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Akridge Comment Submission

Concerning the Draft Environmental Impact Statement
For the Washington Union Station Expansion Project

Executive Summary

It is difficult to overstate the potential of Washington Union Station's expansion. If effectively planned, designed, funded and built, all those who live and work within or visit the National Capital Region will benefit from its implementation. Dramatic growth in intercity and commuter rail will enhance regional mobility and open housing and job opportunities to more sustainable locations. Economic benefits will accrue to the District, Maryland and Virginia by leveraging existing transportation assets. Millions fewer vehicle miles traveled each year will improve air quality and reduce traffic congestion.

The Capitol Hill, Near Northeast, Union Market/Gallaudet, and NoMa neighborhoods will enjoy seamless access to a neighborhood asset—one that is treasured equally for its community impact and historic significance as it is for its efficient transportation options and high-quality passenger experience. Union Station's ambitious second redevelopment, steps from the U.S. Capitol Building, will signal to Americans and international visitors alike that our country makes bold investments in sustainable infrastructure while respecting and valuing the human experience.

It is the breadth and depth of the potential impact of the station's expansion that has led Akridge to invest 18 years in project planning, research and analysis for Burnham Place as well as Union Station. Underpinning our long-term commitment is the belief that when in harmony, Burnham Place and the station expansion will be symbiotic, providing exponentially more value and benefits to all stakeholders than either project could deliver alone.

Akridge's vision for an expanded station as viewed from H Street NE

In this regard, Akridge believes public support for and successful planning of each project is fundamental to the other achieving its full potential.

At this moment within the station expansion's regulatory review, there can be two profoundly different outcomes. In one, a project plan inspires and unifies stakeholders, neighbors, approval authorities and ultimately government leaders to invest boldly in a shared vision for the station's next century.

Alternatively, the regulatory process concludes with continued conflict. Stagnation follows as there is insufficient support to garner required approvals, let alone the political will to advance an uninspiring project of such enormous scale and duration.

Akridge approaches this juncture with optimism that the first path is eminently achievable. First, the foundational rationale for the station's expansion enjoys broad and vocal support. The passion with which stakeholders have expressed their views reflects a collective agreement on the project's unmatched importance. There is to date unanimous support for FRA and Amtrak's plans to reconfigure the station's tracks and platforms with new concourses and an impressive train hall positioned north of the historic building. The Draft Environmental Impact Statement's detailed constructability and engineering analyses demonstrate the project's feasibility.

Preferred Alternative A-C therefore serves as an effective starting point, but for reasons discussed in these comments is not a feasible alternative. However, by making three key adjustments to the Preferred Alternative, the project can meet its Purpose and Need as well as the diverse goals of a broad group of stakeholders, including those of Akridge. These changes include:

A civic plaza at the entrance to a new Train Hall

1. **Parking:**
   Locate the District government's recommended 295 (or fewer) station parking spaces below the new rail concourse level in the area shown in Alternatives C and D

2. **Pick-Up and Drop-Off (PUDO):**
   Alongside the (predominantly short-term) station parking below-grade, incorporate a high-capacity PUDO area including For-Hire Vehicle storage with multiple ingress and egress points

3. **Bus Facility:**
   Include a prominent, day-lit intercity and charter bus facility of exceptional quality with 18 slips adjacent to the Train Hall

These proposed changes, described in more detail below, are based on rigorous analysis and application of best practices in multi-modal transportation facilities. The adjustments are also informed by our engagement over several years with other stakeholders and our understanding of their concerns, goals and priorities for the station expansion including:

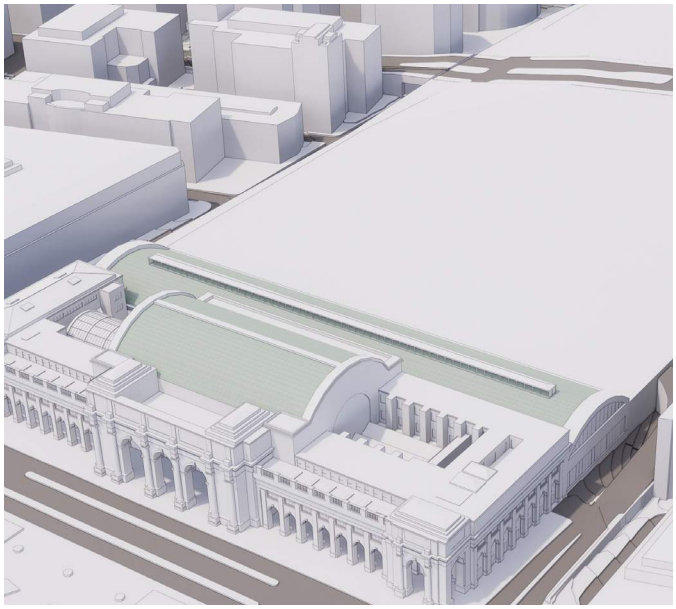
- Enhancement and preservation of key historic viewsheds and assets
- Inclusion of prominent, open spaces, such as civic plazas, parks and recreational areas
- Prioritization of pedestrian, bicycle and transit infrastructure
- Minimization of at-grade vehicular functions and congestion at the station's edges

Garage Demolition Required for Rail Growth Demands a Blank Slate Approach

The DEIS carefully and convincingly documents that in order to expand intercity and commuter rail capacity and ensure the safety, security and accessibility of the station, the existing parking garage must be demolished and the rail yard rebuilt. This requirement, reflected within all the DEIS Alternatives, is critically important in developing the appropriate framework in which to plan the facility's next century. No different from any other land use planning exercise, when existing improvements will be removed, the correct planning approach is to start from scratch and then determine the appropriate uses (and their scale and locations) to include. Planning for the "deck level" between the historic station and H Street should follow this approach.

This approach does not eliminate the primacy of achieving the station's key transportation goals. Nor does starting from a blank slate suggest that the existing garage property should not be utilized in service of the public interest. Rather, this framework allows planners to look 40 years ahead to predict urban transportation and design trends rather than face the burden of 40-year-old suburban planning models as a baseline condition.

Existing station conditions



The appropriate baseline for planning purposes

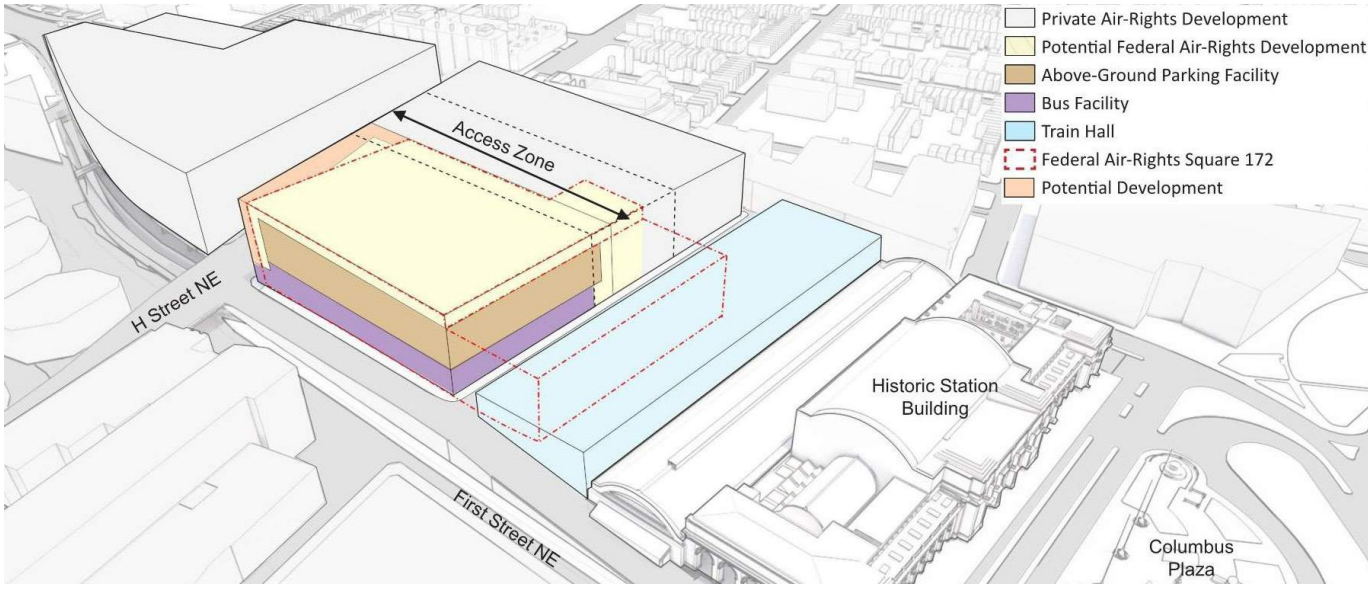
Problems with the Preferred Alternative A-C

As noted previously, we believe the proposed Train Hall in Alternative A-C is approximately the right scale and optimally placed. We also agree with the inclusion of prominent pedestrian access points on both sides of H Street and at the Train Hall. However, in regards to vehicular station elements, the FRA's plan is rooted in backward rather than forward looking transportation planning principles.

A seemingly intractable challenge at many urban rail stations is how to accommodate the volume of vehicles required to serve the station's various modes. On the one hand, if potential train or bus passengers encounter an inefficient and frustrating experience arriving or departing the station by vehicle, in the future many will choose to avoid the station. However, if the streets adjacent to the station are heavily dominated by vehicles, those taking higher capacity modes such as transit, bicycle or walking will encounter unsafe conditions, similarly discouraging future station use. An unsafe and unappealing environment adjacent to the station also detracts from its historic setting and serves as a neighborhood liability rather than an asset.

We believe much of the tension surrounding the flaws in Preferred Alternative A-C involves the high demands of planning a complicated multi-modal facility in the middle of a highly constrained urban environment. This context requires a demanding assessment of the scale and collateral impacts of each of the intended uses. This assessment must not be framed by the past scale and relationship of uses, but rather start from a thorough review of current and projected demand generators and thoughtfully sized accordingly. Next, an iterative process is required to optimally locate each component.

In Preferred Alternative A-C, the parking, PUDO and bus facility components must each be right-sized and located properly in order to enable station capacity growth while facilitating, not precluding, the development of a plan that achieves the stakeholder goals listed above.



CREDIT: DEIS Alternative A-C (Preferred Alternative), June 2020

Parking

We support the DC Office of Planning (DCOP) in its recommendation and documented rationale for no more than 295 station parking spaces. Our transportation consultants conducted a station parking demand analysis in May of this year which reached a materially similar conclusion (see Appendix A). The negative impacts of including too much parking as planned in Alternative A-C are so extensive that they render the current concept infeasible:

- The proposed garage's east side hinders the creation of an adequate civic space and symmetrical backdrop behind the historic station. Its west side and associated service road prevent the creation of a greenway, new station entrances and an appropriate visual corridor along First Street NE
- If in order to facilitate a central civic space, federal air rights development is foregone along the garage's east side, the two-block long garage facade would visually harm and overwhelm that civic space
- A developable area for potential federal air rights is indicated above the garage in Alternative A-C. The feasibility of creating two stories of marketable commercial or residential space, with accessible lobby entrances, and elevators and stairs traveling through a bus and parking facility is highly doubtful and unlikely to provide economic value
- The parking levels create a substantial opportunity cost as the federally-owned property cannot be used in part for development or the creation of parks, open space and other public uses

Once right-sized, 295 predominantly short-term parking spaces can fit within less than one third of the below-grade parking footprint shown in Alternatives C and D. Shifting this right-sized parking program below grade (in concert with changes to PUDO and bus facilities) will avoid all of the impacts described above, and allow the achievement of stakeholder goals for urban design, historic preservation and neighborhood integration.

We understand that USRC currently relies meaningfully on station parking garage revenues to sustain its current operations. However, we believe it is a serious mistake to continue to focus on parking as a significant revenue stream for USRC, or to let parking revenue drive critical design factors for the Expansion Project. The design, size and placement of the parking garage is a critical aspect of the Expansion Project, and should be based on how to best meet the overall purpose and need of the project for all stakeholders, not solely or even primarily on considerations of USRC revenue. Moreover, placing parking below the deck frees the federal air rights for private development, which would yield a significant and sustainable revenue stream to support USRC's important mission. Further details of the potential revenue from mixed-use development of the federal air rights are provided in Section 6D and Appendix F.

Pick-Up and Drop-Off (PUDO)

Pick-up and drop-off activity at major transportation centers has increased dramatically within the past five years. We agree with FRA's assessment that this trend will continue to intensify, as For-Hire Vehicle (FHV) ridership replaces drive-and-park and other mode choices. The DEIS estimates that by 2040, each morning and afternoon a vehicle will arrive or depart Union Station once each second in order to serve projected station ridership projections. These 3,600+ trips represent a 25% higher demand than the PUDO activity at Reagan National Airport today.

Ronald Reagan National Airport drop-off zone

With the Columbus Circle road network and PUDO lanes already beyond capacity during peak periods, it is not surprising that the DEIS projects Alternative A-C will lead to severe congestion, with vehicle queues spilling back into intersections along Massachusetts Avenue. As shown comprehensively in Appendix B2, the following fatal flaws with Alternative A-C's PUDO plan contribute to this result:

- Insufficient lanes and curb frontage for FHVs to form separate queues or 're-match' with a new rider following a drop-off
- Insufficient merge and weaving areas entering and exiting PUDO facilities at Columbus Circle and the Train Hall to accommodate friends and family PUDO, taxis, multiple FHV operators, station parkers, intercity and charter buses and Burnham Place PUDO and parkers
- Inadequate space for passengers to wait and match with drivers, particularly within the second and third lanes at Columbus Circle and along First Street NE
- No off-street location for friends and family members picking up passengers to park short-term
- No staging or hold areas for high volumes of FHVs to serve surge demands when multiple Amtrak trains arrive at once

The consequences of these flaws and omissions reach beyond unacceptable traffic operations. Other outcomes and impacts include:

- Significantly compromised pedestrian and bicycle safety
- Degradation of the station's historic setting

- Passenger inconvenience and discomfort due to time spent in non-weather-protected queues or in traffic congestion
- Decreased station use as passengers make alternate travel choices
- Preclusion of high-quality civic spaces north of a new train hall

The Burnham Place team agrees with DDOT and DCOP, both of whom recommend the inclusion of a high-capacity, purpose-built, off-street PUDO facility. This facility would be in addition to other PUDO areas at Columbus Circle, the Train Hall, First Street NE and Second Street NE.

A dedicated PUDO facility could be located in a garage above the tracks, or alternatively below the rail passenger concourse level alongside station parking (as proposed in Alternatives B, C, D and E). Akridge and many other stakeholders agree that the below-grade option is the far superior choice for numerous reasons. This facility would be located directly below the new passenger rail concourse and accessed via three or more different ingress and egress points, predominantly located to the west of the station's footprint.

Benefits of a Below-Grade PUDO Facility

Concealing high-intensity vehicle functions below ground is the default choice for high-density urban land uses of all types. In the commercial core of Washington, DC it may be impossible to identify a medium- or high-density land use newly built within the last decade with significant parking at- or above-grade. The FRA recognized and validated this trend when it developed five of its six Action Alternatives to include some or all of its parking and PUDO facilities below-grade.

What is unique about planning for Union Station as compared to most other land uses is that PUDO, not parking demand accounts for approximately 90 percent of projected peak hour vehicle trips. Locating PUDO facilities below-grade at Union Station solves or significantly mitigates the flaws and adverse impacts described above and also includes these added benefits:

1. Comprehensive For-Hire Vehicle Operation

a. Off-street staging area for taxi, Uber, Lyft and other providers reduces on-street PUDO activity and serves surge PUDO demands

b. Effective, high-volume FHV re-matching decreases overall trips, reduces circulating vehicles and neighborhood spillover

c. High-capacity staging and pick-up below-grade reduces congestion at Columbus Circle and the required size of other PUDO facilities. A direct route below-grade from taxi staging to the first lane at Columbus Circle eliminates taxi queues on the station's East Ramp

2. Effective Off-Street Friend/Family Short-Term Waiting Area

a. Accommodate early-arriving drivers to free up curb space for active PUDO, decrease double-parking and circulating on adjacent streets

3. Improved Passenger Convenience and Experience

a. Weather-protection improves experience, enhances safety and accelerates throughput

b. Escalator and stair access from rail concourse directly above reduce walking distance, improves wayfinding, and decreases total trip time

c. Locating facility egress ramps away from Columbus Circle and H Street decreases PUDO trip time to destination

4. Efficient PUDO and Less Vehicle Congestion Yield Additional Benefits

a. Bicycle and pedestrian access and safety improvements at grade

b. Improved historic setting

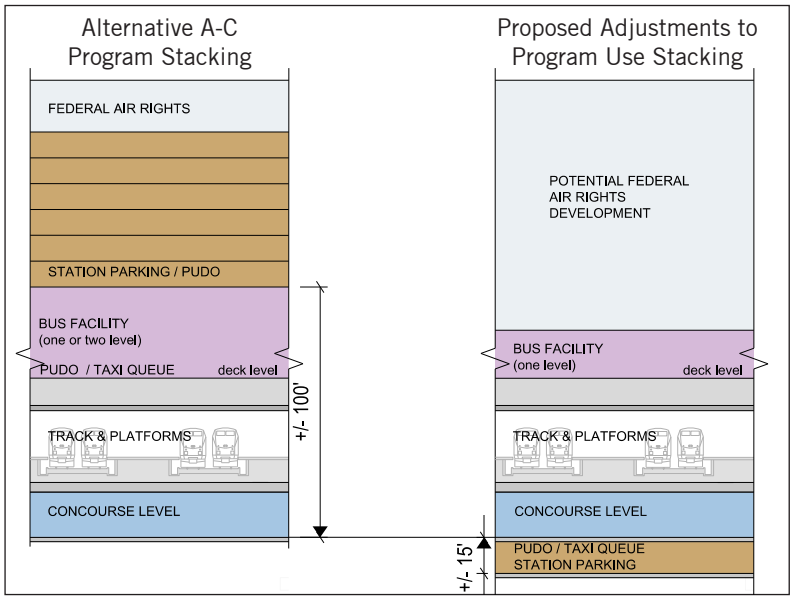
c. Opportunities for multiple open spaces at station edges

d. Less noise and lower carbon emissions

A below-grade PUDO facility will decrease vehicle congestion near the historic building, improving bicycle and pedestrian safety

Above-Grade Garage PUDO Has Fatal Flaws

The option of locating a high-capacity PUDO facility above the bus facility is worthy of study given it is the only other location in which a dedicated PUDO area could be considered. However, there are several drawbacks to this location, some of which cannot be overcome or mitigated.



PUDO and Station Parking - Above-Grade vs Below-Grade

First, a PUDO facility within the above-grade garage would be located 100 feet above the H Street Rail Concourse and 60 feet above the main rail concourse within the Train Hall. Few rail passengers would accept this PUDO location for pick-up or drop-of when this location requires traversing six to ten stories via two or three different elevators. As train passengers will be dropped off elsewhere, drivers will then need to circulate from Columbus Circle, the Train Hall or First Street NE to the above-grade garage PUDO area to re-match for a pick-up.

Second, the proposed Alternative A-C garage includes a footprint for each parking level of approximately 115,000 square feet. This compares to 480,000 square feet available on one level below-grade. Even if right-sized station parking were included within the above-grade garage, fulfilling the PUDO functions described above would take at least three additional garage levels. This bus, parking and PUDO garage would create nearly the same adverse impacts as described in the Parking section above.

The Alternative A-C parking garage is accessed off a one-way PUDO road adjacent to the Train Hall. Locating PUDO within this garage would merge a thousand or more vehicles per hour onto this road, which is already overburdened by Train Hall PUDO activity and vehicles accessing private development garages. In this scenario, more than half of all PUDO trips would enter and/or exit via H Street.

Any one of these shortcomings is a significant barrier to locating a high-capacity PUDO operation in this location. Collectively, these problems demonstrate this location should not be studied further. While no traffic circulation plan will be able to meet the station's peak demands without some challenges, below-grade is the only location that can feasibly serve as a dedicated, off-street PUDO facility.

Bus Facility

Intercity and charter bus functions are pivotal transportation components within the deck level planning process for Union Station. With the existing garage slated for demolition, there is an opportunity to create one of the best bus facilities in the country—one which could provide an exceptional quality terminal for those seeking a low-cost intercity travel option and tourist groups visiting the station and nearby attractions.

Salesforce Transit Center, Bus Terminal, San Francisco

Bus stations are challenging to site within multi-modal facilities for many reasons:

- To safely and efficiently maneuver buses with wide turning radii and minimize back-up movements, a multi-acre footprint is often required for even a dozen slips
- Buses require tall clearance, and some carriers have plans to add even taller models to their fleets to accommodate more passengers. Facilities generally require 20 feet in height, the equivalent of roughly two levels for most other uses
- Given the two above factors, stacking two levels of bus slips requires multiple 300-foot long ramps and additional circulation space. There are few if any intercity bus stations in the U.S. that include multiple levels. The Port Authority Bus Terminal in New York City has two levels, although this station predominantly serves commuter buses, and it does not have connecting ramps between its levels
- Separating passenger waiting, queuing, boarding, and circulation areas from those where buses are actively moving is critical to maintain a safe environment
- Structural columns within a bus station must be spaced widely apart. These 'long spans' constrain proposed program areas above or below the bus level

Due to all of these challenges, if planners do not intentionally prioritize the quality of the bus passenger experience, facilities can feel uncomfortable, unpleasant and utilitarian, in sharp contrast to the gracious and uplifting feeling of a voluminous train station or airport.

Key ingredients for a World Class Bus Facility at Union Station

Akridge's vision for a world-class bus station

Based on research of comparable facilities and input from key project stakeholders, the Burnham Place team has identified the following essential ingredients which should guide planning for the bus facility:

1. Adjacent to historic Union Station
2. First class passenger experience
3. Direct connection to vibrant urban spaces
4. Designed to minimize neighborhood traffic, historic preservation and urban design impacts
5. Appropriately sized

Below we assess the bus facility proposed in Alternative A-C based upon these criteria:

1. Adjacent to historic Union Station

Akridge agrees with the FRA that the appropriate location for the bus facility is directly north of the Train Hall. Relatively few cities throughout the world stack intercity bus stations on top of intercity and commuter rail lines. This is in large part due to the challenges in bus facility planning cited at the outset of this section.

The Bus Facility should have a prominent entrance, visible from the north and south

Throughout the past several years, Akridge has at times advocated for evaluating the potential benefits of locating the intercity bus station elsewhere within the city with transit and highway access. We have also spent considerable resources proposing a facility which could serve as the focal point of Burnham Place's parcel north of H Street (see Appendix L Bus - North of H Street Proposal) as well as within property along First Street NE. While we still believe that each of these options is viable, we value and endorse the broad stakeholder feedback and desire to locate the facility in roughly the same location as it exists today. Further, with the adjustments described below, we believe the bus station can serve as an anchor for the open space on the deck level, activating the station environment and complementing private development.

2. First class passenger experience

Alternative A-C's bus facility falls far short of providing an inspiring and high-quality passenger experience. Its front door and lobby is along H Street NE. This location may provide visibility for those passing by in a vehicle, but few passengers will enter the facility through this lobby as PUDO is not possible at this entrance. Streetcar passengers could enter in this location, but they first must cross the driveway where buses all must exit east along H Street.

The proposed bus passenger concourse is an 'island' configuration, which means it is surrounded by bus circulation on all sides. With parking levels above and over 100 feet away from the garage edges, there is no opportunity for any natural light within this waiting and boarding area. Without a prominent pedestrian entrance or natural light and surrounded by vehicles, the proposed bus station clearly falls short of achieving this essential planning ingredient.

3. Direct connect to vibrant urban spaces

As previous described in the Parking and PUDO sections, the proposed mass of the garage and adjacent federal air rights precludes the creation of an attractive and appropriately sized civic space. However, if there were an attractive set of plazas and parks next to the garage, bus passengers could not directly access them. Because of its island configuration and its lack of access to the two-block long central spine from H Street NE to the Train Hall, bus passengers would have little opportunity to enjoy the open space and restaurants and amenities within this area.

On top of the skylit bus passenger concourse, a one-acre park can serve the neighborhood, travelers and visitors

4. Designed to minimize neighborhood traffic, historic preservation and urban design impacts

As stated within recent comments from DCOP and ANC 6C, it is undesirable and of great negative impact if all buses exit the bus facility to the east down H Street NE rather than to the west to North Capitol Street. Specifically:

- H Street NE is a neighborhood street and not an appropriate place to encourage high volumes of commercial vehicles
- The proposed exit ramp is positioned just west of a proposed signalized intersection which includes crosswalks for streetcar passengers—an undesirable condition
- Buses bound for points southwest via I-395 must make a U-turn on H Street or travel through neighborhood streets to reverse directions

While the Parking and PUDO sections above describe critical flaws and missed opportunities associated with an oversized garage, it is actually the dimensional footprint of the bus facility that is most directly correlated with these historic preservation and urban design flaws. While the footprint of each parking or PUDO level could theoretically be made smaller, the bus facility occupies the 'ground' level of the garage, and its dimensions define its deck level presence.

As proposed, the bus facility's west edge eliminates the opportunity for a greenway. Its east edge precludes a great central civic space. Its northern extent eliminates Akridge's ability to develop a building along H Street NE that would screen the garage. Its southern edge leaves insufficient space to create a symmetrical and high-quality backdrop for the historic building. All of these impacts can be avoided, if the bus facility is appropriately sized.

5. Appropriately sized

In station planning for most modes of travel, there are three central drivers that enable passenger growth. These include the:

- amount of tracks, slips or spaces in the station
- number of vehicles the station can process per space during peak hours
- number of passengers per vehicle

All three drivers are critically important. For example, an airport operator can increase passenger capacity by building more gates and terminal space, requiring or incentivizing faster gate turnaround times, or by increasing the number of seats per plane. Each strategy carries a different set of costs and benefits for the operator and policy makers to consider. This framework demonstrates that the number of slips in the future Union Station Bus Facility is not the only, or potentially primary driver of its capacity.

In fact, the DEIS demonstrates this principle in its strategy for increasing rail passenger growth. The proposed plan for all of the Action Alternatives is to decrease the number of active, "revenue" tracks from 20 to 19, while doubling or tripling the number of intercity and commuter rail passengers. By increasing platform and concourse space for rail passengers and improving operational infrastructure, the rail providers will serve many more trains per hour per track than they do today. Some providers will also run longer trains with higher passenger capacities, while some platforms will serve shorter trains that 'double-berth,' with one platformed behind another.

These plans reflect the high leverage of investments made in operational efficiency. For example, in a facility with 12 tracks (or slips), cutting just five minutes off the time it takes to process each vehicle yields the same passenger growth opportunity as adding an additional track. When space constraints or costs to expand the footprint of a facility are high (as they are within the Union Station rail terminal), it is necessary and appropriate to optimize the other two key drivers for passenger growth.

Given the essential nature and associated planning challenges with this facility, Akridge engaged Sam Schwartz Engineers (SSE), an internationally recognized bus facilities planning expert to comprehensively analyze and assess the appropriate number of slips to serve the FRA's projected 2040 intercity and charter bus demands. Analyzing the published (as of February 2020) scheduled arrivals and departures for every bus throughout the week, and using the same passenger growth forecasts employed within the DEIS, SSE concluded that a 12-slip facility can serve in excess of 2040 projected peak demands following industry best practices (see Appendix C1).

Best practices require operators to turn around buses within 35 minutes during two peak hours per week, three months of the year.

SSE also provided a conservative operational scenario which relaxes the turnaround requirement to 45 minutes. In this case, 16 slips were required to accommodate 2040 intercity and charter ridership. Per the chart below, Akridge recommends using the 16 slips indicated in the conservative scenario plus the addition of two staging spaces for a total of 18 slips as the basis for modifying Alternative A-C. An 18-slip facility compares with the 25 slips documented within the DEIS as sufficient to meet future peak demands.

Bus Facility Analysis Comparison		
Category	**FRA Plan - 25 slips**	**A-C Modified Plan**
2040 intercity annual passengers	2,975,000	3,000,000
Peak hour (2 hours per week, 3 months per year) intercity turnaround time:	60 minutes	35 (Best Practice) to 45 minutes (Conservative)
Number of slips recommended	25 total slips · 13 intercity slips · 8 charter slips · 3 staging (not-active) slips · 1 DC Circulator slip	18 total slips · 12 to 16 shared intercity/charter slips · 2 staging (not-active) slips (DC Circulator not included)

There are two primary differences within the analyses which led to these different conclusions. First, the DEIS states that bus operators will have 60 minutes to turn around a bus. SSE's analysis, based upon charted observations and study of domestic and international facilities indicates 35 to 45 minutes as the appropriate duration for a turnaround. It is instructive to compare these turnaround times with those predicted within the DEIS for rail operations. As shown below, Amtrak plans to turn around trains with roughly five times the number of passengers in one third the amount of time.

Turnaround Comparison - Washington Union Station Amtrak 2040 service vs Intercity Bus			
	Passengers	**FRA Turnaround**	**SSE Turnaround**
Amtrak Metropolitan Service	350 - 450	20 mins*	
Intercity bus	50 - 80	60 mins	35 - 45 mins

* DEIS Appendix B, Terminal Infrastructure Report, p.27

Second, FRA estimated the number of slips by applying growth factors to intercity and charter functions. FRA's conclusion that eight slips are needed to exclusively serve charter bus demand does not match their assumption (shared by SSE) that slips should be used interchangeably by charters and intercity buses. Because the charter bus peak day and hour do not overlap with the intercity peak day and hour, SSE concludes that charter buses at most require three slips beyond the peak demands for intercity slip use.

For the majority of the intercity bus industry's history, station space has neither been constrained nor costly. Carriers owned standalone facilities in areas with low land costs. In other locations, such as at Union Station, an existing or 'legacy' facility built for other purposes (in this case charter/ tour bus parking) contained well in excess of the space required for intercity services. In both settings, with relatively low costs per slip, there has been little motivation to invest in operational efficiencies.

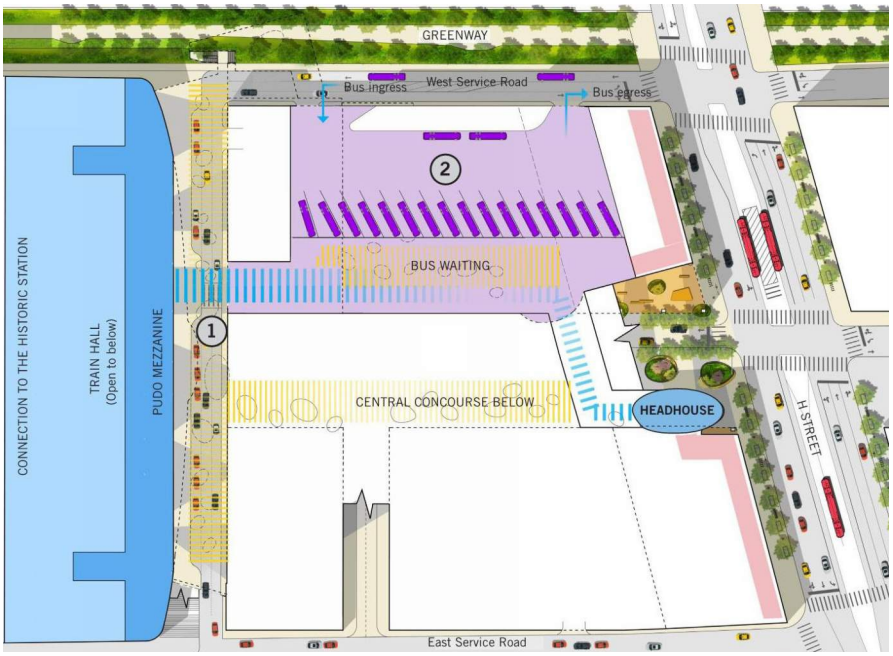
In the expanded Union Station, each bus slip will have extraordinarily high costs, so operational practices within the facility must follow the same model used for rail and PUDO, by implementing best practices. The potential costs of oversizing the bus facility are catalogued throughout this paper. These costs include the preclusion of achieving critical goals required to garner stakeholder and political support. The costs also are reflected in adverse impacts to Burnham Place, neighborhood and preservation goals. Right-sizing the facility is therefore essential to developing a station expansion vision that will be implemented.

A Vision for A Transit-Focused Mixed-Use Neighborhood: "A-C Modified"

By right-sizing and optimally locating parking, PUDO and bus facilities, an inspirational plan can effectively fulfill the station's transportation goals and requirements which achieves broad stakeholder support. In the site plan of "A-C Modified" below, a central civic space (1) of grand proportions is anchored by the Train Hall and entry plaza (2) at the south and a station headhouse at the north along H Street NE. Prominently located within the civic space is an inviting bus station entrance, which leads to a skylit bus passenger concourse. Atop the bus station is a 1 acre park (3), framed by mixed-use development and cultural uses. West of the park is an overlook (4), which connects pedestrians to the greenway.

Deck Level Plan - Civic Space/ Neighborhood Park/ Train Hall Plaza

One level beneath the plaza (see plan below) is the bus facility with direct connections to the Train Hall and headhouse. Buses circulate in and out from the West Service Road. Train Hall PUDO (which also directly connects to the bus passenger concourse) is located underneath the plaza level with large deck openings and skylights above. A below-grade PUDO facility (see Appendix B1) captures one third of peak PUDO demands, decreasing the impacts on the deck level road network shown here.



In-Deck Plan - Bus/ PUDO/ Parking

N-S Section View Looking West

A video animation which flies through this vision can be found by clicking on the following website and in the Appendix E1:

http://www.akridge.com/libvideos/burnhamplace.html

A Vision – Not A Design Proposal

To date, many stakeholders and review agencies have expressed significant frustration with the EIS process as well as the resulting Preferred Alternative. We believe a contributing factor to these reactions is the lack of comprehensible visualizations of the FRA's proposed concepts made available to the public. For a project of this scale and complexity, illustrative rendered perspectives and sectional views allow the viewer to grasp how its component parts fit together three dimensionally. These sorts of visual tools also can demonstrate the potential (or lack thereof) of a given planning solution to foster an inspirational urban design.

It is within this spirit that Akridge offers the A-C Modified vision. Precise building massing, architectural styles, material choices and other design related to both the station's expansion and Burnham Place will take place during later stages of project review. However, we believe the vision we have developed illustrates what is possible to achieve if the surface transportation elements of Alternative A-C are right-sized and optimally located. Further documentation in Appendix E demonstrates how such a vision is precluded without our proposed modifications.

Requested Actions

Akridge urges the FRA to take the following actions:

1. Revise Preferred Alternative A-C to include the changes described within these comments

2. Engage in further consultations with the project proponents and key stakeholders, including Akridge, to develop a revised final Preferred Alternative that optimizes and balances the comments of all stakeholders

3. Issue a revised Alternative with an opportunity for public review and comment

4. As a formal mitigation measure, establish a Technical Coordination Work Group including the project proponents and Akridge to ensure the planning of both the Expansion Project and Burnham Place are well coordinated as design moves forward. Appendix J includes a description of engineering and constructability restrictions proposed in the DEIS that if unchanged, severely harm and impact the feasibility of Burnham Place.

The viability of the station expansion depends upon these changes and this level of coordination. Akridge proposes these modifications not only because we believe they meet broad stakeholder goals, but because such modifications are also needed to meet FRA's obligations under NEPA to present feasible alternatives. The Preferred Alternative presented in the DEIS is not feasible because it contemplates the use of private air rights owned by Akridge to which access will not be available for the Expansion Project under this specific Alternative. Akridge cannot agree to transfer the acreage contemplated in Alternative A-C as proposed in the DEIS because the loss of such property (along with adjacent impacted property) would have serious adverse repercussions for the Burnham Place project. These adverse impacts to Burnham Place are outlined in Section 2 of these comments.

Akridge's vision for the A-C Modified would not only be feasible, but would also provide a win for all parties – a greatly improved Expansion Project that better meets the needs of all stakeholders, as well as ensuring that Burnham Place can be developed in a manner that will allow its benefits to be attained and harmonized with the adjacent Station. For example, shifting a right-sized parking program below grade, in concert with changes to PUDO and bus facilities, will avoid significant impacts and better allow the achievement of stakeholder goals regarding historic preservation. By reducing impacts to historic viewsheds and assets, A-C Modified will thus help FRA meet its obligations under both Section 106 and Section 4(f).

A Train Hall entry plaza serves as a meeting and gathering space

Can A-C Modified Be Implemented?

As we developed the planning framework and modifications proposed herein throughout the past year, we have heard two key areas of concern regarding the feasibility and rationale for our vision. We include those concerns and responses below:

Is below-grade construction beneath the concourse level for parking and PUDO functions feasible?

Concern with Below-Grade Parking/PUDO	Response
This strategy is more expensive than placing these functions above grade	• Additional construction costs will be more than offset by the immediate value created by viable air rights development within the federally-owned property • Nowhere else in the DEIS are costs cited to justify a similar locational decision. Further, there are many examples (i.e., the size of the Train Hall), where costs are (rightly) not considered a dispositive factor • There is no other location where a dedicated PUDO facility can feasibly be located
Construction will take longer	• The DEIS indicates the construction of one level below the rail concourse will take incrementally one year longer, an increase of less than 10 percent of the total project duration • The additional construction period impacts should be measured against the permanent benefits and avoidance of adverse impacts in urban design, historic preservation and open space
There is groundwater located in this area	• This parking level will extend partially into the water table requiring additional construction scope and complexity, as documented in the DEIS • Building within the water table commonly occurs in Washington, DC and is considered routine (i.e., within buildings in the Navy Yard, the Wharf and Buzzard Point) • Adjacent private buildings west of First Street NE and east of the rail yard extend *lower* into the water table than the one level proposed here • Alternative A-C already includes the construction of a network of service corridors within the same general area • Amtrak, the sponsor of the DEIS constructability studies, has stated that they prefer this below-grade location
Vehicle access to this level is constrained or insufficient	• The single point of access from K Street NE shown in several DEIS Alternatives is inadequate. Multiple or different points of access would be required • Six additional potential access points have been identified by the Burnham Place traffic engineers, and we are working with DDOT to identify the most viable and functional locations. Appendix B contains feasibility analysis on these locations

Does an 18-slip bus facility provide adequate passenger capacity and for future growth beyond 2040?

Concern with 18-Slip Bus Facility Size	Response
18 represents a considerable reduction in the current number of bus slips at Union Station. Will there be enough capacity to meet future demands?	• There are currently 52 slips in use at Union Station. 27 are leased exclusively by intercity bus companies. 20 are used for charter bus parking, and 5 are used for other services (See Appendix C) • The FRA in coordination with DDOT, is appropriately planning the future facility for active intercity and charter bus boarding and alighting only (plus one slip for DC Circulator staging) • The DEIS (and Burnham Place bus planning experts) assume the new facility will not include assigned or leased spaces. Today, many slips sit empty or include parked buses for four or more hours each day Slips will be used with interchangeably, following best practices. • FRA assumes 60 minutes will be required to turn around arriving and departing buses at peak times. Amtrak plans to turn around 400-passenger trains within 20 minutes. • Improving operating efficiency will increase the facility's passenger capacity just as much as increasing its number of slips • With 18 slips, intercity and charter bus passenger volumes can expand well beyond the 2040 targets included in the DEIS, particularly by adding new departures outside of the two peak hours each week, increasing the average number of passengers per bus, or operating turnarounds at best practice levels
Given environmental justice and social equity concerns, it is critical to provide adequate space in the plan for a great bus facility	• As proposed in Alternative A-C, the oversized bus facility provides a second class passenger experience, with a non-daylit bus concourse isolated inside a garage • Rather than put upward pricing pressure on intercity bus fares by building an unnecessarily high-cost, oversized facility, a right-sized facility can provide an exceptional quality experience, commensurate with that enjoyed by rail passengers
Will buses 'end up back on city streets' with curbside pick-up, as occurred in some places in years past?	• DDOT policy does not and will not allow intercity bus operators to provide curbside services. • Bus companies will need to operate efficiently, like every other transportation provider at Union Station.

Conclusion

Akridge appreciates the opportunity to provide comments on the DEIS for this once in a lifetime project. As outlined in our comments, key modifications to the Preferred Alternative are needed to meet FRA's obligations under NEPA, Section 106 and Section 4(f), as well as to ensure a viable and successful design that will meet the Expansion Project's purpose and need. By right-sizing and optimally locating parking, PUDO and bus facilities, an inspirational plan can effectively fulfill the station's transportation goals, meet statutory requirements, and achieve broad stakeholder support. Akridge continues to stand ready to collaborate on an Expansion Project plan that will allow both the Expansion Project and the Burnham Place project to move forward successfully.

Akridge's vision for compatible public and private projects

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