1 INTRODUCTION

At 1900 King Street, Alexandria, Va., the King Street Metro station is located within an expanding mixed-use district on a confined site between and bounded by King Street and Duke Street to the north and south, respectively, with CSX railroad and Diagonal Road bounding it from the west and east, respectively (see **Figure 1-1**). The King Street station serves the Blue Line (Franconia-Springfield to Largo Town Center) and Yellow Line (Huntington to Mt. Vernon / Convention Center) and is an essential transfer point for rail-bus services regionally and within the City of Alexandria. Additionally, the station provides access to the adjacent Alexandria Union Station that provides both Amtrak and Virginia Railway Express (VRE) services.

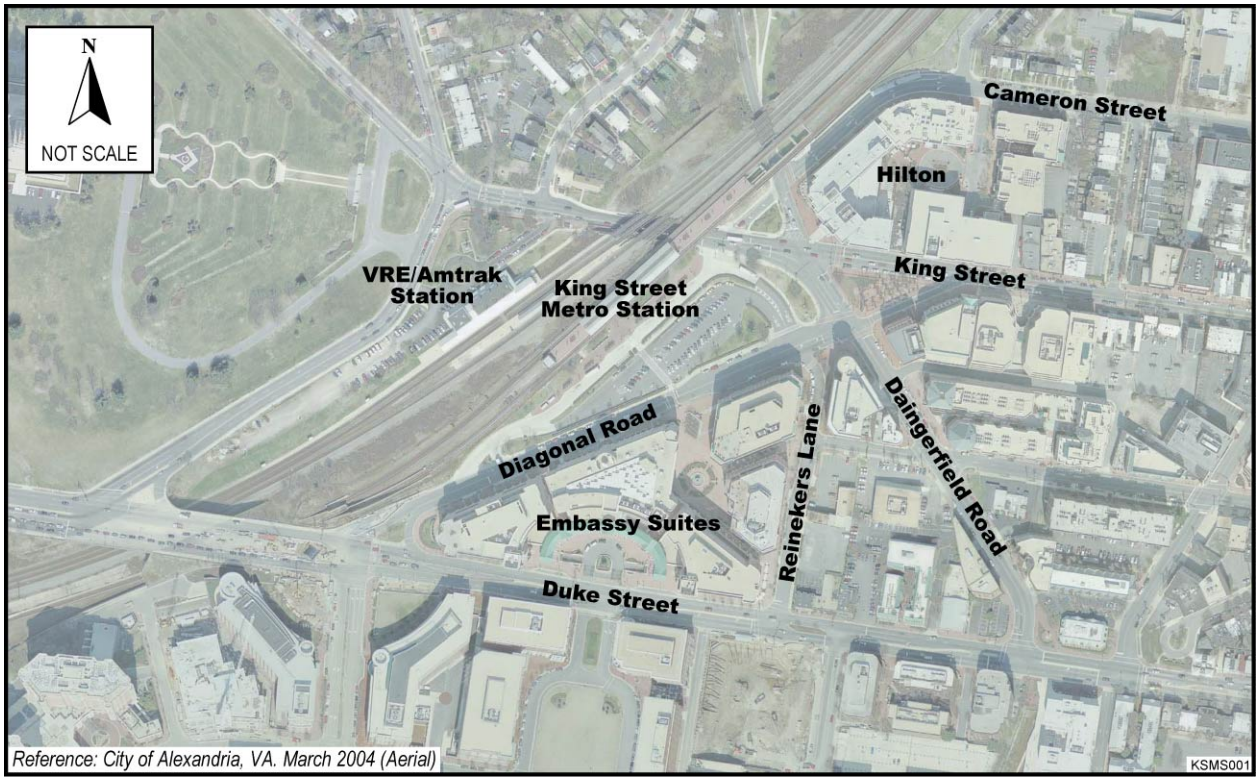

Figure 1-1: Station Area Map

Over the past few years, the station has experienced significant growth in bus service and overall ridership, due in part not only to increased development around the station, but also to increasing mode shares and the increase in bus services at the station site. This increased ridership and corresponding increase in pedestrian movements at the station can be attributed partially to the relocation of the U.S. Patent and Trade Office (PTO) to a new headquarters only 1,600 feet southwest of the station. In terms of transportation access to the site, Metrobus and DASH, along with private shuttle bus services, have all expanded service at the station. DASH has plans for more service expansion in the near future.

1.1 Study Objective

Improving access to and from the Metrorail system is critical to meeting ridership goals and serving customer needs. Potential riders may be lost if access constraints mean that the door-to-door journey involving Metro becomes more time consuming, unreliable or frustrating than an alternative means of travel, such as driving. Ultimately, the goal of improving station access is to attract additional customers by: enhancing the pedestrian experience with a safer and more attractive walking environment; maintaining a good level of service for transit access to the site, which includes buses and other transit vehicles; accommodating future access needs, including bus service expansion and making transit use more convenient and attractive as a travel mode.

The purpose of this study is to provide conceptual planning and engineering solutions for short term and long term solutions for site access enhancements at the King Street Metrorail Station. More specifically, this study will:

- Identify deficiencies and conflicts between modes of arrival at the station
- Analyze traffic patterns and access routes to the station area
- Evaluate and enhance pedestrian connections and accessibility
- Evaluate and improve bus capacity
- Develop design alternatives demonstrating improvements for buses, pedestrians, bicycles, and vehicular traffic accessing the station
- Identify opportunities to increase and enhance multi-modal connectivity

To accomplish these tasks, this study will examine constraints and opportunities culminating in several short- and long-term design concepts for station access and improvements to pedestrian and bus facilities, while increasing capacity and customer amenities. In addition, the study will make recommendations to improve pedestrian connections between Metrorail and Union Station.

1.2 Relationship to Other Studies

In response to concerns over increased bus demand, poor operating conditions and an unsafe walking environment at the station, the Washington Metropolitan Area Transit Authority (WMATA) conducted a pedestrian access study in 1999 for the King Street Metrorail and Amtrak/VRE stations for the City of Alexandria. The 1999 study's intent was to develop a preliminary range of possible pedestrian access improvements with the City of Alexandria selecting those most feasible strategies for further development. The improvements suggested included improving pedestrian access by concentrating pedestrian paths and improving crosswalks, increasing signage and wayfinding at the station, improving the bus service accessing the station, providing better linkages to development on Cameron Street, extending the station platform to a new north station entrance, providing a bus bay canopy, and building a new pedestrian tunnel to Union Station and another tunnel under Duke Street. Several of the improvements have been implemented, including the extension of the station platform and construction of a new station entrance and the construction of a new pedestrian tunnel under Duke Street. The other recommendations not yet implemented are assessed in this report for feasibility.