



## LEVEL 2 SCREENING

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### Introduction

The study process is designed to consider a wide array of transportation options initially and then systematically identify the alternatives that best meet the Purpose and Need of the project in a context sensitive manner. The Alternatives Development process consists of three levels. The purpose of this document is to present the results of the Level 2 Screening. Level 2 is intended to provide a qualitative assessment of alternatives that pass the Level 1 screening to differentiate between those that have a strong potential to achieve the project needs and those that do not.

### Level 2 Screening Process

The Level 2 Screening used the following criteria to provide both a qualitative and comparative analysis of the alternatives.

1. **Provides Long-Term Capacity and Operational Solutions for US-85** – Assess the extent to which an alternative helps reduce future vehicular congestion on US-85.
2. **Results in Improved Travel Safety** – Assess the extent to which an alternative addresses identified safety problems in the US-85 corridor.
3. **Provides Reasonable Access** – Assess the compatibility of the access to the functional characteristics of the roadway and the need for out-of-direction travel.
4. **Expands Multi-Modal Options for All People** – Assess the extent to which an alternative provides transportation options to vehicular travel and user experience.
5. **Accommodates Land Use Goals and Plans** – Assess how well the alternative complies with or clearly supports local and regional land use goals and plans.
6. **Enhances Life/Safety for NW Douglas County Residents** – Assess the extent to which an alternative improves the response time for emergency vehicles and provides a reliable alternate route.
7. **Supports the Preservation of the Environment** – Assess the extent to which the project would minimize impacts on wetlands, endangered species habitat, historic properties, Section 4(f) properties, right-of-way acquisition/relocation, noise, and air quality.
8. **Creates a Sustainable Solution** – Assess the extent to which an alternative can use best management practices and creative/innovative solutions.
9. **Ensures Implementation** – Assess the ability to phase the improvements and use existing facilities.

### Level 2 Screening Results

The following table shows the results of the Level 2 Screening. An “excellent/good/fair/poor” response was provided for each criterion to provide some idea of relative effectiveness. This qualitative assessment was based on engineering judgment and sketch planning analysis.

## US 85 PEL Level 2 Alternatives Screening Matrix

		Provides Long-term Capacity & Operational Solution	Results in Improved Travel Safety	Provides Reasonable Access	Expands Multi-Modal Options for All People	Accommodates Land Use Goals & Plans	Enhances Life/Safety for NW Douglas Co. Residents	Supports the Preservation of the Environment	Creates a Sustainable Solution	Ensures Implementation
Segment A (Highlands Ranch Pkwy to County Line Road)	No Action	Poor	Poor	Good	Fair	Poor	Poor	Good	Poor	Excellent
	A1- Expressway	Poor	Fair	Poor	Good	Fair	Fair	Fair	Poor	Fair
	A2 - Expressway w/ Access Options	Excellent	Excellent	Good	Good	Good	Good	Poor	Fair	Fair
	A3 - Split Pair	Good	Excellent	Fair	Excellent	Good	Good	Poor	Fair	Good
	A4 - Bypass	Excellent	Excellent	Excellent	Excellent	Good	Good	Poor	Fair	Good
Segment B (Titan Road to Highlands Ranch Pkwy)	B1 - Improved US 85 w/ ¾ Movements	Good	Fair	Fair	Good	Good	Good	Fair	Fair	Good
	B2 - Improved US 85 w/ Right in/Right out	Good	Excellent	Fair	Good	Good	Good	Fair	Fair	Good
Segment C (SH 67 to Titan)	C1 - 4 Lane US 85 w/ Access Options	Good	Good	Good	Good	Good	Good	Fair	Fair	Good

1. **Provides Long-Term Capacity Solution for US-85**
  - Excellent if meets capacity needs with little or no traffic operational issues.
  - Good if meets capacity needs with minimal traffic operational issues.
  - Fair if meets capacity needs with potential for major traffic operational issues.
  - Poor if does not meet capacity needs or has major traffic operational issues.
2. **Results in Improved Travel Safety**
  - Excellent if left turn conflicts are eliminated.
  - Good if left turn conflicts exist but only have to cross 2 through lanes.
  - Fair if left turn conflicts exist but have to cross 3 or more through lanes.
  - Poor if left turn conflicts exist and the through lanes are over capacity.
3. **Provides Reasonable Access**
  - Excellent if existing capacity is preserved.
  - Good if existing capacity is restricted with minimal out of direction travel.
  - Fair if existing capacity is restricted with major out of direction travel.
  - Poor if existing access is eliminated.
4. **Expands Multi-Modal Options for All People**
  - Excellent if fixed guideway transit and bike/ped facility can be added with little impact.
  - Good if bus service and bike/ped facility can be accommodated with little impact.
  - Fair if bus service is expected to operate in congested conditions.
  - Poor if bike/ped facilities are one-dimensional and not continuous.
5. **Accommodates Land Use Goals and Plans**
  - Excellent if meets multi-modal travel demands with no disruption to existing land uses.
  - Good if meets multi-modal travel demands with new right-of-way required.
  - Fair if barely meets multi-modal travel demand with new right-of-way required.
  - Poor if does not meet multi-modal travel demands.
6. **Enhances Life/Safety for NW Douglas County Residents**
  - Excellent if travel time is improved.
  - Good if travel time is expected to remain constant throughout the day.
  - Fair if slower travel times are expected during peak hours.
  - Poor if slower travel times are expected throughout the day.
7. **Supports the Preservation of the Environment**
  - Excellent if no impacts are expected.
  - Good if all improvements are within existing right-of-way.
  - Fair if use of the existing right-of-way is maximized but some new land is required.
  - Poor if substantial new land is required for improvements.
8. **Creates a Sustainable Solution**
  - Excellent if all social, economic and environmental principles can be met or exceeded.
  - Good if all social, economic and environmental principles can be met.
  - Fair if it is a viable long term solution but causes impacts.
  - Poor if it is not a long term solution.
9. **Ensures Implementation**
  - Excellent if no new right-of-way is required and railroad is not impacted.
  - Good if new right-of-way is required but railroad is not impacted.
  - Fair if new right-of-way is required and railroad is impacted.
  - Poor if project cannot be phased.

## **Level 2 Conclusions**

In Segment A, it is recommended the following three alternatives be advanced to Level 3.

A2 – Expressway with Access Options North of Town Center Drive

A3 – Split Pair

A4 – Bypass

These alternatives are capable of meeting the project's Purpose and Need and all provide vastly different approaches that will highlight the advantages and disadvantages of each in Level 3.

Alternative A1 (Expressway) was eliminated because the interchanges are too closely spaced, which would cause operational/safety issues and require the closure of several access points.

In Segment B, Alternative B2 (Improved US 85 with Right in/Right out) is recommended because it is expected to improve safety and can be phased over time with Alternative B1. Several different interchange improvements will be considered at Titan Road to accommodate the high directional traffic movements.

In Segment C, the focus will be on the development and analysis of access options at Airport Road, Delva Way, and SH 67.