# 8 Transportation

## 8.1 Introduction

The Transportation Element describes how people will get around in the future. It describes the street, sidewalk, and transit improvements needed over the next 20 years, identifies the cost of making the improvements, and explains how they will be paid for.

In the past, much of the City's growth occurred on undeveloped sites and the City gradually expanded to incorporate new land. Transportation needs were met by directing traffic to a small number of streets and increasing the size and capacity of a few key corridors, notably Burlington Boulevard. This strategy is no longer viable. Future growth will largely be accommodated through infill and redevelopment, resulting in a more mixed and higher density pattern of development. Accommodating these changes will require a more adaptable and well connected transportation system.

Over time focus will be shifted to eliminating gaps in the street network, reducing travel distances, and making it easier to walk, bicycle, or ride the bus. The City's land use policies will also be changed to increase the amount of development occurring in centrally located areas near commercial services. Overall these changes are intended to meet the City's transportation needs in a cost effective manner, enhance the economy by accommodating new forms of development, and improve the health and safety of those living and working in Burlington.

The primary objectives of the Transportation Element can be summarized as follows:

- **Convenience and access.** New connections will be constructed to provide access to isolated parts of the City and provide redundancy. New development will contribute to, and become a part of, the City's street network. Over time these changes will reduce the distance between where people are, and where they want to go.

- **Supporting new forms of development.** Transportation and land use plans will work together to bring people and destinations closer together. Land use changes will be made to promote a greater mix of commercial and residential uses. Transportation improvements will facilitate the City's land use plan and make Burlington a more attractive place to live and do business.

- **Reducing costs.** The City will maintain its transportation system in a financially sustainable way. Ongoing maintenance expenses will be considered when making new investments. Individual household expenses related to transportation will be minimized by reducing the distance people must travel and by making it possible to drive less or own fewer cars.

# 8.2 Current Conditions

### 8.2.1 Streets and Sidewalks

There are approximately 56 miles of roadway within the Burlington Urban Growth Area, including 5 miles of state highways, 35 miles of city streets, and 21 miles of county road and private streets. Of this total approximately 48 miles are located within the City of Burlington, with the balance located in the unincorporated UGA. City streets are classified into four groups depending on their characteristics and intended purposes. These groups include:

- Major/Principal Arterials (1.86 miles)
- Secondary/Minor Arterials (5.59 miles)
- Collector Arterials (9.7 miles)
- Local Access Streets (17.85 miles)

Currently only 36 percent of the City's street network consists of streets with fully improved right-of-way, including curbs, gutters, sidewalks on both sides, and storm-water infrastructure. Approximately one third of Burlington's streets have only limited improvements and 32 percent have no curbs, sidewalks, or formal storm-water infrastructure. There are no streets in the unincorporated UGA that are improved to urban standards; however, Lafayette Road is currently being improved from Monroe Street to the Skagit County Housing Authority's property at Farmview Lane.

**Table 8.1 - Existing Road and Sidewalk Conditions**

| | Municipal Boundaries | Unincorporated UGA |
|---|---|---|
| **Fully Improved** | 17.38 miles (36%) | 0.0 miles |
| **Limited Improvements** | 14.9 miles (31%) | 1.36 miles (16%) |
| **Pavement Only** | 15.27 miles (32%) | 6.54 miles (79%) |
| **Unimproved (dirt or gravel)** | 0.20 miles (1%) | 0.38 miles (5%) |
| **Total:** | **47.75 miles** | **8.28 miles** |

How well a street network functions is to a large degree determined by how well connected it is. A street system with a high level of connectivity will allow shorter trips and more redundancy in the event a route is blocked. A street system comprised of a high density of streets which connect at regular, and frequent, intervals will have a high level of connectivity. Alternatively, dead ends, cul-de-sacs, and looping streets contribute to poor connectivity.

Burlington's historic downtown area has the highest level of connectivity in the City and is characterized by a uniform pattern of small blocks measuring 330' X 220'. The level of street connectivity in the Commercial Core and Northern Gateway growth areas varies dramatically. Importantly Burlington Boulevard is the only continuous corridor in this area making transportation in the most intensively developed portion of the City prone to disruption. Also, the Burlington Northern right-of-way is a significant barrier to east-west travel, resulting in poor connectivity between the residential areas east of the rail line and the commercial areas along

Burlington Boulevard. The outlying areas of the City and the unincorporated UGA have the lowest levels of connectivity.

While the City's transportation system functions relatively well, limited areas of heavy traffic exist. Currently level of service (LOS) "C" is used for all City streets, except Burlington Boulevard, where LOS D is used. State Highways are managed by the Washington State Department of Transportation and are subject to a LOS standard of "D". The City is required to assess traffic conditions on State Highways but is not responsible for ensuring that LOS standards are maintained.

There are four intersections that do not meet current LOS standards, three of which are located along Highway 20 and are controlled by the Washington State Department of Transportation. The intersection of South Spruce Street and Rio Vista Avenue is controlled by the City an currently operates a LOS "D". This plan envisions lowering the LOS standard city-wide from "C" to "D", which will eliminate this deficiency.

### 8.2.2 Non-Motorized Transportation

While only partially complete the City's non-motorized transportation system includes a number of important routes. A paved multi-use path parallels the Old Highway 99/Burlington Boulevard corridor and extends from the Burlington Edison High School to the municipal boundary at Gear Road. This path connects the Burlington Edison High School to the Chuckanut Transit Station and may ultimately connect to regional path along State Route 20. The Tami Wilson Trail provides the only non-motorized crossing of I-5. It begins near the Cascade mall and follows Gages Slough a short distance before terminating at Steven Road. Another important non-motorized route is the SR-20 path which begins in Lions Park near Anacortes Street and extends past the municipal boundary, ending at District Line Road.

The current condition of the City's non-motorized facilities is not sufficient to meet level of services standards.

| Table 8.2 - Non-Motorized Facilities | | | |
|---|---|---|---|
| **Name/Location** | **Type** | **Length** | **Comments** |
| **Highway 99/ North Burlington Boulevard Path** | Multi-Use Path | 1.07 miles | • Paved surface<br>• Connects to transit station and high school |
| **Burlington Edison High School Trail** | Multi-Use Path | 0.7 miles | • Connects to Hwy 99/Burlington Blvd Path<br>• Owned by School District |
| **Tammi Wilson/Gages Slough** | Multi-Use Path | 0.4 miles | • Paved surface<br>• Crosses I-5 |
| **SR-20 Trail** | Multi-Use Path | 0.83/1.7 miles (city/total) | • Paved surface<br>• Extends from Anacortes Street past City limits to District Line Road<br>• Connects to Dike Trail |
| **Dike Trail** | Multi-Use Path | 1.5/2.69 miles (city/total) | • Gravel Surface<br>• Connects to Skagit River park<br>• Owned by Dike District |
| **Lucille Umbarger Path** | Multi-Use Path | 0.58 miles | • Gravel/grass surface<br>• Mixed ownership<br>• Connects school, Rotary Park, Skagit River Boat Launch, and Dike Trail |
| **Sharon Street Path** | Multi-Use Path | 0.05 miles/254 feet | • Gravel surface<br>• Unopened right-of-way<br>• Connects to Anacortes Street<br>• Provide route to School |
| **Section Street Bike Lane** | Bike Lane | 0.25 miles | • Connects to Rio Vista Bike Lane |
| **Rio Vista Bike Lane** | Bike Lane | 0.25 miles | • Connects to Section Street Bike Lane |
| **Garrett Road Bike Lane** | Bike Lane | 0.20 miles | |

### 8.2.3 Transit Service

The Skagit Area Transit (SKAT) operates 19 bus routes, including six local routes, three commuter routes, and six primarily rural routes. Four routes originate in, or pass through, the City of Burlington, including route 80X which provides express commuter service from Bellingham to Mount Vernon, route 208 which connects Burlington and Mount Vernon and provides service along the Burlington Boulevard/Riverside Drive corridor, and routes serving the Anacortes and Sedro Woolley. Chuckanut Station, which includes a park and ride facility is a major hub for transit service in the City and provides convenient access to downtown Burlington and the Burlington Edison High School. SKAT route 208, which serves the Burlington Boulevard corridor, is the most productive bus route in county and accounts for nearly 24 percent of SKAT's total ridership.

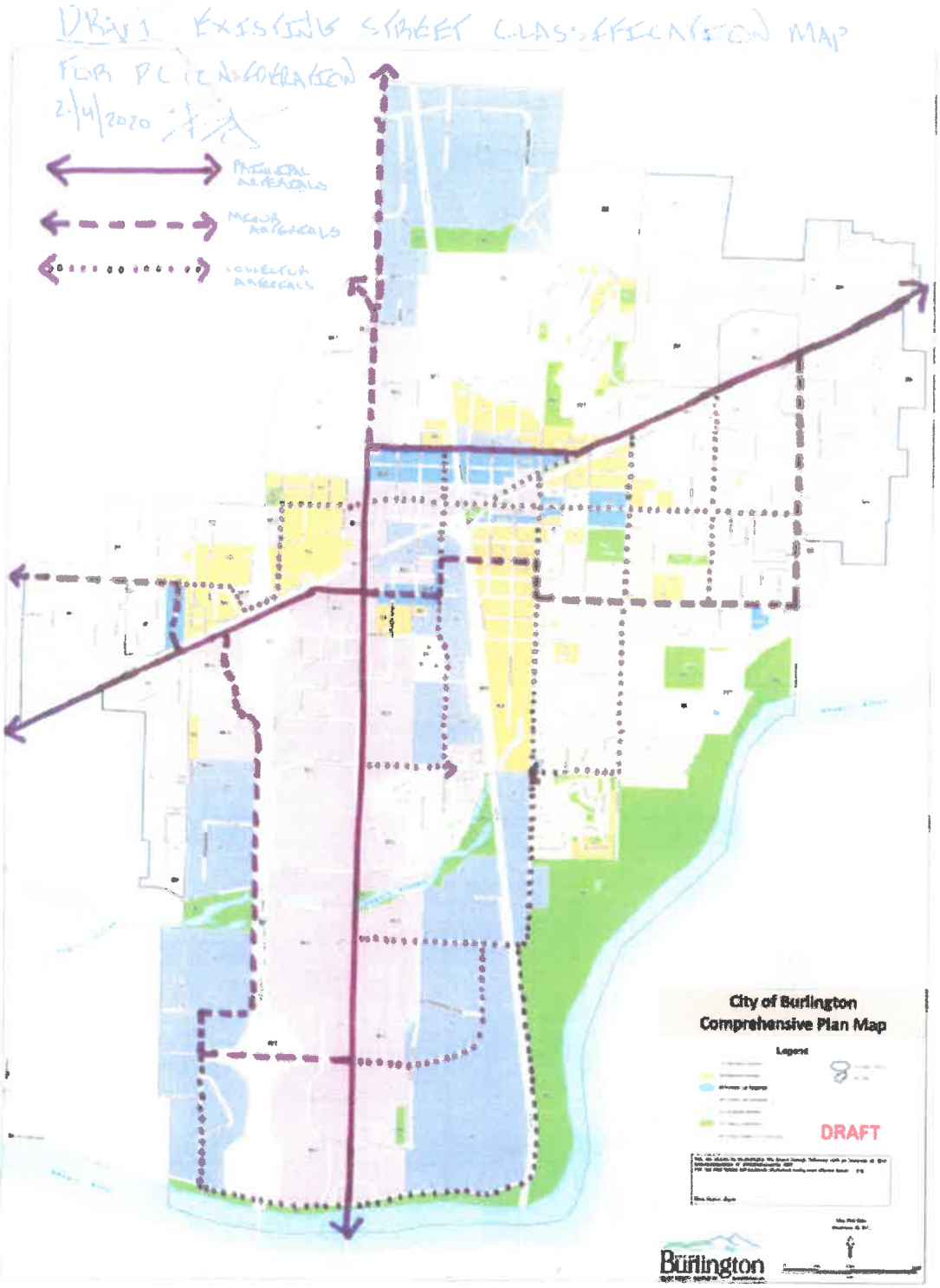
| Table 8.3 - Existing Transit Service | | | |
|---|---|---|---|
| **Route** | **Hours** | **Frequency** | **Serves** |
| **80X** | 6:45 AM – 7:20 PM (weekday)<br>8:00 AM – 6:00 PM (weekends) | Hourly (weekdays) two hours (weekends) | Bellingham - Mount Vernon |
| **208** | 6:20 AM – 8:15 PM (weekday)<br>8:15 AM – 5:45 PM (weekends) | 30 minutes (weekdays/weekends) | Burlington – Mount Vernon |
| **513** | 7:10 AM – 7:10 PM | Three hours (weekdays only) | Burlington - Anacortes |
| **300** | 7:15 AM – 8:15 PM (weekdays)<br>8:15 AM – 5:15 PM (weekends) | Hourly (weekdays/weekends) | Burlington – Sedro Woolley |

### 8.2.4 Other Transportation Services and Facilities

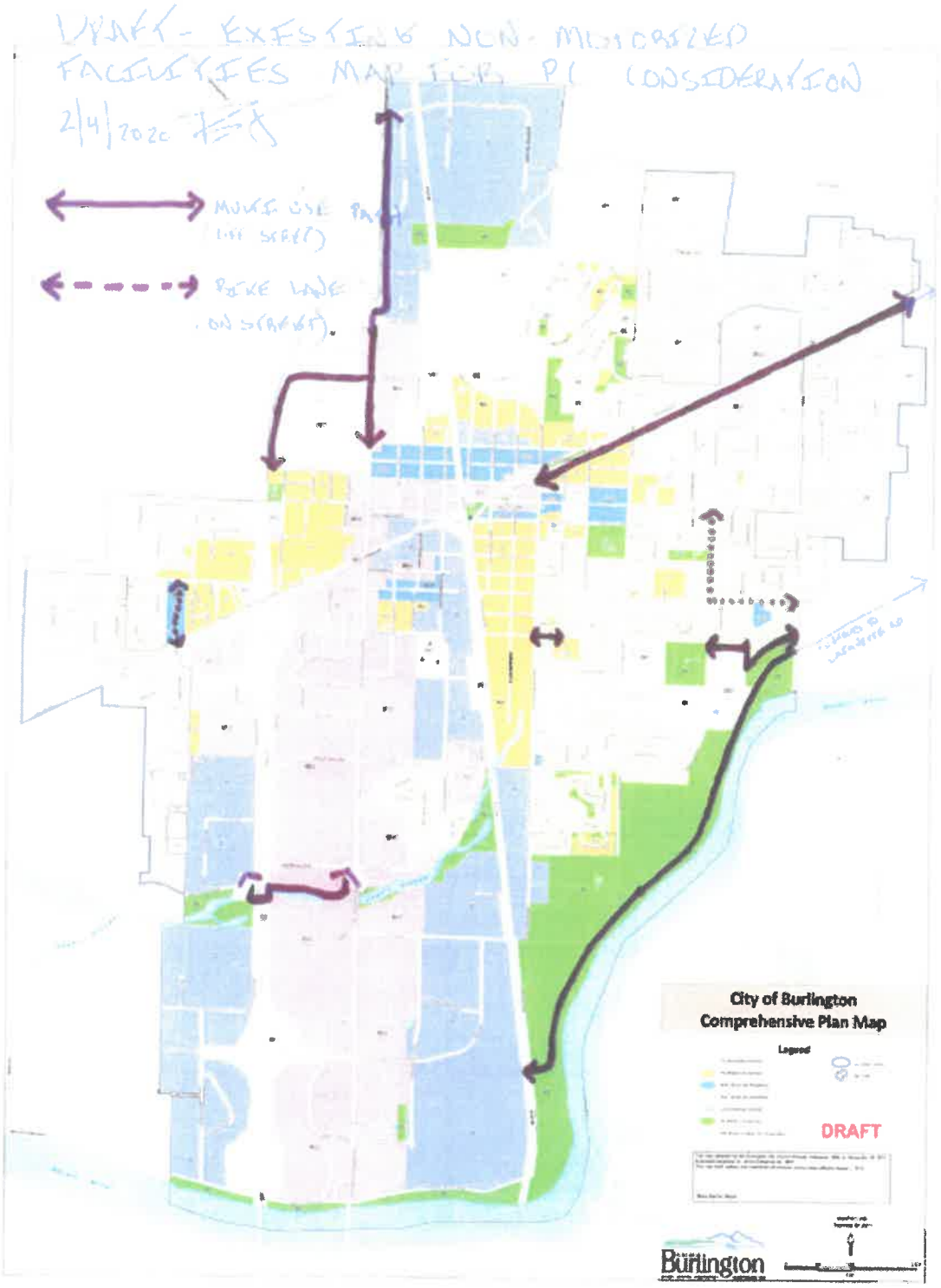
Two rail lines pass through the City of Burlington, including the BNSF mainline and a spur between Sedro Woolley and Anacortes. Currently BNSF provides freight service to a number of Burlington businesses and the Washington State Department of Transportation (WSDOT) operates the Amtrak Cascades service between Eugene Oregon and Vancouver BC. While convenient access to rail service is an important asset. The presence of the rail lines, and numerous at grade crossing pose significant safety risks and create traffic problems. The BNSF bridge across the Skagit River is also aging and in need for replacement for safety, flood control, and capacity reasons.

Other regional transportation options include ferry service and privately operated bus lines. Bellair Airporter bus line provides service between Bellingham and the SeaTac Airport with a stop in Burlington. WSDOT provides ferry Service between Anacortes, the San Juan Islands and Sydney BC and Skagit County operates a ferry between Anacortes and Guemes Island.

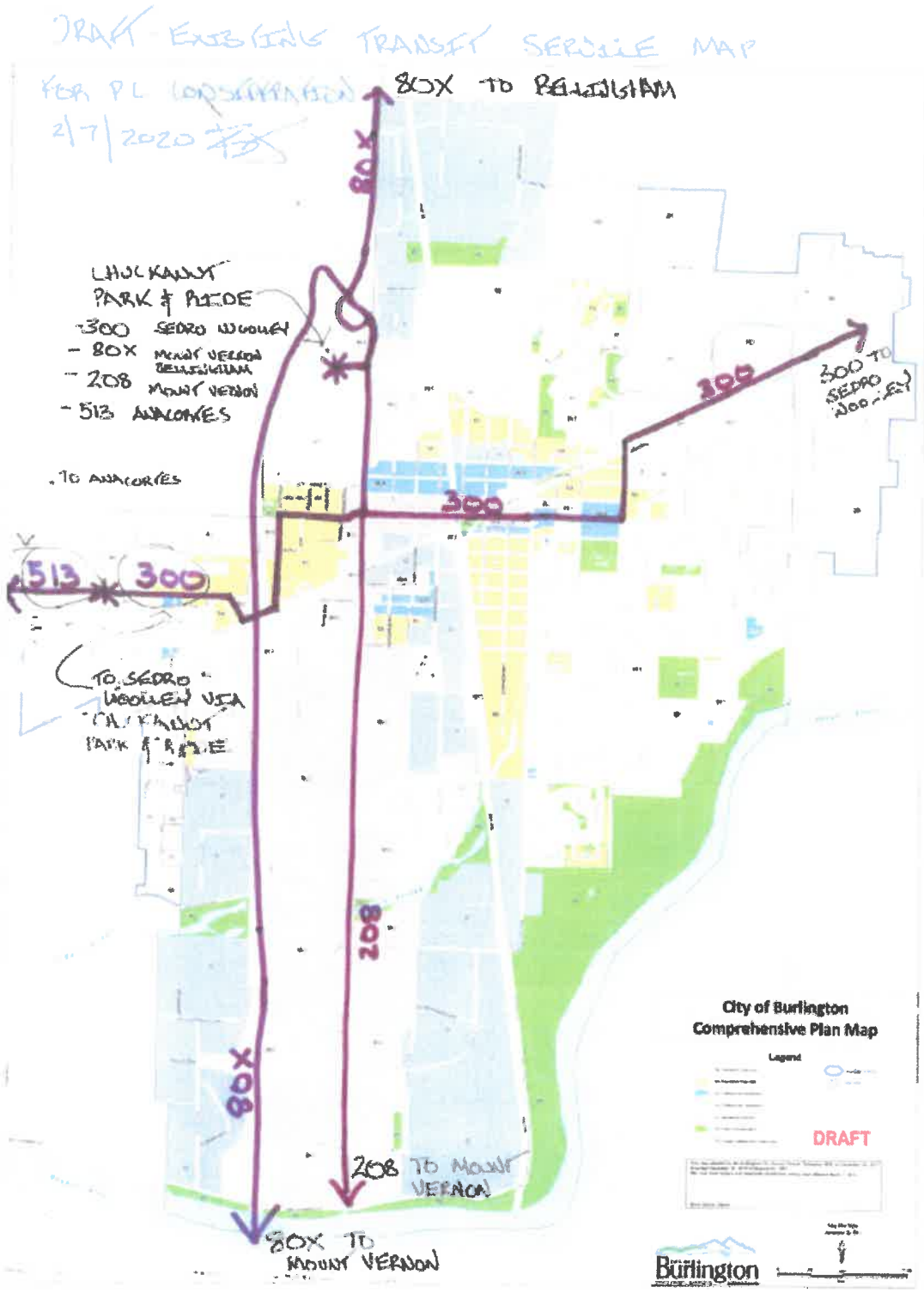
## Map 8.1 Existing Street Classifications



## Map 8.2 Existing Non-Motorized Transportation Facilities



## Map 8.3 Existing Transit Service Map



## 8.3 Land Use Assumptions

Over the next 20 years the population is expected to increase by 3,808 and employment is expected to increase by 3,516, bringing the City's total population and employment to 14,272 and 13,412, respectively. As described in more detail in the Land Use Element, all of the projected growth is expected to be accommodated within the City's existing municipal boundaries. No UGA expansions are anticipated and growth will be accommodated through infill and redevelopment. Most of the City's commercial growth, and a large share of its residential growth, will occur along the Burlington Boulevard corridor.

The key land use assumptions affecting transportation are:

- Employment and residential densities will both increase significantly along the Burlington Boulevard corridor.
- Residential densities will also increase in the Downtown growth area
- Car dealers, large format retailers and other uses drawing regional traffic will continue to develop on the west side of I-5
- Industrial developments and other similar uses will be clustered along the BNSF rail line in the Northern and Southern Industrial areas.

## 8.4 Level of Service Standards

A Level of service (LOS) standard is way of describing a community's minimum expectations for public services and facilities. With respect to the transportation system, LOS standards have been established to address the congestion, the completeness of the street network, and the quality of available transit service.

### 8.4.1 Street Improvements and Connectivity

1. Controlled intersections with pedestrian crossing improvements shall be provided at intervals of 600 feet or less along principle arterials.

2. For new development, block lengths shall not exceed 400 feet in residential areas or 600 feet in other areas.

3. All street segments shall include curbs, gutters, and sidewalks on both sides.

### 8.4.2 Traffic Congestion and Intersection Delays

1. Intersections must function at service level of service "D" or better

### 8.4.3 Transit Service

1. Local arterial service will maintain peak hour headways of 30 minutes or better and off-peak headways of one hour or better.

2. Intercity and regional express service headways shall be one hour or better during peak hours and every two hours in of peak times.

## 8.5 Future Needs

### 8.5.1 Streets and Sidewalks

The City's future street and sidewalk needs can be grouped into five basic categories:

- Addressing deficiencies.
- Serving dew development
- New connections and routes
- Additional capacity
- Safety improvements

As shown below on table 8.1 the City has approximately 30.37 miles of streets that are not fully improved and lack curbs, gutters, sidewalks, storm-water infrastructure, or full width paving. This represents approximately 64 percent of the total street millage within the City's municipal boundaries. In order to address this backlog the City will need to develop a multiyear plan identify a dedicated local funding source.

**Table 8.4 Existing Road and Sidewalk Conditions**

| | Municipal Boundaries | Unincorporated UGA |
|---|---|---|
| **Fully Improved** | 17.38 miles (36%) | 0.0 miles |
| **Limited Improvements** | 14.9 miles (31%) | 1.36 miles (16%) |
| **Pavement Only** | 15.27 miles (32%) | 6.54 miles (79%) |
| **Unimproved (dirt or gravel)** | 0.20 miles (1%) | 0.38 miles (5%) |
| **Total:** | **47.75 miles** | **8.29 miles** |

Transportation improvements to serve new development are generally provided by the developer or funded through mitigation payments. As noted in this report the creation of a fully connected street network is essential. In order to ensure new developments contribute to, and become a part of, the City's transportation network, and changes should be made to the City's development regulations to discourage dead-end streets and looping discontinuous roads. New developments should be served by a grid of interconnected streets with intersections at frequent intervals. Also pedestrian and bicycle amenities should be incorporated into all new developments.

As shown on map 8.4, several new arterial street connections are planned to serve isolated areas of the City, improve emergency response times, and provide redundancy. These new connections include a railroad overpass, a new Gages Slough crossing, and a new north-south connection between George Hopper and Cascade Mall Drive. Capacity enhancements are limited to critical intersections and arterials street segments. Over the next 20 years three arterial intersections must be improved to maintain adopted level of service standards and four signalized intersections will be created to meet address the City's intersection spacing standards. By 2036 all five of WSDOT's intersections in the City of Burlington will fall below the State's minimum level of service. WSDOT intersections are not included on the list of planned improvements because they are managed by the State.

**Table 8.5 Burlington Boulevard Intersection Spacing**

| Status | Distance | Street Segment |
|---|---|---|
| **Meets Goal** | 579 feet | Rio Vista – Sharon |
| **Meets Goal** | 592 feet | Pump Drive – Cascade Place |
| **Meets Goal** | 587 feet | Costco Drive – George Hopper |
| **Acceptable** | 903 feet | I-5 - Kirkby |
| **Acceptable** | 849 feet | Kirkby – Avon |
| **Acceptable** | 830 feet | Avon – Fairhaven |
| **Acceptable** | 901 feet | Gilkey – Pump Drive |
| **Acceptable** | 950 feet | Cascade Place – Pease Road |
| **Poor** | 1,300 feet | Fairhaven – Rio Vista |
| **Poor** | 1,850 feet | Sharon – Gilkey |
| **Poor** | 1,215 feet | Pease Road – Costco Drive |
| **Poor** | 1,166 feet | George Hopper – Market Place Drive |
| **Average Distance:** | ***977 feet*** | |

**Table 8.6 Local Arterial Intersection Conditions**

| Location | 2016 Level of Service | 2036 Level of Service | Status |
|---|---|---|---|
| George Hopper Rd & Bouslog Rd | C | D | Pass |
| Spruce Street & Rio Vista Ave | D | D | Pass |
| Anacortes St & Rio Vista Ave | B | D | Pass |
| Whitmarsh Rd & Pease Rd | C | D | Pass |
| Skagit St & Fairhaven Ave | B | D | Pass |
| Burlington Blvd & George Hopper Rd | C | E | Fail (2036) |
| Burlington Blvd & Pease Rd | D | E | Fail (2036) |
| Spruce St & Greenleaf Ave | C | F | Fail (2036) |

**Citywide level of service standard "D" - Source Transportation Solutions Inc. (TSI), 2017*

**Table 8.7 WSDOT Intersection Conditions**

| Location | 2016 Level of Service | 2036 Level of Service | Status |
|---|---|---|---|
| SR-20 & Spruce St | D | E | Fail (2036) |
| SR-20 & Avon Ave | E | F | Fail (2016) |
| SR-20 & Skagit St | F | F | Fail (2016) |
| SR-20 & Section St | F | F | Fail (2016) |
| SR-20 & Cherry St | D | F | Fail (2036) |
| SR-20 & Regent St | C | E | Fail (2036) |

**WSDOT level of service standard "D" – Source Transportation Solutions Inc. (TSI), 2017*

### 8.5.2 Non-Motorized Transportation

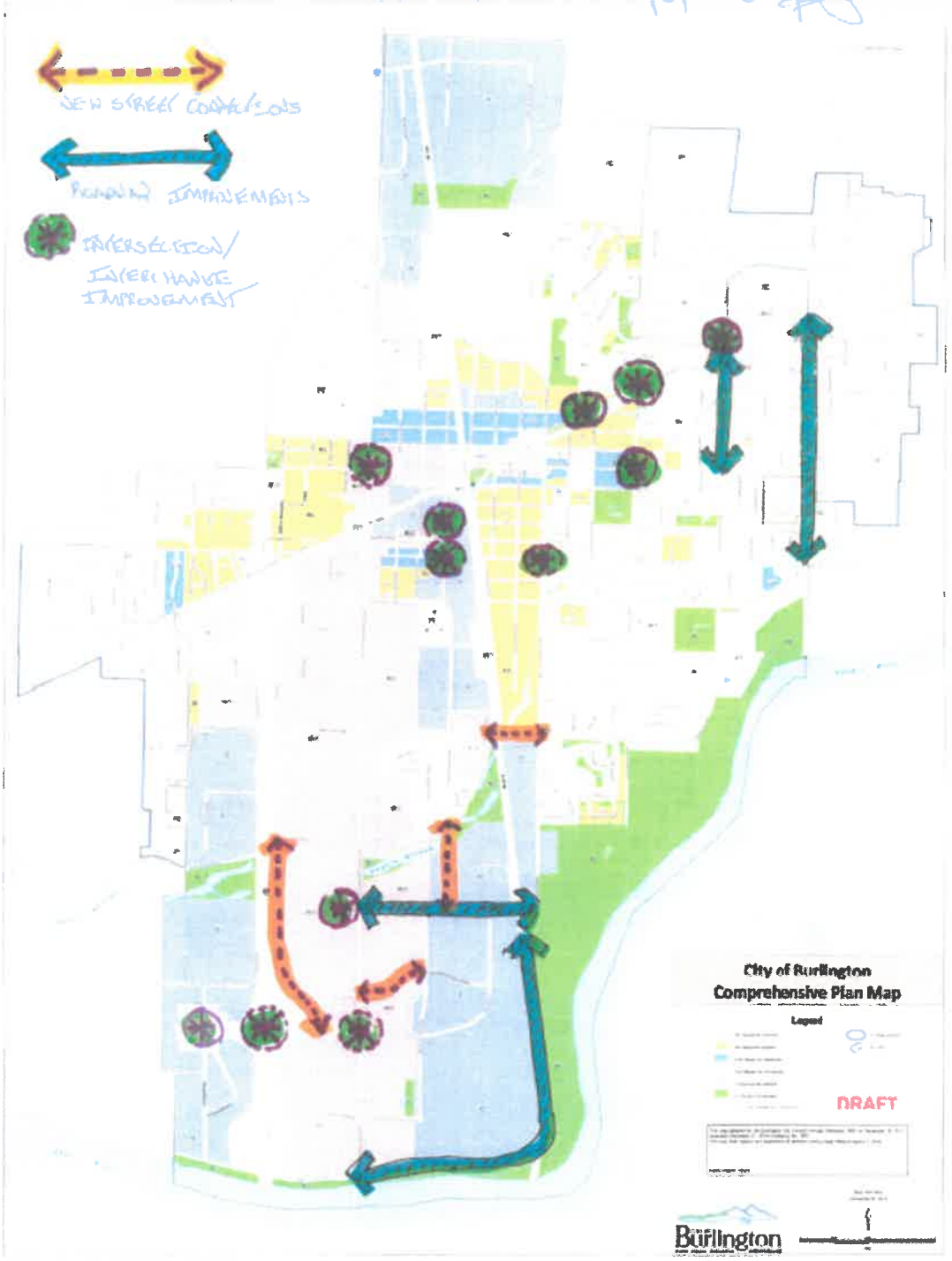
In order to facilitate the City's goal of establishing a grid of non-motorized routes at one-quarter mile intervals a number of improvements will be required including new multi-use paths, bike lanes, and enhanced pedestrian amenities. The non-motorized transportation plan is illustrated on map 8.5. This plan represents a demand management strategy that is intended to accommodate new land uses and development intensities in the City's core areas without the need for costly road capacity improvements. In addition this plan is intended to connect residential areas, schools, parks, and commercial areas consistent with goals and policies of the land use element, housing element, and parks and recreation element.

### 8.5.3 Transit Service

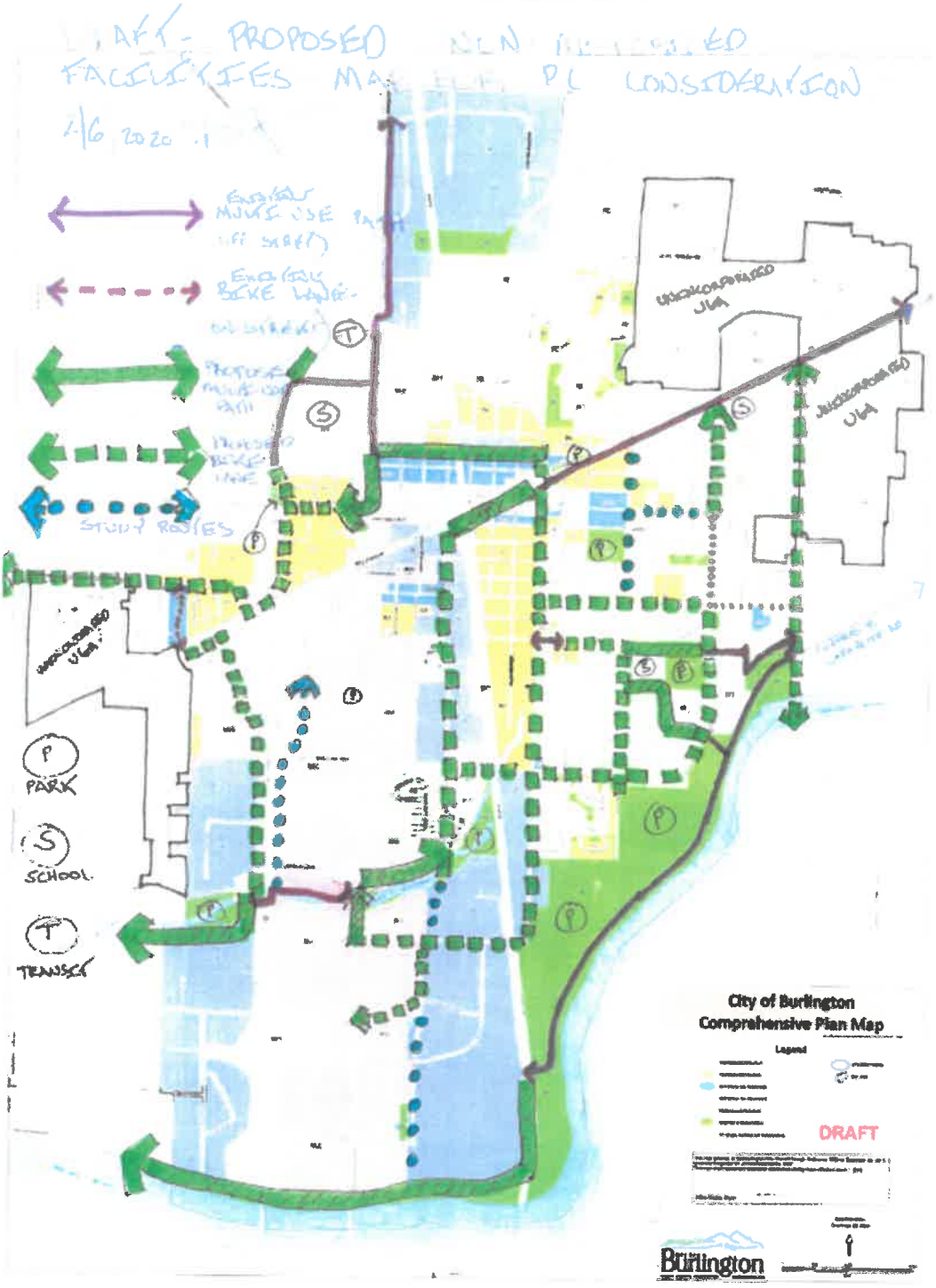
Transit service is provided by Skagit Area Transit (SKAT) and the City has little direct control over SKAT's long range plans. However, the City will continue to lobby SKAT and its' regional planning partners to ensure new service is added to high demand corridors, particularly along Burlington Boulevard as necessary to ensure consistency with adopted land use plans.

## Map 8.4 Proposed Arterial Street and Intersection Projects

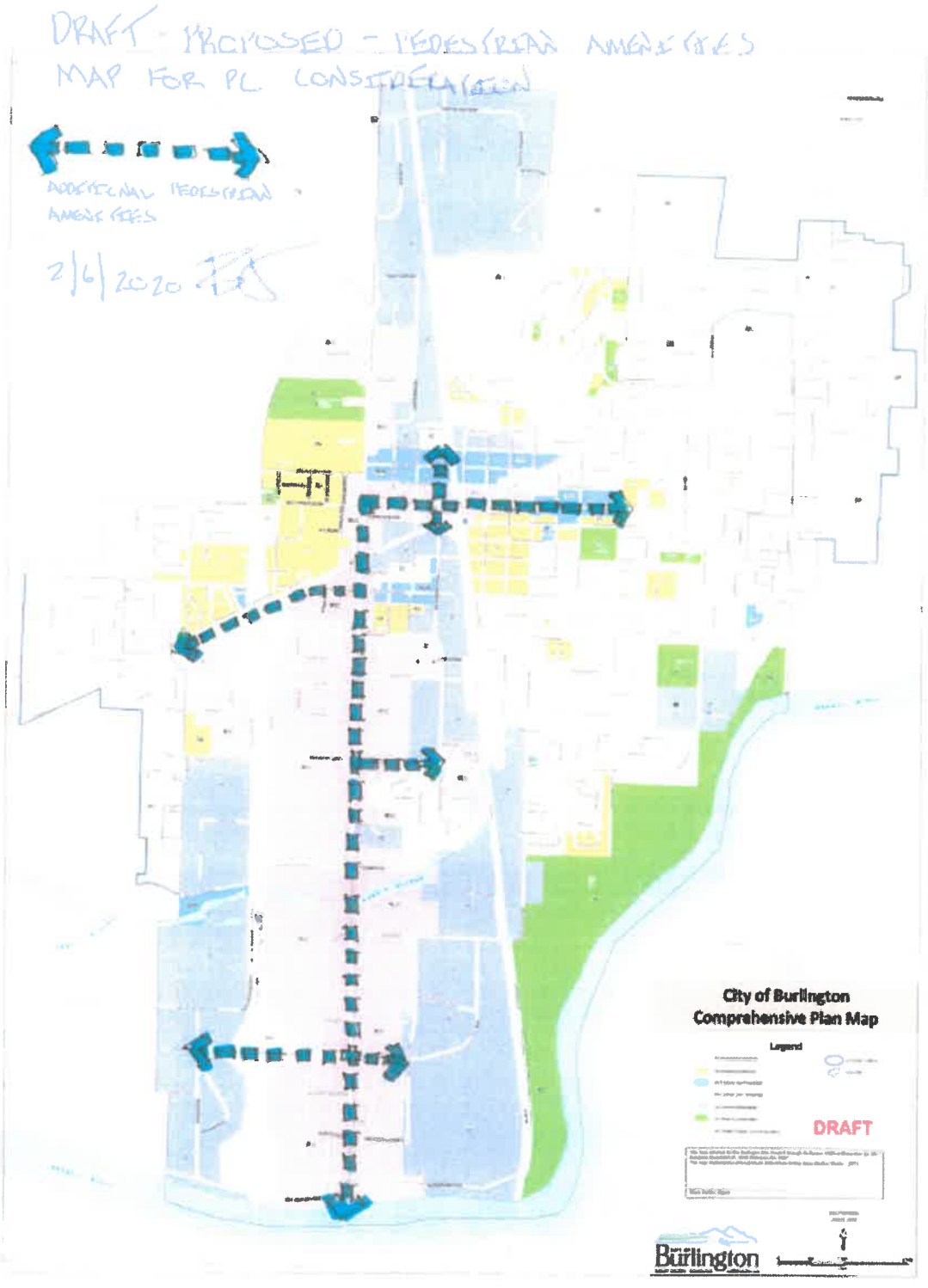
DRAFT — PROPOSED ARTERIAL STREET & INTERSECTION IMPROVEMENTS MAP FOR P.C CONSIDERATION 2/6/2020



## Map 8.5 Proposed Non-Motorized Transportation Plan



## Map 8.6 Proposed Enhanced Pedestrian Amenities



## 8.6 Goals and Policies

The following goals and policies are intended to ensure the City's park system, open space areas and recreation program needs are met. These goals and policies are based on, and consistent with, the goals and policies identified in the City's Parks and Recreation Plan. The bold headings below identify the City's goals related to parks and recreation. Each goal is followed by a list of policies. The goals describe *what* the City is trying to achieve, while the policies describe *how* the goals will be achieved.

**8.6.1 Access and Resilience:** Past development practices, particularly along Burlington Boulevard, have resulted in a disconnected street network, created isolated parcels with limited access, and reduced the number of potential routes. In order to facilitate infill and redevelopment, it will be necessary to build a finer grained and more robust street network. Over the next 20 years new corridors will be established parallel to Burlington Boulevard, an additional east-west railroad crossing will be constructed, and average block lengths will be reduced.

1. Improve the redundancy of the City's arterial street network and provide quicker access to areas that are cutoff by physical barriers by considering the following strategies:

    a. Establish a continuous route north-south route from Highway 20 to Whitmarsh Road parallel to Burlington Boulevard by extending Spruce Street across Gages Slough to Pease Road and by improving and extending Walnut Street;

    b. Extend Gilkey Road across the Burlington Northern right-of-way to intersect with Anacortes Street.

2. Establish and maintain a fully interconnected street system with a dense network of streets intersecting at regular, and frequent, intervals. Dead end streets, cul-de-sacs, looping roads, isolated development sites, and disconnected street patterns should be avoided and eliminated when possible. New developments should be fully connected to the City's street network and should be designed to facilitate the development of adjacent parcels and allow for the logical and orderly extension of streets, sidewalks, and paths.

3. Controlled intersections, with pedestrian crossings, should be provided at intervals of 600 feet, or less, along principal arterials.

4. Conduct a study to assess how well connected the City's street network is, identify potential improvements, and prioritize future investments.

5. Adopt sidewalk requirements that ensure sidewalks are free from obstructions and adequately sized based on traffic volumes and speeds, anticipated levels of use, and urban design considerations.

**8.6.2 Consistency:** Most of the City's future population and employment growth will be accommodated through infill and redevelopment and a large share of this growth will be concentrated along the Burlington Boulevard corridor. This pattern of development is intended to reduce travel distances and improve the convenience of walking and transit use by increasing the number of people living near stores, restaurants, and services. In order to support this pattern of development the City will ensure all transportation related plans and expenditures are consistent with the comprehensive plan.

1. The capital improvement plan and transportation improvement plans shall be consistent with the comprehensive plan and shall be reviewed annually by the Planning Commission.

2. The Comprehensive Plan, Capital Facilities Plan, and all transportation plans and expenditures shall be consistent with the Skagit Regional Transportation Plan.

3. Work with Skagit Transit to ensure transit plans facilitate the City's desired pattern of growth and are consistent with regional land use and transportation planning policies.

4. Develop design specifications and cross section detail for different street classifications and segments. All subsequent public and private street improvements shall be consistent with the adopted standards and specifications.

**8.6.3 Demand Management:** New road capacity and infrastructure is extremely expensive. Future transportation expenditures will be minimized reducing travel distances, making it possible to accomplish multiple tasks in one trip, and by shifting demand to less costly and more efficient modes. By 2036 the number of vehicle miles traveled, on a per capita basis, will be reduced by 30 percent, 14 percent of workers will commute by walking, bicycling, or riding transit, and 5 percent of the City's residents will work from home.

1. Improve convenience and reduce trip lengths by permitting and encouraging intensive mixed-use, residential, and commercial uses in the Commercial Core, Northern Gateway, and Downtown growth areas. Special consideration should be given to authorizing the construction of infill housing, such as townhomes, duplexes, and small lot development within walking distance of commercials areas.

2. Encourage more trips to be made on foot or by bicycle by taking the following actions:

    a. Provide sidewalks along both sides of streets and install pedestrian crossings at regular intervals;

    b. Ensure new development includes direct and convenient pedestrian connections;

c. Enhanced pedestrian amenities, such as wider sidewalks, landscaping, and additional lighting, should be provided in the City's most important commercial corridors where high volumes of pedestrian traffic are expected or encouraged;

d. Develop and implement a wayfinding and signage program that identifies the location of multi-use paths, bicycle lanes, public facilities, parks, schools, and transit routes.

e. Provide bicycle racks or storage facilities at public facilities such as schools, municipal offices, and parks. Bicycle racks and storage facilities shall also be required for large commercial and residential developments.

3. Work with Skagit Transit to improve service along the Burlington Boulevard corridor, establish minimum levels of transit service based on vehicle headways, and implement passenger counts based on jurisdiction and route segments.

**8.6.4 Health and Safety:** A large number of people are injured or killed in transportation related accidents each year and lack of physical activity is a significant contributor to heart disease, obesity, diabetes and other conditions. Changes to the transportation system can reduce the probability of serious accidents and improve public health. By 2036 the number of people who engage in physically active transportation, such as walking or bicycling, will be increased, a larger percentage of the City's population will live within walking distance of a school or park, and the number of serious accidents will be reduced.

1. Establish a network of multi-use paths and bicycle lanes that connect to parks, schools, and public attractions.

2. Provided enhanced pedestrian amenities along the Burlington Boulevard and Fairhaven Avenue, such as wider sidewalks, pedestrian oriented signage and lighting, landscaped buffers, crosswalks improvements, and curb bulb-outs.

3. Establish and implement a wayfinding and signage system that identifies safe routes walking and cycling routes to school and work with the Burlington Edison School district to make this information available to students and school district employees.

4. Reduce speeding and unsafe driving through enforcement and traffic calming measures such as curb bulb-outs, narrower travel lanes, on-street parking, neighborhood traffic circles, and the construction of a dense fully connected street-network.

5. Continually monitor and evaluate emergency response times and incorporate accident information provided by the City's police and fire departments into future transportation plans.

**8.6.5 Financial Sustainability:**

1. When evaluating major land use changes, such as urban growth area expansions and annexations, the short and transportation costs shall be considered. Preference shall be given to land use options that reduce the need for expensive transportation infrastructure by reducing trip lengths or shifting demand to less expensive modes.

2. Transportation expenditures should generally be prioritized in the following order:

    a. Maintenance and repair;

    b. Safety improvements, including the provision of sidewalks, pedestrian crossings, and neighborhood traffic calming measures;

    c. New connections within the City's existing municipal boundaries that improve access to underserved areas;

    d. Expansions of existing facilities to provide additional capacity within the City's existing municipal boundaries;

    e. Expansions or new connections that facilitate development within an annexation area or urban growth area expansion

3. Establish a transportation benefits district to stabilize transportation revenues and provide a dedicated funding source for transportation improvements.

4. Impact fee tiers, or zones, should be established to reflect the disproportionate transportation impacts of development in outlying areas and to recognize the demand management benefits of directing growth to central areas, such as the Commercial Core, Northern Gateway, and Downtown growth areas.

# 8.7 Funding