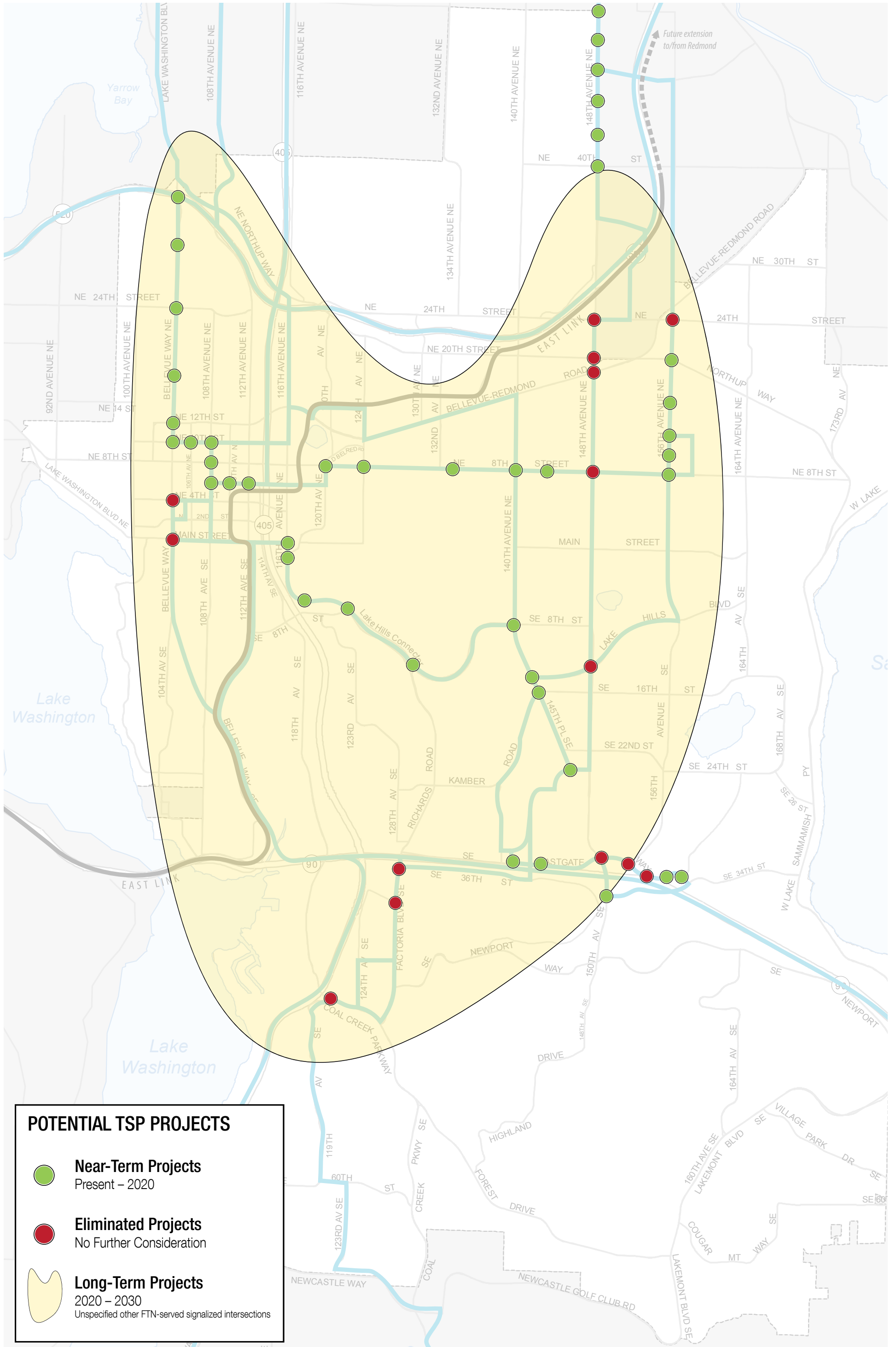


TRANSIT SIGNAL PRIORITY (TSP)

Figure 1 Potential Transit Signal Priority (TSP) Projects.



TRANSIT SIGNAL PRIORITY (TSP)

Table 1 Potential Near-Term TSP Projects.

Project ID	Intersection ID	Cross Streets	FTN Route(s)
TSP110	73	Main St & 116th Ave	13
TSP112	44	Lake Hills Blvd & 145th Pl SE	7, 13, 14
TSP115	315	Lake Hills Connector & I-405 NB off-ramp	13
TSP116	134	Lake Hills Connector & Richards Rd	13
TSP117	71	Lake Hills Connector & SE 8th St	13, 14
TSP118	43	Lake Hills Connector & 140th Ave SE	13, 14
TSP119	45	Kamber Rd & 145th Pl SE	7, 13, 14
TSP122	327	Eastgate Way & 140th Ave SE	7, 13, 14
TSP123		SE Eastgate Way & Eastgate P&R Entrance	13
TSP124	91	Eastgate Way & 160th Ave SE	13
TSP125	92	Eastgate Way & 161st Ave SE	13
TSP136	213	Belleuve Way NE & SR-520 SPUI	1
TSP137	69	Belleuve Way NE & NE 24th Ave	1
TSP138	5	Belleuve Way NE & NE 12th Ave	1
TSP144	136	Belleuve Way NE & 2900 Block Crosswalk	1
TSP145	137	Belleuve Way NE & 1700 Block Crosswalk	1
TSP146	6	Belleuve Way NE & NE 10th Ave	1
TSP152	154	NE 10th St & 106th Ave NE	1
TSP156	190	NE 10th St & 108th Ave NE	1, 5
TSP159	21	NE 8th St & 108th Ave NE	1, 5
TSP160	35	NE 8th St & 124th Ave NE	6
TSP161	41	NE 8th St & 140th Ave NE	6, 14
TSP162	63	NE 8th St & 156th Ave NE	6, 12
TSP163	33	NE 8th St & 120th Ave NE	6
TSP164	288	NE 8th St & 13300 Block Crosswalk	6
TSP165	46	NE 8th St & 143rd Ave NE	6
TSP167	126	NE 6th St & 108th Ave NE	1, 2, 5, 6
TSP168	107	NE 6th St & 112th Ave NE	2, 6
TSP170	124	NE 6th St & 110th Ave NE	2, 6
TSP184	54	SE 24th St & 145th Pl SE	7, 12, 13
TSP188	131	116th Ave SE & SE 1st St	13
TSP190	287	148th Ave NE & NE 60th St	7, 12
TSP191	249	148th Ave NE & NE 51st St	7, 12
TSP192		148th Ave NE & NE 4200 Block	12
TSP197		148th Ave NE & NE 5600 Block	7, 12
TSP198		148th Ave NE & NE 46th St	12
TSP199	79	148th Ave NE & NE 40th St	12
TSP203	227	150th Ave SE & SE 37th St	13
TSP205	62	156th Ave NE & Northup Way	7
TSP206	70	156th Ave NE & NE 13th St	7
TSP208	66	156th Ave NE & NE 15th St	6, 7
TSP209	67	156th Ave NE & NE 10th St	7

Table 2 Potential TSP Projects Eliminated From Further Consideration.

Original Project ID	Intersection ID	Cross Streets	FTN Route(s)
TSP102	9	Main St and Bellevue Way	3, 11
TSP103	51	Lake Hills Blvd and 148th Ave SE	7, 12
TSP106a	101	SE Eastgate Way and 150th Ave SE	13
TSP106b	86	SE Eastgate Way and 156th Ave SE	3, 6
TSP106c	90	SE Eastgate Way and 158th Ave SE	3, 6
TSP107	223	Coal Creek Pkwy SE and 119th Ave SE	11
TSP109	8	Belleuve Way NE and NE 4th St	3, 6
TSP112		NE 8th St and 148th Ave NE	6, 12
TSP115a	204	Factoria Blvd and SE 36th St	7, 11
TSP115b	222	Factoria Blvd and SE 38th St	7, 11
TSP120a	81	148th Ave NE and NE 24th St	12
TSP120b	47	148th Ave NE and NE 20th St	12
TSP120c		148th Ave NE and Bel-Red Rd	12
TSP122	61	156th Ave NE and NE 24th St	7

What is Transit Signal Priority?

Transit signal priority (TSP) is an operation that adjusts signal timing to prioritize transit vehicle movements along a corridor. There are several types of signal priority treatments, with green extension and early green (see Figure 2 above) used most commonly. Intersection context and city policy have a significant impact on the speed and reliability benefits that TSP can provide to transit. Arterials with medium levels of congestion and frequent signalized intersections are ideal for TSP. Other priority treatments, such as queue jump lanes, are often paired with TSP to improve overall effectiveness. Upgrades to signal controllers and fiber communication lines are often necessary for implementation of active TSP strategies, which King County Metro will not likely be able to install prior to 2018.

Where is TSP Being Considered in Bellevue?

Potential transit signal priority (TSP) projects were initially being considered at all signalized intersections through which 2030 Frequent Transit Network (FTN) routes will operate. Following the completion of early feasibility screening, potential transit signal priority (TSP) projects were then divided into three groups. The first, shown in Table 1, are near-term projects that will be pursued through 2020. These represent all signalized intersections that are served by existing Route 271 (FTN Routes 1 and 13) and the RapidRide B Line (FTN Routes 6 and 7) that have not been eliminated by early feasibility screening. While TSP has already been deployed on some intersections served by the B Line, near-term projects along NE 8th St, 156th Ave NE, and 148th Ave NE would complete implementation associated with that route.

The second group of projects (see Table 2) are those that have been eliminated from further consideration following early feasibility screening. Twelve intersections for which potential signal projects were identified have been eliminated based on known signal and/or roadway limitations, and two additional intersections were removed by consultants.

The final group of potential TSP projects are those that may be pursued between 2020–2030. This group includes an unspecified number of the remaining signalized intersections served by 2030 FTN routes. If transit efficiency and reliability were the only two considerations necessary in determining where TSP should be deployed—that is, if cost were no object, impacts to other travel modes were deemed insignificant, and no technical limitations existed on where TSP could be deployed—then TSP might reasonably be pursued at all or most of these signals. However, this is of course not the case, as all of these other factors are also critical considerations in determining where transit priority can and should be implemented. Therefore, the specific projects that may be included in this group will not be identified until after 2020, after Metro has identified its anticipated capacity to expand its TSP capabilities.

Figure 2 Signal operations with early green TSP.

