

The Flats Arterial

COMMUNITY PANEL

Prioritized Advantages and Drawbacks of the Arterial Route Options - March 2019

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The Flats Arterial Community Panel is tasked with recommending the route for a new arterial road through False Creek Flats that best meets the needs of the neighbourhood, city, and region as a whole.

The following is the Panel's assessment of each route's advantages and disadvantages. Panelists drafted this list in response to stakeholder and expert presentations, public input, and their own views. Each list is ordered according to the level of support received by Panelists in a vote asking them to identify their top 5 advantages and top 5 drawbacks for each route.

Prior/Venables

ADVANTAGES

1. In the City's estimates, it is a low cost option because: the overpass structure is shortest; park mitigation costs are lowest; land acquisition costs are lowest; roadway costs are lowest; and the shared bicycle/pedestrian overpass/underpass is included in the estimated cost. However, necessary improvements could increase the costs. [Cost]
2. minimal transportation impact on Produce Row distribution hub because it is the least disruptive option. [Transportation]
3. fewer or no impacts to gardens and parkland because wild spaces and parks are not sacrificed for the arterial. [Community]
4. Easier and more efficient access to public transit and local amenities and services because there is shorter distance requiring less walking for local residents. [Transportation]
5. Better hospital access and emergency response even in extreme scenarios as the grid network around Prior allows for more contingency routes to bypass arterial blockages compared to Malkin-linked alignments (even though in some areas Union and Keefer do have road blockages still) [Facilities]
6. efficient traffic distribution and less congestion because the distance (arterial spacing) to get to Hastings and 1st Avenue is equidistant, allowing equal access to Hwy #1. [Transportation]
7. that Cottonwood and Strathcona Gardens are not impacted because the route does not go by the gardens. [Parks]
8. no major habitat loss because the eagle's nest and habitat in gardens would not be impacted. [Parks]
9. Minimum or no impact to civic facilities and hospital hub because the road does not cut down into them. [Facilities]
10. reduced travel time because it is the more direct east/west route, and the four-way intersection at Clark allows continued flow east along Venables. [Transportation]
11. Low loss of park area because replacement with adjacent land is potentially sufficient and mitigation is possible. [Parks]
12. direct access to emergency medical services because there will be a direct route from the neighbourhood to new St Paul's. [Community]
13. less impact than other routes to surrounding business on Clark, Grant, Vernon, etc. But more impact to Prior businesses than other routes. [Business]

ADVANTAGES (continued)

14. convenience because residents will have direct access to a main thoroughfare and public transit routes. [Community]
15. community can spend more money on local mitigation because construction costs are lower. [Community]
16. stability because the arterial is status quo. [Community]
17. Better well-being for patients because there would be fewer roads on campus, to allow hospital to dedicate more spaces to patient care. [Facilities]
18. preservation of cultural educational programming because Prior does not impact the programming in Trillium. [Parks]
19. it is more appealing to rail funders because it costs the least for the rail over/underpass. [Cost]

DRAWBACKS

1. there is limited room for sidewalks, cycling lanes, parking, high priority vehicles, and boulevards because it is a narrow road (20.6m). But, an underpass would be slightly wider than an overpass (at the actual overpass) according to the concept sketches. [Transportation]
2. limited local pedestrian access across the arterial because this creates: a disconnect between 2 parks on either side of Prior; a separation between residents and Strathcona Park; a separation between residents and their neighbours a safety hazard for pedestrians. Residents would be separated from the Park by the arterial, posing a safety hazard. But, an underpass mitigates this issue slightly because an overpass increases vehicles' tendency to speed downhill into the neighbourhood. [Transportation]
3. The selection of Prior would further erode trust between the community and the government due to the historic decision to remove the viaducts and Council commitments to downgrade Prior as an arterial [Community]
4. There is significant resident opposition to Prior as the arterial. [Community]
5. less large truck access to the area between Raymur Ave, Clark Drive, Prior, and Terminal Ave because trucks would be forced further North, onto Prior. But, an underpass could allow right turns onto Raymur, making this slightly better. [Transportation]
6. There will be negative impacts to the health and safety of residents due to increased arterial traffic through the neighborhood. [Community]
7. The width limitation of Prior doesn't allow for an option to create a Complete Street along the entirety of the arterial.
8. The selection of Prior will further disconnect the community from its amenities, parks, gardens and artist community. [Community]
9. Anticipated closure and dislocation of local businesses, which may be forced to move or adjust their business model with the construction of the overpass/underpass and may lack the financial resources to relocate due to scarcity of affordable options for purchase/rental. [Business]
10. The closer the arterial route happens to existing low-income housing stock, there is the potential for negative impacts of gentrification which commonly follow development along arterials. [Community]
11. Residents currently feel the existing arterial on Prior is a barrier to accessing Strathcona Park, the community will continue to experience barriers to accessing greenspace and gardens. [Parks]
12. upgrading the roadway and building an over/underpass will be disruptive on neighbourhood and local businesses and may require expensive mitigation. [Cost]

DRAWBACKS (continued)

13. There would be a reduction of tree canopy and overall region's green space (due to loss of NE corner of park) because land acquisition would be difficult to replace this space, however some of the loss of tree canopy could be mitigated. [Parks]
14. There would be possible negative impacts on the eagles' nesting area. [Parks]
15. the overpass could be less enjoyable/rideable for active transportation because it is a steeper grade, and goes uphill first. But, this could be largely mitigated if an underpass was built instead. [Transportation]
16. Makes gardening less enjoyable for the Strathcona Garden due to noise pollution and air pollution from shifting the truck traffic flow along Prior and Hawks street edge. [Parks]

William

ADVANTAGES

1. City Facilities are retained in their current, central location because the route doesn't directly impact the National Works Yard, Fire Training, Heavy Urban Search and Rescue (HUSAR), Vancouver School Board (VSB), or Animal Services. [Facilities]
2. Is potentially cheaper and more cost-effective than the Malkin and National alignments because it only goes over 4 train tracks. [Cost]
3. Improved user access because: Prior is calmed/downgraded, resulting in improved access to Strathcona Park from the neighbourhood, and; impact to park land will create opportunities to reimagine bike/walk access to Trillium and Strathcona Parks through mitigation strategies. [Parks]
4. less impact to Malkin Ave & Prior St businesses and the downstream businesses they serve. [Business]
5. Prior/Venables remains an important street for local and emergency access. [Transportation]
6. giving a viable replacement transit route in place of the #22 Prior St bus route because William is one of the more centrally located alignments that run through Strathcona. [Community]
7. that it is efficient, time-saving, and accessible to the greatest number of residents because it provides relatively even spacing between other arterials (Hastings & Terminal) and it provides a relatively straight path from Main to Clark (no S-curves which are sharp curves). [Transportation]
8. improved active transportation because: there will be a new protected cycling route that connects to McLean Drive, making cycling safer and encouraging new cyclists; the street has a reasonable slope (an easier route); it's an efficient way to go from point A to point B; and it increases the resiliency of the cycling network by having a second railway crossing in the area. [Transportation]
9. if transit was rerouted down Malkin to William it would be more convenient for people who work in the area. [Business]
10. it allows dispersed traffic throughout the area because it provides access for St. Paul's and other businesses and allows traffic from city yards and fire training to remain on National. [Facilities]

DRAWBACKS

1. the impact to eagles which are symbolic, sacred, and valued, especially to Indigenous residents—this may go against provincial conservation guidelines. [Community]
2. some businesses along William may need to be relocated, and some may not be financially viable to reopen after construction, due to the route alignment going directly through existing properties east of Raymur St. The number of potentially affected businesses is unknown and needs clarification. [Business]
3. it works against the Parks Board goals to protect and grow green space in a neighbourhood that is the most severely deficient, as well as City policies like the Healthy City and Greenest City Strategies, because it has the most hectares of green space lost out of all the alignment options. [Parks]
4. May harm the local artist community because 1000 Parker Place may be impacted by the road indirectly. [Business]
5. the reduction of the parks and urban canopy in a neighbourhood that already has a low park to people ratio and a low urban canopy (5.9%). This is because the route cuts through the park and requires removing 60+ mature trees. This reduces community livability. [Community]
6. that it is the 2nd worst option for Produce Row due to the arterial being still too close to the truck receiving area, which would cause inefficiency and traffic congestion. [Business]
7. the loss of ecosystems, biodiversity, and habitat for bees, birds, critters, and eagles because of the removal of habitats in Strathcona Park and the Cottonwood Gardens. [Parks]
8. the parks cost is the highest of any proposed route because of the high park mitigation costs, especially for land acquisition. [Cost]
9. that it would make Cottonwood Gardens—which is integral to many residents' lives— untenable by restricting access and surrounding it by traffic. [Community]
10. the overpass is 420 m long, which leads to longer construction time and higher costs (compared to all options except National). Construction cost is double the cheapest option. [Cost]
11. less opportunity and possible degraded experience for organized sport because there will be a loss of a soccer field, baseball diamond, tennis courts, and a large space for a potential track in Strathcona Park. [Parks]
12. it may be viewed as disrespectful to community history and commitment because it results in a loss of decades of volunteer work on the Cottonwood and Strathcona Gardens. [Parks]
13. the separation between the park and Cottonwood Gardens because it reduces accessibility by foot (walkability) to the garden/park. [Transportation]

DRAWBACKS (continued)

14. Possible delays in construction because: the park mitigation structures may take a while to put in place (ex: developing replacement plans for field house, urban forest canopy, track & field, walking path); the Parks Board may veto or take a while to accept proposal; and the soil conditions are worse than Prior. [Cost]
15. the negative impact to hospital services due to decreased air quality, less natural light for patient healing, and building design (more vertical and less horizontal, decreases collaboration among departments). [Facilities]
16. increased distance to public transit because residents and workers taking public transportation have to walk further to the bus stop. [Transportation]
17. the Providence healthcare campus will have less land available than if the alignment was on Prior. [Facilities]
18. increased congestion on a main arterial due to Produce Row truck traffic. [Transportation]
19. businesses will lose access to park land, which matters to their business models, drawing in customers, and to the well-being of their employees. [Business]
20. the construction time, though shorter than some of the other alignments, will be longer than Prior and thus have a greater harm to business. [Business]
21. the loss of very valuable programs connecting people to nature and each other because the Cottonwood and Strathcona gardens would be especially and largely impacted. [Parks]
22. impact on user experience and health because increased noise and pollution directly adjacent to both Trillium and Strathcona Parks. [Parks]

Malkin North

ADVANTAGES

1. For the Malkin North alignment, improved maneuvering, access, and circulation for Produce Row and lower congestion compared to the other Malkin variations because of the separated service lane. However, additional information is needed to confirm this is true; Produce Row representatives have not confirmed the service lane is viable. [Transportation]
2. it has more practicality and flexibility for design and constructability because the width is quite large and there is more space to work with and potential for variations, allowing for more walkability and bike lane options. It also has less of a steep gradient, better soil than the southern options (that are more in the mud flats reclaimed land) . [Cost]
3. for all Malkin alignments, Prior could become a local serving road because traffic would be redirected to Malkin. [Transportation]
4. that it returns Prior/ Venables to a local street and unites park to Strathcona neighbourhood and benefits bike/pedestrian route. [Community]
5. Strathcona Park would be better connected to the residential area. The Malkin route would separate residential and park uses to the north, with industrial uses to the south. [Parks]
6. no impact on Strathcona Park boundaries. [Community]
7. there would be better access (walk, cycle, transit) to the parks with finished complete street. Currently there are no sidewalks on the south side of Strathcona park and utilizing the 30m right of way area with the Malkin route, would permit connectivity, access enhancements because there is sufficient space. [Parks]
8. for all Malkin alignments, that many residents/businesses will be within a five minute walk to transit, because the alignment is closer to businesses but still close to residents. However, this may not provide much benefit due to shift schedules for workers that don't align with transit schedules [Transportation]
9. low impact to arts community. [Community]
10. less impact to public facilities and lower mitigation costs for the City than (some) other options because otherwise, resources would have to be allocated away from other priorities. [Facilities]
11. Efficient travel times for commercial, residential, and transit because it is a more direct route. If the Malkin North route, benefits of separating truck access to Produce Row is preferred. [Community]
12. for all Malkin alignments, is less pressure on Clark's existing entry points because longer/more sufficient arterial spacing in comparison to National. [Transportation]

ADVANTAGES (continued)

13. It coincides with and provides an opportunity for Animal Services to re-develop a facility that exceeds/meets their current needs at their existing location, because the facility has benefits at its current location, but services have been evolving. The Malkin North variation may cause more displacement to Animal Services than the Central and South variations. [Facilities]
14. better access to National Yard, Fire rescue/HUSAR. [Facilities]
15. All Malkin Variation would make it comparatively more expensive than William option because of land mitigation cost with the stakeholders. The study shows business mitigation cost is 15-25 million However, some panel members feel that the estimation is considerably low.
16. efficient travel times for commercial, residential, and transit because it is a more direct arterial route. [Transportation]
17. The hospital master planning has considered that Malkin will be the arterial route. [Facilities]

DRAWBACKS

1. If Malkin North is selected, there would be significant impact to Cottonwood Garden, likely requiring the complete removal of Cottonwood Garden. However, we acknowledge that this area is currently a legal right of way. [Parks]
2. The negative impact to Produce Row because access, loading, and dock sales would be more difficult. The Malkin alignment would put some out of business, like North American Produce sales, but if the Malkin North variation is selected, the negative impact to access to most of Produce Row may be reduced, with the segregated road and access for trucks. Additional information is needed to confirm this is true; Produce Row representatives have not confirmed the service lane is viable. [Business]
3. for the south and central Malkin alignments, that it would severely disrupt the transportation of regional food and other goods because there is a potential existential threat to Produce Row though the North version may mitigate impact. [Transportation]
4. the higher impact of the Produce Row being greatly affected during road construction. [Cost]
5. for all Malkin alignments, moving the #22 bus route further south may reduce access for the local residential community because it would reduce the number of residents within a 5 minute walk to transit, making it a longer and harder journey for the elderly (many elderly residents in the neighbourhood) and those needing to do shopping. However, a shuttle bus on Prior can help mitigate this drawback. [Transportation]
6. there would be significant impact to the urban forest canopy and ecosystem from removal of large, mature trees that have eagles (wildlife habitat) and we cannot recreate this. [Community]
7. the route will impact the homes on Atlantic Street because they will be exposed to increased noise, traffic and air pollution. [Community]
8. noise and traffic pollution impacts on all garden and green spaces adjacent to Malkin, because noise and air pollution make existing recreation uses uncomfortable for space users, including school groups at Trillium Park and users of cultural assets at Trillium Park. [Parks]
9. For all Malkin variations, construction and arterial traffic may negatively impact eagle habitat, with more significant impacts for the Malkin North variation, comparative fewer impacts for the Malkin Central variation, and the least impact for the Malkin South variation. [Parks]
10. the negative impact to local small businesses because of limited mitigation options - would displace them. [Business]
11. the collective creativity and synergy of artists/businesses that currently define character of East side would be displaced. [Business]
12. poorer circulation/access choices for the hospital, as it will not be as direct or flexible for emergency circulation route. [Facilities]

DRAWBACKS (continued)

13. the outdoor perimeter spaces for the hospital will be reduced in greenspace/quiet. [Facilities]
14. the construction costs are higher due to larger structure and depth to stable soil compared to the Prior route. [Cost]
15. air quality with diesel trucks, exhaust, dust, increased traffic would negatively impact food supply on Produce Row. [Business]
16. Group completed this process to fulfill exercise requirements, however does not see that there are significant drawbacks to civic facilities with the Malkin option. The animal services site is needing to enter a process of future planning and this route may be an opportunity for them to explore the highest and best use of this land. [Facilities]
17. the elimination of some light-industry space (east side of Glen) through expropriation. [Community]
18. negative impact to Trillium Park because there would be new barriers for park users and negative impact on spaces used for school programs and cultural assets. However, a pedestrian overpass could mitigate some of these problems. [Parks]
19. Drawback: Animal services will be most impacted and may require relocation, but if these buildings need to be updated/upgraded soon they can possibly go higher in density and reduce their land requirements. The Malkin North variation may cause more displacement to Animal Services than the Central and South variations. [Facilities]

Malkin Central

ADVANTAGES

1. for all Malkin alignments, Prior could become a local serving road because traffic would be redirected to Malkin. [Transportation]
2. that it returns Prior/ Venables to a local street and unites park to Strathcona neighbourhood and benefits bike/pedestrian route. [Community]
3. Strathcona Park would be better connected to the residential area. The Malkin route would separate residential and park uses to the north, with industrial uses to the south. [Parks]
4. less impact to public facilities and lower mitigation costs for the City than (some) other options because otherwise, resources would have to be allocated away from other priorities. [Facilities]
5. it has more practicality and flexibility for design and constructability because the width is quite large and there is more space to work with and potential for variations, allowing for more walkability and bike lane options. It also has less of a steep gradient, better soil than the southern options (that are more in the mud flats reclaimed land) . [Cost]
6. no impact on Strathcona Park boundaries. [Community]
7. there would be better access (walk, cycle, transit) to the parks with finished complete street. Currently there are no sidewalks on the south side of Strathcona park and utilizing the 30m right of way area with the Malkin route, would permit connectivity, access enhancements because there is sufficient space. [Parks]
8. for all Malkin alignments, that many residents/businesses will be within a five minute walk to transit, because the alignment is closer to businesses but still close to residents. However, this may not provide much benefit due to shift schedules for workers that don't align with transit schedules [Transportation]
9. for all Malkin alignments, is less pressure on Clark's existing entry points because longer/more sufficient arterial spacing in comparison to National. [Transportation]
10. low impact to arts community. [Community]
11. better access to National Yard, Fire rescue/HUSAR. [Facilities]
12. efficient travel times for commercial, residential, and transit because it is a more direct arterial route. [Transportation]
13. The hospital master planning has considered that Malkin will be the arterial route. [Facilities]

DRAWBACKS

1. for the south and central Malkin alignments, that it would severely disrupt the transportation of regional food and other goods because there is a potential existential threat to Produce Row though the North version may mitigate impact. [Transportation]
2. The Malkin Central variation would mean dramatic impact leading to potential elimination of the Cottonwood Gardens land because they are on the city's right of way, leading to the loss of an important community asset. [Parks]
3. The negative impact to Produce Row because access, loading, and dock sales would be more difficult. The Malkin Central alignment may put some companies out of business, like North American Produce. [Business]
4. the higher impact of the Produce Row being greatly affected during road construction. [Cost]
5. there would be significant impact to the urban forest canopy and ecosystem from removal of large, mature trees that have eagles (wildlife habitat) and we cannot recreate this. [Community]
6. for all Malkin alignments, moving the #22 bus route further south may reduce access for the local residential community because it would reduce the number of residents within a 5 minute walk to transit, making it a longer and harder journey for the elderly (many elderly residents in the neighbourhood) and those needing to do shopping. However, a shuttle bus on Prior can help mitigate this drawback. [Transportation]
7. the negative impact to local small businesses because of limited mitigation options - would displace them. [Business]
8. the route will impact the homes on Atlantic Street because they will be exposed to increased noise, traffic and air pollution. [Community]
9. noise and traffic pollution impacts on all garden and green spaces adjacent to Malkin, because noise and air pollution make existing recreation uses uncomfortable for space users, including school groups at Trillium Park and users of cultural assets at Trillium Park. [Parks]
10. The Malkin Central variation offers minimal mitigation opportunities to integrate Produce Row and arterial through traffic. [Transportation]
11. poorer circulation/access choices for the hospital, as it will not be as direct or flexible for emergency circulation route. [Facilities]
12. the collective creativity and synergy of artists/businesses that currently define character of East side would be displaced. [Business]

DRAWBACKS (continued)

13. For all Malkin variations, construction and arterial traffic may negatively impact eagle habitat, with more significant impacts for the Malkin North variation, comparative fewer impacts for the Malkin Central variation, and the least impact for the Malkin South variation. [Parks]
14. air quality with diesel trucks, exhaust, dust, increased traffic would negatively impact food supply on Produce Row. [Business]
15. the elimination of some light-industry space (east side of Glen) through expropriation. [Community]
16. the construction costs are higher due to larger structure and depth to stable soil compared to the Prior route. [Cost]
17. negative impact to Trillium Park because there would be new barriers for park users and negative impact on spaces used for school programs and cultural assets. However, a pedestrian overpass could mitigate some of these problems. [Parks]
18. Animal services will be most impacted and may require relocation, but if these buildings need to be updated/upgraded soon they can possibly go higher in density and reduce their land requirements. The Malkin Central and South variations will likely cause less displacement to Animal Services than North variation. [Facilities]
19. Group completed this process to fulfill exercise requirements, however does not see that there are significant drawbacks to civic facilities with the Malkin option. The animal services site is needing to enter a process of future planning and this route may be an opportunity for them to explore the highest and best use of this land. [Facilities]
20. the outdoor perimeter spaces for the hospital will be reduced in greenspace/quiet. [Facilities]

Malkin South

ADVANTAGES

1. Strathcona Park would be better connected to the residential area. The Malkin route would separate residential and park uses to the north, with industrial uses to the south. [Parks]
2. there would be better access (walk, cycle, transit) to the parks with finished complete street. Currently there are no sidewalks on the south side of Strathcona park and utilizing the 30m right of way area with the Malkin route, would permit connectivity, access enhancements because there is sufficient space. [Parks]
3. The Malkin South variation would not physically impact the actual boundaries of Cottonwood Gardens.
4. for all Malkin alignments, Prior could become a local serving road because traffic would be redirected to Malkin. [Transportation]
5. it has more practicality and flexibility for design and constructability because the width is quite large and there is more space to work with and potential for variations, allowing for more walkability and bike lane options. It also has less of a steep gradient, better soil than the southern options (that are more in the mud flats reclaimed land) . [Cost]
6. no impact on Strathcona Park boundaries. [Community]
7. that it returns Prior/ Venables to a local street and unites park to Strathcona neighbourhood and benefits bike/pedestrian route. [Community]
8. for all Malkin alignments, is less pressure on Clark's existing entry points because longer/more sufficient arterial spacing in comparison to National. [Transportation]
9. less impact to public facilities and lower mitigation costs for the City than (some) other options because otherwise, resources would have to be allocated away from other priorities. [Facilities]
10. for all Malkin alignments, that many residents/businesses will be within a five minute walk to transit, because the alignment is closer to businesses but still close to residents. However, this may not provide much benefit due to shift schedules for workers that don't align with transit schedules [Transportation]
11. it is one of the more economic non-Prior options because it does not cross 14 rail lines and does not have as big of an impact on park land (and therefore has cheaper park mitigation costs), but only for the South variation. [Cost]
12. low impact to arts community. [Community]
13. efficient travel times for commercial, residential, and transit because it is a more direct arterial route. [Transportation]

ADVANTAGES (continued)

14. better access to National Yard, Fire rescue/HUSAR. [Facilities]
15. Drawback: Animal services will be most impacted and may require relocation, but if these buildings need to be updated/upgraded soon they can possibly go higher in density and reduce their land requirements. The Malkin South and Central variations will likely cause less displacement to Animal Services than North variation. [Facilities]

DRAWBACKS

1. for the south and central Malkin alignments, that it would severely disrupt the transportation of regional food and other goods because there is a potential existential threat to Produce Row though the North version may mitigate impact. [Transportation]
2. negative impact to Produce Row because access, loading, and dock sales would be more difficult. The Malkin alignment may put some companies out of business, like North American Produce. [Business]
3. the higher impact of the Produce Row being greatly affected during road construction. [Cost]
4. The Malkin South variation offers minimal mitigation opportunities to integrate Produce Row and arterial through traffic. [Transportation]
5. for all Malkin alignments, moving the #22 bus route further south may reduce access for the local residential community because it would reduce the number of residents within a 5 minute walk to transit, making it a longer and harder journey for the elderly (many elderly residents in the neighbourhood) and those needing to do shopping. However, a shuttle bus on Prior can help mitigate this drawback. [Transportation]
6. the negative impact to local small businesses because of limited mitigation options - would displace them. [Business]
7. the route will impact the homes on Atlantic Street because they will be exposed to increased noise, traffic and air pollution. [Community]
8. there would be significant impact to the urban forest canopy and ecosystem from removal of large, mature trees that have eagles (wildlife habitat) and we cannot recreate this. [Community]
9. noise and traffic pollution impacts on all garden and green spaces adjacent to Malkin, because noise and air pollution make existing recreation uses uncomfortable for space users, including school groups at Trillium Park and users of cultural assets at Trillium Park. [Parks]
10. the collective creativity and synergy of artists/businesses that currently define character of East side would be displaced. [Business]
11. For all Malkin variations, construction and arterial traffic may negatively impact eagle habitat, with more significant impacts for the Malkin North variation, comparative fewer impacts for the Malkin Central variation, and the least impact for the Malkin South variation. [Parks]
12. poorer circulation/access choices for the hospital, as it will not be as direct or flexible for emergency circulation route. [Facilities]
13. the construction costs are higher due to larger structure and depth to stable soil compared to the Prior route. [Cost]

DRAWBACKS (continued)

14. air quality with diesel trucks, exhaust, dust, increased traffic would negatively impact food supply on Produce Row. [Business]
15. compromise of potential eagle habitat because residents and community value their place in the park and society [Community].
16. negative impact to Trillium Park because there would be new barriers for park users and negative impact on spaces used for school programs and cultural assets. However, a pedestrian overpass could mitigate some of these problems. [Parks]
17. Group completed this process to fulfill exercise requirements, however does not see that there are significant drawbacks to civic facilities with the Malkin option. The animal services site is needing to enter a process of future planning and this route may be an opportunity for them to explore the highest and best use of this land. [Facilities]
18. the elimination of some light-industry space (east side of Glen) through expropriation. [Community]
19. the outdoor perimeter spaces for the hospital will be reduced in greenspace/quiet. [Facilities]

National-Charles

ADVANTAGES

1. has a lower negative impact on businesses compared to other alignments because of improved access and least impact on Produce Row and other businesses, though the National-Charles St variation would require minimal building modifications [Business]
2. It moves arterial traffic further away from residential areas because the alignment is further south of Prior and Strathcona Park (it would allow Prior to be downgraded to a local street). [Transportation]
3. It preserves the Cottonwood and Strathcona Gardens, which is important because these create community and food security. [Community]
4. National-Charles involves the least amount of park land loss and preserves existing parks, gardens, and natural assets. [Parks]
5. It would allow for more complete street / maximize flexibility of road design because the right of way width would not be as constrained/narrow as Prior (wider than the existing route).
6. That truck traffic can access Produce Row off of the arterial because they can continue on Malkin at multiple intersections.
7. For all National variations, it has a low impact on artists/artisans and art-based businesses because many of them are located along/close to the other routes. [Business]
8. It supports community's interests [Community]
9. This option received a significant number of favourable public submissions and comments. [Community]
10. It moves traffic and congestion away from residents in Strathcona, reducing emissions and improving air quality. [Community]
11. It is better in line with City goals of greener city because residents will have more greenspace and the City has ambitious goals of combating climate change. [Community]
12. that it would allow an efficient flow of traffic because the alignment has relatively good arterial spacing (similar to Malkin). [Transportation]
13. The cost of National-Charles may be less than other National options because the overpass is a similar length as that of the Malkin options. [Cost]
14. The public works yard has quicker and easier access to areas in the city because they will be on an arterial street.

ADVANTAGES (continued)

15. National-Charles improves access to parks by providing easier transit access to Trillium Park and includes more pedestrian and bike routes. [Parks]
16. The overpass because it will be more beautiful in this area. [Community]
17. It does not impact the animal shelter because it is not on National. [Facilities]

DRAWBACKS

1. That it may be most expensive to build because of widest span over rail (14 lines), land acquisition and construction costs. It may be hard to secure funding partners and positive cost/benefit. [Cost]
2. A substantial portion of the project costs may not be eligible for partners funding (ie. land acquisition to relocate/ rebuild Fire Training and HUSAR facilities and property mitigation for city works yard). [Cost]
3. That it would increase local impacts because of longer construction time and complexity, along with relocating services. [Cost]
4. Opportunity costs and compromises across the City because of the costs required for land acquisition and construction to move facilities may take away from other city priorities and projects. [Facilities]
5. Impacts and inefficiencies in public services because of the interconnected systems and optimal location of existing works yard. [Facilities]
6. Increased isolation of the east side of Strathcona (east of the BI tracks) from the west side of Strathcona because the at-grade crossing may be closed and the only through-way vehicle access will be at National and Hastings (which are 9 blocks apart). [Community]
7. It would close down the makers garden because the road would cut into the Northern edge of Trillium Park and the noise beside the Park would make their work untenable. [Parks]
8. Costs incurred because Civic Works Yard and fire training and HUSAR facilities will have to be modified and/or moved. [Facilities]
9. In a major disaster, National routes are less resilient because there is not a street network to the South due to the railyards. [Facilities]
10. That it adds uncertainty to the project because of additional costs and poor ground conditions. [Cost]
11. It hinders access and creates risks for emergency vehicles because it creates a less direct route with fewer options for secondary through roads in emergency situations. [Facilities]
12. For all variations, disruption to local businesses because an arterial road may cause loss of revenue, relocation, or closure. The National-Grant and Civic Facilities variations would potentially impact 35 businesses, Yellow Cab, and the back of Produce Row buildings. The National-Charles variation would potentially impact 15 artists, 12 other local businesses, and Fresh Point. [Business]
13. Reduced land available for St Paul’s clinics and patient resources because Malkin/National will use some space for these road options. [Facilities]

DRAWBACKS (continued)

14. Greater challenge to those driving to the park (particularly sports users) because it may be hard to find parking on the arterial street during peak hours. [Parks]
15. St Paul's suffers lower safety and quality of care standards because of hindered access, noise, pollution, lack of light, etc. [Facilities]
16. Potential impacts on Vancouver School Board facility at Clark & Grant because of intersection/overpass, with the exception of the National-Charles variation. [Facilities]

National-Civic

ADVANTAGES

1. It preserves the Cottonwood and Strathcona Gardens, which is important because these create community and food security. [Community]
2. It moves arterial traffic further away from residential areas because the alignment is further south of Prior and Strathcona Park (it would allow Prior to be downgraded to a local street). [Transportation]
3. It would allow for more complete street / maximize flexibility of road design because the right of way width would not be as constrained/narrow as Prior (wider than the existing route).
4. Safer relative to the other National variations because it doesn't have an S-curve, which see double the rates of collisions. [Transportation]
5. For all National variations, it has a low impact on artists/artisans and art-based businesses because many of them are located along/close to the other routes. [Business]
6. That truck traffic can access Produce Row off of the arterial because they can continue on Malkin at multiple intersections.
7. Has a lower negative impact on businesses because of improved access and least impact on Produce Row, but the "Civic Facilities" variation may cause some disruption to Produce Row though Produce Row will not need to relocate as the path mainly by-passes Produce Row buildings. [Business]
8. It supports community's interests [Community]
9. National-Civic route has the least impact on the community, businesses, park lands, and art spaces, all of which have intrinsic and intangible value that cannot be measured in dollars and cents. [Community]
10. That it would allow a better flow of traffic because the alignment has fewer intersections, and the Civic Facilities variation would remove the S-curve and be a more direct route. [Transportation]
11. It moves traffic and congestion away from residents in Strathcona, reducing emissions and improving air quality. [Community]
12. That it would allow for more complete street / maximize flexibility of road design because the right of way width would not be as constrained/narrow as Prior (wider than the existing route), but if the Civic alignment is selected, it would create/cause impact to municipal buildings and emergency services. [Transportation]
13. For the Civic variation, an improved flow and access for Produce Row because there would be less road congestion and easier access to an arterial (especially without the S-curve). [Transportation]

ADVANTAGES (continued)

14. The public works yard has quicker and easier access to areas in the city because they will be on an arterial street.
15. It is better in line with City goals of greener city because residents will have more greenspace and the City has ambitious goals of combating climate change. [Community]
16. The overpass because it will be more beautiful in this area. [Community]
17. It does not impact the animal shelter because it is not on National. [Facilities]

DRAWBACKS

1. That it may be most expensive to build because of widest span over rail (14 lines), land acquisition and construction costs. It may be hard to secure funding partners and positive cost/benefit. [Cost]
2. A substantial portion of the project costs may not be eligible for partners funding (ie. land acquisition to relocate/ rebuild Fire Training and HUSAR facilities and property mitigation for city works yard). [Cost]
3. This option provides for the least equal arterial spacing. It is most closely located to Terminal and 1st T-intersection with Clark and may create congestion problems at these intersections. [Transportation]
4. For all variations, disruption to local businesses because an arterial road may cause loss of revenue, relocation, or closure. The National-Grant and Civic Facilities variations would potentially impact 35 businesses, Yellow Cab, and the back of Produce Row buildings. The National-Charles variation would potentially impact 15 artists, 12 other local businesses, and Fresh Point. [Business]
5. Long distance between current bus line (#22) and the surrounding communities, leaving a large gap in transit on Clark between Hastings and National (which is heavily used) and negatively impacts mobility and access, but the Civic variation is slightly better than the other National variations, though still far. [Transportation].
6. That it would increase local impacts because of longer construction time and complexity, along with relocating services. [Cost]
7. Costs incurred because Civic Works Yard and fire training and HUSAR facilities will have to be modified and/or moved. [Facilities]
8. Opportunity costs and compromises across the City because of the costs required for land acquisition and construction to move facilities may take away from other city priorities and projects. [Facilities]
9. It hinders access and creates risks for emergency vehicles because it creates a less direct route with fewer options for secondary through roads in emergency situations. [Facilities]
10. That it adds uncertainty to the project because of additional costs and poor ground conditions. [Cost]
11. St Paul's suffers lower safety and quality of care standards because of hindered access, noise, pollution, lack of light, etc. [Facilities]
12. Potential impacts on Vancouver School Board facility at Clark & Grant because of intersection/ overpass, with the exception of the National-Charles variation. [Facilities]

DRAWBACKS (continued)

13. If the National-Civic variation is selected, then the National Works Yard will require more significant modifications compared to National-Grant and National-Charles. [Facilities].
14. Increased isolation of the east side of Strathcona (east of the BI tracks) from the west side of Strathcona because the at-grade crossing may be closed and the only through-way vehicle access will be at National and Hastings (which are 9 blocks apart). [Community]
15. Greater challenge to those driving to the park (particularly sports users) because it may be hard to find parking on the arterial street during peak hours. [Parks]
16. Impacts and inefficiencies in public services because of the interconnected systems and optimal location of existing works yard. [Facilities]
17. Reduced land available for St Paul's clinics and patient resources because Malkin/National will use some space for these road options. [Facilities]
18. It would close down the makers garden because the road would cut into the Northern edge of Trillium Park and the noise beside the Park would make their work untenable.
19. In a major disaster, National routes are less resilient because there is not a street network to the South due to the railyards. [Facilities]
20. Negative health effects on park users (sports users and gardeners) because there are increased noise and pollution beside Trillium Park. [Parks]
21. Difficult access to and noise and pollution in Trillium Park due to the arterial. [Parks]
22. The National-Civic option may interfere with the Vancouver School Board (VSB) yards. [Facilities]
23. for all variations, it would be more difficult to access businesses on Prior/Venables because vehicle and transit traffic would be on National.

National-Grant

ADVANTAGES

1. It moves arterial traffic further away from residential areas because the alignment is further south of Prior and Strathcona Park (it would allow Prior to be downgraded to a local street). [Transportation]
2. that it has a lower negative impact on businesses because of improved access and least impact on Produce Row. Produce Row will not need to relocate as the path mainly bypasses the buildings and companies. [Business]
3. National-Grant route would result in the least amount of park land loss. It preserves existing parks, gardens, and natural assets, which is more likely receive Park Board approval. [Parks]
4. It would allow for more complete street / maximize flexibility of road design because the right of way width would not be as constrained/narrow as Prior (wider than the existing route). [Transportation]
5. For all National variations, it has a low impact on artists/artisans and art-based businesses because many of them are located along/close to the other routes. [Business]
6. It moves traffic and congestion away from residents in Strathcona, reducing emissions and improving air quality. [Community]
7. It is better in line with City goals of greener city because residents will have more greenspace and the City has ambitious goals of combating climate change. [Community]
8. The public works yard has quicker and easier access to areas in the city because they will be on an arterial street. [Facilities]
9. National-Grant with s-curve route provides easier transit access to Trillium park because bus routes/ stops will be closer to service this park. [Parks]
10. National-Grant with s-curve route provides easier park access because the arterial route will include more pedestrian and bike routes. [Parks]
11. It does not impact the animal shelter because it is not located on National. [Facilities]
12. National-Grant with s-curve route provides easier park access because the arterial route will include more pedestrian and bike routes. [Parks]
13. National-Grant with s-curve route provides easier transit access to Trillium park because bus routes/ stops will be closer to service this park. [Parks]

DRAWBACKS

1. The S-curve because of safety hazards. S-curves are less safe for people walking/ cycling and ICBC statistics indicate that rates of vehicle collisions double with S-curve road profiles.
2. This option provides for the least equal arterial spacing. It is most closely located to Clark-Terminal intersection and may experience congestion problems.
3. Long distance between bus line (#22) and the surrounding communities, leaving a large gap in transit on Clark between Hastings and National (which is heavily used) and negatively impacts mobility and transit access for residents.
4. This route is the most expensive to build because of widest span over rail with 14 lines, land acquisition and construction costs.
5. A substantial portion of the project costs would not be eligible for partners funding (ie. land acquisition to relocate/ rebuild Fire Training and HUSAR facilities and property mitigation), which would take away from other city priorities and projects because it would dominate capital demands. However, if replacing fire training and HUSAR aligns with City needs for upgrading these facilities, this would not be as big of an impact.
6. May create access challenges for pedestrians and cyclists to Trillium Park due to the arterial traffic on two sides and S-curve. In general S-Curves are considered more hostile for pedestrians and cyclists as the design has a larger roadway footprint, drivers have less visibility of people walking and cycling because of the curves, and there would be fewer opportunities to cross the street safely.
7. Increasing isolation to east and west parts of Strathcona areas due to the distance between vehicular access-points with rail overpass. The only places to cross the rail tracks in a vehicle would be Hastings and National, as the Prior Road crossing would be closed in future (Prior would no longer be a vehicle thru-road after construction of new arterial route).
8. The opportunity costs and compromises across the City because of the costs required for land acquisition and construction to move civic facilities. If money is invested in relocations, there is less money available for other civic investments.
9. It may be challenging to gain political and partner funding because it is the most expensive and difficult route to build.
10. The National-Grant option would interfere with the Vancouver School Board (VSB) yards.
11. It would close down the makers garden because the road would cut into the Northern edge of Trillium Park and the noise beside the Park would make their work untenable.
12. This route may add uncertainty to the project because of additional costs and poor ground conditions.

DRAWBACKS (continued)

13. Disruption to local businesses because an arterial road may cause loss of revenue, relocation, or closure. The National-Grant would potentially impact 35 businesses, Yellow Cab, and the back of Produce Row buildings.
14. Negative health effects on park users (sports users and gardeners) because there are increased noise and pollution beside Trillium Park. The S-Curve variation would cause more noise because of stop-and-go traffic and because the arterial is on two sides of the park.
15. Significant costs incurred because civic works yard, fire services and HUSAR emergency training facilities will have to be modified and/or moved.
16. The impacts and efficiencies in civic services because of the interconnected systems and optimal location of existing works yard.
17. The opportunity costs and compromises across the City because of the costs required for land acquisition and construction to move civic facilities. If money is invested in relocations, there is less money available for other civic investments.
18. The National-Grant option would interfere with the Vancouver School Board VSB facility yards at Clark & Grant because of intersection/overpass modifications.