The Corporation of the City of Courtenay

Staff Report

To: Council **File No.:** 5335-20

From: Director of Infrastructure and Environmental Engineering **Date:** November 27, 2024

Subject: Cousins Avenue Road Upgrades

PURPOSE:

This Staff Report is to update Council on the work completed to date on the Cousins Avenue Road Upgrades project, including design considerations, public engagement outcomes, and recommended option for detailed design.

BACKGROUND:

Cousins Avenue, located in West Courtenay between Willemar Avenue and 26th Street, is home to a mix of residential and commercial industrial uses. Cousins Avenue provides access to residential properties generally situated between 20th Street and 22nd Street and access to commercial/industrial properties generally situated between 22nd Street and Willemar Avenue.

The Tin-Town Neighbourhood Centre (identified as pink in Figure 1) is designated in the OCP for infill development on either side of the industrial portion of Cousin Avenue. The Neighbourhood Centre permits for a diversity of multi-family residential housing choices, small scale commercial uses, and other supportive uses to promote the establishment of a complete community. Tin Town is surrounded by lands that are designated Urban-Residential (identified as yellow in Figure 1) that are supported by the recent Zoning Bylaw Amendment for SSMUH that will permit up to four units on the lots.

Figure I Tin Town Neighbourhood and surrounding area

Condition assessments have determined the underground utilities that were originally installed between 1964 and 1981 have reached their end of life. The condition assessments also show that the pavement structure needs to be replaced.

McElhanney Engineering Ltd. was retained by the City of Courtenay to develop three options and recommend a proposed concept design for the road upgrades on Cousins Avenue. The approved concept design will be used to guide detailed design and construction at a later date.

A public engagement process was held in Q4 of 2023, and the outcome was clear support for Option 1, as discussed below.

DISCUSSION:

This section presents three options for the proposed upgrades along Cousins Avenue. These options were developed considering a variety of factors such as current traffic calming and patterns, street parking, and improved public safety. All options include upgrading the utilities and paving structure.

Option 1: Standard Option

This option utilizes a modified version of the current City of Courtenay cross-section for Residential Collector Roads (CSSD CRe) and Urban Collector Roads (CSSD CUP) and is most similar to the road features found on the existing condition of Cousins Avenue. It focuses on enhancing pedestrian safety and improving traffic flow while preserving existing parking spaces. Bike lanes are not included in this option as Cousins Ave is not identified as a cycling facility in the 2023 Cycling Network Plan update. Therefore, this option is in alignment with the 2023 Cycling Network Plan. This option was the preferred option by the local community, as determined through the public engagement process.

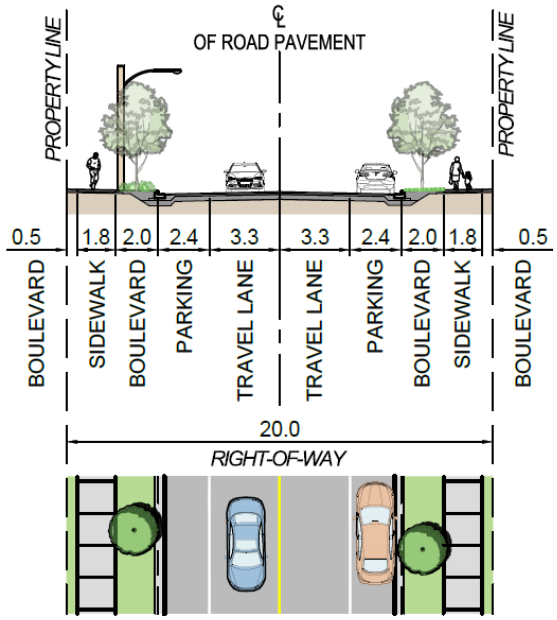
Key Features - Residential Zone:

- 1.8m wide sidewalks on both sides of the road
    - 0.3m wider than the standard width
- 3.3m travel lanes in each direction
- Maintained street parking on both sides of the road
- Boulevard space and street trees to buffer street and aid in stormwater reduction
- Raised crosswalk

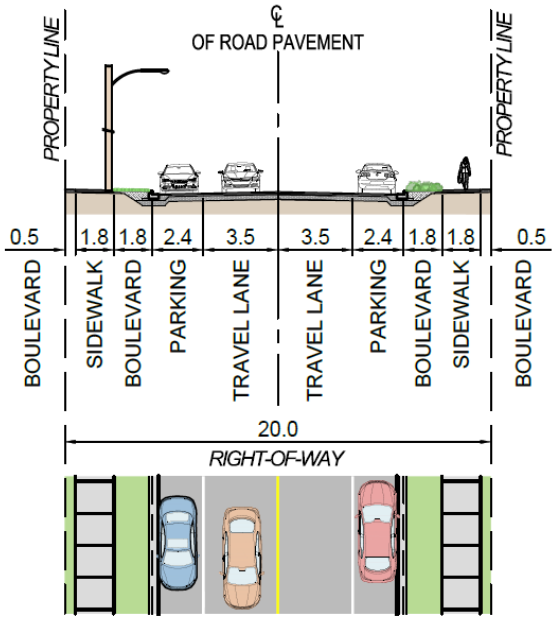
Key Features - Industrial Zone:

- 3.5m wide travel lane
    - 0.3m wider than the standard width in CSSD CUP
- 1.8m wide sidewalks on both sides of the road
- Provides parking on both sides of the road

Cost: $8.9M



OPTION 1 - RESIDENTIAL ZONE



OPTION 1 - INDUSTRIAL ZONE

Option 2: Bike Lane Option

This option introduces dedicated bike lanes on both sides of the road, reducing parking to one side of the roadway to better accommodate cyclists. This design aims to promote safer cycling routes while attempting to balance the needs of motorists and pedestrians. As noted previously, Cousins Avenue is not included as a cycling network route in the City of Courtenay's Cycling Network Plan and given the industrial use of this road, the addition of bike infrastructure continues to be unsupported.

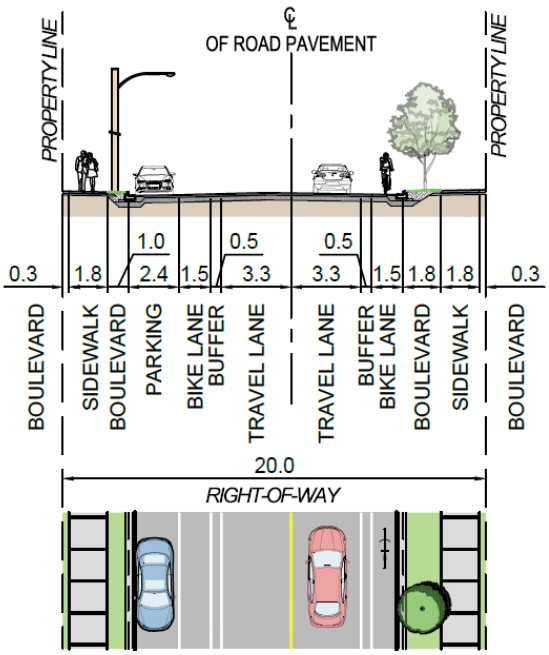
Key Features - Residential Zone:

- 1.8m wide sidewalks on both sides of the road
  - 0.3m wider than the standard width
- 1.5m wide bike lane on each side of the road
- 3.3m travel lanes in each direction
- Parking reduced to one side of the road
- Boulevard space and street trees to buffer street and aid in stormwater reduction
- Raised crosswalk

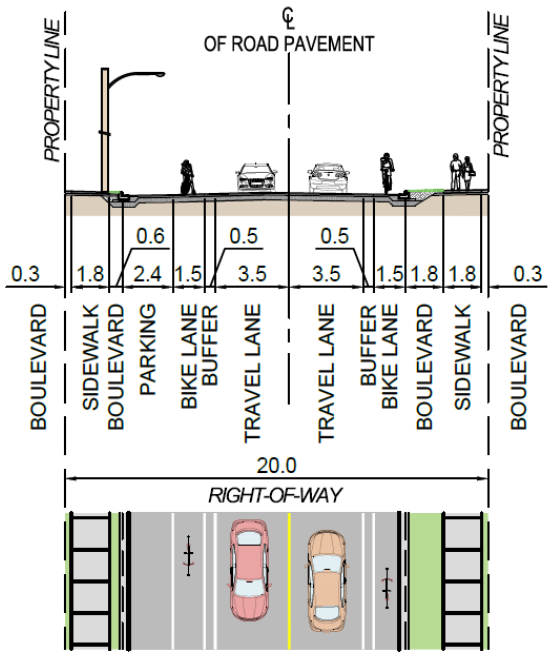
Key Features - Industrial Zone:

- 3.5m wide travel lane
  - 0.3m wider than the standard width in CSSD CUP
- 1.5m wide bike lane on each side of the road
- 1.8m wide sidewalks on both sides of the road
- Parking reduced to one side of the road

Cost: $9.0M



OPTION 2 - RESIDENTIAL ZONE



OPTION 2 - INDUSTRIAL ZONE

The drawbacks to Option 2 are:

- Reducing parking to only one side in each zone.
- Bike lanes would not be All Ages and Abilities
- Bike lanes would be missing inside buffer which increase potential for collisions with vehicle doors and mirrors.
- Cousins Avenue is not included as a cycling network route in the Cycling Network Plan.

Option 3: Active Transportation and One-Way Traffic Option

The most impactful option converts the industrial section of Cousins Avenue into one-way traffic, looping around Rosewall Crescent, to significantly reduce through traffic to residential areas. The proposed one-way option would force all incoming traffic to access the industrial area via Willemar Avenue or 26th Street and loop around Rosewall Crescent in order to exit the area. This would reduce traffic flows in the residential area of Cousins Avenue. This configuration also eliminates the pass-through route for traffic travelling from 20th Street to 26th Street, which would further reduce traffic in the residential area. This option is not in alignment with the Cycling Network Plan.

It includes a multi-use path on one side of the road in the residential area to support both pedestrians and cyclists. This option aims to limit truck traffic in the residential area and improves pedestrian and cyclist safety.

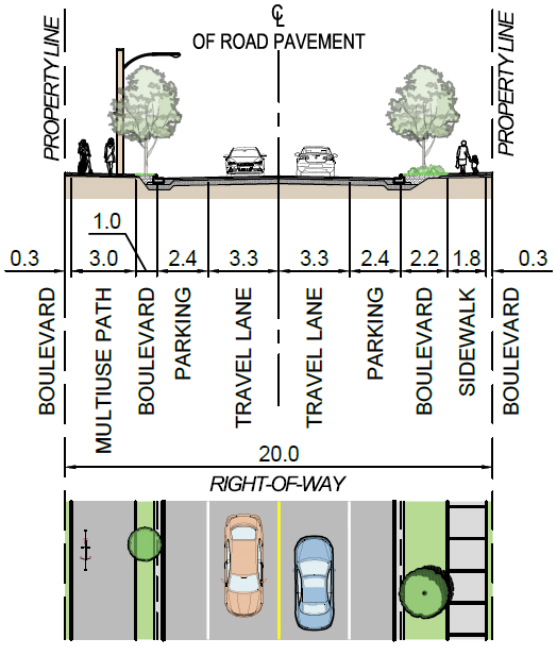
Key Features - Residential Zone:

- 1.8m wide sidewalks on one side of the road
  - 0.3m wider than the standard width
- 3m multi use path on opposite side of road
- 3.3m travel lanes in each direction

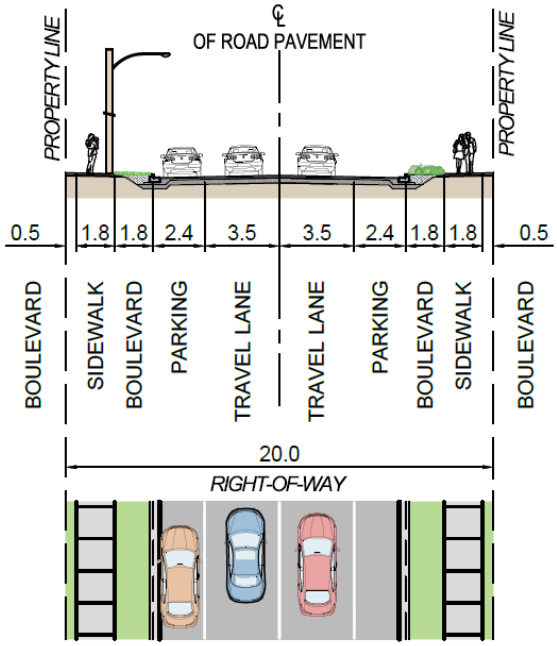
- Provides parking on both sides of the road
- Boulevard space and street trees to buffer street and aid in stormwater reduction
- Raised crosswalk

Key Features - Industrial Zone:

- 3.5m wide travel lane
  - 0.3m wider than the standard width in CSSD CUP
- 1.5m wide bike lane on each side of the road
- 1.8m wide sidewalks on both sides of the road
- Provides parking on both sides of the road



OPTION 3 - RESIDENTIAL ZONE



OPTION 3 - INDUSTRIAL ZONE

The drawbacks to Option 3 are:

- Major changes to traffic flows are very impactful to businesses
- Increased traffic on Rosewall Crescent
- Reduction in parking on Rosewall Crescent to allow large vehicles to navigate turns
- Not in alignment with cycling network plan

Cost: $9.0M

Options Evaluation

The three options were weighed in an evaluation matrix, using the existing condition as a baseline, which included key considerations such as improving safety to the various users, on-street parking, and increased green space. In the Public Engagement section of this report, survey respondents and open house attendees were also asked for their preferred option.

Themes/Design Criteria	OPTION 1	OPTION 2	OPTION 3
Scores: -3 = lowers value 0 = maintains existing conditions 3 = improves value	Adapted City Standard Option	Bike Lane Option	Active Transportation and One-Way Option
Traffic Calming on Cousins Ave	2	2	3
Traffic Calming on Rosewall Cres	0	0	-2
Maintain or Improve On-Street Parking	0	-3	0
Improved Pedestrian Safety	2	2	2
Improved Cyclist Safety	0	3	1
Improved Vehicular Safety	1	1	1
Reduction in Truck and/or Overall Traffic Volumes on Cousins Ave	0	0	3
Reduction in Truck and/or Overall Traffic Volumes on Rosewall Cres	0	0	-2
Increased Green Space	3	2	2
Impacts to Businesses	0	-1	-2
Operations and Maintenance Costs	-1	-1	-1
TOTAL SCORES	7	5	5

Recommended Option:

After a thorough evaluation and community engagement, Option 1 was selected as the preferred design approach for Cousins Avenue. This decision was based on several factors:

- Option 1 aligns with the Cycling Network Plan update as Cousins Ave is not identified as a cycling facility.
- Balanced Approach: It offers a balanced solution that improves pedestrian infrastructure and safety without significantly disrupting current parking and traffic flows, which is important for the mixed residential and commercial use of the avenue.
- Community Feedback: Option 1 received the highest support during the public engagement open house, indicating a strong community preference for maintaining existing traffic patterns and parking availability.
- Cost and Feasibility: Compared to the other options, Option 1 is less disruptive and more cost-effective to implement while meeting the project's primary goals.

The recommended Option 1 reflects a strategic choice to enhance infrastructure with maintaining the current road configuration and aligning with both public preferences and practical considerations.

FINANCIAL IMPLICATIONS:

In the table below, the Class D cost estimates for each option are presented in 2024 dollars. These estimates include 15% for engineering & construction services and a 40% contingency. The recommended Option 1 offers the lowest price.

Option	Total Project Cost	Variance from Option 1
Option 1	$8,865,000	$ -
Option 2	$8,998,660	$134,190
Option 3	$8,941,840	$77,370

The table below shows the project budget requests for the current 2024-2028 Financial Plan as well as the upcoming 2025-2029 Financial Plan. In the 2024-2028 financial planning process, staff submitted the cost estimates for this project based on the preferred Option 1, without having completed detailed cost estimates, as the Options Analysis was not advanced sufficiently. Now that the Options Analysis is complete, the cost estimates have been updated and revised and are shown in the table above. As per the below, detailed design is planned for 2026, and construction is planned for 2027.

Within the capital plan, this project is funded by the general, sewer and water funds (60/20/20) but is shown combined for simplicity.

Project Description	2025 Budget	2026 Budget	2027 Budget
2024-2028 Financial Plan (current)	$ -	$297,000	$3,897,500
2025-2029 Financial Plan (Proposed, Option 1)	$ -	$536,500	$8,328,500
$ Change from 2024-2028 FP	$ -	$239,500	$4,431,000

The Cousins Avenue project was first identified in the financial plan through a roadway concept design analysis that looked at 5 different areas, this work was completed in 2015. In 2016 the project was included in the 2018 year of the capital plan for a total cost of $4,188,000 ($3,224,000-general, $503,000-sewer, $461,000-water). Since then the project has been perpetually deferred and is slated for substantial construction to occur in 2027.

Given the total value of the project, the City will fund the project through a combination of debt and reserves. The general portion of the project will require $4,500,000 of debt as there are not adequate reserves on hand. Assuming a 5% interest rate and 20-year amortization period the annual debt servicing cost would be $382,497 consisting of $157,497 principal and $225,000 in interest. The water and sewer

portions will be funded through reserves as it is expected that these two funds should have adequate reserves on hand.

ADMINISTRATIVE IMPLICATIONS:

The Cousins Avenue Road Upgrades project will be led by Infrastructure and Environmental Engineering, with support from most other City departments. Consultants with technical knowledge specific to this work will be utilized to develop and implement detailed designs and processes. Estimated costs associated with external consultants are included in the project capital budget.

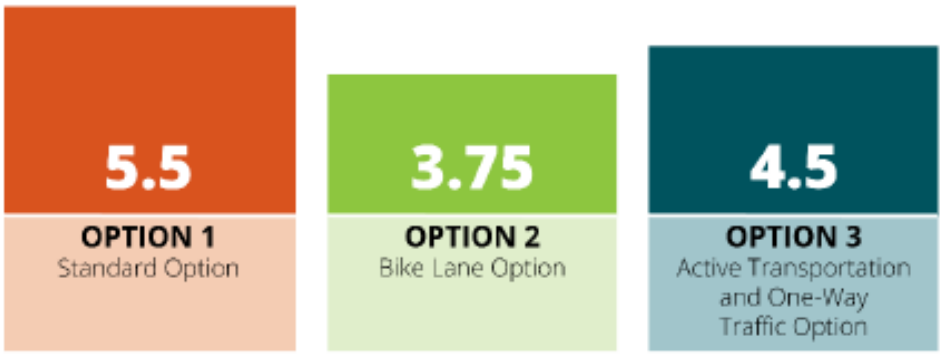
PUBLIC ENGAGEMENT:

Staff held an open house on the evening of November 18, 2023, to share the concept designs with the public with 45 participants attending the open house.

A project website was also developed for the project and a survey was created to collect input on the options. 133 members of the public responded to the survey. Attendees of the open house were also able to leave feedback and rank their preferred options. A variety of tools were used to invite residents to the event and participate in the survey, including direct mail letters, social media posts, a news release and a print ad.

Survey Results: Options Ranking

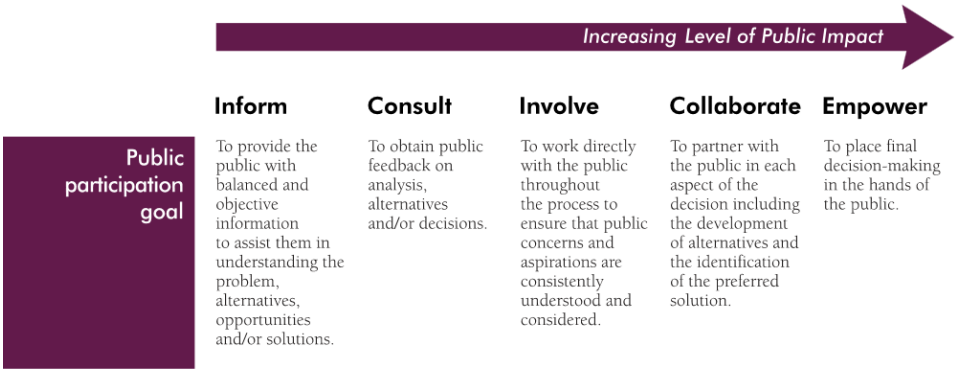
Respondents were asked to rank each option on a scale of 1-10. This ranking showed the following averages:



Similarly, a question asked respondents to rank the three options in order of preference. This ranking also showed Option 1 as the preferred option by respondents:

	1	2	3	Total	Score
Option 1: Standard Option	40.66% 37	37.36% 34	21.98% 20	91	2.19
Option 2: Bike Lane Option	21.98% 20	34.07% 31	43.96% 40	91	1.78
Option 3: Active Transportation and One-Way Traffic Option	37.36% 37	28.57% 37	34.07% 37	91	2.03

Staff would inform the public based on the IAP2 Spectrum of Public Participation:



OPTIONS:

1. THAT Council direct staff to proceed into detailed design with Option 1 – Standard Option in 2026 pending budget approval.
2. THAT Council provide alternative direction to staff.

ATTACHMENTS:

1. Cousins Avenue Options Analysis Report

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