

COMMON COUNCIL REPORT

M&C No.	2021-166
Report Date	June 08, 2021
Meeting Date	June 14, 2021
Service Area	Public Works and Transportation Services

Her Worship Mayor Donna Noade Reardon and Members of Common Council

***SUBJECT: University Avenue Traffic Safety and Active Transportation
Improvements***

AUTHORIZATION

Primary Author	Commissioner/Dept. Head	City Manager
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RECOMMENDATION

Your City Manager recommends Common Council endorse the traffic safety and Active Transportation Improvements on University Avenue, as described as the “Final Plan” in M&C 2021-166.

EXECUTIVE SUMMARY

During a 2020 presentation to Common Council as the City is finishing the third and final phase of MoveSJ, the City’s new Transportation Plan, City staff listed a series of early deliverables. “Upgrading University Avenue Cycling Facilities” was one of these early deliverables. This report works towards putting that plan into action.

Three goals are planned to be accomplished with the improvements proposed for University Avenue in this report:

1. Address concerns expressed by various members of the community regarding risk to motorists’ safety at the western end of University Avenue,
2. Improve pedestrian safety along University Avenue, and
3. Implement improvements to cycling infrastructure on University Avenue.

Assessment by City staff, review of available data, use of industry best practices, and consultations contributed to the plan presented in this report.

It is recommended the attached City Staff presentation be referenced as this report is reviewed as the presentation contains several visual guides to help explain the plan.

PREVIOUS RESOLUTION

Common Council was briefed at a high level on this project as part of a 2020 presentation and a May 3, 2021 staff report on overall 2021 traffic safety improvement initiatives. However, several current members of Common Council were not present at the time of these previous reports, this report also provides contextual information.

REPORT

University Avenue includes five vehicle lanes. The centre vehicle lane is only available at certain points along the street where vehicles need to turn left in either direction; a centre median exists where these left turns are not permitted and/or required. The two vehicle lanes along the curb are currently designated as lanes to be shared between motorists and cyclists. There are sidewalks along both sides of the street. There are five crosswalks along the street (Millidge Avenue, at the Gorman arena, Polaris Court, Varsity Street/hospital access, and Sandy Point Road) and all but the one at Sandy Point Road are marked crosswalks. The street carries less than 10,000 vehicles per day and has a 60 KM/H speed limit. University Avenue connects Millidge Avenue to Sandy Point Road, each having one through lane in either direction. The Saint John Regional Hospital, indirect access to University of New Brunswick (Saint John), a City arena, and several apartment complexes all front onto University Avenue. University Avenue is on a busy Transit route with high-use stops. University Avenue is within the UNBSJ Plateau/Regional Hospital Primary Centre as defined in PlanSJ.

Three separate opportunities led to City staff assessing potential changes to University Avenue. These include:

1. Addressing concerns expressed by various members of the community regarding risk to motorists' safety at the western end of University Avenue,
2. Improving pedestrian safety along University Avenue, again partially motivated by received community concerns, and
3. Implementing improvements to cycling infrastructure on University Avenue, referencing a recommendation of MoveSJ.

Opportunity #1

Over the past couple of years several community members expressed concerns with the safety of motorists on University Avenue, just to the east of Millidge Avenue. The presence of a right turn unimpeded free-flow lane from Millidge Avenue to University Avenue, the presence of a Transit shelter and stop in the immediate area, the presence of two retail driveways in the immediate area (Tim Horton's/Wendy's and Jean Coutu), and the presence of all five vehicle lanes in the area all contributed to these community concerns.

Opportunity #2

Several community members have expressed concerns with safely being able to cross University Avenue over the years. Lack of enough crosswalks, lack of enhanced features at crosswalks, curves in the road obstructing sight lines between motorists and pedestrians, and the presence of four or five vehicle lanes to cross, including two through lanes in each direction, contributed to these community concerns.

Opportunity #3

University Avenue is an important street in the City's cycling network. It is the final leg of the Campus Harbour Connection Bike Route, the first comprehensive and continuous cycling network in the City, that connects the two Primary Centres defined in PlanSJ, UNBSJ Plateau/Regional Hospital Primary Centre and Uptown Primary Centre. It is also specifically referenced in MoveSJ's draft Cycling Strategy with a recommendation to upgrade to dedicated Bike Lanes from the existing Shared Use Lanes.

Initial Plan

City staff developed an initial plan for University Avenue based on all three identified opportunities, as well as using available data, and industry best practices.

The five vehicle lanes were envisioned to reduce to three lanes, maintaining the left turn lanes along the street in between the gaps in the centre median. The two curb lanes on either side of the street would be converted to 2.1 metre dedicated one-way Buffered Bike Lanes, that would be the first installation in the City of these kind of bike lanes, offering a greater degree of separation and prominence between cyclists and motorists. The dedicated bike lanes would end on the approaches to Millidge Avenue and Sandy Point Road to re-establish two lanes in each direction to offer a greater level of service for turning vehicles. Transportation best practices would be used to guide these transition points. In addition to enhancing infrastructure for cyclists, reducing the number of through lanes along the majority of University Avenue would also reduce the number of conflict points between motorists and a crossing pedestrian at crosswalks, including mitigating the passing of vehicles stopped in the second lane waiting for the pedestrian to cross. A reduction in the number of lanes at the western end of University Avenue would also partially address the motorist safety concerns expressed by community members.

Also, as part of this initial plan, the Transit shelter/stop on the eastbound side of the street near Millidge Avenue would be moved further east, past the congested area with the two retail driveways.

One crosswalk would be installed and a second enhanced as part of the plan. The newly installed crosswalk would be placed in the vicinity of the new Transit shelter/stop near Bloom Street. This new crosswalk would include side-mounted solar-powered flashing lights, activated via wireless pedestrian push buttons, known as a Rectangular Rapid Flashing Beacon (RRFB) used in other parts of the City. The existing marked crosswalk between Varsity Street and the hospital entrance would be upgraded with an RRFB system given the obstructed sight lines at the curve to the west of the location.

The right turn slip lane from Millidge Avenue to University Avenue would be converted from an unobstructed free-flow lane to a lane with Yield signs that must merge into the (now) one through lane eastbound. A potential enhancement of a constructed “Smart Right Turn Lane” may be considered in the future if the intersection is planned for reconstruction.

Consultations

City staff completed several consultations on these improvement plans, including with the general community, emergency services, and a representative of the owner of the Tim Horton’s. Ultimately, these consultations resulted in updates between the “Initial Plan” and the “Final Plan” presented in this report.

General community consultations were completed between April 28 and May 7, 2021. On the evening of April 28, 2021, City staff led a virtual community meeting. A total of 32 individuals pre-registered for the meeting and 21 attended the virtual meeting. The meeting included a presentation by City staff on the “Initial Plan” followed by an opportunity for questions and comments by community members. Community members, including any who attended the virtual meeting, or anyone else in the community was then able to provide e-mailed feedback until May 7. The City staff presentation and the recording of the virtual meeting was provided for anyone who was unable to attend the virtual event but wanted to become informed before providing feedback. A total of 44 community members provided feedback via e-mail. City staff spoke by phone with a few community members.

Feedback during the virtual community meeting generally concentrated on the cycling infrastructure and provided consensus for the need for improved cycling facilities. In fact, many participants suggested support to dedicate half the street, on one side of the centre median, for active transportation; the Initial Plan, transitioning from Shared Lanes to Buffered Bike Lanes, would not provide a safe enough space and/or encourage cyclists of different ages and abilities to use the infrastructure. There was some acceptance, however, this plan to move vehicular traffic to the other side of the median may not be feasible at the western end of the street. Some concern was expressed that vehicular volumes are greater than reported and special attention needs to be provided to ensure traffic continues to flow smoothly. Some concern was expressed that motorists

would ignore a painted bike lane. A complete list of provided feedback is attached to this report as Appendix A.

Feedback from the provided e-mail submissions between April 28 and May 7 were generally opposite to the consensus of the participants at the meeting. The majority (28 each, 75%) of the 37 e-mail submissions that provided an opinion on the envisioned conversion of two vehicle lanes to two Buffered Bike Lanes, indicated they did not support the plan, citing impact on motorists.

Feedback from the representative of Tim Horton's aligned with some other feedback received from the community in that the drive-thru line for the Tim Horton's/Wendy's does back up to University Avenue at times. In these cases, motorists waiting to turn left (from the Millidge, west) or right (from the Sandy Point, east) directions are unable to complete the turn into the driveway and must wait on the street.

Feedback from emergency services were also provided. The Saint John Fire Department provided support for the plan, with the understanding access to all streets and driveways to and from University Avenue would be maintained, which will be. The Saint John Police Force provided support for the plan. Ambulance NB provided support for the plan, with the understanding ambulances can pass other stopped vehicles, which is expected to be the case even with the details of the "Final Plan" described later in this report.

From "Initial Plan" to "Final Plan": Incorporating Feedback from Consultations

Using all the feedback received based on the "Initial Plan", City staff made adjustments in developing the "Final Plan" as recommended as part of this report.

First, City staff further assessed and are recommending to not proceed with dedicating one side of the road (one side of the centre median) to Active Transportation. Moving all vehicular traffic to one side of the centre median creates several challenges. These include an unorthodox transition from using both sides of the median to just one side, the loss of a separate left and right turn lane at the Sandy Point end, and either 8 or 11 intersections of streets or driveways along the remaining section of University Avenue (after the suggested transition point east of Tim Horton's). The latter issue creates several sub-issues including lack of separate left turn lane status, extensions of each street or driveway to the other side of the median, and several "mid-block" intersections between the installed multi-use trail and the extended streets and driveways. Although it is conceivable and likely that the asphalt inventory on the side with the multi-use trail can be significantly reduced, it is unlikely any of this land is wide enough to sell for development and therefore the City would still be required to maintain the space even if the majority of the space was converted to greenspace. All these factors combined, City staff are recommending against

suggestions made during consultation to move all vehicular traffic to one side of the centre median.

However, the concerns expressed by several participants during the virtual community meeting that Buffered Bike Lanes alone are not sufficient to promote a safe enough cycling network on University Avenue to promote use by cyclists of various ages and of various abilities were not lost on City staff. Therefore, City staff are recommending bollards be installed seasonally along the entire length of the Buffered Bike Lanes on both sides of the street at 5 metre spacing, except at driveways, street intersections, Transit stops, and before the Millidge Avenue and Sandy Point Road ends where the two vehicle lanes are re-introduced. Bollards were suggested as a solution during the virtual meeting. Further, a November 2020 report of the Transportation Association of Canada called “Safety Performance of Bicycle Infrastructure in Canada” cited, based on literature review, that there was minimal perceived safety difference between a buffered bike lane with bollards and a bike lane protected with curbs or other physical element separating the cycling area from the vehicle area of the roadway. In essence, the addition of the bollards would create the City’s first permanent Protected Bike Lanes, offering outcomes closer to what was suggested by participants during the virtual event. The bollard design would be like what was used seasonally for two years on Main Street North and the Viaduct approximately 10 years ago. The bollards would be removed each winter and reinstalled each spring so that snow plowing, and road drainage are not impacted. There will be annual costs to remove & reinstall bollards, most of which would be ‘opportunity costs’, not ‘out of pocket’ expenses. Staff will be monitoring these costs over the first season which will inform future decisions for similar treatments on other streets.

City staff are also recommending, after consultations, a speed limit reduction on University Avenue from 60 KM/H to 50 KM/H. The speed limit reduction supports the Protected Bike Lane design with use of bollards at 5-metre spacing. The existing average speeds are already manageable at 55 KM/H with the planned physical measures (bollards, reduction to one through lane per direction) expected to further reduce operating speeds. City staff would return at a future date to recommend the Traffic By-Law amendment to cause this speed limit change to become effective.

With the Tim Horton’s/Wendy’s drive-thru backing up to University Avenue at times, there is a risk of motorists stopping in the one remaining eastbound and westbound through lane waiting to turn into the driveway, blocking motorists intended to continue travelling on the street. City staff are recommending three additional updates for the “Final Plan” based on this risk, including:

1. Stopping the westbound Buffered Bike Lane (with bollards) further to the east than indicated in the “Initial Plan”. Instead of stopping the Bike Lane at the Tim Horton’s/Wendy’s driveway, the Bike Lane would be stopped at Bloom Street. Reintroduction of two vehicle lanes, the curb

lane remaining a Shared Lane, would allow any vehicles waiting to turn right into the Tim Horton's/Wendy's driveway to wait in the curb lane, allowing second lane to be used for other through traffic,

2. For eastbound traffic, City staff recommend removing more of the centre median to allow for one or two more vehicles to queue in the left-turn lane into the Tim Horton's/Wendy's driveway, providing more situations where the remaining single eastbound through lane would remain clear of stopped vehicles, and
3. To manage situations where the extended left turn lane into the Tim Horton's/Wendy's driveway backs up into traffic, City staff are recommending a "No Stopping Anytime" regulation be added to University Avenue between Millidge Avenue and the beginning of the extended left turn lane into the Tim Horton's/Wendy's driveway, as feasible within section 10 of the City's Traffic By-Law. City staff would return at a future date to recommend the Traffic By-Law amendment to cause this change to become effective. This provision would be communicated with on-street signage.

City staff note that the three plan updates described in the previous paragraph are expected to reduce the risk of motorists being blocked from using the remaining one eastbound and one westbound lane on University Avenue, the risk will still be present.

City staff also believes feedback from community members that have expressed concerns with implementing Bike Lanes on University Avenue have been heard and incorporated into the "Final Plan" where appropriate. Re-establishment of two vehicle lanes at either end of University Avenue, continuation of left turn lanes along the street, and the additional measures at the western end of the street, are all efforts to promote an acceptable level of service for motorists. City staff are firm however in its conclusion that four through lanes on University Avenue are not required for the volumes, and further to this, both Millidge Avenue and Sandy Point Road that connect to University Avenue each only have one through lane in each direction.

STRATEGIC ALIGNMENT

Dedicated Bike Lanes on University Avenue are recommended in MoveSJ's draft Cycling Strategy.

SERVICE AND FINANCIAL OUTCOMES

The City has partnered with the Saint John Cycling Club to apply to the Canada Healthy Communities Initiative to fund the project. The project was not recommended for funding during the first round of funding but the Club will be applying again this month for attempt at approval during the second round.

City staff will consider availability of project funding within the various 2021 Public Works & Transportation Operating Budgets in the event the federal funding source is not secured.

The below table details the projected project implementation costs:

Project Component	Estimated Cost
Buffered Bike Lanes with Bollards	\$45,000
Bus Shelter Relocation	\$10,000
RRFB Crosswalks at Bloom and Varsity	\$20,000
Left Turn Lane Lengthening East of Millidge Ave	\$25,000
TOTAL	\$100,000

INPUT FROM OTHER SERVICE AREAS AND STAKEHOLDERS

The following stakeholders provided input into this report:

- General community via consultation opportunities
- Saint John Cycling Club
- Tim Horton's
- Saint John Transit
- Saint John Fire Department
- Saint John Police Force
- Ambulance NB
- Growth & Community Services Department

ATTACHMENTS

Appendix A: Summary of Feedback Provided at April 28, 2021 Virtual Community Meeting.

City Staff Presentation