Equity in Action:

Developing a community-led data-driven equity approach

APTA Webinar
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METRO
*Moving forward together*

Mobility Framework & Equity Cabinet

- Guiding document for all Metro policy updates

- Led by the Equity Cabinet, a group of paid diverse community members

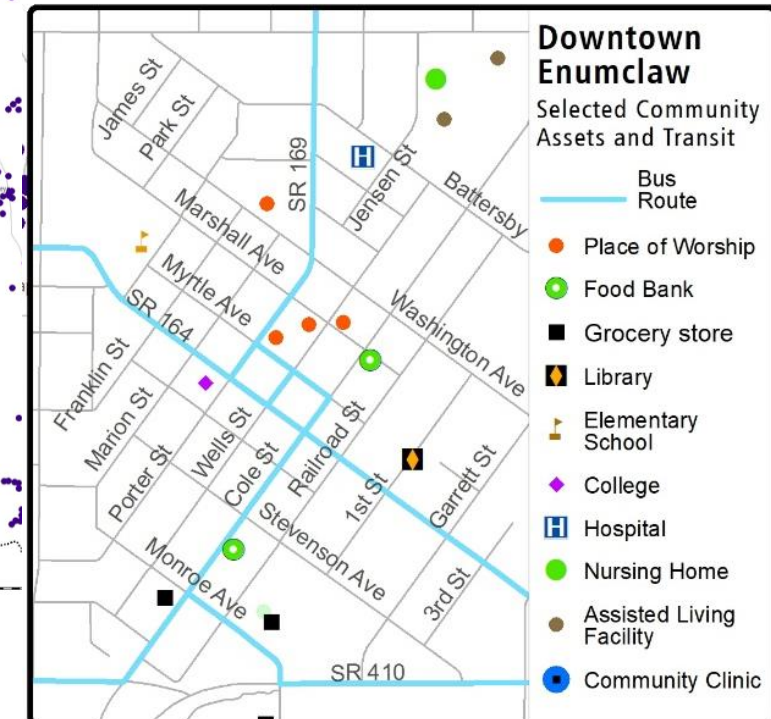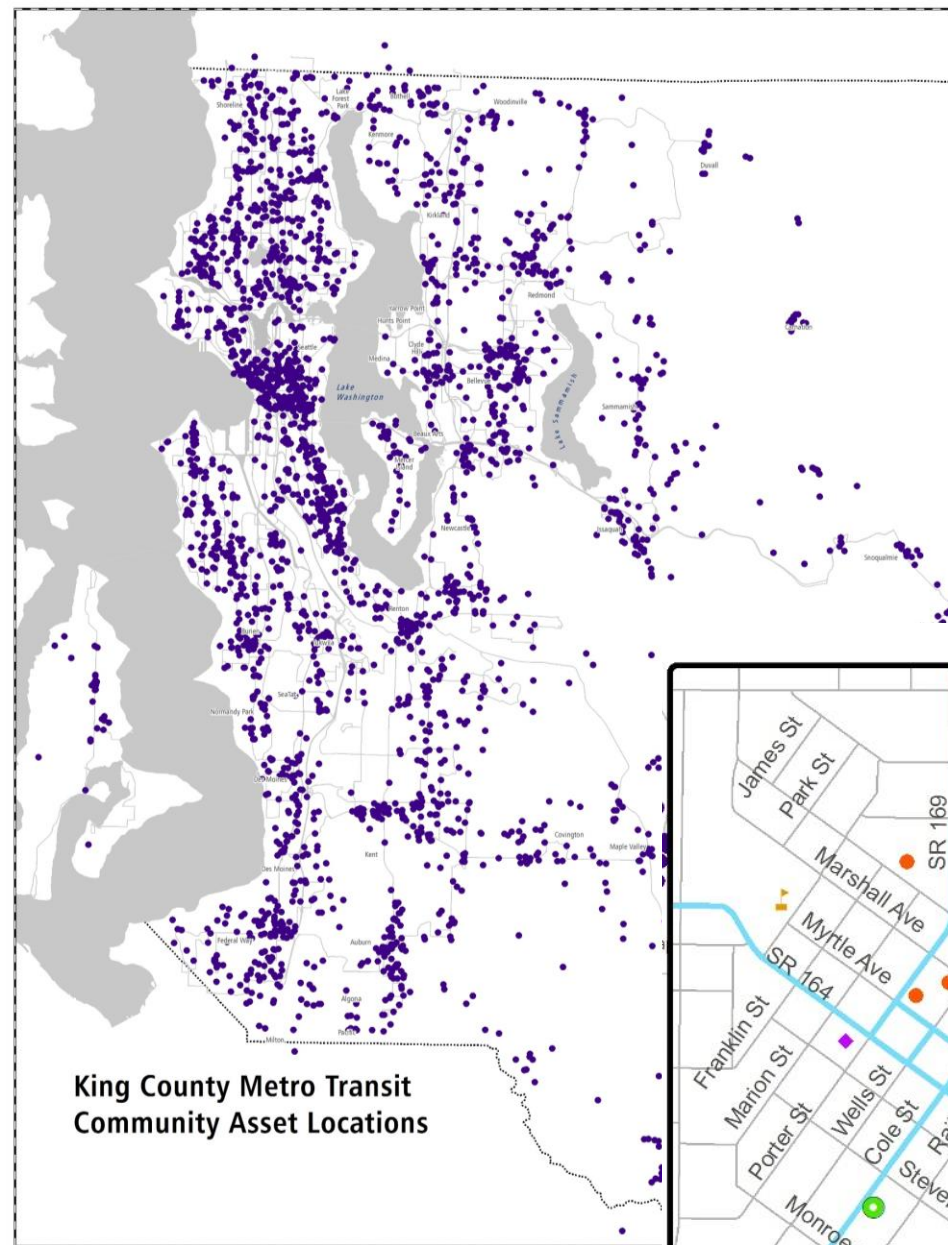- Intended to connect racial equity directive with planning & outcomes

Equity Priority Areas

- Block group geographies
- Composite quintile score based on 5 factors:

  - People of color (40% of score)
  - People with low/no income (30% of score)
  - People with a disability (10% of score)
  - Households with low English proficiency (10% of score)
  - People who are born outside U.S. (10% of score)

King County Equity Priority Areas

Equity Priority Area Scores*
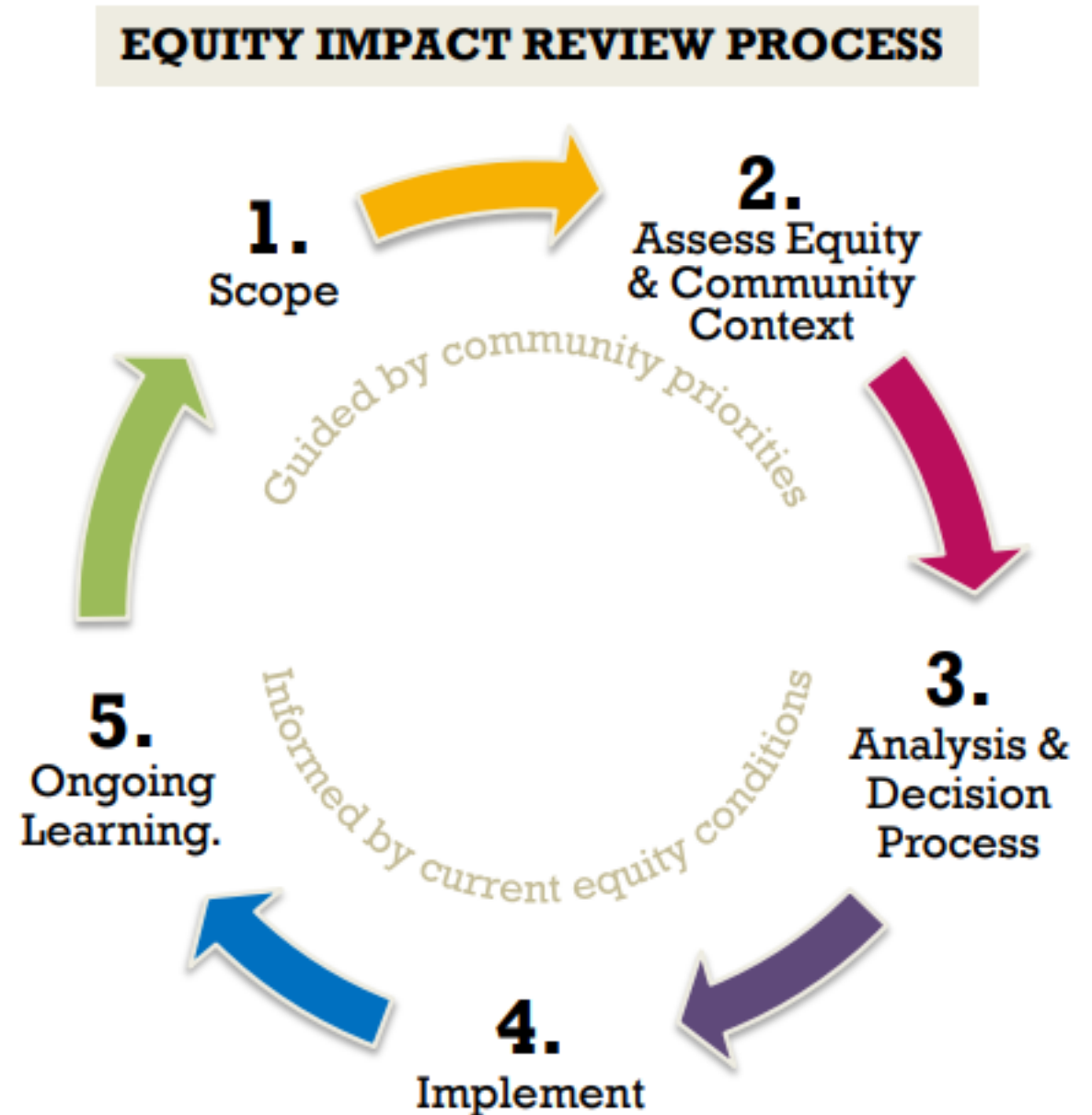
1 lowest need
2
3
4
5 highest need
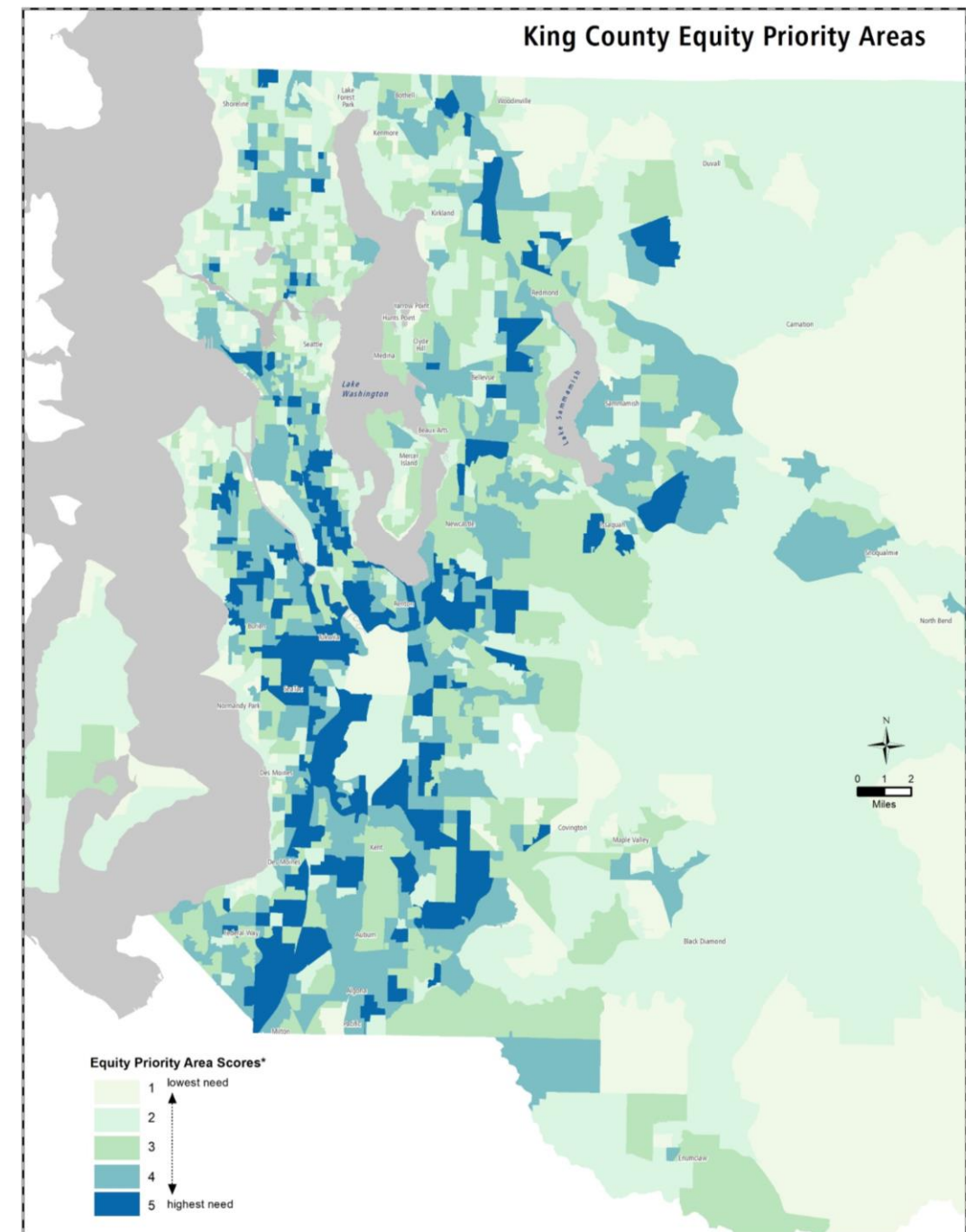
Community Assets

- Locations throughout the County that serve public needs (education social services, health care; community gathering locations)

- Over 4000 locations identified

- Maintained by Service Planning, updated annually but continuously improved with community input

King County Metro Transit
Community Asset Locations
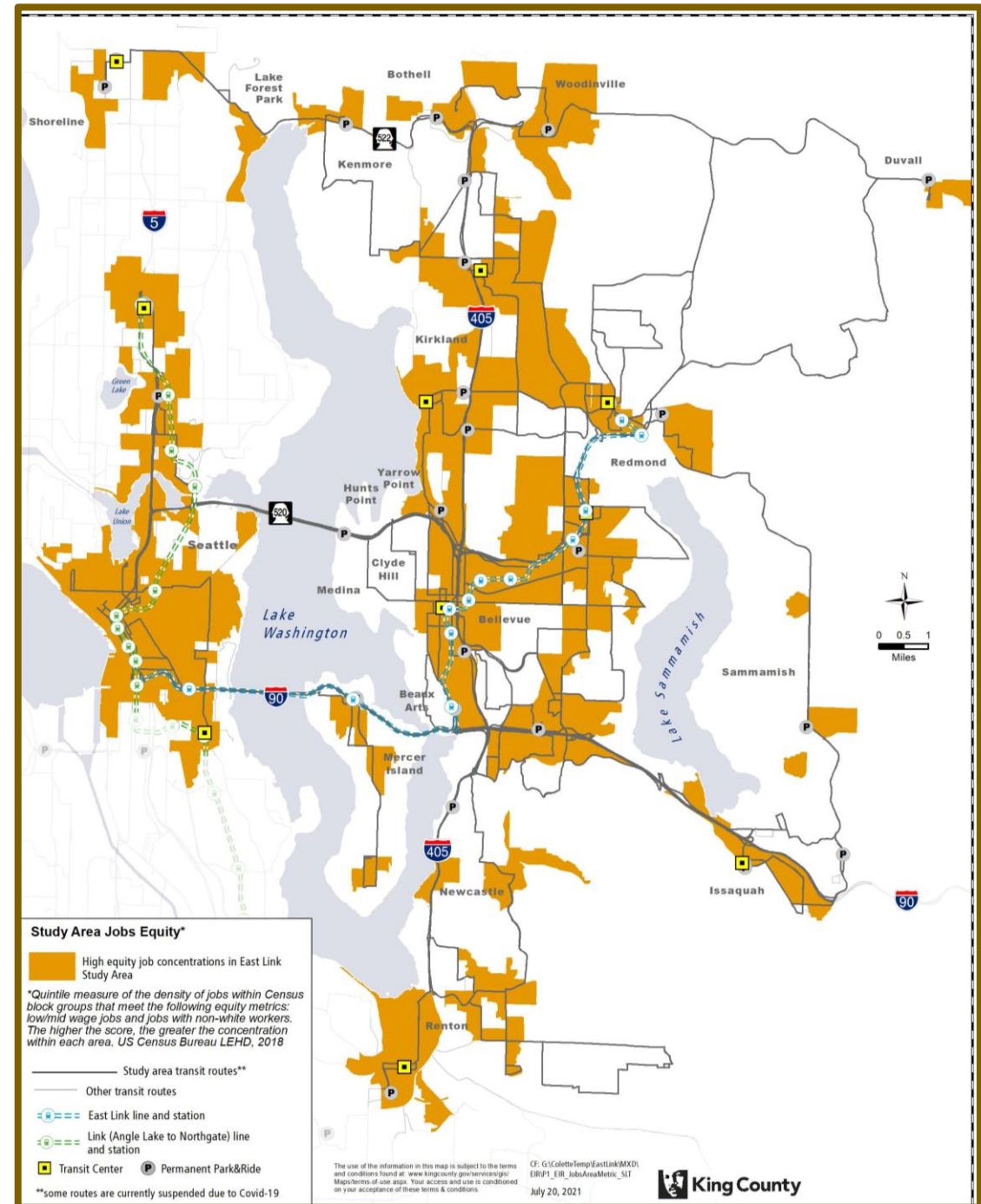

Downtown Enumclaw
Selected Community Assets and Transit

— Bus Route
● Place of Worship
◉ Food Bank
■ Grocery store
▣ Library
⚑ Elementary School
◆ College
Ⓗ Hospital
● Nursing Home
● Assisted Living Facility
● Community Clinic

Using Equity Data in Service Planning

- Fixed route restructures
- Outreach
- Covid suspensions & restorations
- Service Guidelines

EQUITY IMPACT REVIEW PROCESS

1. Scope

2. Assess Equity & Community Context

3. Analysis & Decision Process

4. Implement

5. Ongoing Learning.

Guided by community priorities

Informed by current equity conditions

Job Equity Score

- Based on density of low and mid-wage jobs & jobs held by people of color

More jobs/per acre, the higher the Job Equity score

Study Area Jobs Equity*

High equity job concentrations in East Link Study Area

*Quintile measure of the density of jobs within Census block groups that meet the following equity metrics: low/mid wage jobs and jobs with non-white workers. The higher the score, the greater the concentration within each area. US Census Bureau LEHD, 2018

Study area transit routes**

Other transit routes

East Link line and station

Link (Angle Lake to Northgate) line and station

Transit Center   Permanent Park&Ride

**some routes are currently suspended due to Covid-19

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July 20, 2021
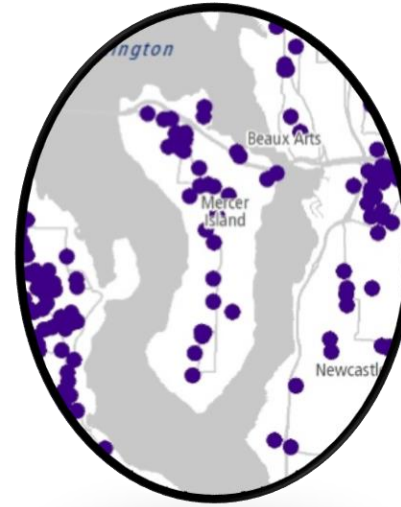
Route Opportunity Index

- Based on block group EPA scores

- Available for all routes with stops

- Quintile ranking of the percent of route's stops in block groups with an EPA score of 5

More stops in high equity block groups, the higher the Opportunity Index score

King County Metro Transit
Highest Opportunity
Index Routes

Legend:
— Highest Opportunity Index Route
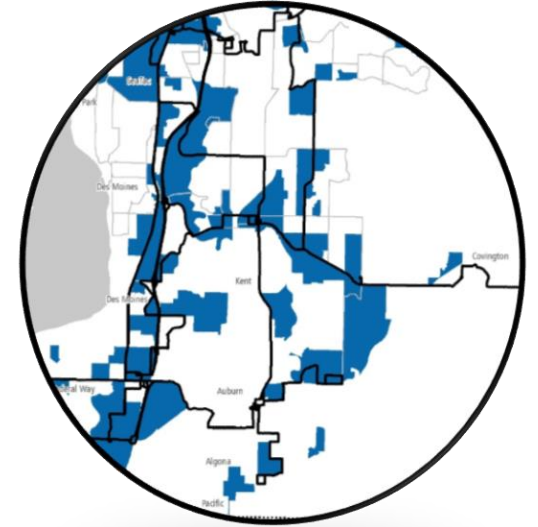■ Highest Equity Priority Area
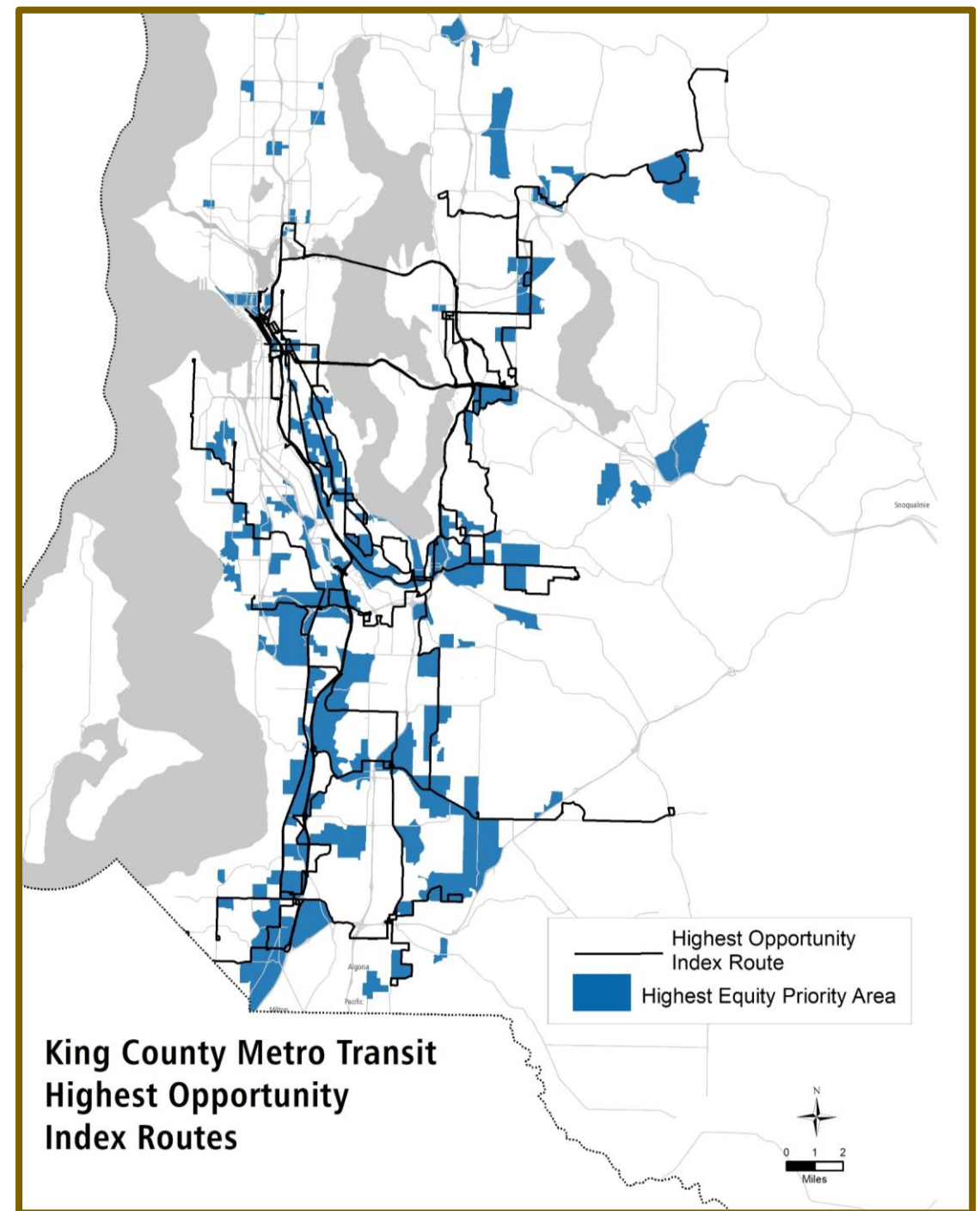
Equity Metrics

- **One locational data set:**

  Community Asset geodatabase

- **Three statistically derived metrics:**

  1. Equity Priority Areas Scores
  2. Opportunity Index Route Scores
  3. Job Equity Score

Community Assets

Opportunity Index Route Scores

Equity Priority Areas

Why develop a locational suitability analysis for F2FR Flexible Services?

- Model county-wide flexible service planning

- Merge planning processes for flexible services

- Align with the recommendations in the Mobility Framework

![King County METRO logo]

Definitions

Feeder-to-Fixed Route (F2FR) Service

Local transit service that provides users with connections to main-line principal arterial service, with the intention of feeding the existing fixed-route network. Serves to address the first-mile last-mile problem.
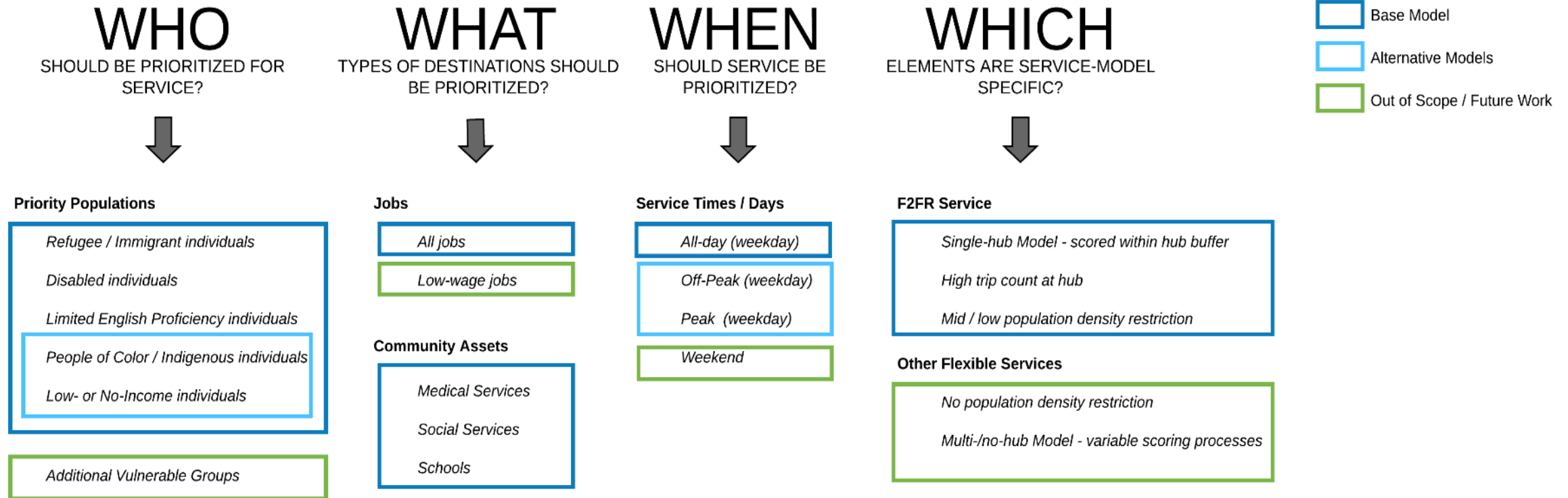
Transit Connection Locations (TCLs)

Focal points for transit and economic activity that were selected for this analysis based on areas identified by county and regional transportation plans.

Accessibility

The ease of reaching goods, services, and destinations. The Transit Accessibility score measures—in relative terms and on average—how poor the accessibility is to jobs and community assets in the area surrounding each transit connection location (TCL).

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Key Policy Questions

WHO SHOULD BE PRIORITIZED FOR SERVICE?

Priority Populations

- Refugee / Immigrant individuals
- Disabled individuals
- Limited English Proficiency individuals
- People of Color / Indigenous individuals
- Low- or No-Income individuals

- Additional Vulnerable Groups

WHAT TYPES OF DESTINATIONS SHOULD BE PRIORITIZED?

Jobs

- All jobs
- Low-wage jobs

Community Assets

- Medical Services
- Social Services
- Schools

WHEN SHOULD SERVICE BE PRIORITIZED?

Service Times / Days

- All-day (weekday)
- Off-Peak (weekday)
- Peak (weekday)
- Weekend

WHICH ELEMENTS ARE SERVICE-MODEL SPECIFIC?

F2FR Service

- Single-hub Model - scored within hub buffer
- High trip count at hub
- Mid / low population density restriction

Other Flexible Services

- No population density restriction
- Multi-/no-hub Model - variable scoring processes

Legend:
- Base Model
- Alternative Models
- Out of Scope / Future Work

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Two-Pronged Approach

Unmet Need

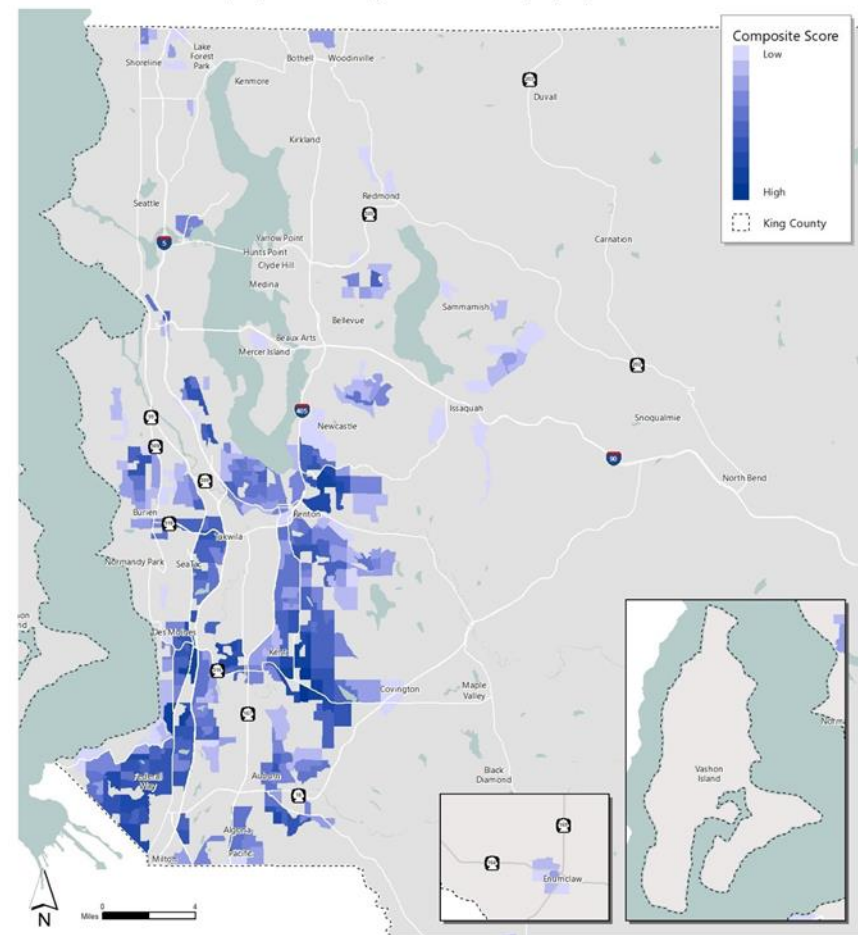- High Concentrations of Priority Populations

- Low All-Day Transit Accessibility

Service Feasibility
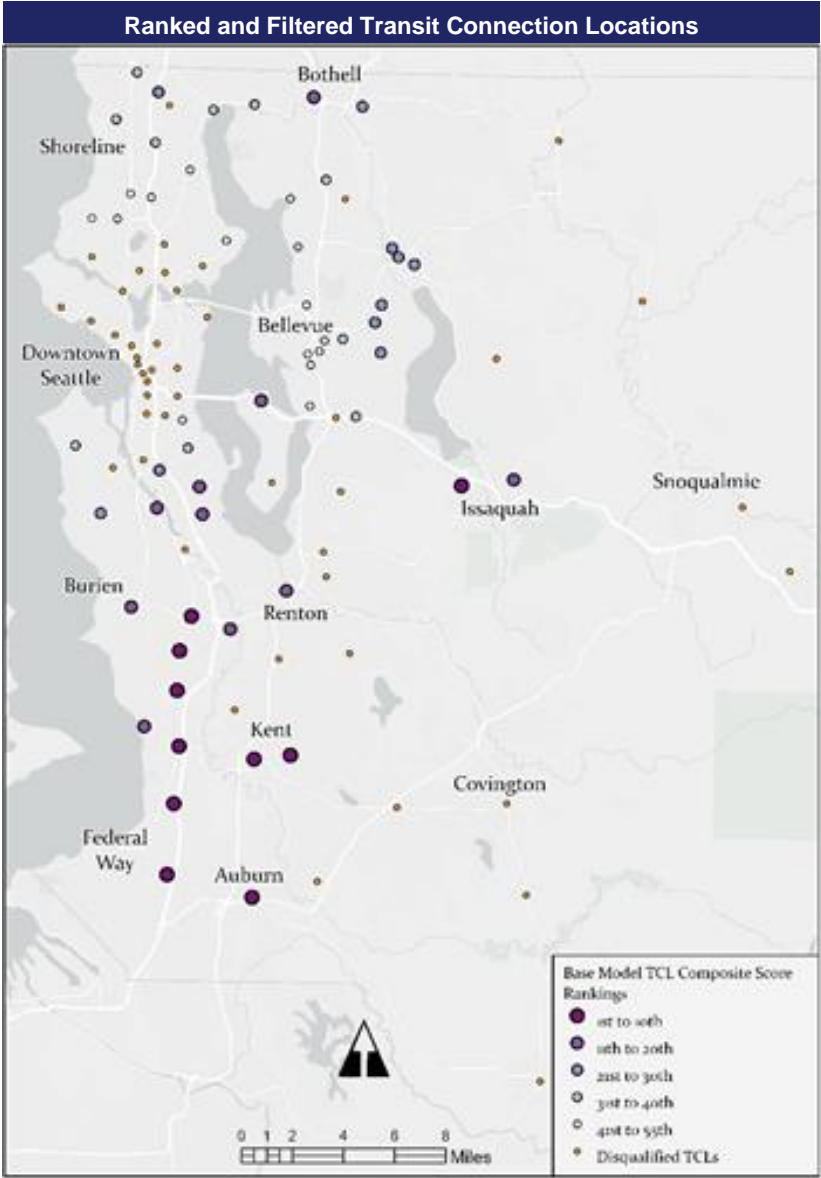
- Trip Count Filter:
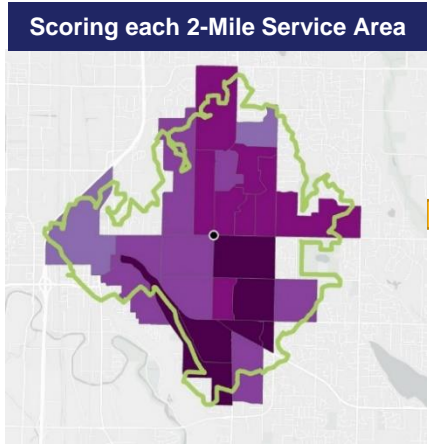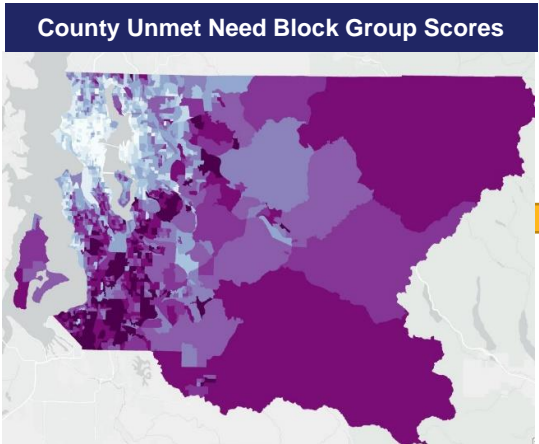
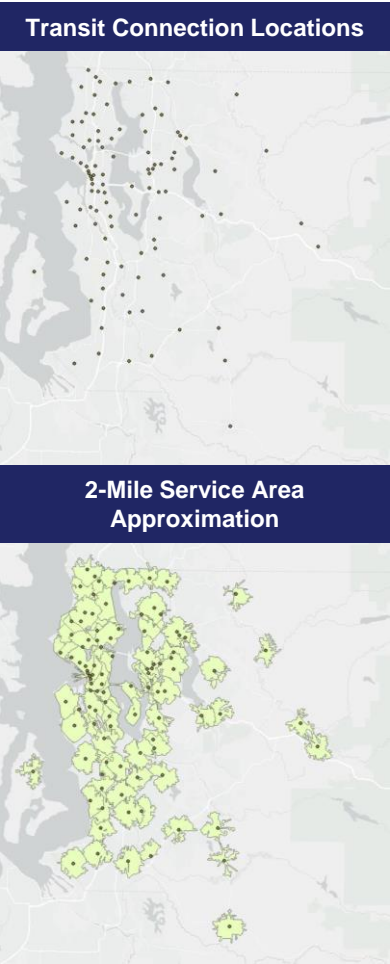- Density Filter:

40th percentile
of transit trips

4-18 residents/acre

Figure 40 Alternative Service Opportunities Composite: High Concentrations of Priority Populations, Low Off-Peak Access, Population Density between 4 and 15 people per acre

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Analytical Approach

Transit Connection Locations

2-Mile Service Area Approximation

County Unmet Need Block Group Scores

Scoring each 2-Mile Service Area

Ranked and Filtered Transit Connection Locations

Spot Improvements

- Low-cost, quick-fix traffic changes to improve transit operations

Examples:

- Queue jump signals
- Traffic signal modifications
- Turn prohibitions
- Channelization (changing width, alignment, or direction of lanes)
- Dedicated bus lanes

How Did We Prioritize Before?

- Does it address a safety concern?

- Ridership

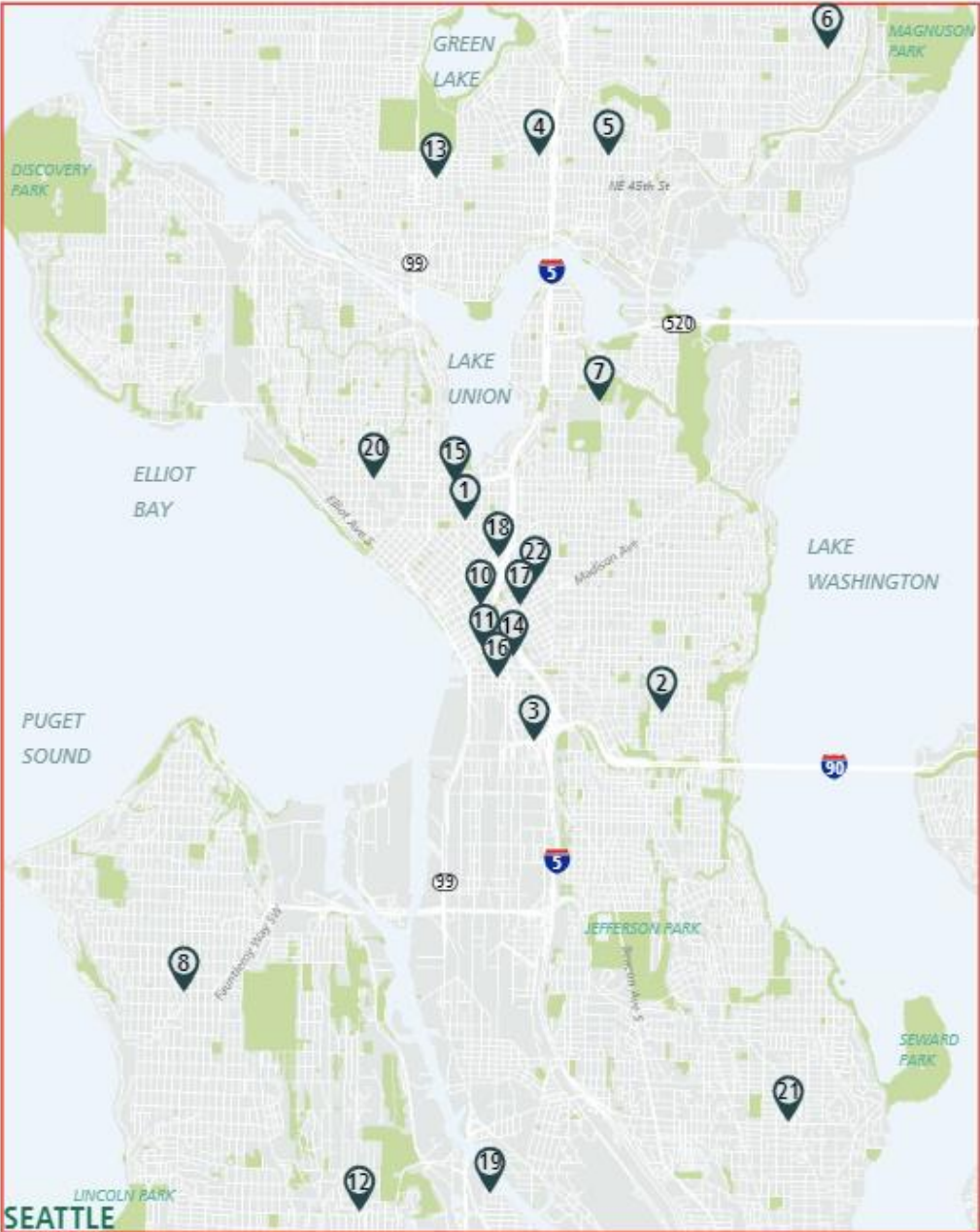- Bus volumes

- Amount of measured delay

Projects limited by

- Cost

- City resources/opportunities

2020 Spot Improvement Project Locations


Where are projects Located?

- Prioritization measures tend to favor projects in the City of Seattle
- Spot Improvements benefit people on the bus, not necessarily where the project is located
- Opportunity Index provides appropriate and useful ESJ prioritization

Associated Routes	Safety (Y/N)	Impacted Daily Riders	AM/PM peak buses/hr	Delay (sec.)	Opportunity Index (max of all routes)	Scoring Metrics					Total Score
						Safety Score	Ridership Score	Frequency Score	Delay Score	ESJ Score	
128, 150, F Line	N	6790	12	56	5	0	4	3	4	5	16
124, 522, 545	N	9200	16	54	3	0	5	4	3	3	15
7, 9, 106	N	8800	17	12	5	0	5	4	1	5	15
150, 162, 183	N	3460	10	57	5	0	3	3	4	5	15
111, 212, 218, 550	Y	6720	19	0	5	1	4	4	0	5	14
50, 55, 773, C Line	N	7480	20	26	3	0	5	4	2	3	14

Spot Improvement Intake & Prioritization Spreadsheet (excerpt)

- ESJ score combined with other metrics to determine total score

- Locations with high total score likely to be selected for further development

- Multiple routes at one location: Use highest scoring route as ESJ score
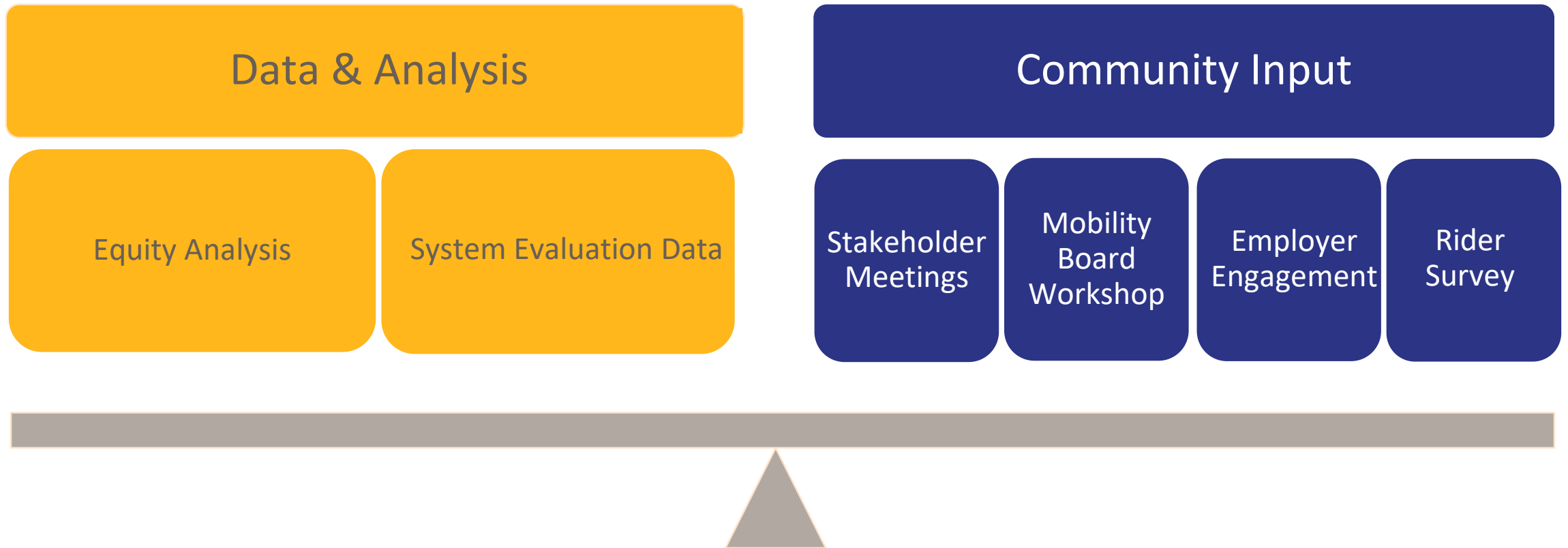
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