

2.4 Grouping of Alternatives

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Twenty-one alternatives are presented in the Draft PEIS for full disclosure of impacts, cost, and consistency with the purpose and need of the project. NEPA requires that reasonable alternatives be offered and addressed and that preferred alternatives be disclosed when known. To comply with this, the 21 alternatives have been grouped into those that are “preferred” and those that are not (the “other” grouping).

Preferred alternatives are defined as those that:

- Best meet the underlying need while achieving purposes to varying degrees

Other alternatives are defined as those that:

- Do not meet the underlying need as well while achieving purposes to varying degrees

Or

- Are not reasonable due to technical and/or economical infeasibility

Alternatives determined not to be preferred could move into the preferred category with new information or with modification for the Final PEIS.

Objectives for grouping of alternatives include:

- A comprehensive and systematic process, to meet NEPA requirements
- A framework for decision making provided by the process
- Identification of a preferred group of alternatives (using data included in the *Summary of Preliminary Findings*, September 2003)
- Identification of an interdisciplinary process for preferred group decision making

The benefits of identifying a group of preferred alternatives in the Draft include the fact that the public learns sooner in the PEIS process rather than later which alternatives seem most viable. In addition, grouping alternatives during the Draft PEIS process will allow an earlier and more focused discussion on how to shape I-70.

The group of preferred alternatives will be narrowed to a preferred alternative between the Draft PEIS and the Final PEIS for identification in the Final PEIS.

2.4.1 Grouping Process

CDOT completed a *I-70 PEIS Summary of Preliminary Findings* report to provide interested parties and stakeholders with information pertinent to decision making, and data that had been collected and evaluated in the completion of the Draft PEIS. The package was intended to provide the necessary Tier 1 information so that the differing impacts associated with each alternative could be discerned. This *I-70 PEIS Summary of Preliminary Findings* report was distributed to Advisory Committee members in a meeting on September 4, 2003, to orient members to the information provided and to answer questions. On September 23, 2003, CDOT held a listening forum of key stakeholders represented by the MCAC / TAC members. The listening forum focused on the following key questions:

1. The alternatives vary in their ability to meet the project “need”—to increase capacity, improve accessibility and mobility, and decrease congestion—as measured by the ability to accommodate projected 2025 baseline travel demand:

- a. What is your view on meeting the need relative to the tradeoffs to be made (that is, positive and negative environmental effects and consequences)?
- b. What are the gains and losses of pursuing those alternatives that may not accommodate future potential growth as well?
- c. What are the gains and losses of pursuing those alternatives that may induce demand beyond planned growth?

- 1) Given that alternatives that are economically feasible are defined as those that meet the NEPA test of reasonableness, what is your view of “affordability”?
- 2) From the perspective of your constituents, which alternatives would you put in the “preferred” grouping and why?
- 3) From the perspective of your constituents, which alternatives would you put in the “other” grouping and why?
- 4) From the perspective of your constituents, what else would you want the decision-makers to know as they contemplate the decision before them?

In addition to the MCAC/TAC members, the listening forum was attended by CDOT and FHWA executives charged with the responsibility for the decision on I-70, most of the cooperating agencies, and the federal interdisciplinary team members. Following the listening forum, a meeting was held with the federal interdisciplinary team to gain their perspective on the questions asked at the listening forum and to receive technical feedback on the data provided in the *I-70 PEIS Summary of Preliminary Findings* report.

What CDOT and FHWA heard at the Listening Forum and as a result of the discussions with the federal interdisciplinary team was quite varied; most acknowledged the need to do something, many wanted quick action, and some did not want a solution that would result in future congestion as is experienced today. Some highly favored a new mode of transportation and others believed that rail transit would not be suited for this Corridor. All were sincere about the environmental and community values to be respected. Little opinion was offered on what might constitute an affordable alternative.

The preliminary grouping of alternatives was announced to the public and presented to the Advisory Committee members on November 18, 2003. In addition, newsletters were mailed to more than 10,000 stakeholders to inform them of the grouping decision to be part of the Draft PEIS. The project website was also updated with this information.

The consideration of the environmental sensitivity and community values purposes have shaped many of the alternatives evaluated. See Chapter 3 for discussions of how this has occurred for each resource. Preliminary findings of the environmental and community value impacts were disclosed to the Corridor stakeholders during September and November 2003, when the discussion involving the grouping of preferred alternatives occurred. This information was disclosed so that the CDOT and FHWA decision makers would be fully informed about the public concerns (as represented by the MCAC / TAC members and the federal interdisciplinary team), issues, and consequences of the alternatives considered, before deciding which alternatives would be in the “preferred” group and which would be in the “other” (not preferred) group.

All of the listening forum questions were specific to the issue of grouping. Therefore, the definition of grouping is as follows:

- **Preferred Alternatives.** These alternatives best meet the underlying need (as measured by the ability to accommodate projected 2025 baseline travel demand) and achieve the project purposes (that is, Community Values, Environmental Sensitivity, Safety, Implementation) to varying degrees.
- **Other Alternatives.** These alternatives do not meet the underlying need as well and achieve the purposes to varying degrees or are not reasonable due to technical and/or economical feasibility.

An interdisciplinary process of alternatives comparison was conducted based on need and purpose criteria (implementation, safety, environmental sensitivity, community values). Steps involved in grouping included:

- Identification of thresholds to achieve objectives stated above
- Placement of alternatives that do not meet reasonableness and need thresholds into “other” group
- Identification of environmental preferences among alternatives

2.4.1.1 Reasonableness and Need

The criteria for grouping alternatives are based on the requirement that an alternative must be economically reasonable and meet the project need. The rationale for grouping the alternatives is provided below. Environmental criteria were a key component of developing, screening, and refining alternative footprints and alignments to minimize or avoid impacts on environmental and community resources. Direct and indirect environmental impacts of alternatives are disclosed in Chapter 3, and Cumulative Impacts are disclosed in Chapter 4.

Reasonableness. The measure for economic reasonableness is defined as any alternative less than or equal to \$4 billion in capital cost. Section 2.4.2, Grouping Results, provides the capital cost of each alternative and indicates the preferred group alternatives that are economically reasonable.

The Transportation Commission has committed approximately \$1.6 billion of the Strategic Corridor Investment Program to the Corridor. Additional funds necessary for implementation of project alternatives remain uncommitted. Depending on the decision on the preferred alternative for I-70, some of the uncommitted funds may be allocated to this Corridor, although the likelihood exists that a number of other strategic corridors may have a higher priority for allocation of the funds from the CDOT’s available monies. The \$1.6 billion amount represents the funding that may be available over the next 20 years. A \$4 billion amount has been set as a cost threshold for evaluating alternatives in terms of “reasonableness” from an economic affordability point of view. This threshold was set to not preclude alternatives that may be affordable if funding sources over and above the \$1.6 billion were to be secured.

Need. The measure for meeting “need” is 2025 Baseline travel demand. An alternative must have the capacity to accommodate the 2025 Baseline travel demand. Section 2.4.2, Grouping Results, indicates the percent that alternatives are either above or below the annual average Baseline travel demand.

The “Baseline” is a projection of what the travel demand would be if all various trip purposes on a peak model day in 2025 were to be satisfied on the existing highway network without any future changes to the capacity of I-70 (except those noted under the No Action alternative), as defined in Chapter 1, Purpose of and Need for Action. Baseline travel demand varies by location in the Corridor, season (summer or winter), model day, hour, and direction of travel. A quantification of the Baseline travel demand is summarized in Chapter 1, provided in more detail in Appendix B, Transportation Analysis and Data.

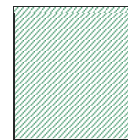
For purposes of the need threshold for determining the preferred group of alternatives, the annual average baseline travel demand has been applied, where 0% = Baseline. Alternatives would meet the need at or above 0%, as opposed to alternatives below 0% that would not meet the need.

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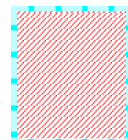
2.4.2 Grouping Results of Action Alternatives

Table 2-28. Grouping Results of Action Alternatives

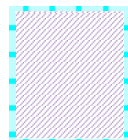
Minimal Action	Transit Alternatives			Highway Alternatives			Combination Alternatives													
							6-Lane Highway with Rail and IMC			6-Lane Highway with AGS			6-Lane Highway with Dual-Mode Bus			6-Lane Highway with Diesel Bus				
1	2	3	4	5	6	7	8	9	9a	9b	10	10a	10b	11	11a	11b	12	12a	12b	
Reasonableness: Total capital cost including Minimal Action components (\$ million) (threshold for determining reasonable alternatives less than or equal to \$4 billion)	1.30	4.91	6.15	3.46	3.26	2.40	2.65	2.52	6.50	6.14	3.03	8.64	8.32	2.87	4.37	4.01	2.91	4.17	3.80	2.91
Need: Ability to accommodate Baseline travel demand (threshold is at [0%], or above annual average Baseline travel demand)	-2%	+4%	+5%	+4%	+4%	+1%	+1%	+1%	+11%	+4%	+1%	+12%	+5%	+1%	+11%	+4%	+1%	+11%	+4%	+1%



- Alternatives with a capital cost less than or equal to \$4 billion
- Alternatives that are at (0%), or above annual average Baseline travel demand



- Alternatives with a capital cost above \$4 billion



- Alternatives that are below the average annual Baseline travel demand (below 0%)

Preferred Group of Alternatives

NO ACTION

Although the No Action Alternative does not meet the baseline travel demand, it has been retained for evaluation in the PEIS to conform with NEPA requirements.

TRANSIT ALTERNATIVES

- Dual-Mode Bus in Guideway
- Diesel Bus in Guideway

HIGHWAY ALTERNATIVES

- Six-Lane Highway 55 mph
- Six-Lane Highway 65 mph
- Reversible/HOV/HOT Lanes

PRESERVATION ALTERNATIVES

- Build Six-Lane Highway and Preserve for Rail with IMC
- Build Six-Lane Highway and Preserve for AGS
- Build Six-Lane Highway and Preserve for Dual-Mode Bus in Guideway
- Build Six-Lane Highway and Preserve for Diesel Bus in Guideway

Other Group of Alternatives

1. MINIMAL ACTION (as a single-mode alternative)

TRANSIT ALTERNATIVES

- Rail with IMC
- AGS

COMBINATION ALTERNATIVES - BUILD SIMULTANEOUSLY

- Six-Lane Highway with Rail and IMC
- Six-Lane Highway with AGS
- Six-Lane Highway with Dual-Mode Bus in Guideway
- Six-Lane Highway with Diesel Bus in Guideway

PRESERVATION ALTERNATIVES

- Build Rail with IMC and Preserve for Highway
- Build AGS and Preserve for Highway
- Build Dual-Mode Bus in Guideway and Preserve for Highway
- Build Diesel Bus in Guideway and Preserve for Highway

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