Bus Network Redesign: Design Principles

Project Goals

Make Link BRT a Success

Leverage Capital Investment in Bus Rapid Transit

Design Transit Network around Design Principles

Support major services and travel destinations

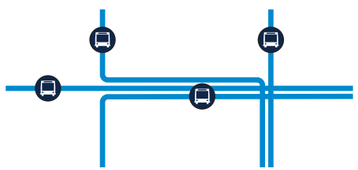
Align with long-term growth plans

Prudent use of taxpayer supported resources

Today vs. Goal

Through public engagement, help determine how far towards the principles on the right of each graph our transit network should demonstrate.

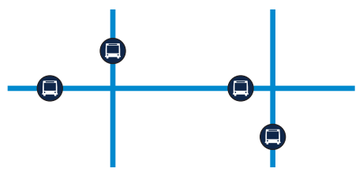
Service Duplication vs. Connective Network



4 Routes **4 Buses**

5.5 km routing

- Buses spread over more routes and more route distance, resulting in lower frequency.
- Streets with multiple routes have uneven gaps between service.
- Fewer transfers are required.



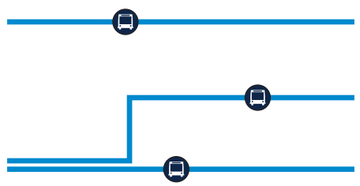
3 Routes **4 Buses**

3.0 km routing

- Buses come more frequently with fewer routes and shorter routing.
- Buses can be scheduled more regularly on busy corridors.
- Transfers may be required for some trips.

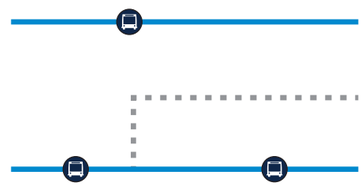
Duplication — Connective

Coverage-Oriented vs. Frequency-Oriented



3 Routes **3 Buses**

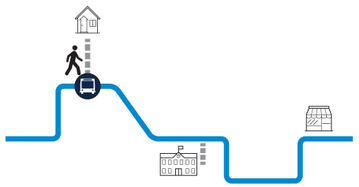
- Buses come less often as there are more routes that need to be served.
- Buses are slower as extra stops need to be added to minimize walk distances.
- Most customers have a shorter walk to a bus stop (<5 min), while many have even less walk distance (<3 min).



2 Routes **3 Buses**

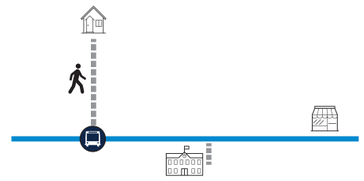
- Buses come more often with fewer routes to serve.
- Buses can get you to your destination faster as there are fewer stops required
- Some customers have a longer walk distance to a stop (5-10 min), but most are still within a short walk (<5 min).

Circuitous Routing vs. Direct Routing



3km routing

- Buses are less frequent because a route takes longer to complete.
- Bus trips take longer because the route is longer.
- Customers have a shorter walk to a bus stop (less than 5 minutes).



2km routing

- Buses are more frequent because the route is faster to complete.
- Bus trips are shorter because the route is shorter.
- Some customers have a longer walk to a bus stop, but most are still within a short walk.
- Buses continue to travel close to places that generate high ridership.

Circuitous Routing — Direct Routing

Peak Period vs. All-Day Travel

- Serves customers travelling at only certain times of day.
- Disproportionate negative impacts for equity seeking groups.
- A car or other mode of transport may be required for trips at other times of day.

- Serves customers travelling at most times of day.
- Better meets the travel needs of equity seeking groups.
- Transit can be used for most trips, reducing the need to own a car or arrange other modes of transport.