

Chapter 4 – Regional Transportation Plan Framework

The planning framework for the *2030 Regional Transportation Plan* is composed of two parts: 1) the vision, goals, and objectives, and 2) the project evaluation criteria. The planning framework serves as the basis for evaluating and selecting transportation system improvement strategies.

The vision describes the transportation system that the region, its citizens, leaders, and implementing agencies, aspire to achieve. Goals further articulate those aspirations by identifying the individual components that can achieve the vision. Objectives define how the region expects to reach each goal. It is likely that there is some overlap among the goals. It is also possible that some goals may conflict. In these situations, the decision-makers must decide which to emphasize.

To aid in this decision-making process, each project seeking federal funds was evaluated based on the approved *2030 Regional Transportation Plan* goals and objectives. To accomplish this, specific quantitative and qualitative measures were established to measure the effectiveness of each project in accomplishing each objective.

Developing a regional transportation plan that unites the jurisdictions of the region in a common vision presents opportunities and challenges that go beyond simply identifying transportation system needs. Each local community, whether it is a city or town, or a suburban or rural area, is unique in its needs and desires for its transportation system. Thus, articulating a vision and developing goals helps to bring these sometimes competing objectives into a framework upon which to build a cohesive strategy for improving the regional transportation system. The vision adopted by the PPACG Board of Directors states that the region will strive:

To meet mobility and accessibility needs for people, goods, and services by providing a safe, secure, efficient, and balanced multi-modal system that supports community development and is compatible with the natural and human environments.

4.1 Vision, Goals, and Objectives

The first part in developing the planning framework for the *2030 Regional Transportation Plan* consisted of establishing the vision and setting goals and objectives. PPACG Staff initially drafted a proposed vision, goals, and objectives based on several components, including:

1. The Federal Planning Regulations which specify what is to be included in a regional long-range transportation plan;
2. The Federal Planning Factors listed in the Transportation Equity Act for the 21st Century (TEA-21);
3. The vision, goals, and objectives as described in the comprehensive plans, master plans and/or transportation plans of the communities within the metropolitan planning area;
4. Vision, goals, and objectives from the region's then-current adopted long-range transportation plan, *Destination 2025: A Mobility Plan for the Pikes Peak Region*; and
5. Initial input from the Community Advisory Committee (CAC) and the Transportation Advisory Committee (TAC).

Both the TAC and CAC provided their perspectives and recommended several ideas to incorporate into the vision, goals, and objectives. CAC members believed that important strategies to consider in preparing the vision, goals and objectives for the *2030 Regional Transportation Plan* were: 1) that all persons involved in the planning process understand the various components and how they are used, and 2) that each objective is evaluated by specific criterion that the public can understand. With that in mind, PPACG staff reviewed the recommendations and consolidated the input from both committees into a draft vision, goals, and objectives that reflected the perspectives of both committees. The final adopted goals are:

- **Goal 1: Mobility** - Provide a safe and efficient regional transportation system to meet present and future mobility needs.
- **Goal 2: Environment** - Provide a regional transportation system that is compatible with natural and human environments.
- **Goal 3: Accessibility** - Provide a balanced multi-modal regional transportation system that meets the accessibility needs of all.
- **Goal 4: Maintenance** - Maintain the regional transportation system.

The proposed *2030 Regional Transportation Plan* vision, goals, and objectives were presented at two public meetings held November 18, 2003, at PPACG. The public also submitted comments in writing and interactively through PPACG's *2030 Regional Transportation Plan* website. These comments addressed a number of issues, including the concept of sustainability, the transportation system's role in maintaining "an efficient community infrastructure," transportation system impacts on water quality, safe bicycle facilities, traffic signal control and synchronization, and improving transit service.

These public involvement efforts yielded a wealth of input from citizens that reflected varied points of view and indicated a clear desire to provide a good multi-modal transportation system while preserving and improving the region's

quality of life. Several key themes emerged from the comments received from the public:

- Improve access to regional activity destinations for all citizens;
- Promote the use of non-motorized modes of transportation;
- Maintain transportation infrastructure;
- Protect and enhance the human and natural environments; and
- Improve public transportation.

These themes, along with specific comments received from the public, were used by the TAC and CAC to fine-tune their recommendations concerning the vision, goals, and objectives.

The PPACG Board of Directors approved the vision, goals, and objectives for the *2030 Regional Transportation Plan* on December 10, 2003. The adopted goals and objectives are presented with the evaluation criteria in Table 4.1 at the end of this chapter. A complete listing of the public comments related to this portion of the *2030 Regional Transportation Plan* is included in Appendix C.

4.2 Evaluation Criteria

The vision, goals, and objectives provide the foundation for identifying transportation needs and developing options to meet those needs. The second part of preparing the planning framework is to develop a structured, standard method to evaluate the performance of specific transportation system improvement proposals.

Evaluation criteria are designed to give information about the performance of the transportation system. They can be weighted to reflect community values and are used as a tool to help choose the projects that show the highest benefit to transportation system users, while having the fewest adverse impacts to society and to the environment. The evaluation criteria also help decision makers establish the priority by which projects in a transportation plan will be implemented.

Comments provided by the public and by PPACG advisory committees led to three primary considerations in preparing the evaluation criteria:

1. The criteria should be directly linked to the goals and objectives;
2. Each criterion measurement should be supported by adequate data and statistics readily available to PPACG and/or entities proposing projects;
and
3. Each criterion measurement should be unique.

The final step in preparing evaluation criteria is determining the relevant importance of each within the evaluation framework. This was done by weighting the adopted plan goals. The public, too, had input into establishing the goal weights through a public meeting and through an informal survey published in the plan newsletter and on the *2030 Regional Transportation Plan* website. These comments were presented to and considered by advisory committees and PPACG in developing recommendations on the goal weights. The weights are shown with the respective goals in Table 4.1 at the end of this chapter.

4.3 Project Evaluation and Scoring

Point Scale: With the exception of the criterion for Objective 2-C, the scale of possible points ranged from -3 to +3, with the greatest negative impacts receiving -3 points and greatest positive impacts receiving +3 points. Projects that were considered to have no impacts or were neutral relative to the criterion received 0 points.

Weighting: The evaluation criteria are specific measures based on tangible, measurable components and are intended to give a quantitative and qualitative assessment of a proposed project's benefits and impacts. To provide a means to balance between these benefits and impacts, the goals are weighted to emphasize what the community desires for its transportation system. The assigned weight of each goal serves as a multiplier to increase a project's score, therefore its priority, to help select projects that are most effective towards achieving the region's goals and vision for the desired transportation system.

Evaluation Approach: Where appropriate, results of PPACG's travel demand model was used to quantitatively measure the effects of various project proposals. Output for the peak travel times, as depicted by PPACG's travel model, was specified unless the entity proposing the project demonstrated that the project would provide quantifiable benefits for a different specified peak period. Other sources of quantitative information included accident statistics compiled from local and state sources, local governments' plans, traffic engineering reports, current traffic data, map products from PPACG's geographic information system (GIS), and information provided in project proposals.

Qualitative measures were assessed based on the information contained in the project submittal documentation and/or available from mapping products, information obtained from previous planning efforts, and PPACG Staff's interpretation and knowledge of the project. Where appropriate, the submitting entity was allowed to demonstrate an alternative method of assessing the

impacts of the project, consistent with the adopted vision, goals and objectives, if the project could not be quantitatively or qualitatively evaluated as specified in the criteria.

Scoring Review: PPACG staff scored the projects based on the information presented in the project submission forms according to the criteria and weighted goals approved by the PPACG Board of Directors. The Transportation Advisory Committee; its subcommittees, the Specialized Transportation Advisory Subcommittee and the Transportation Enhancement Subcommittee; and the Community Advisory Committee were asked to review and comment on the initial scores. Staff considered the committees' input, reviewed and in some cases revised scores, and presented the list back to committees for further input. The revised list of scored projects was used as the basis for preparing the fiscally constrained list of projects.

TABLE 4.1
Goals, Objectives, and Evaluation Criteria

Goal 1: Mobility - Provide a safe and efficient regional transportation system to meet present and future mobility needs.	
Weight: 37%	
Objective A	Support economic vitality within the region.
Criteria	<p>Project's impact to vehicle trip travel time.</p> <p>Quantitative evaluation to assess the impact to regional trip travel time in the peak travel period based upon implementation of the proposed project.</p>
Objective B	Provide the most effective and efficient transportation system.
Criteria Part 1	<p>Change in number of person trips served during peak travel period.</p> <p>A person trip is an individual traveler making a trip, by any mode. Increasing the number of person trips served in a given length of time is a quantitative indicator of effective use of the transportation system.</p>
Criteria Part 2	<p>Capital cost of project per person trip (cost/benefit).</p> <p>Quantitative evaluation will be based on the total capital cost of project implementation, including right-of-way acquisition, transit vehicles and/or transit infrastructure, and construction, in 2005 dollars. The number of person trips served by the project in 2030 will be used as the divisor.</p>
Objective C	Provide a safe transportation system.
Criteria	<p>Change in the rate of accidents that cause death and injury.</p> <p>Highest number of points assigned based on the top 30 accident locations in the region according to the accident rate as determined by number of death and injury accidents at a location per million entering vehicles. Projects were evaluated with respect to the improvements proposed likely effect on the accident rate at that location. Projects addressing a safety need but not at one of the top 30 accident locations could receive a positive score of 1.</p>

TABLE 4.1 (continued)
Goals, Objectives, and Evaluation Criteria

Goal 2: Environment - Provide a regional transportation system that is compatible with natural and human environments.	
Weight: 18%	
Objective A	Meet air quality requirements for the region.
Criteria	<p>Amount of regional carbon monoxide emissions in 2030.</p> <p>The amount of emissions increase or decrease attributable to the project's implementation will be calculated based on output of PPACG's travel model.</p>
Objective B	Select solutions that have the fewest transportation-related impacts to the natural environment.
Criteria	<p>Probability that the project would have impacts on the natural environment.</p> <p>A qualitative assessment will be made based on the proposed project's possible impacts to natural parklands, riparian and aquatic habitat, designated open space, and/or other designated natural preservation/protection areas.</p>
Objective C	Promote transportation system strategies and/or actions that are supported by the community in which they are planned.
Criteria	<p>The inclusion of the project in an adopted or draft plan developed by the jurisdiction in which it is planned scored as follows:</p> <p>0 - Not in a sponsoring agency's draft plan or approved plan; 2 - In a sponsoring agency's draft plan; and 3 - In a sponsoring agency's approved plan.</p>
Objective D	Select solutions that have the fewest adverse impacts to existing and future neighborhoods and areas identified for cultural or historical preservation.
Criteria	<p>Probability that the project will have impacts to neighborhoods, and/or areas identified for cultural or historical preservation.</p> <p>A qualitative assessment will be made based on the proposed project's possible impacts to developed parkland, residential areas, schools, and areas identified for cultural or historical preservation in the respective jurisdiction's approved community plans.</p>

TABLE 4.1 (continued)
Goals, Objectives, and Evaluation Criteria

Goal 3: Accessibility - Provide a balanced multi-modal regional transportation system that meets the accessibility needs of all.	
Weight: 25%	
Objective A	Encourage the development of multi-modal transportation options throughout the region.
Criteria	<p>Number of modes included within the scope of the proposed improvement.</p> <p>The number of modes fully addressed within the description of the proposed improvement will be counted as the basis for scoring.</p>
Objective B	Promote expansion of accessibility choices throughout the region.
Criteria	<p>The number of people with increased or improved accessibility choices to single-occupant vehicle use.</p> <p>The populations served with increased or improved accessibility choices other than single-occupant vehicle will be quantified using PPACG's socioeconomic model and travel model output and/or geographic information system analysis and mapping.</p>
Goal 4: Maintenance - Maintain the regional transportation system.	
Weight: 20%	
Objective A	Maintain the physical infrastructure of the transportation system.
Criteria	<p>Age of facility or transit vehicle to be replaced and/or sufficiency ratings.</p> <p>Bridge: Quantitative evaluation will be based on bridge sufficiency ratings obtained CDOT's transportation system database.</p> <p>Other facility types and transit vehicles: Quantitative evaluation will be made based on percent of remaining life cycle of facility.</p>
Objective B	Provide an acceptable level of system operation.
Criteria	<p>Level of system service as measured by volume to capacity (V/C) ratio.</p> <p>Quantitative evaluation will be made based on the volume-to-capacity ratio information obtained from PPACG's travel model.</p>