APPENDIX M

FTA FUNDING ASSESSMENT

This document provides results of a high-level evaluation of each Stream corridor according to criteria from the Federal Transit Administration (FTA) for the Capital Investment Grant program.
This document provides results of a high-level evaluation that was conducted to understand each SSES corridor’s alignment with criteria for the Federal Transit Administration (FTA) Capital Investment Grant (CIG) program and likely competitiveness for a Small Starts funding award.

FTA funding potential was one of the Stream Expansion Study’s evaluation criteria.
Pierce Transit plans to prepare a Small Starts application to seek FTA funding for Stream BRT 2.

- Currently planned for 2024.
- Project Justification criteria consisting of:
  - Four quantitative criteria.
  - Land Use and Economic Development “templates” which require qualitative assessment.
  - Each criteria is rated from Low to High.
- Local Financial Commitment evaluation.
- A Medium rating for both Project Justification and Local Financial Commitment is required to secure an overall Medium rating.

Stream 1 was rated Medium-High.
The SSES study provided a *high-level, comparative evaluation* of each corridor against the four *quantitative* Project Justification criteria using the inputs available from the evaluation process.

- When preparing a Small Starts submittal to FTA would include more detailed ridership modeling (e.g., STOPS*); the SSES evaluation used the Sound Transit ridership model.

- High level assumptions (e.g., based on demographic data) were used to develop ratings for the land use and economic development criteria, which consider qualitative factors.
  - Detailed land use and economic development templates would be completed as part of a future Small Starts submittal.

---

* STOPS is the Simplified Trips on Project Software, the FTA’s preferred tool for preparing ridership forecasts for projects seeking CIG program funding.
Ratings for four quantitative criteria were assessed based on SSES evaluation measures:

- **Mobility**: total transit trips (i.e., ridership, in terms of unlinked trips), weighted for trips by transit-dependent persons.
- **Congestion relief**: new transit trips.
- **Cost-effectiveness**: total transit trips (unlinked) relative to the federal share of capital costs.
- **Environmental benefit**: monetized environmental benefits, e.g., air quality) relative to the annualized federal share of capital costs.
Project Justification
Input Data

- The following inputs were used to develop the underlying ridership data used to evaluate the criteria, based on data from Sound Transit model runs and subsequent post-processing.
  - Daily average trips on the project.
  - Daily new trips on the project.
  - Daily change in Auto VMT.

- Inputs were developed for the current year (2019) and horizon year (projected land use in 2040).

- The FTA evaluation utilizes an average of current and horizon year results.
Assumptions for the share of Transit-dependent riders were developed based on a combination of breakdowns from Pierce Transit’s Stream 1 submittal and a spatial comparison to demographics for each corridor.

- 39% to 42% for the current year.
- 29% to 31% for the horizon year.

Daily riders were “annualized” using a factor that represents the ratio between annual and weekday riders for the primary route serving each corridor, using data from Fall 2019.

<table>
<thead>
<tr>
<th>Route</th>
<th>Corridor</th>
<th>Annual ridership</th>
<th>Average Weekday Daily Boardings</th>
<th>Annualization factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 2</td>
<td>Corridor A</td>
<td>660,032</td>
<td>2,182</td>
<td>302</td>
</tr>
<tr>
<td>Route 3</td>
<td>Corridor B</td>
<td>445,514</td>
<td>1,436</td>
<td>310</td>
</tr>
<tr>
<td>Route 402</td>
<td>Corridor C</td>
<td>310,603</td>
<td>1,047</td>
<td>297</td>
</tr>
<tr>
<td>Route 4</td>
<td>Corridor D</td>
<td>377,678</td>
<td>1,282</td>
<td>295</td>
</tr>
</tbody>
</table>
High level assumptions were used for the Land Use and Economic Development criteria for this evaluation.

The FTA Land Use evaluation includes both quantitative demographic factors and qualitative evaluation. Economic Development is based on qualitative evaluation.

- Stream 1 received Medium ratings for Land Use and Economic Development.
- In the SSES evaluation, ratings were based on demographics for each corridor relative to Stream 1.
- Sensitivity tests (discussed below) included Medium-High ratings for A, Medium ratings for C, and Medium-Low ratings for D.

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Land Use</th>
<th>Economic Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corridor A</td>
<td>Medium-High</td>
<td>Medium</td>
</tr>
<tr>
<td>Corridor B</td>
<td>Medium-High</td>
<td>Medium-High</td>
</tr>
<tr>
<td>Corridor C</td>
<td>Medium-Low</td>
<td>Medium-Low</td>
</tr>
<tr>
<td>Corridor D</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>
Small Starts projects can qualify for a “Streamlined Financial Evaluation” if they meet the following criteria:

- Can demonstrate a plan to secure funding for the non-federal share of capital costs.
- Operating costs are less than 5% of the agency’s current operating budget.
- The sponsor is in “reasonably good” financial condition.

A **High** rating is assigned if the project requests no more than 50% in CIG Program funding. Projects requesting higher than a 50% share from the CIG Program are assigned a **Medium** local financial commitment rating.

- A 50% federal share was assumed (Stream 1 sought 44%).
Local Financial Commitment

- Pierce Transit received a High rating for Stream 1, and it was assumed this could qualify for the following streamlined financial commitment elements:
  - Have a plan to secure funding for the non-federal share of capital costs.
  - Operating costs are less than 5% of the agency’s current operating budget.
  - Corridors A and B meet this criteria for additional operating costs. 
    - Corridors C and D currently do not meet this criteria, since they have less service; however, the criteria was assumed to be met for this evaluation.
  - The sponsor is in “reasonably good” financial condition.
- A **High** rating was assumed for all corridors.
The highest scoring corridor variation in the SSES evaluation was used to assess FTA funding potential for each corridor.

- Variations A, B2, C, and D were used.
- Refer to the SSES Report for additional detail on the corridors illustrated on this page.
Estimated Project Justification ratings for each corridor:

- Corridor B would achieve the minimum Medium rating.
- Corridor A falls slightly short of a Medium rating.
- Corridors C and D fall well below a Medium rating.

The Project Justification score would be averaged with the Financial Commitment score.
Projects can qualify for Medium ratings for the three of the Project Justification criteria based on existing corridor ridership.

- Mobility
- Congestion relief
- Cost-effectiveness

Total funding depends on the level of existing ridership.

Corridors A and B would qualify for up to $50 million in total project cost.

Corridors C and D would not qualify based on the current service level.

Ridership warrants is included as a sensitivity factor for Corridors C and D.

<table>
<thead>
<tr>
<th>Warrant</th>
<th>Capital Cost</th>
<th>Average Weekday Transit Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less than $50 million</td>
<td>Greater than 3,000</td>
</tr>
<tr>
<td>2</td>
<td>Less than $100 million</td>
<td>Greater than 6,000</td>
</tr>
<tr>
<td>3</td>
<td>Less than $175 million</td>
<td>Greater than 9,000</td>
</tr>
<tr>
<td>4</td>
<td>Less than $200 million</td>
<td>Greater than 12,000</td>
</tr>
<tr>
<td>5</td>
<td>Less than $500 million</td>
<td>Greater than 18,000</td>
</tr>
</tbody>
</table>
Given the high-level nature of the SSES evaluation and the early stage of concept design, several sensitivity factors were tested to understand whether corridors could achieve a higher rating based on changes in conditions or refinements to the projects. Factors tested included:

- Ridership up to 40% higher.
- Capital costs 20% lower.
- Use of Ridership Warrants (for Corridors A and B).
- Land Use and Economic Development ratings up to 1 rating higher (maximum of Medium-High).
Estimated potential for the Project Justification rating, based on highest rating for each criteria across the adjustments tested:

- Corridor A could increase to the upper end of the Medium range.
- Corridor B could achieve a Medium-High rating.
- Corridors C and D would still fall below a Medium rating.

The Project Justification score would be averaged with the Financial Commitment score.
Detailed Result Charts
Corridor A

- **Quantitative Metrics**
  - **Mobility**: Low
  - **Cost-effectiveness**: Medium-High
  - **Congestion Relief**: Medium-Low
  - **Environmental Benefits**: Medium-High

- **Qualitative, high-level assessment**:
  - **Land Use**: Medium-High
  - **Economic Development**: Medium
Corridor A

Mobility Improvements

In the above graph, the thick black line is the estimate of mobility improvement value. Dotted grey lines represent a 10% buffer region of the estimate, while dashed blue lines represent a 20% buffer region.

Project Justification Rating

In the above graph, the black dot at the center represents the current scenario. The horizontal black line through the black dot represents the current Capital Cost and the vertical black line represents the current Average Weekday TCP. The BLUE box represent the region of 25% change in TCP and Capital cost, where as GREY box represent the region of 50% change.

Cost Effectiveness Rating

In the above graph, the black dot at the center represents the current scenario. The horizontal black line through the black dot represents the current Capital Cost and the vertical black line represents the current Average Weekday TCP. The BLUE box represent the region of 25% change in TCP and Capital cost, where as GREY box represent the region of 50% change.

Environmental Benefits Rating

In the above graph, the black dot at the center represents the current scenario. The horizontal black line through the black dot represents the current Capital Cost and the vertical black line represents the current Average Weekday TCP. The BLUE box represent the region of 25% change in TCP and Capital cost, where as GREY box represent the region of 50% change.
Corridor A

- Eligible for ridership warrants based on existing corridor ridership, up to a capital cost of $50 million
Corridor B2

- Quantitative Metrics
  - **Mobility**: Low (but on margin)
  - **Cost-effectiveness**: High
  - **Congestion Relief**: Medium
  - **Environmental Benefits**: Medium

- Qualitative, high-level assessment:
  - **Land Use**: Medium-High
  - **Economic Development**: Medium-High
- Additional ridership could help achieve an overall Medium-High score
- Eligible for ridership warrants based on existing corridor ridership, up to a capital cost of $50 million
Corridor C

- Quantitative Metrics
  - **Mobility**: Low
  - **Cost-effectiveness**: Medium
  - **Congestion Relief**: Low
  - **Environmental Benefits**: Low

- Qualitative, high-level assessment:
  - **Land Use**: Medium-Low
  - **Economic Development**: Medium-Low
Not currently eligible for ridership warrants based on existing corridor ridership
Corridor D

- Quantitative Metrics
  - Mobility: Low
  - Cost-effectiveness: Medium-High
  - Congestion Relief: Medium-Low
  - Environmental Benefits: Low

- Qualitative, high-level assessment:
  - Land Use: Low
  - Economic Development: Low
Corridor D

Mobility Improvements

In the above graph, the thin black line is the estimate of mobility improvement value. Dotted gray lines represent a 10% buffer region of the estimate, while dashed blue lines represent a 25% buffer region.

Congestion Relief Rating

In the above graph, the black dot at the center represents the current scenario. The horizontal black line through the black dot represents the current Capital Cost and the vertical black line represents the current Average Weekday TOD. The BLUE box represent the region of 25% change in TOD and Capital cost, while as GREY box represent the region of 50% change.

Project Justification Rating

In the above graph, the black dot at the center represents the current scenario. The horizontal black line through the black dot represents the current Capital Cost and the vertical black line represents the current Average Weekday TOD. The BLUE box represent the region of 25% change in TOD and Capital cost, while as GREY box represent the region of 50% change.

Cost Effectiveness Rating

In the above graph, the black dot at the center represents the current scenario. The horizontal black line through the black dot represents the current Capital Cost and the vertical black line represents the current Average Weekday TOD. The BLUE box represent the region of 25% change in TOD and Capital cost, while as GREY box represent the region of 50% change.

Environmental Benefits Rating

In the above graph, the black dot at the center represents the current scenario. The horizontal black line through the black dot represents the current Capital Cost and the vertical black line represents the current Average Weekday TOD. The BLUE box represent the region of 25% change in TOD and Capital cost, while as GREY box represent the region of 50% change.
Corridor D

- Not currently eligible for ridership warrants based on existing corridor ridership; would need to increase by 25% to be eligible for an up to $50 million capital cost