

**Town of Palmer Lake
Palmer Lake Traffic Impact Study
October 23, 2024**

Introduction

The Town of Palmer Lake is interested in annexing land in the southwest corner of the I-25/County Line Rd interchange in anticipation of a proposed Buc-ees gas station and convenience store. The developer has already hired an engineering firm to conduct a traffic impact study to gain approval and obtain an access permit from the relevant jurisdictions. The Town has requested that Stolfus & Associates, Inc. (Stolfus) aid the Town staff by performing traffic engineering support services. It is our understanding that the Town is looking for us to conduct an independent traffic impact study of the development to ensure that the developer will provide sufficient accommodations as to maintain acceptable traffic operations within the Town.

The study area is located within unincorporated El Paso County, however, once the annexation is completed, it will be fully under the jurisdiction of the Town of Palmer Lake. The proposed study area includes the following intersections:

- County Line Rd/Spruce Mountain Rd
- County Line Rd/Beacon Lite Rd
- County Line Rd /I-25 NB Ramps
- County Line Rd /I-25 SB Ramps
- Proposed Site Accesses

In addition to the intersections listed above, the segment of County Line Rd from I-25 to Spruce Mountain Rd will be evaluated in the study as well.

This task order identifies the general scope of work necessary to complete the following:

- Project Team Coordination and Meetings
- Data Collection
- Analysis of Existing & Build Scenario
- Review of Developer's Traffic Study
- Technical Documentation
- Project Management & Administration

Scope of Services

Work Element 1: Project Team Coordination and Meetings

Kick-off Meeting: Once notified, Stolfus will conduct a virtual meeting with Town staff, to discuss concerns, to establish project objectives and schedule, and to identify any additional information needed to complete the study.

Other Meetings: One agency coordination meeting is included in the scope. It is assumed that this meeting will involve a presentation of the traffic and safety analysis findings approach to a broader audience that may include Local Agencies (Douglas and El Paso Counties), CDOT R2,

or others. In addition, two coordination calls with Town staff have been included in the scope as well.

Meeting with Developer: The Town has indicated that the developer may be interested in meeting with Stolfus. As such, one meeting with the developer has been included in the scope.

Work Element 2: Data Collection

Stolfus will compile available data and collect the additional data needed to complete the study. Stolfus will coordinate with the Town of Palmer Lake, El Paso and Douglas Counties, and CDOT to identify any planned developments or roadway improvements in the vicinity of the site.

Stolfus will conduct turning movement counts (TMC) at the four study intersections and a 24-hour vehicle classification count in two locations along County Line Rd. Since Buc-ees typically experiences higher trip generation rates than a standard rest stop or travel plaza, TMC's will be collected at an existing Buc-ees in Johnstown, CO to more accurately forecast the development's trip generation.

Work Element 3: Traffic Analysis

Stolfus will evaluate the following five scenarios:

- Existing (year 2024)
- Opening Year No Build (year 2026)
- Opening Year Build (year 2026)
- Horizon Year No Build (year 2044)
- Horizon Year Build (year 2044)

The purpose of the existing and no build analyses (without the development) is to establish a baseline to compare to the build scenarios. Background future traffic forecasts (without the site development) will be developed for the study intersections and along County Line Rd based on existing traffic counts, traffic generated by future planned developments, and background traffic growth. Any operational concerns found in these analyses will be documented and recommendations for improvements to achieve acceptable operations will be made.

The traffic operations analyses will be conducted in accordance with the methodology prescribed in the Highway Capacity Manual (HCM) Seventh Edition. Weekday AM and PM peak hour analyses will be conducted to evaluate traffic operations and identify any areas of concern. Each study intersection will be evaluated using Synchro 11, with Highway Capacity Software (HCS) used to supplement any analysis if needed.

Stolfus will include the two interchange ramp terminals at the County Line Rd/I-25 interchange in the traffic evaluation. Recommendations will be made if operations are found to be unacceptable in any of the scenarios. The interchange analysis will be confined to the ramp terminals and will not include the merge and diverge sections. In discussions with CDOT R2, it was confirmed that the engineering firm conducting this traffic study on behalf of the developer will be responsible for performing an Intersection Control Assessment Tool (ICAT) for each side of the intersection. Stolfus will provide future volume forecasts, evaluate traffic operations, and

recommend improvements required to achieve acceptable operations at the ramp terminals. The analysis conducted by Stolfus at the interchange is not scoped to go beyond this.

Work Element 4: Review of Developer's Traffic Study

The developer has hired an engineering firm to prepare a traffic impact study for the proposed development. As part of this scope, Stolfus will review this study. The primary intent of the review will be to evaluate whether the trip generation forecast is appropriate, and whether the recommended improvements will be sufficient to maintain acceptable traffic operations within the Town.

Work Element 5: Technical Documentation

Stolfus will prepare a technical report to summarize the methods, assumptions, processes and results of our transportation planning and traffic analysis work associated with the project.

The technical report is anticipated to include the following information:

- Existing traffic analysis
- Future traffic forecasts
- Trip generation forecasts
- Detailed comparison of build and no build volume forecasts and traffic operations
- Improvements required from the developer to maintain acceptable traffic operations within the study area

Stolfus will prepare and submit a draft version of the technical report to the Town of Palmer Lake for review and comment. Comments on the draft memo will be incorporated into a final version. Stolfus will not work on or draft terms for the annexation of the land. All analysis and documentation will be confined to the traffic portion of the project.

Work Element 6: Project Administration and Management

Stolfus will review/process invoices, as well as provide other project administration/ management services (coordination and product review) throughout the duration of the project. It is anticipated that the project will take three months to complete, from signing of the contract to the final submittal of the study. Stolfus will be responsible for coordination of our work elements to meet the agreed-upon schedule with the Town of Palmer Lake.

Fee Summary

Stolfus proposes a fixed fee of \$33,930 to complete the Palmer Lake Traffic Impact Study, in accordance with the scope presented herein.

END OF SCOPE