Improved Mobility and Connectivity

130.502NA Title: New Infrastructure Maintenance and Operations

2020 2019 **Department:** Transportation \$682,443 \$1,056,819

> FTE: 0.00 0.00

Ranking **Budget:** 0

> This proposal funds the needed operations and maintenance of new infrastructure built in Bellevue. Infrastructure includes new roadways, turn lanes, traffic signals, street lights, traffic cameras, flashing crosswalks, sidewalks, signs, pavement markings, landscaping/trees, fiber optics, etc. New transportation infrastructure is added through projects funded by the CIP, Levy, Development Projects, and Regional Projects (Metro/ST/WSDOT/etc.). The needed new funding is calculated by analyzing individual projects for the type of infrastructure they are adding-each type has an annual maintenance cost, and the individual costs are rolled up to caluculate the annual need. Funding is assigned to the appropriate line items in the Traffic Management budgets. To deliver new infrastructure maintenance & operations (NIMO), we plan to use a contracting approach to keep needed new labor staff lower; however, using NIMO to fund FTE's is anticipated to be needed and justified as outlined in Section 3.

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	<u>2018</u> <u>Target</u>	<u>2019</u> <u>Target</u>	<u>2020</u> <u>Target</u>
Cost per sq ft for Roadway Repaired (By staff, labor, materials, equip))	Years	\$13.20	\$12.28	\$14.70	\$15.06	\$15.43
Number of potholes repaired (per each)	Years	236	307	300	300	300
Number of street miles swept (lane miles serviced)	Years	4,855	3,388	6,042	6,042	6,042
Street lights relamped	Years	525	514	400	400	400
Preventative maintenance program completion	Years	89%	94%	90%	95%	95%

130.31NA

Title: **Traffic Signal Maintenance**

Department: Transportation Ranking

2019 2020 **Budget:** \$1,364,049 \$1,432,453 FTE: 8.50 8.50

1

This proposal will continue to maintain the City's 202 traffic signals and associated systems (1,574+ assets), including standby for after-hour response. It also provides City and regional project review and coordination, as well as One-Call locating services as mandated by law. This proposal coordinates closely with Signal Operations and Engineering and Intelligent Transportation Systems staff to provide high quality traffic operations and associated facilities to Bellevue. Staff dedicated to signal system field maintenance has remained relatively constant since the early '90's; however, since that time the number of traffic signals has grown from 110 to 202, and assets from 400 to 1,574. Accordingly, the maintenance program now replaces certain "high value" assets on a set schedule (EERF program), reducing unscheduled failures. This strategy has enabled Bellevue to reduce the number of traffic interrupting failures to the signal system despite status quo staffing allocations.

Improved Mobility and Connectivity

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	2019 Target	2020 Target
Traffic signal maintenance staff	Years	7	7	7	7	7
Traffic signals	Years	198	200	203	210	216
Total signal assets	Years	1,637	1,574	1,600	1,650	1,700
Preventative maintenance program completion	Years	89%	94%	90%	95%	95%
Intersection safety checks	Years	102	124	160	175	189
Annual hours providing underground facility Locating services (one-call locates)		918	447	1,000	1,000	1,000
Annual requests for underground facility locating services (one-call locates)	Years	17,876	19,280	20,000	20,000	20,000
Number of Locates Actually Requiring a Response	Months	N/A	N/A	800	800	800
Total Number of Locates Performed (each)	Years	794	261	750	750	750

130.24NA

Title: Signal Operations and Engineering

Ranking

2

 Department: Transportation
 2019 Budget:
 2020 \$498,210
 \$521,339

 FTE:
 3.00
 3.00

This proposal provides citywide signal timing, Traffic Management Center (TMC) operations, traffic signal engineering, signal timing complaint investigation/response, response to traffic camera video requests, street light engineering and design, signal and lighting standards and specifications, emergency management support, ADA upgrades for traffic signals, and management of emergency vehicle preemption (EVP) upgrades. Traffic signal operations utilizes Intelligent Transportation Systems elements such as a traffic surveillance camera system and the Sydney Coordinated Adaptive Traffic System to significantly increase system efficiency. The street light engineering utilizes new LED technology for cost savings and carbon footprint reduction. Traffic simulation modeling is supported for the assessment of proposed roadway changes and mitigations for major projects. Daily signal operations are performed to address blocking incidents, road construction, holidays, and special event traffic.

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	2019 Target	2020 Target
PM peak delay reduction from signal coordination	Years	11%	11%	11%	11%	11%
Signal timing requests from public reviewed/responded	Years	219	192	150	150	150
New LED street lights installed	Years	1,264	220	200	200	200
Cumulative energy reduction from efficiency measures (kWh)	Years	982,522	1,105,725	1,350,000	1,600,000	1,700,000
Audible pedestrian signals	Years	73%	78%	80%	85%	90%
Percent of Emergency Vehicle Preemption using GPS Technology	Months	36%	43%	50%	60%	70%

Improved Mobility and Connectivity

130.22NA Title: Transportation System Maintenance (Non-Electric)

Department: Transportation

\$3,894,703 **Budget:** \$4,176,703

19.50 19.50 FTE:

2019

2020

Ranking 3

> The transportation system requires maintenance and repair services to increase the safety of motorized and pedestrian/bicycle users, improve traffic flow, reduce collisions, claims, and associated injuries and prolong the system's useful life. This proposal maintains the significant investments Bellevue has made in its streets, sidewalks, and bike lanes; and, provides response to immediate safety issues such as potholes, accident debris, blocking vegetation, hazardous trees, and tripping hazards. Support for after-hour maintenance needs is also included. Our roadway infrastructure is aging and repair needs are increasing, and this proposal supports advancing mobile workforce and asset tracking efforts to gain capacity and efficiency without new staff. The 2018 Budget Survey indicates maintenance of existing streets and sidewalks as the 6th most important of 39 services.

Performance Measure	<u>Frequency</u>	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	<u>2018</u> <u>Target</u>	<u>2019</u> <u>Target</u>	2020 Target
Percent of potholes filled within 24 hours of notice	Years	97.60%	100%	97%	97%	97%
Percent of critical sign emergency calls responded to within 1 hour	Years	85.20%	66.70%	95%	95%	95%
Cost per sq ft for Roadway Repaired (By staff, labor, materials, equip))	Years	\$13.20	\$12.28	\$14.70	\$15.06	\$15.43
Number of potholes repaired (per each)	Years	236	307	300	300	300
Street Maintenance-Related Claims Received	Years	15	29	20	20	20
Percent of Transportation Asset Types in Maximo System with GIS Location Data	Years	0%	0%	75%	75%	75%
Number of Completed Projects Closed Out with GIS Asset Data added to Maximo	Years	5	0	20	20	20
Number of Street Maintenance External Customer Requests	Years	2,446	4,242	1,500	1,500	1,500
Percent of Vegetation-related Sight Line Complaints - Response Within 24-Hours	Years	83.67%	88.10%	93%	93%	93%

Improved Mobility and Connectivity

130.07DA Title: East Link Overall

Ranking Department: Transportation 2019 Sudget: \$866,681 \$907,034

FTE: 5.00 5.00

4

This proposal enables continued City involvement in the East Link light rail project. East Link is a voter approved \$2.8 billion extension of light rail that will connect Bellevue with Overlake, Mercer Island and Seattle. It will support the continued growth and development of the Downtown and the redevelopment of the Wilburton and Bel-Red areas. In 2011 the City and Sound Transit (ST) entered into a Memorandum of Understanding (MOU) and an Amended MOU in 2015. The Amended MOU commits the City and Sound Transit to project delivery elements to advance design and construction of the East Link Light Rail and Bel Red Operations and Maintenance Satellite Facility (OMSF). It created a Collaborative Design Process to facilitate resolution of issues and advance the project; and a Collaborative Construction Program to advance construction. This project is a major focus for the City Council and broader community.

Performance Measure	<u>Frequency</u>	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	2019 Target	2020 Target
Percent of residents who agree that the city is doing a good job of planning for growth in ways that will add value to their quality of life	Years	74%	72%	80%	80%	80%

130.33NA

Title: Transportation CIP Delivery Support

Ranking **Department:** Transportation

2019 2020 Budget: (\$1,834,050) (\$1,771,692) **FTE:** 29.44 29.44

5

Public surveys continue to identify transportation concerns as high on the list of issues that affect perceptions about quality of life in Bellevue. This proposal funds the core functions needed to deliver Transportation Capital Investment Program (CIP) projects and programs in a cost-effective, timely, and efficient manner. Core CIP functions reflect the work needed to take transportation capital projects from proposal to reality: pre-design activities, preliminary and final engineering design, project management, construction management, contract administration, construction inspection, construction materials testing, financial management, and CIP public involvement. It also funds projects/programs that coordinate with WSDOT, King County and other adjacent jurisdictions on regional transportation opportunities. Projects/programs cover the spectrum of system benefits - capacity improvements, safety, maintenance and multi-modal projects.

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	2019 Target	2020 Target
Total percentage variance of actual construction costs from the original construction contract	Years	-1.10%	-7.10%	6%	6%	6%
Design cost at bid award as percentage of contract cost	Years	20%	22%	22%	22%	22%
Construction engineering labor cost as percentage of contract cost	Years	29%	30%	10%	10%	10%

Improved Mobility and Connectivity

130.11NA Title: Smart Mobility (Intelligent Transportation Systems ITS)

 Department: Transportation
 2019
 2020

 Budget:
 \$976,893
 \$1,022,680

FTE: 6.00 6.00

Ranking 6

This proposal provides maintenance and operations for existing Smart Mobility (aka Intelligent Transportation Systems - ITS) programs and devices, and planning and design efforts for future Smart Mobility technologies. Smart Mobility is Bellevue's program to add new mobility options and intelligence and communication technology to transportation infrastructure to provide a higher level of mobility and information to all roadway users. This program was recently expanded to include development of partnerships to support emerging automated, connected, electric and shared vehicle technology. This program supports the City's goal of becoming a truly "Smart City" through the efficient management and integration of all City functions. Smart Mobility solutions such as the state of the art SCATS (Sydney Coordinated Adaptive Traffic System) signal system provide gains in system wide efficiency without widening roads, and thus have a very high benefit to cost ratio.

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	2019 Target	<u>2020</u> <u>Target</u>
SCATS flashing yellow arrow delay reduction value	Years	\$4,250,000	\$4,450,000	\$4,250,000	\$4,250,000	\$4,250,000
Traffic cameras (network/digital)	Years	38%	41%	45%	52%	60%
Speed Feedback Signs	Years	48	55	52	54	56
SCATS total delay reduction value estimate	Years	\$10,625,000	\$11,125,000	\$10,500,000	\$10,500,000	\$10,500,000

130.14NA

Title: Modeling and Analysis Core Functions

Ranking C

Department: Transportation

2019 2020 Budget: \$604,972 \$633,579

FTE: 4.00 4.00

7

This proposal seeks funding for travel demand forecasting and analysis support provided for multiple City departments and, through a longstanding partnership agreement, for the Cities of Kirkland and Redmond. The program provides data and analytical support for the City's critical transportation planning and engineering functions such as evaluating proposed new developments to determine concurrency, assessing land use and emerging technology impacts on the transportation system, identifying multi-modal improvement options to support the city's continued economic development, and prioritizing safety projects to meet the City's safe community objectives.

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	2019 Target	<u>2020</u> <u>Target</u>
Percent of development projects reviewed for concurrency within two weeks of submittal by Development Review staff	Years	100%	100%	100%	100%	100%
% of System Intersections operating better than the traffic standard	Years	90%	90%	85%	85%	85%
% of Mobility Management Areas expected to meet the concurrency standard in 6 years	Years	100%	100%	100%	100%	100%

Improved Mobility and Connectivity

130.85DA Title: **Pavement Management**

Department: Transportation Ranking

Budget: \$186,358 \$197,533 FTE: 3.50 3.50

2019

2020

2020

8

This proposal is to provide funding for 3.5 FTEs for the design, management, implementation, and inspection of the Pavement Management Program (PMP). The use of a PMP is required per RCW 46.68.113 and WAC 136-320. The program is responsible to ensure that all City roads are maintained and resurfaced at the most cost-effective time and condition. Adjacent sidewalk wheelchair ramps must also meet accessibility requirements under the Americans with Disabilities Act (ADA). Adjacent curb/sidewalk repairs, along with non-standard ramps, are replaced with the street overlay. This program is also responsible to assure that all City bridges are inspected and maintained as required by the Federal Highway Administration's National Bridge Inspection Standards.

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	<u>2019</u> <u>Target</u>	<u>2020</u> <u>Target</u>
Average pavement rating across the arterial roadway system	Years	79	78	78	78	78
Average pavement rating across the residential roadway system	Years	81	79	76	76	76
Percent of bridges with a federal sufficiency rating of "Good" or "Excellent"	Years	100%	100%	100%	100%	100%

130.36NA

Transportation Implementation Strategies

Ranking

Department: Transportation

2019 **Budget:** \$1,067,710 \$1,063,999 FTE: 4.50 4.50

9

Develop short- and mid-range transportation facility plans and funding strategies that identify, prioritize, and implement multi-modal capital improvement projects, operations and maintenance programs, and efficiency-enhancing transportation demand management (TDM) programs. Outcomebased criteria for improved mobility and connectivity (along with community engagement processes) are employed to ensure the transportation sections of the funded 7-year Capital Investment Program (CIP) Plan, the state statute-required 6-year local Transportation Improvement Program (TIP), and the City Code-required 12-year Transportation Facilities Plan (TFP) are updated and administered as required. The work program includes development and administration of the department's external funding programs including developer impact fees, state and federal grants, and interagency or publicprivate partnerships.

Improved Mobility and Connectivity

Performance Measure	<u>Frequency</u>	<u>2016</u> <u>Actual</u>	2017 Actual	2018 Target	<u>2019</u> <u>Target</u>	2020 Target
Percent of Mobility Management Areas (MMAs) meeting level of service and concurrency standards	Years	100%	100%	100%	100%	100%
Percent of Transportation CIP supported by nonlocal revenue sources	Years	21%	26%	15%	15%	15%
Ratio of biennia grant awards to 10-year biennial average (2016/17 target was \$7.7 million; 2018 target is \$11.5 million	Years	2.88	2.88	1	1	1
Ratio of annual Transportation Impact Fee revenue collected to adopted budget	Years	0.21	0.23	1	1	1
Percent of workers in Bellevue commuting by a non-drive-alone mode (5-year average, 1-year lag)	Years	26.60%	27%	30%	30%	31%
Percent of Bellevue residents commuting by a non-drive-alone mode (5-year average, 1-year lag)	Years	34.10%	34.90%	38%	38%	39%

130.13NA

Title: Long-Range Transportation Planning

Ranking

10

 Department: Transportation
 2019 Budget:
 2020 \$482,079
 \$503,408

 FTE:
 4.00
 4.00

This proposal advances policy direction in the Comprehensive Plan to plan and build a multi-modal transportation system that provides equitable mobility, supports economic vitality, sustains community character, and enhances personal safety and overall public health. Transportation planners identify emerging trends, engage the community in decision making, and prepare and implement strategies to ensure that people have access to mobility options that suit their needs and means. Planners develop policy recommendations, manage and support subarea planning and corridor studies, lead transportation facility planning and manage CIP resources to design and build projects that improve safety, access and connectivity. Planners coordinate with public officials, City departments, community groups, business organizations, and agencies to ensure that transportation strategies support the City's vision for mobility and align with regional plans.

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	<u>2018</u> <u>Target</u>	2019 Target	<u>2020</u> <u>Target</u>
Percent of residents who agree that Bellevue is doing a good job of planning for and implementing a range of transportation options	Years	75%	70%	70%	70%	70%
Percent of residents who agree that the city is doing a good job of planning for growth in ways that will add value to their quality of life	Years	74%	72%	80%	80%	80%
Average weekday transit boardings and alightings (citywide)	Years	57,430	60,000	65,000	68,000	70,000
Connectivity of trails and walkways - linear feet completed (sidewalks, on-street bike facilities, off-street bike facilities and trails)	Years	35,022	61,899	55,000	65,000	75,000

Improved Mobility and Connectivity

130.04NA Title: **Department Management and Administration**

2019 2020 **Department:** Transportation Ranking **Budget:** \$1,910,675 \$1,978,788

11 FTE: 11.21 11.21

> This proposal provides funding for strategic leadership on transportation issues within the organization and region, manages and/or provides oversight over all lines of department business, and provides general administrative and financial support to the Department. These resources benefit all functions within the Department logically lending themselves to a single proposal for management and administration.

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	2019 Target	2020 Target
Percentage of residents that agree or strongly agree that improving transportation is the biggest problem in the city	Years	42%	44%	50%	50%	50%
Variance between Q2 GF expenditure projections and year end actuals	Years	0.28%	0.71%	1%	1%	1%
Variance between Q2 GF revenue projections and year end actuals	Years	1.42%	2.49%	3%	3%	3%
Number of audit exit items related to best practices/standards requiring follow-up as noted from local, state, and federal audits	Years	0	0	0	0	0
When possible, decision making and ownership are given to employees doing the actual work in my Department	Years	N/A	3.8	4	4	4

130.30NA

12

Traffic Safety and Engineering

Department: Transportation Ranking

2020 2019 **Budget:** \$1,619,025 \$1,697,975 FTE: 12.80 12.80

This proposal funds traffic engineering services to ensure the operation of a safe and efficient transportation system for all users. Proposal staffing operates and implements projects from arterials to neighborhood streets, with a focus on traffic operations, safety, connectivity, construction of walking/biking facilities, crosswalks, and traffic calming. Staff also provide engineering support to regional, capital programming, planning and development projects. This proposal supports Council priorities of transportation projects in neighborhoods, focusing on safety, connectivity, congestion relief, and traffic calming. Bellevue voters also support these projects, approving the transportation levy in 2016 to address project backlogs in these areas. Using Vision Zero/Complete Streets as guiding principles, staff develop programs and projects that work to educate users, reduce serious injuries, increase neighborhood livability, and advance pedestrian/bike/transit mobility.

Improved Mobility and Connectivity

Performance Measure	<u>Frequency</u>	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	2019 Target	<u>2020</u> <u>Target</u>
Annual public cost savings from collision reduction projects	Years	\$3,850,000	\$5,100,000	\$5,100,000	\$5,200,000	\$5,300,000
Percent of requests reviewed/responded to with recommendation within 6 weeks	Years	55%	52%	80%	80%	80%
Number of projects designed and/or constructed per year	Years	34	46	25	30	30
Number of Customer Concerns	Years	535	510	200	200	200
Number of vehicle, ped and bicycle disabling injuries and fatalities	Years	24	20	13	12	12

130.35NA

Title: Emergency Management/Preparedness for the Transportation System

Ranking

13

2019 2020 **Department:** Transportation **Budget:** \$371,872 \$387,131 FTE: 2.00 2.00

This proposal provides equipment, training, preparedness plans, and material stock for transportation system emergencies such as snow and ice storms, windstorms, and earthquakes. This includes equipment preparation, developing and updating emergency response priority maps, detour route information and signage, and stocking traction sand, anti-icer, and de-icer. Also included are regular updates to emergency management plans and procedures, emergency response training and exercises, emergency management team meetings (both departmental and citywide), weather monitoring, and other activities contributing to preparedness. An average amount of small-scale loadup, ice patrol, and hilltop snow response or ice prevention is included. Funding for full-scale event response including interdepartmental staffing, overtime, support, and materials is not included in this proposal.

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	2019 Target	<u>2020</u> <u>Target</u>
Workload and call tracking are monitored for each event and positive feedback received from the community and City Council	Years	100%	100%	100%	100%	100%
Stock is on hand, staff trained and equipment ready for ice and snow and winter storms by November 15 of each year	Years	100%	100%	100%	100%	100%
Sufficient store of materials for the first 48 hours of an event	Years	100%	100%	100%	100%	100%
Preventable equipment breakdowns in the first 12 hours of the event	Years	0	0	0	0	0
Annual Total of Lane Miles Requiring Anti-icing Application	Years	495	891	900	900	900

Improved Mobility and Connectivity

130.06NA Title: Transportation Drainage Billing

Ranking

Department: Transportation

2019 2020 Budget: \$4,457,240 \$4,749,413

0.00

FTE: 0.00

14

This proposal is for funds for the Transportation Department to pay for storm drainage from Bellevue's roadways to the City's Stormwater Utility. This system manages runoff from impervious surfaces to prevent flooding, and to preserve existing streams and wetlands, keeping them free from pollutants. Transportation owns over 120,000,000 sq ft of impervious streets. Transportation is billed for 26.5% of the surface as lightly developed (medians, plantings, etc). The other 73.5% is billed as heavily developed. Heavily developed properties have much greater runoff and are charged at a higher rate. These calculations have been determined to take credit for detention systems into account.

Performance Measure	Frequency	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	2018 Target	2019 Target	<u>2020</u> <u>Target</u>
Storm Drainage Bill Paid	Years	Yes	Yes	Yes	Yes	Yes

 Total:
 2019
 2020

 Budget:
 \$17,148,860
 \$18,557,162

 FTE:
 113.45
 113.45