Executive Summary
Wendell H. Ford Airport Access Road Scoping Study
Perry County, Kentucky

prepared for:

Kentucky Transportation Cabinet
District 10 - Jackson
Central Office - Division of Planning

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Palmer ENGINEERING

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

Wendell H. Ford Airport in Perry County is accessed via Wendell Ford Terminal Road (Terminal Road), a narrow two-lane facility with steep grades exceeding 16% in some locations. The roadway is also characterized by slope failures that have required extensive maintenance and repair. Due to the steepness of the grades and substandard curvature, fuel delivery trucks cannot deliver full loads of fuel to the airport. During winter months, even after treatment, the road conditions often remain so treacherous that the road and the airport are closed. With plans to extend the runway to better serve corporate customers and small cargo aircraft, such occurrences undermine the reliability of the airport to serve existing and future patrons. Furthermore, closing of the road isolates residents of nearly 150 homes that rely upon the road to access KY 15 and the community.

Improving access to the airport is needed to provide a safe travel route for both passenger cars and airport delivery vehicles and to maintain dependable air service at the facility.

Purpose and Need

The purpose of the project is to improve access to the Wendell H. Ford Airport in Hazard, Perry County, Kentucky. The need for this project arises from substandard conditions of the existing access road, including narrow lanes, little to no shoulders, steep grades, and slope failures. These geometric deficiencies limit fuel deliveries to the airport, especially during winter months, when road conditions sometimes become impassable, forcing closure of the road and the airport, and isolating area residents reliant on the road for access to KY 15, the principal arterial road that serves the area.

Project Development

Corridors for improving access to the airport were initially developed with several objectives in mind, including:

- Accommodate fully-loaded fuel trucks (48', five-axle semi-trailer) to transport aviation fuel to the airport at all times throughout the year;
- Avoid impacts to existing housing developments near the airport;
- Avoid impacts to any FAA required navigation equipment supporting airport operation;
- Avoid encroachment of the proposed access road on areas for potential runway or taxiway expansion;
- Meet a design speed of 35-40 mph with a maximum 10% grade (8% preferred) and have 11-foot lanes with 4-foot shoulders (see **Figure ES-1**).

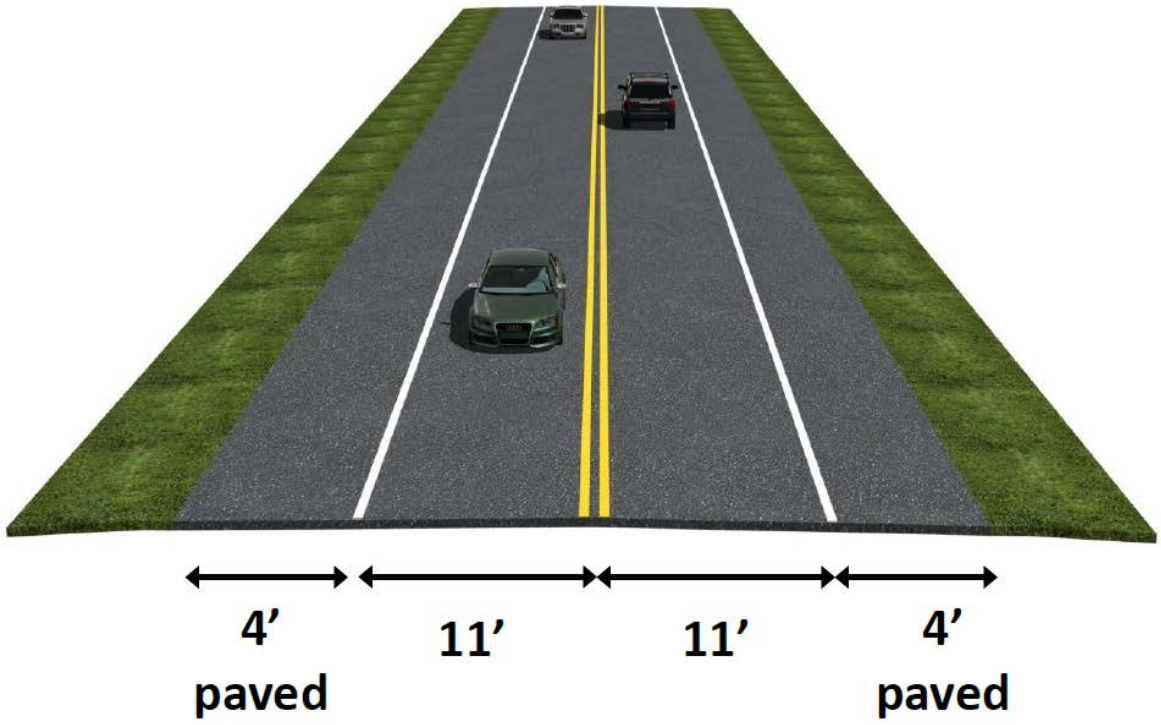

Figure ES-1: Typical Section

The existing intersection of Trus Joist Lane and KY 15, south of the airport, was identified as the location where the new access road, if constructed, would depart from KY 15. Four alternatives were initially developed, using maximum 10% grades and a 35 mph design speed (see **Figure ES-2**).

Alternatives 1, 2, and 3 all terminate at Fly By Hazard Road near a subdivision development along Terminal Road. Alternative 4 intersects with Fly By Hazard Road further to the east and continues northward to tie-in with Terminal Road just west of the airport, avoiding the subdivision. Alternatives 1 and 2 were dismissed due to their similarities with other alternatives. Alternative 5 was later developed with maximum 5% grades and a 40 mph design speed. Its alignment crosses between Alternatives 3 and 4 and is coincidental with Alternative 4 between Fly By Hazard Road and its terminus with Terminal Road near the airport.

Recommendations

Alternative 5 (see **Figure ES-3**) satisfies the Purpose and Need of the project to provide improved access to the airport and meets or exceeds the design objectives established for alternative development. The benefits of reduced grades and higher design speed can be recognized while avoiding routing traffic through the subdivision south of the airport and for less cost than the other alternatives (see **Table ES-1**). Should budget constraints dictate that

turn lanes on KY 15 be considered as a separate project, the table breaks out the impacts and costs of constructing this desirable improvement.

It is recommended that Alternative 5 be advanced to preliminary design for further study.

Table ES-1: Alternatives Comparison Summary

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	Alternative 3	Alternative 4	Alternative 5	KY 15 Turn Lanes
Length (miles)	1.22	1.85	1.74	0.37
Maximum Grade (%)	10	10	5	7
Design Speed (mph)	35	35	40	55
Net Earthwork	1,258,000	891,000	-164,000	-50,000
ROW Acquisitions	2	2	2	0
Neighborhood Impacts	Yes	No	No	No
Costs	$14,344,000	$18,052,000	$13,239,000	$780,000

*Construction costs include a contingency of 35%

**Costs for alternatives include adding left and right turn lanes on KY 15, broken-out in last column

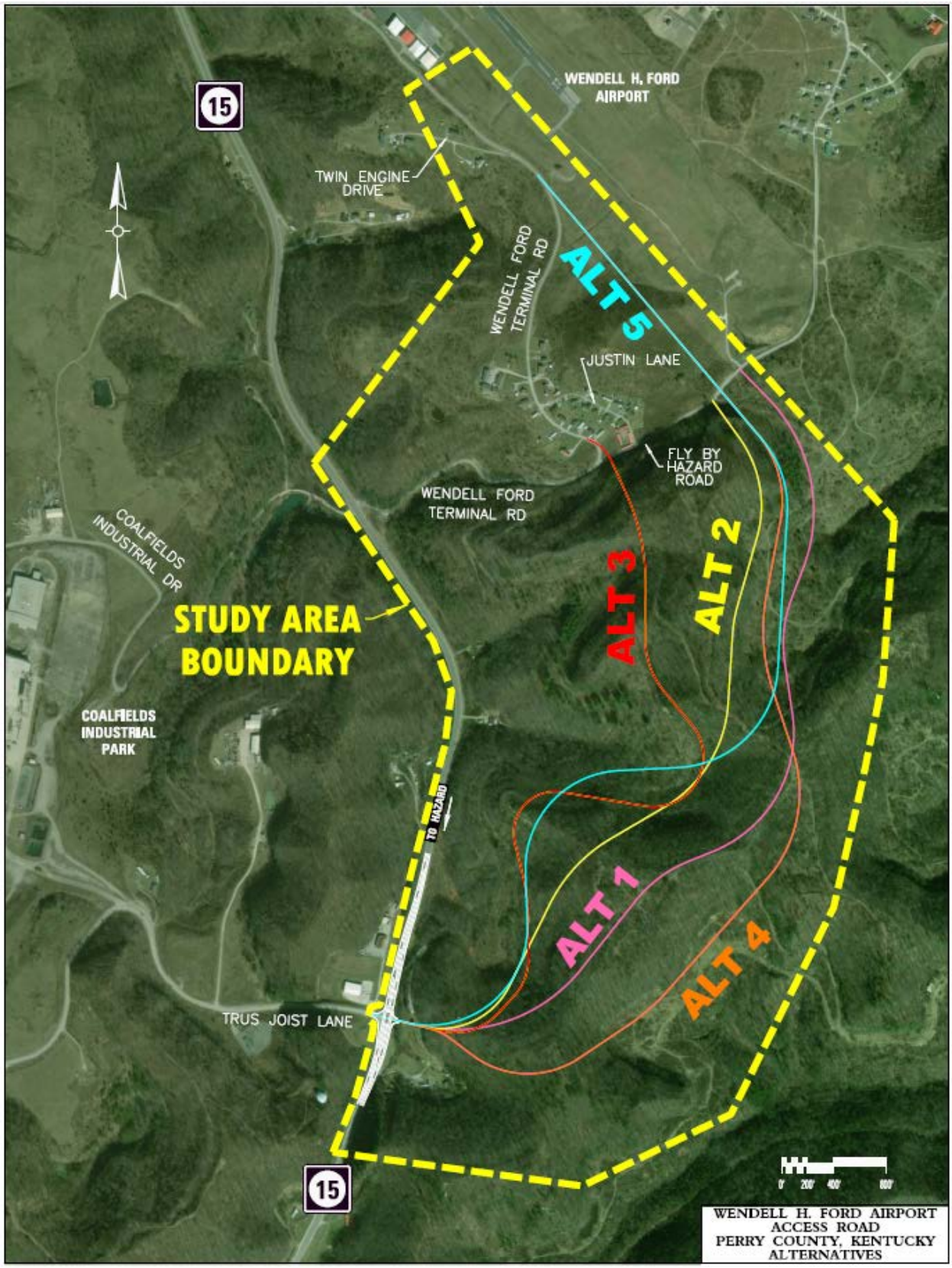

Figure ES-2: Study Area and Alternatives

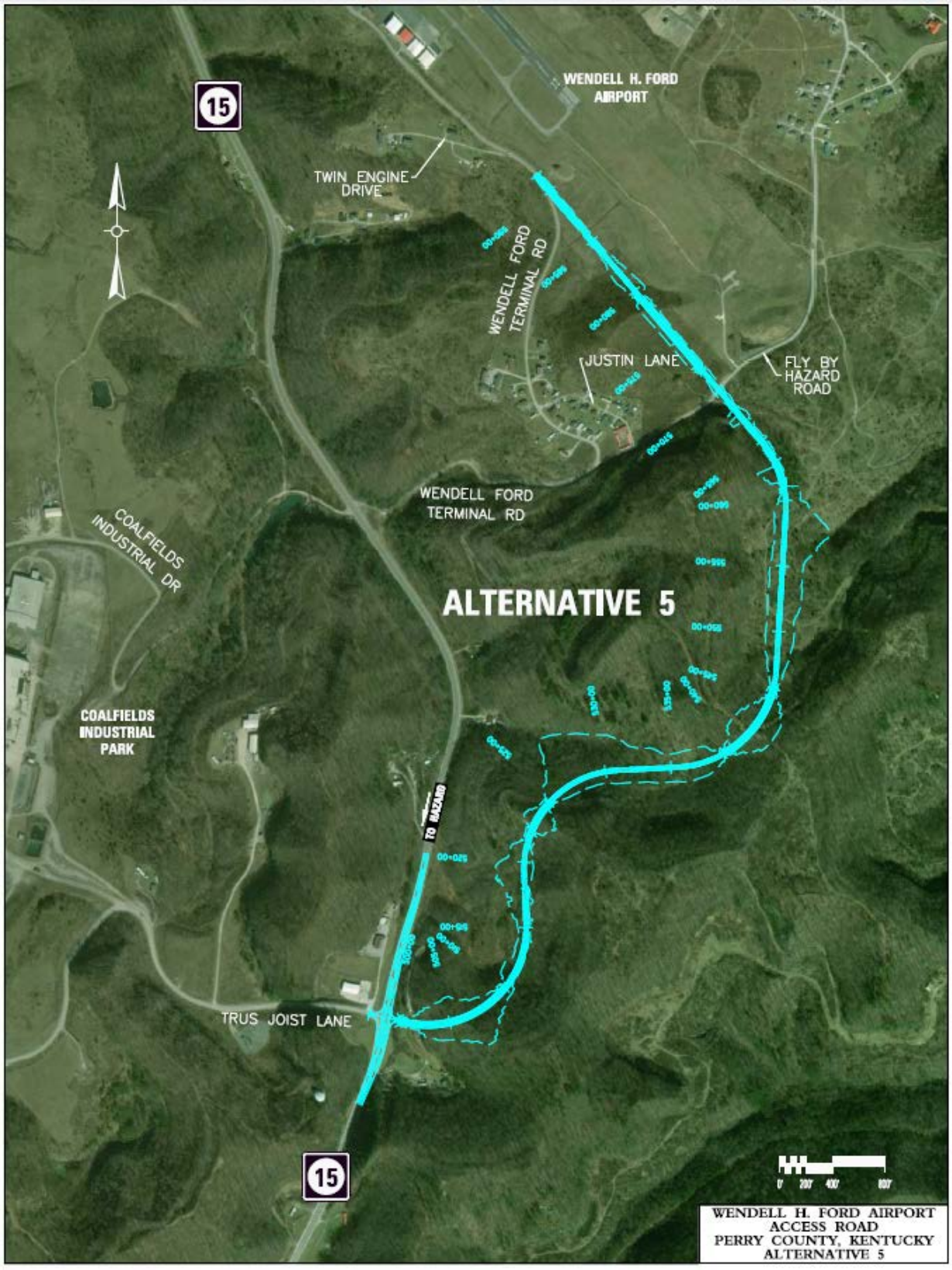

Figure ES-3: Alternative 5 (Preferred)

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