

Travel Time Estimates

- Common Assumptions
- Kirkland - Seattle
- Kirkland - Bellevue
- Houghton - Seattle
- Houghton - Bellevue

Common assumptions:

I-405 BRT is built with a station at NE 85th St. (Sound Transit Corridor Study suggested this would only be created as part of a "full" buildout, not the more limited "phased" buildout that is the more plausible model for ST3. However, without a NE 85th St station, I-405 BRT is clearly irrelevant to this area).

For I-405 BRT, there is a connecting service to downtown and also to Houghton. The City has asked for a fixed guideway aerial tram, but it could be bus. For our purposes, only the travel time matters (not getting into the cost implications here). Also the fixed guideway connector wouldn't go to Houghton, so that would have to be bus.

For LRT, Central Kirkland is served by a station east of 6th St S in the Everest neighborhood, as per the corridor study assumptions. Houghton does not have its own station in that study, so the parts of Houghton that aren't within walking distance would need a connector bus. Alternatively, one could think of the travel time impact as added walking time.

LRT connects at Wilburton (Hospital) station, where there is a transfer to East Link. Seattle travel times are to University St (most central station in the DSTT, so as not to favor one bridge over the other). Bellevue travel times are to the downtown station.

I-405 BRT terminates at Bellevue Transit Center. For Bellevue travel, I've assumed that is the terminus. For Seattle travel, I've assumed a walk to nearest East Link station, and onward travel via EastLink to University St.

Detailed timing assumptions overleaf.

DOWNTOWN KIRKLAND – SEATTLE

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| Metro 255 Current Running Time | 41 minutes peak / 34 minutes midday |
| Scheduled from Downtown Kirkland to University St, Seattle | |

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|--|-----------------------------------|
| Downtown Kirkland to Central Seattle via Rail on Corridor with Transfer to Link at Hospital Station | Estimated 53 minutes total |
| Bus or other connector from Downtown Kirkland to Rail Station on CKC at 6 th St Guesstimate | 5 minutes |
| Wait Time at Rail Station 5 minutes based on assumed rail headway of every 10 minutes | 5 minutes |
| Ride from Kirkland Rail Station to Hospital Station in Bellevue Assumed 2 intermediate stations with typical 30 seconds dwell time at each = 1 minutes. Otherwise travel at average 30 mph for 6 miles = 12 minutes. | 13 minutes |
| Wait Time at Hospital Station 4 minutes average wait based on ST planned headway of every 8 minutes | 4 minutes |
| Link from Hospital Station Bellevue to Central Seattle (ST East Link projections). | 26 minutes |

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|--|-----------------------------------|
| Downtown Kirkland to Central Seattle via I-405 BRT with transfer to Link at Bellevue Downtown Station (Only possible if BRT station at NE 85th/I-405) | Estimated 53 minutes total |
| Bus or other connector from Downtown Kirkland to I-405 BRT Station at NE 85th Guesstimate | 5 minutes |
| Wait Time at I-405 Station 5 minutes based on ST Study assumption of 10 minute headways | 5 minutes |
| Ride on I-405 to Bellevue Transit Center Assumed no intermediate stops before Bellevue. Otherwise travel at HOT lane mandated 45 mph for 5 miles (7 minutes) + 1 minute to enter highway at NE 85 th + 2 minutes to exit highway/access transit center in Bellevue. | 10 minutes |
| Walk from Transit Center to Link Station Assumed 4 minutes average wait based on ST planned headway of every 8 minutes | 5 minutes |
| Wait Time at Downtown Station Assumed 4 minutes average wait based on ST planned headway of every 8 minutes | 4 minutes |
| Link from Downtown Station Bellevue to Central Seattle (ST East Link projections). http://www.soundtransit.org/Documents/pdf/projects/eastlink/factsheets/Overview_EL_Factsheet_070111.pdf | 24 minutes |

DOWNTOWN KIRKLAND – BELLEVUE

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| Metro 235 Current Running Time | 27 minutes peak / 23 minutes midday |
| Scheduled from Downtown Kirkland to Bellevue Transit Center | |

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| Downtown Kirkland to Central Bellevue via Rail on Corridor with Transfer to Link at Hospital Station for connection to downtown Bellevue | Estimated 30 minutes total |
| Bus or other connector from Downtown Kirkland to Rail Station on CKC at 6 th St Guesstimate | 5 minutes |
| Wait Time at Rail Station 5 minutes based on assumed rail headway of every 10 minutes | 5 minutes |
| Ride from Kirkland Rail Station to Hospital Station in Bellevue Assumed 2 intermediate stations with typical 90 seconds dwell time at each = 1 minutes. Otherwise travel at average 30 mph for 6 miles = 12 minutes. | 13 minutes |
| Wait Time at Hospital Station 4 minutes average wait based on ST planned headway of every 8 minutes | 4 minutes |
| Link from Hospital Station Bellevue to Downtown Bellevue Guesstimate | 3 minutes |

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|--|-----------------------------------|
| Downtown Kirkland to Bellevue Transit Center via I-405 BRT (Only possible if BRT station at NE 85th/I-405) | Estimated 20 minutes total |
| Bus or other connector from Downtown Kirkland to I-405 BRT Station at NE 85th Guesstimate | 5 minutes |
| Wait Time at I-405 Station 5 minutes based on ST Study assumption of 10 minute headways | 5 minutes |
| Ride on I-405 to Bellevue Transit Center Assumed no intermediate stops before Bellevue. Otherwise travel at HOT lane mandated 45 mph for 5 miles (7 minutes) + 1 minute to enter highway at NE 85 th + 2 minutes to exit highway/access transit center in Bellevue. | 10 minutes |

HOUGHTON BUSINESS CENTER – SEATTLE

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| Metro 255 Current Running Time | 37 minutes peak / 30 minutes midday |
| Scheduled from Houghton Business Center to University St, Seattle | |

| Houghton to Central Seattle via Rail on Corridor with Transfer to Link at Hospital Station | Estimated 51 minutes total |
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| Bus or other connector from Houghton Business Center to Rail Station on CKC at 6 th St Guesstimate | 3 minutes |
| Wait Time at Rail Station 5 minutes based on assumed rail headway of every 10 minutes | 5 minutes |
| Ride from Kirkland Rail Station to Hospital Station in Bellevue Assumed 2 intermediate stations with typical 90 seconds dwell time at each = 1 minutes. Otherwise travel at average 30 mph for 6 miles = 12 minutes. | 13 minutes |
| Wait Time at Hospital Station 4 minutes average wait based on ST planned headway of every 8 minutes | 4 minutes |
| Link from Hospital Station Bellevue to Central Seattle (ST East Link projections). | 26 minutes |

| Houghton to Central Seattle via I-405 BRT with transfer to Link at Bellevue Downtown Station (Only possible if BRT station at NE 85th/I-405) | Estimated 55 minutes total |
|--|-----------------------------------|
| Bus or other connector from Houghton to I-405 BRT Station at NE 85th Guesstimate | 7 minutes |
| Wait Time at I-405 Station 5 minutes based on ST Study assumption of 10 minute headways | 5 minutes |
| Ride on I-405 to Bellevue Transit Center Assumed no intermediate stops before Bellevue. Otherwise travel at HOT lane mandated 45 mph for 5 miles (7 minutes) + 1 minute to enter highway at NE 85 th + 2 minutes to exit highway/access transit center in Bellevue. | 10 minutes |
| Walk from Transit Center to Link Station Assumed 4 minutes average wait based on ST planned headway of every 8 minutes | 5 minutes |
| Wait Time at Downtown Station Assumed 4 minutes average wait based on ST planned headway of every 8 minutes | 4 minutes |
| Link from Downtown Station Bellevue to Central Seattle (ST East Link projections). http://www.soundtransit.org/Documents/pdf/projects/eastlink/factsheets/Overview_EL_Factsheet_070111.pdf | 24 minutes |

HOUGHTON BUSINESS CENTER – BELLEVUE

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| Metro 235 Current Running Time | 23 minutes peak / 20 minutes midday |
| Scheduled from Houghton to Bellevue Transit Center | |

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|--|-----------------------------------|
| Houghton to Central Bellevue via Rail on Corridor with Transfer to Link at Hospital Station for connection to downtown Bellevue | Estimated 30 minutes total |
| Bus or other connector from Houghton to Rail Station on CKC at 6 th St Guesstimate | 5 minutes |
| Wait Time at Rail Station 5 minutes based on assumed rail headway of every 10 minutes | 5 minutes |
| Ride from Kirkland Rail Station to Hospital Station in Bellevue Assumed 2 intermediate stations with typical 90 seconds dwell time at each = 1 minutes. Otherwise travel at average 30 mph for 6 miles = 12 minutes. | 13 minutes |
| Wait Time at Hospital Station 4 minutes average wait based on ST planned headway of every 8 minutes | 4 minutes |
| Link from Hospital Station Bellevue to Downtown Bellevue Guesstimate | 3 minutes |

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| Houghton to Bellevue Transit Center via I-405 BRT (Only possible if BRT station at NE 85th/I-405) | Estimated 22 minutes total |
| Bus or other connector from Houghton to I-405 BRT Station at NE 85th Guesstimate | 7 minutes |
| Wait Time at I-405 Station 5 minutes based on ST Study assumption of 10 minute headways | 5 minutes |
| Ride on I-405 to Bellevue Transit Center Assumed no intermediate stops before Bellevue. Otherwise travel at HOT lane mandated 45 mph for 5 miles (7 minutes) + 1 minute to enter highway at NE 85 th + 2 minutes to exit highway/access transit center in Bellevue. | 10 minutes |