

1 Introduction

Since opening in 1908, Washington, D.C.'s (D.C.) Union Station has been a key transportation and retail hub in the regional and national infrastructure. Serving tens of thousands of travelers each day, to points as close as the Virginia and Maryland suburbs and as far as Toronto and Los Angeles, Union Station stands as a proud reminder of renowned architect Daniel Burnham's work.

The station is located near several of D.C.'s major roadway corridors, including Massachusetts Avenue, North Capitol Street, H Street, Constitution Avenue, and Interstate 395; is served by local, commuter, and tour bus services; and contains a Metrorail station, as well as 20 commuter and intercity rail tracks. Yet, because of its location and intermodal transportation services, perhaps the most visible mode of travel at Union Station is walking.

Pedestrians can be observed traveling to and from the station, transferring between transportation modes, shopping, and visiting. Bicycle travel is important as well, as Union Station serves as the southern terminus of the Metropolitan Branch Trail and will soon be

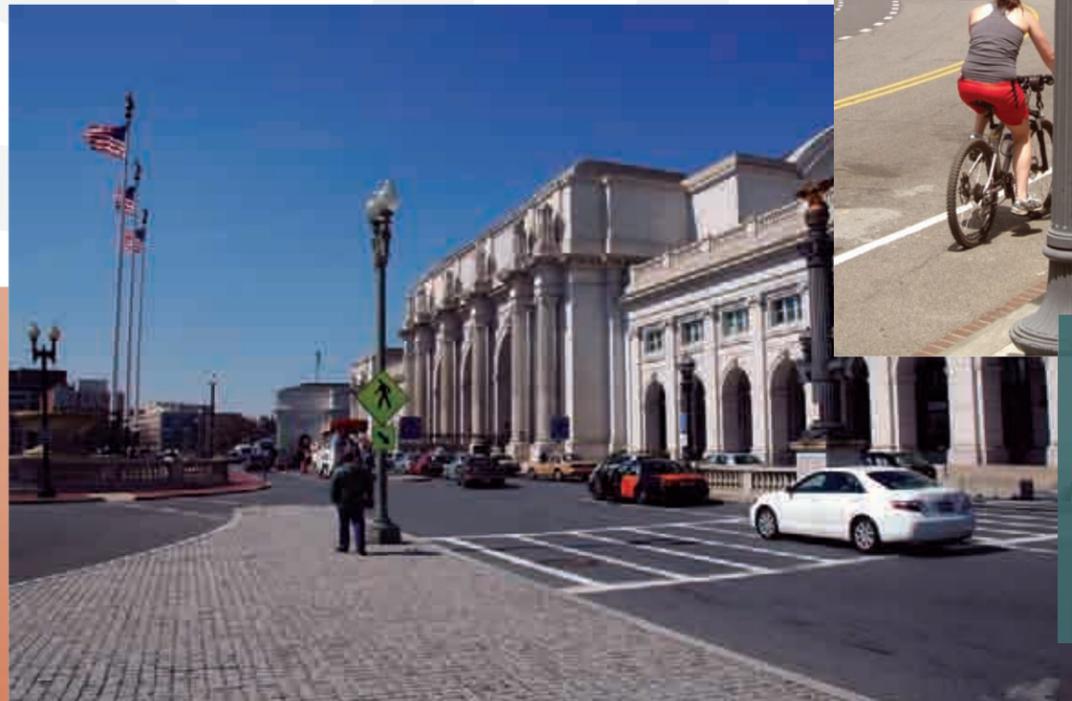


the location of a full-service Bikestation facility that has been planned and designed and will be operated by the non-profit organization Bikestation.

Annually, Union Station serves the nation's passenger rail system by accommodating more than five million riders. A typical day at the station sees more than 45,000 commuting trips for residents of the D.C. region, via both rail and bus. Additionally, Union Station is the Washington Metrorail system's busiest station, serving approximately 35,000 riders each weekday.

During peak tourist times, Union Station is a primary destination and embarkation area for tour buses and sightseeing services — part of the overall 32 million annual visitors to this historic tourist and transportation hub.

Given the critical role Union Station plays in providing transportation options to visitors and commuters alike, it is important to assess the station's continued ability to meet the needs of its users. To do this, a comprehensive analysis of facilities, modes, and corresponding user demands was undertaken. The results of this analysis include recommended improvements to accommodate future growth in and around the station, as well as the larger transportation network in which it plays a vital part.



View from the east side of Union Station (left) and the Metropolitan Branch Trail on First Street NE (right).



Existing Amtrak concourse (above) and Columbus Plaza traffic (below).

1.1 Purpose and Need

With transportation concerns and needs becoming increasingly more apparent in and around Union Station, the District of Columbia Department of Transportation (DDOT) initiated the Union Station Intermodal Transportation Center (USITC) Feasibility Study to evaluate:

- Growth in Union Station’s usage across all modes of transportation, including Amtrak intercity rail, the Maryland Area Regional Commuter (MARC) and Virginia Railway Express (VRE) commuter rail, and Metrorail and Metrobus;
- The need to examine the feasibility of improvements under consideration by various stakeholders at Union Station, including:
 - construction of a new rail passenger concourse for rail operations
 - upgrades to the Amtrak passenger concourse
 - new/improved pedestrian connections between Union Station and H Street
 - integration of commercial intercity bus service
 - tour bus parking needs and
 - integration of new streetcar services;
- The need to assess concerns for regional emergency evacuation;
- The need to assess proposed concepts for intermodal transportation facilities as part of the 3.0 million square foot mixed-use Akridge development (known as Burnham Place) for the 15 acres of air rights over the existing railroad tracks; and
- The need to assess transportation impacts of potential commercial and/or residential development in and near Union Station, including the Burnham Place development and other nearby growth areas.

Consequently, the Union Station Intermodal Transportation Center (USITC) Feasibility Study addresses existing needs and future demands, including:

- Identification of existing internal and external deficiencies and opportunities for improvement at the station, including issues related to regional emergency evacuation;
- Identification and quantification of future growth plans for all transportation modes and uses at the station; and
- Development of integrated and feasible recommendations for both the existing facility and construction of a potential new development (Burnham Place) on the adjacent air rights over existing rail tracks.

This study was developed with the participation of a diverse set of stakeholders including residents, property owners, and local and government organizations. The USITC Feasibility Study identifies environmental studies that would be needed in the event that recommended improvements are approved for implementation and includes a review of environmental impacts to the level of detail necessary to determine feasibility of proposed development.

1.2 Framework Goals and Principles

To guide the future development in and around Union Station, a planning context has been created that consists of overarching framework goals, planning principles, and needs that have been identified as part of the planning and public participation process. The relationship between the planning framework goals and principles is shown in **Table 1-1**.

Table 1-1 Planning Framework Goals and Planning Principles

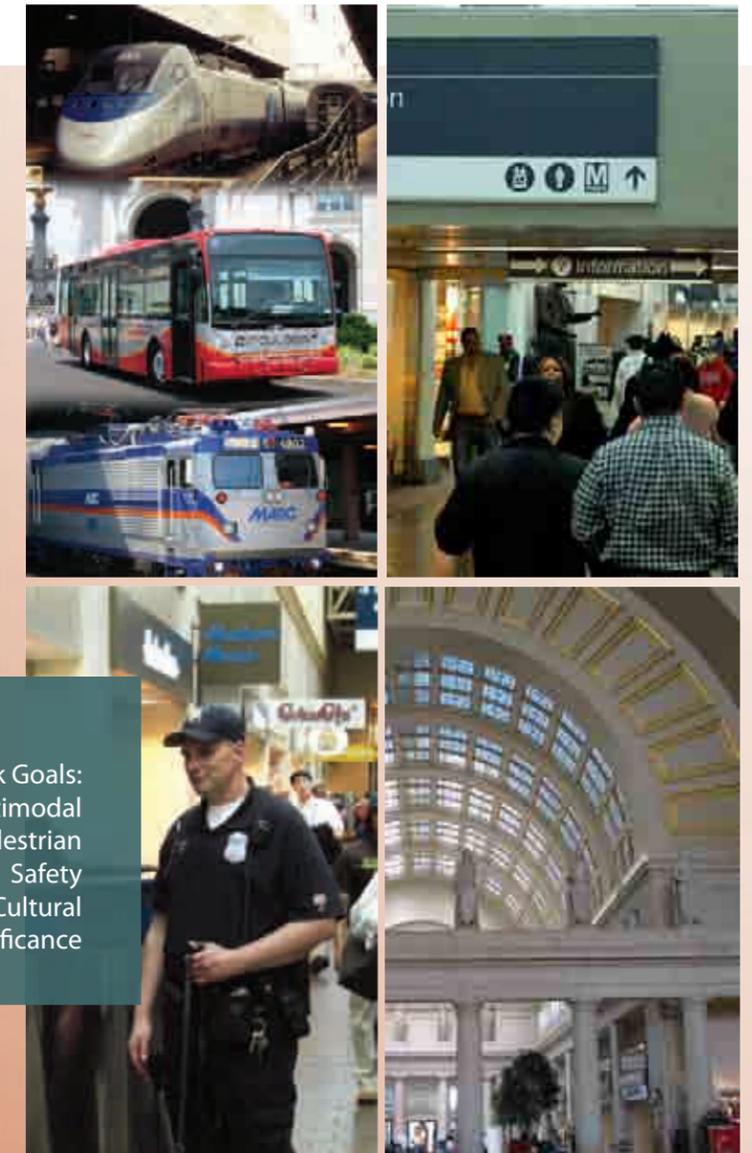
Planning Framework Goals		Planning Principles
1	Maintain and enhance Union Station as a multi-modal transportation hub.	Transportation First
		Connectivity
2	Promote Union Station as a fluid pedestrian environment that supports comprehensive connectivity.	Pedestrian Priority
		Signage
3	Ensure enhanced safety and security in and around the station.	Safety and Security
4	Respect the architectural, cultural, and regional significance of the historic station.	Heritage Preservation
		Neighborhood Integration

Goal 1: Maintain and enhance Union Station as a multi-modal transportation hub. This goal recognizes Union Station’s current role as an intermodal hub for every mode of ground transportation in the region. Serving this transportation function and implementing improvements to serve it

even better are of crucial importance. Union Station is part of a “neighborhood” — one that consists of both interior and exterior spaces where people live, work, shop, socialize, recreate, and learn. Thus, planning efforts must recognize this context and ensure that this important hub is fully integrated with the overall transportation system as well as the immediately surrounding areas, by creating connectivity within and around the transportation system that emphasizes vertical and horizontal connections to transportation options, retail spaces, and service functions and ensures sufficient capacity for all modes of travel.

Goal 2: Promote Union Station as a fluid pedestrian environment that supports comprehensive interior and exterior connectivity.

Goal 2 emphasizes that the Union Station neighborhood is a pedestrian-scale environment: people walk to work at nearby government office buildings and many of the new office buildings in the North of Massachusetts Avenue Business Improvement District (NoMa BID); tourists walk to the U.S. Capitol; and commuters walk from commuter rail lines to transfer to Metrorail or



Framework Goals:
Multimodal Hub, Pedestrian Environment, Safety & Security, Cultural Significance

Metrobus. Consequently, safe and efficient pedestrian movement in and near the station is an essential part of the planning framework. Further, as Union Station is the region's most important intermodal transfer point and these transfers are made on foot, serving pedestrian travel with logical connections, sufficient capacities, and overall efficiencies is the core of its functionality. Maintaining efficient pedestrian movement throughout Union Station requires implementing a signage program with a prominent and consistent look that includes elements such as international signage, new technologies, and easily recognizable symbols (including Braille).

Goal 3: Ensure enhanced safety and security in and around the station. Safety and security are of paramount importance in today's world. Systems that implement these measures are most effective and efficient when fully integrated into improvement and expansion plans from day one. For instance, providing passengers with a clearly identified route of exit is as critical in emergency situations as in daily operations, as the goal during any emergency is to keep the system functioning as close to normal as possible. Planning for safety, through flexible space designs, built-in redundancies, and accommodation of existing and future technologies, also helps to keep the station operating smoothly.

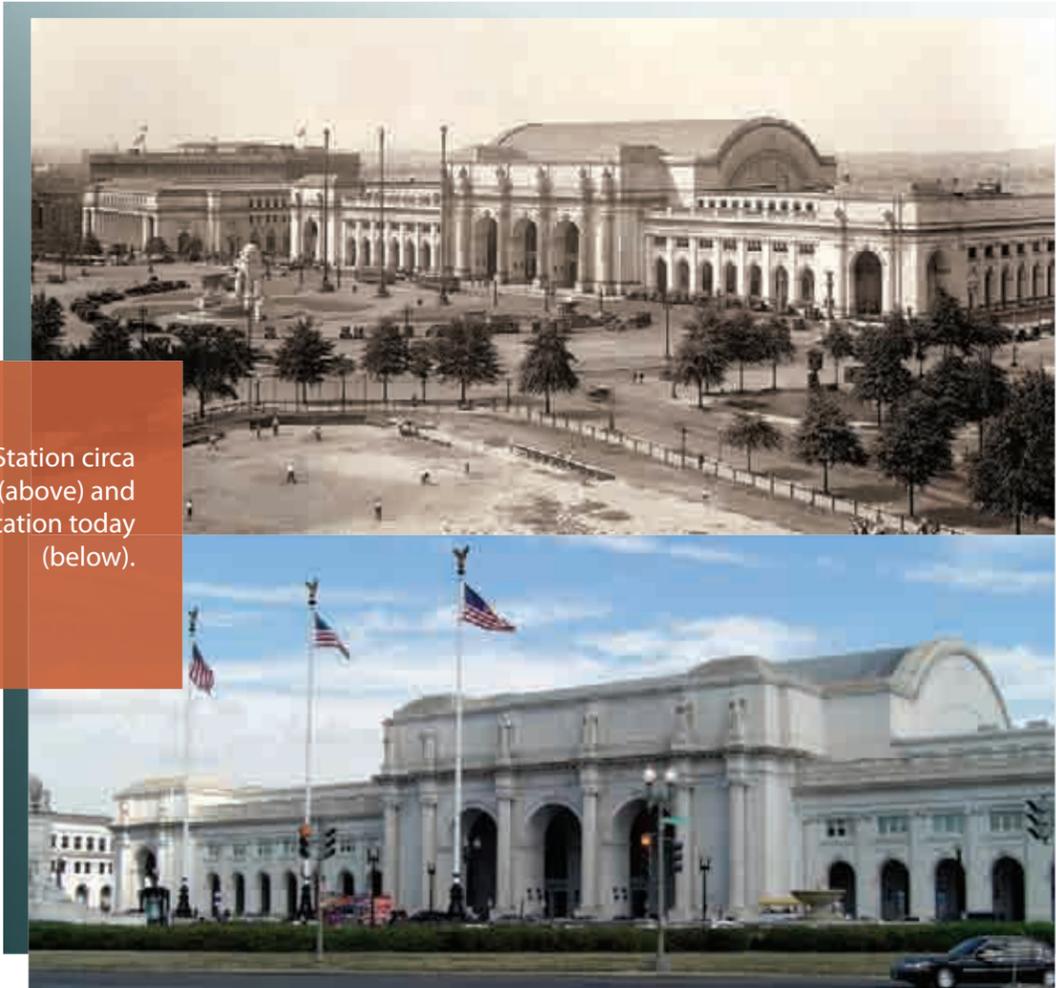
Goal 4: Respect the architectural, cultural and regional significance of the historic station. Goal 4 recognizes the importance of Union Station's environment and the need for ongoing stewardship as improvements are made. Ensuring the preservation of the historic station as part of any improvement is essential in supporting the historic character of both the station and the surrounding neighborhood. Thus, all enumerated improvement plans at Union Station must consider its historic value and place within the neighborhood, which includes federal facilities such as the U.S. Capitol and the Thurgood Marshall Federal Judiciary Building, major office buildings, tourist attractions, retail areas, and residential areas.

1.3 Identified Needs

The needs that have been identified in the planning process to date help serve as criteria for how the USITC framework goals and planning principles can be achieved. It is possible for multiple needs to connect with a given planning principle and it is equally feasible for multiple planning principles to relate to the same framework goal. Each need has been assigned a symbol that will be carried through the rest of this study and will help build context for recommended improvements to Union Station.

- Capacity requirements refer to a given space's ability to hold a certain number of people; this will be a critical need as development ensues in and around Union Station.

Union Station circa 1920 (above) and Union Station today (below).



- Modal connections and pedestrian connections are interrelated. The ease with which passengers can transfer from one mode of transportation to another is dependent on proximity and linkages between modes. However, modal transfer is accomplished primarily through networks of walkways, tunnels, and crosswalks that enable pedestrians to connect with their chosen modes.



- Safety is defined by the avoidance of physical incidents through facility design. Eliminating physical gaps between modes and boarding/alighting platforms is an example of factoring safety into design. Security is maintained by the station's avoidance of incidents caused by man-made emergency circumstances. Installing security cameras to detect and deter threats is an example of proactive security.



- Historic character and preservation goes to the heart of protecting Union Station's role in D.C. and the nation both as a multi-modal transportation hub and an attraction that draws tourism.



- Transit-supportive land use consists of development that mixes uses (retail, office, residential) near transportation options to attract and sustain a diverse audience of transit riders.



- Circulation refers to the ease with which modal and pedestrian connections are achieved, as well as the flow of traffic in and around the station.



- Signage is the informational and directional instruction given to all modes of transportation, whether pedestrian or otherwise. Wayfinding is the ease with which signage is followed to find a certain path or destination.

Throughout this feasibility study, and especially in Chapters 6 and 7, potential improvements to Union Station will be identified and recommended based on identified needs, both existing and future. These recommended improvements will relate directly to each of the needs and every recommendation will include a description of how the planning goals and principles are being upheld and achieved.

1.4 The Planning Process

This feasibility study evolved from four phases: 1) data collection, 2) analysis, 3) planning charrettes, and 4) the development and feasibility analysis of recommendations. Each of these phases incorporated substantial input and contributions from key stakeholders. Phases I and II (data collection and analysis) took place in spring and summer 2008 and included a meeting with a Community Leaders Committee (CLC), meetings with the Technical Advisory Committee (TAC), a public meeting, and two half-day tours of Union Station to allow committee members and other interested parties to observe and comment on aspects of Union Station with the study team.

Phase III of the study consisted of a half-day planning charrette with primary stakeholders at Union Station, including representatives from all of the users of the station. This charrette was held in early October 2008. The goals were to: 1) identify and solicit information on the needs and demands of all affected stakeholders, 2) explore the interaction of these needs and demands in order to address as many as possible, and 3) develop plans that maximize opportunities and enhance potential synergies between the various uses at the station. After a follow-up charrette, held in early November 2008, the study team met individually with primary stakeholders to ensure that their concerns and viewpoints were represented in the study's final recommendations.

The last phase of the planning process includes the development of recommendations, as described in the previous section, and the presentation of these recommendations to the CLC and TAC for review and comment. Changes will be made as appropriate based on comments and then the final feasibility study report will be published by DDOT.

1.5 Relationship to Previous Studies

This study has been performed within the context of previous and ongoing planning activities in and near Union Station, as well as the Metro region. Union Station is a key feature of city-wide transportation planning efforts, including D.C.'s Strategic Transportation Plan, transit improvement plans, and bicycle and pedestrian plans.

A number of studies have also focused directly or indirectly on Union Station and its immediate vicinity, largely because of its role as D.C.'s major and historic transportation hub and its continued growth as an activity and destination center. The analyses and findings of previous studies provided the context and a starting point for the USITC Feasibility Study. Key results from some of these studies include the following:

- Columbus Plaza Redesign - Redesign of Columbus Plaza has been ongoing, with the intent of improving the aesthetic and functional qualities of the plaza. (Final Design 2009)
- Union Station Bikestation - A multipurpose bicycle transit center is being constructed at the southwest corner of Union Station. The station will provide bicycle storage, rental, and repair. (2005 Study, 2009 Implementation)
- District of Columbia Transit Improvements Alternative Analysis - This study investigates short-, intermediate-, and long-term solutions for new transit options that enhance the residential and economic vitality throughout D.C., with Union Station being an anchor for several options. (2005 analysis and 2008 update)
- Capitol Hill Transportation Study - This study focuses on improving safety, easing traffic congestion, and making transportation improvements in the area with a focus on major arterials. (2006 Study)
- Tour Bus Management Initiative – This initiative investigates the role of tour buses in D.C., which, although they serve a large demand, also create issues with parking, aesthetics, congestion, and pollution. Citing examples from other cities, the study recommends methods of how tour bus activity can be improved throughout D.C. (2008 - present)
- H Street NE Corridor Transportation Study - This study recommends several transportation improvements along H Street, including enhanced pedestrian and bicycling amenities and a proposed streetcar. (2004 Study)

Pedestrian
breezeway north of
Columbus Circle at
Union Station.

