

CHAPTER 1 – INTRODUCTION

The subject project was completed under Contract No. DTFH68-00-D-00002, as Task Order No. DTFH68-02-T-00018. The investigation and study was tasked to assess the application of advanced surveying and mapping technologies to typical project assignments completed by the Central Federal Lands Highway Division (CFLHD) of the Federal Highways Administration (FHWA). Particular emphasis was placed on ground-based laser scanning instruments for topographic mapping projects. Field demonstrations of two laser-scanning instruments were conducted over previously mapped segments of Bautista Canyon Road (CA PFH 224) in Riverside County, California. Professional publications and manufacture’s literature was reviewed to describe the different capabilities of the hardware and software studied.

A half-day seminar was developed and presented to personnel at the three Federal Lands Highway Divisions (FLHD). This seminar provided an overview of available surveying and mapping technologies, together with advantages and disadvantages as applied to typical project assignments. Copies of the slides presented in this training are included in Appendix A.

