



Project Prioritization Framework

The following memo outlines the proposed prioritization framework methodology for Move Tucson. This framework and the associated Guiding Principles were reviewed and approved by Tucson’s Mayor and Council on March 23, 2021.

The framework primarily seeks to evaluate projects using the guiding principles put forth in the strategic vision for the plan. The guiding principles of Move Tucson are:

- Connected
- Optimized
- Safe
- Resilient
- Equitable
- Authentic

The prioritization process consists of five discrete steps. First, projects are identified across the network. These projects propose solutions to transportation system challenges, needs, and opportunities based on available data and public and stakeholder input.

Second, the transportation network is measured based on criteria that correspond with Move Tucson’s Guiding Principles. In this step, a numerical score from 0-100 is applied to the full roadway network in Tucson using the measures shown in Table 1. These measures quantify the potential for new transportation investments on any given road segment to advance the guiding principles relative to the rest of the network. Each roadway segment receives a score from 0-10 for the first five measures (Connected, Optimized, Safe – based on severity, Safe – based on frequency, and Resilient). To account for the sixth measure (Equitable), the combined total of the first five scores is doubled for each roadway segment that is located in an equity focus area. Multiplying those scores by 2 is a way to indicate potential value gained from transportation improvements in areas of historic disinvestment and increased barriers to access. This process applies to the on-street transportation network. Consideration for off-street connections will be based on the approved on-street framework.

Third, the roadway prioritization scores is applied to the Move Tucson projects. Each project’s prioritization score will be the **average prioritized score of the segments within the project**, weighted by the length of each segment (i.e., the length of the roadway from intersection to intersection).

STEP 1: Identify Projects

Proposing improvements at specific roadway segments and locations based on existing conditions analysis and public input

STEP 2: Measure the Network

Scoring every segment of the roadway network (citywide) based on opportunities for new investment to advance guiding principles

STEP 3: Apply Network Scores to Projects

Assigning a score to each project based on where it falls on the network

STEP 4: Calibrate Project Scores

Adjusting project scores based on unique characteristics of the proposed improvement or how it may be implemented

STEP 5: Compile Scores, Create Phasing Plan

Using project prioritization scores to develop funding and phasing plan

Fourth, the projects will go through a calibration process to incorporate criteria that are specific to project characteristics and are not captured in the systemwide network score. Table 2 displays the criteria that will be used for project calibration.

Finally, the results will be compiled and projects will be sorted into a phasing plan.

Prioritization Framework Tables

Table 1. Network Scoring

Guiding Principle	Measure	Data Source(s)	Scoring Notes	Proposed Scoring
Connected	How many modal networks can be improved or further supported?	<i>Pedestrian Level of Traffic Stress, Bicycle Level of Traffic Stress, ADA Inventory, Frequent Transit Corridors, Regionally Significant Corridors</i>	Segments will score points if there are opportunities to improve identified deficiencies in the bicycle, pedestrian, transit, or motor vehicle networks.	3 points each if the segment is PLTS of 3 or 4, BLTS of 3 or 4, or located on a frequent transit corridor; project will also be awarded points if it addresses an identified ADA deficiency. 1 point if it is located on a regionally significant corridor
Optimized	What opportunities are available to optimize the network so it can serve more people?	<i>Volume/capacity analysis</i>	Segments will score high for motor vehicle projects if there is heavy congestion, and will score high for bicycle, pedestrian, and transit projects, if there is major excess capacity.	10 points if there is existing heavy congestion or 5 points if there is heavy congestion expected in the future (defined as V/C ratio of 0.8 or higher and only applied to motor vehicle projects); 10 points if there is major excess capacity; or 5 points if there is excess capacity expected in the future. (Note: Only applied to bike/walk/transit projects and excess capacity is only considered on roadways with more than 1 travel lane in each direction).

Guiding Principle	Measure	Data Source(s)	Scoring Notes	Proposed Scoring
Safe	Severity: Does the roadway have a history of serious crashes?	<i>Move Tucson safety assessment, pedestrian high-injury network</i>	Segments will score on this measure if they have a history of fatal or serious injuries. Injury crashes are considered if they involved vulnerable users.	10 points for fatal crashes, if located on Pedestrian HIN, or more than 4 serious injury crashes occurred. 8 points if there was at least one serious injury crash and bike/pedestrian injury crash. 5 points if there was more than one bike/pedestrian injury crash or more than one serious injury crash. 3 points if there was a bike/pedestrian injury crash or a serious injury crash.
	Frequency: Does the roadway have a history of crashes?	<i>Move Tucson Safety Assessment</i>	Segments will score on this measure if they have a high frequency of crashes, regardless of severity, or mode.	10 points for segments with more than 50 crashes. 8 points for segments with 26-50 crashes. 5 points for segments with 11-25 crashes. 3 points for segments with 3-10 crashes. 1 point for segments with 2 crashes.
Resilient	Can the network better support short, local trips?	<i>Move Tucson Destination Density Analysis</i>	Segments will score high on this measure if they are located in areas of high demand.	10 points if segment is located in an area with highest demand tier. 5 points if segment is located in an area with the second highest demand tier.
Equitable	Is the network located within an equity area?	<i>Move Tucson Equity Analysis</i>	Segments within high equity areas will have their scores increased.	Multiply sum of Connected, Optimized, Safe, and Resilient scores by 2.

Table 2. Project Calibration

Guiding Principle	Criteria	Measure	Proposed Scoring	Total Points Available
Authentic	Public Support and/or Ward Support	Has the project been identified as a priority through public input? Have representatives of Tucson’s Ward offices identified the project as important for furthering Ward goals? <i>Data Source: Public Input Map; One-on-one meetings with Councilmembers (if identified in either, project receives calibration point)</i>	2 point if project is identified in public engagement (must be identified or ‘liked’ by more than 2 participants) 1 point if project is identified as important for furthering Ward goals.	3
Authentic	Human-centered Design	Does that project provide opportunities for placemaking? <i>Data Source: Low-volume roadways with Commercial Zoning</i>	2 points if the project meets one of the following criteria: <ul style="list-style-type: none"> • 20% of project includes roads with 5 or fewer lanes, <20k ADT, and commercial zoning • Greenway • Bike Boulevard 	2
Connected	Gap Closure	Does the project close an identified network gap for low-stress walking and bicycling networks? <i>Data Source: Existing and Programmed Projects</i>	2 points if the project connect existing or programmed low-stress facilities, including bike boulevards, greenways, and separated facilities	2
Optimized	Pavement Quality	Is the project located on roadways with poor or failing pavement quality? <i>Data Source: Pavement Quality</i>	2 points if the project is located on roadways with a pavement status of poor or failing	2
Optimized	Cost-Effectiveness	How does the estimated cost of the project compare to the expected benefits? <i>Data Source: Planning level cost estimate, compares to street network scoring and need</i>	Cost-effectiveness represents the ratio of Network Screening Score (benefit) to project cost per mile. Projects are scored on a continuous scale in relation to the full project list. Traffic signal upgrades were evaluated separately and have a high cost-effective score (full points)	9

Guiding Principle	Criteria	Measure	Proposed Scoring	Total Points Available
Resilient	Heat Mitigation	Does the project provide an opportunity to address areas of high heat through increase vegetation or other heat mitigation measures? <i>Data Source: Heat Severity</i>	2 point: 50% of the project is located in an area with high heat severity. Score only applies to projects that provide an opportunity to mitigate heat severity (landscaping, greenways, etc.)	2
TOTAL				20

Prioritization Outputs

The project evaluation process will use quantitative criteria to produce a ranked project list based on the guiding principles of Move Tucson. The first step assesses network need based on available data representing both the public right-of-way and the area context. The second step seeks to calibrate the resulting project list to better reflect project performance. These measures specifically consider additional factors that may affect a project’s feasibility and/or impact. The project calibration criteria are set up to capture the most important of these factors. Projects may be moved up or down the ranked project list depending on how will they do or do not meet these additional criteria. Following the project calibration, a final project list will be compiled, along with a project phasing plan.