

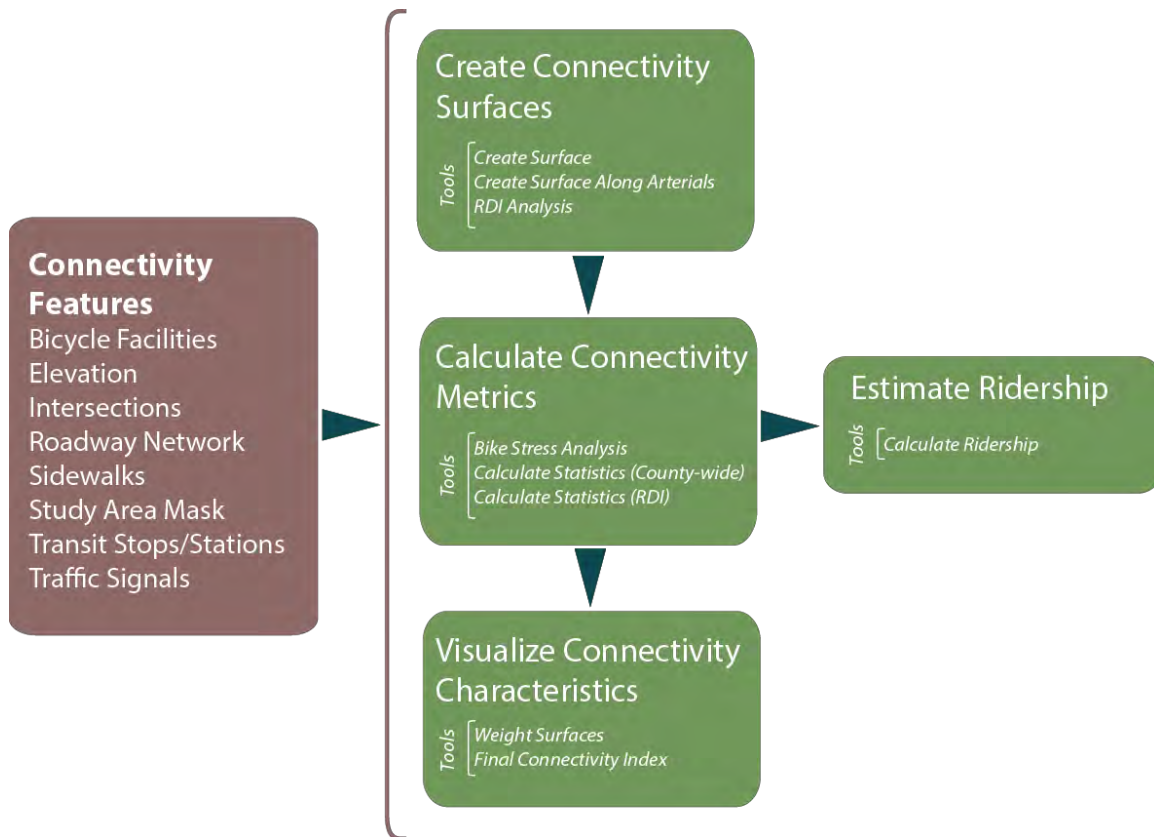


APPENDIX A. CONNECTIVITY TOOLBOX USER GUIDE

INTRODUCTION

The Connectivity Analysis Toolbox is a suite of custom planning tools created to help King County Metro (KC) and Sound Transit (ST) analyze the relationships between connectivity, non-motorized access to transit, and ridership. The tools are designed for use in the ArcMap environment using the following inputs: 1) existing conditions transportation network data developed by Fehr & Peers containing data collected from multiple jurisdictions and agencies, and 2) new/updated transportation network data developed by KC and ST²⁰. The Connectivity Analysis Toolbox is intended for use by analysts with advanced GIS knowledge to assess existing and future connectivity conditions and to better understand how changes in connectivity may affect transit ridership. The flow chart below outlines the Connectivity Analysis workflow and associated tools.

²⁰ The final section of this document provides guidance about developing and updating new transportation network data. The companion report on the Non-Motorized Access Study describes the process that Fehr & Peers used to obtain and prepare the transportation network data as well.



This User Guide is an introductory manual for the Connectivity Toolbox, and includes descriptions of Connectivity Tools with examples of tool inputs and results. An accompanying geodatabase containing sample GIS data is included with this document. Fehr & Peers provides this sample data for use in tutorials as well as gaining familiarity with the toolbox prior to running a full analysis. A more extensive countywide database reflecting with the most current data applied in the connectivity analysis is also included. The following sections describe the tools included in the Connectivity Toolbox and the sample data provided.

ABOUT THE CONNECTIVITY TOOLBOX

The Connectivity Toolbox contains nine tools for calculating connectivity metrics. The tools were built using ArcGIS and the Python programming language. The tools included are designed to 1) produce connectivity “surfaces” that graphically represent the non-motorized connectivity metrics utilized in the King County Non-Motorized Access to



Transit study, 2) calculate metrics for use in regression analysis, 3) visualize connectivity characteristics, and 4) estimate potential changes in ridership.

The surface creation tools include "Create Surface", "Create Surface Along Arterials", "Bike Stress Analysis", and "RDI Analysis". Surface outputs from these tools contain connectivity scores ranging from 1 (low connectivity) to 5 (high connectivity). Surfaces are "masked" using a polygon feature class that represents those areas to be included in the analysis. Please refer to the project report for more information on the role of the mask layer in the connectivity analysis.

Connectivity surfaces are weighted to incorporate regression coefficients using the "Weight Surface" tool. The output-weighted surfaces are used as inputs to the "Final Connectivity Index" tool, which creates a composite connectivity index for each study location analyzed. In addition to the surface tools, the Connectivity Toolbox includes tools to calculate metrics for the areas surrounding study locations.

- The "Calculate Statistics (Countywide)" tool produces statistics for each study feature (e.g., transit stop location) using surfaces that represent connectivity at the countywide scale (for example, sidewalks and intersections).
- The "Calculate Statistics (RDI)" tool generates statistics for each study feature using surfaces that represent connectivity at the study-feature scale.
- Along with bike stress surfaces, the "Bike Stress Analysis" tool also produces bike stress statistics at the study-feature scale.
- The "Calculate Ridership" tool can be used to estimate ridership based on weighted connectivity scores for existing and future conditions.

The screen capture below shows the Connectivity Toolbox and associated tools as viewed in ArcGIS Desktop.



CONNECTIVITY TOOLBOX



Connectivity Toolbox.tbx

1. Create Surface
2. Create Surface Along Arterials
3. Bike Stress Analysis
4. RDI Analysis
5. Calculate Statistics (County-wide)
6. Calculate Statistics (RDI)
7. Calculate Ridership
8. Weight Surfaces
9. Final Connectivity Index



ABOUT THE SAMPLE DATA

The screen capture below shows the file geodatabase containing a sample dataset prepared for the King County Connectivity Toolbox training session. The geodatabase contains network datasets and feature classes representing key non-motorized infrastructure/built environment features that are correlated with transit usage, such as sidewalks, intersections, and traffic signals. For more information on the relationships between these feature classes and transit usage, as well as an account of data collected for this project, please refer to the project report.

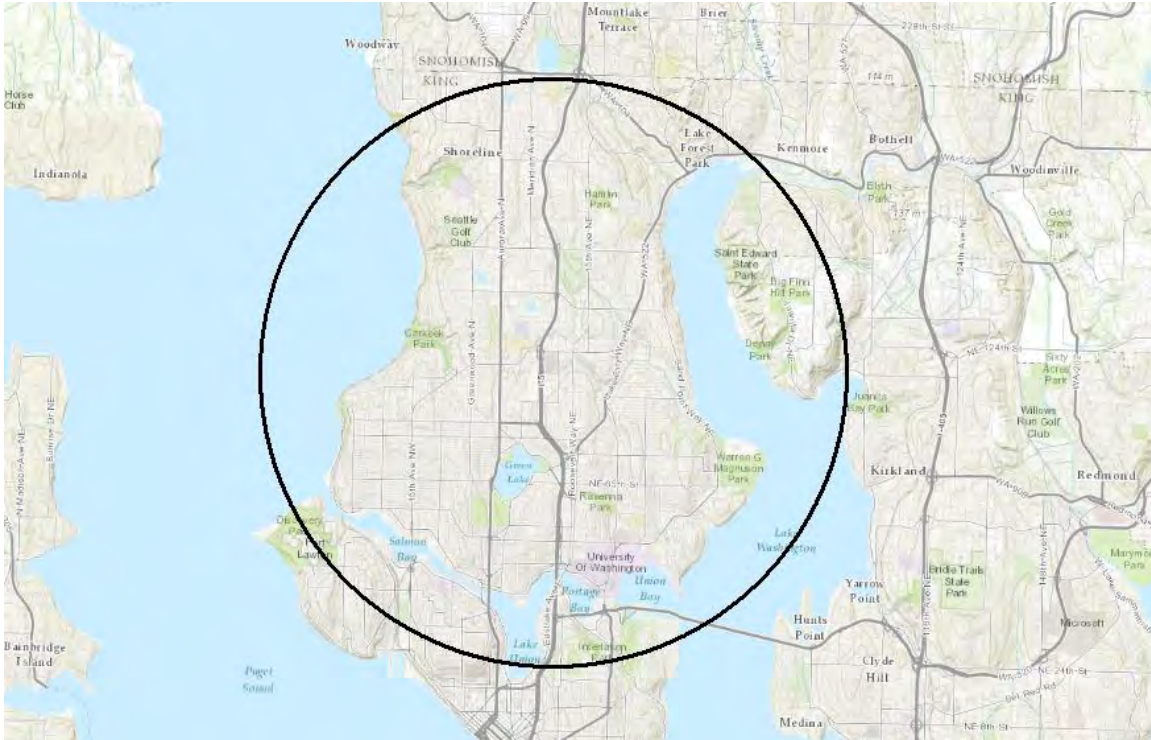
FILE GEODATABASE SHOWING SAMPLE DATA

- [-] KingCountyData.gdb
 - [-] ArterialsNetwork
 - [#] ArterialsNetwork_ND
 - [*] ArterialsNetwork_ND_Junctions
 - [*] ArterialsWalkBikeNetwork
 - [-] ConstrainedNetwork
 - [#] ConstrainedNetwork_ND
 - [*] ConstrainedNetwork_ND_Junctions
 - [*] ConstrainedWalkBikeNetwork
 - [-] FullNetwork
 - [#] FullNetwork_ND
 - [*] FullNetwork_ND_Junctions
 - [*] FullWalkBikeNetwork
 - [*] acs_11_5yr_pop_dens
 - [*] Sample15MinBikesheds
 - [*] Sample15MinBikesheds_Euclidean
 - [*] Sample15MinWalksheds
 - [*] Sample15MinWalksheds_Euclidean
 - [*] SampleIntersections
 - [*] SampleMask
 - [*] SampleSidewalks
 - [*] SampleSignals
 - [*] SampleStation



The sample data represents three transit stations in the Northgate area and non-motorized infrastructure/built environment features in a 5-mile vicinity. Below is a map showing the study area covered by the sample data.

SAMPLE DATA STUDY AREA





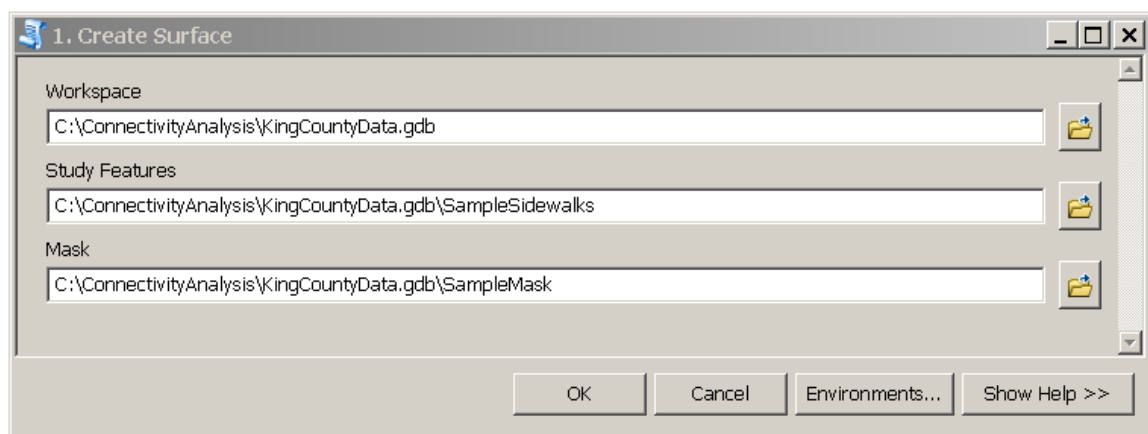
WORKING WITH THE CONNECTIVITY TOOLBOX

CREATE SURFACE

Summary:

The Create Surface tool creates a scored raster surface for a user-defined feature class. Raster cells are assigned a score based on proximity to study features. For example, if the user provides a feature class representing sidewalks, the raster cells closest to the sidewalk will be assigned the highest score. The score for raster cells will decrease with distance from the input features (e.g., sidewalks). Surfaces created from this tool are intended to visualize feature coverage and to be used as input to the Calculate Statistics (Countywide) and Final Connectivity Index tools. Fehr & Peers applied this tool as part of the King County Non-Motorized Connectivity Study using feature classes representing sidewalks and intersections, two factors known to contribute improved non-motorized access in an area. For more information on the research regarding sidewalks and intersections as they relate to access and transit ridership, as well as the role of sidewalk and intersection metrics in the connectivity study please refer to the project report. This tool can also be used to produce surfaces for other feature classes as the discretion of the analyst (e.g., distance from transit stops).

This tool requires the Spatial Analyst extension.





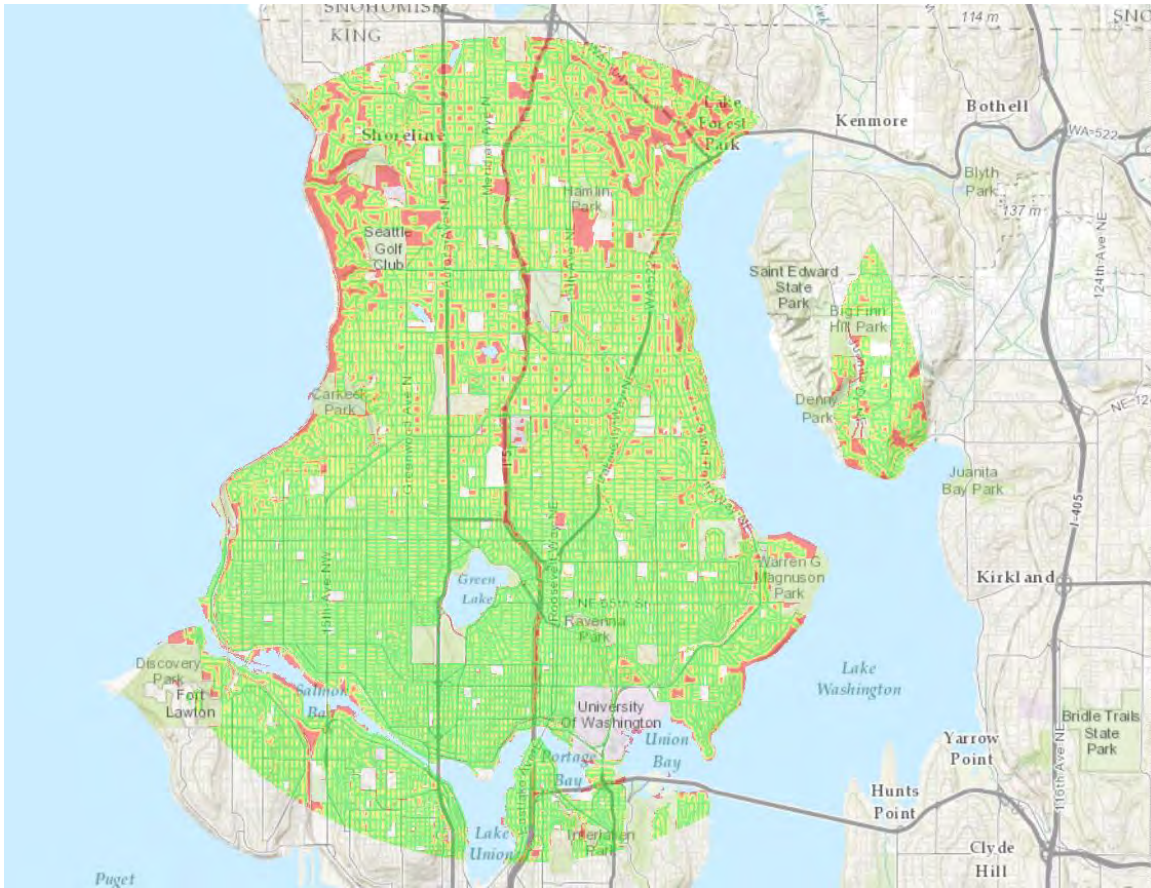
Parameters:

- Workspace
 - Enter the file geodatabase (.gdb) to which output data will be written.
- Study Features
 - Enter a point or line feature class. A scored surface (raster) will be created for this feature class.
- Mask
 - Enter a polygon feature class representing the study area and omitting regions not to be included in the analysis (ex: water features, parks, cemeteries).

Results:

The Create Surface tool produces a raster surface showing the connectivity score for the study features, with 1 being the lowest score (coverage farthest from the study features) and 5 being the highest score (coverage closest to the study features). The screen capture below shows a sidewalk/walkway²¹ score surface in the sample data study area. The highest score is shown in green, and the lowest in red.

²¹ As described in the full report, local streets that lack sidewalks are still defined as being “good” walking routes to transit stops. Therefore, there is not a gap in sidewalk and walkway coverage shown north of 85th Street.

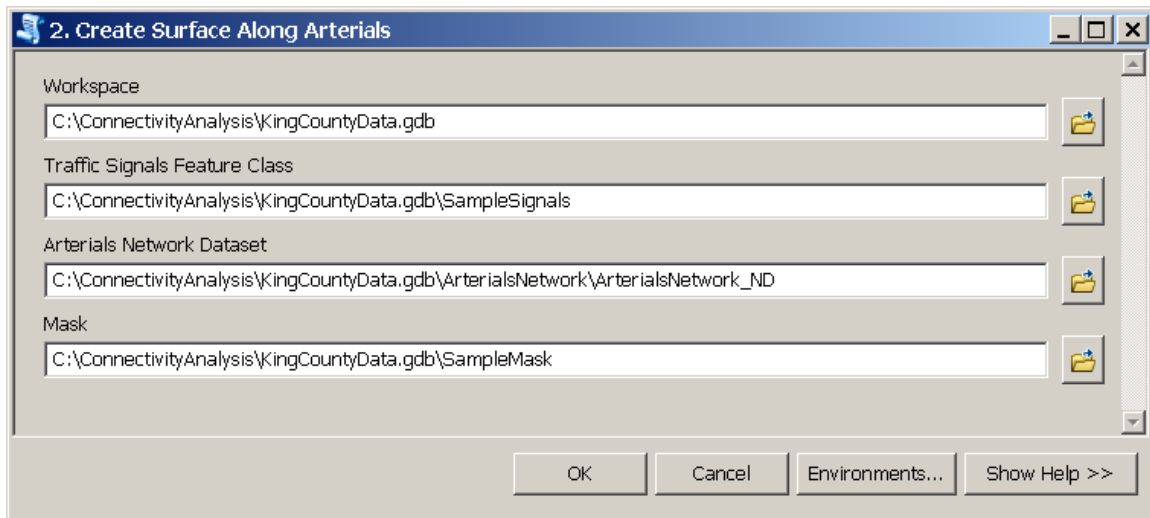


CREATE SURFACE ALONG ARTERIALS

Summary:

The Create Surface Along Arterials tool produces a scored surface for a user-defined traffic signals feature class. The scores are assigned relative to locations along a network. The input network should be a subset of the full network containing only arterial network features. Surfaces created from this tool are intended to visualize feature coverage along a roadway network representing only arterials and to be used as input to the Calculate Statistics (Countywide) and Final Connectivity Index tools.

This tool requires the Network Analyst, 3D Analyst, and Spatial Analyst extensions.



Parameters:

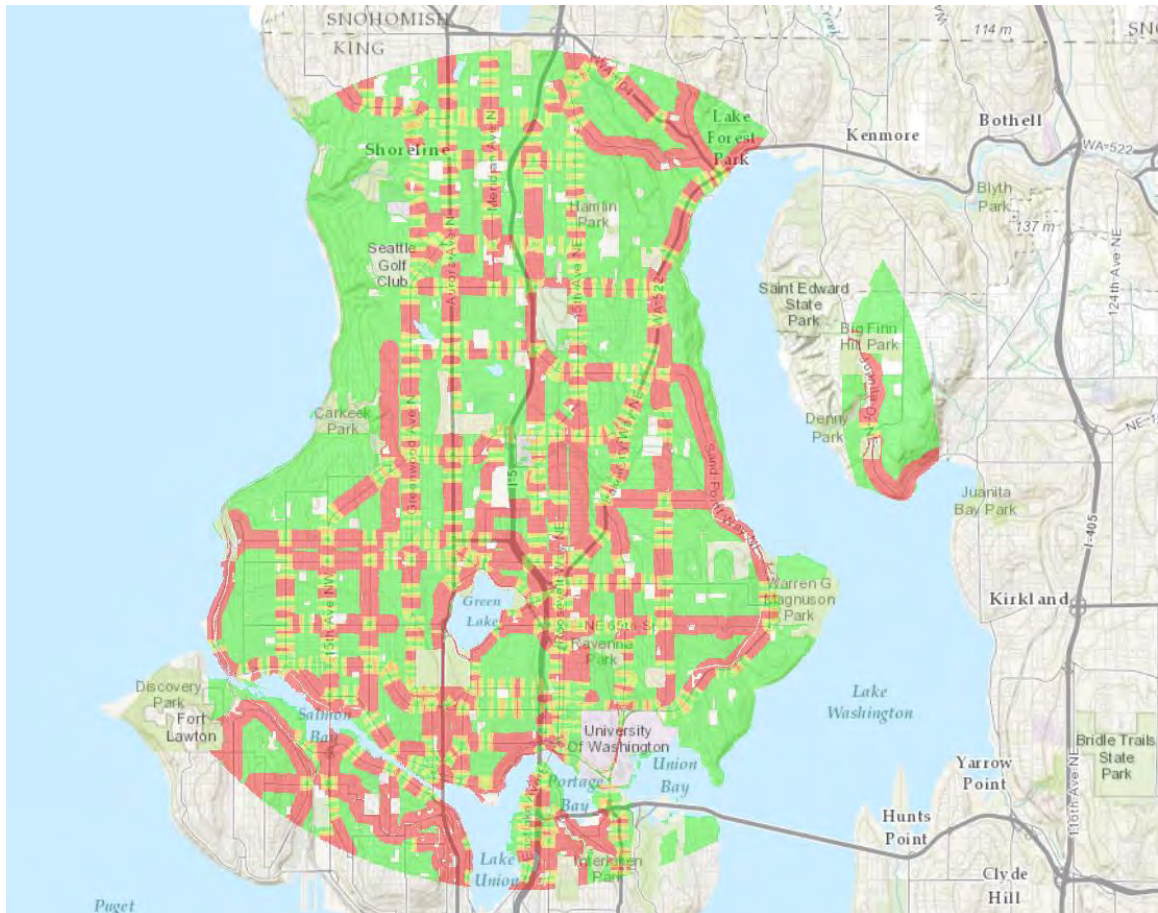
- Workspace
 - Enter the file geodatabase (.gdb) to which output data will be written.
- Traffic Signals Feature Class
 - Enter a point feature class representing traffic signals. A scored surface will be created for this feature class.
- Arterials Network Dataset
 - Enter a network dataset that represents the network features along which the Traffic Signals Feature Class will be assessed. For example, if analyzing traffic signals only along arterial roadways, enter a network dataset containing only arterials.
- Mask
 - Enter a polygon feature class representing the study area and omitting regions not to be included in the analysis (ex: water features, parks, cemeteries).

Results:

The Create Surface along Arterials tool produces a raster surface showing the connectivity score for the traffic signal features, with 1 being the lowest score (coverage farthest from the study features) and 4 being the highest score (coverage closest to the



study features). The screen capture below shows a traffic signals score surface in the sample data study area. The highest score is shown in green, and the lowest in red.





BIKE STRESS ANALYSIS

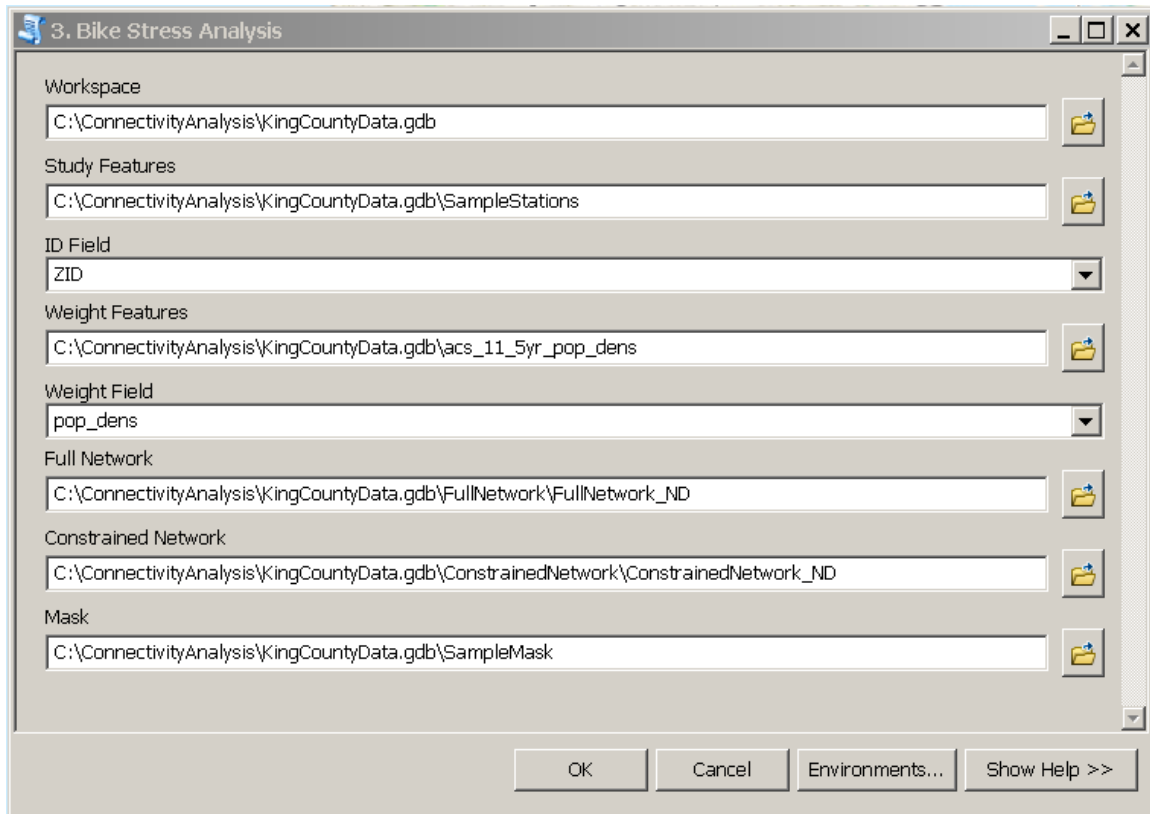
Summary:

The Bike Stress Analysis tool compares full-network and constrained-network (limited to low-stress facilities only) routes to study locations from eight starting points surrounding each location²². The eight starting points are established one-mile from each location in the eight cardinal (N/S/E/W) and intermediate (NE/SE/NW/SW) directions. Once the route comparisons are completed, each study location is assigned a bike stress score based on the ratio of the full-length to constrained-length routes. Bike stress raster surfaces are created to visualize the results in a three-mile radius surrounding each study location.

The Bike Stress Analysis tool receives study features from the user as well as data used to weight the output bike stress scores for each study location. As part of the Non-Motorized Connectivity Study, scores are weighted using population density values derived from the American Community Survey. The user also provides full and constrained network datasets (prepared prior to running the tool). The outputs of the tool include a point feature class containing the eight cardinal location points surrounding each station, a summary table with the weighted bike stress score for each study feature, and bike stress raster surfaces for a three-mile area around each study feature.

This tool requires the Network Analyst and Spatial Analyst extensions.

²² The full report describes the research and methodology behind bike stress. Full and constrained networks are also defined in the full report.



Parameters:

- Workspace
 - Enter the file geodatabase (.gdb) to which output data will be written.
- Study Features
 - Enter a point feature class (ex: station locations). Bike stress will be calculated for each feature in the input Study Features feature class. The feature class must have a field containing a unique identifier for each point feature.
- ID Field
 - Select the ID field from the about Study Features feature class that contains a unique identifier for each point feature.
- Weight Features
 - Enter a polygon feature class containing data that will be used to weight the final bike stress score applied to each input study feature (ex: population density).
- Weight Field

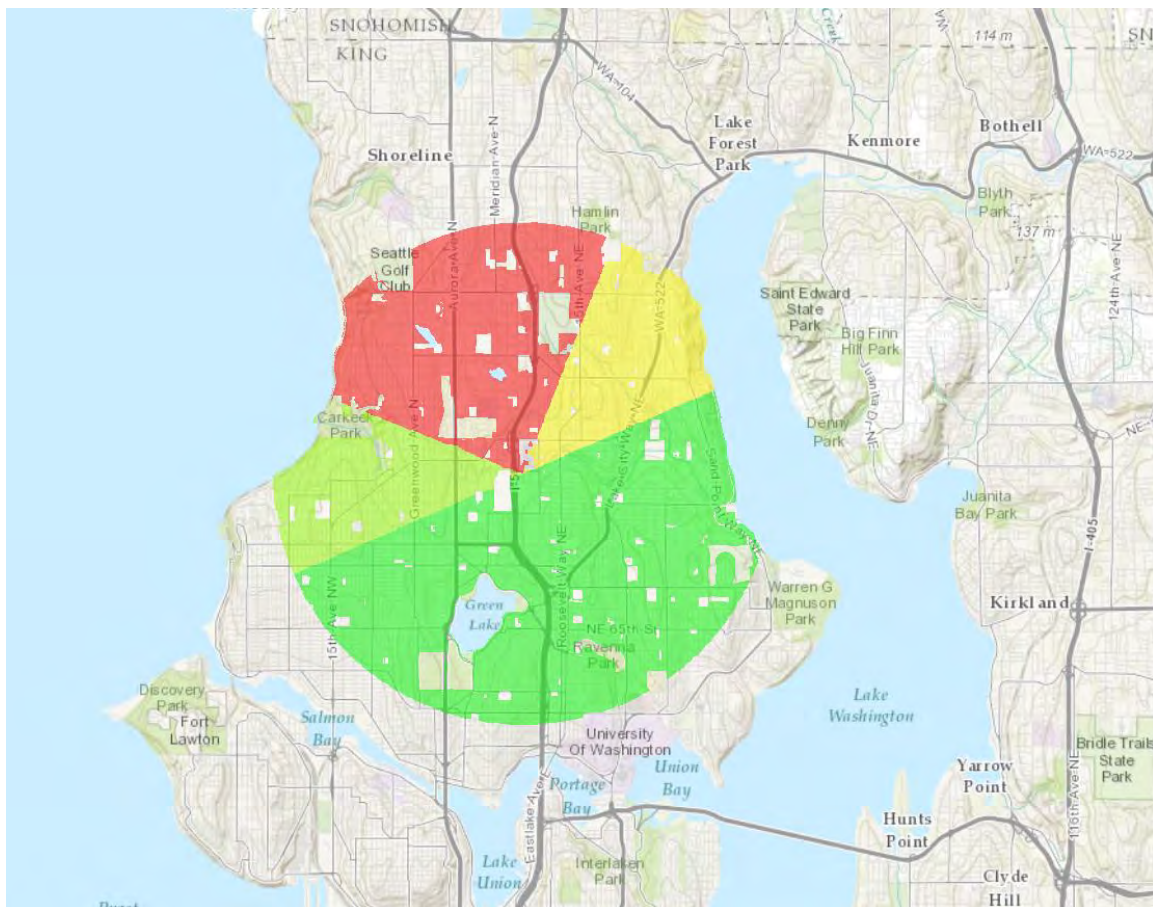


- Select the field from the above Weight Features feature class that contains the values used to weight the final bike stress score.
- Full Network
 - Enter a network dataset that represents the full study area network. The routes along this network will be compared with those of the constrained network.
- Constrained Network
 - Enter a network dataset that represents the constrained study area network. The routes along this network will be compared with those of the full network.
- Mask
 - Enter a polygon feature class representing the study area and omitting regions not to be included in the analysis (ex: water features, parks, cemeteries).



Results:

The Bike Stress Analysis tool produces a summary table of bike stress results by station and one raster surface per station visualizing the bike stress index within a three-mile radius surrounding each station. The surface is created through an interpolation process using the eight cardinal locations surrounding each station. The screen capture below shows bike stress analysis results for one sample station (ZID = 261). The lowest score is represented by a value of 1 (shown in red), and the highest score is represented by a value of 5 (shown in green).



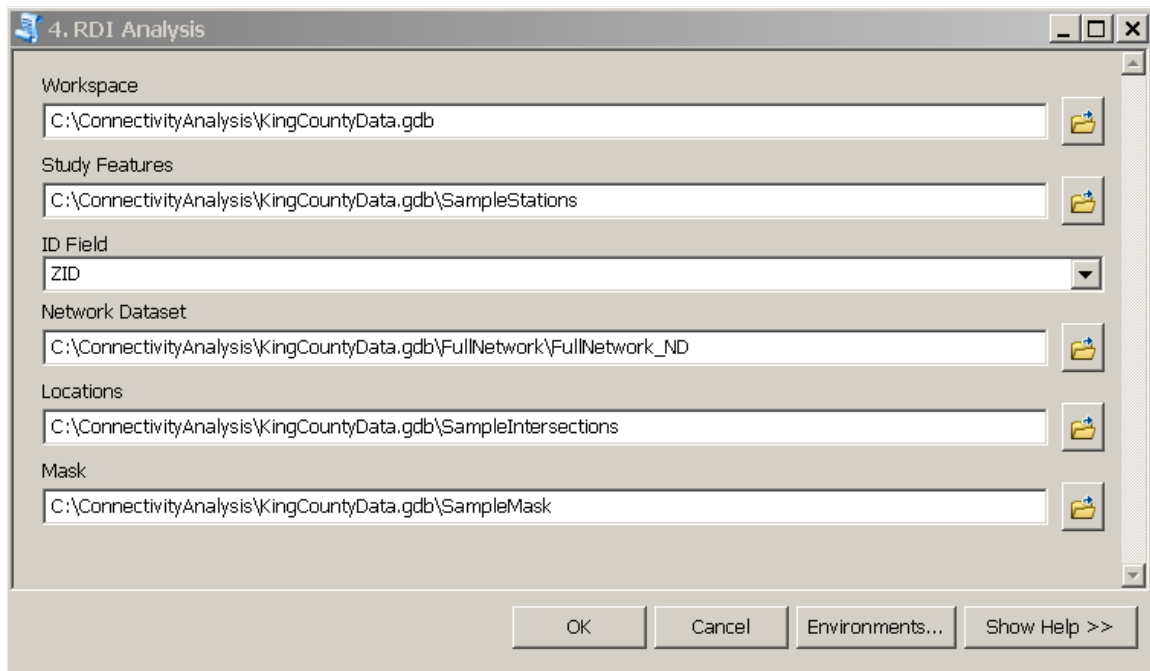


RDI ANALYSIS

Summary:

The RDI Analysis tool produces a unique surface for each record in a point-based feature class. RDI or "Route Directness" is a metric that describes the relationship between distance traveled along a network and the respective "as the crow flies" distance. Typically the distance traveled along a network between two locations is greater than the direct, "as the crow flies" distance between the same two points. The closer these two distance measurements are between a given set of locations, the higher the RDI score. Circuitous paths based on a minimum-cost solution will increase the difference between the two distance measurements and lower the RDI score. This tool uses a set of origin points (transit stop locations) and destination points (intersections) to create a surface that reflects the Route Directness for all destinations within a three-mile radius around each origin. Although transit stop locations and intersections are used as the origin and destination locations as part of the Non-Motorized connectivity study, any set of point locations can be used as inputs to the tool.

This tool requires the Network Analyst and Spatial Analyst extensions.



Parameters:

- Workspace
 - Enter the file geodatabase (.gdb) to which output data will be written.
- Study Features
 - Enter a point feature class (ex: station locations). An RDI surface will be created for this feature class.
- ID Field
 - Select the ID field from the about Study Features feature class that contains a unique identifier for each point feature.
- Network Dataset
 - Enter a network dataset that represents the network features along which the Study Features feature class will be assessed for Route Directness.
- Locations
 - Enter a point feature class that represents locations to/from which people might be traveling to the study features (ex: intersections). Route Directness will be assessed between each of these locations and nearby Study Features.
- Mask

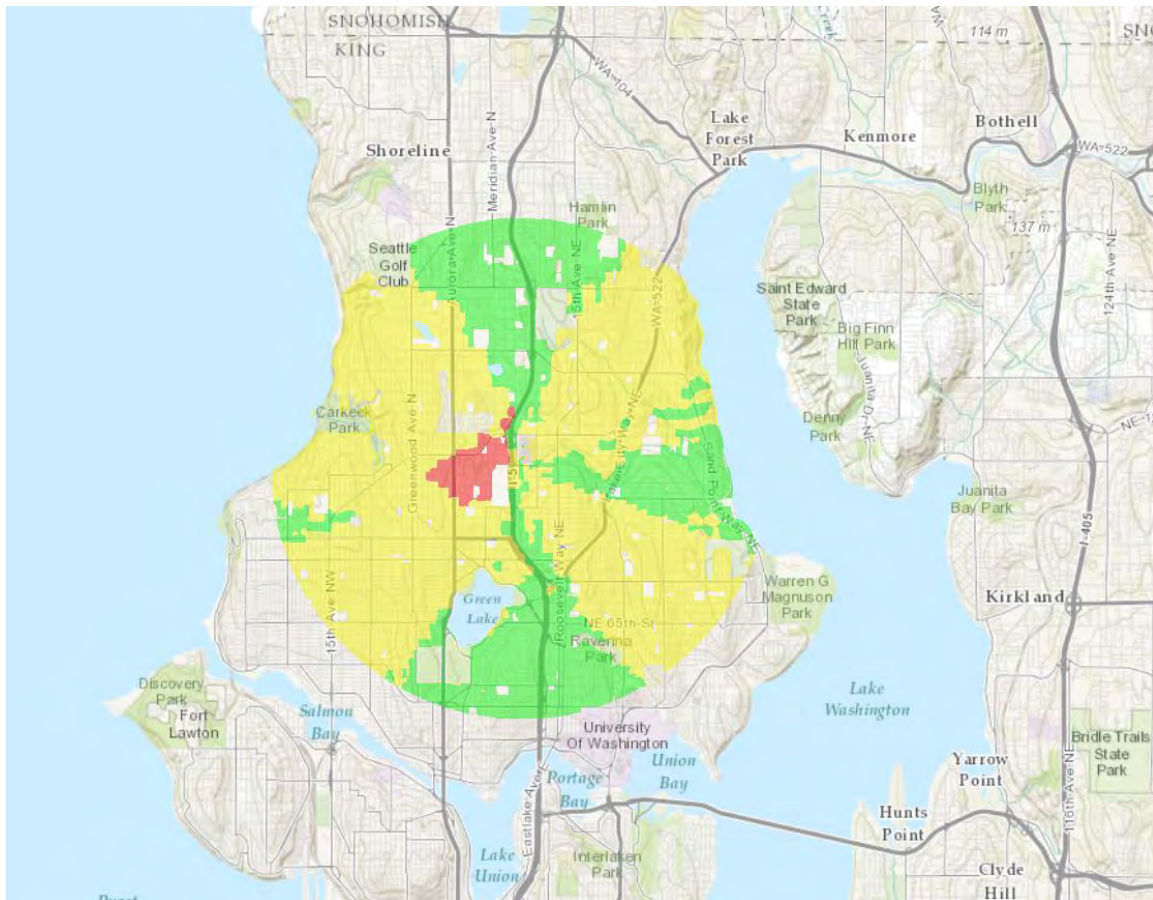


- Enter a polygon feature class representing the study area and omitting regions not to be included in the analysis (ex: water features, parks, cemeteries).



Results:

The RDI Analysis tool produces one raster surface per station visualizing the route directness in a three-mile radius surrounding each station. The surface is produced through a spatial interpolation process using the RDI scores of the input locations surrounding each station. The screen capture below shows RDI analysis results for one sample station (ZID = 261). The lowest score is represented by a value of 1 (shown in red), and the highest score is represented by a value of 5 (shown in green).





CALCULATE STATISTICS (COUNTY-WIDE)

Summary:

The Calculate Statistics (Countywide) tool uses ArcGIS Zonal Statistics to summarize surfaces created using the Create Surface tool. The results can be examined in tabular format and applied in analyses such as linear regression. The Zonal Statistics geoprocessing tool in ArcGIS uses the Spatial Analyst extension. It calculates statistics on values of a raster within the zones of another dataset. The statistics types are described in the list below. The Calculate Statistics tool calculates zonal statistics for each zone record in a feature class or a list of feature classes. It can be used to produce connectivity surface summary values for each station. The zones being analyzed may include bike sheds and walk sheds surrounding each KCM transit station.

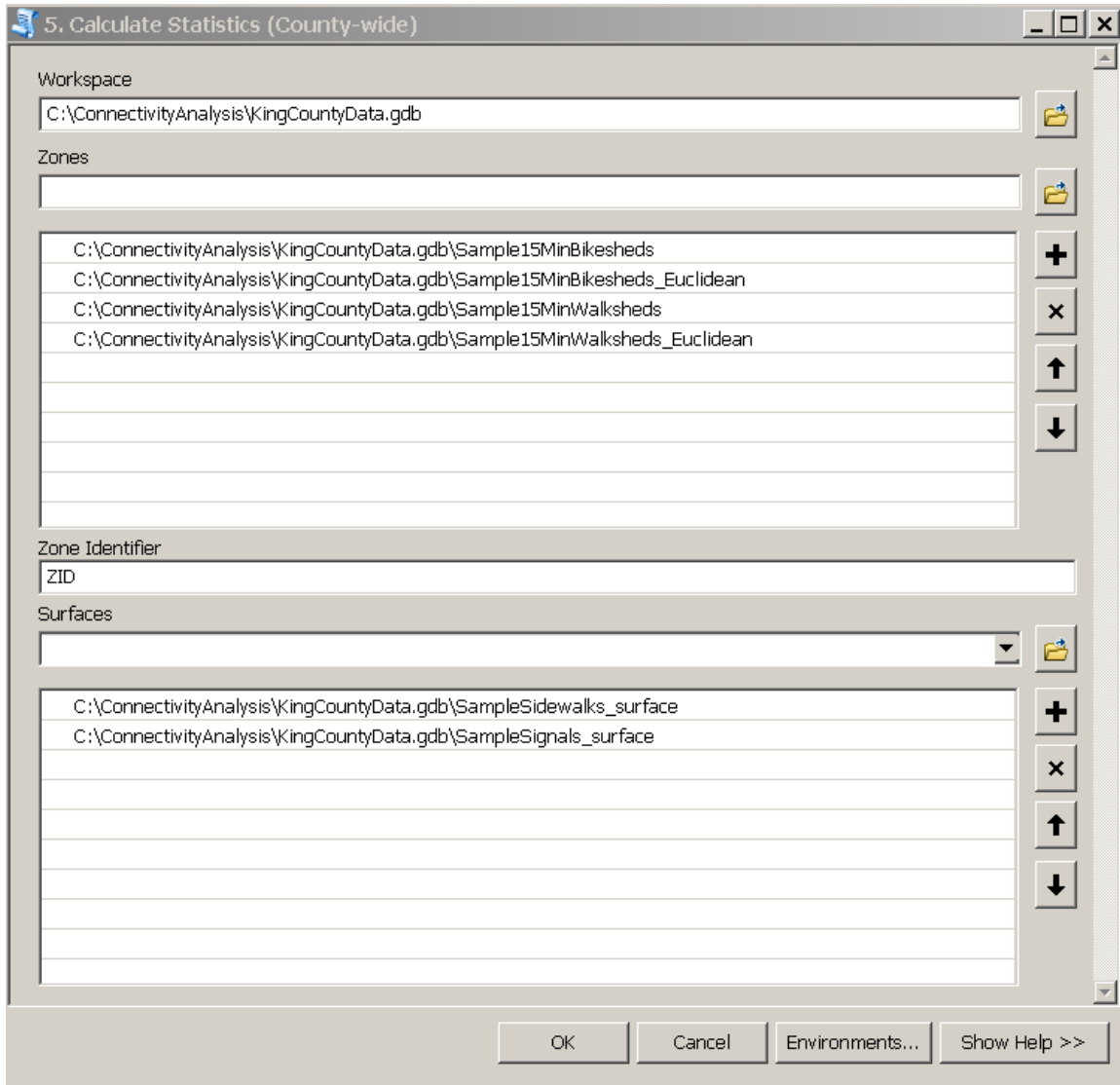
This tool requires the Spatial Analyst extension.

Zonal Statistics Calculated by ArcGIS:

- **MEAN** — Calculates the average of all cells in the value raster that belong to the same zone as the output cell.
- **MAJORITY** — Determines the value that occurs most often of all cells in the value raster that belong to the same zone as the output cell.
- **MAXIMUM** — Determines the largest value of all cells in the value raster that belong to the same zone as the output cell.
- **MEDIAN** — Determines the median value of all cells in the value raster that belong to the same zone as the output cell.
- **MINIMUM** — Determines the smallest value of all cells in the value raster that belong to the same zone as the output cell.
- **MINORITY** — Determines the value that occurs least often of all cells in the value raster that belong to the same zone as the output cell.
- **RANGE** — Calculates the difference between the largest and smallest value of all cells in the value raster that belong to the same zone as the output cell.
- **STD** — Calculates the standard deviation of all cells in the value raster that belong to the same zone as the output cell.
- **SUM** — Calculates the total value of all cells in the value raster that belong to the same zone as the output cell.



- VARIETY — Calculates the number of unique values for all cells in the value raster that belong to the same zone as the output cell.



Parameters:

- Workspace
 - Enter the file geodatabase (.gdb) to which output data will be written.
- Zones
 - Enter the polygon feature classes representing statistical zones, such as walk shed and bike shed feature classes.
- Zone Identifier



- Enter the name of the ID field that contains the unique identifier common to all zone geographies.
- Surfaces
 - Enter the countywide surfaces (rasters) for which statistics will be calculated within the input zone geographies.

Results:

The Calculate Statistics (Countywide) tool produces statistics tables for each zone type for each surface. The example result table below show sidewalks statistics for the three sample stations (ZIDs 86, 261, and 348) within the 15-minute Euclidean (as-the-crow-flies) bike sheds surrounding each station.

ZS_Sample15MinBikesheds_Euclidean_SampleSidewalks_surface													
OBJECTID	ZID	COUNT	AREA	MIN	MAX	RANGE	MEAN	STD	SUM	VARIETY	MAJORITY	MINORITY	MEDIAN
1	86	688867	619980000	1	5	4	4.14638	1.03975	2856310	5	5	2	4
2	261	708529	637676000	1	5	4	4.11126	1.05975	2912950	5	5	2	4
3	348	706998	636298000	1	5	4	4.08018	1.08188	2884680	5	5	2	4



CALCULATE STATISTICS (RDI)

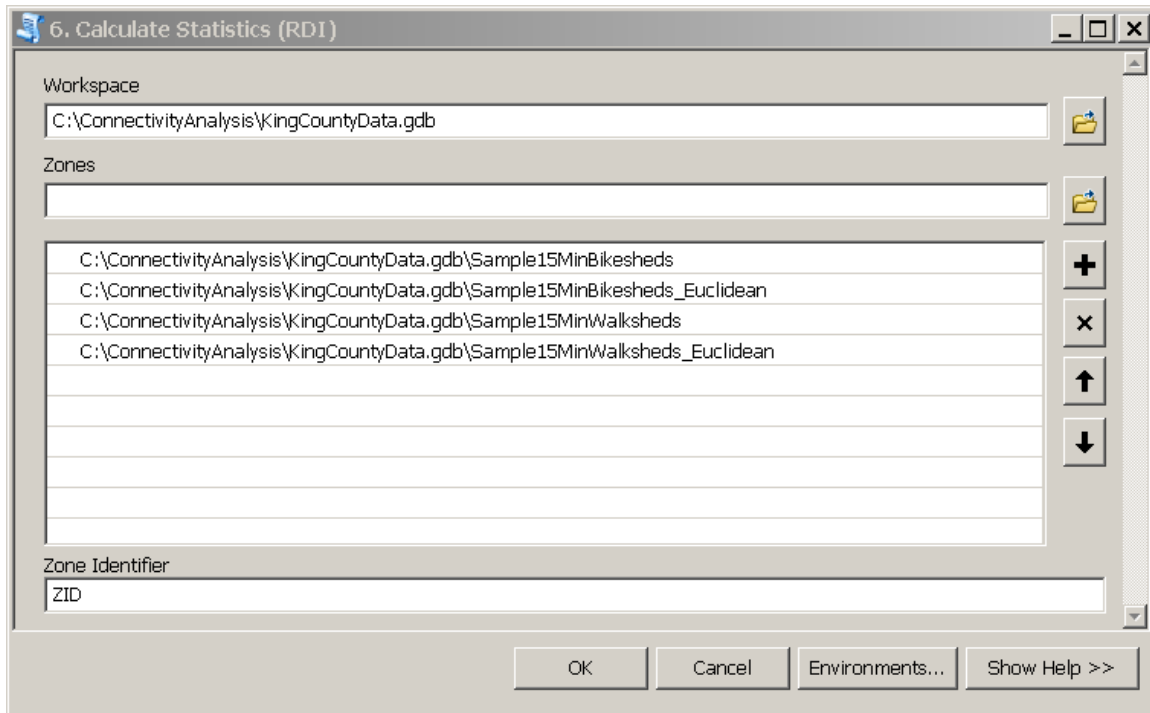
Summary:

The Calculate Statistics (RDI) tool uses ArcGIS Zonal Statistics to summarize surfaces created using the station-based RDI surface tool (RDI Analysis). In other words, this tool generates a numerical summary of the RDI raster values. The results can be examined in tabular format and applied in analyses such as linear regression where the average RDI of a transit stop area is of interest.

The Zonal Statistics geoprocessing tool in ArcGIS uses the Spatial Analyst extension. It calculates statistics on values of a raster within user defined “zones”. The statistics types (mean, maximum, median, etc.) are described in the Calculate Statistics (Countywide) tool description above. Because the Create RDI Surfaces tool produces individual feature-by-feature surfaces, the process of summarizing the surfaces is different than the Calculate Statistics (Countywide tool). This is due to each station zone having a unique RDI surface²³. As the tool iterates through each zone record, it selects the appropriate RDI surface for that zone and calls for the execution of the Zonal Statistics geoprocessing tool. It can be used to produce RDI surface summary values for each station. The zones being analyzed may include bike sheds and walk sheds surrounding a transit stations dataset.

This tool requires the Spatial Analyst extension.

²³ In other words, the RDI value of a location will vary based on which transit stop is being analyzed. In the Northgate example, a particular raster cell could have a poor RDI score to access the Northgate Transit Center and a relatively good RDI score to access a RapidRide stop on Aurora Avenue. In contrast the arterial crossing score of a location does not vary based on the transit stop being analyzed.



Parameters:

- Workspace
 - Enter the file geodatabase (.gdb) to which output data will be written. The workspace must contain RDI surfaces created using the RDI Analysis Tool.
- Zones
 - Enter the polygon feature classes representing “zones” over which to calculate the RDI statistics. These zones can be any shape/size, the example above specifies a variety of walk shed and bike shed polygons.
- Zone Identifier
 - Enter the name of the ID field that contains the unique identifier common to all zone geographies.



Results:

The Calculate Statistics (RDI) tool produces statistics tables for each zone. The example result table below shows RDI statistics for the three sample stations (ZIDs 86, 261, and 348) within the 15-minute bike sheds (zone) surrounding each station.

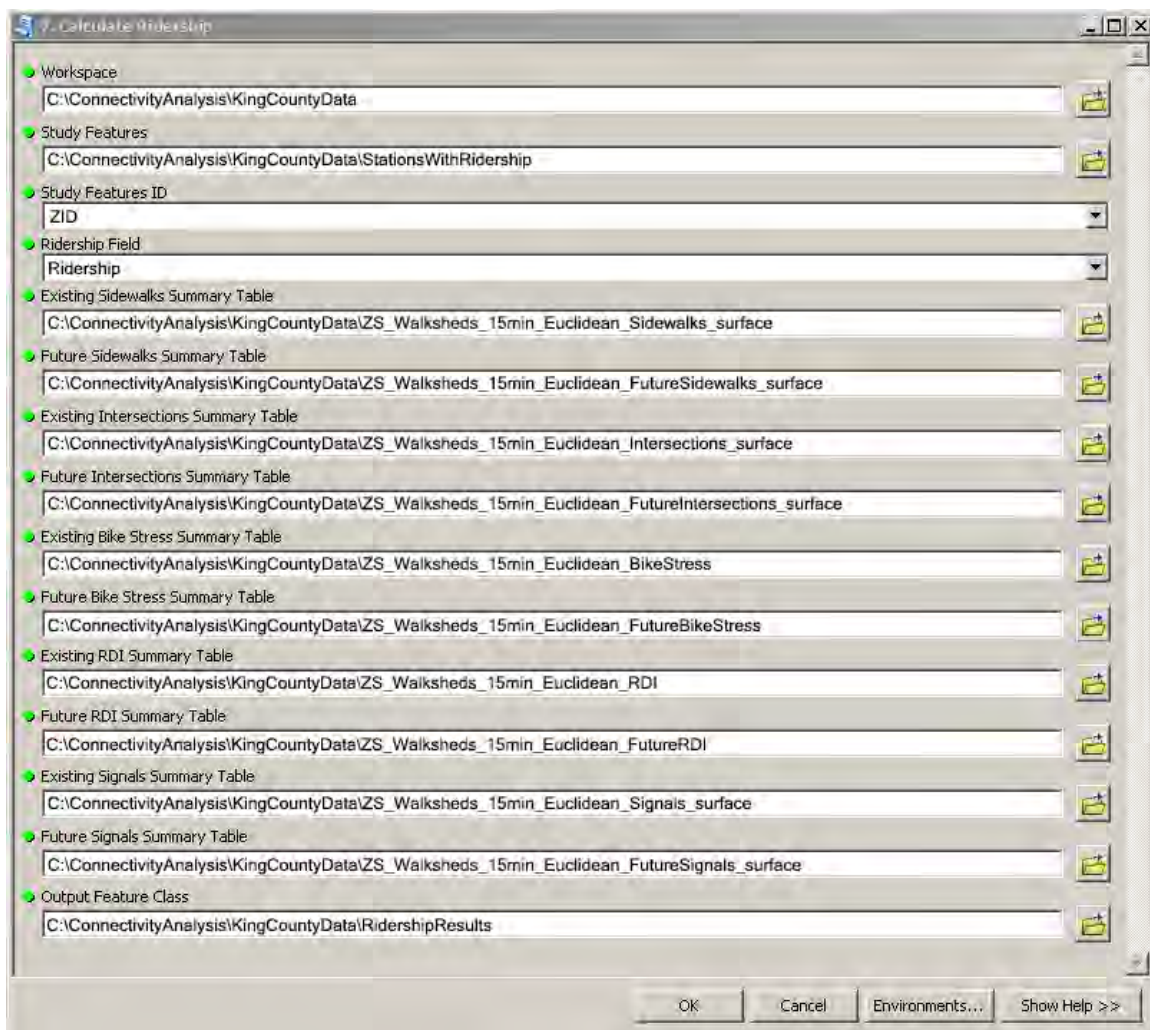
ZS_Sample15MinBikesheds_RDI														
	OBJECTID *	ZID	COUNT	AREA	MIN	MAX	RANGE	MEAN	STD	SUM	VARIETY	MAJORITY	MINORITY	MEDIAN
▶	1	261	28472	25624800	2	5	3	4.26472	0.602801	121425	4	4	2	4
	2	348	40642	36577800	2	5	3	4.35417	0.698514	176962	4	4	2	4
	3	86	68411	61569900	4	5	1	4.42239	0.49394	302540	2	4	5	4



CALCULATE RIDERSHIP

Summary:

The Calculate Ridership tool uses ridership and connectivity variables for existing and future conditions to calculate change in ridership for a set of Study Features defined by the user. This tool works with file geodatabase tables produced using the Calculate Statistics (Countywide), Calculate Statistics (RDI), and Bike Stress Analysis tools.





Parameters:

- Workspace
 - Enter the file geodatabase (.gdb) to which output data will be written.
- Study Features
 - Enter a point feature class (ex: station locations). Bike stress will be calculated for each feature in the input Study Features feature class. The feature class must have a field containing a unique identifier for each point feature.
- Study Features ID
 - Select the ID field from the Study Features feature class that contains a unique identifier for each point feature.
- Ridership Field
 - Select the field from the Study Features feature class that contains ridership values for each study feature.
- Existing Sidewalks Summary Table
 - Enter a file geodatabase table with sidewalk summary results (existing conditions) from the Calculate Statistics (Countywide) tool. The “MEAN” field from this table will be used in conjunction with other tables to calculate change in ridership for each study feature in the Study Features feature class.
- Future Sidewalks Summary Table
 - Enter a file geodatabase table with sidewalk summary results (future conditions) from the Calculate Statistics (Countywide) tool. The “MEAN” field from this table will be used in conjunction with other tables to calculate change in ridership for each study feature in the Study Features feature class.
- Existing Intersections Summary Table
 - Enter a file geodatabase table with intersection summary results (existing conditions) from the Calculate Statistics (Countywide) tool. The “MEAN” field from this table will be used in conjunction with other tables to calculate change in ridership for each study feature in the Study Features feature class.
- Future Intersections Summary Table
 - Enter a file geodatabase table with intersection summary results (future conditions) from the Calculate Statistics (Countywide) tool. The “MEAN”



field from this table will be used in conjunction with other tables to calculate change in ridership for each study feature in the Study Features feature class.

- Existing Bike Stress Summary Table
 - Enter a file geodatabase table with bike stress summary results (existing conditions) from the Bike Stress Analysis tool. The “avg_ratio” field from this table will be used in conjunction with other tables to calculate change in ridership for each study feature in the Study Features feature class.
- Future Bike Stress Summary Table
 - Enter a file geodatabase table with bike stress summary results (future conditions) from the Bike Stress Analysis tool. The “avg_ratio” field from this table will be used in conjunction with other tables to calculate change in ridership for each study feature in the Study Features feature class.
- Existing RDI Summary Table
 - Enter a file geodatabase table with bike stress summary results (existing conditions) from the Calculate Statistics (RDI) tool. The “MEAN” field from this table will be used in conjunction with other tables to calculate change in ridership for each study feature in the Study Features feature class.
- Future RDI Summary Table
 - Enter a file geodatabase table with bike stress summary results (future conditions) from the Calculate Statistics (RDI) tool. The “MEAN” field from this table will be used in conjunction with other tables to calculate change in ridership for each study feature in the Study Features feature class.
- Existing Signals Summary Table
 - Enter a file geodatabase table with signal summary results (existing conditions) from the Calculate Statistics (Countywide) tool. The “MEAN” field from this table will be used in conjunction with other tables to calculate change in ridership for each study feature in the Study Features feature class.
- Future Signals Summary Table
 - Enter a file geodatabase table with signal summary results (future conditions) from the Calculate Statistics (Countywide) tool. The “MEAN” field from this table will be used in conjunction with other tables to calculate change in ridership for each study feature in the Study Features feature class.
- Output Feature Class Name



- Enter the name and location of the output file to be created. The output produced is a point feature class containing connectivity variables and change in ridership for each study feature.

Results:

The Calculate Ridership tool produces an output point feature class containing ridership and connectivity variables as well as change in ridership. As described in the full report, the ridership outputs are one of the key products of the Connectivity Toolbox. Ridership is used to evaluate and prioritize potential non-motorized improvement projects.

WEIGHT SURFACES

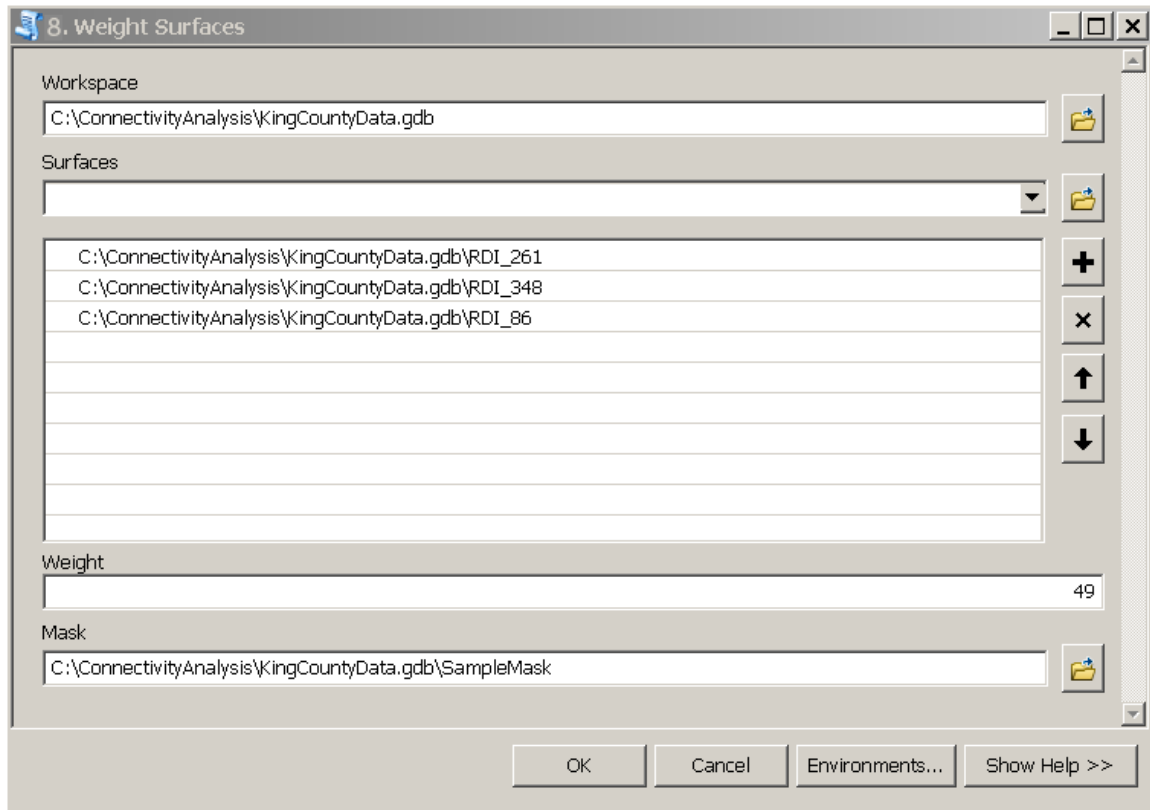
Summary:

The Weight Surface tool weights raster cells of an input surface according to a user-defined input weight. Surfaces weighted using this tool can be used as inputs to the Final Connectivity Index tool. The Weighted Surfaces and the Final Connectivity Index are intended for spatial representation and visualization. Statistics applied in the Calculate Ridership tool are weighted separately according to model findings. For consistency between model results and visualizations, it is recommended that the weight percentages derived from the model be applied in the Weight Surfaces tool. The table below shows the weight percentages applied for each surface in the Non-Motorized Connectivity Study. Refer to the project report for more information on the model results and weight percentages.

	Coefficient	Weight Percentage
RDI	0.860	36%
Bike Stress	0.145	6%
Sidewalk/Walkway Density	0.669	14%
Intersection Density	0.393	8%
Signalized Crossing	0.878	36%



This tool requires the Spatial Analyst extension.



Parameters:

- **Workspace**
 - Enter the file geodatabase (.gdb) to which output data will be written.
- **Surfaces**
 - Enter station-based or countywide raster surfaces produced using the RDI Analysis, Bike Stress Analysis, Create Surface, or Create Surface along Network tools. All surfaces entered will be weighted according to the weight value specified in the next field.
- **Weight**
 - Enter a whole-number weight value. This value will be multiplied by input surface raster cell values to produce weighted surfaces.
- **Mask**








- Enter a polygon feature class representing the study area and omitting regions not to be included in the analysis (ex: water features, parks, cemeteries).



Results:

The Weight Surface tool produces weighted versions of input surfaces. The screen capture below shows the sample RDI surfaces as viewed in the Catalog window of ArcMap with their weighted equivalents (weighted by the weight percentage for RDI, which is 36).

-  RDI_261
-  RDI_261_weighted_36
-  RDI_348
-  RDI_348_weighted_36
-  RDI_86
-  RDI_86_weighted_36

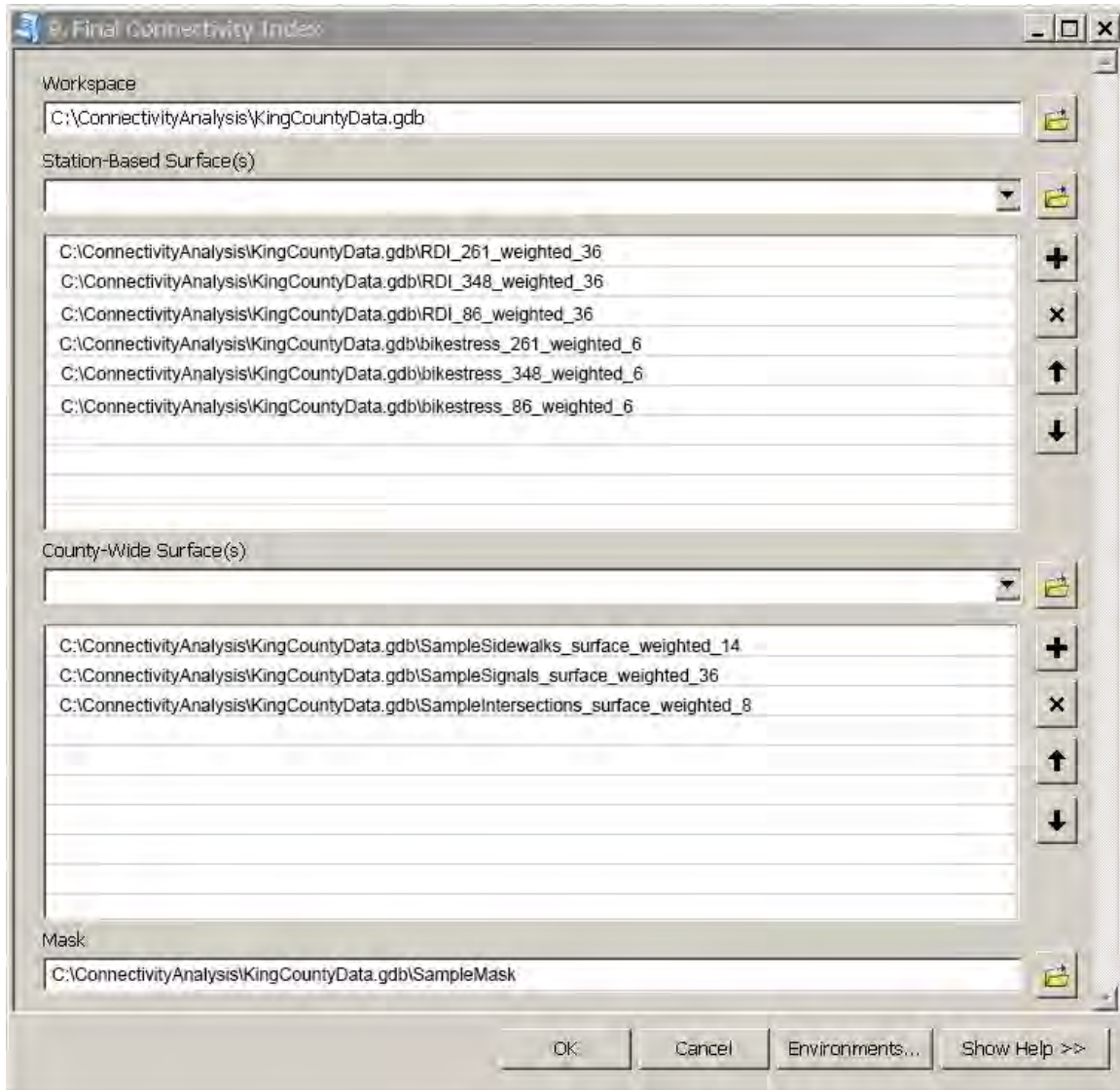


FINAL CONNECTIVITY INDEX

Summary:

The Final Connectivity Index tool creates a composite scored surface using either the results from previous surface tools and/or new surfaces created from additional study layers. The Final Connectivity Index tool overlays component surfaces and assigns a composite score for each output raster cell. The output surface is a visual summary of connectivity based on features identified by the user as contributing to the connectivity of a region.

This tool requires the Spatial Analyst extension.



Parameters:

- Workspace
 - Enter the file geodatabase (.gdb) to which output data will be written.
- Station-Based Surface(s)
 - Enter station-based raster surfaces produced using the RDI Analysis or Bike Stress Analysis tools (or corresponding raster surfaces weighted using the Weight Surfaces tool). These surfaces must follow the naming convention *SurfaceName_SurfaceID* (ex: RDI_244), or for weighted surfaces, *SurfaceName_SurfaceID_Weight* (ex: RDI_244_5).

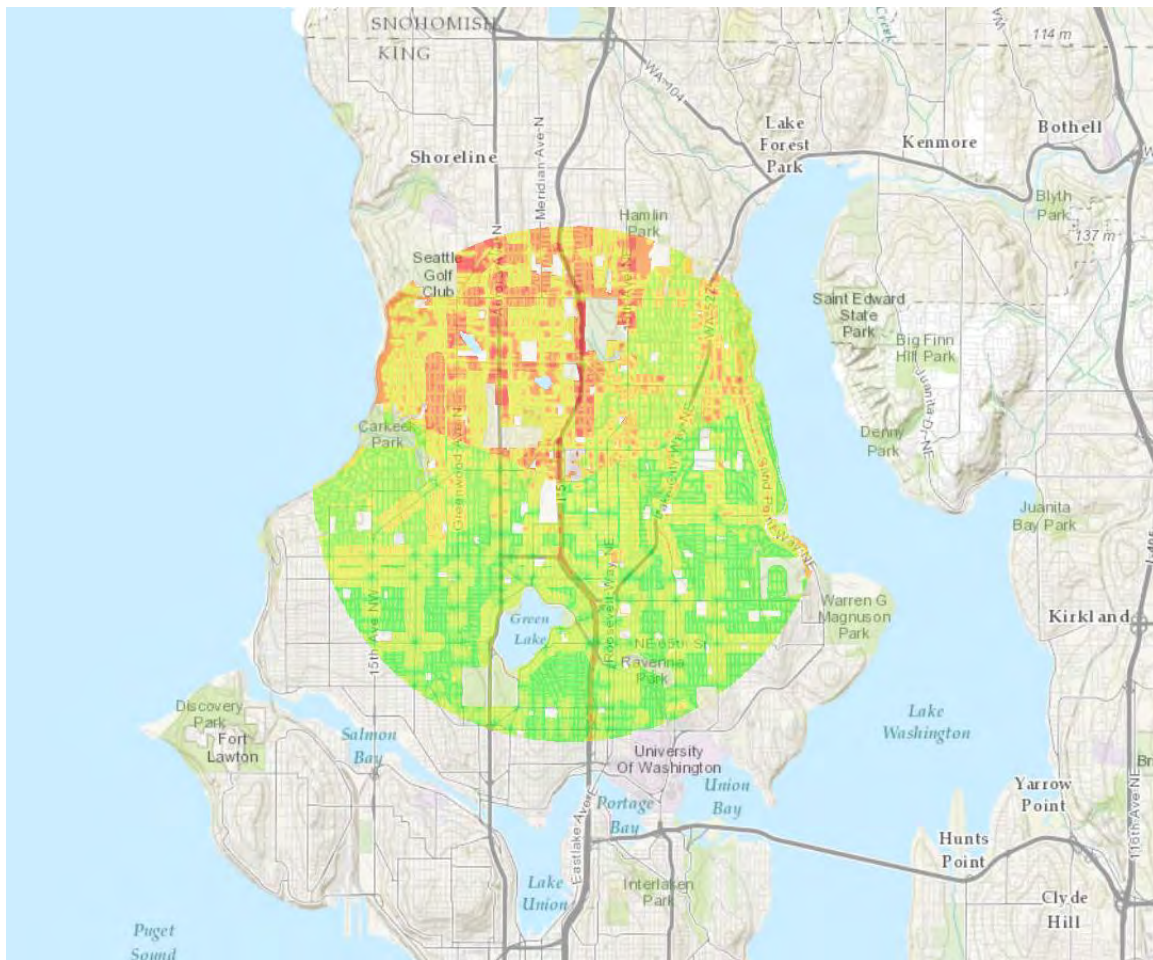


- County-Wide Surface(s)
 - Enter countywide raster surfaces produced using the Create Surface and Create Surface Along Network tools (or corresponding raster surfaces weighted using the Weight Surfaces tool).
- Mask
 - Enter a polygon feature class representing the study area and omitting regions not to be included in the analysis (ex: water features, parks, cemeteries).



Results:

The Final Connectivity Index tool produces station-based raster composites of individual input surfaces. The screen capture below shows the final composite index for one sample station (ZID = 261). The final scores depend on the scores of input surfaces and weighting where applied. In the example below, the lowest score is visualized in red and the highest score in green.



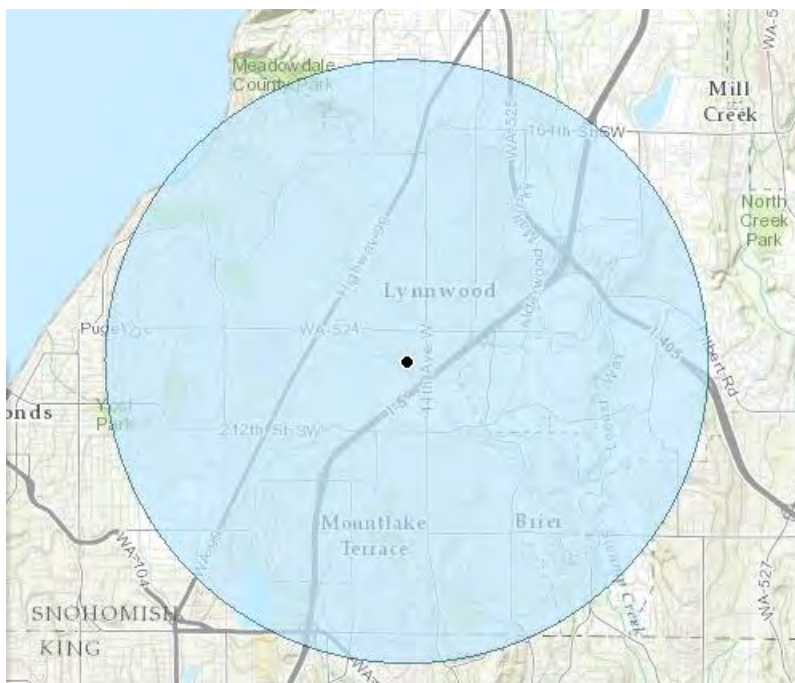


TRAVEL SHED DEVELOPMENT

A travel shed is a defined region surrounding a point or points of interest. This region typically describes a travel area from the points of interest outward or inward toward the points of interest. In addition to the development of the Connectivity Toolbox, a workflow was established to delineate travel sheds within the vicinity of each station included in the Non-Motorized Connectivity Analysis. Four travel sheds estimating 15-minute travel to and from King County transit stops were applied: network walk shed, network bike shed, Euclidean (as-the-crow-flies) walk shed and Euclidean bike shed. This section describes both types of travel sheds, as well as the travel shed development process performed in ArcMap.

Euclidean Travel Sheds

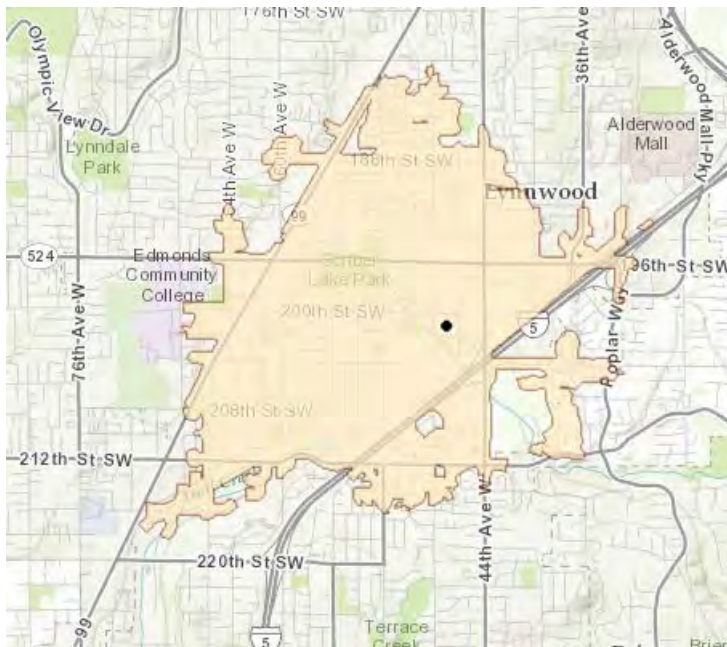
Euclidean travel sheds are defined according to a straight-line, as-the-crow-flies, distance in all directions from points of interest. The Kind County Non-Motorized Connectivity analysis used Euclidean walk sheds (3,150 feet) and Euclidean bike sheds (3 miles) to summarize travel characteristics in the areas around each station. Below is an image showing a sample Euclidean bike shed.





Network Travel Sheds

Network travel sheds represent catchment areas along roadway features in all directions from points of interest. Network walk sheds were defined for 3,150 feet along the roadway network surrounding each station studied in the Non-Motorized Connectivity Analysis. To take into account the effects of terrain on bicycle travel in this region, an energy cost was applied to the roadway network, and a threshold of 500,000 Joules²⁴ was used to define network bike sheds. The image below is an example of a network bike shed surrounding a station.



Travel shed Creation Processing Steps

The steps below describe the ArcGIS process used to define the network and Euclidean walk sheds and bike sheds. This process requires a roadway network, elevation data, and a point feature class representing station locations.

1. Add the King County network feature class in ArcMap.

²⁴ 500,000 Joules is roughly the amount of energy an average-sized cyclist will consume when biking for 15-minutes on level terrain.



2. Add the station locations around which travel sheds are to be calculated in ArcMap.
3. Add elevation dataset that will be used to reference elevation information for network features in ArcMap. Acceptable input elevation data types include LAS Dataset Layer, Raster Layer, Terrain Layer, and TIN Layer.
4. Use the buffer tool to create the following travel sheds around station points:
 - 3,150 foot Euclidean Walk shed
 - 3 mile Euclidean Bike shed
5. Add elevation data to network lines feature class using the "Add Surface Information" tool in ArcMap.
6. Calculate watts for each network feature.
 - $((9.8 * 90) * 4.5) * (.0053 + (\text{Average Slope}/100)) + ((.185 * (4.5^2)) * 4.5)$
7. Calculate joules for each network feature.
 - $((\text{Length} * .3048) / 4.5) * \text{Watts}$
8. Create King County network dataset in ArcGIS using Network Analyst extension with length and joules as costs.
9. Use Service Area tools in Network Analyst to create the following travel sheds around station points:
 - 15-minute Network Walk Shed (3,150 foot cutoff)
 - 15-minute Network Bike Shed (50,000²⁵ cutoff)

²⁵ Note that 500,000 joules is energy budget, but the tool uses a factor of 10 in the calculation. Thus use 50,000 for the travel shed cut-off



RECOMMENDED PRACTICES

Recommendations for geospatial data management best practices when working with the Connectivity Toolbox and associated data:

Data Format

Geodatabase feature classes are recommended for stability, data organization, and storage of large datasets.

Spatial Reference

The Spatial Reference settings below are recommended for all data used as inputs to the Connectivity Tools:

NAD_1983_StatePlane_Washington_North_FIPS_4601_Feet
WKID: 2285 Authority: EPSG
Projection: Lambert_Conformal_Conic
False_Easting: 1640416.666666667
False_Northing: 0.0
Central_Meridian: -120.83333333333333
Standard_Parallel_1: 47.5
Standard_Parallel_2: 48.73333333333333
Latitude_Of_Origin: 47.0
Linear Unit: Foot_US (0.3048006096012192)
Geographic Coordinate System: GCS_North_American_1983
Angular Unit: Degree (0.0174532925199433)
Prime Meridian: Greenwich (0.0)
Datum: D_North_American_1983
Spheroid: GRS_1980
Semimajor Axis: 6378137.0
Semiminor Axis: 6356752.314140356
Inverse Flattening: 298.257222101

Repeating Analyses

If repeating an analysis using modified or new data, it is recommended that users create a new geodatabase containing relevant data that can also be used to store analysis outputs. This will aid in the organization and maintenance of analysis results.



Editing Datasets

Below are suggested practices when editing or adding new features to existing datasets:

- If adding point data (for example, intersections or traffic signals) along roadway features, snapping is recommended.
- When adding new features to a network dataset, using the Planarize Lines editing tool is recommended before rebuilding the network (visit this link to learn more about [planarization: http://resources.arcgis.com/en/help/main/10.1/index.html#//01m800000012000000](http://resources.arcgis.com/en/help/main/10.1/index.html#//01m800000012000000)).
- If two datasets are being used for comparison purposes, check for field type compatibility between datasets.
- When updating datasets or working with new datasets, overlay the dataset with the feature class representing the study area mask and adjust the mask if needed. Features not contained within the mask will not be included in the analysis.

Viewing the Geoprocessing Workflows in Python

Each tool is comprised of a series of geoprocessing tasks and custom functions defined in the Python programming language. The scripts associated with each tool by right clicking on the tool and selecting "Export Script". Define the script name and location to save the script to file. Once the file is saved, right click on the file name and select "Edit with IDLE".* Each script contains a header with name, purpose, author, version, and modification date information. Script processes are annotated with comments, indicated by the "#" symbol.



```
File Edit Format Run Options Windows Help
#-----
# Name: CalculateRDI.py
# Purpose: Calculate RDI for set of origins and destinations
# Author: Amy Smith
# Last Modified: 1/16/2014
# Copyright: (c) Fehr & Peers
# ArcGIS Version: 10.1
# Python Version: 2.7
#-----

# Import Modules
import os,arcpy
from arcpy.sa import *
arcpy.env.overwriteOutput = True
arcpy.env.qualifiedFieldNames = False

# Function Definitions
def getValueList(inputTable, field):

    values = set()
    rows = arcpy.SearchCursor(inputTable)

    for row in rows:
        values.add(row.getValue(field))

    return sorted(values)

def deleteExistingField(layer, field):

    fieldList = arcpy.ListFields(layer, field)

    if len(fieldList) == 1:
        arcpy.DeleteField_management(layer, field)

def do_analysis(workspace,nd,cutoff,origins,originID,destinations,studyArea):
    try:
        # Check Out Extensions
        if arcpy.CheckExtension("Network") == "Available":
            arcpy.CheckOutExtension("Network")
            arcpy.AddMessage("Network Analyst Extension Checked Out.")
    
```

* IDLE is a Python development environment automatically installed with ArcGIS Desktop. If not currently installed, the "Edit with IDLE" option will not be available. IDLE can be downloaded from python.org.



RESOURCES

About 3D Analyst:

[http://resources.arcgis.com/en/help/main/10.1/index.html#/What is the ArcGIS 3D Analyst extension/00q8000000ww000000/](http://resources.arcgis.com/en/help/main/10.1/index.html#/What%20is%20the%20ArcGIS%203D%20Analyst%20extension/00q8000000ww000000/)

About Network Analyst:

<http://resources.arcgis.com/en/help/main/10.1/index.html#//004700000001000000>

About Spatial Analyst:

[http://resources.arcgis.com/en/help/main/10.1/index.html#/What is the ArcGIS Spatial Analyst extension/005900000001000000/](http://resources.arcgis.com/en/help/main/10.1/index.html#/What%20is%20the%20ArcGIS%20Spatial%20Analyst%20extension/005900000001000000/)

Building Network Datasets:

<http://resources.arcgis.com/en/help/main/10.1/index.html#//00470000000w000000>

Creating File Geodatabases:

<http://resources.arcgis.com/en/help/main/10.1/index.html#//018s0000000m000000>

Extracting Elevation Data:

<http://resources.arcgis.com/en/help/main/10.1/index.html#//00q900000016000000>



APPENDIX B. PROJECT TYPE RANKINGS BY PERCENT CHANGE IN RIDERSHIP

Stop Location	Area	Project Type	Percent Change in Ridership
OVERLAKE VILLAGE	Redmond	New Streets	7.9%
INTERNATIONAL BLVD & S 180TH ST	SeaTac	New Streets	7.2%
NORTHGATE TC	Seattle	Off-street trails / Cycletracks*	6.8%
STRANDER BLVD & ANDOVER PARK E	Tukwila	New Streets	6.4%
FEDERAL WAY TC	Federal Way	New Streets	6.3%
INTERNATIONAL BLVD & S 176TH ST	SeaTac	New Streets	6.2%
OVERLAKE VILLAGE	Redmond	Off-street trails / Cycletracks*	6.1%
ANDOVER PARK W & MINKLER BLVD	Tukwila	New Streets	5.9%
ANDOVER PARK W & TRILAND DR	Tukwila	New Streets	5.7%
156TH AVE NE & NE 31ST ST	Redmond	New Streets	5.6%
MERIDIAN AVE N & N 105TH ST	Seattle	Off-street trails / Cycletracks	5.6%
BOEING ACS & S LONGACRES WAY	Renton	New Streets	5.3%
156TH AVE NE & NE 28TH ST	Redmond	New Streets	5.3%
NE 8TH ST & 124TH AVE NE	Bellevue	New Streets	4.9%
LYNNWOOD TC	Lynnwood	New Streets	4.3%
REDMOND TC	Redmond	Off-street trails / Cycletracks	4.3%
ANDOVER PARK W & BAKER BLVD	Tukwila	New Streets	4.2%
156TH AVE NE & NE 31ST ST	Redmond	Off-street trails / Cycletracks	4.2%
WEST VALLEY HWY & STRANDER BLVD	Tukwila	Off-street trails / Cycletracks	4.1%



Stop Location	Area	Project Type	Percent Change in Ridership
15TH AVE NW & NW 85TH ST	Seattle	Greenways / Signalized Crossings	4.1%
NE NORTHGATE WAY & ROOSEVELT WAY NE	Seattle	Greenways / Signalized Crossings	4.0%
STRANDER BLVD & ANDOVER PARK W	Tukwila	New Streets	4.0%
ANDOVER PARK W & TRILAND DR	Tukwila	Off-street trails / Cycletracks	3.8%
156TH AVE NE & NE 28TH ST	Redmond	Off-street trails / Cycletracks	3.4%
S 180TH ST & SPERRY DR	Tukwila	New Streets	3.4%
15TH AVE NW & NW MARKET ST	Seattle	Greenways / Signalized Crossings	3.4%
15TH AVE NW & NW LEARY WAY	Seattle	Greenways / Signalized Crossings	3.4%
E THOMAS ST & 16TH AVE E	Seattle	Greenways / Signalized Crossings	3.4%
CALIFORNIA AVE SW & SW FINDLAY ST	Seattle	Greenways / Signalized Crossings	3.3%
TOTEM LAKE TC	Kirkland	New Streets	3.3%
FEDERAL WAY TC	Federal Way	Off-street trails / Cycletracks	3.2%
15TH AVE W & W DRAVUS ST	Seattle	Off-street trails / Cycletracks	3.1%
156TH AVE NE & NE 24TH ST	Bellevue	New Streets	3.1%
BEACON HILL STATION	Seattle	Off-street trails / Cycletracks	3.1%
1ST AVE NE & NE 95TH ST	Seattle	Greenways / Signalized Crossings	3.1%
FAUNTLEROY WAY SW & CALIFORNIA AVE SW	Seattle	Greenways / Signalized Crossings	3.0%
AURORA AVE N & N NORTHGATE WAY	Seattle	Off-street trails / Cycletracks	3.0%
5TH AVE NE & NE 103RD ST	Seattle	Greenways / Signalized Crossings	2.9%
15TH AVE E & E ROY ST	Seattle	Greenways / Signalized Crossings	2.9%
E MADISON ST & 17TH AVE	Seattle	Greenways / Signalized Crossings	2.8%



Stop Location	Area	Project Type	Percent Change in Ridership
PACIFIC HWY S & S 312TH ST	Federal Way	New Streets	2.7%
INTERNATIONAL BLVD & S 200TH ST	SeaTac	Off-street trails / Cycletracks	2.6%
MOUNTLAKE TERRACE TC	Mountlake Terrace	Off-street trails / Cycletracks	2.6%
SODO BUSWAY & S LANDER ST	Seattle	Off-street trails / Cycletracks	2.6%
5TH AVE NE & NE 106TH ST	Seattle	Greenways / Signalized Crossings	2.5%
ISSAQUAH TC	Issaquah	New Streets	2.4%
156TH AVE NE & NE 15TH ST	Bellevue	New Streets	2.4%
NE NORTHGATE WAY & 5TH AVE NE	Seattle	Greenways / Signalized Crossings	2.4%
BURIEN TC	Burien	Bike Lanes	2.4%
TOTEM LAKE TC	Kirkland	Bike Lanes	2.4%
MOUNTLAKE TERRACE TC	Mountlake Terrace	Bike Lanes	2.4%
SW 148TH ST & AMBAUM BLVD SW	Burien	Bike Lanes	2.4%
BOEING ACS & S LONGACRES WAY	Renton	Off-street trails / Cycletracks	2.4%
ISSAQUAH TC	Issaquah	Off-street trails / Cycletracks	2.4%
INTERNATIONAL BLVD & S 188TH ST	SeaTac	New Streets	2.3%
156TH AVE NE & NE 15TH ST	Bellevue	Off-street trails / Cycletracks	2.3%
5TH AVE NE & NE 103RD ST	Seattle	Off-street trails / Cycletracks	2.3%
AURORA AVE N & N 130TH ST	Seattle	Off-street trails / Cycletracks	2.3%
AURORA AVE N & N 165TH ST	Shoreline	New Streets	2.2%
BROADWAY E & E REPUBLICAN ST	Seattle	Greenways / Signalized Crossings	2.2%
FAIRVIEW AVE N & MERCER ST	Seattle	Off-street trails / Cycletracks	2.2%
TOTEM LAKE TC	Kirkland	Off-street trails /	2.2%



Stop Location	Area	Project Type	Percent Change in Ridership
		Cycletracks	
1ST AVE NE & NE 95TH ST	Seattle	Off-street trails / Cycletracks	2.2%
INTERNATIONAL BLVD & S 176TH ST	SeaTac	Off-street trails / Cycletracks	2.2%
NORTHGATE TC	Seattle	Greenways / Signalized Crossings	2.2%
AURORA AVE N & N 85TH ST	Seattle	Greenways / Signalized Crossings	2.1%
FAIRVIEW AVE N & VALLEY ST	Seattle	Off-street trails / Cycletracks	2.1%
148TH AVE NE & NE 51ST ST	Redmond	Off-street trails / Cycletracks	2.1%
AURORA AVE N & N 91ST ST	Seattle	Greenways / Signalized Crossings	2.1%
MT BAKER STATION	Seattle	Greenways / Signalized Crossings	2.1%
BROADWAY E & E JOHN ST	Seattle	Greenways / Signalized Crossings	2.0%
E ROY ST & BROADWAY E	Seattle	Greenways / Signalized Crossings	2.0%
STRANDER BLVD & ANDOVER PARK E	Tukwila	Off-street trails / Cycletracks	2.0%
15TH AVE NW & NW LEARY WAY	Seattle	Off-street trails / Cycletracks	2.0%
15TH AVE NW & NW 65TH ST	Seattle	Greenways / Signalized Crossings	2.0%
SOUTHCENTER BLVD & 62ND AVE S	Tukwila	New Streets	2.0%
MARTIN L KING JR WAY & S MYRTLE ST	Seattle	Off-street trails / Cycletracks	1.9%
MT BAKER STATION	Seattle	Off-street trails / Cycletracks	1.9%
WOODLAND PL N & N 64TH ST	Seattle	Greenways / Signalized Crossings	1.9%
SW ALASKA ST & CALIFORNIA AVE SW	Seattle	Greenways / Signalized Crossings	1.9%
SW AVALON WAY & SW YANCY ST	Seattle	Off-street trails / Cycletracks	1.9%
3RD AVE & UNION ST	Seattle	Off-street trails /	1.9%



Stop Location	Area	Project Type	Percent Change in Ridership
		Cycletracks	
BAY C & WESTLAKE STATION	Seattle	Off-street trails / Cycletracks	1.9%
E UNION ST & BROADWAY	Seattle	Off-street trails / Cycletracks	1.8%
FAIRVIEW AVE E & YALE AVE N	Seattle	Off-street trails / Cycletracks	1.8%
SW ALASKA ST & CALIFORNIA AVE SW	Seattle	Off-street trails / Cycletracks	1.8%
NE NORTHGATE WAY & ROOSEVELT WAY NE	Seattle	Off-street trails / Cycletracks	1.8%
FEDERAL WAY TC	Federal Way	Bike Lanes	1.8%
EVERETT SOUNDER	Everett	Bike Lanes	1.8%
AURORA AVE N & N 185TH ST	Shoreline	Bike Lanes	1.8%
AURORA VILLAGE TC	Shoreline	Bike Lanes	1.8%
NORTHGATE TC	Seattle	Bike Lanes	1.8%
OVERLAKE TC	Redmond	Bike Lanes	1.8%
OVERLAKE TC	Redmond	Bike Lanes	1.8%
SODO BUSWAY & S LANDER ST	Seattle	Bike Lanes	1.8%
FAIRVIEW AVE N & MERCER ST	Seattle	Bike Lanes	1.8%
156TH AVE NE & NE 36TH ST	Redmond	New Streets	1.8%
SW BARTON ST & 29TH AVE SW	Seattle	Greenways / Signalized Crossings	1.8%
148TH AVE NE & NE OLD REDMOND RD	Redmond	Off-street trails / Cycletracks	1.7%
PACIFIC HWY S & S 288TH ST	Federal Way	Sidewalks	1.7%
AURORA AVE N & N 145TH ST	Shoreline	New Streets	1.7%
148TH AVE NE & NE 87TH ST	Redmond	Off-street trails / Cycletracks	1.7%
WEST VALLEY HWY & S LONGACRES WAY	Tukwila	Off-street trails / Cycletracks	1.6%
S 180TH ST & SPERRY DR	Tukwila	Off-street trails / Cycletracks	1.6%



Stop Location	Area	Project Type	Percent Change in Ridership
INTERNATIONAL BLVD & S 188TH ST	SeaTac	Off-street trails / Cycletracks	1.6%
5TH AVE NE & NE 112TH ST	Seattle	Greenways / Signalized Crossings	1.6%
PACIFIC HWY S & S 312TH ST	Federal Way	Sidewalks	1.6%
MARTIN L KING JR WAY & S MYRTLE ST	Seattle	Greenways / Signalized Crossings	1.5%
WESTLAKE AVE N & MERCER ST	Seattle	Off-street trails / Cycletracks	1.5%
LYNNWOOD TC	Lynnwood	Off-street trails / Cycletracks	1.4%
MERIDIAN AVE N & N NORTHGATE WAY	Seattle	Off-street trails / Cycletracks	1.4%
ANDOVER PARK W & MINKLER BLVD	Tukwila	Off-street trails / Cycletracks	1.4%
35TH AVE SW & SW AVALON WAY	Seattle	Off-street trails / Cycletracks	1.4%
NE 8TH ST & 124TH AVE NE	Bellevue	Off-street trails / Cycletracks	1.4%
AURORA AVE N & N 100TH ST	Seattle	Off-street trails / Cycletracks	1.4%
ANDOVER PARK W & BAKER BLVD	Tukwila	Off-street trails / Cycletracks	1.4%
ANDOVER PARK W & BAKER BLVD	Tukwila	Off-street trails / Cycletracks	1.4%
WESTLAKE AVE N & HARRISON ST	Seattle	Off-street trails / Cycletracks	1.3%
PACIFIC HWY S & S 312TH ST	Federal Way	Off-street trails / Cycletracks	1.3%
S 154TH ST & 32ND AVE S	SeaTac	New Streets	1.3%
DEXTER AVE N & MERCER ST	Seattle	Off-street trails / Cycletracks	1.3%
1ST AVE W & W MERCER ST	Seattle	Off-street trails / Cycletracks	1.3%
VIRGINIA ST & 6TH AVE	Seattle	Off-street trails / Cycletracks	1.2%
FAUNTLEROY WAY SW & CALIFORNIA AVE SW	Seattle	Off-street trails / Cycletracks	1.2%



Stop Location	Area	Project Type	Percent Change in Ridership
PACIFIC HWY S & S 272ND ST	Des Moines	Sidewalks	1.2%
DENNY WAY & DEXTER AVE N	Seattle	Off-street trails / Cycletracks	1.2%
E JEFFERSON ST & 15TH AVE	Seattle	Greenways / Signalized Crossings	1.2%
MARTIN L KING JR WAY & S MYRTLE ST	Seattle	Bike Lanes	1.2%
S 156TH ST & 1ST AVE S	Burien	Bike Lanes	1.2%
REDMOND TC	Redmond	Bike Lanes	1.2%
156TH AVE NE & NE 45TH ST	Redmond	Bike Lanes	1.2%
ISSAQUAH TC	Issaquah	Bike Lanes	1.2%
AURORA AVE N & N 192ND ST	Shoreline	Bike Lanes	1.2%
148TH AVE NE & NE OLD REDMOND RD	Redmond	Bike Lanes	1.2%
156TH AVE NE & NE 36TH ST	Redmond	Bike Lanes	1.2%
BELLEVUE TC	Bellevue	Bike Lanes	1.2%
15TH AVE W & W DRAVUS ST	Seattle	Bike Lanes	1.2%
15TH AVE NW & NW LEARY WAY	Seattle	Bike Lanes	1.2%
SW ALASKA ST & CALIFORNIA AVE SW	Seattle	Bike Lanes	1.2%
1ST AVE W & W MERCER ST	Seattle	Bike Lanes	1.2%
DENNY WAY & DEXTER AVE N	Seattle	Bike Lanes	1.2%
E UNION ST & BROADWAY	Seattle	Bike Lanes	1.2%
FAUNTLEROY WAY SW & SW BARTON ST	Seattle	Bike Lanes	1.2%
WESTLAKE AVE N & HARRISON ST	Seattle	Bike Lanes	1.2%
DEXTER AVE N & MERCER ST	Seattle	Bike Lanes	1.2%
156TH AVE NE & NE 24TH ST	Bellevue	Off-street trails / Cycletracks	1.2%



Stop Location	Area	Project Type	Percent Change in Ridership
BROADWAY E & E REPUBLICAN ST	Seattle	Off-street trails / Cycletracks	1.1%
156TH AVE NE & NE 36TH ST	Redmond	Off-street trails / Cycletracks	1.1%
SW AVALON WAY & SW YANCY ST	Seattle	Greenways / Signalized Crossings	1.1%
KING ST STATION	Seattle	Off-street trails / Cycletracks	1.1%
AURORA AVE N & N 145TH ST	Shoreline	Off-street trails / Cycletracks	1.1%
NE 8TH ST & 140TH AVE NE	Bellevue	Off-street trails / Cycletracks	1.1%
35TH AVE SW & SW AVALON WAY	Seattle	Greenways / Signalized Crossings	1.1%
INTERNATIONAL BLVD & S 182ND ST	SeaTac	Off-street trails / Cycletracks	1.0%
PACIFIC HWY S & KENT- DESMOINES RD	Des Moines	Sidewalks	1.0%
BURIEN TC	Burien	Off-street trails / Cycletracks	1.0%
NE 8TH ST & 140TH AVE NE	Bellevue	New Streets	1.0%
AURORA AVE N & N 100TH ST	Seattle	Greenways / Signalized Crossings	1.0%
AURORA AVE N & N 192ND ST	Shoreline	Off-street trails / Cycletracks	1.0%
15TH AVE NE & NE CAMPUS PKWY	Seattle	Off-street trails / Cycletracks	1.0%
AURORA AVE N & N 46TH ST	Seattle	Greenways / Signalized Crossings	1.0%
ELLIOTT AVE W & W PROSPECT ST	Seattle	Off-street trails / Cycletracks	1.0%
MONTLAKE BLVD NE & NE 45TH ST	Seattle	Off-street trails / Cycletracks	1.0%
SOUTHCENTER BLVD & 62ND AVE S	Tukwila	Off-street trails / Cycletracks	0.9%
PACIFIC HWY S & S 240TH ST	Des Moines	Sidewalks	0.9%
4TH AVE SW & SW 156TH ST	Burien	Off-street trails / Cycletracks	0.9%



Stop Location	Area	Project Type	Percent Change in Ridership
AURORA VILLAGE TC	Shoreline	Off-street trails / Cycletracks	0.9%
NE 45TH ST & UNION BAY PL NE	Seattle	Off-street trails / Cycletracks	0.8%
SOUTH TACOMA STATION	Tacoma	Off-street trails / Cycletracks	0.8%
3RD AVE & COLUMBIA ST	Seattle	Off-street trails / Cycletracks	0.8%
PACIFIC HWY S & S 260TH ST	Des Moines	Sidewalks	0.8%
PREFONTAINE PL S & YESLER WAY	Seattle	Off-street trails / Cycletracks	0.8%
NE 45TH ST & 7TH AVE NE	Seattle	Greenways / Signalized Crossings	0.8%
RENTON TC	Renton	Off-street trails / Cycletracks	0.8%
BROADWAY E & E JOHN ST	Seattle	Off-street trails / Cycletracks	0.8%
15TH AVE NE & NE 45TH ST	Seattle	Off-street trails / Cycletracks	0.8%
SODO BUSWAY & S ROYAL BROUGHAM WAY	Seattle	Off-street trails / Cycletracks	0.8%
MONTLAKE BLVD NE & NE 45TH ST	Seattle	Greenways / Signalized Crossings	0.8%
156TH AVE NE & NE 10TH ST	Bellevue	Off-street trails / Cycletracks	0.7%
FAUNTLEROY WAY SW & SW BARTON ST	Seattle	Off-street trails / Cycletracks	0.7%
NE 45TH ST & 7TH AVE NE	Seattle	Off-street trails / Cycletracks	0.7%
BELLEVUE TC	Bellevue	Off-street trails / Cycletracks	0.7%
S HENDERSON ST & MARTIN L KING JR WAY	Seattle	Off-street trails / Cycletracks	0.7%
NE 45TH ST & UNION BAY PL NE	Seattle	Greenways / Signalized Crossings	0.7%
AURORA AVE N & GALER ST	Seattle	Off-street trails / Cycletracks	0.7%
156TH AVE NE & NE 10TH ST	Bellevue	New Streets	0.7%



Stop Location	Area	Project Type	Percent Change in Ridership
DENNY WAY & STEWART ST	Seattle	Off-street trails / Cycletracks	0.7%
S 3RD ST & SHATTUCK AVE S	Renton	Off-street trails / Cycletracks	0.7%
E DENNY WAY & BELLEVUE AVE E	Seattle	Off-street trails / Cycletracks	0.7%
FAIRVIEW AVE E & YALE AVE N	Seattle	Greenways / Signalized Crossings	0.7%
SENECA ST & 4TH AVE	Seattle	Off-street trails / Cycletracks	0.7%
E DENNY WAY & BELLEVUE AVE E	Seattle	Greenways / Signalized Crossings	0.6%
3RD AVE & VINE ST	Seattle	Off-street trails / Cycletracks	0.6%
TUK INTL BLVD STATION	Tukwila	New Streets	0.6%
BROADWAY & E COLUMBIA ST	Seattle	Off-street trails / Cycletracks	0.6%
PACIFIC HWY S & S 288TH ST	Federal Way	Off-street trails / Cycletracks	0.6%
MT BAKER STATION	Seattle	New Streets	0.6%
E MADISON ST & 17TH AVE	Seattle	Off-street trails / Cycletracks	0.6%
E THOMAS ST & 16TH AVE E	Seattle	Off-street trails / Cycletracks	0.6%
15TH AVE NE & NE CAMPUS PKWY	Seattle	Bike Lanes	0.6%
SOUTH TACOMA STATION	Tacoma	Bike Lanes	0.6%
PACIFIC HWY S & S 260TH ST	Des Moines	Bike Lanes	0.6%
PACIFIC HWY S & S 312TH ST	Federal Way	Bike Lanes	0.6%
15TH AVE NE & NE 55TH ST	Seattle	Bike Lanes	0.6%
PACIFIC HWY S & S 272ND ST	Des Moines	Bike Lanes	0.6%
NE NORTHGATE WAY & ROOSEVELT WAY NE	Seattle	Bike Lanes	0.6%
5TH AVE NE & NE 103RD ST	Seattle	Bike Lanes	0.6%



Stop Location	Area	Project Type	Percent Change in Ridership
OVERLAKE VILLAGE	Redmond	Bike Lanes	0.6%
156TH AVE NE & NE 24TH ST	Bellevue	Bike Lanes	0.6%
148TH AVE NE & NE 40TH ST	Redmond	Bike Lanes	0.6%
156TH AVE NE & NE 31ST ST	Redmond	Bike Lanes	0.6%
148TH AVE NE & NE 51ST ST	Redmond	Bike Lanes	0.6%
AURORA AVE N & N 145TH ST	Shoreline	Bike Lanes	0.6%
4TH AVE SW & SW 156TH ST	Burien	Bike Lanes	0.6%
AMBAUM BLVD SW & SW 144TH ST	Burien	Bike Lanes	0.6%
1ST AVE NE & NE 95TH ST	Seattle	Bike Lanes	0.6%
AURORA AVE N & GALER ST	Seattle	Bike Lanes	0.6%
AURORA AVE N & N 130TH ST	Seattle	Bike Lanes	0.6%
FAUNTLEROY WAY SW & CALIFORNIA AVE SW	Seattle	Bike Lanes	0.6%
BEACON HILL STATION	Seattle	Bike Lanes	0.6%
AURORA AVE N & N 100TH ST	Seattle	Bike Lanes	0.6%
PREFONTAINE PL S & YESLER WAY	Seattle	Bike Lanes	0.6%
SODO BUSWAY & S ROYAL BROUGHAM WAY	Seattle	Bike Lanes	0.6%
DENNY WAY & STEWART ST	Seattle	Bike Lanes	0.6%
E THOMAS ST & 16TH AVE E	Seattle	Bike Lanes	0.6%
FAIRVIEW AVE E & YALE AVE N	Seattle	Bike Lanes	0.6%
STRANDER BLVD & ANDOVER PARK W	Tukwila	Off-street trails / Cycletracks	0.6%
MOUNTLAKE TERRACE TC	Mountlake Terrace	Greenways / Signalized Crossings	0.6%



Stop Location	Area	Project Type	Percent Change in Ridership
NE PACIFIC ST & NE PACIFIC PL	Seattle	Greenways / Signalized Crossings	0.5%
BROADWAY & E COLUMBIA ST	Seattle	Greenways / Signalized Crossings	0.5%
S JACKSON ST & 12TH AVE S	Seattle	Greenways / Signalized Crossings	0.5%
SODO BUSWAY & S LANDER ST	Seattle	Greenways / Signalized Crossings	0.5%
15TH AVE W & W DRAVUS ST	Seattle	Greenways / Signalized Crossings	0.4%
TUK INTL BLVD STATION	Tukwila	Off-street trails / Cycletracks	0.4%
FAIRVIEW AVE N & VALLEY ST	Seattle	Greenways / Signalized Crossings	0.4%
NE PACIFIC ST & NE PACIFIC PL	Seattle	Off-street trails / Cycletracks	0.4%
S 154TH ST & 32ND AVE S	SeaTac	Off-street trails / Cycletracks	0.4%
AURORA AVE N & N 130TH ST	Seattle	Greenways / Signalized Crossings	0.4%
E ROY ST & BROADWAY E	Seattle	Off-street trails / Cycletracks	0.4%
INTERNATIONAL BLVD & S 180TH ST	SeaTac	Off-street trails / Cycletracks	0.4%
15TH AVE NE & NE CAMPUS PKWY	Seattle	Greenways / Signalized Crossings	0.4%
BEACON HILL STATION	Seattle	New Streets	0.4%
5TH AVE S & S JACKSON ST	Seattle	Off-street trails / Cycletracks	0.4%
OVERLAKE TC	Redmond	New Streets	0.4%
OVERLAKE TC	Redmond	New Streets	0.4%
E UNION ST & BROADWAY	Seattle	Greenways / Signalized Crossings	0.4%
FAIRVIEW AVE N & MERCER ST	Seattle	Greenways / Signalized Crossings	0.4%
WESTLAKE AVE N & MERCER ST	Seattle	Greenways / Signalized Crossings	0.3%
S JACKSON ST & 12TH AVE S	Seattle	Off-street trails / Cycletracks	0.3%
FAIRVIEW AVE N &	Seattle	Off-street trails /	0.3%



Stop Location	Area	Project Type	Percent Change in Ridership
HARRISON ST		Cycletracks	
INTERNATIONAL BLVD & S 208TH ST	SeaTac	Off-street trails / Cycletracks	0.3%
15TH AVE E & E ROY ST	Seattle	Off-street trails / Cycletracks	0.3%
PACIFIC HWY S & KENT-DESMOINES RD	Des Moines	Off-street trails / Cycletracks	0.3%
S 156TH ST & 1ST AVE S	Burien	Off-street trails / Cycletracks	0.3%
FAIRVIEW AVE N & HARRISON ST	Seattle	Greenways / Signalized Crossings	0.3%
5TH AVE NE & NE 106TH ST	Seattle	Off-street trails / Cycletracks	0.3%
15TH AVE NE & NE 45TH ST	Seattle	Greenways / Signalized Crossings	0.3%
148TH AVE NE & NE 40TH ST	Redmond	Off-street trails / Cycletracks	0.2%
PACIFIC HWY S & S 272ND ST	Des Moines	Off-street trails / Cycletracks	0.2%
5TH AVE NE & NE 112TH ST	Seattle	Off-street trails / Cycletracks	0.2%
15TH AVE NW & NW MARKET ST	Seattle	Off-street trails / Cycletracks	0.2%
BELLEVUE TC	Bellevue	New Streets	0.2%
NE PACIFIC ST & 15TH AVE NE	Seattle	Off-street trails / Cycletracks	0.2%
NE PACIFIC ST & 15TH AVE NE	Seattle	Greenways / Signalized Crossings	0.2%
PACIFIC HWY S & S 240TH ST	Des Moines	Off-street trails / Cycletracks	0.2%
NE NORTHGATE WAY & 5TH AVE NE	Seattle	Off-street trails / Cycletracks	0.2%
INTERNATIONAL BLVD & S 216TH ST	SeaTac	Off-street trails / Cycletracks	0.1%
15TH AVE NW & NW 85TH ST	Seattle	Off-street trails / Cycletracks	0.1%
PACIFIC HWY S & S 260TH ST	Des Moines	Off-street trails / Cycletracks	0.1%
4TH AVE N & W SMITH ST	Kent	Off-street trails / Cycletracks	0.1%



Stop Location	Area	Project Type	Percent Change in Ridership
148TH AVE NE & NE 40TH ST	Redmond	New Streets	0.1%
BAY A & CONVENTION PLACE	Seattle	Off-street trails / Cycletracks	0.1%
BAY 1 & AUBURN TC	Auburn	New Streets	0.1%
PREFONTAINE PL S & YESLER WAY	Seattle	Greenways / Signalized Crossings	0.1%
15TH AVE NE & NE 52ND ST	Seattle	Greenways / Signalized Crossings	0.1%
5TH AVE S & S JACKSON ST	Seattle	Greenways / Signalized Crossings	0.1%
AURORA AVE N & PROSPECT ST	Seattle	Off-street trails / Cycletracks	0.1%
AURORA AVE N & N 91ST ST	Seattle	Off-street trails / Cycletracks	0.1%
DEXTER AVE N & HARRISON ST	Seattle	Off-street trails / Cycletracks	0.1%
W JAMES ST & LINCOLN AVE N	Kent	Off-street trails / Cycletracks	0.1%



APPENDIX C. PROJECT TYPE RANKINGS BY POTENTIAL NEW RIDERS

Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
NORTHGATE TC	Seattle	Off-street trails / Cycletracks	6.8%	443	\$31.2	\$19
BAY C & WESTLAKE STATION	Seattle	Off-street trails / Cycletracks	1.9%	329	\$15.7	\$13
3RD AVE & UNION ST	Seattle	Off-street trails / Cycletracks	1.9%	249	\$13.3	\$14
FEDERAL WAY TC	Federal Way	New Streets	6.3%	149	\$10.4	\$19
NORTHGATE TC	Seattle	Greenways / Signalized Crossings	2.2%	140	\$4.5	\$9
NORTHGATE TC	Seattle	Bike Lanes	1.8%	116	\$2.8	\$6
MT BAKER STATION	Seattle	Greenways / Signalized Crossings	2.1%	88	\$3.0	\$9
BELLEVUE TC	Bellevue	Bike Lanes	1.2%	87	\$2.2	\$7
BEACON HILL STATION	Seattle	Off-street trails / Cycletracks	3.1%	87	\$15.2	\$47
MT BAKER STATION	Seattle	Off-street trails / Cycletracks	1.9%	83	\$10.5	\$34
REDMOND TC	Redmond	Off-street trails / Cycletracks	4.3%	76	\$10.4	\$36
INTERNATIONAL BLVD & S 176TH ST	SeaTac	New Streets	6.2%	76	\$6.6	\$23
FEDERAL WAY TC	Federal Way	Off-street trails / Cycletracks	3.2%	75	\$7.4	\$26
15TH AVE NE & NE CAMPUS PKWY	Seattle	Off-street trails / Cycletracks	1.0%	65	\$14.1	\$58
BURIEN TC	Burien	Bike Lanes	2.4%	65	\$2.5	\$10
3RD AVE & COLUMBIA ST	Seattle	Off-street trails / Cycletracks	0.8%	60	\$11.7	\$52
BELLEVUE TC	Bellevue	Off-street trails / Cycletracks	0.7%	51	\$8.9	\$46
BEACON HILL STATION	Seattle	Greenways / Signalized Crossings	1.8%	51	\$2.5	\$13
LYNNWOOD TC	Lynnwood	New Streets	4.3%	48	\$8.9	\$49
SENECA ST & 4TH AVE	Seattle	Off-street trails / Cycletracks	0.7%	47	\$13.1	\$74



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
15TH AVE NW & NW MARKET ST	Seattle	Greenways / Signalized Crossings	3.4%	47	\$6.0	\$35
5TH AVE S & S JACKSON ST	Seattle	Off-street trails / Cycletracks	0.4%	46	\$11.6	\$67
15TH AVE NW & NW 85TH ST	Seattle	Greenways / Signalized Crossings	4.1%	46	\$4.0	\$24
KING ST STATION	Seattle	Off-street trails / Cycletracks	1.1%	44	\$11.0	\$66
FEDERAL WAY TC	Federal Way	Bike Lanes	1.8%	42	\$2.2	\$13
15TH AVE NE & NE CAMPUS PKWY	Seattle	Bike Lanes	0.6%	40	\$0.6	\$4
MARTIN L KING JR WAY & S MYRTLE ST	Seattle	Off-street trails / Cycletracks	1.9%	39	\$11.8	\$81
SW ALASKA ST & CALIFORNIA AVE SW	Seattle	Greenways / Signalized Crossings	1.9%	37	\$3.0	\$22
ISSAQUAH TC	Issaquah	New Streets	2.4%	36	\$4.3	\$32
SW ALASKA ST & CALIFORNIA AVE SW	Seattle	Off-street trails / Cycletracks	1.8%	36	\$6.1	\$46
ISSAQUAH TC	Issaquah	Off-street trails / Cycletracks	2.4%	35	\$5.3	\$41
BAY 2 & TUK INTL BLVD STA	Tukwila	New Streets	0.6%	35	\$1.9	\$15
PREFONTAINE PL S & YESLER WAY	Seattle	Off-street trails / Cycletracks	0.8%	34	\$11.3	\$88
BROADWAY E & E JOHN ST	Seattle	Greenways / Signalized Crossings	2.0%	34	\$2.5	\$20
STRANDER BLVD & ANDOVER PARK W	Tukwila	New Streets	4.0%	32	\$25.9	\$218
OVERLAKE VILLAGE	Redmond	New Streets	7.9%	31	\$23.2	\$199
1ST AVE W & W MERCER ST	Seattle	Off-street trails / Cycletracks	1.3%	30	\$10.7	\$94
MARTIN L KING JR WAY & S MYRTLE ST	Seattle	Greenways / Signalized Crossings	1.5%	30	\$2.5	\$22
1ST AVE W & W MERCER ST	Seattle	Bike Lanes	1.2%	29	\$0.3	\$3
AURORA VILLAGE TC	Shoreline	Bike Lanes	1.8%	28	\$1.3	\$12



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
BURIEN TC	Burien	Off-street trails / Cycletracks	1.0%	28	\$1.8	\$18
SODO BUSWAY & S LANDER ST	Seattle	Off-street trails / Cycletracks	2.6%	27	\$12.1	\$119
INTERNATIONAL BLVD & S 176TH ST	SeaTac	Off-street trails / Cycletracks	2.2%	27	\$6.9	\$69
MT BAKER STATION	Seattle	New Streets	0.6%	27	\$0.6	\$6
PREFONTAINE PL S & YESLER WAY	Seattle	Bike Lanes	0.6%	26	\$0.9	\$9
RENTON TC	Renton	Off-street trails / Cycletracks	0.8%	26	\$1.7	\$18
15TH AVE NE & NE CAMPUS PKWY	Seattle	Greenways / Signalized Crossings	0.4%	25	\$1.0	\$11
BAY 2 & TUK INTL BLVD STA	Tukwila	Off-street trails / Cycletracks	0.4%	24	\$1.9	\$20
MARTIN L KING JR WAY & S MYRTLE ST	Seattle	Bike Lanes	1.2%	24	\$1.1	\$12
OVERLAKE VILLAGE	Redmond	Off-street trails / Cycletracks	6.1%	24	\$12.9	\$144
SW ALASKA ST & CALIFORNIA AVE SW	Seattle	Bike Lanes	1.2%	23	\$1.1	\$12
AURORA AVE N & N NORTHGATE WAY	Seattle	Off-street trails / Cycletracks	3.0%	23	\$5.2	\$61
REDMOND TC	Redmond	Bike Lanes	1.2%	21	\$2.4	\$30
BROADWAY E & E REPUBLICAN ST	Seattle	Greenways / Signalized Crossings	2.2%	21	\$2.5	\$32
15TH AVE NW & NW LEARY WAY	Seattle	Greenways / Signalized Crossings	3.4%	21	\$5.5	\$72
15TH AVE NE & NE 45TH ST	Seattle	Off-street trails / Cycletracks	0.8%	21	\$12.5	\$163
AURORA AVE N & N 85TH ST	Seattle	Greenways / Signalized Crossings	2.1%	20	\$3.5	\$46
156TH AVE NE & NE 15TH ST	Bellevue	New Streets	2.4%	20	\$20.8	\$280
SODO BUSWAY & S LANDER ST	Seattle	Bike Lanes	1.8%	19	\$0.5	\$7
156TH AVE NE & NE 15TH ST	Bellevue	Off-street trails / Cycletracks	2.3%	19	\$6.7	\$94
MERIDIAN AVE N & N 105TH ST	Seattle	Off-street trails / Cycletracks	5.6%	19	\$6.3	\$89



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
INTERNATIONAL BLVD & S 182ND ST	SeaTac	New Streets	6.1%	19	\$6.6	\$93
NE NORTHGATE WAY & 5TH AVE NE	Seattle	Greenways / Signalized Crossings	2.4%	18	\$2.5	\$37
ISSAQUAH TC	Issaquah	Bike Lanes	1.2%	18	\$3.0	\$44
BEACON HILL STATION	Seattle	Bike Lanes	0.6%	17	\$1.9	\$29
OVERLAKE TC	Redmond	Bike Lanes	1.8%	17	\$4.0	\$61
5TH AVE NE & NE 103RD ST	Seattle	Greenways / Signalized Crossings	2.9%	16	\$5.0	\$82
LYNNWOOD TC	Lynnwood	Off-street trails / Cycletracks	1.4%	16	\$4.0	\$66
FAUNTLEROY WAY SW & CALIFORNIA AVE SW	Seattle	Greenways / Signalized Crossings	3.0%	16	\$3.5	\$59
E MADISON ST & 17TH AVE	Seattle	Greenways / Signalized Crossings	2.8%	15	\$4.0	\$73
NE PACIFIC ST & NE PACIFIC PL	Seattle	Greenways / Signalized Crossings	0.5%	15	\$1.0	\$19
ANDOVER PARK W & BAKER BLVD	Tukwila	Off-street trails / Cycletracks	1.4%	14	\$0.7	\$12
ANDOVER PARK W & BAKER BLVD	Tukwila	Off-street trails / Cycletracks	1.4%	14	\$0.7	\$12
AURORA VILLAGE TC	Shoreline	Off-street trails / Cycletracks	0.9%	14	\$0.8	\$15
DENNY WAY & DEXTER AVE N	Seattle	Off-street trails / Cycletracks	1.2%	14	\$17.7	\$335
DENNY WAY & DEXTER AVE N	Seattle	Bike Lanes	1.2%	14	\$0.8	\$14
15TH AVE W & W DRAVUS ST	Seattle	Off-street trails / Cycletracks	3.1%	14	\$7.1	\$137
BELLEVUE TC	Bellevue	New Streets	0.2%	14	\$4.5	\$86
S JACKSON ST & 12TH AVE S	Seattle	Greenways / Signalized Crossings	0.5%	14	\$0.5	\$10
SW BARTON ST & 29TH AVE SW	Seattle	Greenways / Signalized Crossings	1.8%	13	\$2.5	\$51



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
5TH AVE NE & NE 103RD ST	Seattle	Off-street trails / Cycletracks	2.3%	13	\$6.7	\$139
S HENDERSON ST & MARTIN L KING JR WAY	Seattle	Off-street trails / Cycletracks	0.7%	13	\$11.0	\$231
BROADWAY E & E JOHN ST	Seattle	Off-street trails / Cycletracks	0.8%	13	\$10.6	\$222
INTERNATIONAL BLVD & S 188TH ST	SeaTac	New Streets	2.3%	13	\$6.6	\$138
35TH AVE SW & SW AVALON WAY	Seattle	Off-street trails / Cycletracks	1.4%	12	\$9.4	\$207
15TH AVE NW & NW LEARY WAY	Seattle	Off-street trails / Cycletracks	2.0%	12	\$6.2	\$139
E THOMAS ST & 16TH AVE E	Seattle	Greenways / Signalized Crossings	3.4%	12	\$4.5	\$103
NE PACIFIC ST & NE PACIFIC PL	Seattle	Off-street trails / Cycletracks	0.4%	12	\$14.5	\$334
AURORA AVE N & N 130TH ST	Seattle	Off-street trails / Cycletracks	2.3%	12	\$3.8	\$87
MOUNTLAKE TERRACE TC	Mountlake Terrace	Off-street trails / Cycletracks	2.6%	11	\$2.2	\$51
E UNION ST & BROADWAY	Seattle	Off-street trails / Cycletracks	1.8%	11	\$10.3	\$245
5TH AVE NE & NE 106TH ST	Seattle	Greenways / Signalized Crossings	2.5%	11	\$3.5	\$86
15TH AVE NW & NW 65TH ST	Seattle	Greenways / Signalized Crossings	2.0%	11	\$2.0	\$50
BROADWAY E & E REPUBLICAN ST	Seattle	Off-street trails / Cycletracks	1.1%	11	\$10.9	\$274
CALIFORNIA AVE SW & SW FINDLAY ST	Seattle	Greenways / Signalized Crossings	3.3%	11	\$3.0	\$77
BEACON HILL STATION	Seattle	New Streets	0.4%	10	\$0.6	\$15
MOUNTLAKE TERRACE TC	Mountlake Terrace	Bike Lanes	2.4%	10	\$2.5	\$62
PACIFIC HWY S & S 312TH ST	Federal Way	New Streets	2.7%	10	\$10.4	\$267
3RD AVE & VINE ST	Seattle	Off-street trails / Cycletracks	0.6%	10	\$15.4	\$415
S JACKSON ST & 12TH AVE S	Seattle	Off-street trails / Cycletracks	0.3%	10	\$8.4	\$229



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
SODO BUSWAY & S ROYAL BROUGHAM WAY	Seattle	Off-street trails / Cycletracks	0.8%	10	\$11.5	\$322
5TH AVE S & S JACKSON ST	Seattle	Greenways / Signalized Crossings	0.1%	10	\$0.8	\$21
E ROY ST & BROADWAY E	Seattle	Greenways / Signalized Crossings	2.0%	9	\$2.5	\$71
35TH AVE SW & SW AVALON WAY	Seattle	Greenways / Signalized Crossings	1.1%	9	\$1.5	\$43
AURORA AVE N & N 185TH ST	Shoreline	Bike Lanes	1.8%	9	\$2.1	\$61
BOEING ACS & S LONGACRES WAY	Renton	New Streets	5.3%	9	\$13.9	\$413
156TH AVE NE & NE 24TH ST	Bellevue	New Streets	3.1%	9	\$20.8	\$638
INTERNATIONAL BLVD & S 188TH ST	SeaTac	Off-street trails / Cycletracks	1.6%	9	\$9.1	\$282
SW AVALON WAY & SW YANCY ST	Seattle	Off-street trails / Cycletracks	1.9%	8	\$9.5	\$302
156TH AVE NE & NE 31ST ST	Redmond	New Streets	5.6%	8	\$16.8	\$559
NE NORTHGATE WAY & ROOSEVELT WAY NE	Seattle	Greenways / Signalized Crossings	4.0%	8	\$4.5	\$159
SODO BUSWAY & S ROYAL BROUGHAM WAY	Seattle	Bike Lanes	0.6%	8	\$0.8	\$26
E UNION ST & BROADWAY	Seattle	Bike Lanes	1.2%	7	\$0.9	\$31
15TH AVE NW & NW LEARY WAY	Seattle	Bike Lanes	1.2%	7	\$0.3	\$11
15TH AVE NE & NE 45TH ST	Seattle	Greenways / Signalized Crossings	0.3%	7	\$1.0	\$38
NE 8TH ST & 124TH AVE NE	Bellevue	New Streets	4.9%	7	\$17.3	\$671
MERIDIAN AVE N & N NORTHGATE WAY	Seattle	Off-street trails / Cycletracks	1.4%	7	\$5.9	\$235
AURORA AVE N & N 46TH ST	Seattle	Greenways / Signalized Crossings	1.0%	7	\$2.0	\$81
FAUNTLEROY WAY SW & CALIFORNIA AVE SW	Seattle	Off-street trails / Cycletracks	1.2%	7	\$8.2	\$332
156TH AVE NE & NE 31ST ST	Redmond	Off-street trails / Cycletracks	4.2%	6	\$7.1	\$318



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
PACIFIC HWY S & S 312TH ST	Federal Way	Sidewalks	1.6%	6	\$3.7	\$163
5TH AVE NE & NE 112TH ST	Seattle	Greenways / Signalized Crossings	1.6%	6	\$3.0	\$137
INTERNATIONAL BLVD & S 200TH ST	SeaTac	Off-street trails / Cycletracks	2.6%	6	\$10.2	\$464
AURORA AVE N & N 91ST ST	Seattle	Greenways / Signalized Crossings	2.1%	6	\$2.5	\$116
156TH AVE NE & NE 10TH ST	Bellevue	Off-street trails / Cycletracks	0.7%	6	\$5.1	\$235
TOTEM LAKE TC	Kirkland	New Streets	3.3%	6	\$0.9	\$43
156TH AVE NE & NE 10TH ST	Bellevue	New Streets	0.7%	5	\$9.6	\$481
15TH AVE W & W DRAVUS ST	Seattle	Bike Lanes	1.2%	5	\$0.4	\$20
S 180TH ST & SPERRY DR	Tukwila	New Streets	3.4%	5	\$19.0	\$971
DENNY WAY & STEWART ST	Seattle	Off-street trails / Cycletracks	0.7%	5	\$16.9	\$888
PACIFIC HWY S & S 288TH ST	Federal Way	Sidewalks	1.7%	5	\$10.1	\$520
SW AVALON WAY & SW YANCY ST	Seattle	Greenways / Signalized Crossings	1.1%	5	\$2.0	\$108
PACIFIC HWY S & S 312TH ST	Federal Way	Off-street trails / Cycletracks	1.3%	5	\$7.3	\$397
SODO BUSWAY & S LANDER ST	Seattle	Greenways / Signalized Crossings	0.5%	5	\$0.5	\$28
15TH AVE NE & NE 55TH ST	Seattle	Bike Lanes	0.6%	5	\$1.1	\$62
AURORA AVE N & N 192ND ST	Shoreline	Bike Lanes	1.2%	5	\$2.3	\$124
STRANDER BLVD & ANDOVER PARK W	Tukwila	Off-street trails / Cycletracks	0.6%	5	\$0.7	\$38
BAY A & CONVENTION PLACE	Seattle	Off-street trails / Cycletracks	0.1%	5	\$16.1	\$930
E DENNY WAY & BELLEVUE AVE E	Seattle	Off-street trails / Cycletracks	0.7%	5	\$14.7	\$872
DENNY WAY & STEWART ST	Seattle	Bike Lanes	0.6%	4	\$0.9	\$52
E DENNY WAY & BELLEVUE AVE E	Seattle	Greenways / Signalized	0.6%	4	\$1.0	\$63



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
		Crossings				
TOTEM LAKE TC	Kirkland	Bike Lanes	2.4%	4	\$0.7	\$48
BOEING ACS & S LONGACRES WAY	Renton	Off-street trails / Cycletracks	2.4%	4	\$0.7	\$44
AURORA AVE N & N 192ND ST	Shoreline	Off-street trails / Cycletracks	1.0%	4	\$0.4	\$27
TOTEM LAKE TC	Kirkland	Off-street trails / Cycletracks	2.2%	4	\$2.1	\$146
MONTLAKE BLVD NE & NE 45TH ST	Seattle	Off-street trails / Cycletracks	1.0%	4	\$8.7	\$644
FAIRVIEW AVE N & VALLEY ST	Seattle	Off-street trails / Cycletracks	2.1%	4	\$14.7	\$1,098
PACIFIC HWY S & S 240TH ST	Des Moines	Sidewalks	0.9%	4	\$2.1	\$151
SOUTHCENTER BLVD & 62ND AVE S	Tukwila	New Streets	2.0%	4	\$18.2	\$1,383
INTERNATIONAL BLVD & S 180TH ST	SeaTac	New Streets	7.2%	4	\$6.6	\$500
PREFONTAINE PL S & YESLER WAY	Seattle	Greenways / Signalized Crossings	0.1%	3	\$0.8	\$59
NE NORTHGATE WAY & ROOSEVELT WAY NE	Seattle	Off-street trails / Cycletracks	1.8%	3	\$8.5	\$664
5TH AVE NE & NE 103RD ST	Seattle	Bike Lanes	0.6%	3	\$2.8	\$219
OVERLAKE TC	Redmond	New Streets	0.4%	3	\$11.5	\$924
AURORA AVE N & N 100TH ST	Seattle	Off-street trails / Cycletracks	1.4%	3	\$5.7	\$469
156TH AVE NE & NE 24TH ST	Bellevue	Off-street trails / Cycletracks	1.2%	3	\$7.3	\$605
INTERNATIONAL BLVD & S 182ND ST	SeaTac	Off-street trails / Cycletracks	1.0%	3	\$6.2	\$516
E MADISON ST & 17TH AVE	Seattle	Off-street trails / Cycletracks	0.6%	3	\$3.1	\$260
FAUNTLEROY WAY SW & CALIFORNIA AVE SW	Seattle	Bike Lanes	0.6%	3	\$0.8	\$69
15TH AVE NW & NW MARKET ST	Seattle	Off-street trails / Cycletracks	0.2%	3	\$4.3	\$380
AURORA AVE N & N 130TH ST	Seattle	Bike Lanes	0.6%	3	\$0.4	\$30
PACIFIC HWY S & S 272ND ST	Des Moines	Sidewalks	1.2%	3	\$7.8	\$685
AURORA AVE N & GALER ST	Seattle	Off-street trails / Cycletracks	0.7%	3	\$11.9	\$1,095
15TH AVE E & E ROY ST	Seattle	Greenways / Signalized	2.9%	3	\$3.5	\$325



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
		Crossings				
148TH AVE NE & NE 51ST ST	Redmond	Off-street trails / Cycletracks	2.1%	3	\$3.7	\$338
MONTLAKE BLVD NE & NE 45TH ST	Seattle	Greenways / Signalized Crossings	0.8%	3	\$1.0	\$95
PACIFIC HWY S & KENT-DESMOINES RD	Des Moines	Sidewalks	1.0%	3	\$0.4	\$37
ANDOVER PARK W & MINKLER BLVD	Tukwila	New Streets	5.9%	3	\$25.9	\$2,500
FAUNTLEROY WAY SW & SW BARTON ST	Seattle	Bike Lanes	1.2%	3	\$1.0	\$95
148TH AVE NE & NE OLD REDMOND RD	Redmond	Off-street trails / Cycletracks	1.7%	3	\$4.5	\$457
WESTLAKE AVE N & HARRISON ST	Seattle	Off-street trails / Cycletracks	1.3%	3	\$18.1	\$1,902
AURORA AVE N & GALER ST	Seattle	Bike Lanes	0.6%	3	\$1.0	\$103
MOUNTLAKE TERRACE TC	Mountlake Terrace	Greenways / Signalized Crossings	0.6%	3	\$0.5	\$54
	Everett	Bike Lanes	1.8%	3	\$0.5	\$49
S 180TH ST & SPERRY DR	Tukwila	Off-street trails / Cycletracks	1.6%	2	\$0.3	\$33
AURORA AVE N & N 100TH ST	Seattle	Greenways / Signalized Crossings	1.0%	2	\$2.0	\$221
NE 45TH ST & 7TH AVE NE	Seattle	Greenways / Signalized Crossings	0.8%	2	\$1.5	\$169
WESTLAKE AVE N & HARRISON ST	Seattle	Bike Lanes	1.2%	2	\$0.9	\$93
OVERLAKE VILLAGE	Redmond	Bike Lanes	0.6%	2	\$4.8	\$526
NE PACIFIC ST & 15TH AVE NE	Seattle	Off-street trails / Cycletracks	0.2%	2	\$14.6	\$1,700
NE PACIFIC ST & 15TH AVE NE	Seattle	Greenways / Signalized Crossings	0.2%	2	\$0.5	\$59
PACIFIC HWY S & S 312TH ST	Federal Way	Bike Lanes	0.6%	2	\$1.6	\$179
ELLIOTT AVE W & W PROSPECT ST	Seattle	Off-street trails / Cycletracks	1.0%	2	\$8.0	\$942



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
WOODLAND PL N & N 64TH ST	Seattle	Greenways / Signalized Crossings	1.9%	2	\$1.5	\$181
NE 45TH ST & 7TH AVE NE	Seattle	Off-street trails / Cycletracks	0.7%	2	\$12.3	\$1,470
SW 148TH ST & AMBAUM BLVD SW	Burien	Bike Lanes	2.4%	2	\$1.4	\$161
E UNION ST & BROADWAY	Seattle	Greenways / Signalized Crossings	0.4%	2	\$0.5	\$63
E THOMAS ST & 16TH AVE E	Seattle	Off-street trails / Cycletracks	0.6%	2	\$6.2	\$792
E THOMAS ST & 16TH AVE E	Seattle	Bike Lanes	0.6%	2	\$0.8	\$97
AURORA AVE N & N 165TH ST	Shoreline	New Streets	2.2%	2	\$3.9	\$506
AURORA AVE N & N 145TH ST	Shoreline	New Streets	1.7%	2	\$3.9	\$509
148TH AVE NE & NE 87TH ST	Redmond	Off-street trails / Cycletracks	1.7%	2	\$8.9	\$1,211
15TH AVE W & W DRAVUS ST	Seattle	Greenways / Signalized Crossings	0.4%	2	\$1.0	\$139
AURORA AVE N & N 130TH ST	Seattle	Greenways / Signalized Crossings	0.4%	2	\$0.5	\$70
ANDOVER PARK W & TRILAND DR	Tukwila	New Streets	5.7%	2	\$20.9	\$2,896
NE 8TH ST & 124TH AVE NE	Bellevue	Off-street trails / Cycletracks	1.4%	2	\$13.9	\$1,951
E ROY ST & BROADWAY E	Seattle	Off-street trails / Cycletracks	0.4%	2	\$11.0	\$1,600
E JEFFERSON ST & 15TH AVE	Seattle	Greenways / Signalized Crossings	1.2%	2	\$2.0	\$296
PACIFIC HWY S & S 288TH ST	Federal Way	Off-street trails / Cycletracks	0.6%	2	\$5.7	\$849
148TH AVE NE & NE OLD REDMOND RD	Redmond	Bike Lanes	1.2%	2	\$1.7	\$246
PACIFIC HWY S & S 260TH ST	Des Moines	Sidewalks	0.8%	2	\$5.9	\$844
FAIRVIEW AVE N & MERCER ST	Seattle	Off-street trails / Cycletracks	2.2%	2	\$15.2	\$2,287
SOUTHCENTER BLVD & 62ND AVE S	Tukwila	Off-street trails / Cycletracks	0.9%	2	\$0.7	\$105



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
NE 8TH ST & 140TH AVE NE	Bellevue	Off-street trails / Cycletracks	1.1%	2	\$7.8	\$1,237
FAUNTLEROY WAY SW & SW BARTON ST	Seattle	Off-street trails / Cycletracks	0.7%	2	\$4.4	\$707
156TH AVE NE & NE 24TH ST	Bellevue	Bike Lanes	0.6%	2	\$4.1	\$638
SOUTH TACOMA STATION	Tacoma	Off-street trails / Cycletracks	0.8%	2	\$1.3	\$207
DEXTER AVE N & MERCER ST	Seattle	Off-street trails / Cycletracks	1.3%	2	\$15.5	\$2,515
NE 45TH ST & UNION BAY PL NE	Seattle	Off-street trails / Cycletracks	0.8%	2	\$3.3	\$537
15TH AVE NW & NW 85TH ST	Seattle	Off-street trails / Cycletracks	0.1%	2	\$0.5	\$80
NE 8TH ST & 140TH AVE NE	Bellevue	New Streets	1.0%	2	\$22.9	\$3,902
DEXTER AVE N & MERCER ST	Seattle	Bike Lanes	1.2%	2	\$0.7	\$117
1ST AVE NE & NE 95TH ST	Seattle	Greenways / Signalized Crossings	3.1%	2	\$4.5	\$794
148TH AVE NE & NE 40TH ST	Redmond	Bike Lanes	0.6%	1	\$2.2	\$378
FAIRVIEW AVE N & MERCER ST	Seattle	Bike Lanes	1.8%	1	\$0.9	\$165
AURORA AVE N & N 100TH ST	Seattle	Bike Lanes	0.6%	1	\$1.5	\$272
PACIFIC HWY S & S 272ND ST	Des Moines	Bike Lanes	0.6%	1	\$1.3	\$229
STRANDER BLVD & ANDOVER PARK E	Tukwila	New Streets	6.4%	1	\$25.9	\$4,902
NE 45TH ST & UNION BAY PL NE	Seattle	Greenways / Signalized Crossings	0.7%	1	\$1.0	\$201
PACIFIC HWY S & S 260TH ST	Des Moines	Bike Lanes	0.6%	1	\$1.6	\$322
AURORA AVE N & N 145TH ST	Shoreline	Off-street trails / Cycletracks	1.1%	1	\$2.1	\$424
ANDOVER PARK W & TRILAND DR	Tukwila	Off-street trails / Cycletracks	3.8%	1	\$0.9	\$190
S 156TH ST & 1ST AVE S	Burien	Bike Lanes	1.2%	1	\$2.0	\$416
WESTLAKE AVE N & MERCER ST	Seattle	Off-street trails / Cycletracks	1.5%	1	\$16.2	\$3,446
5TH AVE NE & NE 106TH ST	Seattle	Off-street trails / Cycletracks	0.3%	1	\$7.2	\$1,566
156TH AVE NE & NE 28TH ST	Redmond	New Streets	5.3%	1	\$20.0	\$4,424



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
SOUTH TACOMA STATION	Tacoma	Bike Lanes	0.6%	1	\$2.5	\$543
NE NORTHGATE WAY & 5TH AVE NE	Seattle	Off-street trails / Cycletracks	0.2%	1	\$8.0	\$1,829
NE NORTHGATE WAY & ROOSEVELT WAY NE	Seattle	Bike Lanes	0.6%	1	\$2.1	\$488
1ST AVE NE & NE 95TH ST	Seattle	Off-street trails / Cycletracks	2.2%	1	\$6.7	\$1,619
4TH AVE SW & SW 156TH ST	Burien	Off-street trails / Cycletracks	0.9%	1	\$2.3	\$617
VIRGINIA ST & 6TH AVE	Seattle	Off-street trails / Cycletracks	1.2%	1	\$17.7	\$4,730
INTERNATIONAL BLVD & S 208TH ST	SeaTac	Off-street trails / Cycletracks	0.3%	1	\$7.0	\$1,893
BAY 1 & AUBURN TC	Auburn	New Streets	0.1%	1	\$1.5	\$450
156TH AVE NE & NE 31ST ST	Redmond	Bike Lanes	0.6%	1	\$4.5	\$1,363
FAIRVIEW AVE N & HARRISON ST	Seattle	Off-street trails / Cycletracks	0.3%	1	\$15.9	\$4,973
5TH AVE NE & NE 112TH ST	Seattle	Off-street trails / Cycletracks	0.2%	1	\$9.5	\$3,059
148TH AVE NE & NE 51ST ST	Redmond	Bike Lanes	0.6%	1	\$1.7	\$523
PACIFIC HWY S & KENT-DESMOINES RD	Des Moines	Off-street trails / Cycletracks	0.3%	1	\$2.5	\$854
156TH AVE NE & NE 28TH ST	Redmond	Off-street trails / Cycletracks	3.4%	1	\$8.0	\$2,702
FAIRVIEW AVE N & HARRISON ST	Seattle	Greenways / Signalized Crossings	0.3%	1	\$0.5	\$185
FAIRVIEW AVE N & VALLEY ST	Seattle	Greenways / Signalized Crossings	0.4%	1	\$0.5	\$189
AURORA AVE N & N 145TH ST	Shoreline	Bike Lanes	0.6%	1	\$0.7	\$270
INTERNATIONAL BLVD & S 216TH ST	SeaTac	Off-street trails / Cycletracks	0.1%	1	\$5.3	\$2,123
4TH AVE SW & SW 156TH ST	Burien	Bike Lanes	0.6%	1	\$2.0	\$790
ANDOVER PARK W & MINKLER BLVD	Tukwila	Off-street trails / Cycletracks	1.4%	1	\$1.4	\$584
S 154TH ST & 32ND AVE S	SeaTac	New Streets	1.3%	1	\$1.9	\$810
PACIFIC HWY S & S 240TH ST	Des Moines	Off-street trails / Cycletracks	0.2%	1	\$1.2	\$506
FAIRVIEW AVE E & YALE AVE N	Seattle	Off-street trails / Cycletracks	1.8%	1	\$14.9	\$6,547



Stop Location	Area	Project Type	Percent Change in Ridership	Potential New Boardings	Estimated Cost (\$millions)	Ann. Cost per Rider (\$)
148TH AVE NE & NE 40TH ST	Redmond	Off-street trails / Cycletracks	0.2%	1	\$5.9	\$2,633
PACIFIC HWY S & S 272ND ST	Des Moines	Off-street trails / Cycletracks	0.2%	1	\$1.5	\$706
BROADWAY & E COLUMBIA ST	Seattle	Off-street trails / Cycletracks	0.6%	1	\$11.6	\$5,743



APPENDIX D. DEMOGRAPHIC AND RANKING TABLES

Employment Change – 20 year horizon

Source: PSRC TAZ 2010

Percent Change in Employment	Score
.33	1
.33-.78	2
.78-1.52	3
1.52-3.03	4
>3.03	5

Population Change – 20 year horizon

Source: PSRC TAZ 2010

Percent Change in Population	Score
<1.8	1
1.8-6.2	2
6.2-10.8	3
10.8-68.0	4
>68.0	5

Note that the scoring shown in the tables is based on the range of scores of the study sites. While the study sites represent a large cross-section of the region, if other sites were added, the range, and thus the scoring of the sites could be affected.

Percent of station area under 24 years of age (half-mile buffer)

Source: Census 2010

Percent Under 24	Score
<23.6	1
23.6-30.3	2
30.3-35.9	3
35.9-50.5	4
>50.5	5

Percent of station area over 60 years of age (half-mile buffer)

Source: Census 2010

Percent Over 60	Score
<9.8	1
.8-14.5	2
14.5-19.1	3
19.1-25.7	4
>25.7	5



APPENDIX E. PROJECT TYPE PRIORITIZATION BY AGGREGATE METHOD

Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
FEDERAL WAY TC	Federal Way	New Streets	\$ 10.35	9.2	7.2	7.5	24.0
INTERNATIONAL BLVD & S 176TH ST	SeaTac	New Streets	\$ 6.57	8.9	7.1	7.5	23.4
NORTHGATE TC	Seattle	Off-street trails / Cycletracks	\$ 31.20	7.0	7.8	7.5	22.3
BURIEN TC	Burien	Bike Lanes	\$ 2.48	8.3	2.7	10.0	21.1
FEDERAL WAY TC	Federal Way	Off-street trails / Cycletracks	\$ 7.39	9.2	3.7	7.5	20.4
15TH AVE NW & NW 85TH ST	Seattle	Greenways / Signalized Crossings	\$ 4.00	8.1	4.7	7.5	20.3
MT BAKER STATION	Seattle	Greenways / Signalized Crossings	\$ 3.00	7.9	2.3	10.0	20.3
PREFONTAINE PL S & YESLER WAY	Seattle	Bike Lanes	\$ 0.85	9.4	0.7	10.0	20.0
15TH AVE NE & NE CAMPUS PKWY	Seattle	Bike Lanes	\$ 0.58	8.8	0.7	10.0	19.5
NORTHGATE TC	Seattle	Greenways / Signalized Crossings	\$ 4.50	7.0	2.5	10.0	19.5
BELLEVUE TC	Bellevue	Bike Lanes	\$ 2.22	8.1	1.4	10.0	19.5
15TH AVE NE & NE CAMPUS PKWY	Seattle	Greenways / Signalized Crossings	\$ 1.00	8.8	0.4	10.0	19.3
NORTHGATE TC	Seattle	Bike Lanes	\$ 2.85	7.0	2.1	10.0	19.1
BAY C & WESTLAKE STATION	Seattle	Off-street trails / Cycletracks	\$ 15.69	9.3	2.1	7.5	18.9
SODO BUSWAY & S LANDER ST	Seattle	Bike Lanes	\$ 0.55	6.8	2.1	10.0	18.9
S JACKSON ST & 12TH AVE S	Seattle	Greenways / Signalized Crossings	\$ 0.50	8.3	0.5	10.0	18.9
FEDERAL WAY TC	Federal Way	Bike Lanes	\$ 2.16	9.2	2.1	7.5	18.8
MT BAKER STATION	Seattle	New Streets	\$ 0.59	7.9	0.7	10.0	18.6
AURORA VILLAGE TC	Shoreline	Bike Lanes	\$ 1.27	8.7	2.1	7.5	18.2
OVERLAKE VILLAGE	Redmond	New Streets	\$ 23.22	8.1	9.1	1.0	18.1
MARTIN L KING JR WAY & S MYRTLE ST	Seattle	Greenways / Signalized Crossings	\$ 2.50	8.6	1.7	7.5	17.8
INTERNATIONAL BLVD & S 182ND ST	SeaTac	New Streets	\$ 6.57	8.7	7.0	2.0	17.6



Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
15TH AVE NW & NW LEARY WAY	Seattle	Bike Lanes	\$ 0.31	7.5	0.2	10.0	17.6
5TH AVE S & S JACKSON ST	Seattle	Greenways / Signalized Crossings	\$ 0.75	9.8	0.2	7.5	17.6
1ST AVE W & W MERCER ST	Seattle	Bike Lanes	\$ 0.34	6.1	1.4	10.0	17.4
MARTIN L KING JR WAY & S MYRTLE ST	Seattle	Bike Lanes	\$ 1.14	8.6	1.4	7.5	17.4
3RD AVE & UNION ST	Seattle	Off-street trails / Cycletracks	\$ 13.34	7.8	2.1	7.5	17.4
AURORA VILLAGE TC	Shoreline	Off-street trails / Cycletracks	\$ 0.78	8.7	1.0	7.5	17.2
NE PACIFIC ST & NE PACIFIC PL	Seattle	Greenways / Signalized Crossings	\$ 1.00	9.0	0.6	7.5	17.1
BURIEN TC	Burien	Off-street trails / Cycletracks	\$ 1.82	8.3	1.2	7.5	17.0
SW ALASKA ST & CALIFORNIA AVE SW	Seattle	Greenways / Signalized Crossings	\$ 3.00	7.2	2.2	7.5	16.8
BEACON AVE S & S LANDER ST	Seattle	Greenways / Signalized Crossings	\$ 2.50	7.1	2.0	7.5	16.6
LYNNWOOD TC	Lynnwood	New Streets	\$ 8.91	8.6	4.9	3.0	16.5
TUK INTL BLVD STATION	Tukwila	New Streets	\$ 1.95	8.3	0.7	7.5	16.5
TUK INTL BLVD STATION	Tukwila	Off-street trails / Cycletracks	\$ 1.86	8.3	0.5	7.5	16.3
AURORA AVE N & N 192ND ST	Shoreline	Off-street trails / Cycletracks	\$ 0.40	8.6	0.1	7.5	16.2
ANDOVER PARK W & BAKER BLVD	Tukwila	Off-street trails / Cycletracks	\$ 0.66	7.1	1.5	7.5	16.1
ANDOVER PARK W & BAKER BLVD	Tukwila	Off-street trails / Cycletracks	\$ 0.66	7.1	1.5	7.5	16.1
SW ALASKA ST & CALIFORNIA AVE SW	Seattle	Bike Lanes	\$ 1.13	7.2	1.4	7.5	16.0
OVERLAKE VILLAGE	Redmond	Off-street trails / Cycletracks	\$ 12.86	8.1	6.9	1.0	16.0
REDMOND TC	Redmond	Off-street trails / Cycletracks	\$ 10.37	7.8	4.9	3.0	15.7
MERIDIAN AVE N & N 105TH ST	Seattle	Off-street trails / Cycletracks	\$ 6.26	7.3	6.4	2.0	15.6
BEACON HILL STATION	Seattle	New Streets	\$ 0.59	7.1	0.4	7.5	15.0
15TH AVE W & W DRAVUS ST	Seattle	Bike Lanes	\$ 0.41	7.3	0.1	7.5	14.9
ISSAQUAH TC	Issaquah	New Streets	\$ 4.25	9.1	2.8	3.0	14.9
ISSAQUAH TC	Issaquah	Off-street trails / Cycletracks	\$ 5.33	9.1	2.7	3.0	14.8
RENTON TC	Renton	Off-street trails / Cycletracks	\$ 1.70	6.2	0.9	7.5	14.6



Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
BROADWAY E & E JOHN ST	Seattle	Greenways / Signalized Crossings	\$ 2.50	4.7	2.3	7.5	14.5
DENNY WAY & DEXTER AVE N	Seattle	Bike Lanes	\$ 0.76	5.6	1.4	7.5	14.5
E THOMAS ST & 16TH AVE E	Seattle	Greenways / Signalized Crossings	\$ 4.50	8.7	3.8	2.0	14.5
SODO BUSWAY & S LANDER ST	Seattle	Greenways / Signalized Crossings	\$ 0.50	6.8	0.1	7.5	14.4
SODO BUSWAY & S ROYAL BROUGHAM WAY	Seattle	Bike Lanes	\$ 0.77	6.7	0.2	7.5	14.4
BOEING ACS & S LONGACRES WAY	Renton	Off-street trails / Cycletracks	\$ 0.66	10.6	0.1	3.0	13.7
FAUNTLEROY WAY SW & CALIFORNIA AVE SW	Seattle	Greenways / Signalized Crossings	\$ 3.50	7.2	3.5	3.0	13.7
BEACON HILL STATION	Seattle	Off-street trails / Cycletracks	\$ 15.19	7.1	3.5	3.0	13.6
ISSAQUAH TC	Issaquah	Bike Lanes	\$ 3.04	9.1	1.4	3.0	13.5
INTERNATIONAL BLVD & S 176TH ST	SeaTac	Off-street trails / Cycletracks	\$ 6.88	8.9	2.5	2.0	13.4
MOUNTLAKE TERRACE TC	Mountlake Terrace	Off-street trails / Cycletracks	\$ 2.17	7.4	3.0	3.0	13.3
15TH AVE NW & NW LEARY WAY	Seattle	Greenways / Signalized Crossings	\$ 5.50	7.5	3.9	2.0	13.3
MT BAKER STATION	Seattle	Off-street trails / Cycletracks	\$ 10.51	7.9	2.2	3.0	13.1
15TH AVE NE & NE CAMPUS PKWY	Seattle	Off-street trails / Cycletracks	\$ 14.08	8.8	1.1	3.0	13.0
15TH AVE NW & NW MARKET ST	Seattle	Greenways / Signalized Crossings	\$ 6.00	6.0	3.9	3.0	12.9
PACIFIC HWY S & S 312TH ST	Federal Way	New Streets	\$ 10.35	8.8	3.1	1.0	12.9
ANDOVER PARK W & BAKER BLVD	Tukwila	New Streets	\$ 25.41	7.1	4.8	1.0	12.8
NE NORTHGATE WAY & 5TH AVE NE	Seattle	Greenways / Signalized Crossings	\$ 2.50	7.1	2.8	3.0	12.8
MARTIN L KING JR WAY & S MYRTLE ST	Seattle	Off-street trails / Cycletracks	\$ 11.82	8.6	2.2	2.0	12.8
CALIFORNIA AVE SW & SW FINDLAY ST	Seattle	Greenways / Signalized Crossings	\$ 3.00	7.0	3.8	2.0	12.8
AURORA AVE N & N NORTHGATE WAY	Seattle	Off-street trails / Cycletracks	\$ 5.19	7.3	3.4	2.0	12.8
5TH AVE NE & NE 103RD ST	Seattle	Greenways / Signalized Crossings	\$ 5.00	7.4	3.3	2.0	12.7
SENECA ST & 4TH AVE	Seattle	Off-street trails / Cycletracks	\$ 13.13	10.0	0.7	2.0	12.7
156TH AVE NE & NE 15TH ST	Bellevue	Off-street trails / Cycletracks	\$ 6.67	8.0	2.7	2.0	12.7
AURORA AVE N & N 130TH ST	Seattle	Off-street trails / Cycletracks	\$ 3.76	7.8	2.6	2.0	12.4



Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
PREFONTAINE PL S & YESLER WAY	Seattle	Greenways / Signalized Crossings	\$ 0.75	9.4	0.1	3.0	12.4
INTERNATIONAL BLVD & S 188TH ST	SeaTac	New Streets	\$ 6.57	8.7	2.7	1.0	12.4
PREFONTAINE PL S & YESLER WAY	Seattle	Off-street trails / Cycletracks	\$ 11.29	9.4	0.9	2.0	12.3
5TH AVE S & S JACKSON ST	Seattle	Off-street trails / Cycletracks	\$ 11.57	9.8	0.4	2.0	12.3
SW ALASKA ST & CALIFORNIA AVE SW	Seattle	Off-street trails / Cycletracks	\$ 6.08	7.2	2.1	3.0	12.3
EVERETT SOUNDER	Everett	Bike Lanes	\$ 0.48	9.2	0.1	3.0	12.2
LYNNWOOD TC	Lynnwood	Off-street trails / Cycletracks	\$ 3.97	8.6	1.6	2.0	12.2
SW BARTON ST & 29TH AVE SW	Seattle	Greenways / Signalized Crossings	\$ 2.50	7.2	2.0	3.0	12.2
15TH AVE NE & NE 45TH ST	Seattle	Greenways / Signalized Crossings	\$ 1.00	9.0	0.2	3.0	12.2
STRANDER BLVD & ANDOVER PARK W	Tukwila	New Streets	\$ 25.90	6.6	4.6	1.0	12.2
3RD AVE & COLUMBIA ST	Seattle	Off-street trails / Cycletracks	\$ 11.74	8.2	0.9	3.0	12.2
REDMOND TC	Redmond	Bike Lanes	\$ 2.41	7.8	1.4	3.0	12.2
DENNY WAY & STEWART ST	Seattle	Bike Lanes	\$ 0.90	9.0	0.1	3.0	12.1
MOUNTLAKE TERRACE TC	Mountlake Terrace	Bike Lanes	\$ 2.48	7.4	2.7	2.0	12.1
AURORA AVE N & N 85TH ST	Seattle	Greenways / Signalized Crossings	\$ 3.50	6.5	2.4	3.0	12.0
15TH AVE NW & NW 65TH ST	Seattle	Greenways / Signalized Crossings	\$ 2.00	6.7	2.2	3.0	12.0
5TH AVE NE & NE 106TH ST	Seattle	Greenways / Signalized Crossings	\$ 3.50	7.1	2.9	2.0	11.9
15TH AVE W & W DRAVUS ST	Seattle	Off-street trails / Cycletracks	\$ 7.15	7.3	3.6	1.0	11.9
BELLEVUE TC	Bellevue	Off-street trails / Cycletracks	\$ 8.86	8.1	0.8	3.0	11.9
156TH AVE NE & NE 15TH ST	Bellevue	New Streets	\$ 20.80	8.0	2.8	1.0	11.8
SODO BUSWAY & S LANDER ST	Seattle	Off-street trails / Cycletracks	\$ 12.07	6.8	2.9	2.0	11.8
OVERLAKE TC	Redmond	Bike Lanes	\$ 3.95	7.4	2.1	2.0	11.4
BOEING ACS & S LONGACRES WAY	Renton	New Streets	\$ 13.91	10.6	0.2	0.3	11.1
KING ST STATION	Seattle	Off-street trails / Cycletracks	\$ 10.96	7.8	1.3	2.0	11.1
5TH AVE NE & NE 103RD ST	Seattle	Off-street trails / Cycletracks	\$ 6.73	7.4	2.6	1.0	11.1



Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
E DENNY WAY & BELLEVUE AVE E	Seattle	Greenways / Signalized Crossings	\$ 1.00	8.8	0.1	2.0	10.9
MONTLAKE BLVD NE & NE 45TH ST	Seattle	Greenways / Signalized Crossings	\$ 1.00	8.8	0.1	2.0	10.9
15TH AVE NE & NE 45TH ST	Seattle	Off-street trails / Cycletracks	\$ 12.53	9.0	0.9	1.0	10.9
AURORA AVE N & N 130TH ST	Seattle	Bike Lanes	\$ 0.35	7.8	0.1	3.0	10.9
BEACON HILL STATION	Seattle	Bike Lanes	\$ 1.91	7.1	0.7	3.0	10.8
S 154TH ST & 32ND AVE S	SeaTac	New Streets	\$ 1.95	10.6	0.0	0.1	10.8
E THOMAS ST & 16TH AVE E	Seattle	Bike Lanes	\$ 0.79	8.7	0.0	2.0	10.7
15TH AVE NW & NW LEARY WAY	Seattle	Off-street trails / Cycletracks	\$ 6.23	7.5	2.2	1.0	10.7
TOTEM LAKE TC	Kirkland	New Streets	\$ 0.88	7.5	0.1	3.0	10.7
S 154TH ST & 32ND AVE S	SeaTac	Off-street trails / Cycletracks	\$ 1.56	10.6	0.0	0.0	10.6
TOTEM LAKE TC	Kirkland	Bike Lanes	\$ 0.75	7.5	0.1	3.0	10.6
INTERNATIONAL BLVD & S 208TH ST	SeaTac	Off-street trails / Cycletracks	\$ 7.03	10.5	0.0	0.0	10.5
AURORA AVE N & N 185TH ST	Shoreline	Bike Lanes	\$ 2.12	8.3	0.2	2.0	10.5
PACIFIC HWY S & KENT-DESMOINES RD	Des Moines	Sidewalks	\$ 0.41	7.4	0.1	3.0	10.5
MOUNTLAKE TERRACE TC	Mountlake Terrace	Greenways / Signalized Crossings	\$ 0.50	7.4	0.1	3.0	10.4
E MADISON ST & 17TH AVE	Seattle	Greenways / Signalized Crossings	\$ 4.00	5.2	3.2	2.0	10.4
SOUTH TACOMA STATION	Tacoma	Off-street trails / Cycletracks	\$ 1.28	9.3	0.0	1.0	10.3
BELLEVUE TC	Bellevue	New Streets	\$ 4.47	8.1	0.2	2.0	10.3
15TH AVE NW & NW 85TH ST	Seattle	Off-street trails / Cycletracks	\$ 0.48	8.1	0.0	2.0	10.2
NE PACIFIC ST & 15TH AVE NE	Seattle	Greenways / Signalized Crossings	\$ 0.50	7.1	0.1	3.0	10.1
BROADWAY E & E REPUBLICAN ST	Seattle	Greenways / Signalized Crossings	\$ 2.50	4.4	2.5	3.0	10.0
PACIFIC HWY S & S 312TH ST	Federal Way	Sidewalks	\$ 3.75	8.8	0.1	1.0	9.9
INTERNATIONAL BLVD & S 188TH ST	SeaTac	Off-street trails / Cycletracks	\$ 9.10	8.7	0.2	1.0	9.9
S HENDERSON ST & MARTIN L KING JR WAY	Seattle	Off-street trails / Cycletracks	\$ 11.02	8.1	0.8	1.0	9.9
SW 148TH ST & AMBAUM BLVD SW	Burien	Bike Lanes	\$ 1.39	8.8	0.1	1.0	9.9



Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
148TH AVE NE & NE OLD REDMOND RD	Redmond	Bike Lanes	\$ 1.71	8.8	0.0	1.0	9.9
FAIRVIEW AVE N & HARRISON ST	Seattle	Greenways / Signalized Crossings	\$ 0.50	8.8	0.0	1.0	9.9
AURORA AVE N & N 130TH ST	Seattle	Greenways / Signalized Crossings	\$ 0.50	7.8	0.0	2.0	9.9
S 180TH ST & SPERRY DR	Tukwila	Off-street trails / Cycletracks	\$ 0.31	6.8	0.1	3.0	9.8
PACIFIC HWY S & S 312TH ST	Federal Way	Bike Lanes	\$ 1.58	8.8	0.1	1.0	9.8
NE 8TH ST & 124TH AVE NE	Bellevue	New Streets	\$ 17.29	9.5	0.2	0.1	9.8
NE PACIFIC ST & NE PACIFIC PL	Seattle	Off-street trails / Cycletracks	\$ 14.53	9.0	0.5	0.3	9.8
35TH AVE SW & SW AVALON WAY	Seattle	Greenways / Signalized Crossings	\$ 1.50	6.5	0.2	3.0	9.8
AURORA AVE N & N 192ND ST	Shoreline	Bike Lanes	\$ 2.27	8.6	0.1	1.0	9.7
STRANDER BLVD & ANDOVER PARK W	Tukwila	Off-street trails / Cycletracks	\$ 0.66	6.6	0.1	3.0	9.7
SOUTH TACOMA STATION	Tacoma	Bike Lanes	\$ 2.52	9.3	0.0	0.3	9.6
PACIFIC HWY S & S 240TH ST	Des Moines	Sidewalks	\$ 2.08	8.5	0.1	1.0	9.6
NE 8TH ST & 124TH AVE NE	Bellevue	Off-street trails / Cycletracks	\$ 13.92	9.5	0.0	0.0	9.6
AURORA AVE N & GALER ST	Seattle	Bike Lanes	\$ 1.01	7.5	0.1	2.0	9.6
S JACKSON ST & 12TH AVE S	Seattle	Off-street trails / Cycletracks	\$ 8.37	8.3	0.2	1.0	9.6
INTERNATIONAL BLVD & S 180TH ST	SeaTac	New Streets	\$ 6.57	9.2	0.1	0.3	9.6
NE 45TH ST & UNION BAY PL NE	Seattle	Greenways / Signalized Crossings	\$ 1.00	8.5	0.0	1.0	9.5
1ST AVE W & W MERCER ST	Seattle	Off-street trails / Cycletracks	\$ 10.71	6.1	1.4	2.0	9.5
FAUNTLEROY WAY SW & SW BARTON ST	Seattle	Bike Lanes	\$ 1.00	7.4	0.1	2.0	9.5
15TH AVE NE & NE 55TH ST	Seattle	Bike Lanes	\$ 1.14	7.3	0.1	2.0	9.4
FAUNTLEROY WAY SW & CALIFORNIA AVE SW	Seattle	Bike Lanes	\$ 0.84	7.2	0.1	2.0	9.3
DENNY WAY & STEWART ST	Seattle	Off-street trails / Cycletracks	\$ 16.93	9.0	0.1	0.1	9.2
148TH AVE NE & NE OLD REDMOND RD	Redmond	Off-street trails / Cycletracks	\$ 4.46	8.8	0.1	0.3	9.2
PACIFIC HWY S & S 312TH ST	Federal Way	Off-street trails / Cycletracks	\$ 7.27	8.8	0.1	0.3	9.2
INTERNATIONAL BLVD & S 180TH ST	SeaTac	Off-street trails / Cycletracks	\$ 6.95	9.2	0.0	0.0	9.2



Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
SOUTHCENTER BLVD & 62ND AVE S	Tukwila	Off-street trails / Cycletracks	\$ 0.66	7.1	0.0	2.0	9.1
35TH AVE SW & SW AVALON WAY	Seattle	Off-street trails / Cycletracks	\$ 9.39	6.5	1.6	1.0	9.1
AURORA AVE N & N 145TH ST	Shoreline	Bike Lanes	\$ 0.74	8.1	0.0	1.0	9.1
NE 8TH ST & 140TH AVE NE	Bellevue	Off-street trails / Cycletracks	\$ 7.77	9.0	0.0	0.0	9.1
NE 8TH ST & 140TH AVE NE	Bellevue	New Streets	\$ 22.93	9.0	0.0	0.0	9.1
NE 45TH ST & 7TH AVE NE	Seattle	Greenways / Signalized Crossings	\$ 1.50	8.0	0.1	1.0	9.1
E DENNY WAY & BELLEVUE AVE E	Seattle	Off-street trails / Cycletracks	\$ 14.74	8.8	0.1	0.1	9.1
INTERNATIONAL BLVD & S 182ND ST	SeaTac	Off-street trails / Cycletracks	\$ 6.21	8.7	0.1	0.3	9.0
MONTLAKE BLVD NE & NE 45TH ST	Seattle	Off-street trails / Cycletracks	\$ 8.70	8.8	0.1	0.1	9.0
S 156TH ST & 1ST AVE S	Burien	Bike Lanes	\$ 2.03	8.7	0.0	0.3	9.0
INTERNATIONAL BLVD & S 200TH ST	SeaTac	Off-street trails / Cycletracks	\$ 10.25	8.4	0.1	0.3	8.9
FAIRVIEW AVE N & HARRISON ST	Seattle	Off-street trails / Cycletracks	\$ 15.87	8.8	0.0	0.0	8.9
PACIFIC HWY S & S 240TH ST	Des Moines	Off-street trails / Cycletracks	\$ 1.15	8.5	0.0	0.3	8.9
NE 45TH ST & UNION BAY PL NE	Seattle	Off-street trails / Cycletracks	\$ 3.27	8.5	0.0	0.3	8.8
E THOMAS ST & 16TH AVE E	Seattle	Off-street trails / Cycletracks	\$ 6.24	8.7	0.0	0.1	8.8
156TH AVE NE & NE 10TH ST	Bellevue	Off-street trails / Cycletracks	\$ 5.06	7.7	0.1	1.0	8.8
5TH AVE NE & NE 112TH ST	Seattle	Greenways / Signalized Crossings	\$ 3.00	7.6	0.1	1.0	8.7
NE NORTHGATE WAY & ROOSEVELT WAY NE	Seattle	Greenways / Signalized Crossings	\$ 4.50	7.6	0.2	1.0	8.7
S 156TH ST & 1ST AVE S	Burien	Off-street trails / Cycletracks	\$ 4.67	8.7	0.0	0.0	8.7
AMBAUM BLVD SW & SW 144TH ST	Burien	Bike Lanes	\$ 1.21	8.6	0.0	0.1	8.7
SW AVALON WAY & SW YANCY ST	Seattle	Greenways / Signalized Crossings	\$ 2.00	6.5	0.1	2.0	8.6
PACIFIC HWY S & S 272ND ST	Des Moines	Bike Lanes	\$ 1.26	7.6	0.0	1.0	8.6
TOTEM LAKE TC	Kirkland	Off-street trails / Cycletracks	\$ 2.05	7.5	0.1	1.0	8.6
PACIFIC HWY S & S 288TH ST	Federal Way	Sidewalks	\$ 10.13	8.2	0.1	0.3	8.6
W JAMES ST & LINCOLN AVE N	Kent	Off-street trails / Cycletracks	\$ 0.97	8.6	0.0	0.0	8.6



Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
AURORA AVE N & N 165TH ST	Shoreline	New Streets	\$ 3.87	8.2	0.0	0.3	8.5
5TH AVE NE & NE 103RD ST	Seattle	Bike Lanes	\$ 2.85	7.4	0.1	1.0	8.5
AURORA AVE N & N 145TH ST	Shoreline	New Streets	\$ 3.87	8.1	0.0	0.3	8.4
15TH AVE NE & NE 52ND ST	Seattle	Greenways / Signalized Crossings	\$ 0.50	8.3	0.0	0.1	8.4
AURORA AVE N & N 145TH ST	Shoreline	Off-street trails / Cycletracks	\$ 2.07	8.1	0.0	0.3	8.4
OVERLAKE VILLAGE	Redmond	Bike Lanes	\$ 4.78	8.1	0.1	0.3	8.4
E ROY ST & BROADWAY E	Seattle	Greenways / Signalized Crossings	\$ 2.50	6.2	0.2	2.0	8.4
ANDOVER PARK W & TRILAND DR	Tukwila	Off-street trails / Cycletracks	\$ 0.92	7.4	0.0	1.0	8.4
15TH AVE W & W DRAVUS ST	Seattle	Greenways / Signalized Crossings	\$ 1.00	7.3	0.0	1.0	8.4
4TH AVE SW & SW 156TH ST	Burien	Off-street trails / Cycletracks	\$ 2.33	8.2	0.0	0.1	8.4
4TH AVE SW & SW 156TH ST	Burien	Bike Lanes	\$ 2.00	8.2	0.0	0.1	8.4
156TH AVE NE & NE 24TH ST	Bellevue	New Streets	\$ 20.80	8.0	0.2	0.1	8.3
PACIFIC HWY S & S 288TH ST	Federal Way	Off-street trails / Cycletracks	\$ 5.75	8.2	0.0	0.1	8.3
BAY 1 & AUBURN TC	Auburn	New Streets	\$ 1.53	8.0	0.0	0.3	8.3
WESTLAKE AVE N & HARRISON ST	Seattle	Bike Lanes	\$ 0.85	6.2	0.1	2.0	8.2
156TH AVE NE & NE 24TH ST	Bellevue	Off-street trails / Cycletracks	\$ 7.28	8.0	0.1	0.1	8.2
AURORA AVE N & N 46TH ST	Seattle	Greenways / Signalized Crossings	\$ 2.00	6.0	0.2	2.0	8.2
156TH AVE NE & NE 24TH ST	Bellevue	Bike Lanes	\$ 4.11	8.0	0.0	0.1	8.2
WOODLAND PL N & N 64TH ST	Seattle	Greenways / Signalized Crossings	\$ 1.50	7.1	0.1	1.0	8.2
INTERNATIONAL BLVD & S 216TH ST	SeaTac	Off-street trails / Cycletracks	\$ 5.26	8.1	0.0	0.0	8.1
156TH AVE NE & NE 10TH ST	Bellevue	New Streets	\$ 9.58	7.7	0.1	0.3	8.1
4TH AVE N & W SMITH ST	Kent	Off-street trails / Cycletracks	\$ 0.39	7.8	0.0	0.3	8.1
MERIDIAN AVE N & N NORTHGATE WAY	Seattle	Off-street trails / Cycletracks	\$ 5.94	6.9	0.2	1.0	8.1
15TH AVE E & E ROY ST	Seattle	Greenways / Signalized Crossings	\$ 3.50	7.7	0.1	0.3	8.1
NE 45TH ST & 7TH AVE NE	Seattle	Off-street trails / Cycletracks	\$ 12.29	8.0	0.1	0.0	8.1



Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
PACIFIC HWY S & S 260TH ST	Des Moines	Bike Lanes	\$ 1.63	7.7	0.0	0.3	8.0
VIRGINIA ST & 6TH AVE	Seattle	Off-street trails / Cycletracks	\$ 17.69	8.0	0.0	0.0	8.0
156TH AVE NE & NE 31ST ST	Redmond	New Streets	\$ 16.76	7.4	0.2	0.3	7.9
NE NORTHGATE WAY & ROOSEVELT WAY NE	Seattle	Bike Lanes	\$ 2.14	7.6	0.0	0.3	7.9
156TH AVE NE & NE 31ST ST	Redmond	Off-street trails / Cycletracks	\$ 7.07	7.4	0.1	0.3	7.9
PACIFIC HWY S & S 260TH ST	Des Moines	Sidewalks	\$ 5.85	7.7	0.0	0.1	7.9
PACIFIC HWY S & S 260TH ST	Des Moines	Off-street trails / Cycletracks	\$ 0.68	7.7	0.0	0.1	7.8
PACIFIC HWY S & S 272ND ST	Des Moines	Sidewalks	\$ 7.82	7.6	0.1	0.1	7.8
NE NORTHGATE WAY & ROOSEVELT WAY NE	Seattle	Off-street trails / Cycletracks	\$ 8.51	7.6	0.1	0.1	7.7
BAY A & CONVENTION PLACE	Seattle	Off-street trails / Cycletracks	\$ 16.12	7.5	0.1	0.1	7.7
PACIFIC HWY S & S 272ND ST	Des Moines	Off-street trails / Cycletracks	\$ 1.49	7.6	0.0	0.1	7.7
15TH AVE E & E ROY ST	Seattle	Off-street trails / Cycletracks	\$ 9.73	7.7	0.0	0.0	7.7
148TH AVE NE & NE 51ST ST	Redmond	Off-street trails / Cycletracks	\$ 3.68	7.3	0.1	0.3	7.7
AURORA AVE N & GALER ST	Seattle	Off-street trails / Cycletracks	\$ 11.94	7.5	0.1	0.1	7.7
156TH AVE NE & NE 28TH ST	Redmond	New Streets	\$ 20.04	7.7	0.0	0.0	7.7
FAUNTLEROY WAY SW & CALIFORNIA AVE SW	Seattle	Off-street trails / Cycletracks	\$ 8.16	7.2	0.1	0.3	7.7
156TH AVE NE & NE 28TH ST	Redmond	Off-street trails / Cycletracks	\$ 7.96	7.7	0.0	0.0	7.7
FAIRVIEW AVE N & MERCER ST	Seattle	Bike Lanes	\$ 0.92	6.6	0.0	1.0	7.7
148TH AVE NE & NE 51ST ST	Redmond	Bike Lanes	\$ 1.67	7.3	0.0	0.3	7.7
5TH AVE NE & NE 112TH ST	Seattle	Off-street trails / Cycletracks	\$ 9.50	7.6	0.0	0.0	7.6
E UNION ST & BROADWAY	Seattle	Bike Lanes	\$ 0.87	4.4	0.2	3.0	7.6
FAUNTLEROY WAY SW & SW BARTON ST	Seattle	Off-street trails / Cycletracks	\$ 4.42	7.4	0.0	0.1	7.6
E JEFFERSON ST & 15TH AVE	Seattle	Greenways / Signalized Crossings	\$ 2.00	6.5	0.0	1.0	7.6
OVERLAKE TC	Redmond	New Streets	\$ 11.52	7.4	0.1	0.1	7.5
E UNION ST & BROADWAY	Seattle	Off-street trails / Cycletracks	\$ 10.31	4.4	2.1	1.0	7.5



Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
PACIFIC HWY S & KENT-DESMOINES RD	Des Moines	Off-street trails / Cycletracks	\$ 2.54	7.4	0.0	0.1	7.5
1ST AVE NE & NE 95TH ST	Seattle	Greenways / Signalized Crossings	\$ 4.50	7.3	0.0	0.1	7.5
156TH AVE NE & NE 31ST ST	Redmond	Bike Lanes	\$ 4.52	7.4	0.0	0.0	7.5
148TH AVE NE & NE 87TH ST	Redmond	Off-street trails / Cycletracks	\$ 8.91	7.4	0.0	0.0	7.5
148TH AVE NE & NE 40TH ST	Redmond	Bike Lanes	\$ 2.18	7.1	0.0	0.3	7.5
DEXTER AVE N & MERCER ST	Seattle	Bike Lanes	\$ 0.70	6.4	0.0	1.0	7.5
ANDOVER PARK W & TRILAND DR	Tukwila	New Streets	\$ 20.89	7.4	0.0	0.0	7.4
OVERLAKE TC	Redmond	New Streets	\$ 11.52	7.2	0.1	0.1	7.4
BROADWAY & E COLUMBIA ST	Seattle	Greenways / Signalized Crossings	\$ 0.50	7.1	0.0	0.3	7.4
OVERLAKE TC	Redmond	Off-street trails / Cycletracks	\$ 6.87	7.4	0.0	0.0	7.4
1ST AVE NE & NE 95TH ST	Seattle	Off-street trails / Cycletracks	\$ 6.65	7.3	0.0	0.0	7.4
AURORA AVE N & N 100TH ST	Seattle	Greenways / Signalized Crossings	\$ 2.00	6.3	0.1	1.0	7.3
1ST AVE NE & NE 95TH ST	Seattle	Bike Lanes	\$ 2.26	7.3	0.0	0.0	7.3
DENNY WAY & DEXTER AVE N	Seattle	Off-street trails / Cycletracks	\$ 17.68	5.6	1.4	0.3	7.3
AURORA AVE N & N 100TH ST	Seattle	Bike Lanes	\$ 1.51	6.3	0.0	1.0	7.3
AURORA AVE N & N 91ST ST	Seattle	Greenways / Signalized Crossings	\$ 2.50	5.1	0.1	2.0	7.3
OVERLAKE TC	Redmond	Off-street trails / Cycletracks	\$ 6.87	7.2	0.0	0.0	7.2
SODO BUSWAY & S ROYAL BROUGHAM WAY	Seattle	Off-street trails / Cycletracks	\$ 11.51	6.7	0.2	0.3	7.2
SOUTHCENTER BLVD & 62ND AVE S	Tukwila	New Streets	\$ 18.21	7.1	0.1	0.0	7.2
148TH AVE NE & NE 40TH ST	Redmond	Off-street trails / Cycletracks	\$ 5.89	7.1	0.0	0.0	7.1
NE PACIFIC ST & 15TH AVE NE	Seattle	Off-street trails / Cycletracks	\$ 14.62	7.1	0.1	0.0	7.1
ELLIOTT AVE W & W PROSPECT ST	Seattle	Off-street trails / Cycletracks	\$ 8.03	7.0	0.1	0.1	7.1
148TH AVE NE & NE 40TH ST	Redmond	New Streets	\$ 11.12	7.1	0.0	0.0	7.1
5TH AVE NE & NE 106TH ST	Seattle	Off-street trails / Cycletracks	\$ 7.16	7.1	0.0	0.0	7.1
NE NORTHGATE WAY & 5TH AVE NE	Seattle	Off-street trails / Cycletracks	\$ 8.03	7.1	0.0	0.0	7.1



Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
BROADWAY & E COLUMBIA ST	Seattle	Off-street trails / Cycletracks	\$ 11.58	7.1	0.0	0.0	7.1
ANDOVER PARK W & MINKLER BLVD	Tukwila	Off-street trails / Cycletracks	\$ 1.42	6.8	0.0	0.3	7.1
SW AVALON WAY & SW YANCY ST	Seattle	Off-street trails / Cycletracks	\$ 9.47	6.5	0.2	0.3	7.0
S 180TH ST & SPERRY DR	Tukwila	New Streets	\$ 18.99	6.8	0.1	0.1	7.0
STRANDER BLVD & ANDOVER PARK E	Tukwila	Off-street trails / Cycletracks	\$ 0.66	6.7	0.0	0.3	7.0
WESTLAKE AVE N & MERCER ST	Seattle	Greenways / Signalized Crossings	\$ 0.50	6.7	0.0	0.3	7.0
FAIRVIEW AVE N & MERCER ST	Seattle	Greenways / Signalized Crossings	\$ 0.50	6.6	0.0	0.3	6.9
ANDOVER PARK W & MINKLER BLVD	Tukwila	New Streets	\$ 25.90	6.8	0.1	0.0	6.8
STRANDER BLVD & ANDOVER PARK E	Tukwila	New Streets	\$ 25.90	6.7	0.0	0.0	6.7
BROADWAY E & E REPUBLICAN ST	Seattle	Off-street trails / Cycletracks	\$ 10.92	4.4	1.3	1.0	6.7
WESTLAKE AVE N & MERCER ST	Seattle	Off-street trails / Cycletracks	\$ 16.21	6.7	0.0	0.0	6.7
FAIRVIEW AVE N & VALLEY ST	Seattle	Greenways / Signalized Crossings	\$ 0.50	5.7	0.0	1.0	6.7
FAIRVIEW AVE N & MERCER ST	Seattle	Off-street trails / Cycletracks	\$ 15.24	6.6	0.0	0.0	6.7
AURORA AVE N & N 100TH ST	Seattle	Off-street trails / Cycletracks	\$ 5.73	6.3	0.1	0.3	6.7
BROADWAY E & E JOHN ST	Seattle	Off-street trails / Cycletracks	\$ 10.59	4.7	0.9	1.0	6.6
156TH AVE NE & NE 45TH ST	Redmond	Bike Lanes	\$ 3.19	6.6	0.0	0.0	6.6
DEXTER AVE N & HARRISON ST	Seattle	Off-street trails / Cycletracks	\$ 16.71	6.5	0.0	0.0	6.5
AURORA AVE N & N 85TH ST	Seattle	Off-street trails / Cycletracks	\$ 5.70	6.5	0.0	0.0	6.5
E UNION ST & BROADWAY	Seattle	Greenways / Signalized Crossings	\$ 0.50	4.4	0.0	2.0	6.5
DEXTER AVE N & MERCER ST	Seattle	Off-street trails / Cycletracks	\$ 15.49	6.4	0.0	0.0	6.5
15TH AVE NW & NW MARKET ST	Seattle	Off-street trails / Cycletracks	\$ 4.33	6.0	0.1	0.3	6.4
WESTLAKE AVE N & HARRISON ST	Seattle	Off-street trails / Cycletracks	\$ 18.06	6.2	0.1	0.0	6.3
E ROY ST & BROADWAY E	Seattle	Off-street trails / Cycletracks	\$ 10.99	6.2	0.0	0.0	6.2
E MADISON ST & 17TH AVE	Seattle	Off-street trails / Cycletracks	\$ 3.11	5.2	0.1	1.0	6.2
AURORA AVE N & PROSPECT ST	Seattle	Off-street trails / Cycletracks	\$ 13.97	6.2	0.0	0.0	6.2



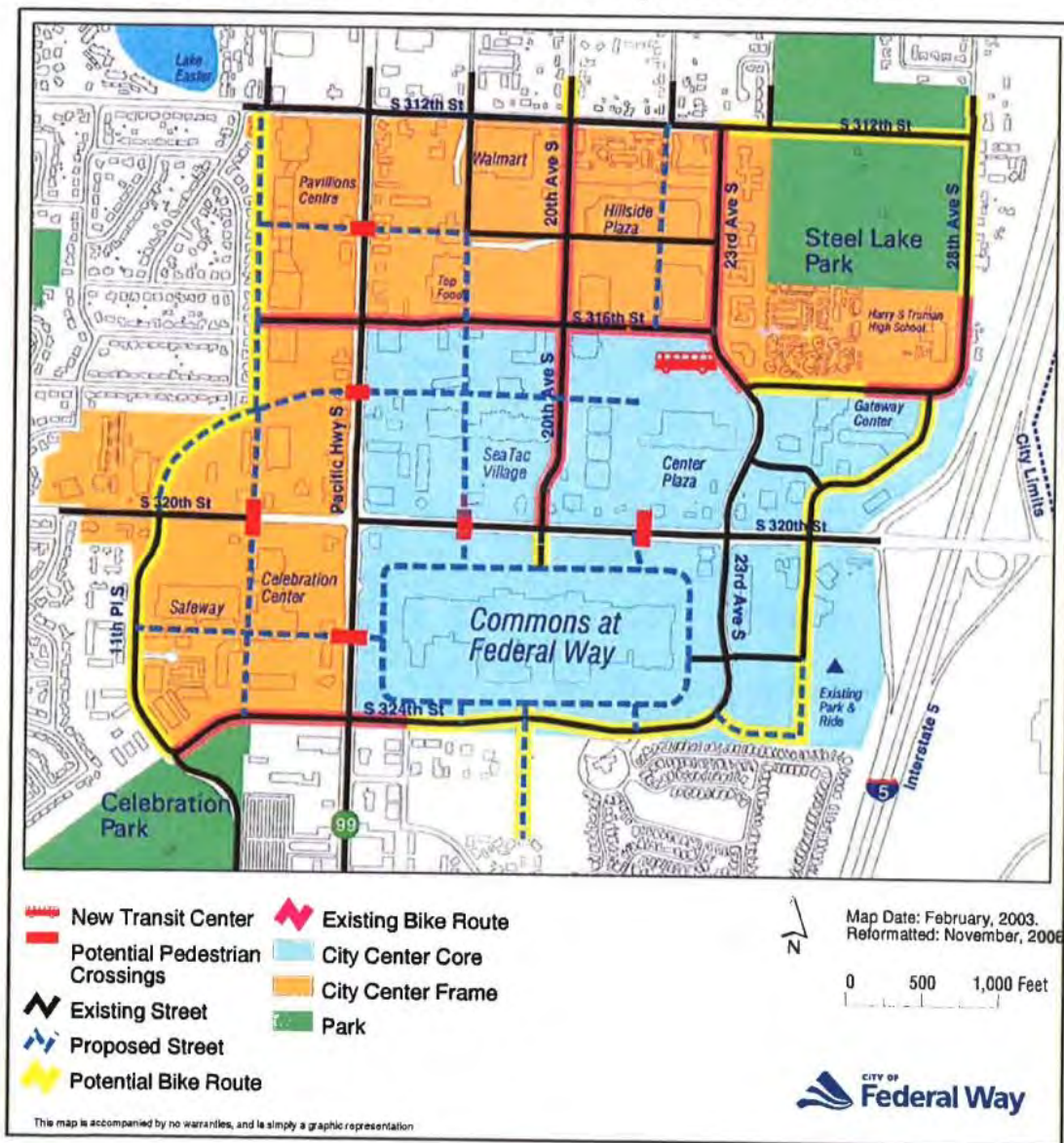
Stop Location	Area	Project Type	Estimated Cost (\$millions)	Demo./ Pop/Emp Change Score	Pct. Change Ridership Score	Cost per Rider Score	Aggregate Score
3RD AVE & VINE ST	Seattle	Off-street trails / Cycletracks	\$ 15.44	5.5	0.2	0.3	6.0
FAIRVIEW AVE E & YALE AVE N	Seattle	Bike Lanes	\$ 0.36	5.6	0.0	0.3	5.9
FAIRVIEW AVE N & VALLEY ST	Seattle	Off-street trails / Cycletracks	\$ 14.73	5.7	0.1	0.1	5.8
FAIRVIEW AVE E & YALE AVE N	Seattle	Greenways / Signalized Crossings	\$ 0.50	5.6	0.0	0.1	5.7
FAIRVIEW AVE E & YALE AVE N	Seattle	Off-street trails / Cycletracks	\$ 14.87	5.6	0.0	0.0	5.6
AURORA AVE N & N 91ST ST	Seattle	Off-street trails / Cycletracks	\$ 6.10	5.1	0.0	0.0	5.1



APPENDIX F. EXAMPLE PLANS FOR FUTURE PROJECTS

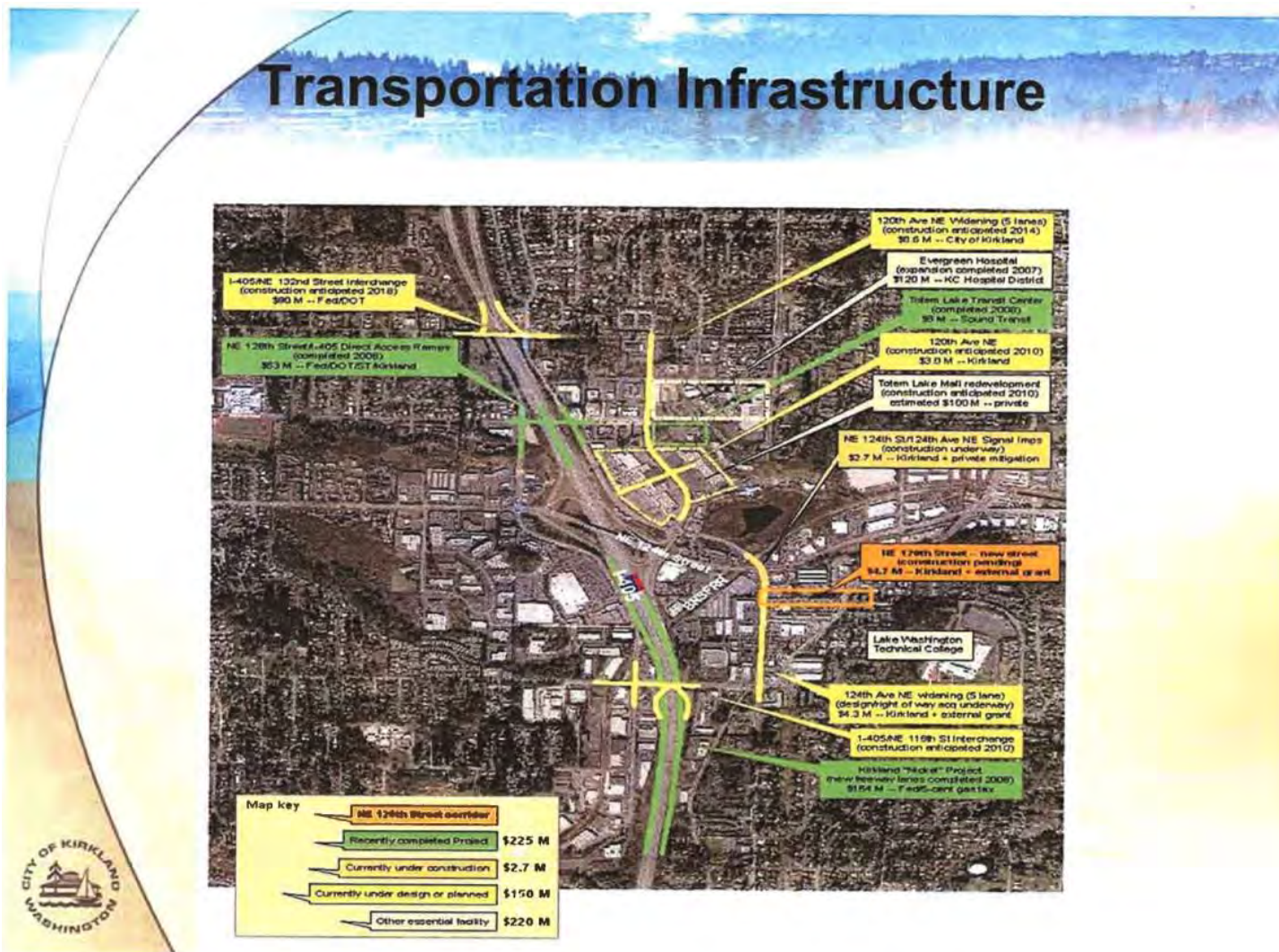
Federal Way Transit Center

Map VII-6 Principal Pedestrian and Bicycle Connections





Totem Lake Transit Center





Aurora Square

MASTER PLANNING

Aurora Square is home to many outstanding businesses, but due to the absence of cohesive planning to guide investment, the center provides little synergy. In order to create an effective Renewal Plan, the City of Shoreline conducted a master planning effort that identified ten projects for renewal, which are further explained in the pages to follow.

The ten renewal projects provide a dynamic and flexible framework for guiding public-private partnership projects by allowing individual property owners to understand and invest in the "big picture" without control of other properties. The projects aren't about specific buildings or uses as much as about infrastructure, connectivity, jobs, and attracting people. The renewal projects help the CRA become more economically healthy for the property owners, tenants, and community while providing significant public benefit.

The City of Shoreline seeks renewal at Aurora Square by mobilizing its resources to improve the existing infrastructure; we believe this to be both environmentally responsible and honoring of the investment already made. That is why the master planning suggests such projects as repurposing the Sears building, increasing land use efficiency, enhancing the "on-ground" experience, and providing solutions to stubborn design and connectivity problems.

The City's role will be complete when the obstacles for typical investment are overcome and significant investment is attracted. The City is attempting to be the catalyst that starts the boulder of private enterprise rolling down the hill toward a wonderful outcome.

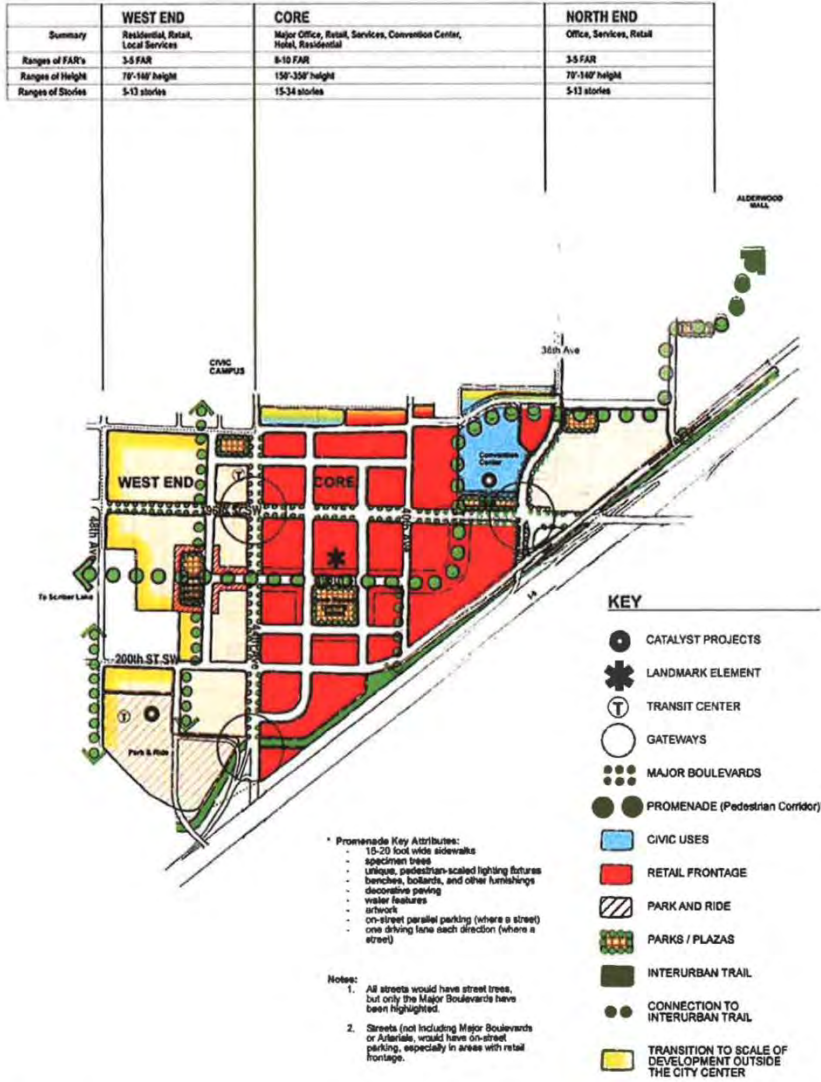


INCREASE
LAND
EFFICIENCY



Lynnwood Subarea Plan

IV. Sub-Area Policies





Tukwila Urban Center

Southcenter Subarea Plan

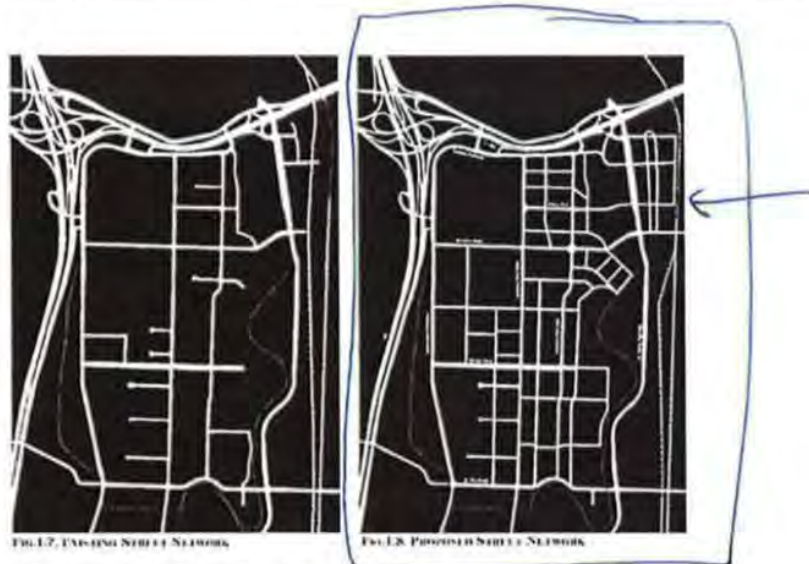


Figure 1.3 Southcenter Block Patterns

Strander Boulevard will continue to be the most well-traveled east-west thoroughfare and the gateway for many visitors to the Regional Center, Pond District and TOD Neighborhood. Ultimately, Strander Boulevard will be extended eastward to provide a new through street to Renton. This extension will pass underneath the railroad lines and provide direct access to the Tukwila Longacres/Amtrak Station from both Tukwila and Renton. Of the several north-south arterials, Andover Park West provides the most direct connection to and through the Regional Center, the new Pond District, and the new Southcenter/Tukwila Transit Center.

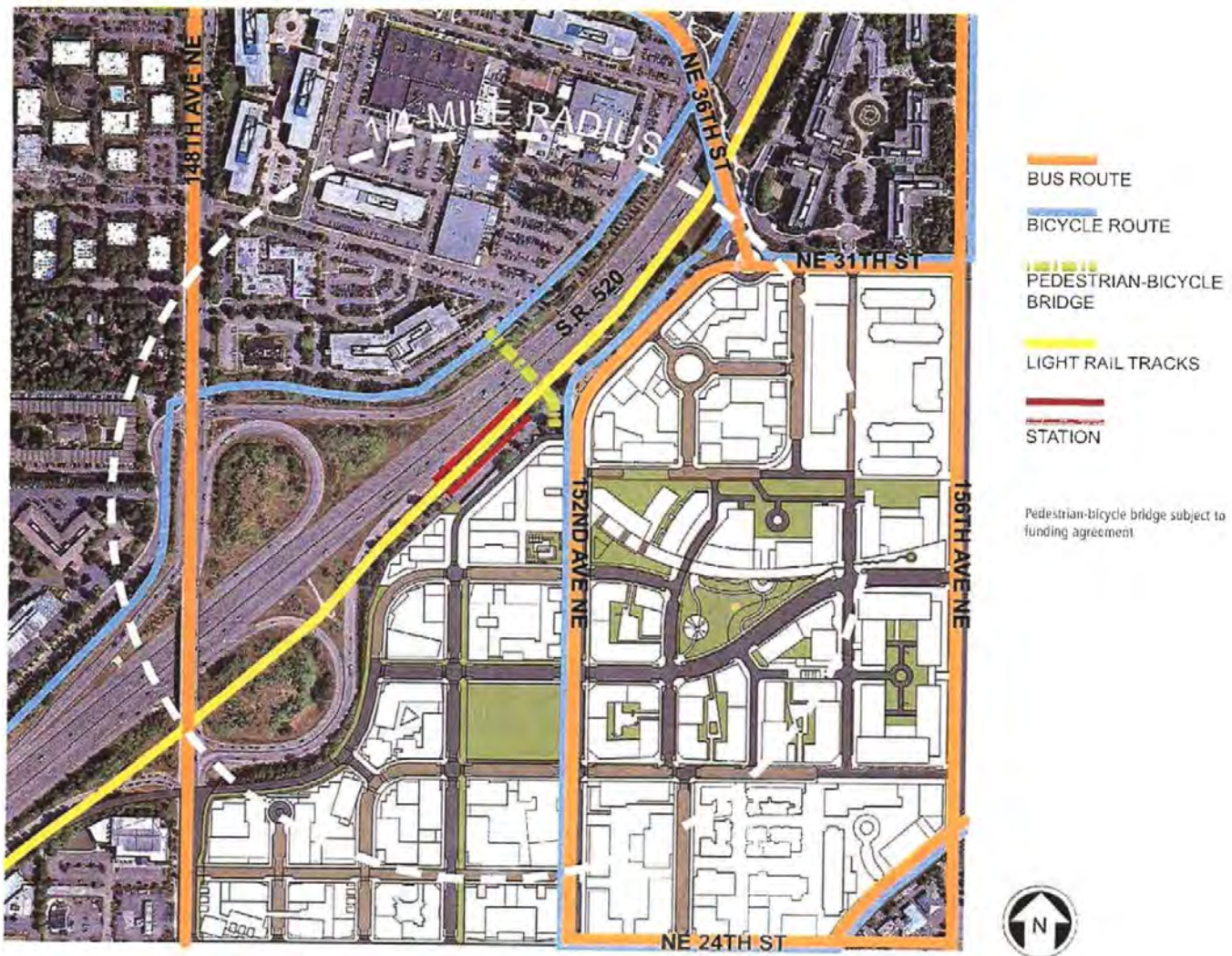
3) Transit: Integrated with Urban Center Development

As the region continues to grow, gas prices increase, and the demand surges for increasingly compact, walkable and mixed use formats, a wide range of mobility options, especially rail transit, will become critical components for economic success, livability and sustainability. These trends will favor the areas of Southcenter within walking distance of the Tukwila Longacres/Amtrak Station and Southcenter Transit Center, which can be expected to capture an increasing share of regional demand for housing and office development.

In order to realize the full potential of these transit facilities, existing barriers to visibility, access and convenience will be removed. Development within walking distance of transit stations will provide much enhanced connectivity to and from transit facilities as they contribute to improvements that incrementally add to the network of walkable, safe, and complete street environments – and in turn, the new transit oriented development will promote system ridership.

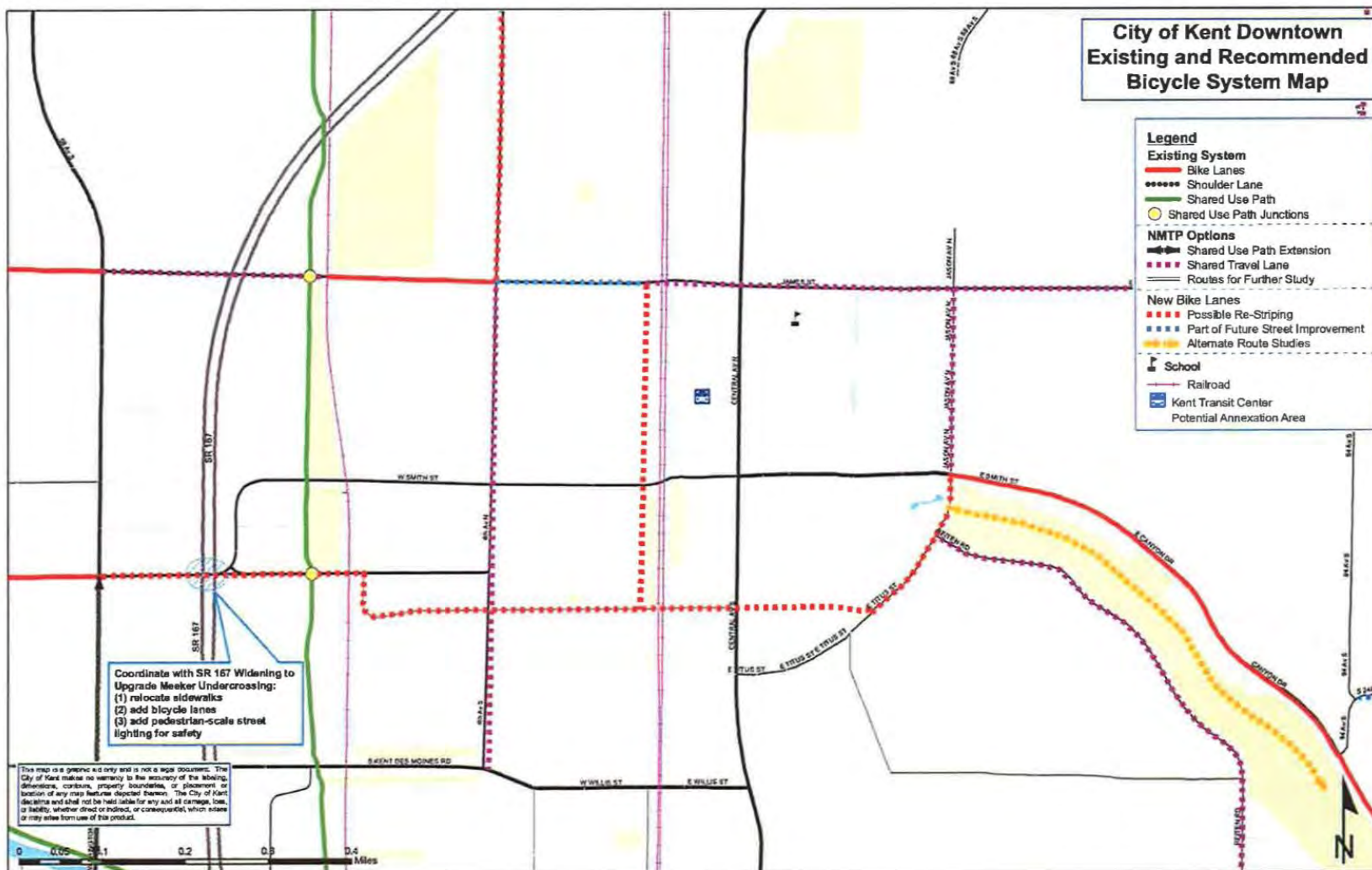


Overlake Village



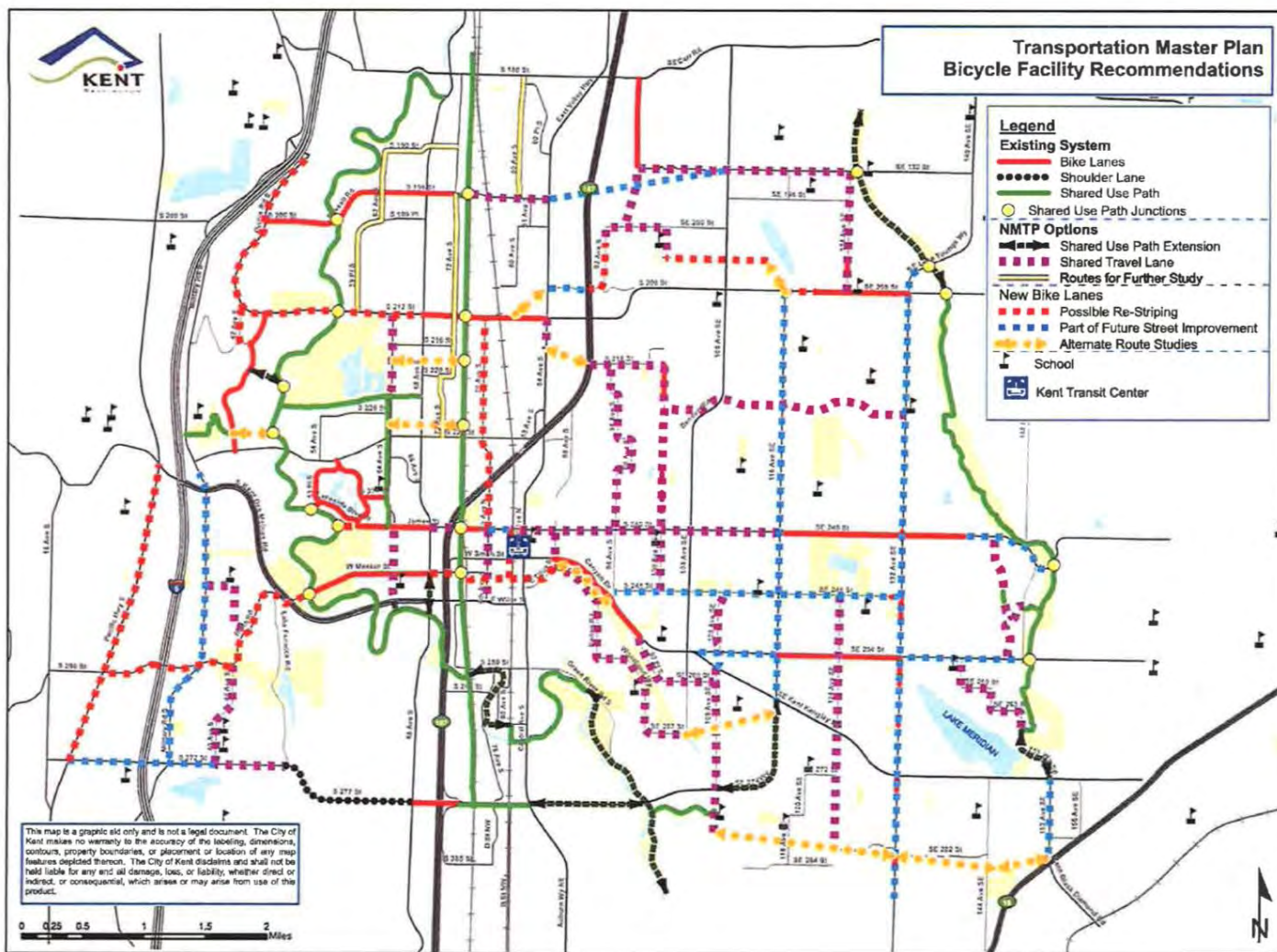


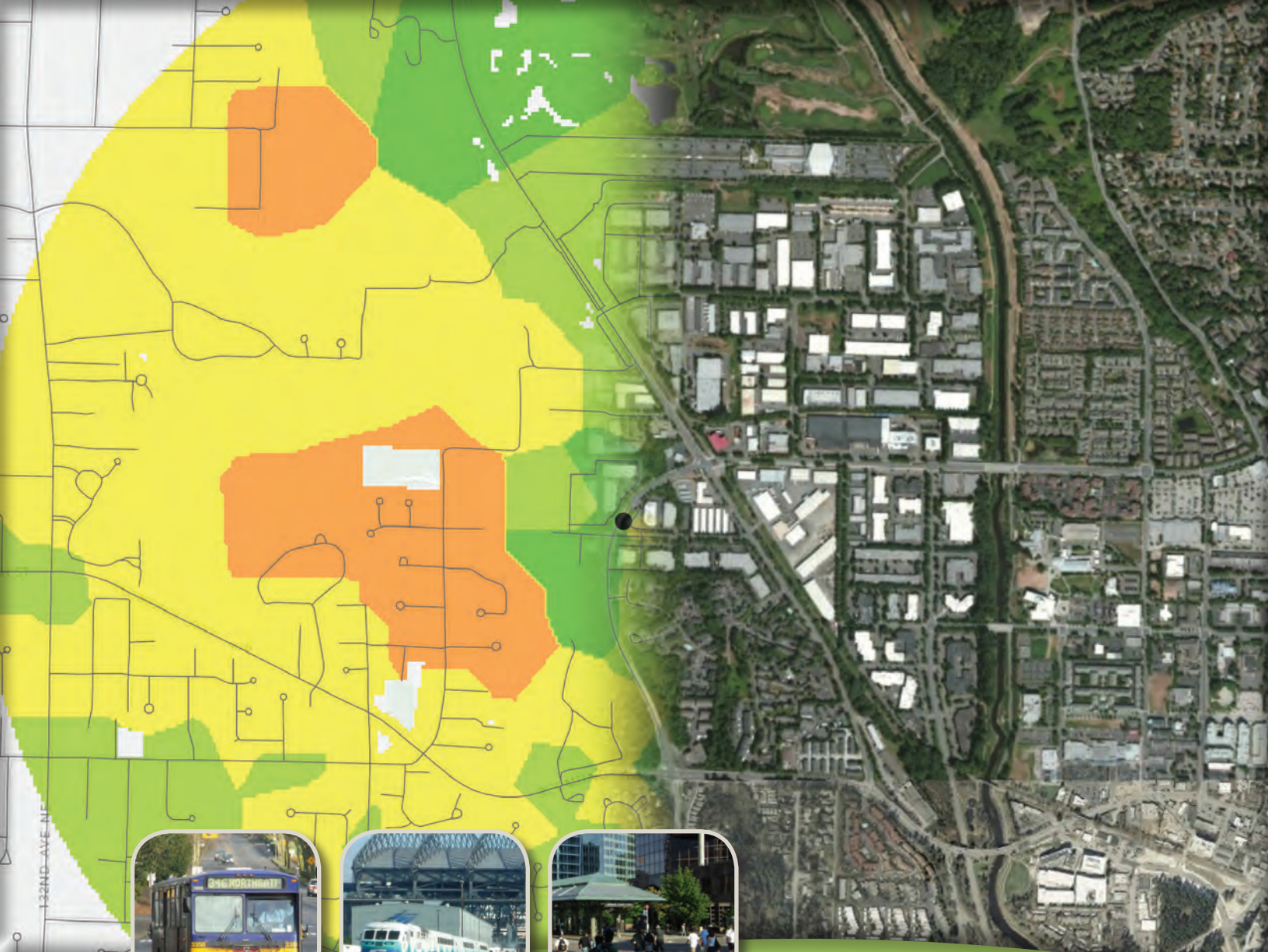
Kent Bicycle System Plan





Kent Transportation Master Plan





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METRO

 **SOUNDTRANSIT**