

### 3 STATION SITE PLAN ALTERNATIVES

There are two primary alternatives under consideration for improving access to King Street Station. This section presents the alternatives and discusses the pros and cons associated with each concept. Other alternatives that were developed as part of the process, but later dropped from consideration, are included in the Appendix.

From a design perspective, several principles were used in developing the concepts. First, all alternatives were designed to create the maximum number of bus bays to accommodate the planned increase in DASH service. Second, pedestrian improvements are included in all concepts, including wider sidewalks, providing better customer amenities such as canopies, and, where possible, reducing pedestrian conflicts with buses and automobile traffic. Third, the concepts attempt to separate pedestrian and vehicular traffic to the greatest extent possible given the constraints of the site. Fourth, the concepts retain the K&R access modes currently provided, although re-configuration of these facilities is necessary. As mentioned, the demand for short-term transit parking at King Street station is not as high as the number of spaces being currently provided since most spaces are occupied by non-transit users. The proposed site plans are designed to meet the goals for expanding the bus facilities with the requirements of the WMATA Station Site and Access Planning Manual to the greatest extent possible.

#### 3.1 Alternative A – Double Row Bus Bay Construction

The concept shown in **Figure 3-1**, and in greater detail in **Figure 3-2**, provides additional bus facilities with a double row bus bay array and a waiting platform for K&R passengers.

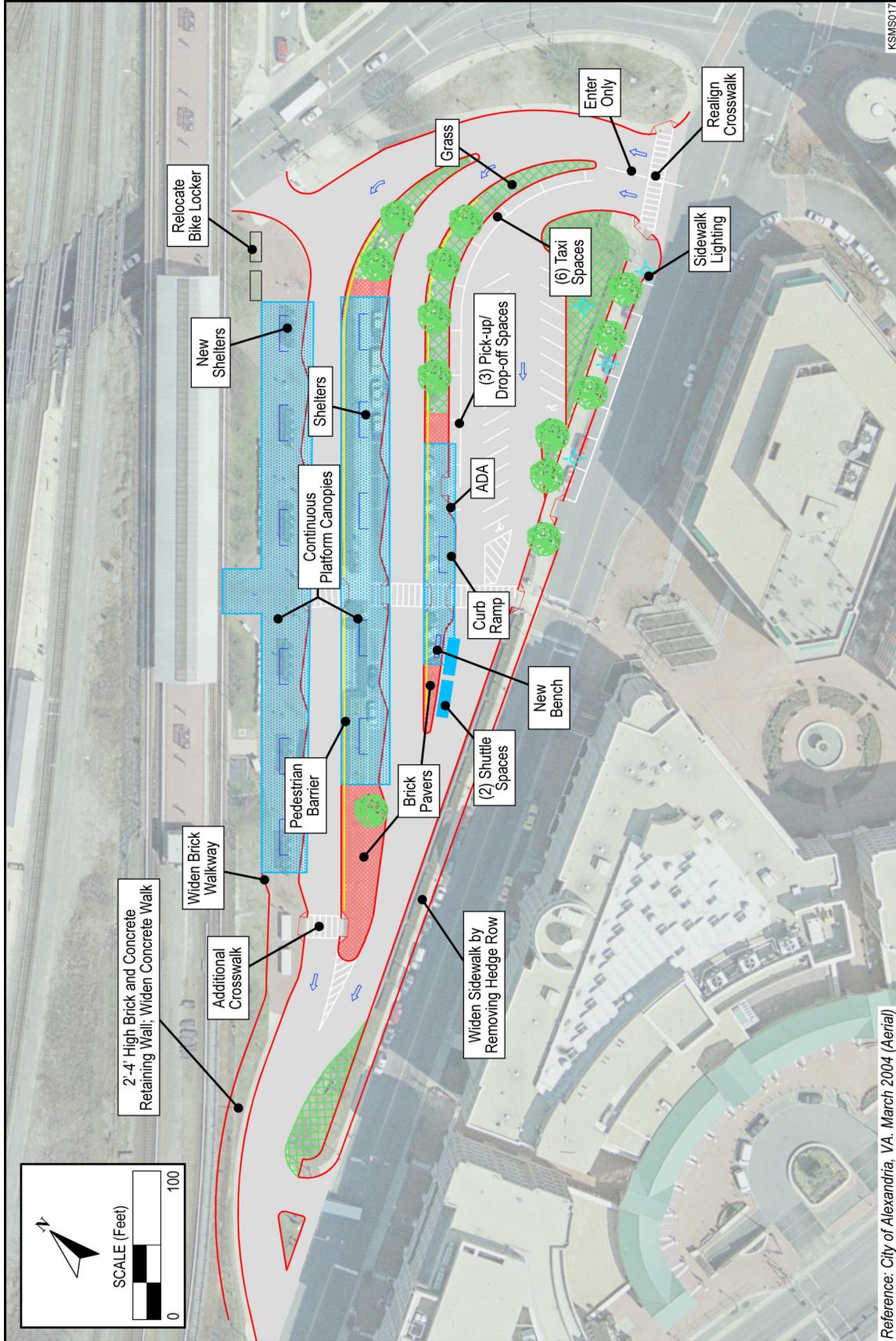
##### 3.1.1 Access and Circulation

In this alternative, traffic patterns for access and egress would remain the same as existing. There would be a combined Kiss & Ride and bus entrance from Diagonal Road and an entrance on King Street for buses only. In terms of route planning, the King Street entrance would not provide full access to the new bus bays, these would have to be accessed via the Diagonal Road entrance. Flows through the station are similar with one combined exit point on Diagonal Road. In general pedestrian and bus routes would remain the same and the current crosswalks would remain in the same general vicinity. The potential narrowing of the cross section of Diagonal Road could be used to reduce crossing distances in this location, and some re-alignment of crosswalks is proposed. In addition, a series of pedestrian barriers are proposed to increase safety on the site and channel pedestrians into well-marked crosswalks.

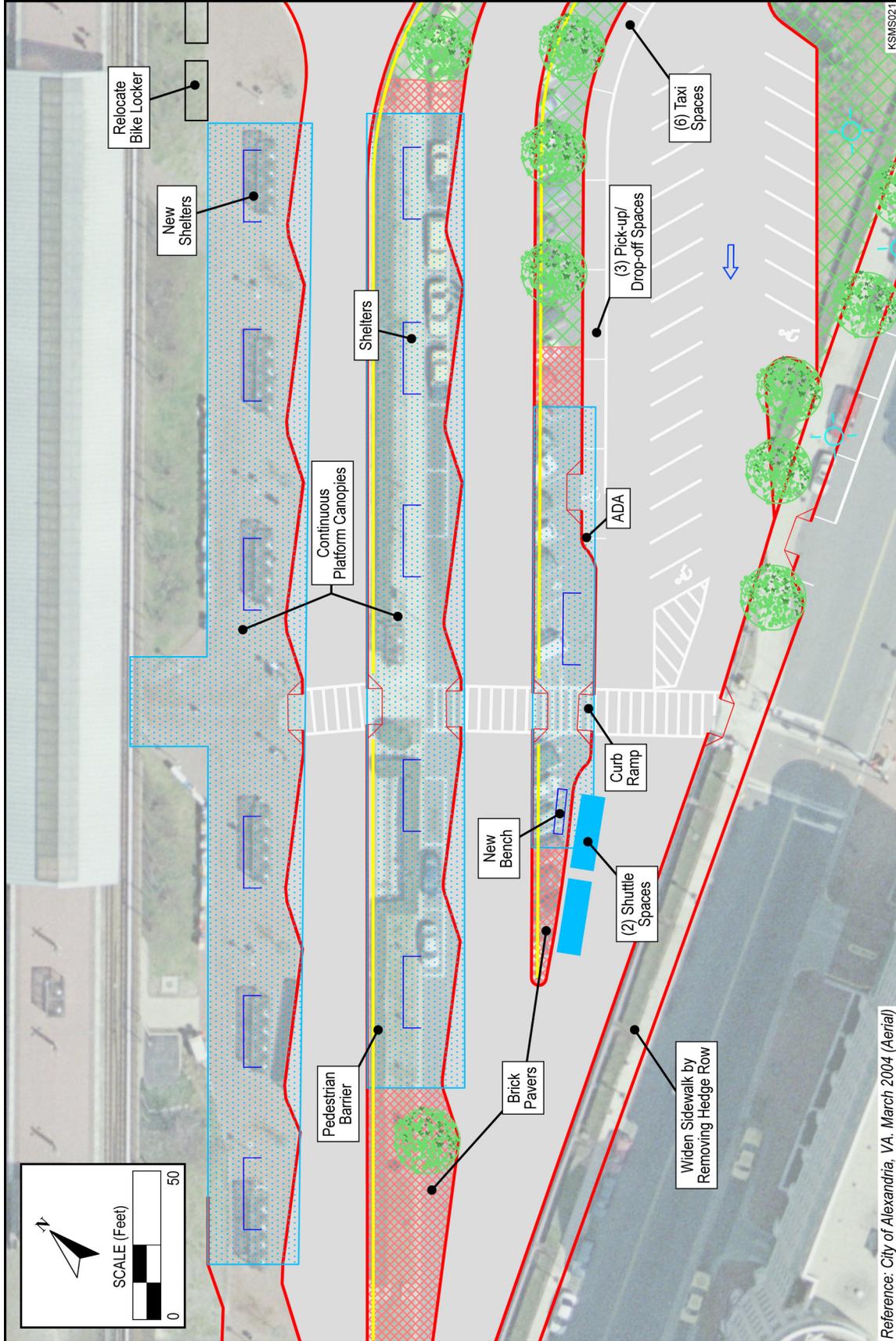
##### 3.1.2 Bus Facilities

The concept provides eleven bays with an additional five bus bays on the site, which is projected to meet future demand at the station, assuming a maximum six-minute headway. The physical characteristics of the new bus facilities are similar to the existing facilities that are to remain.

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**Figure 3-1: WMATA Proposed Reconfigured Site Facilities – Alternative A**



**Figure 3-2: WMATA Proposed Reconfigured Site Facilities – Alternative A – Bus and Kiss & Ride Facilities**

Due to site constraints, the bus facilities could not be realigned to allow internal re-circulation. A formal bus layover area has not been included, although bus layover can occur in a similar location as in the current configuration if needed.

### 3.1.3 Bicycle Facilities

The bicycle lockers would be relocated from the current location to the opposite end of the existing bus bay platform, out of the pedestrian pathways.

### 3.1.4 Kiss & Ride Facilities

The K&R facility is reconfigured, with a new waiting platform and some reduction in the number of existing spaces. A total of 24 spaces would be provided for short-term parking, which would exceed the quantities shown in Table 2-5 with enough curbside space to accommodate two shuttles, three pick-up/drop-off spaces, and six taxi spaces. The plan would eliminate one row of parking and one access lane, though additional taxi space would be located at the new curblines on Diagonal Road.

### 3.1.5 Amenities

Station site amenities for transit customers include new waiting shelters in all bus bays and the K&R facility and continuous walkway canopies are provided, extending the length of the curb zones in the bus bays and the K&R facility to provide weather protection and to meet Metro standard design criteria.

## 3.2 Alternative B - Double Row Bus Bay with Separate Kiss & Ride Access

The site plan for Alternative B shown in **Figure 3-3** and **Figure 3-4** is similar to Alternative A but the Kiss & Ride facility has separate access to and from Diagonal Road.

### 3.2.1 Access and Circulation

In this alternative, only buses and private shuttles would use the existing entrance on Diagonal Road. Access to the K&R facility would occur at a new T-intersection at the existing mid-block pedestrian crosswalk on Diagonal Road. The new entrance to the K&R would require an additional traffic signal, timed to work in conjunction with the existing pedestrian crossing signal. All automobile access and traffic is separate from bus access, an important goal in station site and access planning.

This alternative provides some additional improvements for pedestrian access by reducing the number of crossings at K&R travel lanes, reducing the potential for pedestrian and automobile conflicts. The reconfiguration of the cross section of Diagonal Road will reduce crossing distances in this location, and some re-alignment of crosswalks is proposed. In addition, a series of pedestrian barriers are proposed to increase safety on the site and channel pedestrians into well-marked crosswalks.

### 3.2.2 Bus Facilities

Bus facilities are similar to Alternative A with the exception of the shared travel lane for private shuttles adjacent to the new bus bays.

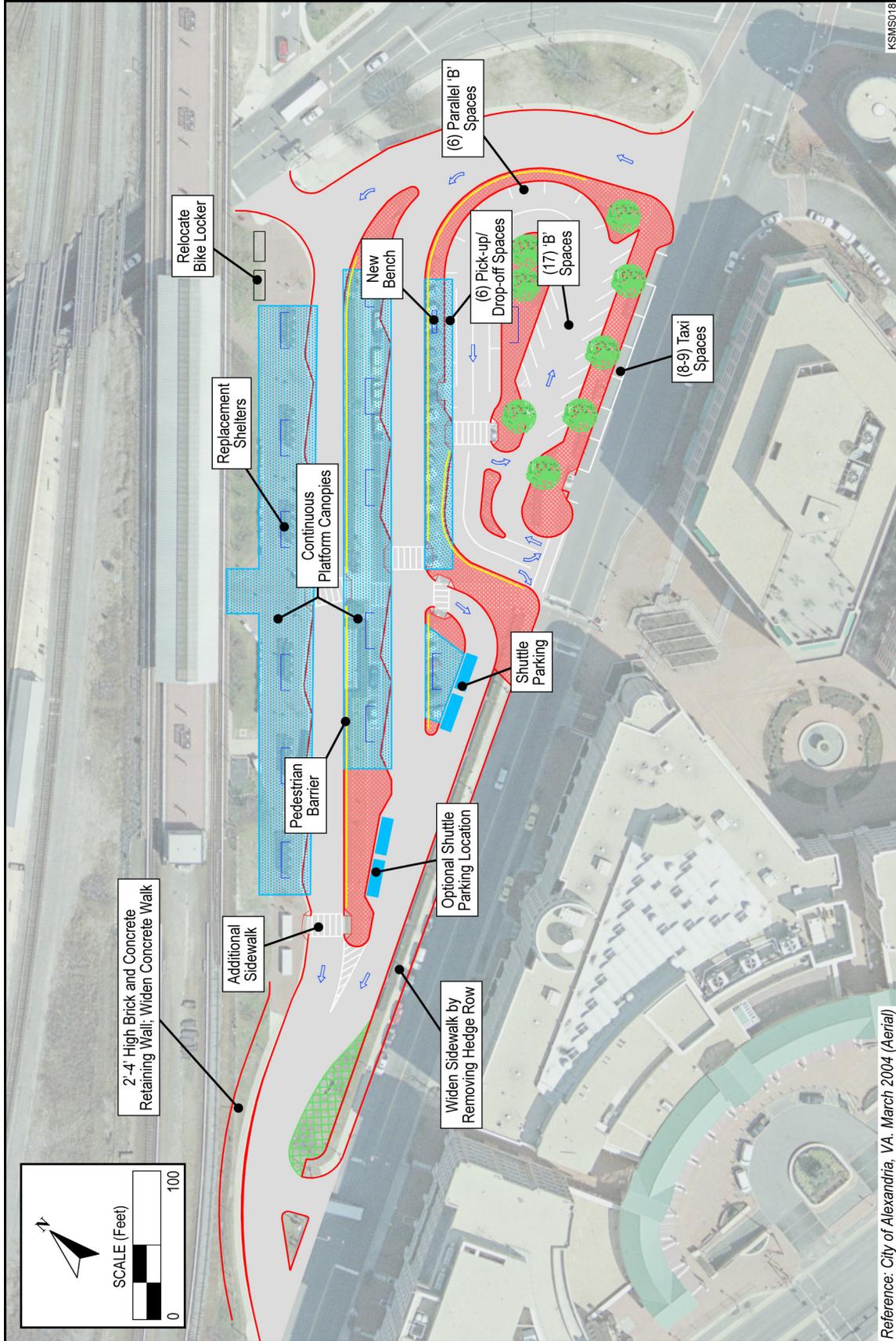
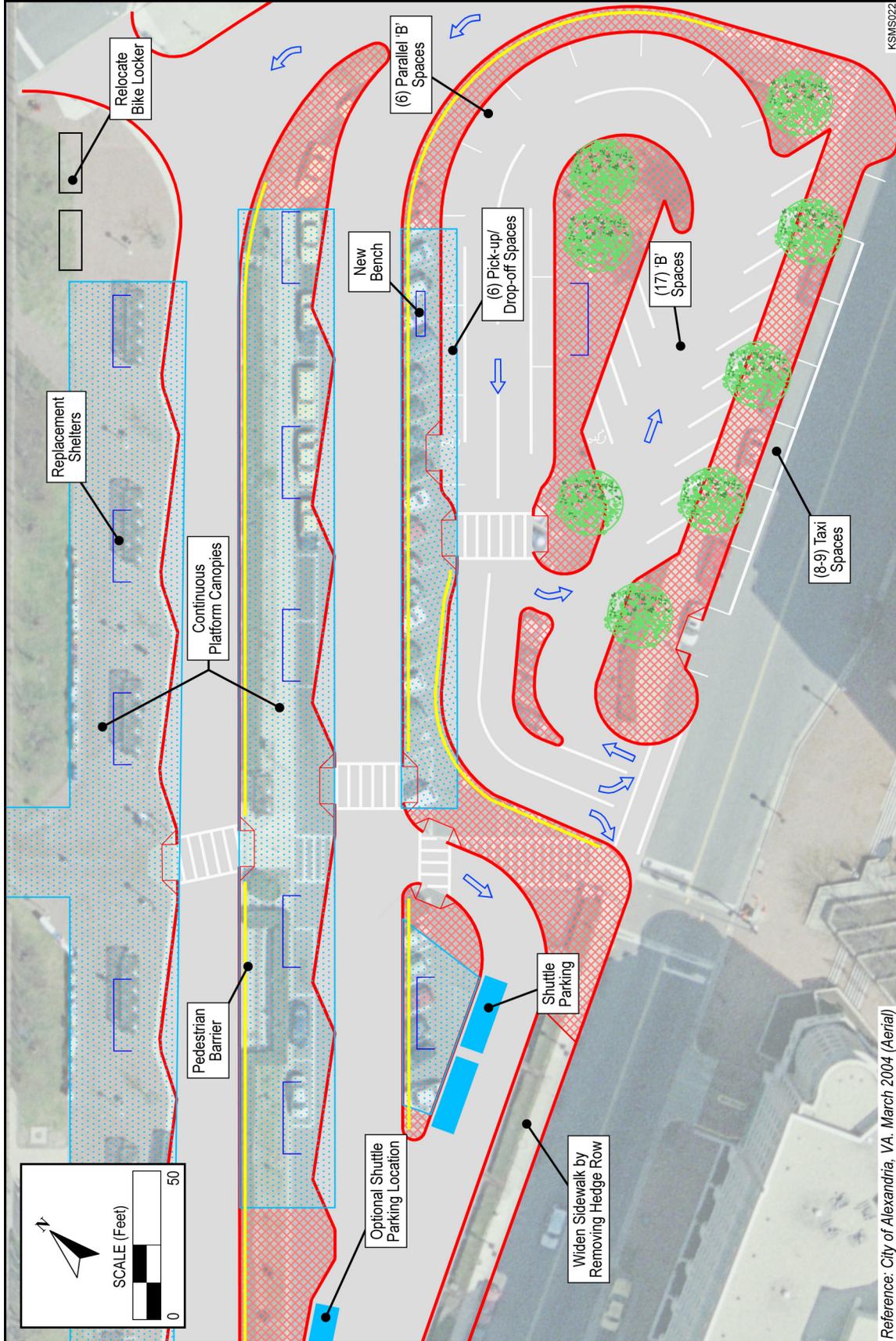


Figure 3-3: WMATA Proposed Reconfigured Site Facilities – Alternative B

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**Figure 3-4: WMATA Proposed Reconfigured Site Facilities – Alternative B – Bus and Kiss and Ride Facilities**

### 3.2.3 Bicycle Facilities

As in Alternative A, bicycle lockers will be relocated closer to the station entrance and out of the pedestrian pathways.

### 3.2.4 Kiss & Ride Facilities

This concept includes a major re-design of the K&R facility, with a greater reduction of short-term parking. This alternative would allow for re-circulation on site, another goal of station site planning. The spaces that are provided meet 2030 demand and include (17) short-term pull-in parking, six short-term parallel-parking, four shuttle and six pick-up/drop-off spaces. The taxi stands would be relocated to the new curblineline on Diagonal Road.

Including the shuttle bus operations in the bus facility will reduce potential congestion in the K&R facility.

### 3.2.5 Amenities

Metro standard design criteria were followed with this station site plan, including new waiting shelters and walkway canopies in all bus bays and the K&R facility.

## 3.3 Alternative Comparison / Plan Analysis

Table 3-1 lists the pros and cons associated with the two concepts under consideration. All of these should be considered prior to implementation.

**Table 3-1:** King Street Alternatives Comparison

Alternative A	Alternative B
<ul style="list-style-type: none"> <li>• Meets demand for bus access – increases bus bays significantly</li> <li>• Improves pedestrian routes by increasing sidewalk widths and relocating bicycle lockers</li> <li>• Provides enhanced station environment by provision of canopies</li> <li>• Provides adequate storage on curbside for shuttles, taxis, and pick-up and drop-off facilities</li> <li>• Requires less overall construction as alternative is similar in configuration to existing station</li> <li>• Does not include re-circulation for either buses or cars</li> <li>• Has less impact on number of short-term parking spaces than Alternative B</li> </ul>	<ul style="list-style-type: none"> <li>• Meets demand for bus access – increases bus bays significantly</li> <li>• Improves pedestrian routes by increasing sidewalk widths and relocating bicycle lockers</li> <li>• Provides enhanced station environment by provision of canopies</li> <li>• Provides adequate storage on curbside for shuttles, taxis, and pick-up and drop-off facilities</li> <li>• Requires more construction as re-design of K&amp;R facility</li> <li>• Provides more protected pedestrian pathway than Alternative A</li> <li>• Does not include re-circulation for buses, but does include re-circulation for cars</li> <li>• Creation of new entrance creates more delay on Diagonal Road in comparison to Alternative A</li> <li>• Places taxi stands farther away than existing condition</li> </ul>