

Prairie Avenue - Design Recommendations

RECOMMENDATION:

That Committee of Council approve the Prairie Avenue road design option as presented in the November 19, 2019 staff report, "Prairie Avenue - Design Recommendations" and direct staff to proceed with detailed design.

PREVIOUS COUNCIL/COMMITTEE ACTION

At the May 1, 2018, Finance and Budget Committee meeting, the following motion was passed:

That staff provide a report to the Finance and Budget Committee on three street design options, budget permitting, of Prairie Avenue prior to going to public consultation.

At the September 17, 2018, Finance and Budget Committee meeting, the following motion was passed:

That an additional \$100,000 be approved in 2019 for Prairie Avenue Detailed Design, and That \$1,500,000 be approved in 2020 for Prairie Avenue Construction - Phase 1a.*

*The \$100,000 is in addition to the previously approved \$60,000 for a total of \$160,000 for Detailed Design.

At the March 12, 2019 Committee of Council meeting, the following motion was passed:

That Committee of Council direct staff to develop designs for Prairie Avenue, including:

- *For Shaughnessy Street to Fremont Street;*
- *Additional widening from Fremont Street to Burns Road; and*
- *That an additional \$50,000 be approved for these designs, with funding to come from existing projects.*

At the June 11, 2019 Committee of Council meeting, the following motion was passed:

That Committee of Council approve the Prairie Avenue road design options as presented in the June 4, 2019 staff report, "Prairie Avenue Improvements – Public Consultation – Shaughnessy to Fremont" for public consultation to inform the detailed design.

Budget for this capital project was approved at the November 12, 2019 Committee of Council meeting.

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REPORT SUMMARY

This report presents the results of the feedback received from the community during the public consultation which took place between September 4 and September 30, 2019. Overall, the community supports the projects and recognizes the importance of the improvements being proposed, however, there was no obvious preference for any of the three options. Despite this, staff were able to utilize individual elements of the public feedback, combined with professional opinion, to develop a recommended option that is presented in this report.

BACKGROUND

At the March 12, 2019 Committee of Council meeting, staff presented three options, all of which included two travel lanes (one in each direction) and dedicated parking on both sides of the road. The proposed option 1 involves retaining the existing sidewalks and north curb and gutter which meets current standards, thereby minimizing cost and impacts to the existing boulevards. Option 2 includes a new sidewalk on the north side of the road and a multiuse path (MUP) on the south side. Lastly, option 3 proposes a raised vegetated median, in addition to a new sidewalk on the north side of the road and a MUP on the south. For each of the three options, roundabouts can be considered at select intersections, which provide traffic calming benefits and opportunity for approved aesthetics.

Following this presentation, Committee of Council directed staff to increase the scope of the conceptual design to include the section of Prairie Avenue between Shaughnessy Street and Coast Meridian Road (CMR), and to investigate additional widening between Fremont Street and Burns Road to accommodate a pedestrian facility.

At the June 11, 2019 Committee of Council meeting, staff presented the same three options, increasing the extents from CMR to Shaughnessy Street and including an option for a pedestrian facility between Fremont Street and Burns Road. Committee of Council provided approval to proceed with public consultation.

DISCUSSION

Public Consultation

Following the summer break, staff officially launched the public consultation on September 4, 2019 which included a media release, newspaper ads, 398 address-specific letters to each of the owners with residences directly abutting Prairie, 4,620 postcards mailed to the surrounding area, a public open house which was held September 18, 2019, website information, and an online feedback survey. Approximately 130 residents attended the open house, while 649 responded to the online survey.



Report To: Committee of Council
Department: Engineering & Public Works
Approved by: F. Smith
Meeting Date: November 19, 2019

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Of the survey respondents, 97% indicated they were Port Coquitlam residents and 86% indicated that they most frequently use Prairie Avenue for motor vehicle use, while the remaining 14% use it predominantly for transit and active transportation. The following table summarizes the responses when asked about the importance of this project. Of note, only 7% do not agree the project is important at all whilst the other 93% agree the project is either somewhat or very important:

Importance	# of Responses	% Selected
Very Important	306	56
Somewhat Important	202	37
Not Important at all	44	7

Respondents were also asked to prioritize the improvements, and 45% ranked traffic flow as their highest priority and in contrast, 40% ranked traffic calming and safety as their highest priority. The second highest priority was traffic safety by a majority. Generally, the community is supportive of this project and recognizes the importance of various improvements being proposed. Option 3 with vegetated medians as currently proposed received the least support with only 37% in favour. The majority of the comments against were regarding visibility, capital and maintenance costs, and access issues as residents would no longer be able to make left turns on or off of Prairie into private driveways.

Option 2 with a vegetated boulevard and MUP received the most support, however, with a preference to flip the cross section and install the MUP on the north side of the road and the boulevard on the south side, to accommodate concerns of trees blocking the sun on the north side. Furthermore, a MUP from Fremont to Burns was strongly supported. Option 1 received slightly less support than Option 2, however, when asked to justify why not supported, there was significant commentary suggesting the reasoning to be the lack of a MUP.

Roundabouts

Residents were asked to comment on the inclusion of roundabouts at various intersections throughout the corridor. The results were varied; however, the majority of the commentary alluded that due to lack of education and understanding on how to use roundabouts, their addition would result in increased congestion and delays along Prairie Avenue (which impacts traffic flow, which was residents' number one concern). The remainder of the commentary received suggested that roundabouts at busy intersections, such as Cedar Drive, would not be appropriate due to perception of reduced pedestrian safety, and volume/frequency of pedestrians. As identified in the following table, 40% of the respondents support a roundabout at Fremont Street and 40% do not want roundabouts at all.

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Roundabout Locations	# of Responses	% Selected
Shaughnessy	140	25
Oxford	157	30
Wellington	132	25
Newberry	66	10
Cedar	167	30
Fremont	212	40
None	214	40

Curb Extensions and Crosswalks

82% of respondents concluded that curb extensions and crosswalks are important throughout the corridor, at least near schools, parks and other areas with high pedestrian traffic. One challenge identified was that nearside bulges could impede traffic flow while motorists were waiting at the intersections to make turns on to side streets. Rectangular rapid flashing beacons (RRFBs) which are used to supplement signage at uncontrolled intersections were suggested at the crosswalk locations as well. There are two uncontrolled crossings throughout the corridor: Vincent and Newberry.

Raised Vegetated Medians

The following table summarizes the responses to raised medians along Prairie Avenue:

Location	# of Responses	% Selected
Throughout corridor	141	25
High collision areas	109	20
Near roundabouts	74	15
None	241	45

45% of the respondents concluded that raised planted medians should not be installed throughout the corridor. Comments included concerns with visibility, capital and maintenance costs, access issues and perceived narrowing of the road.

Planted Boulevards

Respondents were generally in support of boulevard trees being planted, at least in some locations throughout the corridor, with a percentage of 67% in favour. Comments in favour referenced beautification, green spaces and increased canopy benefits. Responses against the addition of boulevard trees referred to increased capital and maintenance costs and requirements. The current concepts for options 1 and 2 identify a treed boulevard on the north side of the road, however, many comments suggested that the north boulevard should be removed and instead installed on the south side of the road with trees; this is because residents on the north side of Prairie currently enjoy exposure to the sun which could otherwise be blocked out if trees were

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installed in front of their residences. This would not impact residences on the south as the trees would be installed to the north of the lots and not impact exposure to the homes.

Multiuse Path and Sidewalks

Construction of a multiuse path (MUP) was well supported by the majority of respondents. Only 15% of residents concluded that MUPs should not be required and 3% were concerned with possible boulevard impacts. There were an overwhelming number of comments supporting a pedestrian facility to be installed between Fremont Street and Burns Road. Sidewalks throughout the corridor were also strongly supported.

Design Recommendation

Staff's proposed recommendation for the ultimate cross section to proceed with detailed design has been aided and informed by the feedback received from residents. Separated MUPs support users of all ages and abilities and some benefits include interconnection of the community, improved health and reduction in greenhouse gas emissions. A MUP along Prairie Avenue would form an east / west connection between the Traboulay PoCo and Trans Canada Trails and supports Council's direction to minimize impacts to parking. A MUP throughout the corridor from Shaughnessy to Burns is recommended.

Sidewalks are the standard for streetscapes within urban communities and provide improved safety and comfort for pedestrians, especially when separated by boulevard space. Vegetated boulevards add interest and beauty to the streetscape as well as environmental benefits such as contributing to cooler temperatures (reducing the "heat island effect"), storm water retention and add to the City's tree canopy. A sidewalk and vegetated boulevard is recommended.

Roundabouts at the two busiest and currently signalized intersections (Shaughnessy Street and Cedar Drive) are not recommended; while roundabouts can offer a lower severity of collisions when compared to signalized intersections, they pose a lower level of pedestrian safety because they are yield controlled rather than stop controlled. At the intersections of Oxford and Wellington, the existing fully and pedestrian signals respectively function well and roundabouts would not serve any considerable benefit. Operational costs of all four of the aforementioned intersections are minor and considering the capital costs have already been spent and these signals are operating appropriately, Staff recommend retaining them.

At Newberry, which is currently two-way stop controlled, a roundabout could be warranted if traffic volumes on Prairie Avenue were so congested that gaps were insufficient to enter safely. This is not currently the case, however, Newberry does serve as a key connection point for a large neighborhood south of Prairie as well as a smaller one to the north and inclusion of a roundabout would serve the neighborhoods by providing easier access in and out. Furthermore, a roundabout would serve traffic calming benefits, situated between Cedar Drive and CMR, creating a choke point in traffic flow, improving calming and safety (the second most important concern raised in the survey). A roundabout at Fremont would improve the current four way stop configuration and

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reduce congestion whilst not compromising safety. A roundabout is recommended at Newberry and Fremont Streets.

The following revised option is recommended:

Two Travel lanes	6.7m
Parking pockets (curb extensions) located strategically on both sides of the road in high pedestrian traffic areas and at crosswalk locations	4.8m
RRFBs at Vincent and Newberry crosswalk	
Boulevard on north side without trees	1.0m
Sidewalk on south side	1.8m
Boulevard on south side with trees	2.0m
Off Street MUP on north side	3.0m
Roundabouts at Newberry and Fremont Streets	
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	19.3m

FINANCIAL IMPLICATIONS

Based on concept level designs which were developed over summer 2018, construction estimates were prepared and incorporated into the 2020-2021 Capital Plan which was supported by Committee of Council on November 12, 2019, pending review of the public consultation. The approved budget amounts were based on an average plus contingency of the three options presented for public consultation and are adequate to cover the costs of this proposed option based on 2019 projections.

OPTIONS (✓ = Staff Recommendation)

	#	Description
	1	Approve the design recommendations as presented in this report for detailed design.
	2	Provide direction for an amended scope.

ATTACHMENTS

None.

Lead author(s): Jason Daviduk