

## MEMORANDUM

Date: July 17, 2023  
To: Scott Hoelscher and Brett Setterfield, Clackamas County  
Dru van Hengel, Jeri Stroupe, and Layne Wyse, Nelson\Nygaard  
From: Talia Jacobson, Kerry Aszklar, AICP, and Jacob Nigro  
Project: Walk Bike Clackamas

### Re: Technical Memorandum #9: Project Prioritization Methodology

## Overview

This technical memorandum outlines the project prioritization criteria and scoring for the project list for the Walk Bike Clackamas plan (WBC plan). Proposed projects will be scored based on weighted criteria to create a list of high, medium, and low priority pedestrian and bicycle projects. The criteria are based on the WBC plan goals<sup>1</sup>, with higher consideration given to goals as identified as key project values, which are indicated in the table below.

Walk Bike Clackamas Plan Goals	Key Project Value
Safety	✓
Accessibility	
Connectivity	✓
Sustainability	
Equity	✓
Health	✓

The final weights will be based on feedback from the Walk Bike Advisory Committee (WBAC) and the public, as well as information from the following project documents:

- Technical Memorandum 2: Baseline Health Conditions
- Technical Memorandum 4: Existing Conditions

<sup>1</sup> No criteria are recommended for the goal of sustainability since it focuses on policy, programs, and education rather than infrastructure.

- Technical Memorandum 5: Pedestrian and Bicycle Goals, Objectives, Policies, and Performance Measures
- The Walk Bike Clackamas Equity Index Methodology
- Technical Memorandum 8: Gaps and Deficiencies

**Phases of Prioritization Methodology**

The prioritization criteria will be used to rank all projects under consideration in the WBC plan. The prioritization methodology includes the following key phases:

- **Phase 1: Criteria Selection:** Select the prioritization criteria that align with plan goals and county policies.
- **Phase 2: Raw Score Assignment:** Confirm the scoring for each criterion and calculate each criterion's raw score for each project.
- **Phase 3: Weighted Benefit Score Application:** Define and apply the weighting of each criterion to create a weighted score.
- **Phase 4: Tiering Projects:** Sort projects into high, medium, or low priority lists.

The sections below detail the recommended methodology for steps one through three above. Figure 1 illustrates how steps one through three combined form a final score for project ranking.

**Figure 1. Example of Steps 1, 2, and 3 of the Project Prioritization Process\***



\* Following final prioritization (Tech Memo 11), this graphic will be updated for inclusion in the Plan.

## Phase 1 - Criteria

The prioritization criteria are intended to align with priorities identified by the Walk Bike Advisory Committee, Clackamas County staff, key stakeholders, and the general public, as identified during the previous stages of the Plan development. The recommended prioritization criteria will be structured around the project goals. Key project values are safety, connectivity, health and equity.

These key project values were established to guide the development of the WBC plan to address the dynamic relationship between health, equity, and active transportation. Focusing on the relationship between these key project values will address systemic inequities that have persisted in Clackamas County.

## Phase 2 – Raw Score

Each criterion has been given a recommended scoring methodology, as presented in Table 1. Each identified project will be given a raw score produced by summing the points from each category. A final prioritization score will be generated using the weightings from the Section 3.

See Table 1 for draft criteria organized by project goals.

**Table 1. Draft criteria (\*denotes that a goal is a key project value)**

<i>Project Goals</i>	<i>Criteria</i>	<i>Source</i>	<i>Scoring</i>	<i>Notes</i>
<i>Goal 1: Safety*</i>	Project is located within ½ mile of a location where one or more crashes resulted in serious injuries and fatalities to people walking or biking	<u>TM 5: Goals</u>	4 pts: one or more crashes resulted in fatality  1 pt: one or more crashes resulted in serious injury	
	Project includes crossing improvements	<u>TM 5: Goals</u>	3 pts: yes - arterial 1 pt: yes - collector	Projects that intersect multiple functional classifications will receive one set of points for the highest classification crossed.
	Project is from a Safe Routes to School Plan	<u>TM 5: Goals</u>	3 pt	
	Project addresses concern expressed through public comment	WBC Engagement Phase 2	1pt	
	<b>Total Possible Points from Criteria Supporting Goal 1</b>		<b>11 pts</b>	

<i>Project Goals</i>	<i>Criteria</i>	<i>Source</i>	<i>Scoring</i>	<i>Notes</i>
<i>Goal 2: Accessibility</i>	Project improves walkways and is within ½ mile of one or more destinations	<u>TM 5: Goals</u>	5 pts: over 10 destinations 3 pts: 4-9 destinations 1 pt: 3 or fewer destinations	
	Project improves bikeways and is within 1 mile of one or more destinations	<u>TM 5: Goals</u>	5 pts: over 20 destinations 3 pts: 8-19 destinations 1 pt: 7 or fewer destinations	
	Project is located within ½ mile of existing bus stop	<u>TM 5: Goals</u>	5 pts: frequent service transit stop (headways 15 minutes or lower) 3 pts: other transit stop	
	Project is located within 1 mile of existing MAX light rail stop	<u>TM 5: Goals</u>	5 pts	
	Project is located within the Clackamas Regional Center area or within a Rural Community <sup>2</sup>		2 pts: within Rural Community 1 pt: within Clackamas Regional Center	
	Project addresses concern expressed through public comment	WBC Engagement Phase 2	1pt	
	<b>Total Possible Points from Criteria Supporting Goal 2</b>			<b>23 pts</b>
<i>Goal 3: Connectivity*</i>	Project completely fills a missing bikeway segment along a road that scored as highly stressful (Bicycle Level of Traffic Stress 3 or 4).	<u>TM 8: Gaps and Deficiencies</u>	5 pts: arterial 2 pt: collector	
	Project expands miles of bikeways along a road that scored as highly stressful	<u>TM 8: Gaps and Deficiencies</u>	5 pts: arterial 2 pt: collector	

<sup>2</sup> As defined by Clackamas County

Project Goals	Criteria	Source	Scoring	Notes
	(Bicycle Level of Traffic Stress 3 or 4).			
	Project overlaps the Essential Pedestrian Network		2 pts	
	Project completely fills a missing sidewalk gap on both sides of an arterial or collector	<u>TM 8: Gaps and Deficiencies</u>	7 pts: arterial 3 pt: collector	
	Project completely fills a missing sidewalk gap on one side of an arterial, or collector	<u>TM 8: Gaps and Deficiencies</u>	3 pts: arterial 1 pt: collector	
	Project partially fills a missing sidewalk gap on either side of an arterial, or collector	<u>TM 8: Gaps and Deficiencies</u>	3 pts: arterial 1 pt: collector	
	Project addresses concern expressed through public comment	WBC Engagement Phase 2	1pt	
	<b>Total Possible Points from Criteria</b>		<b>26 pts</b>	
	<b>Supporting Goal 3</b>			
<i>Goal 4: Sustainability</i>	<i>No project prioritization criteria recommended because the goal focuses on expanding and promoting active travel options rather than adding or improving infrastructure. This goal will be addressed through policy, programming, and design toolkit recommendations.</i>			
<i>Goal 5: Equity*</i>	50% or more of the project is located in census block group(s) with “above average” or “well above average” composite score	<u>Equity Index Methodology</u>	10 pts: well above average 5 pts: above average	
	<b>Total Possible Points from Criteria</b>		<b>10 pts</b>	
	<b>Supporting Goal 5</b>			
<i>Goal 6: Health*</i>	Project is within a ½ mile radius of a park	<u>TM 4: Existing Conditions</u>	2 pt	
	Project is within a ½ mile radius of a hospital or medical clinic	<u>TM 4: Existing Conditions</u>	1 pt	

<i>Project Goals</i>	<i>Criteria</i>	<i>Source</i>	<i>Scoring</i>	<i>Notes</i>
	Project is within ½ mile radius of a long-term care facility	<u>TM 4: Existing Conditions</u>	1 pt	
	Project is within ½ mile radius of a pharmacy	<u>TM 4: Existing Conditions</u>	1 pt	
	Project is within ½ mile of a grocery store.	<u>TM 4: Existing Conditions</u>	2 pts	
	Project is within ½ mile of a public elementary or middle school, or a daycare	<u>TM 4: Existing Conditions</u>	2 pts	
	Project addresses concern expressed through public comment	WBC Engagement Phase 2	1 pt	
<b>Total Possible Points from Criteria Supporting Goal 6</b>			<b>10 pts</b>	
<i>Highest possible score</i>			80	

### Phase 3 – Weighted Benefit Score

We will adjust raw scores to normalize possible points within each goal area, initially holding all goal areas equal. After normalization, scores by goal area will be weighted to reflect project values. Based on WBAC and public input to date, we have suggested an initial weighting scheme that allocates up to 40 points of 150 total to safety; up to 30 points each to connectivity, equity, and health; and up to 20 points to accessibility.

Table 2 presents our recommended normalization and weighting scheme for the proposed prioritization scores. These recommended weights will be adjusted based on the results of WBAC and Phase 3 engagement efforts in July and August 2023. We will coordinate with Nelson\Nygaard to strategize about how to extract a weighting system from public input.

**Table 2. Prioritization Weighting**

<b>Goal Area</b>	<b>Raw Possible Max Score</b>	<b>Normalization Factor</b>	<b>Normalized Possible Max Score</b>	<b>Weighting Factor (preliminary)</b>	<b>Weighted Possible Max Score</b>
Safety*	11	1.82	20	2	40
Accessibility	23	0.87	20	1	20
Connectivity*	26	0.77	20	1.5	30
Equity*	10	2.00	20	1.5	30
Health*	10	2.00	20	1.5	30

<b>Goal Area</b>	<b>Raw Possible Max Score</b>	<b><i>Normalization Factor</i></b>	<b>Normalized Possible Max Score</b>	<b><i>Weighting Factor (preliminary)</i></b>	<b>Weighted Possible Max Score</b>
<b>TOTAL</b>	<b>80</b>	--	<b>100</b>	--	<b>150</b>

#### **Phase 4 - Tiering**

The resulting prioritized scores will be ranked in high, medium, and low categories based on natural breaks in the weighted project scores. After reviewing the initial tiering results and gathering public and WBAC input this summer, Clackamas County staff will have the opportunity to recommend adjustments to weighting factors and the breakpoints between tiers, as part of finalizing the prioritization results.