
» ATTACHMENT F
PRELIMINARY ASSESSMENT OF MAIN STREET
BIKE LANE ALTERNATIVES

With Transportation Levy funding available to build on the downtown bikeway network in 2019, staff brought forward a preliminary assessment of two Main Street alternatives for Transportation Commission consideration at its March 28 meeting. Currently, a westbound bike lane on Main Street exists between 103rd Avenue and 106th Avenue, and an eastbound bike lane exists between 103rd Avenue and 105th Avenue. Both directions feature dedicated bike lanes through the Bellevue Way intersection today. The Main Street bike lane project alternatives build upon these existing bike lanes on Main Street and would establish a continuous east-west connection to the 108th Avenue NE bikeway.

Alternative 1:

- In the eastbound direction, Alternative 1 extends the existing buffered bike lane on Main Street from 105th Avenue to 108th Avenue by repurposing one eastbound travel lane. (Note: This second eastbound lane has been closed during peak periods since 2017 due to Alamo Manhattan II construction.)
- In the westbound direction, Alternative 1 installs a parking-protected bike lane on Main Street from 108th Avenue to 106th Avenue and enhances the existing striped bike lane into a buffered bike lane between 106th Avenue and Bellevue Way. This alternative involves repurposing a westbound travel lane from Bellevue Way to 108th Avenue.

Alternative 2:

- In the eastbound direction, Alternative 2 extends the eastbound buffered bike lane on Main Street from 105th Avenue to 108th Avenue by repurposing one eastbound travel lane. (Note: This second eastbound lane has been closed during peak periods since 2017 due to Alamo Manhattan II construction.)
- In the westbound direction, Alternative 2 extends the existing striped bike lane on Main Street from 106th Avenue NE to 107th Avenue and installs a buffered bike lane between 107th Avenue and 108th Avenue. Alternative 2 maintains two westbound travel lanes.

Both alternatives were evaluated in SimTraffic to determine the PM Peak Hour impacts to intersection delay (seconds/vehicle) and Level of Service.

Intersection	Existing		Alternative 1		Alternative 2	
	Delay (secs)	LOS	Delay (secs)	LOS	Delay (secs)	LOS
Bellevue Way/Main Street	54.6 secs	D	55.0 secs	D	51.8 secs	D
106th/Main Street	21.7 secs	C	39.7 secs	D	21.0 secs	C
108th/Main Street	17.6 secs	B	35.5 secs	D	24.5 secs	C

As noted in the above table, there are more significant impacts on intersection LOS with Alternative 1 than Alternative 2. Removal of one westbound travel lane in Alternative 1 would

increase intersection delay at both 106th Avenue NE and 108th Avenue NE. In Alternative 2, impacts to intersection LOS are only limited to 108th Avenue NE.

In addition to intersection delay, staff assessed the impact of Alternative 1 and 2 on travel time along Main Street. This effort evaluated travel times in both directions from just west of Bellevue Way to just east of 108th Avenue. Compared to existing conditions, travel times in Alternative 1 increased in both directions during the PM peak hour, while travel times in Alternative 2 stayed the same.

Direction	Existing	Alternative 1	Alternative 2
Eastbound (Bellevue Way to 108th)	2.3 mins	2.4 mins	2.3 mins
Westbound (108th to Bellevue Way)	1.7 mins	2.6 mins	1.7 mins