Street related to residential growth would be managed and funded by the CCR.

The City of Clarence-Rockland is currently undertaking a Municipal Class Environmental Assessment Study (MCEA) to establish the transportation needs in support of the growing community which will ultimately reach the western limit of Rockland. The picture below demonstrates the study area of the MCEA study.



As shown in the photo below, when considering the entire purpose of the MCEA shown in the above aerial photo, the portion of County Road 21 (St-Jean Street) is considered a very small piece of the future corridor. In fact, it breaks the connectivity of the proposed future local municipal corridor from Bronze Ave to Poupart Street. This residential development and the major roadway improvements will greatly change the entire purpose of the roadway configuration and designation. You could even say that it's losing its "County Road Designation." As shown in the pictures below, it will become a fully urbanized corridor with multimodal transportation features.



For several years, the idea of transferring St-Jean Street to the CCR has been discussed, but no steps have been taken to formally bring the subject to the Council table. Now with the upcoming changes, the idea of doing a road transfer has become much more desirable for both parties. By transferring St-Jean, it would provide the opportunity to the CCR to become the primary decision-maker regarding the future of the St-Jean corridor. This shift would streamline decision-making processes and empower the local municipality to shape the area according to its vision and priorities.

The Proposed Exchange

The proposed exchange involves transferring a portion of County Road 21, known as St-Jean Street, located directly in the City of Rockland and a portion of County Road 1 known as St-Pascal Road to the City of Clarence-Rockland in exchange for a portion of Baseline Road. See Appendix B for a key map of the recommended exchange and Appendix C for a detailed

description of the exchange including road characteristics, future conditions, and financial needs.

Why should Baseline Road become a UCPR road?

1. It was determined that Baseline Road is the only CCR road candidate to become a collector road and easily arguable to meet the criteria of a county road. Based on multiple traffic and residential growth studies for the Rockland area, it is determined that Caron Street will also see major growth and development and become a major north-south collector. In support of the extensive projected growth in Rockland, Baseline will become the east-west rural collector. In addition, Baseline Road, connects County Road 17 via County Road 8 (Landry Road) and Canaan Road to access the City of Ottawa.
2. Baseline Road has similar characteristics in lengths compared with St-Jean.
3. Baseline Road conveys an important amount of traffic volume which will also increase over the years to be considered a county road.
4. At some point, once Baseline is fully rehabilitated and capable of accepting larger vehicles, there is the possibility that Baseline will become the new Emergency Detour Route (EDR) for County Road 17. This will strengthen our emergency detour network for County Road 17.

Why should St-Pascal Road become a CCR road?

1. As a dead-end road, this portion of St-Pascal Road has very minimal traffic volume and technically does not meet the criteria of a county road. It is the perfect candidate for a local municipal road. Furthermore, operationally, the CCR is required to maintain a portion of the road allowance located at the end of County Road 1 and a transfer would make it more practical for the CCR since they are already travelling on County Road 1 to reach the dead-end.
2. With the portion of Baseline Road to be transferred being 6.2 kilometres and St-Jean Street only being 3.8 kilometres, we needed to find another UCPR road to mostly equal the same number of kilometres to be considered a fair exchange. This portion of St-Pascal Road being 2.6 kilometres was the perfect candidate when considering length equitability.

Why should St-Jean Street become a CCR road?

1. As explained above, the intention is to streamline administrative processes, empower Clarence-Rockland's decision-making over the St-Jean corridor, and allow the UCPR to focus on roads having a greater regional designation. It fosters regional cooperation and enhances local road connectivity while aligning with development goals.

Benefits of the road exchange:

1. **Maintenance Efficiency:** The proposed exchange would allow both the UCPR and the City of Clarence-Rockland to focus their maintenance efforts on roads that are more geographically aligned with their respective mandate. This targeted approach would result in more efficient resource utilization and quicker response times to maintenance needs.
2. **Enhanced Services:** The road exchange would enable the UCPR and the City of Clarence-Rockland to provide a better level of service to their residents by leveraging their expertise and resources for the roads they are directly responsible for. This would translate into safer and better-maintained roadways for all road users.
  - a. It is important to note that if no road exchange occurs, the UCPR might have to purchase an additional snowplow truck to maintain the current level of service. Adding three roundabouts and a 4-lane road at the end of the current existing plow route might impact salting application and response time. Baseline Road is very similar to the existing St-Jean condition therefore this would not impact the services. Appendix D shows the current existing UCPR plow route. The plow truck leaves from Embrun to reach Laurier Street in Rockland.
  - b. If the road exchange is accepted, the CCR will be able to provide a much better level of service along St-Jean since they'll be able to ensure consistency and coordination between different types of operation (e.g., coordination between sidewalk snow clearing and street plowing). This would lead to a more uniform road network quality throughout the core of Rockland.
3. **Administrative Efficiency:** Over the years, the St-Jean corridor has been subject to various Planning Act applications, development proposals, and administrative processes, creating a significant administrative burden for the UCPR. These activities often require extensive resources, time, and involvement from the UCPR staff, leading to increased workload and administrative complexity.
  - a. By transferring the St-Jean corridor to the City of Clarence-Rockland, the UCPR will be able to reduce their involvement in future Planning Act applications and related administrative processes.
  - b. The proposed exchange would completely remove the implication of the UCPR Public Works Department with respect to the Planning Act application along the St-Jean corridor, therefore allowing the CCR to streamline some Planning Act processes and improve the overall process.
4. **City of Clarence-Rockland Control:** Through this road exchange, the City of Clarence-Rockland will have better control over the developments, accesses, and decision-making processes along the St-Jean corridor. This will enable more efficient and responsive management of the area's growth, needs and infrastructure.
  - a. It is important to highlight that the municipality, being closer to the community, possesses a better understanding of local needs and can respond more efficiently.

5. **Enhance the East-West collector corridor:** Through this road exchange, it will ensure that Baseline Road becomes a future east-west collector corridor. This enhancement will benefit road users by improving connectivity and traffic flow, ultimately contributing to the region's transportation network's efficiency.
6. **Emergency Detour Route (EDR):** Baseline Road, as part of the UCPR, will potentially become the new County Road 17 emergency detour route. This strategic change enhances our emergency response capabilities and resilience in case of disruptions on County Road 17.

### Financial, Legal and Operational Implications

As pointed out in Appendix C of this report, improvements are required on both St-Jean and Baseline in support of the growing Rockland community, however, the capital UCPR investment in this road exchange represents a much greater value compared to the CCR.

Furthermore, the short-term financial impact for the UCPR is greater than the CCR due to the poor condition of Baseline Road and when considering that most of St-Jean Street improvements are being funded by development charges, which has minimal capital investment impact. When considering the vertical incline improvements along Baseline and the Baseline existing condition, it is the UCPR Public Works Department opinion that the CCR should at least contribute an amount representing \$1.4M for the reconstruction of Baseline Road to be a fair value road exchange.

For the UCPR, if no road exchange occurs, the associated assets inheritance (3 roundabouts and 4 lanes widening with drainage features) along County Road 21 (St-Jean St.) will have a significant long-term financial impact since they represent a significant capital value. By proceeding with an exchange, the UCPR will have to proceed with short-term major investments to rehabilitate Baseline Road, however, they will no longer be responsible for the new St-Jean corridor assets.

The table below provides a summary of what was explained in Appendix C in terms of financial needs and capital implications:

#### Projected Capital Cost for the UCPR without exchange

Road Description	UCPR Investments		
	Immediate	1-5 Years	5-10 years
Laurier Street to 350 m south of Laurier Street		\$500K	
St-Jean vertical incline erosion south of Poupart		\$350K	
St-Pascal Road (County Road 1) from Du Lac Road to Cul-de-Sac			\$675K
<b>Total</b>	<b>\$1.525M</b>		

#### Projected Capital Cost for the CCR without exchange

Road Description	CCR Investments		
	Immediate	1-5 Years	5-10 years
Baseline Road from St-Jean to top of vertical incline	\$600K		
700 metres from St-Jean Street to Lacasse Street		\$325K	
Lacasse Street to Landry Street	<b>\$2M</b>		
<b>Total</b>		<b>\$2.925</b>	

The calculations are as follows:

- St-Jean and St-Pascal Improvements are estimated at \$1.525M;
- Baseline Improvements are estimated at \$ 2.6M without considering the vertical incline;
- Short-term guide rail and culvert replacement along Baseline Road = \$325K.

= \$2.6M + \$325K - \$1.525M = \$1.4M

To help the CCR finance this exchange payment, the UCPR Council could offer that the Road Transfer Fund to the CCR be retained by the UCPR for a period of 3 years representing approximately \$1,335,000 and the remaining balance to equal to \$1.4 million be paid before December 31, 2027.

As noted in Appendix C of this report, the St-Jean Street and Baseline Road exchange comprise other major construction project not included in the above cost impact analysis such as the St-Jean corridor rehabilitation (\$29.3M) including the road reconstruction, widening and three roundabouts, and the vertical incline rehabilitation along Baseline Road (ranging between \$4M to \$6M). It is difficult to properly evaluate the cost impacts of such construction projects given the scale and warrant time range as well as considering development charges contribution.

It is evident that both Municipalities will suffer taxation impacts from these major projects at some point. In the event, that Baseline Road is transferred to the UCPR, in the existing condition, the Baseline vertical incline improvement cost will become the responsibility of the UCPR. This value is somewhat comparable to the potential UCPR financial burden of the St-Jean Street rehabilitation that would not be covered under the City of Clarence-Rockland Development Charge by-law or under the CCR responsibility and considered as essential infrastructure maintenance and/or rehabilitation that would fall under the UCPR responsibility.

Legal implications:

The UCPR Council will be required to adopt the following by-laws to officialize the road transfer:

- By-law to include the new section of Baseline Road into the County Road network and provide a new county road number for the entirety of Baseline Road.

- By-law to remove a portion of County Road 21 (St-Jean Street) and a portion of County Road 1 (St-Pascal Road) of the County Road network.
- By-law required to include the section of Baseline Road as part of the Through Highway by-law.
- By-law to include Baseline Road and remove St-Jean Street from the reduced loading period by-law.
- By-law to confirm the existence of the “stop” sign at the intersections of County Road 8 (Landry Street), St-Jean Street, Joanisse Street and Canaan Road.
- By-law to dedicate speed limits on Baseline Road.

**Financial Implications Comply with the Annual Budget and Other Applicable Policies or By-laws**

N/A See above sections.

**Local Municipal Implications**

The City of Clarence-Rockland Council will have to provide a resolution stating their approval with the above-mentioned conditions relating to the road transfer.

**Asset Management Implications**

The asset management plan will have to be updated to reflect the changes.

**Communication Implications**

N/A

**Attachments**

- Appendix A – Future Development Area Surrounding the St-Jean Corridor
- Appendix B – Key Map of Recommended Road Exchange
- Appendix C – Road Characteristics and Financial Needs
- Appendix D – Current Snowplow Route

**Prepared by:**

Jérémie Bouchard, Director, Public Works Department - October 18, 2023


**Submitted by:**

Jérémie Bouchard, Director, Public Works Department - October 18, 2023

# APPENDIX A – FUTURE DEVELOPMENT AREA SURROUNDING ST-JEAN CORRIDOR



## Legend

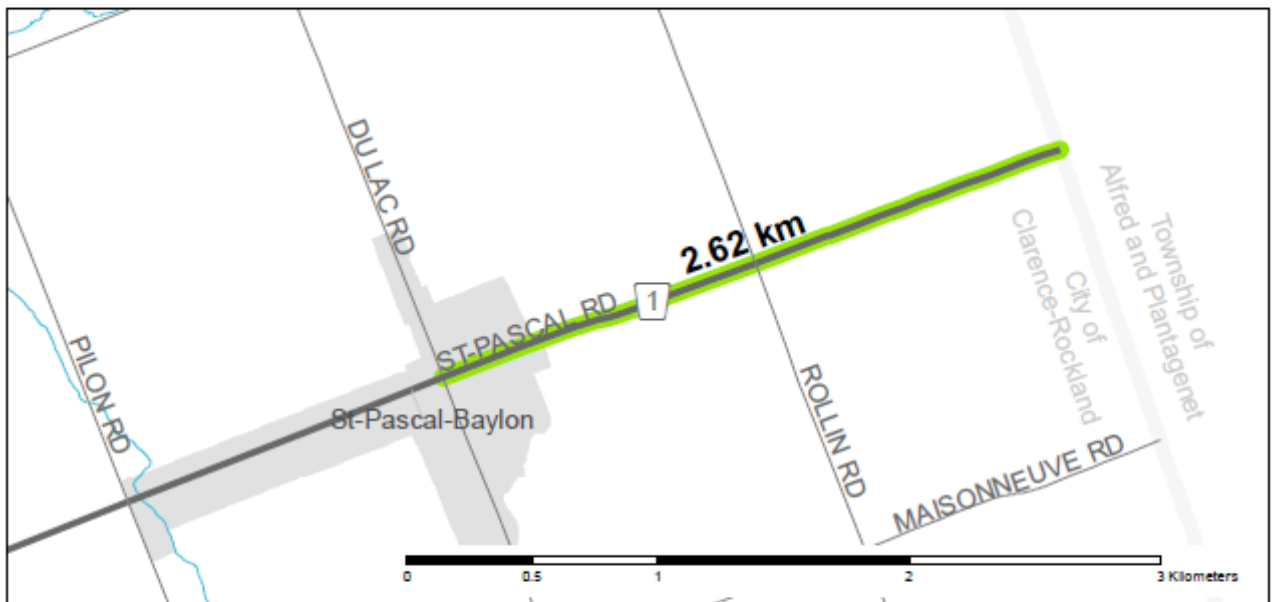
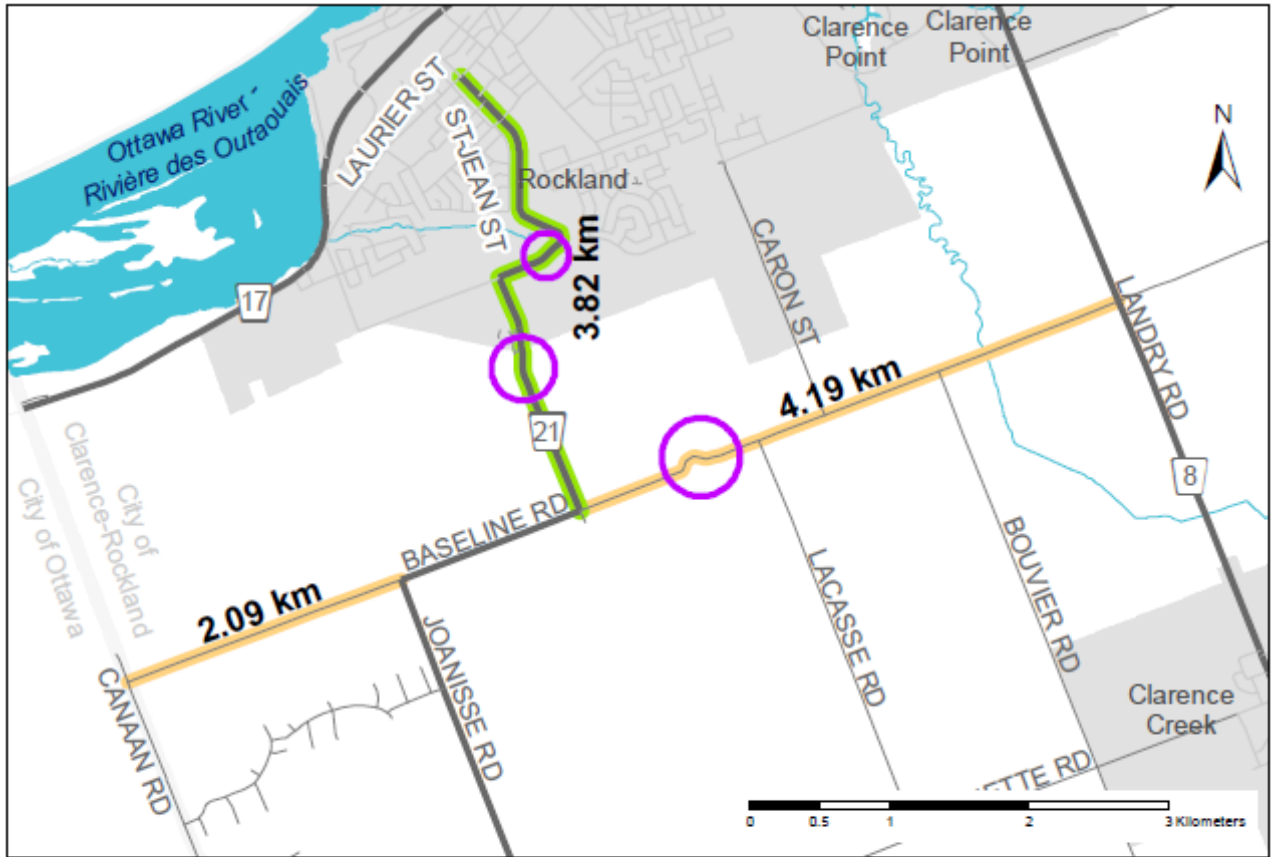
 St-Jean Corridor

**Prescott & Russell**

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## APPENDIX B – KEY MAP OF RECOMMENDED ROAD EXCHANGES



### Legend

- █ Proposed County road to be transferred to Clarence-Rockland
- █ Proposed Municipal road to be transferred to UCPR
- Vertical Inclination

**Prescott  
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## APPENDIX C – ROAD CHARACTERISTICS AND FINANCIAL NEEDS

### St-Jean Street information and details:

St-Jean Street (County Road 21) from Laurier Street to Baseline Road (to be transferred to the City of Clarence-Rockland). Total Length to be transferred: 3.8 kilometres.

#### Existing Conditions:

- Existing Pavement Condition Index (note: higher number = greater condition):
  - Laurier Street to Docteur Corbeil Blvd = 70
  - Docteur Corbeil Blvd to Poupart = 94
  - Poupart to 0.6 km south of Poupart = 94
  - 0.6 km south of Poupart to Baseline Road = 93
- Existing storm sewer length: 500 metres
- Existing urbanized cross section length: 500 metres
- Two vertical inclines greater than 6%.

#### Future Conditions:

- In 2023, the portion from 350 metres south of Laurier Street to 500 metres south of Docteur Corbeil Blvd will be fully reconstructed with an urbanized cross section, including storm sewers, pedestrian accommodation such as sidewalks and multi-use pathways, and a new roundabout at the intersection of Docteur Corbeil Blvd. As per the agreement between the UCPR and the CCR, these improvements are being managed and funded by the CCR. The estimated project value is \$5.6M.
- As per the agreement between the UCPR and the CCR, the City of Clarence-Rockland is currently undertaking a Municipal Class Environmental Assessment Study (MCEA) for the rehabilitation of the St-Jean Street corridor from 500 metres south of Docteur Corbeil Blvd to Poupart Road. This portion of St-Jean will be widened to 4 lanes and become fully urbanized, including storm sewers, pedestrian accommodations such as sidewalks and multi-use pathways and two new multi-lane roundabouts at the intersection of Bronze Street (future road) and Poupart Road/St-Jean Street. The study also includes the reduction of the vertical incline to 8% as well as the replacement of a major culvert crossing at Lafontaine Creek. The reconstruction is anticipated to take place in 2025 depending on the MCEA results. The above-mentioned project cost is estimated at approximately \$23.7M.

#### Other works as per the UCPR Asset Management Plan (AMP) or operational maintenance:

- After the 2023 CCR rehab, a remaining portion will have to be reconstructed from Laurier Street to 350 m south of Laurier Street which should be done in 1 to 5 years (estimated at \$500,000).
- Erosion maintenance will soon be required at the vertical incline south of Poupart Street (estimated at \$350,000).

### St-Pascal Road information and details:

St-Pascal Road (County Road 1) from Du Lac Road to Cul-de-Sac (to be transferred to the City of Clarence-Rockland). Total Length to be transferred: 2.6 kilometres.

#### Existing Conditions:

- Existing Pavement condition Index (note: higher number = greater condition):
  - Du Lac Road to 400m east of Du Lac Road = 78 (distance 400m)
  - 400m east of Du Lac Road to end of the road = 88 (distance 2200 m)
- Existing storm sewer length: 285 metres
- Existing urbanized cross section length: 400 metres
- Noteworthy: 3 culverts having a diameter between 1400 mm and 800 mm in good condition.

#### Future Conditions:

- No future major project anticipated.

#### Other works as per Asset Management Plan (AMP) or operational maintenance:

- Du Lac Street to the end of the road to be resurfaced in 5 to 10 years (estimated at \$675,000)

#### Baseline Road information and details:

Baseline Road from Canaan Road to Joanisse Road (to be transferred to the UCPR). Total Length to be transferred: 2.1 kilometres.

Baseline Road from St-Jean Street to Landry Road (to be transferred to the UCPR). Total Length to be transferred: 4.2 kilometres.

#### Existing Conditions:

- Existing Pavement Condition Index (note: higher number = greater condition):
  - Canaan Road to Joanisse Road = 70
  - St-Jean Street to Caron Street = 25
  - Caron Street to Landry = 25
- The existing roadway alignment for Baseline Road features a combination of horizontal curves with a minimum radius of approximately 70 m, steep vertical grades of 11%.
- Noteworthy: 9 culverts having a diameter between 900 mm and twin 3700 mm. All culverts are generally in poor condition with the exception of the double-barrelled 3700 mm.

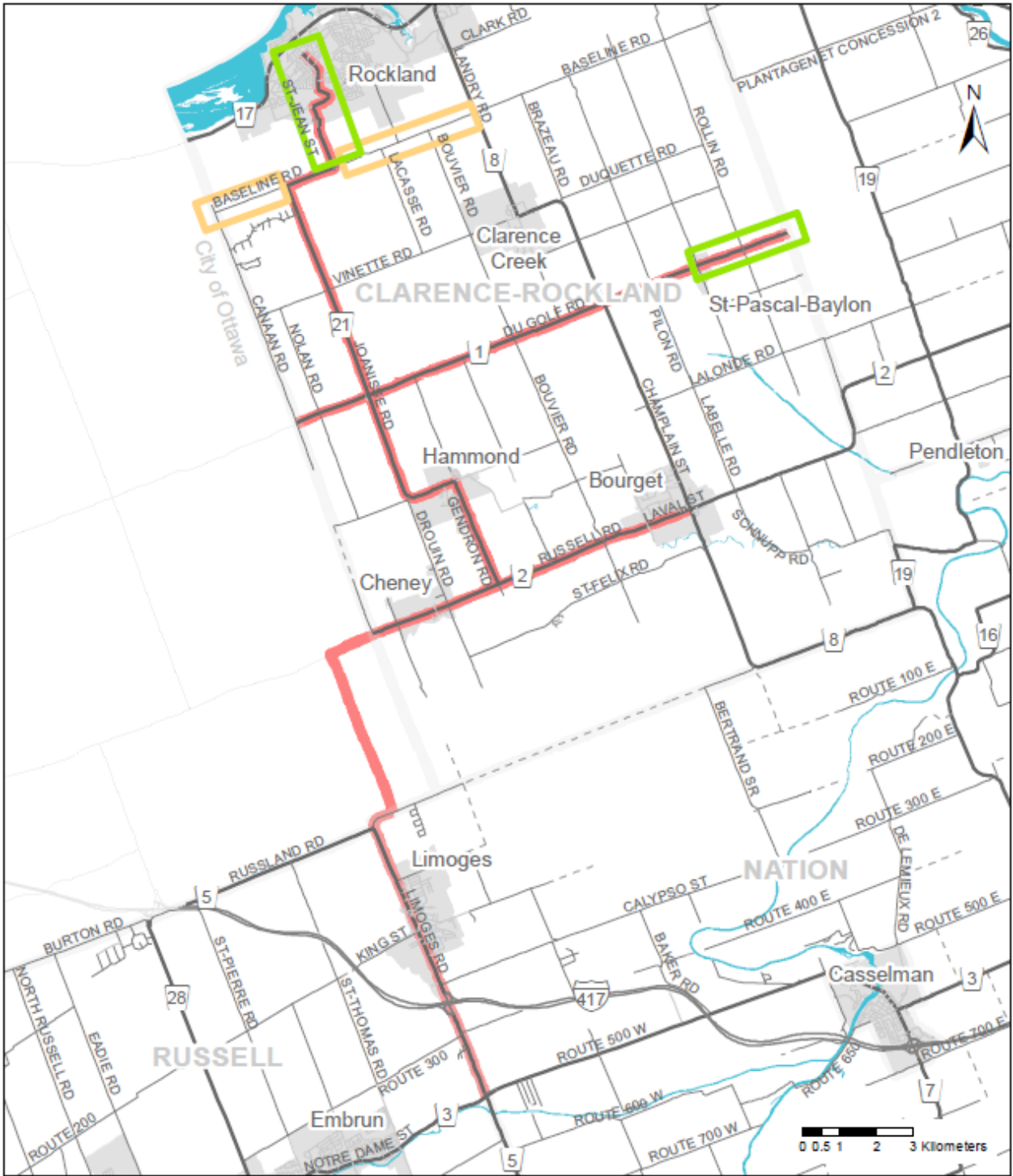
#### Future Conditions:

- 1<sup>st</sup> segment: St-Jean to top of vertical incline (700 m) requires immediate reconstruction. The full reconstruction including the replacement of culverts is estimated at \$600,000.
- 2<sup>nd</sup> segment: 700 metres from St-Jean Street to Lacasse Street (700 m). The City's Multimodal Transportation Master Plan (MMTMP) recommends reclassifying Baseline Road as a Major Collector Roadway to allow for higher road capacity, heavy vehicles, and wider paved shoulders. In addition, Baseline Road is under consideration as an alternative east-west corridor for passenger vehicles and trucks. This segment of the road is composed of a vertical incline of 11% with a combination of horizontal curves. On sections with high gradient, safety problems may occur from speed differentials between passenger vehicles and heavy vehicles, as well as vehicles braking on

downhill sections. It should be noted that road sections with gradients higher than the recommended provincial guidelines tend to present an increased road accident risk. With Baseline Road becoming an east-west corridor, the traffic volumes will increase, and the vertical incline (11%) and horizontal curves will have to be remediated to meet provincial standards (8%) at some point to minimize safety hazards and lower the risks of accidents. It is not a prerequisite to remediate the vertical alignment at this time, however, in order to be dedicated as a major collector and given the increase of residential growth within the CCR, this major rehab would be expected in the 5 to 10-year horizon in support of the traffic volume increase or risk mitigation. It is important to note that the existing road safety infrastructure is in poor condition and may require an interim replacement. At this time, it is difficult to provide an accurate cost estimate, however, based on a preliminary study from the CCR the cost of such major rehabilitation could range between \$4M to \$6M.

- 3<sup>rd</sup> segment: Lacasse Street to Landry Street (2800 m) requires immediate reconstruction. The full reconstruction including the replacement of culverts is estimated at \$2M.

## APPENDIX D – CURRENT SNOWPLOW ROUTE



### Legend

- UCPR snowplow route
- Proposed County road to be transferred to Clarence-Rockland
- Proposed Municipal road to be transferred to UCPR



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