



TRANSPORTATION PERFORMANCE MEASURES AND PROJECT PRIORITIZATION FRAMEWORK

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TO: Project Management Team

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SUBJECT: King City Transportation System Plan and Land Use Refinement
Transportation Performance Measures and Project Prioritization
Framework (Task 5.4; Deliverable 5D and 5E)

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This memorandum details the performance-based planning and programming framework for King City. It summarizes how the performance of the transportation system investments will be evaluated and monitored towards attainment of the long-term goals and objectives of the city and region and provides a framework for prioritizing transportation projects.

RECOMMENDED PERFORMANCE MEASURES

The King City TSP employs a performance-based approach, focusing on measurable outcomes of the investments the City chooses to make to the transportation system. The approach allows the City to measure the degree to which its investments support City-wide and regional priorities. In this manner, the City is able to track how its investment decisions impact a set of performance measures through 2040. While the performance measures do not represent the complete picture, they do offer a baseline against which to assess how the policies, investments and planning decisions made in this plan may affect the future. The measures help translate investment decisions to the community priorities of the TSP and also allow the City to show progress towards meeting the regional performance measures in the Metro Regional Transportation Plan and Regional Transportation Functional Plan.

Table 1 provides recommended performance measures for the TSP. The performance measures will be used in different ways to support the City's transportation planning and decision-making process, including to assess performance as part of the evaluation process at the system level, and to provide a basis for on-going monitoring of transportation investments.

In addition, the performance measures are intended to assess the transportation system in a more holistic way by:

- Reviewing access to essential services and destinations that play important roles in the physical and economic health of an individual,
- Focusing on the movement of people over vehicles, and
- Focusing on equal investments throughout the plan, particularly in areas with greater barriers

TABLE 1: RECOMMENDED PERFORMANCE MEASURES

PERFORMANCE MEASURE	MILES TRAVELED
Description	System-wide number of miles traveled (total and share of overall travel) within King City
Sample Measures	<ul style="list-style-type: none"> • Vehicle miles traveled (VMT) (total, per capita)
Potential Target	<ul style="list-style-type: none"> • By 2040, reduce vehicle miles traveled per person by 10 percent compared to 2020
Local /Regional Connection	<ul style="list-style-type: none"> • TSP Goal(s): Accessibility and Connectivity; Healthy People and Environment; Reliability and Efficiency; Fiscal Responsibility • RTP/RTFP Performance Measure(s): Multimodal Travel; Climate Change; Clean Air
PERFORMANCE MEASURE	MULTIMODAL LEVEL OF TRAFFIC STRESS
Description	Locations on the roadway network that operate above thresholds for multimodal level of traffic stress
Sample Measures	<ul style="list-style-type: none"> • Pedestrian level of traffic stress • Bicycle level of traffic stress
Potential Target	Meet the local thresholds for multimodal level of traffic stress
Local /Regional Connection	<ul style="list-style-type: none"> • TSP Goal(s): Accessibility and Connectivity; Safety and Security; Healthy People and Environment; Equity • RTP Performance Measure(s): Multimodal Travel; Mode Share
PERFORMANCE MEASURE	CONGESTION
Description	Locations on the roadway network that operate above thresholds for congestion
Sample Measures	<ul style="list-style-type: none"> • Vehicle volume to capacity ratios
Potential Target	Meet the local and regional thresholds for congestion; Reduce vehicle hours of delay per truck by 10% by 2040
Local /Regional Connection	<ul style="list-style-type: none"> • TSP Goal(s): Reliability and Efficiency • RTP/RTFP Performance Measure(s): Congestion; Freight Delay

PERFORMANCE MEASURE	MODE SHARE
Description	Percent of non-drive alone trips (walking, bicycling, transit and shared ride trips) within King City, and regionally designated Town Centers, Corridors and Neighborhoods
Sample Measures	<ul style="list-style-type: none"> Walking, Bicycling, Transit and Shared Ride usage (total and share)
Potential Target	<ul style="list-style-type: none"> By 2040, achieve regional non-drive alone modal targets for Town Centers and Corridors of 45 to 55 percent, and for Neighborhoods of 40 to 45 percent
Local /Regional Connection	<ul style="list-style-type: none"> TSP Goal(s): Accessibility and Connectivity; Healthy People and Environment; Equity RTP Performance Measure(s): Affordability; Multimodal Travel; Mode Share; Climate Change; Clean Air
PERFORMANCE MEASURE	SYSTEM COMPLETENESS
Description	Completeness of sidewalks, bikeways and trails within the city
Sample Measures	<ul style="list-style-type: none"> Total miles and percentage of pedestrian, bicycle and trail networks completed Percentage of pedestrian and bicycle facilities completed within ¼ mile of transit stops
Potential Target	Complete the sidewalk, bikeway and trail networks by 2040
Local /Regional Connection	<ul style="list-style-type: none"> TSP Goal(s): Accessibility and Connectivity; Safety and Security; Healthy People and Environment; Equity; Reliability and Efficiency RTP Performance Measure(s): Affordability; Multimodal Travel; Mode Share; System Completion; Climate Change
PERFORMANCE MEASURE	ACCESS TO JOBS
Description	Number and percent change of jobs accessible within a reasonable travel time by driving, transit, bicycling, and walking
Sample Measures	<ul style="list-style-type: none"> Number and percentage of jobs reached by driving in 20 mins Number and percentage of jobs reached by bicycling in 20 mins (using average biking speed of 10 miles per hour) Number and percentage of jobs reached by walking in 15 minutes (using average walking speed of 3 miles per hour) Number and percentage of jobs reached by transit (includes potential future transit corridors) in 30 mins (including beginning and end of trip)
Potential Target	Desired direction is to increase the number of jobs accessible within a reasonable commute
Local /Regional Connection	<ul style="list-style-type: none"> TSP Goal(s): Accessibility and Connectivity; Healthy People and Environment; Equity RTP Performance Measure(s): Affordability; Multimodal Travel; Mode Share

PERFORMANCE MEASURE	ACCESS TO COMMUNITY AMENITIES
Description	Access to community amenities (i.e., education, critical services, parks, open spaces and natural areas) within a reasonable travel time by transit, bicycling, and walking
Sample Measures	<ul style="list-style-type: none"> • Number and percentage of community amenities reached by bicycling in 15 mins (using average biking speed of 10 miles per hour) • Number and percentage of community amenities reached by walking in 10 minutes (using average walking speed of 3 miles per hour) • Number and percentage of community amenities reached by transit (includes potential future transit corridors) in 20 mins (including beginning and end of trip)
Potential Target	Desired direction is to increase the number of community amenities accessible
Local /Regional Connection	<ul style="list-style-type: none"> • TSP Goal(s): Accessibility and Connectivity; Healthy People and Environment; Equity • RTP Performance Measure(s): Affordability; Multimodal Travel; Mode Share
PERFORMANCE MEASURE	ACCESS TO TRANSIT
Description	Number and share of households with access to transit within King City
Sample Measures	<ul style="list-style-type: none"> • Number and percent of households within ¼ mile of transit stops
Potential Target	Desired direction is to increase the number of households accessible to transit
Local /Regional Connection	<ul style="list-style-type: none"> • TSP Goal(s): Accessibility and Connectivity; Healthy People and Environment; Equity • RTP Performance Measure(s): Affordability; Multimodal Travel; Mode Share
PERFORMANCE MEASURE	SAFETY
Description	Transportation related collisions (total, per capita and per VMT) within King City, and pedestrian districts (i.e., King City Town Center and URA 6D Town Center)
Sample Measures	<ul style="list-style-type: none"> • Vehicle, pedestrian, and bicyclist fatal and serious injury crashes (total, per capita and per VMT) • Crashes involving a pedestrian, or bicyclist (total, and per capita)
Potential Target	By 2040 eliminate transportation related fatalities and serious injuries for all users
Local /Regional Connection	<ul style="list-style-type: none"> • TSP Goal(s): Safety and Security • RTP/RTFP Performance Measure(s): Safety

PROJECT PRIORITIZATION FRAMEWORK

Contrary to the performance measures which assess the system wide impact of plan investments, the proposed approach to prioritize individual transportation projects in King City will be based on criteria associated with each TSP goal. A prioritization score will be calculated for each project using the following seven criteria (i.e., each TSP goal):

- Accessibility and Connectivity
- Safety and Security
- Healthy People and Environment
- Equity
- Reliability and Efficiency
- Fiscal Responsibility
- Collaboration

The projects will be scored on each criterion from 1 (low) to 10 (high). The criteria will be weighted equally, resulting in overall possible scores ranging from 7 to 70. The following sections describe the methodology for calculating the scores for each criterion.

ACCESSIBILITY AND CONNECTIVITY

Pedestrian, bicycle and transit demand serves as the basis for this criterion. Projects along Major Pedestrian or Bicycle Streets, or Transit Corridors, and Neighborhood Pedestrian or Bicycle Streets will be assigned the scores shown in Table 2. Projects located in a Pedestrian or Bicycle District have three points added to their respective scores.

TABLE 2: PROPOSED PRIORITIZATION APPROACH FOR ACCESSIBILITY AND CONNECTIVITY CRITERIA

NETWORK CLASSIFICATION	SCORE IN PEDESTRIAN OR BICYCLE DISTRICT	SCORE OUTSIDE OF PEDESTRIAN OR BICYCLE DISTRICT
Major Pedestrian Street, Major Bicycle Street, or Transit Corridor	10	7
Neighborhood Pedestrian Street or Neighborhood Bicycle Street	7	4
Other Street	4	1

SAFETY AND SECURITY

This criterion is intended to account for both crash history and crash risk factors. The following factors will be scored for prioritization as shown in Table 3:

- Locations along the low stress pedestrian and bicycle network.

- Locations with a high density of pedestrian or bicyclist collisions.
- Streets with three or more travel lanes.
- Locations with posted speeds of 30 mph or higher.

TABLE 3: PROPOSED PRIORITIZATION APPROACH FOR SAFETY AND SECURITY CRITERIA

CONDITION	SCORE
Locations along the low stress pedestrian and bicycle network	4
Locations with a high density of pedestrian or bicyclist collisions	2
Locations with three or more travel lanes	2
Locations with posted speeds of 30 mph or higher	2
None	1

HEALTHY PEOPLE AND ENVIRONMENT

A projects distance from community amenities (i.e., education, critical services, parks, open spaces and natural areas) serves as the basis for this criterion. Scores will be assigned based on the location of a project as shown in Table 4.

TABLE 4: PROPOSED PRIORITIZATION APPROACH FOR HEALTHY PEOPLE AND ENVIRONMENT CRITERIA

LOCATION	SCORE
Located within 1/4 mile from a school	4
Located within 1/4 mile of a pedestrian district or commercial corridor	4
Located within 1/4 mile from a park, open space or natural area	2
None	1

EQUITY

The demographic variables of income and age will be used to evaluate the equity implications of project needs. The scoring also considers race, but it was not included in score due to its relative equal distribution among the block groups in the city. To calculate the scores, Census Block Groups in King City will be given scores for income and age from 1 to 5. For each demographic variable, '5' equals the top grouping in the city (i.e., lowest median income or highest median age), '3' the

citywide average, and '1' the bottom grouping in the city (i.e., highest median income or lowest median age). The scores for each demographic variable will be totaled and applied for each project in that block group. The block group with the lowest total will receive a score of '1', regardless of the total.

RELIABILITY AND EFFICIENCY

A projects impact on the movement of people and goods serves as the basis for this criterion. Scores will be assigned based on the location of projects as shown in Table 5.

TABLE 5: PROPOSED PRIORITIZATION APPROACH FOR RELIABILITY AND EFFICIENCY CRITERIA

LOCATION	SCORE
Location of significant delay for people	4
Location along a freight route	4
Location along the arterial and collector roadway network	2
None	1

FISCAL RESPONSIBILITY

The total estimated construction and maintenance cost will be used to evaluate the fiscal responsibility of projects. To calculate the scores, each project will be given scores for construction and maintenance costs from 1 to 5. For each cost variable, '5' equals the lowest cost, '3' the average cost, and '1' the highest cost. The scores for each cost variable will be totaled and applied for each project. Any project with a total cost variable score of '2' will receive a score of '1', regardless of the total.

COLLABORATION

This criterion is intended to capture how well a project is aligned with the nine regional performance measures. Each project will be given a value from 1 to 10 for how well it is perceived to work towards the outcome of each regional performance measure. For each regional performance measure, '10' equals significant progress towards the outcome, '5' indicates some progress towards the outcome, and '1' indicates no progress towards the outcome. The values for each project will be totaled and compared to the highest possible value of '90'. That ratio will be applied to the highest criterion score of '10' to determine the final project score, ranging from 1 to 10.