

Brooktrails Second Access Feasibility Study

September 22, 2009

Background & Past History

- Brooktrails Township established in the 1960's as a vacation destination.
- The Township has transformed to rural mountain subdivision.
- Resident and Emergency Agencies have raised concerns due to single access to the community.
- Additional 2,500 dwelling units are projected to be constructed during the next 20 years.
- Without second access, all new traffic will be placed on Sherwood Drive.
- County Department of Transportation, MCOG and BTCSD collectively decided to study alternatives for second access to the Brooktrails Community.

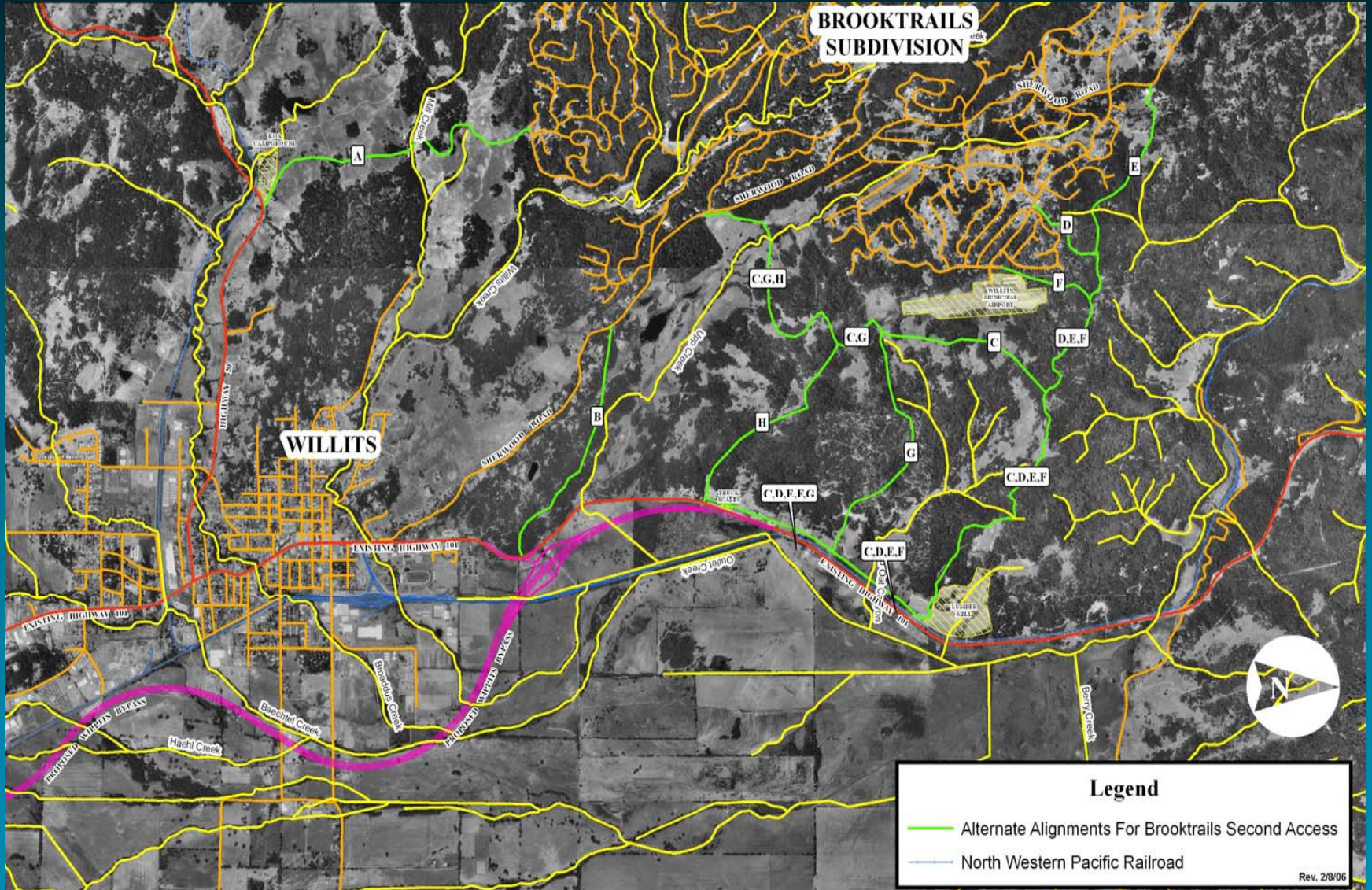


Proposed Alignments Per Past Studies

- **Formal Studies for Second Access began in 1991. Alignment “A” and “B” were proposed.**
- **Circulation Element, Brooktrails Specific Plan, 1994 recommended Alignment “A”**
- **In 1999, Mr. Hal Wagenet proposed Alignment “C”**
- **In January 2000, Study Alignment “D” was proposed**
- **In February 2001, Alignment “E” and “F” were proposed during a special meeting of BTCSD**
- **Subsequent to February 2001, Alignment “G” and “H” were proposed to shorten the length.**

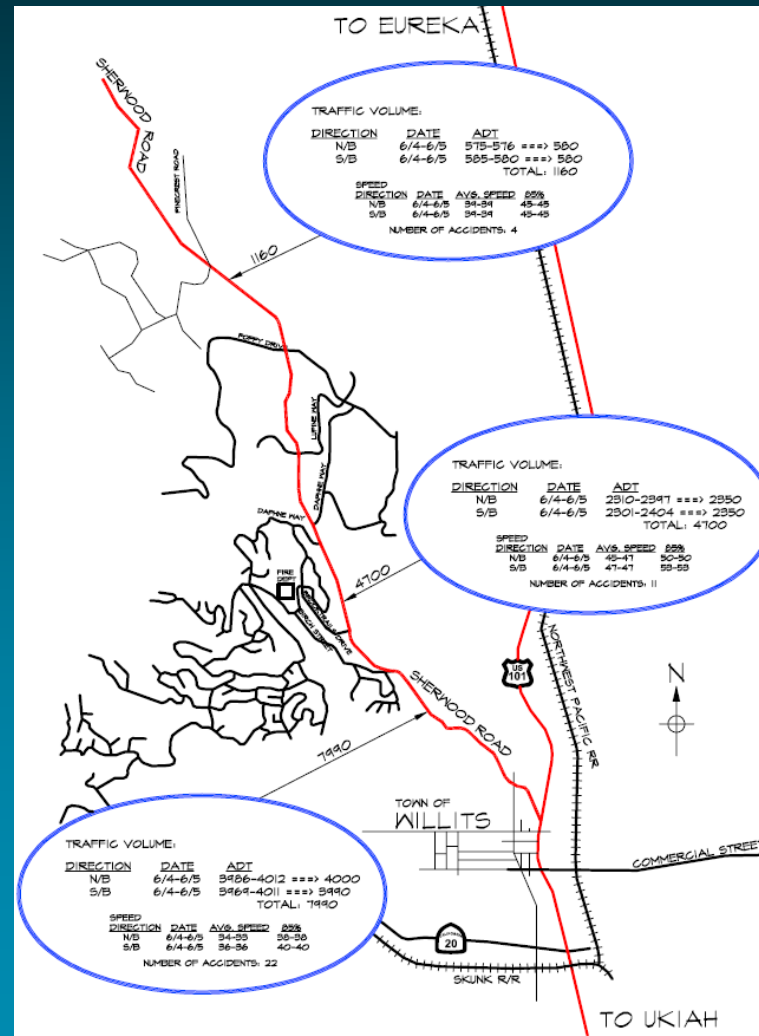


Background & Past History

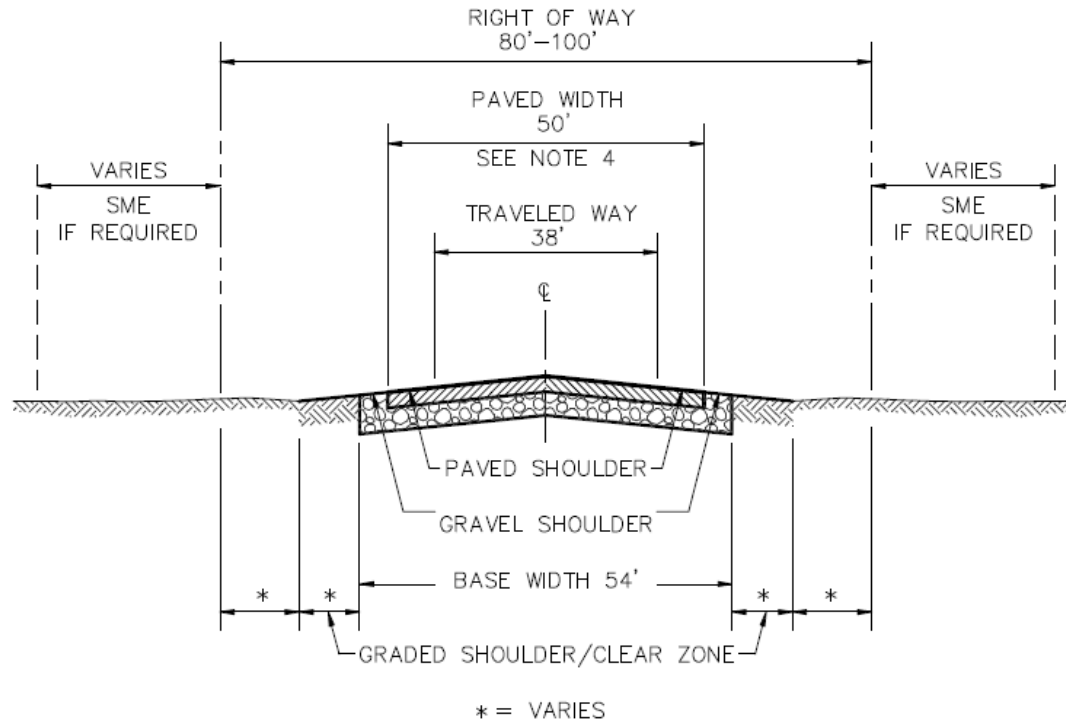


The Basis of Alignment Study – Traffic and Safety

- ADT North of Poppy Drive
1160
- ADT b/w Brooktrails & Poppy Drive
4700
- ADT b/w Brooktrails Drive and US101
7990
- Frequency of Accidents Highest b/w Brooktrails & US101



Roadway Section Considered

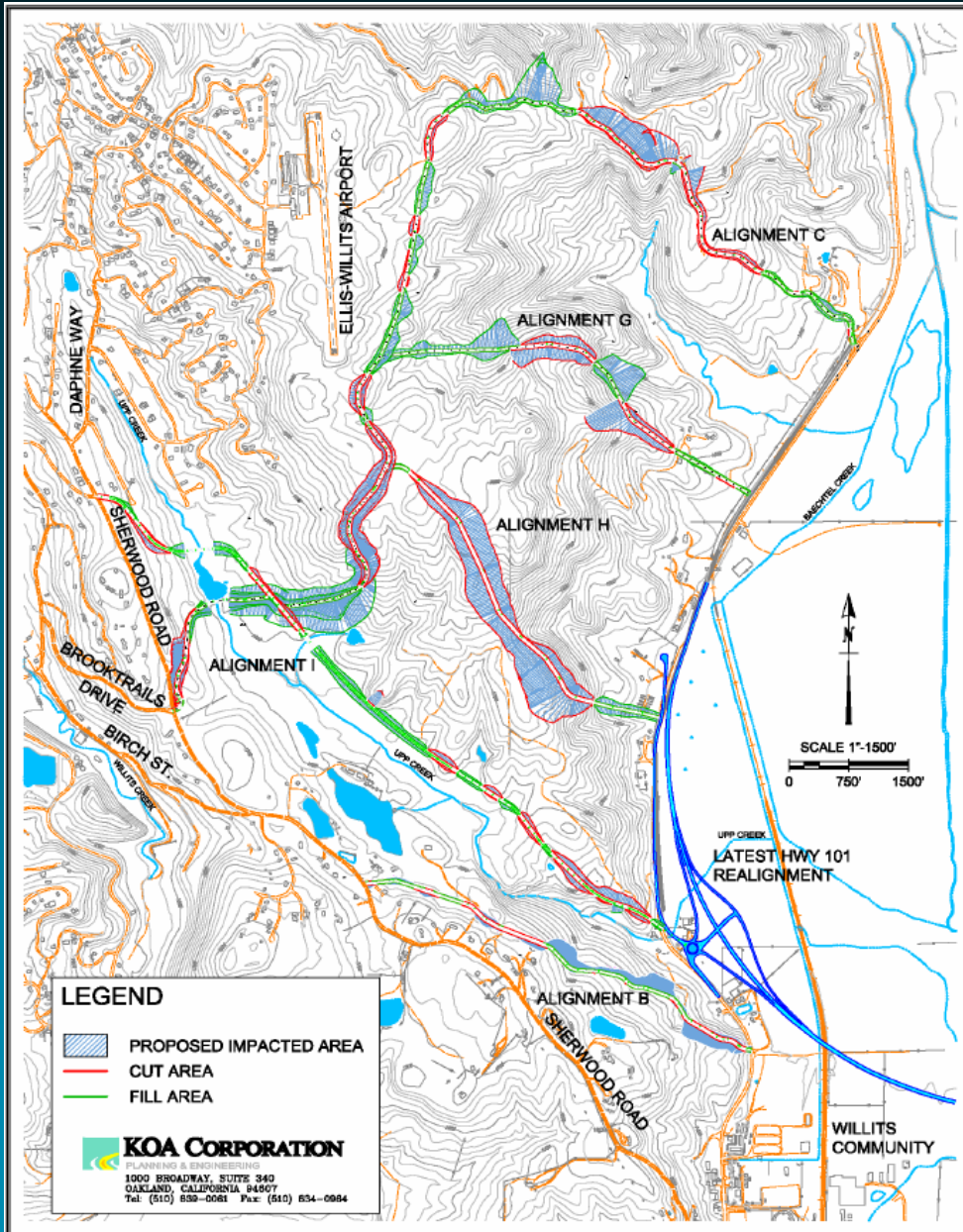


**MINOR ARTERIAL - RURAL
TYPICAL ROAD SECTION**

**MENDOT
STD. NO.
A10B**



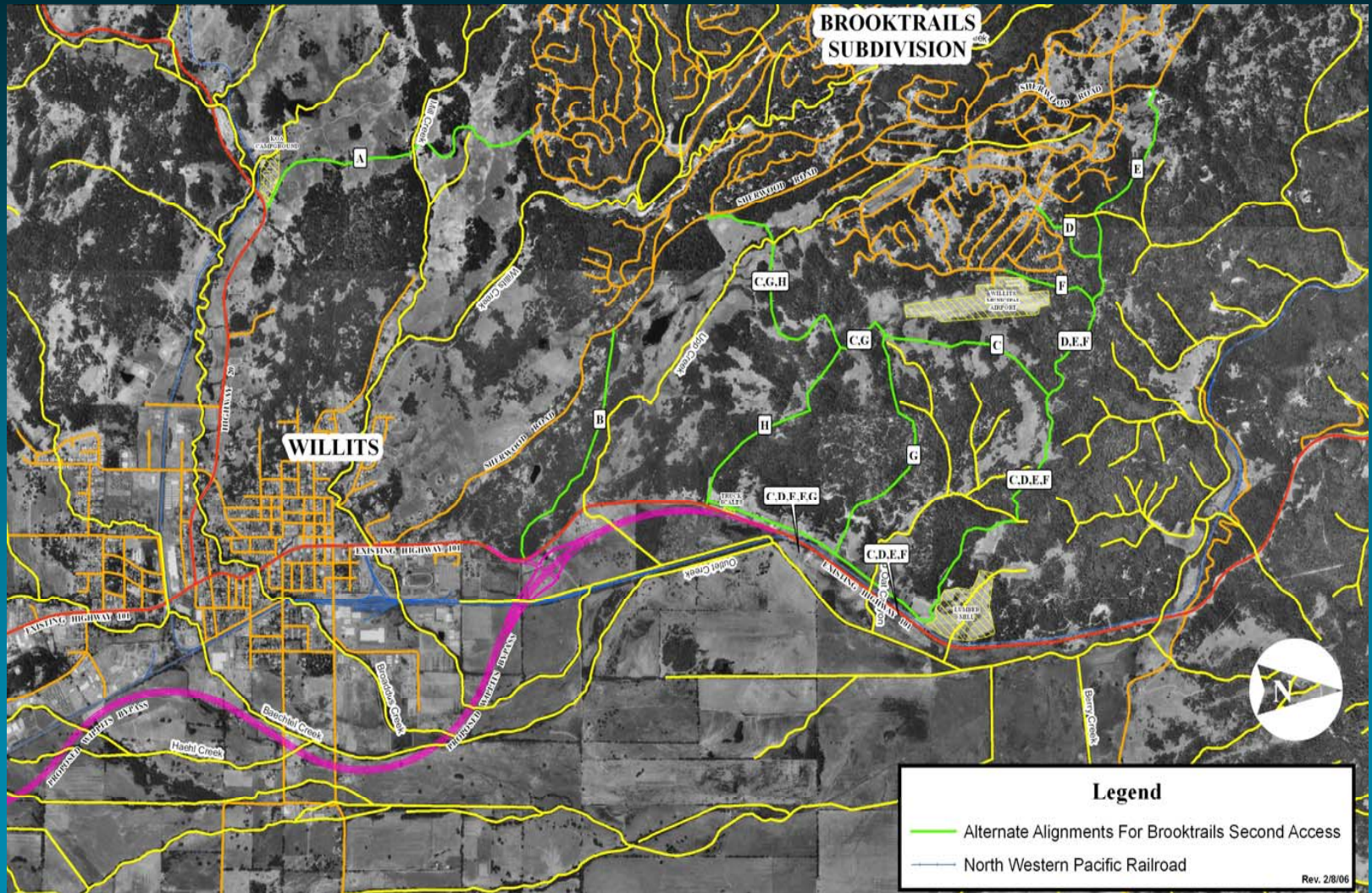
Alignments Studied



- Alignment B
Quail Meadows Ext.
- Alignment C
Brooktrails Drive Ext.
- Alignment G
Wild Oat Canyon
- Alignment H
Truck Scales
- Alignment I
UP Valley (New)

Alignments NOT Studied

Alignments “D”, “E”, and “F”



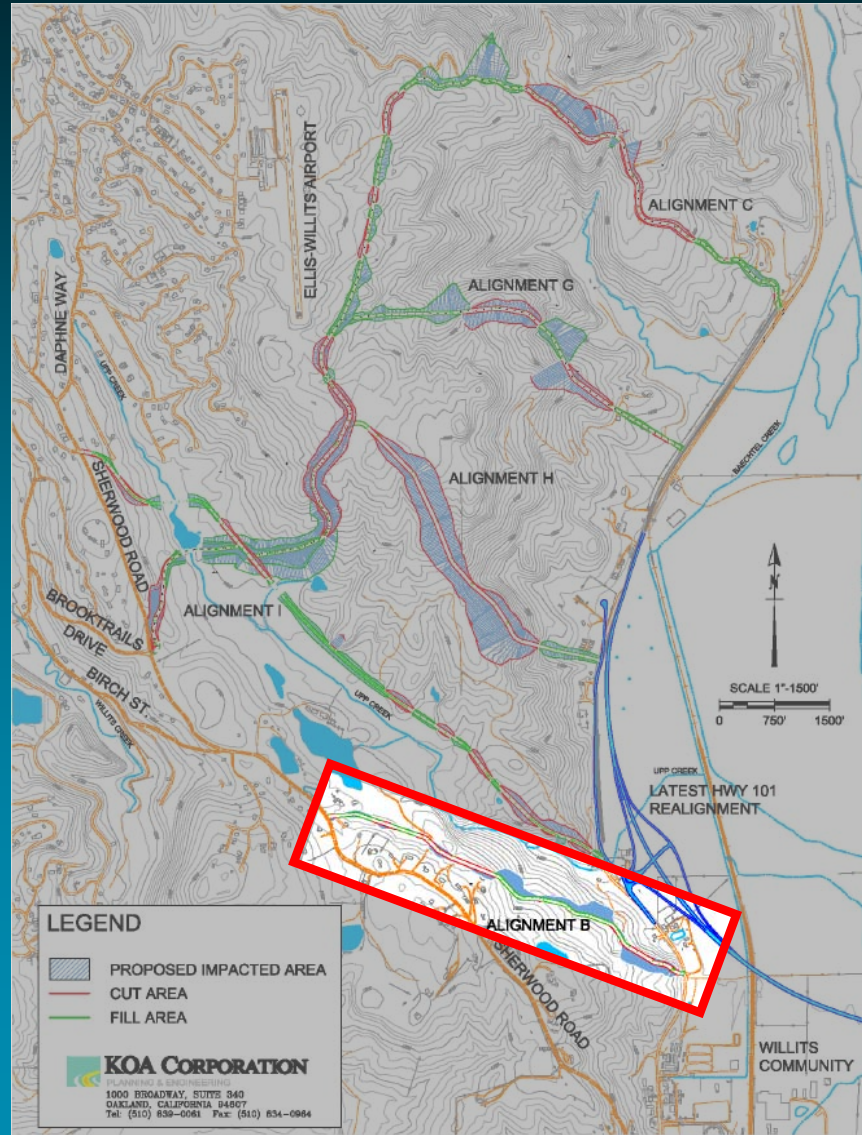
Reasons for not Studying D, E & F

- 80-90% of traffic on Sherwood Road is orientated in the southbound direction south of where these alignments begin.
- The Average Daily Traffic is the lowest in these areas.
- Internal residential street would be significantly impacted.
- These alignments provide the longest circuitous route to the city of Willits.
- Some residents must travel in opposite directions during an emergency evacuation.

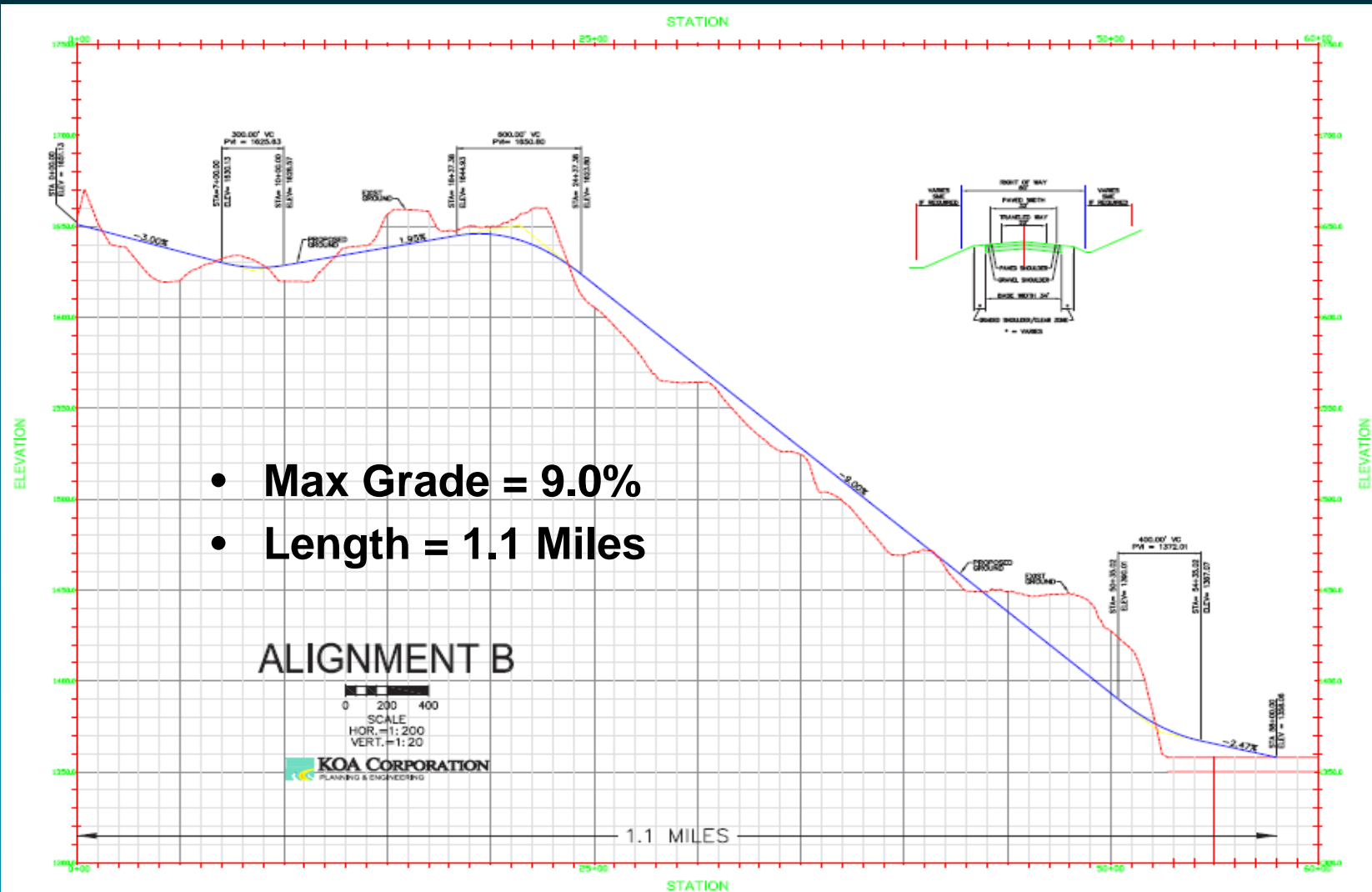


Alignment B

Quail Meadows Extension

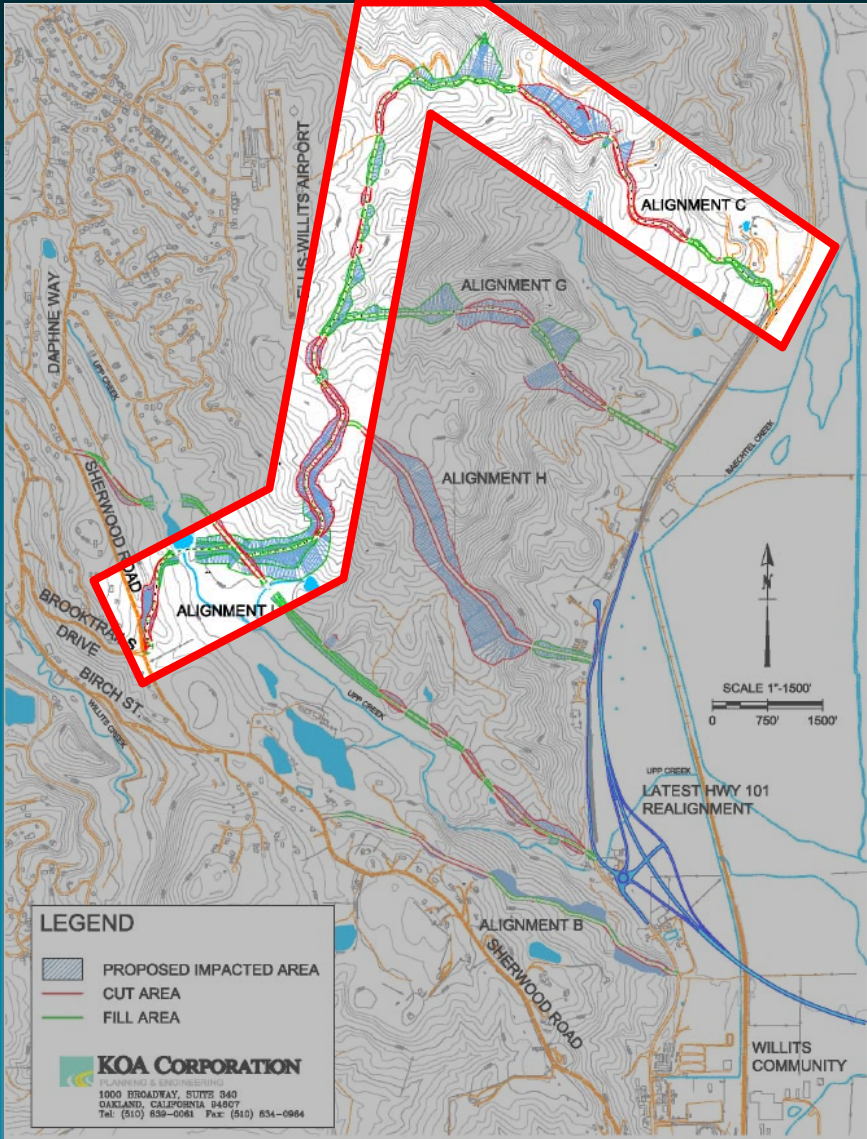


Alignment B - Profile Quail Meadows Extension



Alignment C

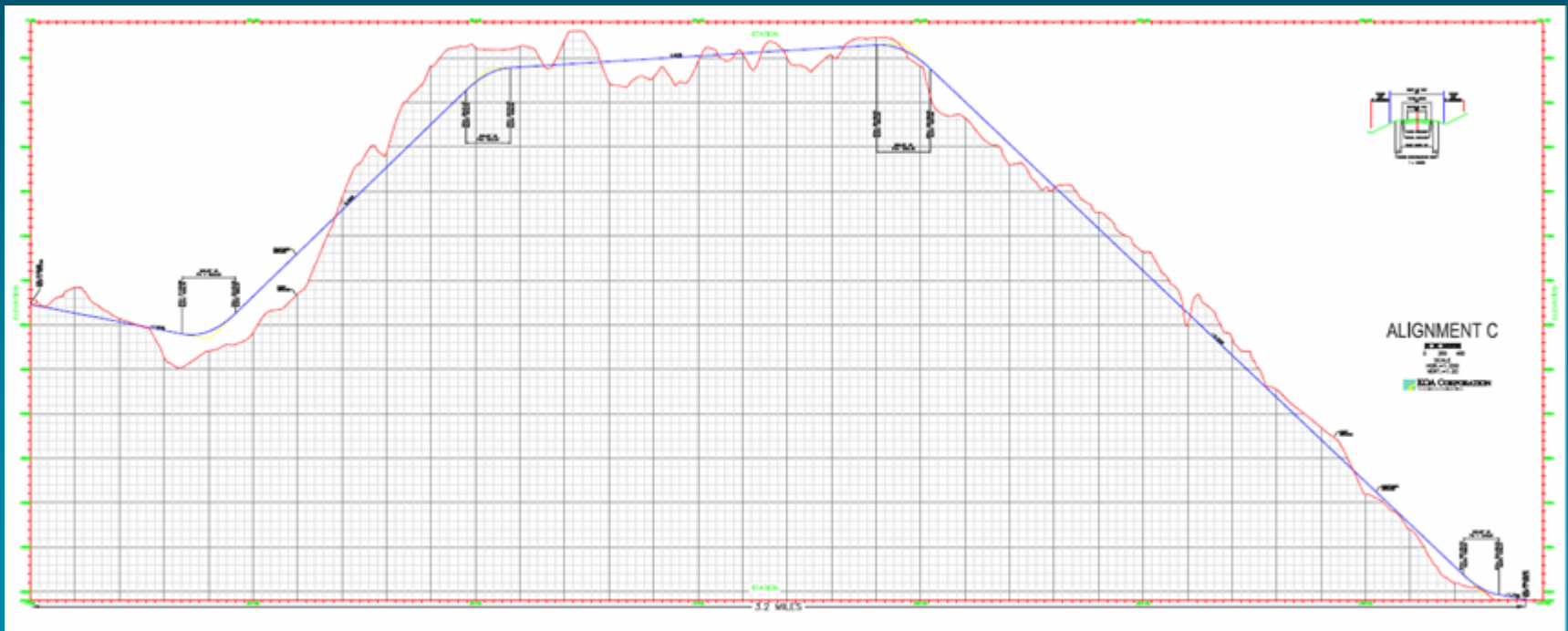
Brooktrails Drive Extension



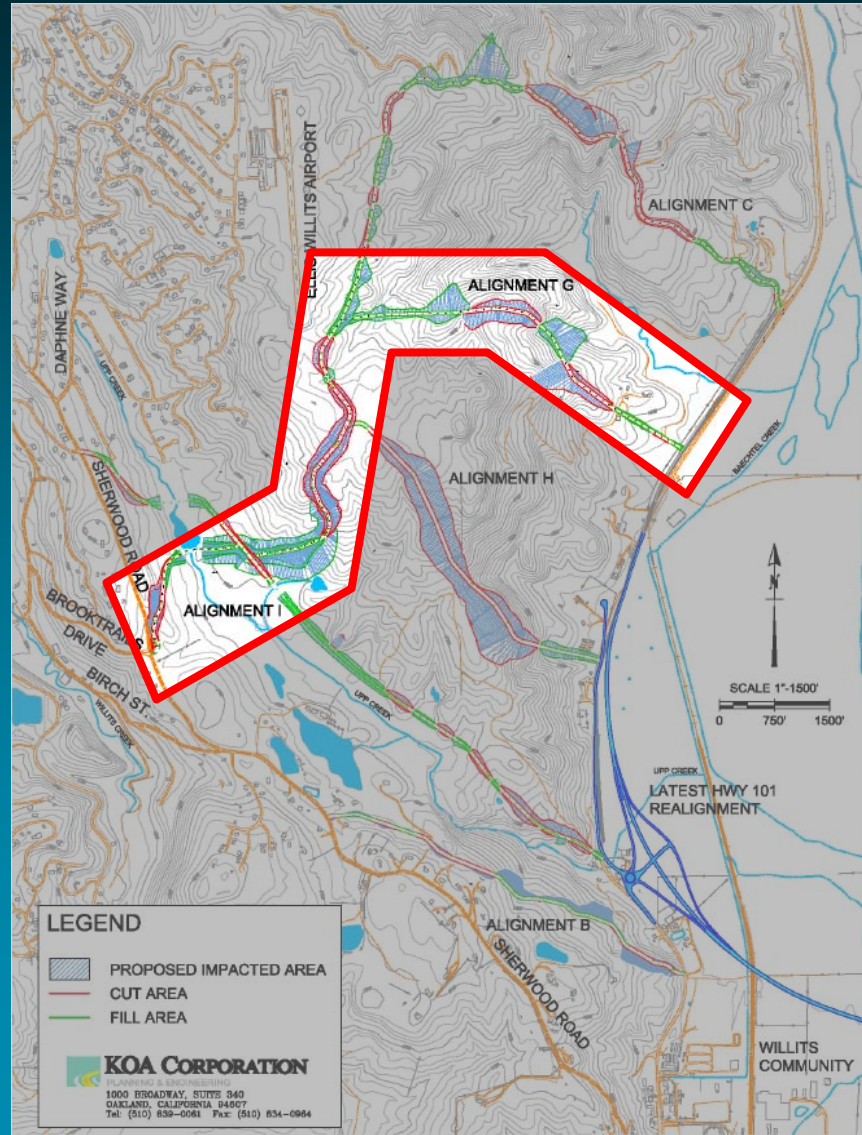
Alignment C - Profile

Brooktrails Drive Extension

- Max Grade = 9.68%
- Length = 3.2 Miles



Alignment G Wild Oats Canyon



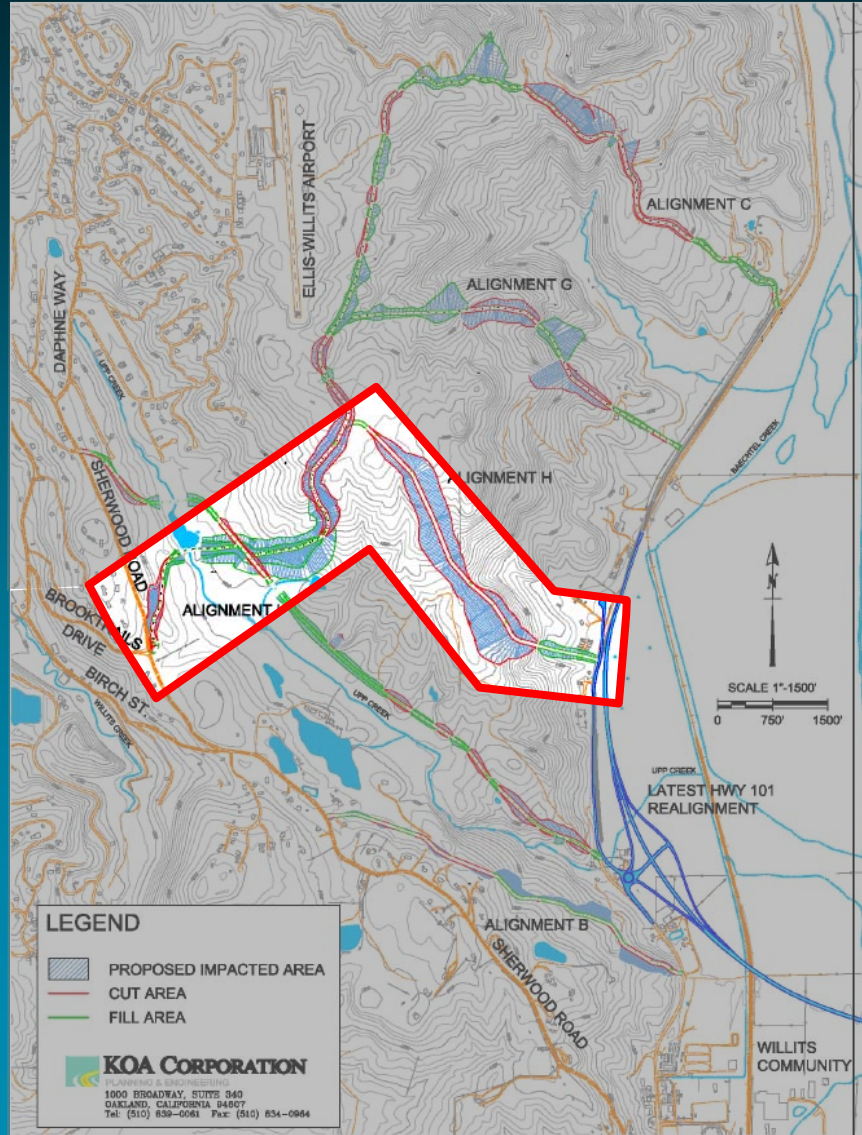
Alignment G - Profile

Wild Oats Canyon

- Max Grade = 12%
- Length = 2.3 Miles

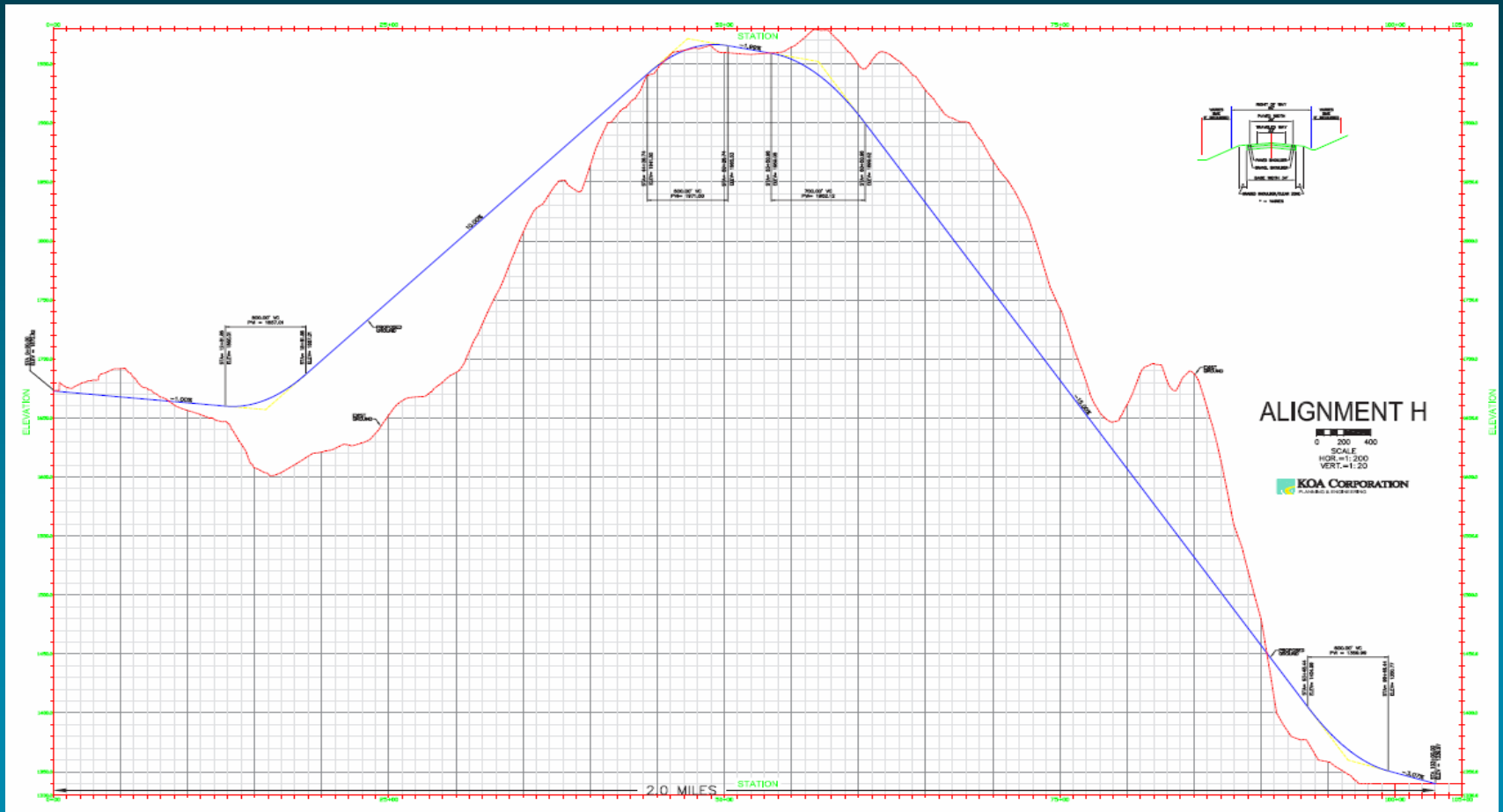


Alignment H Truck Scales

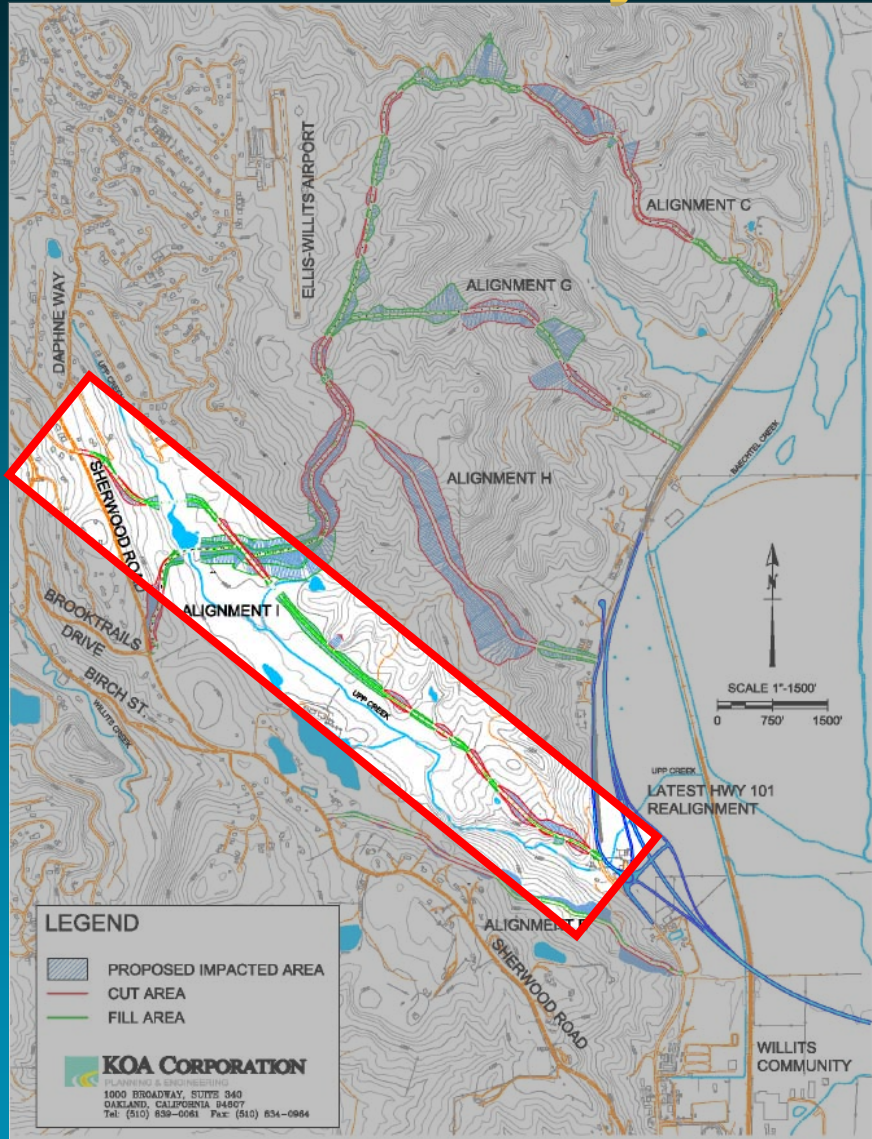


Alignment H - Profile Truck Scales

- Max Grade = 15%
- Length = 2.0 Miles

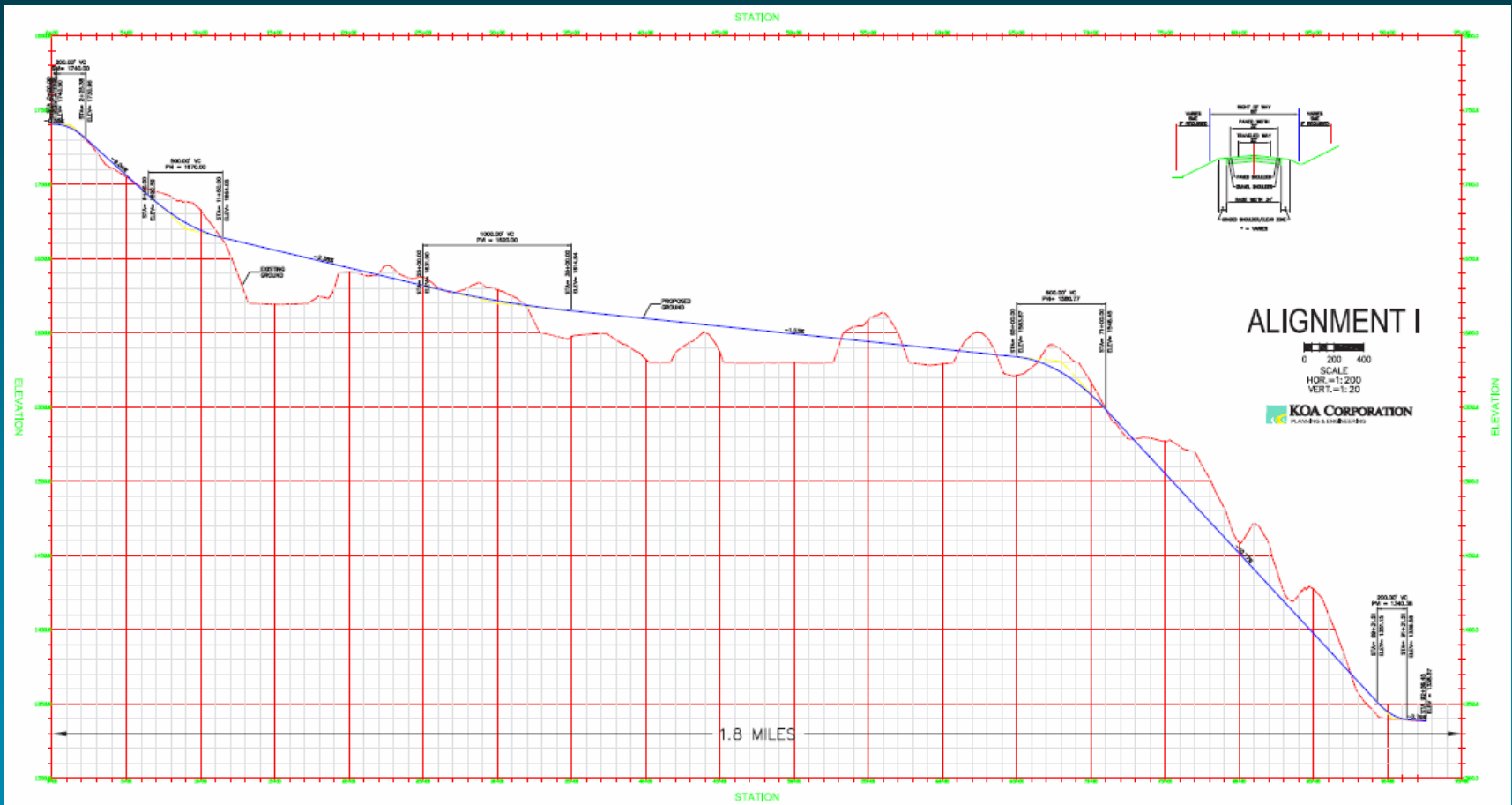


Alignment I UPP Valley



Alignment I – Profile UPP Valley

- Max Grade = 10.77%
- Length = 1.8 Miles



Preliminary Costs

Alternatives	Project Costs
Alternative B: Quail Meadows Extension	\$8,000,000
Alternative C: Brooktrails Drive Extension	\$28,500,000
Alternative G: Wild Oat Canyon	\$23,000,000
Alternative H: Truck Scales	\$27,000,000
Alternative I: UPP Valley	\$14,000,000

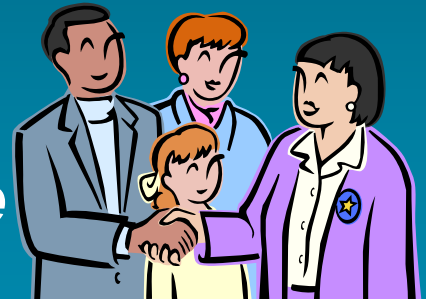


Public Involvement

A public meeting was held to share the results of the preliminary alignment alternative design

- When : July 8, 2008
- Where: Brooktrails Community Center

The meeting participants were shown the preliminary design and costs for the project. community members were encouraged to share their comments and preferences.



Evaluation Criteria Defined

Alignment Geometry

- Horizontal Geometry
- Vertical Geometry
- Length of Steep Grade

Public Support

- General Public Opinion

Transportation Effectiveness

- Out of Direction travel
- Compatibility with SR101 Project
- Ability to Expand with Traffic Needs

Environmental Impacts

- Wildlife Habitat
- Landslide and Seismic Vulnerability
- Streams and Wetlands

Right-of-Way Impacts

- Acreage Impacts

Traffic Safety

- Traveling Public Safety

Project Constructability & Cost

- Project Constructability
- Project Cost



Evaluation Scores

Evaluation Criteria	Weight Factors	Alternative B		Alternative C		Alternative G		Alternative H		Alternative I	
		Scoring	Weighted Score	Scoring	Weighted Score	Scoring	Weighted Score	Scoring	Weighted Score	Scoring	Weighted Score
Alignment Geometry	1.0										
<i>Horizontal Geometry</i>		4.5	4.5	2	2.8	3	2.5	3.5	1.8	4.5	3.5
<i>Vertical Geometry</i>		5		4.5		2.5		1		3.5	
<i>Length of Steep Grade</i>		4		2		2		1		2.5	
Average for Alignment Geometry		4.5		2.8		2.5		1.8		3.5	
Public Support	2.0		6.0		4.0		2.0		4.0		
<i>General Public Opinion</i>		3	2	1	2	4					
Average for Public Support		3.0	2.0	1.0	2.0	4.0					
Transportation Effectiveness	2.0										
<i>Out of Direction Travel</i>		3	6.7	2	4.0	3	5.3	4	6.0	5	9.3
<i>Compatibility with SR101 Project</i>		4		1		2		3		5	
<i>Ability to Expand with Traffic Needs</i>		3		3		3		2		4	
Average for Transp. Effectiveness		3.3		2.0		2.7		3.0		4.7	
Environmental Impacts	1.5										
<i>Wildlife Habitat</i>		4	3.8	2	4.8	2	4.3	2	4.5	4	4.0
<i>Landslide and Seismic Vulnerability</i>		1		4		3.5		3		2	
<i>Streams and Wetlands</i>		2.5		3.5		3		4		2	
Average for Environmental Impacts		2.5		3.2		2.8		3.0		2.7	
Right-of-Way Impacts	1.0		5.0		1.0		2.0		3.0		
<i>Acreage Impacts</i>		5	1	2	3	4					
Average for ROW Impacts		5.0	1.0	2.0	3.0	4.0					
Traffic Safety	2.0		8.0		4.0		6.0		4.0		7.0
<i>Traveling Public Safety</i>		4	2	3	2	3.5					
Average for Traffic Safety		4.0	2.0	3.0	2.0	3.5					
Project Constructability & Cost	1.5										
<i>Project Constructability</i>		3.5	6.4	2	3.0	2	3.4	1.5	2.6	4	6.0
<i>Project Cost</i>		5		2		2.5		2		4	
Average for Constructability & Cost		4.3		2.0		2.3		1.8		4.0	
Total Scores			40.3		23.6		25.5		26.0		



Conclusion and Recommendations

Alternatives	Total Score	Ranking
Alternative B: Quail Meadows Extension	40.3	2nd
Alternative C: Brooktrails Drive Extension	23.6	5th
Alternative G: Wild Oat Canyon	25.5	4th
Alternative H: Truck Scales	26	3rd
Alternative I: UPP Valley	41.8	1st

Alignment “I” and “B” are recommended for further environmental and engineering studies.

