InfrastructureDC

Washington Union Station Project Delivery and Governance Study

April 2024

Introduction by The Honorable Anthony A. Williams, Chair of InfrastructureDC and former Mayor of the District of Columbia from 1999-2007

Union Station, the nation's station, is the nexus connecting the region, the Northeast and Southeast Corridors and the entire Amtrak network. It is a vital transportation hub for the city, region, and nation. As such, we strongly believe the station is worthy of the investment needed to ensure that it is well positioned to meet the needs of the next century.

The $8.8 Billion Washington Union Station Expansion Project (SEP) represents the most significant infrastructure opportunity in the District of Columbia, the region and the Northeast Corridor's mega-project pipeline.

The broad stakeholder support for the SEP's new vision means that it has now completed a nine-year environmental review process, with the National Environmental Policy Act Record of Decision signed on March 12, 2024. As the SEP advances through the Project Development Stage to the critical Final Design and Construction Stage milestones, the time for project partners to define who is doing what and when, and to create an actionable plan for how the SEP will be funded is now.

The purpose of this InfrastructureDC Washington Union Station Expansion Delivery and Governance Study (Study) is to do just that. Understanding that a clear alignment of project definition and a strong governance structure is critical to the success of the project, the District of Columbia government, United States Department of Transportation, Union Station Redevelopment Corporation, Amtrak, Federal Railroad Administration, and regional stakeholders coalesced throughout 2023, and early 2024, to undertake this Study.

The Study has the full support, commitment, and participation of all USRC Board member organizations as well as all SEP partners and seeks to broaden the tent as Project Sponsor to work towards meaningful inclusion of the District of Columbia, Maryland, Virginia, private air rights developer Akridge, WMATA, Intercity Bus operators, and countless Federal and regional stakeholders needed to realize the SEP's next century vision. InfrastructureDC believes this Study is just the beginning of strong partnership and collaboration across a broad and diverse set of stakeholders. We now leave it to the SEP's leaders to help ensure your support of and reaction to the framework, findings, and recommendations of this Study continue to improve the overall success of the SEP's delivery.

Finally, I want to thank everyone who has made both the SEP and this Study come to life through collaboration and communication. And, I want to thank USRC CEO Doug Carr for his leadership, as well as leadership at DOT, FRA, Amtrak, DC Government, and regional partners for all the work you will do over the next decade as we take big, bold action to make the SEP a reality.

As you will see, many more members are a part of this incredible Study effort, but I extend my sincere gratitude to:

- **Mayor Muriel Bowser**
- **District of Columbia Council Chairman Phil Mendelson**
- **Councilmember Charles Allen**
- **United States Deputy Secretary of Transportation Polly Trottenberg**, Chair of the Union Station Redevelopment Corporation Board of Directors
- **Administrator Amit Bose**, Federal Railroad Administration
- **Stephen Gardner**, CEO of Amtrak

- **Deputy Mayor for Planning and Economic Development Nina Albert**
- **Doug Carr**, CEO of the Union Station Redevelopment Corporation (USRC)
- **Laura Mason**, Amtrak, USRC Board Vice Chair
- **Rebecca Reyes Alecia**, FRA, USRC Board Member
- **Maura Brophy**, CEO of the NoMa Business Improvement District, USRC Board Member
- **Carol Thompson Cole**, InfrastructureDC Board Member
- **Andrew Altman**, InfrastructureDC Board Member

Thank you,

Anthony A. Williams
Board Chair of InfrastructureDC, and CEO of the Federal City Council
Former Mayor of Washington DC, 1999-2007

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EXECUTIVE SUMMARY

Executive Summary

Introduction

Washington Union Station is a critically important piece of transportation infrastructure, not only to the District of Columbia, where it is situated, but to the broader capital region, including Virginia, Maryland and beyond. It is far more than just a train station. It is a vital, multimodal hub for local, regional, and intercity mobility which provides access to employment, education, tourism, and social opportunities. The station's historic building, designed by renowned architect Daniel Burnham, is listed on the National Register of Historic Places (NRHP)[1] as a place of national significance.

Prior to the COVID-19 pandemic, the station was the second busiest in the nation, serving approximately 37 million passengers per year.[2] However, both age and legacy under-investment have resulted in it falling short of the requirements of a modern transportation asset. This includes full compliance with the Americans with Disabilities Act, platform and concourse capacity, and state of good repair. As a result, the station will increasingly struggle to accommodate longer-term projected ridership growth through 2040, which anticipates a 95% increase for Amtrak, 250% increase for VRE, 150% increase for MARC, and 50% increase for intercity buses.[3]

The Station Expansion Project (SEP) will address these issues and more by delivering a vibrant, modern station befitting its place in the nation's capital and designed to serve the diverse needs of the 21st century traveler. Its completion will also fully realize the value of the extensive investments in the Northeast Corridor and Southeast rail network, bringing needed network capacity enhancements for the next century of use, strengthening the regional economy as well as supporting broader greenhouse gas reduction and equity and inclusion targets.

SEP Economic and Employment Benefits to the Region:
Construction of the SEP is currently estimated to be $8.8 billion over a 13-year period.[4] This will generate between $296 million and $557 million in annual labor income and will bring approximately $414 million to $778 million annually in economic activity for the region over that 13-year period, creating approximately 6,300 jobs annually in the process.[5] Investment in this project represents more than a station upgrade; it represents a long-term enhancement in the region's economy, mobility, and quality of life for all citizens.

Study Purpose

The objective of the Washington Union Station Expansion Project Delivery and Governance Study (Study) is to identify the most advantageous model for project oversight, implementation, and funding structure to support the redevelopment of Union Station. The Study was funded by the District through the FY23 Budget Support Act.[7]

Participants and Process

InfrastructureDC (IDC) is a nonprofit organization dedicated to accelerating investment in the District of Columbia's public infrastructure. IDC was established in 2015 by the Federal County Council (FCC). Through the Budget Support Act, Office of Planning (OP) provided grant funding to IDC to conduct the Study. IDC convened an Advisory Group (AG) consisting of representatives from key Union Station stakeholders to come together to discuss and agree possible strategies to progress the SEP toward construction. The AG consists of the following entities:

- United States Department of Transportation (USDOT);
- Federal Railroad Administration (FRA);
- Government of the District of Columbia, represented by Office of Planning (OP) and District Department of Transportation (DDOT);
- Amtrak; and
- Union Station Redevelopment Corporation (USRC).

Summary of Study Findings and Recommendations

Realizing the vision for a modern, integrated Union Station is no easy task. While Union Station is owned by a single entity, the federal government, its governance structure, capital assets, and operations involve multiple partners, meaning no one entity is solely responsible or empowered to develop and deliver the SEP alone. Significant collaboration among the partner entities and external stakeholders will be necessary to advance planning, design, construction, and eventually, long-term operations and maintenance.

Study Findings:

- **Governance:** USRC can lead SEP delivery through Final Design & Construction using its existing authorizations by entering agreements with other key stakeholders. The governance model should evolve over time and be reevaluated at the 30% design stage.
- **Funding:** The exact composition of the funding and financing structure to support the delivery of the SEP will be determined at the conclusion of the Project Development phase, but the project should include a combined and collaborative approach to funding that shares cost between the federal government and the region.
- **Delivery:** The project is still at a conceptual level, and all options for SEP Final Design & Construction are available; the procurement and contracting strategy must be strongly grounded in the foundations of project risk mitigation, whole-of-life asset focus, and the protection of the funding entities.

The Summary of Recommendations, shown in Exhibit ES-1 below, summarizes the recommendations that the Advisory Group have agreed upon during this Study. Detailed descriptions relating to the process and methodology for how each was arrived at is provided in the body of this report.

Exhibit ES-1: Summary of Recommendations

Governance

A	The Union Station Redevelopment Corporation (USRC) is the appropriate entity to undertake the role of Project Sponsor for SEP Project Development activities. The USRC Board should review and assess the Project Sponsor role at major project development milestones (30% design and prior to construction start).
B	USRC should organize to effectively undertake the responsibilities of both SEP and the historic station.
C	USRC, Amtrak, and DC, should agree on a collaboration structure that can advance near-term station, terminal infrastructure investments, and SEP Project Development activities. This can be achieved through an MOU or partnership agreement.
D	Maryland and Virginia should play an integral role in the development and delivery of SEP, including through the provision of project funding. As a first step, USRC should integrate MD/VA into SEP governance and Project Development activities.

Funding

E	USRC should identify near-term funds for immediate Project Development activities (prior to the receipt of grant funds), including collaborating with regional political supporters to advocate to Congress for near-term funding.
F	USRC should collaborate with Amtrak and DC to apply to the FSP-NEC program (FY24 cycle) for SEP Project Development activities.
G	USRC should collaborate with Amtrak, DC, VA and MD to apply to the FSP-NEC program (FY25 cycle) for SEP Project Development activities.
H	USRC should collaborate with Amtrak and regional funding entities to apply for other federal funding programs such as CRISI and RAISE for Project Development activities.
I	USRC should seek amendment to the Bipartisan Infrastructure Law to allow it to be a direct eligible applicant for federal funding programs.

Delivery

J	USRC, in collaboration with Amtrak, DDOT, WMATA, Virginia and Maryland should immediately advance further Project Development work including both station and track infrastructure elements of SEP as directed by the USRC Board Project Sponsor Resolution.
K	USRC, in coordination with Amtrak, should undertake a process to inform an efficient and risk mitigated SEP delivery strategy.

Governance

Governance - Recommendation A: The Union Station Redevelopment Corporation (USRC) is the appropriate entity to undertake the role of Project Sponsor for SEP Project Development activities. The USRC Board should review and assess the Project Sponsor role at major project development milestones (30% design and prior to construction start).

Effective governance is critical to the success of the SEP and to position Union Station for sustainable operation through its second century of existence. The Key Stakeholders, having successfully collaborated through the National Environmental Policy Act (NEPA) process, now need to organize for the next stage of Project Development activities.

An early Study task was to analyze and recommend an SEP Project Sponsor: the entity that will lead development of the project in delivering the Project Development work. Given the complexity of the project, number of stakeholders and potential for competing interests, a single entity that can act as an honest broker and lead project integrator is needed. This entity must have representation of Key Stakeholders and be able to equitably bring a voice to other stakeholders. It must also be able to bring organizational focus and priority to the project.

The Study, independent of the NEPA process, analyzed various entities (existing and new) to determine their suitability to undertake the role of SEP Project Sponsor. This analysis was used to validate the Project Sponsor designation made in the environmental impact statement. The analysis included screening potential entities through a framework of criteria including stakeholder representation, authorization, focus, clarity of objectives, and organizational capacity and capability, to determine the organization best aligned to the needs of the project. This analysis concluded that a multi-party entity already exists in USRC which possesses the legal authorizations and a governance structure that can bring together the broad coalition of stakeholders needed to advance SEP. Key Stakeholders are already represented through the USRC Board, and representation from Virginia and Maryland, which was identified as a critical success factor, can be integrated into this structure.

Independent of this Study, the USRC Board, which includes representation from USDOT, FRA, Amtrak and the District of Columbia, authorized USRC to fulfill the role of SEP Project Sponsor, and approved the FY24 budget, which enhances USRC's organizational capacity and resources to undertake the near-term Project Development activities. This important action further underlines the efficacy of the Study conclusions.

Governance – Recommendation B: USRC should organize to effectively undertake the responsibilities of both the SEP and the historic station.

Organizational capability and capacity was determined to be a key success factor in identifying the Project Sponsor for SEP. In 2022, the USRC Board appointed new leadership that possesses complex station development, real estate, and transactional experience. This leadership has already taken steps to build out USRC's organizational capacity, including hiring experienced individuals with relevant SEP-related project experience. It is important that USRC continues to build capability to enable it to address all aspects of SEP development.

USRC currently has management and oversight responsibilities for the station's historic building and parking structure. As these responsibilities are expected to continue, USRC should create a subsidiary from which all SEP activities will be managed. This will bring needed organizational focus to SEP activities and practically bifurcate accounts and funds which may have different reporting and compliance requirements.

The Study concludes that project governance should evolve as the project evolves. The Advisory Group agreed that a governance framework for optimal delivery of the SEP should have sufficient flexibility to adapt to new opportunities, risks and potential delivery structures that are not known or fully understood today. Further detailed information on cost, schedule, project risks, and funding opportunities will become clear as the Project Development stage advances. For these reasons, in the future the USRC Board may consider board changes based on funding commitments and expressions of project interest from Virginia and Maryland which would enhance board level governance.

As USRC evolves capabilities and demonstrates progress, in line with stated expectations and project milestones, the USRC Board should consider increasing its autonomy to enhance its flexibility and nimbleness to better respond to opportunity and project needs. The full evolution of governance structures should be completed prior to the start of construction. The final structure will establish the long-term ownership, funding and governance of the SEP and asset.

Governance - Recommendation C: USRC, Amtrak, and DC, should agree on a collaboration structure that can advance near-term station, terminal infrastructure investments, and SEP Project Development activities. This can be achieved through a Memorandum of Understanding (MOU) or partnership agreement.

Analysis undertaken in this Study concludes that USRC can lead SEP delivery Final Design & Construction using its existing authorizations by entering agreements with other Key Stakeholders. This can be achieved first by using a Memorandum of Understanding (MOU) or project agreements for scope-specific work for Project Development activities and then by using a Project Development Agreement (PDA) structure which is a comprehensive agreement among parties to fund, construct and deliver the project.

The use of a nonprofit corporation is not conventional for mega-project delivery, which more commonly uses a governmental agency to undertake the role of Project Sponsor. However, Union Station and USRC are unique and USRC has a demonstrated track record of being an effective vehicle for the federal government to make investments into Union Station. It is prudent to evaluate the performance of USRC

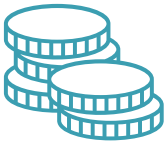
and the stakeholders upon reaching the 30% design stage to determine if the structure still represents the optimal vehicle for SEP project delivery.

A review of mega-projects shows that governance structures should evolve to meet the needs of the project, especially in transitioning from Project Development into Final Design and Construction. Projects can evolve in different ways, but as greater definition is brought to the project during Project Development, new opportunities may arise (e.g., funding commitments), the performance of the Project Sponsor can be assessed, and decisions can be taken to modify governance structures accordingly.

Governance - Recommendation D: Maryland and Virginia should play an integral role in the development and delivery of the SEP, including through the provision of project funding. As a first step, USRC should integrate MD/VA into SEP governance and Project Development activities.

Maryland and Virginia are important participants in this project. They not only provide direct rail services in the form of Maryland Area Rail Commuter (MARC) and Virginia Rail Express (VRE) but their broader economy, mobility, and access to employment is strongly tied to Union Station. Each state therefore needs a strong level of inclusion at both the leadership and project delivery levels.

USRC possesses legal authorizations as a DC nonprofit and through its Articles of Incorporation and bylaws that enable it to undertake the role of Project Sponsor and now needs to enter into collaborative agreements with Amtrak, DC, Washington Metro Area Transportation Authority (WMATA), Virginia, and Maryland to advance the forthcoming work. These agreements will define the scope of work, roles and responsibilities and preferably set out Project Development stage funding commitments.



Funding and Financing

Funding and Financing - Recommendation E: USRC should identify near-term funds for immediate Project Development activities (prior to the receipt of grant funds), including collaborating with regional political supporters to advocate to Congress for near-term funding.

Financial sustainability is another critical success factor for the delivery of the project. This means the creation of a financial structure that will ensure the longevity and state of good repair of the asset. Financial sustainable plans will be developed over the Project Development phase as new revenue sources and structures are fully interrogated and secured. It is not necessary to identify all required SEP funds now, specifically construction funding. The project currently needs funds to pay for Project Development activities that can support advancement toward Final Design and Construction. Most pressing, USRC needs funds to be allocated for the approved FY24 SEP budget.

Funds may be accessed from various sources. The first is by a direct federal appropriation. This can be provided through an Act of Congress. Given the federal ownership of the station, and the fact that this ownership has historically presented challenges to funding, it is reasonable that a direct federal appropriation would be used to provide near-term funding for SEP. This would allow USRC to progress Project Development activities without interruption. This approach requires robust advocacy by USRC and local and regional supporters to the congressional delegation. Given the strength of support for Union Station and its proposed redevelopment, USRC should begin a process to build and organize this support now. It should be noted that federal entities cannot lobby for federal legislation and no part of this report or its recommendations should be construed as such.

Funding and Financing – Recommendation F: USRC should collaborate with Amtrak and District of Columbia to apply to the FSP-NEC program (FY24 cycle) for SEP Project Development activities.

There are also significant funding opportunities available through the Bipartisan Infrastructure Law, and as a multimodal transportation facility, the SEP is eligible for a range of programs. The Federal-State Partnership for Intercity Passenger Rail Grant Program (FSP) is a grant program that SEP is well suited to. The SEP is included in the Northeast Corridor Project Inventory[8], which is a requirement of acceptance into the program. This program requires a 20% non-federal match, combined with strong expressions of regional support and a demonstration of project readiness. The FY24 FSP-NEC Notice of Funding Opportunity (NOFO)[9] will likely be released in Spring 2024 with applications due mid-year, and awards toward the end of the year. Given the short time to the anticipated submission deadline, potential sources of non-federal funds are likely to come from Amtrak and the District of Columbia. A limited scope application in FY24 can provide USRC with important funding to continue SEP Project Development work.

Funding and Financing - Recommendation G: USRC should collaborate with Amtrak, District of Columbia, Virginia, and Maryland to apply to the FSP-NEC program (FY25 cycle) for SEP Project Development activities.

The FY25 cycle for FSP-NEC grant applications presents a good opportunity for USRC to coordinate with VA and MD for a well-supported package of regional, non-federal contributions for a grant application. This requires USRC to build strong relationships in the region and generate greater support for the project. Depending on its eligibility status at that time, USRC should determine the most appropriate lead applicant for a FY25 application.

A FY25 application should ideally include a combination of USRC, Amtrak, DC, VA and MD funds. The specific combination of contributions will depend on the outcome of the FY24 strategy. This combination of supporting entities would demonstrate strong regional support for the project. This is viewed as a medium-term strategy as federal funds from this source would not be available until 2026. USRC should use the time before FY25 FSP cycle begins to develop regional relationships and build confidence in the project and the delivery team. This approach can catalyze regional funding match which is critical to a competitive application. Non-federal funds can be sourced from a range of contributors.

Funding and Financing - Recommendation H: USRC should collaborate with Amtrak and regional funding entities to apply for other federal funding programs such as CRISI and RAISE for Project Development activities.

The Consolidated Rail and Safety Improvements (CRISI)[10] and Rebuilding American Infrastructure with Sustainability and Equity (RAISE)[11] programs also present further opportunities to access SEP Project Development funds, as well as other programs that can be applied to specific elements of SEP scope.

However, there are practical cost, resource, and schedule limitations associated with federal grant applications to consider and USRC is limited by its available resources. Therefore, USRC should focus time and efforts on high value, well aligned federal programs (i.e., FSP-NEC).

Funding and Financing - Recommendation I: USRC should seek amendment to the Bipartisan Infrastructure Law to allow it to be a direct eligible applicant for federal funding programs.

USRC is not currently an eligible applicant under current federal discretionary grant programs for which the SEP is eligible. USRC, however, is authorized to enter into agreements that can provide access to funds as a subrecipient (e.g., with Amtrak or regional eligible entities). USRC and Amtrak are in the process of detailing a scope of work for all SEP-related Project Development activities. This scope, or elements of it, can be used to apply for specific grants.

This short-term solution can be implemented now while a longer-term solution to make USRC a direct eligible entity can be achieved through a legislative amendment. Again, this action will require an Act of Congress and therefore strong political advocacy is needed. Fortunately, Union Station has considerable political and regional support because of the benefits that will accrue as a result of the realization of the redevelopment. It is now important to turn that support into action and organize a coordinated effort to deliver the changes necessary to undertake the SEP.

Other Considerations

Current information shows the SEP will deliver wide ranging economic, social, and environmental benefits. It will generate between $296 and $557 million in annual labor income and will bring approximately $414 million to $778 million annually in economic activity for the region over a 13-year period, creating approximately 6,300 jobs annually in the process.[12] There is an active effort underway to reduce the construction schedule and manage cost escalation. Therefore the economic impact based on the FEIS, may understate the true economic impact of this project. There are very few projects that can provide the opportunity to provide such meaningful positive benefits to such a large population.

Benefits will be experienced in both the construction and operational phases of the project. Further detailed quantification of these benefits will position SEP for future funding and can form the basis of the case for investment from federal and regional governments. This information can be used to facilitate cost allocation discussions between stakeholders that will build to a fully committed funding stack. It is important that USRC continue to communicate these benefits as they represent the cornerstone of building and maintaining project support.

The SEP is Critical for Other Regional Investments

Constructing the SEP is necessary to fully realize the value of other regional investments such as Long Bridge and Frederick Douglass Tunnel, and to support the upgraded network capacity that they are designed to address. The planned upgrades to the Northeast Corridor and Southeast rail network are critical to the country's mobility, economic, climate and equity goals.

The exact composition of the funding and financing structure that will support the delivery of the SEP will be determined at the conclusion of the Project Development phase. At the appropriate time, it will require strong financial commitments from both the federal government and the region (DC, Virginia and Maryland). There are multiple sources of potential funds; however, due to the timing of the project and the expiry of current federal infrastructure funding authorizations, it is likely that new or re-authorized federal sources will need to be identified. Given the nature, size and impact of the project, a combined and collaborative approach to funding will be needed that equitably shares cost between the federal government and the region.

Private financing is available for the project but will require committed and demonstrable long-term sources of revenues structured within creditworthy packages. The scale of the project demands innovation and therefore USRC should explore opportunities to maximize asset revenues. Examples of these are Pick Up / Drop Off (PUDO) fees, incremental sales tax allocations and other innovative revenue sources. This work will require close collaboration with the Key Stakeholders to determine their viability and acceptability. These opportunities can enhance Union Station's financial sustainability and maximize its revenue potential. Under the right conditions, these revenue sources could be financed.

Financing may be structured within a public-private partnership, a federal loan program, a debt facility, or combination of the above. The integration of financing into the overall structure can be used to effectively accelerate funds and potentially reduce upfront public funding contributions. Revenue streams will need to be sufficiently stable and secure to achieve this.

Project Delivery

Project Delivery – Recommendation J: USRC, in collaboration with Amtrak, DDOT, WMATA, Virginia and Maryland should immediately advance further Project Development work including both station and track infrastructure elements of the SEP as directed by the USRC Board Project Sponsor Resolution.

One of the key achievements of this Study is the alignment of Key Stakeholders on a consistent definition of project status. The SEP is presently in the Project Development stage and has reached a pivotal milestone with the NEPA Record of Decision in 2024. This represents the culmination of more than 10 years of work and extensive collaboration between FRA, USRC, Amtrak and other stakeholders. The project construction cost is currently estimated at $8.8 billion with a 13-year construction schedule.[13] The SEP is at an approximate 10% level of design which is common for similar-sized projects in a comparable stage of development completing NEPA. This is a conceptual level of design.

Further Project Development work is now required prior to implementation (i.e., Final Design & Construction) to advance to the next major milestone of 30% design. This will bring a greater level of cost and schedule specificity to the project, and opportunities to reduce inflation impacts and contingencies through refinement of the following:

- Constructability
- Design
- Funding and financial structure
- Commercial and procurement structure
- Legal and legislative planning and strategy

Reaching agreement on project status has allowed the group to work towards a detailed set of actionable next steps supported by a scope of work. Work is already underway between USRC and Amtrak to agree a specific scope, schedule and budget related to the above actions.

Project Delivery – Recommendation K: USRC, in coordination with Amtrak, should undertake a process to inform an efficient and risk-mitigated SEP delivery strategy.

The Project Development stage of work will bring clarity and specificity to the method under which the SEP will be delivered. This includes identification of the design and construction, the funding and financial structure, and the contracting and procurement approach. The project is still at a conceptual level, and this means that all options for SEP Final Design & Construction are available. This includes potential procurement and delivery structures which include traditional and innovative forms of delivery. Whatever procurement and contracting strategy is ultimately selected, it must be strongly

grounded in the foundations of project risk mitigation, whole-of-life asset focus, and the protection of the funding entities and taxpayers.

Should a progressive delivery model utilizing Design-Build (DB) or Public-Private Partnership models (P3s) be desired, Final Design & Construction procurement can happen as soon as 30% design. If traditional delivery or non-progressive forms of DB and P3 are selected, 60% design will need to occur first before the letting of construction contracts. USRC should regularly consult with the contracting industry to configure the project in a market acceptable format. This can bring benefits such as financial and technical innovation, project acceleration, true risk mitigation and competition.

Looking Forward

There could be several different construction package configurations for the SEP. The options should be further assessed at the 30% design stage when there is greater technical and financial clarity, rather than at this early stage of design.

The forthcoming work should include detailed analyses on financial and commercial structures, interrogating their efficacy against the needs of the project and funders to determine which is most appropriate. This will be an iterative process that is refined in step with the cost and schedule estimates.

To achieve the ambitious goal of SEP delivery, it would be beneficial for new or amended federal and regional legislation to clarify, modernize and update the existing framework of governing agreements. While it is possible to deliver the project under the current legal framework, the benefit of new and amended legislation is that it can be tailored to the specific needs of SEP and the organizations that will deliver it. This legislation would be comprehensive and establish project funding, governance and oversight and set out the key requirements for delivery. A project of this size and importance warrants dedicated legislation that reflects present day thinking on funding and delivery, is aligned to current policy and programs, and firmly secures Union Station for one hundred more years of operation with the goal of financial and asset sustainability.

Exhibit ES-2: Summary SEP development timeline

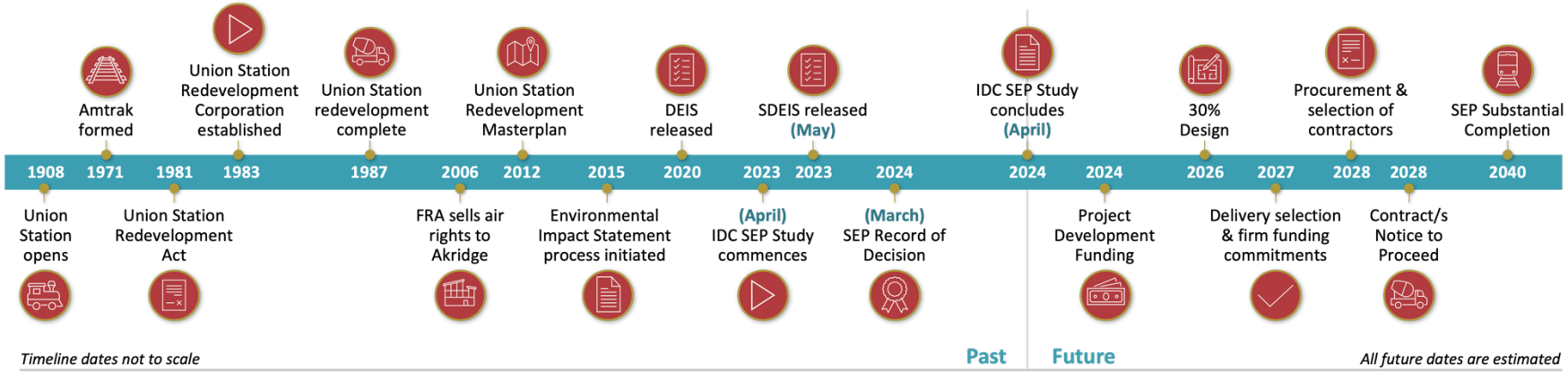


Exhibit ES-2 above shows key milestones to date and key milestones in the future. The SEP is within the Project Development stage per the FRA categorization and requires further work to be undertaken to correctly position it for construction.

Conclusion

The time to undertake the redevelopment of Union Station is now. The challenges of the station's location and ownership can be overcome by access to once in a generation federal infrastructure funding combined with regional investments. The construction of the SEP will create significant regional economic benefits including direct and indirect employment, and its realization has the power to be transformative in many ways. With every passing year those benefits go unrealized. The SEP will both preserve and transform Union Station, a place of national significance, and its surrounding infrastructure into a modern, best-in-class example of a 21st century station, befitting its place in the nation's capital and serving the diverse needs of the region and beyond. This report presents a plan to keep the project moving and advance it to the next major milestone.

Given the size and complexity of the project, it is not possible to know all the answers now. However, by employing strong foundational principles of financial sustainability, whole-of-life asset approaches, and collaborative and inclusive development, it is possible to set the project up for long-term success.

REPORT GLOSSARIES

Glossary of Definitions

Glossary: Study Key Terms Definitions	
Term / Name	**Full Name / Description**
Air Rights Development	The right to develop in the space above the Earth's surface. In the case of Union Station, this is held by private company, Akridge, who plans to construct a large mixed-use development known as Burnham Place. [14]
Advisory Group (AG)	Study core representatives, also defined as Key Stakeholders in the Glossary of organizations below.
Enabling Projects	Enabling projects are projects within the vicinity and footprint of Union Station that enable the SEP. These are detailed in Exhibit 5.4.
Contributing Stakeholders	Stakeholders who play a direct role in the station and the project from the perspective of coordination, approvals, or impacts to operations.
Environmental Impact Statement (EIS)	The Environmental Impact Statement is a government document as defined by the National Environmental Policy Act (NEPA) of 1970 to describe the impact of a proposed project on its surrounding environment.[15] The Environmental Impact Statement is the first document to define the proposed federal action and, upon publication of an EIS, is followed by the Issuance of a Record of Decision (i.e., the first federal action allowing a project to proceed through the Project Development Stage to the Final Design and Construction Stages). On March 12, 2024, the Federal Railroad Administration (FRA) signed a combined Final Environmental Impact Statement (FEIS)/Record of Decision (ROD) and Final Section 4(f) Evaluation for the project. The FEIS describes the impacts of the No Action Alternative and the Preferred Alternative (Alternative F) on the environment, and responds to comments received on the June 2020 Draft Environmental Impact Statement (DEIS) and the 2023 Supplemental DEIS (SDEIS).
External Stakeholders	External stakeholders represent the many and diverse groups with interests in Union Station and the SEP but who do not have a direct role in it. Stakeholder Definitions are provided in Exhibit 2.3 which includes a summary of their roles and responsibilities.
Final Design & Construction Stage	Stage in project life cycle that incorporates completion of design, contract procurement and construction of the asset. See Exhibit 1.3.
Key Stakeholders	Key stakeholders comprise USDOT, FRA, Amtrak, USRC, and DC. These groups have representation on the USRC Board of Directors. Stakeholder Definitions are provided in Exhibit 2.3 which includes a summary of their roles and responsibilities.

Glossary: Study Key Terms Definitions	
Term / Name	**Full Name / Description**
Lead Agency	The Lead Agency has primary responsibility for preparing the Environmental Impact Statement under NEPA. The Lead Agency for the NEPA process for the SEP is the FRA.
Mega-Project	Large-scale infrastructure project, generally accepted to be over $1 billion, with a high degree of technical and financial complexity and incorporating multiple stakeholders.
Non-federal contribution	The percentage contribution that an applicant to a federal funding program must contribute. This percentage changes by program but is conventionally between 20% and 50%. The non-federal contribution can be sourced from multiple entities and is not required to solely come from the applicant.
Northeast Corridor	Amtrak's Boston to Washington DC train line.
Project Development Agreement	A single or multiple set of contracts entered by the Project Sponsor and multiple collaborating parties to agree the legal framework to deliver the SEP.
Project Development Stage	Stage in project life cycle that incorporates planning for construction, selecting contractual and procurement structure(s) and assembling funding plan. See Exhibit 1.3.
Project Planning Stage	Stage in project life cycle that incorporates part of the EIS process.
Project Proponent	Amtrak and USRC, as defined by FRA in the SDEIS. USRC was further designated as Project Sponsor in the 2023 SDEIS.
Project Sponsor for the SEP (Project Sponsor or USRC)	Union Station Redevelopment Corporation (USRC) was designated the Project Sponsor for the SEP by the FRA in the SDEIS released in May 2023. [16] For the purposes of this Study, any use of the term "Project Sponsor" shall relate to USRC's designated role as Project Sponsor for the SEP. As Project Sponsor, USRC will be responsible for implementing the project through final design and construction, in coordination with Amtrak. As Project Sponsor, USRC will also be responsible for implementing the measures proposed in the SDEIS to avoid, minimize, or mitigate the adverse impacts of the project.
Region	The District of Columbia, Commonwealth of Virginia and State of Maryland.
Station Infrastructure	Station Infrastructure includes, but is not limited to, the historic building, parking structure, bus facility, concourses, retail space, train hall and pick up and drop off areas.

Glossary: Study Key Terms Definitions	
Term / Name	**Full Name / Description**
Study	The InfrastructureDC Union Station Project Delivery and Governance Study.
Track Infrastructure	Track Infrastructure includes, but is not limited to, rails, platforms, signals, communications systems, catenary, wayside buildings, and other structures within the Union Station Complex. These elements are wholly owned by Amtrak.
Union Station Complex	The term "Union Station Complex" means real property, air rights, and improvements the Secretary of the Interior leased under sections 101–110 of the National Visitors Center Facilities Act of 1968 (Public Law 90–264, 82 Stat. 43) and property acquired and improvements made.[17]
Washington Union Station Expansion Project (SEP)	The project as defined in the SDEIS and FEIS (Alternative F). [18]

Glossary SEP and Study Stakeholder Acronyms

Glossary: SEP and Study Stakeholder Acronyms	
Acronym	**Organization Full Name / Description**
AG	Advisory Group: Representatives from USDOT, FRA, Amtrak, USRC, IDC, OP and DDOT who have contributed to this Study
CR / CR Study Team	CohnReznick LLP, a professional services firm, and its subconsultant team
DC	District of Columbia
DDOT	District Department of Transportation
DMPED	Office of the Deputy Mayor for Planning and Economic Development
IDC	InfrastructureDC
FC2	Federal City Council
FRA	Federal Railroad Administration
MARC	Maryland Area Rail Commuter
MD	State of Maryland
MDOT	Maryland Department of Transportation
MWCOG	Metropolitan Washington Council of Governments
NRPC	National Railroad Passenger Corporation (Amtrak)
NECC	Northeast Corridor Commission
OP	District of Columbia Office of Planning
USDOT (DOT)	United States Department of Transportation
USRC	Union Station Redevelopment Corporation
VA	Commonwealth of Virginia
VPRA	Virginia Passenger Rail Authority
VRE	Virginia Railway Express
DRPT	Virginia Department of Rail and Public Transportation
WMATA	Washington Metropolitan Area Transit Authority

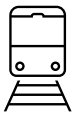
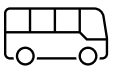
1. INTRODUCTION & OVERVIEW

Introduction and Overview

The Challenge: The Nation's Station

Washington Union Station is located just five blocks from the U.S. Capitol Building. Designed by renowned architect Daniel Burnham, it was constructed between 1903 and 1908.[19] The 53 acres of rail infrastructure that comprise the Union Station Complex now serve a broad range of multimodal users. Before the COVID-19 pandemic, Union Station served 37 million passengers a year – more than any of the three regional airports – from passengers using Amtrak, MARC, VRE, WMATA, Intercity and regional bus to get to or from the Nation's Capital.[20] Long-term ridership growth is forecast to be significant. Despite its central and essential role as a regional transportation hub, Union Station has experienced funding, operational, maintenance, and governance challenges.

The station needs to be aligned to the needs of the modern traveler. It's current configuration presents the following issues:

	The current train platform configuration does not meet Amtrak standards or provide capacity for future ridership volumes.
	Passenger transition through the station, including access to trains from the station's platforms need to be modernized so that travel experiences can be provided more equitably for all users.
	The existing bus facility is challenging to access, lacks proper amenities and is of insufficient quality for the region's premier transportation facility. Intercity bus travel at Union Station provides a critical, lower-cost and sustainable intercity travel option, ensuring broader access to economic/educational opportunities. Today, bus passengers have a lower quality experience compared to rail passengers.
	Passenger access to other modes within the station, be it from Metrorail to a Greyhound bus, or from a DC Circulator bus to a MARC train, is often disjointed and inconvenient. There is only one entry point to the rail station via the Columbus Circle entrance, which can be congested and challenging for pedestrian and bicyclists. Many areas are overcrowded at peak times, which can lead to delays to access and egress of transportation modes.
	There is a significant maintenance backlog at Union Station. The SEP can address long-term maintenance challenges by providing a financially sustainable structure for the station.

Thousands of Maryland and Virginia residents work in the District and rely on Union Station's multimodal facilities every week. Prior to the pandemic, nearly 50 percent of the Capital Region's commuters were living in one jurisdiction and working in another, with 20 percent crossing a state border.[21] While ridership is still below pre-pandemic levels, VRE, MARC and WMATA all are experiencing

increased usage,[22] and the region's residents continue to demand easy and safe multimodal connections that tie the region together.

The station has benefited from past dedicated funds for redevelopment and state of good repair but has struggled due to limitations placed upon access to other sources of funding, and periods of underinvestment.

While DC and the region view Union Station as a key transportation asset and economic growth facilitator, it has historically proven difficult to invest in it for many reasons. Federal ownership of both the asset and the land on which it sits means that the District of Columbia is limited in exercising control over it, including the ability to tax or otherwise raise revenues to support it.

While there are examples of regional collaboration, such as WMATA, this has often proven to be challenging to both establish and manage. Despite its importance to their economies, Union Station's location in the District means Virginia and Maryland have limited ability to provide funding. From the perspective of funding this large investment, where projects conventionally require significant contributions from both state and federal governments, these circumstances present real challenges. As a result of a lack of funding and investment, the station has not seen any infrastructure improvements since the 1980s.

The Solution: The Station Expansion Project

The Washington Union Station Expansion Project (SEP) will expand and modernize Union Station. The SEP's bold vision to rebuild and modernize tracks, platforms, and station facilities will deliver critical enhancements to passenger safety, ADA accessibility, and neighborhood connectivity for all passengers and visitors moving in and around Union Station.

The SEP will completely modernize and reconstruct 53 acres of rail infrastructure behind the historic station, along with the reconfiguration and modernization of 19 tracks and platforms.[23] The SEP would enhance Union Station's capacity and increase Amtrak, MARC and VRE capacity to accommodate more than 150% in ridership volume growth by 2040.[24] Union Station is already Amtrak's second busiest rail station in the US, and it is a critical hub for both the profitable NEC, and emerging Southeast Corridor. The expansion of Union Station would better connect regional rail investment projects like the replacement of the Baltimore & Potomac tunnel in Baltimore and the Long Bridge expansion across the Potomac River to Virginia, as well as providing increased capacity for the entire Northeast Corridor.

The SEP will enable critical capacity enhancements, as well as better facilitate run-through service for MARC's Penn Line and VRE's Manassas and Fredericksburg lines. Union Station's expanded passenger spaces along with the new H Street Concourse associated with the SEP will greatly enhance MARC Brunswick and Camden service and provide for efficient transfers to other regional rail trains and WMATA service.[25]

Exhibit 1.1: A vision for the Station Expansion Project (interior)

Source: Akridge

The facility will dramatically improve pedestrian and bicycle access as well as increase bicycle storage, rental and sharing facilities. The SEP reduces the amount of parking at Union Station by at least two-thirds as compared to its current capacity, as DC readies for a less car dependent future. The SEP would include a high-capacity, centralized and accessible bus facility with natural light serving intercity and charter buses.

To better connect the community, both in surrounding neighborhoods and visitors from across the world, the project concept includes the preservation and enhancement of the historic station building as well as enhanced transportation amenities.

Creating a world-renowned multimodal facility steps from the U.S. Capitol Building will serve as a symbol of the Nation's commitment to innovation, sustainability, resiliency, and competitiveness for the next century.

Further, SEP enables the development of 3 million square feet of mixed-use development over the existing rail yard[26], weaving together the East and West of the District and restoring connectivity to parts of the City that are currently divided.

Exhibit 1.2: A vision for the Station Expansion Project (wide view interior)

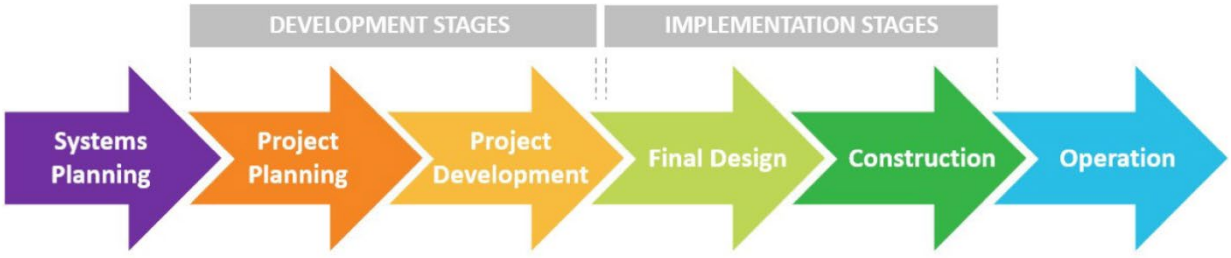
Source: Akridge

Further information related to the SEP is provided in this video link: [Washington Union Station Expansion Project on Vimeo]

Life Cycle Stages for Railroad Capital Projects

To establish a common framework for project progression, the Study adopted the project development lifecycle stages used in FRA's "Guidance on Development and Implementation of Railroad Capital Projects" issued in 2023.[27] These lifecycle stages assist railroad capital project sponsors in managing, sequencing, and implementing activities in a practical and productive manner.

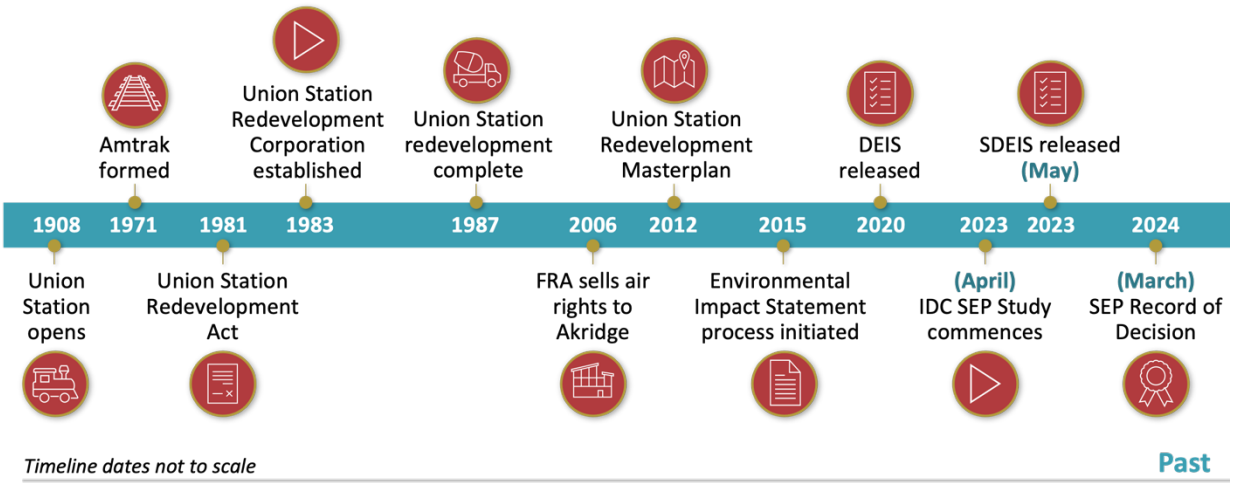
Exhibit 1.3: FRA's Designation of Life Cycle Stages for Railroad Capital Projects



Evolution of the SEP: Timeline

Exhibit 1.4 below provides the key dates in the history of Union Station and the SEP.

Exhibit 1.4: Key Dates for Union Station and the SEP



Key SEP events to date

1908 Designed by renowned architect Daniel Burnham, Union Station is completed.[28]

1971 The National Railroad Passenger Corporation, doing business as Amtrak, is founded. Its founding represents the amalgamation of a number of private railroad passenger services around the country.[29]

1981 Union Station Redevelopment Act is passed by Congress which provides direction and funding to the extensive redevelopment of the Complex.[30]

1983 Union Station Redevelopment Corporation is created as a DC nonprofit with the purpose of organizing and managing the redevelopment works of Union Station. After the redevelopment its role is contemplated to focus on management and oversight.[31]

1987 The scope of work that the Union Station Redevelopment Act contemplated is completed and Union Station reopens in 1988.[32]

2006 The FRA sells air rights above the tracks to Akridge, a private real estate developer. This sale contemplates that Akridge would create Burnham Place, a mixed-use and public space development on top of the Union Station platforms and tracks. This development will extend north beyond the H Street Bridge. As a result of this air rights sale, further work is deemed to be necessary to prepare for the air rights development and to modernize the station.[33]

2012 USRC, Amtrak and Akridge release Washington Union Station's 2nd Century Plan. This is the foundational document for the SEP and is an aspirational vision and planning effort that helps the organizations articulate a path forward and define goals for long-term expansion of the station and near-term improvements to passenger facilities. It is paired with additional Amtrak investments in the Washington Union Station Complex.[34]

2015 FRA initiates the Environmental Impact Statement (EIS) process for the project to comply with the requirements of the National Environmental Policy Act (NEPA) by publishing the Notice of Intent (NOI) in the federal register. FRA is the federal Lead Agency for the EIS/NEPA process responsible for assembling the required documentation.[35]

2020 FRA releases a Draft Environmental Impact Statement (DEIS) for the project and following stakeholder feedback undertook further work to revise the project alternative.[36]

2023 In April the Washington Union Station Expansion Project Delivery and Governance Study commences. This Study brings together USDOT, FRA, USRC, Amtrak and the District to collaboratively identify a plan of action to advance the required work to deliver the project upon completion of the EIS process.

2023 On May 12, the Federal Railroad Administration (FRA) releases a Supplemental Draft Environmental Impact Statement, Draft Programmatic Agreement, and Draft Section 4(f) Evaluation for the Washington Union Station Expansion Project. The SDEIS assesses the potential impacts on the human and natural environment of a new Preferred Alternative (Alternative F) developed in response to comments on the 2020 DEIS. The comment period to the SDEIS ended on July 7, 2023. This Preferred Alternative represents the conclusion of a long stakeholder input process and results in strong stakeholder agreement and collaboration. Additionally, and of primary note to this Study, FRA named USRC as Project Sponsor for the SEP. USRC and Amtrak are named as Project Proponents to acknowledge their critical role in the delivery of the SEP.[37]

2024 On March 12, the Federal Railroad Administration (FRA) signs a combined Final Environmental Impact Statement (FEIS)/Record of Decision (ROD) and Final Section 4(f) Evaluation for the Project. The FEIS describes the impacts of the No Action Alternative and the Preferred Alternative (Alternative F) on the environment, and responds to comments received on the June 2020 Draft Environmental Impact Statement (DEIS) and the 2023 Supplemental DEIS (SDEIS).[38]

1981-Present: Current Ownership Structure and Interests at Union Station

This section provides details regarding Union Station ownership and control that is important to the Study.

Federal Ownership

USDOT is owner of the Union Station Complex on behalf of the federal government. It is the only federally owned station asset in the nation. FRA is empowered by USDOT to provide federal oversight of the Union Station Complex.[39] Both USDOT and FRA participate in the management and oversight of Union Station through their membership of the Union Station Redevelopment Corporation (USRC) board.[40]

FRA is the Authority Having Jurisdiction (AHJ) over the Union Station Complex.[41] Additionally, FRA is responsible for identifying the applicable building design and construction codes, standards and guidance and for overseeing that any repairs, rehabilitation, construction, and maintenance performed or planned to be conducted at Union Station is designed, conducted, and performed by the responsible parties in compliance with the applicable building design and construction codes, standards, and guidance. As the AHJ, FRA is also responsible for overseeing that all fire and life safety codes and

standards are met. Because Washington Union Station is a federally owned facility, FRA is fulfilling the role of the local government for building code compliance.[42]

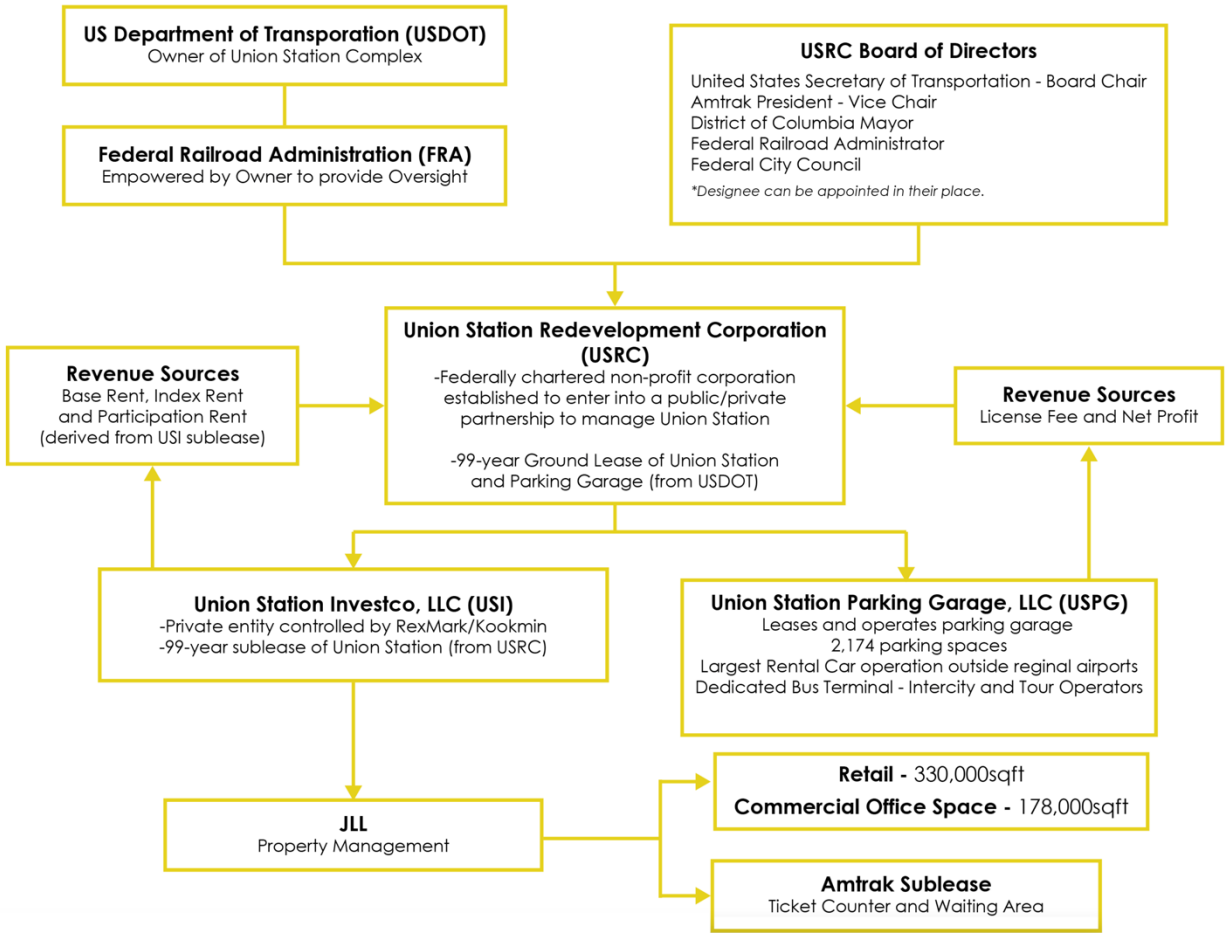
Union Station Redevelopment Corporation

In 1981, Congress passed the Union Station Redevelopment Act.[43] It states that the Secretary of Transportation shall provide for the rehabilitation and redevelopment of the Union Station Complex primarily as a multiple-use transportation terminal serving the nation's capital, and secondarily as a commercial complex, in accordance with specific prescribed goals.

Union Station Redevelopment Corporation (USRC) was created in 1983 by Secretary of Transportation, Elizabeth Dole, as a result of the Union Station Redevelopment Act legislation passed by Congress to oversee the station's restoration and renaissance.[44] Owned by the United States Department of Transportation, USRC has a 99-year ground lease of the station and its parking garage and is ultimately responsible for its historic preservation and management of its restoration and future development. USRC is a nonprofit corporation organized under the District of Columbia Nonprofit Corporation Act (D.C. Code §§ 29-401.01 et seq.).[45] USRC's authority extends to the Historic Station Building and parking structure.

Exhibit 1.5, below, shows the Union Station governance currently in place.

Exhibit 1.5: Union Station Governance and Lease Structure



Source: USRC

Amtrak

Amtrak was created by the Rail Passenger Service Act of 1970 (P.L. 91-518) under which the nation's privately owned railroads were relieved of the common carrier responsibility for carrying passengers. The government relieved the freight railroads of passenger service because ridership had been declining almost continuously since 1920 and passenger service had become a financial burden on them. Amtrak began service on May 1, 1971.[46]

The Boston-Washington Northeast Corridor (NEC) was transferred to Amtrak five years after Amtrak commenced operations. The NEC is subject to a 999-year mortgage held by the Department of Transportation.[47]

Amtrak, through its nearly 100% ownership of the Washington Terminal Company, has authority over the terminal infrastructure for railroad operations at Union Station.[48] It owns the platforms, catenary, rails and other track infrastructure (FRA owns the land underneath). It also owns the right-of-way north

of the station which includes the project limits of the SEP. These areas are highlighted in Exhibit 1.6: Map of Controlling Interests at Union Station Project Area in red below.

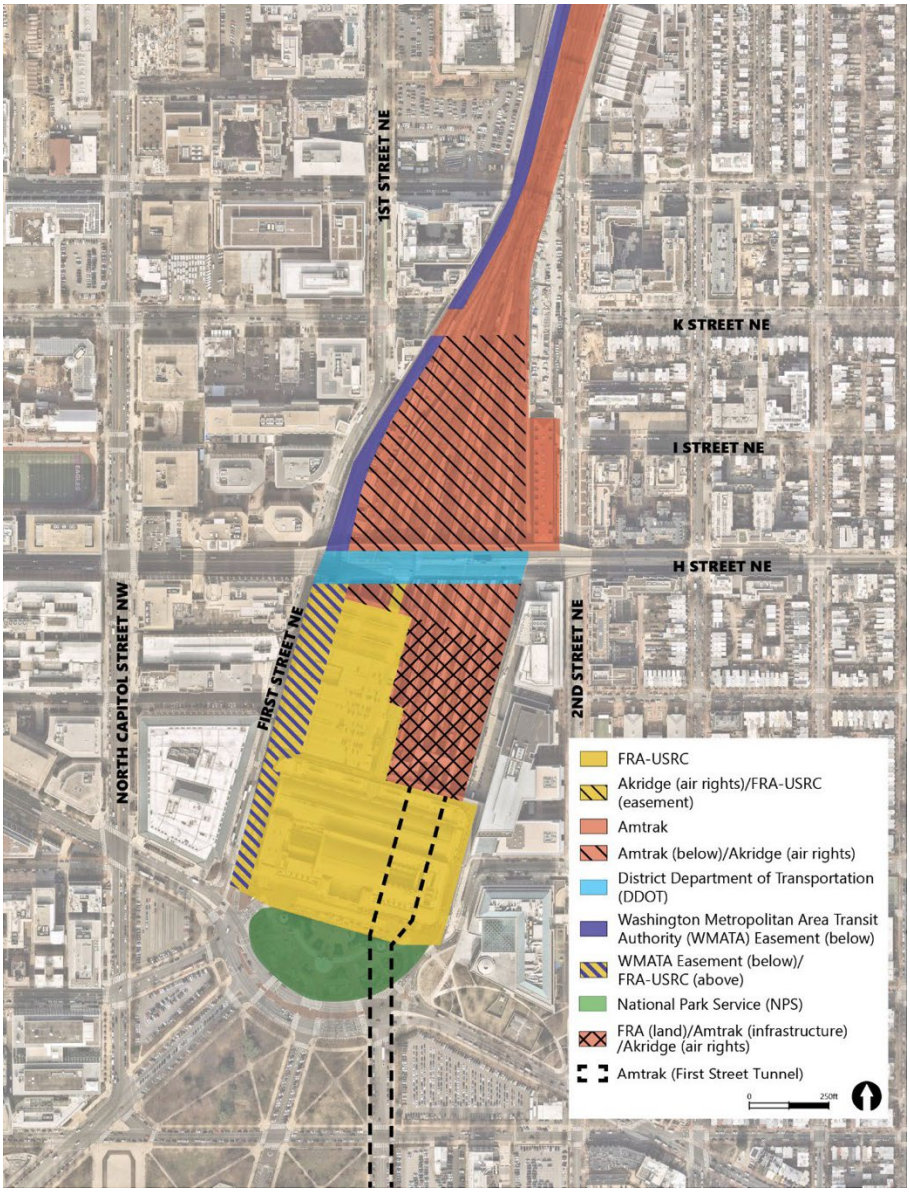
These combined track infrastructure elements are included within SEP, and Amtrak has primary responsibility for their construction. Additionally, there are several other supporting and enabling works within and in the vicinity of the Union Station Complex that Amtrak is also responsible for delivering (see Exhibit 1.7). As the operator of the Northeast Corridor, Union Station is critical to Amtrak's business as well as its broader plans for system modernization and capacity expansion.

Exhibit 1.6 provides a map of the SEP project area. This area extends beyond the historic building and station to Amtrak's Ivy City Yard.

Exhibit 1.6: Map of SEP Project Area

Source: FRA, Final Environmental Impact Statement

Exhibit 1.7: Map of Current Controlling Interests at Union Station Project Area



Source: FRA, Final Environmental Impact Statement

Note: Smaller Easements not shown.

Other SEP Coordinating Entities

WMATA has an easement along the west side of the Amtrak terminal infrastructure and below ground level under the parking garage and portion of the historic building. The National Park Service owns Columbus Circle in front of the historic building. Lastly, MARC and VRE commuter rail services operate at Union Station through access agreements and their passengers use the station assets; intercity and regional bus services also use the bus facility within the parking garage. VRE utilizes the lower-level run-through tracks located currently in the center platforms of the station. MARC's three services primarily utilize the easternmost platforms at the station. Currently, nine bus services utilize the existing bus facility. Akridge, a private development company, owns the air rights above the Amtrak terminal infrastructure adjacent to the existing parking garage and south of H Street Bridge where it plans to construct a new mixed-use development known as Burnham Place. [49]

The ownership, oversight and operating structure within Union Station means that no single entity is fully empowered to undertake redevelopment work unilaterally. Instead the process must be carefully managed among the parties with a high degree of collaboration and coordination.

2. PURPOSE AND PROCESS OF THE STUDY

Study Purpose and Process

Purpose of the Study

In 2022, the District of Columbia (DC) funded the Washington Union Station Expansion Project Delivery and Governance Study (Study) to build on the significant progress, stakeholder support and momentum achieved through the ongoing NEPA process. The DC FY 23 Budget Support Act, from which funds are appropriated, sets out requirements to identify the most advantageous operating model for project oversight, implementation, and funding structure to support the redevelopment of Union Station, a multimodal, regionally significant transportation hub located in Washington, DC. The language from the FY 2023 DC Budget Support Act, or B24-0714,[50] calls for the following:

1. A preferred organizational structure for executing the USEP, including roles, responsibilities, and resources for implementation and organizational capacity requirements for each entity to fulfill its role;
2. The legal, legislative, and financial steps necessary to enable, establish, and resource the recommended organizational structure; and
3. A high-level financial and business plan for execution of the SEP.

InfrastructureDC (IDC), a nonprofit organization dedicated to accelerating investment in the District of Columbia's public infrastructure, worked in partnership with the DC government to procure a consultant and manage the Study process.

Study Goals

The goal of this Study is to enhance individual or organizational understanding of the SEP as a project, and the necessary governance, funding and delivery actions that the Advisory Group have agreed upon as recommendations for continued action. The release of the final report of the Study aligns with the public engagement process for the Final Environmental Impact Statement (FEIS) and issuance of the Record of Decision (ROD), which was completed in March 2024.[51] Given these key milestones around federal funding opportunities, and the completion of the EIS, the Study seeks to be a catalyst for the entities who these recommendations relate to being empowered to take action and continue to bring in the broad set of partners and stakeholders together.

Study Process: Technical Workstreams

The Study was undertaken in a three-step process. This process was designed to advance the three primary areas for study concurrently with the goal of reaching an agreed set of recommendations at the end of the process.

Technical Analysis of Governance, Funding, and Delivery

A: Governance

- Necessary resources, organizational structure, and authorities for the recommended project delivery entity to effectively deliver this project.
- Identification of the legal, legislative, financial, and political considerations to effectively resource and authorize the recommended project delivery entity.

B: Funding and Financing (Funding)

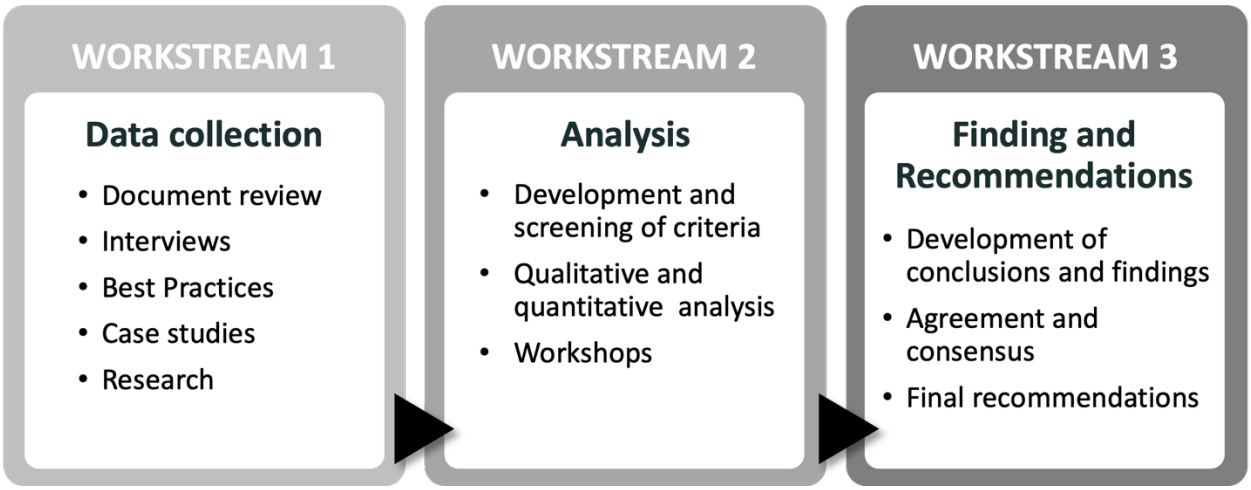
- Funding roles and responsibilities including ownership and authorities.
- Identification of project benefits.
- Opportunities for funding.

C: Project Delivery (Delivery)

- Identification of the steps needed to deliver the project.
- The specific role of each organization and project responsibilities.
- A determination of the best way to deliver the project from both a technical and procurement/contractual perspective.

Study Workstreams

Exhibit 2.1: Study Process



- **Workstream 1** was designed as the data and information collection phase of work. The Study Team gathered and reviewed all relevant information including:
    - Examined Union Station's foundational and current governing documents.
    - Determined current and required authorizations of entities to undertake the SEP.
    - Conducted interviews with a range of stakeholders to solicit feedback on the SEP.
    - Reviewed extensive Union Station and SEP documentation.
    - Researched federal funding programs, options for non-federal funding, public and private financing opportunities, and potential new revenue sources.
    - Researched and synthesized Study Team experience of Union Station, comparable projects and structures implemented within the region, the nation and internationally.
    - Consulted with and reviewed academic and industry research on project delivery.
- During **Workstream 2** information and data was synthesized using analytical tools and preliminary conclusions and results were provided. The following was undertaken:
    - AG workshops (including review and analysis of comparable projects, best practices, and SEP applications).
    - Analysis project constructability and design.
    - Analysis of legal and legislative structures.
    - Analysis of governance structures.
    - Analysis of funding and financing opportunities.
    - Initial recommendations.
- In **Workstream 3** these results were rigorously tested, carefully assessed and weighed by the Advisory Group during long-form meetings, and provided to external stakeholders for feedback.
    - Agreement to key conclusions of the analysis.
    - Agreement of Study recommendations.
    - Finalization of report.

Exhibit 2.2: Study Components

Study Process: Stakeholder Engagement

Advisory Group

To help guide the Study, IDC convened an Advisory Group (AG) composed of representatives from the United States Department of Transportation, the Federal Railroad Administration, Union Station Redevelopment Corporation, Amtrak, the District of Columbia represented by both the Office of Planning, and the District Department of Transportation. The Advisory Group is comprised of Key Stakeholders.

The AG provided support to the Study which included: participation in one-on-one interviews, attendance of regular scheduled meetings and workshops, and detailed review and comment on deliverables and other Study materials. This process was used to develop the findings and recommendations that received consensus from the Advisory Group and the organizations that they represent. IDC, as the Study's project manager and the entity issuing the Study, determined early that it was important to clearly distinguish its role from that of the Federal City Council, which has a seat on the Board of Directors of USRC. Therefore, IDC played the role of a neutral facilitating party during this process.

Study Consultant Team

CohnReznick LLP, a professional services and advisory firm, was selected through a competitive process to undertake the Study on behalf of IDC and OP. The multidisciplinary scope required expertise in a range of key areas including project funding and financing, technical and commercial infrastructure delivery, project governance, and legal and legislative structures. CohnReznick assembled a multidisciplinary Study Team to satisfy the requirements of the scope.

The Study Consultant Team included the following firms:

- Ashurst (legal and legislative)
- EXP (technical)
- Redgate Real Estate Advisors (real estate and commercial)
- Bluebird Advisors (commercial and financial)
- Boothe Transit Consulting (funding)

Stakeholder Input: Key, Coordinating and External Stakeholder Definitions

In addition to the Advisory Group, the Study Team conducted SEP-specific interviews and received detailed input from leadership and representatives of most Key and Coordinating Stakeholder organizations. Information was processed and analyzed to produce the Study findings and recommendations within this report.

To differentiate between different interests within Union Station, and determine levels of consultation and inclusion, this report categorizes stakeholders into three categories:

Key Stakeholders

- **Key Stakeholders** are stakeholders with an ownership interest, oversight responsibility, major operating function, or geographically significant interest in Union Station and the SEP. However, it is also important to acknowledge that each has different roles and responsibilities, as well as different levels of control within Union Station, as described in Exhibit 2.3.

Coordinating Stakeholders

- **Coordinating Stakeholders** are stakeholders who play a direct role in the station and the project from the perspective of coordination, approvals, or impacts to operations. An example of these stakeholders are rail service operators who will need to closely coordinate to identify service impacts, both during and after construction and agree the range of mitigations. Additionally, approval and permitting agencies will need to closely coordinate with the Project Sponsor. Virginia and Maryland are currently important coordinating stakeholders. If the states decide to take a more active role in the project, they can become Key Stakeholders.

External Stakeholders

- **External Stakeholders** represent the many and diverse groups with interests in Union Station and the SEP, such as transit users and federal workers in the DC-Maryland-Virginia region. While it is acknowledged that these groups are numerous and have very different needs with regard to the station and its redevelopment, it is possible to categorize them into a broad category for the purposes of this Study.

Exhibit 2.3: Key Stakeholders

Key Stakeholders	
Organization	**Role**
Union Station Redevelopment Corporation (USRC)	Founded in 1983, Union Station Redevelopment Corporation (USRC) is a nonprofit organization charged with three main objectives: to preserve and restore Union Station's historic and architectural significance, maintain the station's long-term function as a multimodal transportation center, and enhance the retail and amenities within the station.[52] USRC was designated as "Project Sponsor" for the SEP in the Supplemental Draft EIS, released May 12, 2023. This role was confirmed in the FEIS, released March 12, 2024.[53] The USRC Board of Directors oversees USRC and is comprised five representatives: Secretary of the US DOT (Board chair), Amtrak CEO (Board vice chair), FRA Administrator, Mayor of the District of Columbia, and the President of Federal City Council.[54]
U.S. Department of Transportation (DOT)	USDOT is the ultimate owner of Union Station and has empowered FRA to act on its behalf with regard to all federal ownership and oversight responsibilities. The Secretary of Transportation is the Chair of the Board of Directors of the Union Station Redevelopment Corporation (USRC).[55]
National Railroad Passenger Corporation (Amtrak)	Amtrak, the National Railroad Passenger Corporation, is the United States' national passenger rail carrier which operates 21,000 route miles in 46 states, the District of Columbia and three Canadian provinces. Amtrak operates more than 300 intercity trains each day to more than 500 destinations. It operates services running into and out of Washington Union Station. The station is the southern terminus for Northeast Corridor (NEC) and a planned terminus for future high-speed rail services. Amtrak owns the tracks and platforms within Union Station and is primarily responsible for the Terminal Infrastructure upgrades.[56]

Key Stakeholders	
Organization	**Role**
	Amtrak's President is Vice Chair of the Union Station Redevelopment Corporation (USRC) [57]
Federal Railroad Administration (FRA)	FRA was given authority to act on behalf of the US Transportation Secretary to govern the redevelopment and management of Union Station. It is the Lead Entity of the NEPA process for the SEP and is responsible for issuing the SEP's Environmental Impact Statement. [58] The FRA Administrator is a Board Member of the Union Station Redevelopment Corporation (USRC). [59]
Mayor of the District of Columbia	Mayor Muriel Bowser is the Mayor of the District of Columbia, and works with the DC Council to support the advancement of the SEP. The District has committed to supporting the project through the $274 million investment in the reconstruction of H Street Bridge, a project that directly enables the SEP. [60]
District of Columbia Office of Planning (OP)	The DC Office of Planning (OP) is tasked with planning for the long-term growth of the District of Columbia, to help ensure it reflects District values of an inclusive and vibrant city. OP performs planning for neighborhoods, corridors, districts, historic preservation, public facilities, parks and open spaces, and individual sites. OP, through funds allocated by the DC Council, is funding IDC to select and manage the Consultant to execute the Study. [61]
Office of the Deputy Mayor for Planning and Economic Development (DMPED)	The Office of the Deputy Mayor for Planning and Economic Development (DMPED) plays a vital role in shaping the economic landscape of a city or municipality, fostering growth, and improving the well-being of its residents through strategic planning, partnership-building, and effective implementation of economic development initiatives. The District has a seat on the USRC Board, with the Deputy Mayor for Planning and Economic Development (DMPED) serving as the Mayor's Designee. [62]
District Department of Transportation (DDOT)	The District Department of Transportation (DDOT) was established by The District Department of Transportation Establishment Act of 2002 as a cabinet-level agency responsible for the management of transportation infrastructure and operations within Washington DC. [63] The SEP project will require a high degree of coordination with DDOT due to the District's $274 million H Street Bridge Reconstruction project, and the track reconfiguration associated with the SEP. DDOT will also help coordinate

Key Stakeholders	
Organization	**Role**
	Columbus Circle with National Park Service, and the G St. And First St. Ramps to the below-grade parking and PUDO.
InfrastructureDC (IDC)	InfrastructureDC (IDC) is a nonprofit, tax-exempt organization, described in section 501(c)(3) of the Internal Revenue Code, that lessens the burdens of the government of the District of Columbia, and enhances economic competitiveness and quality of life in the District of Columbia by increasing and accelerating investment in public infrastructure and through the development of municipal facilities. IDC is the project manager for the Study.
Federal City Council (FC2) FEDERAL CITY COUNCIL	The Federal City Council (FC2) is a nonprofit, nonpartisan, membership-based organization dedicated to the advancement of civic life in the nation's capital. Established in 1954, the FC2 recognizes that improvements in the District of Columbia's social, economic and physical infrastructure require innovative, tireless work. FC2 seeks long-term solutions to complex, community-based problems that produce lasting change and a stronger DC. It is a Board Member of USRC. [64]

Exhibit 2.4: Summary SEP development timeline

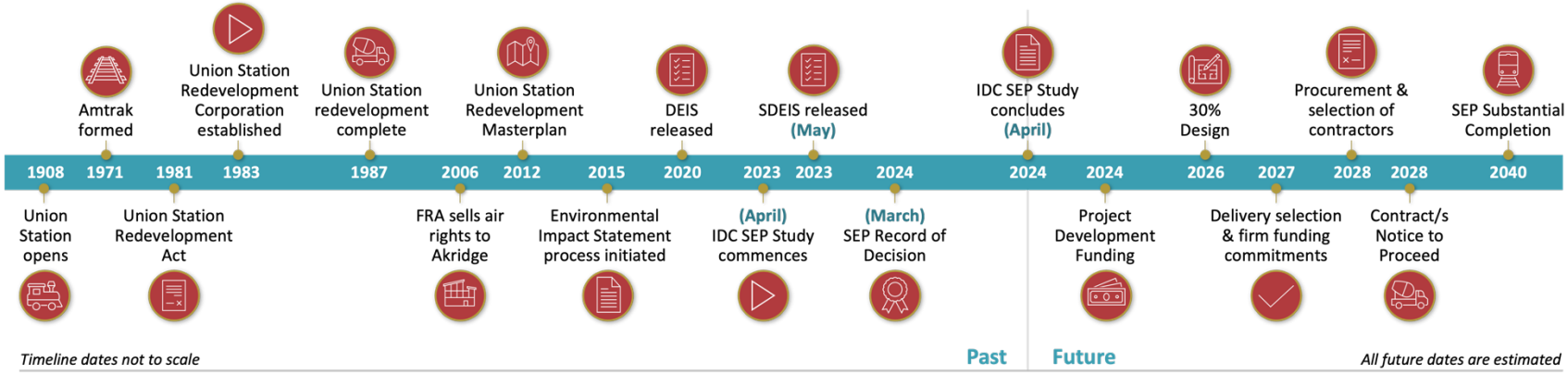


Exhibit 2.3 above shows key milestones to date and key milestones in the future. The SEP is within the Project Development stage per the FRA categorization and requires further work to be undertaken to correctly position it for construction.

Report Structure

The following three chapters focus on each of the three main study areas (Governance, Funding and Financing, and Delivery) in turn. Each is structured in the same way and includes the following:

Approach: A summary of the approach and work (research, consultation, and analysis) undertaken by the Study Team within the area of focus.

Findings: The findings that resulted from the research consultation and analysis that was reviewed by the Advisory Group.

Recommendations: The recommendations that were agreed upon by the Advisory Group.

3. GOVERNANCE

Approach: Governance

Governance focuses on how the process of delivering the SEP will be administered by USDOT, FRA, USRC, and Amtrak and identifies the organizational structures that will support that process. Governance is critical to the success of the SEP as it will determine the strategic direction, execution of work, accountability, and transparency for the work, and most importantly foster an environment for SEP delivery to be successful.

The team analyzed different components of the overall project governance structure to determine a holistic recommendation for optimal project governance and provide answers to governance questions related to identification of a Project Sponsor—the single organization to lead SEP development.

The Project Sponsor bears the ultimate responsibility for project delivery, and it is therefore essential that the project governance is sound from the outset and is designed to the SEP's specific needs in accordance with best practices.

The analysis addresses the following questions:

Who is the appropriate Project Sponsor for the SEP?

The Study Team identified entities that could potentially undertake the role of Project Sponsor for the SEP. The SEP Project Sponsor will play the role of lead integrator for the SEP which includes bringing the large group of stakeholders, partners and oversight and approval agencies together to advance all aspects of the SEP. This work includes preparation for all technical, legal, financial, and political aspects of the project. This work also carefully considered the practical requirements around SEP development including status of the project, practicality of establishing new entities, and funding availability.

What key traits does that Project Sponsor require for success?

Secondly, the Study Team established and reviewed the key traits required of the Project Sponsor for the context-specific needs of the SEP. These key traits acknowledge the federal ownership of the station, the multimodal operators within it, its location within the capital region, and the wide range of users and stakeholders of the station. Additionally, considerations around access to funds, organizational capability and capacity and focus were considered.

How should that Project Sponsor be organized to deliver?

Third, the Study Team analyzed how the Project Sponsor should be most effectively organized to undertake this work, both from both an oversight and a delivery perspective. This includes board-level composition, internal organization, and external collaboration structures.

Project Sponsor Analysis

This section summarizes the process that the Study Team employed to identify the appropriate Project Sponsor to lead the delivery of the SEP. The Team analyzed and identified the roles and responsibilities of the primary entities associated with Union Station and the delivery of the SEP. The Study Team developed a shortlist of candidate entities that could undertake the role of Project Sponsor. These entities included the following:

- Union Station Redevelopment Corporation
- An existing entity
- A newly created regional project-specific multi-party public entity
- A newly created federal project-specific entity

Evaluation Criteria

Following discussions with the Advisory Group, external mega-project research, collective experience from comparable projects, review of Project Sponsor requirements from the environmental documents, and a review of best practices, the team developed a framework of four primary characteristics that the Project Sponsor should possess to effectively advance the SEP. These are:

- **Representation of Key Stakeholders:** The Project Sponsor should possess direct representation of Key Stakeholders who have ownership, oversight, and operating/user interests in Union Station. These are identified as USDOT, FRA, Amtrak, and DC. The entity should also be able to integrate representation from Virginia and Maryland, which was determined by the Advisory Group and from stakeholder interviews as a priority.
- **Accountability to stakeholders:** Union Station is a multimodal hub that includes rail, transit, bus, coach, taxi and rideshare, and bike and pedestrian facilities. Beyond that, it facilitates economic activity within the region. Accountability, transparency, and oversight are critical elements to building and maintaining trust with the broad range of stakeholders who have other operating, socio-economic or approval interests in the station.
- **Organizational capacity and capability:** The Project Sponsor should possess or should have a clear pathway to build organizational capacity (e.g., financial, staffing/human and organizational resources) required to deliver the SEP, and demonstrate the build-up of expertise and capabilities to advance all required work in support of SEP.
- **Clear authority, focus and objectives:** To be effective in delivery, the Project Sponsor must possess a clear mandate to lead the activities, both through authorization, clear objectives, and support from Key Stakeholders. The project should be its primary focus. Additionally, the required framework of legal and legislative authority that will empower the Project Sponsor in effective project delivery is critical.

The selected entities were evaluated against the above criteria. The criteria also acknowledged the practicality of establishing each entity as ready for the intended purpose. This is because historically the establishment of new standalone authorities or agencies can be time consuming and often does not align to the immediate needs to advance projects in the short-term.

A scoring methodology was developed to support and quantify qualitative discussion within the analysis presented in this section. Consideration was given to each proposed entity's ability to align to the assessment criteria set out above.

Exhibit 3.1: Criteria alignment scoring

0/4: Zero alignment with criteria
1/4: Minimal alignment with criteria
2/4: Partial alignment with criteria
3/4: Good alignment with criteria
4/4: Total alignment with criteria

To support the analysis described above, the Study Team reviewed the relevant foundational documents associated with the Union Station Complex. These documents included:

- USRC status as a nonprofit corporation organized under the District of Columbia Nonprofit Corporation Act (D.C. Code §§ 29-401.01 et seq.), including its Articles of Incorporation and bylaws. This review included USRC's ability to enter agreements with third parties, procure and award contracts, organize internally and coordinate formally with external parties, exercise rights over Union Station, solicit and receive funding, enter financing arrangements, and undertake the contemplated the SEP scope of work during Project Development and Final Design and Construction.
- Union Station Redevelopment Act (40 U.S.C. §6901 et seq.)
- Union Station Redevelopment Cooperative Agreement: This sets out USRC's governance role over Union Station and the parking structure and the roles and responsibilities of FRA and Amtrak with regard to the rehabilitation and redevelopment of the Union Station Complex.
- DOT Lease: In this agreement FRA agrees to lease Union Station to USRC.
- Union Station Sublease: This agreement permits USRC to sublease parts of Union Station to tenants.

These documents as well as a range of other material were analyzed during the process to determine the legal and legislative framework under which the proposed entities could undertake SEP work.

Governance Best Practices

Finally, the Advisory Group reviewed and considered the elements of project delivery, funding, and governance during long-form meetings and workshops. This work was intended to surface ideas, invite comments, and to review comparable projects and best practices for SEP delivery. These best practices were distilled from comparable projects, experience, and academic and industry research. The following best practices were identified as being critical to SEP delivery:

Stakeholder Representation: In a large multimodal project which has numerous and diverse stakeholder interests, it is critical to adequately represent all stakeholder interests in the process of coming to an acceptable project solution. It should also be noted that along with diverse interests, stakeholders also should have different levels of inclusion and participation. Funding and oversight entities have the highest requirements for inclusion, requiring board representation, ongoing project planning coordination, and ultimate approval rights. Operators require that their operational needs are adequately planned and accommodated for in the project design. Wider stakeholders should be consulted on specific issues where they have an interest and kept informed of

general project progress. Including appropriate stakeholder representation in the governance structure from the outset can mitigate political risk and build consensus around design, funding, and delivery.

Organizational Focus: In the process of mega-project delivery, special sole-purpose entities have been established with the singular mission of project development and delivery. This brings the needed focus to the organization to provide the required time, resources, and attention to effectively move the project forward. It is important that the organization brings specific focus to the project given its magnitude and complexity.

Accountability, Oversight, and Transparency: The values of oversight, accountability, and transparency must be maintained within the project. This is critical for stakeholder buy-in and participation – especially for a project that impacts so many diverse stakeholder groups. A viable governance structure must provide for mechanisms to maintain these core values. Maintaining these values can help foster stakeholder support and fair and equitable treatment of stakeholder interests relative to participation. It can also help support the efficient functioning of the organization through the provision of information, decision-making and accountability. Most importantly it can better maintain the trust of the broad stakeholder group.

Evolution of Governance: During the project development stages and prior to construction, the governance structure may have to change as new and evolving information is learned about the Project. In the early stages of the project there are many directions that the Project Sponsor can take the Project Development. This includes construction and design, composition of funding, commercial delivery options, project risk, and the use of public and private partners. It is not possible to configure the most efficient governance structure for final delivery now because many these variables are not yet fully understood.

As the project advances and more information about these variables comes to light, it will be possible to identify the optimal governance structure for each stage reflecting the roles and responsibilities of the participating entities. A useful reference point is the United Kingdom's Project Route Map[65] that anticipates evolving governance structures, and includes the following guidance:

***Governance arrangements will likely evolve during the project**, so owners should revisit the considerations at major transition points or approval points, or as plans change. Governance arrangements should evolve as:*

- *More information becomes available, the sponsor increases their understanding of risk and the effectiveness of the project's risk management arrangements is demonstrated*
- *The project team and their processes develop and embed*
- *The project progresses through its life cycle, from design and planning through implementation to operation*

Earned Autonomy / Performance Assurance Framework: Earned autonomy focuses on the principle that increasing levels of responsibility for decision-making can be transferred to the delivery organization from the board as the delivery organization demonstrates the capability to make sound decisions and undertake delivery in line with expectations, board direction and key performance indicators. It is critical for the delivery organization to be sufficiently autonomous to be able to make and implement decisions efficiently.

Key Findings: Governance

Based on the analysis, the Study Team identified the following key findings:

USRC is an appropriate entity to undertake the role of the SEP Project Sponsor. USRC is well aligned with the evaluation criteria that was established during the analysis phase of work. It can proceed expeditiously as the Project Sponsor for SEP Project Development activities. USRC's historical role within the redevelopment and management of Union Station, which is defined in the Union Station Redevelopment Act of 1981, presents a strong precedent for its continued use. Historically, this structure has provided an opportunity for federal investment into and oversight of the station. Furthermore, USRC's ability to play the role of a neutral project integrator whose primary goal is to bring a range of diverse stakeholders to agreement is important.

USRC is a nonprofit corporation organized under the District of Columbia Nonprofit Corporation Act (D.C. Code §§ 29-401.01 et seq.). Under its Articles of Incorporation and bylaws, USRC is authorized to exercise all powers available to it as a DC nonprofit corporation except as otherwise provided by its bylaws. As a typical DC nonprofit corporation, USRC can conduct business through actions such as entering into various agreements, overseeing redevelopment construction projects, and forming subsidiaries and committees. This means that USRC is generally authorized to undertake all work associated with SEP Project Development but must also work with other parties to agree specific rights such as site access. USRC is not an eligible applicant for federal funding programs. Therefore, it must currently work with partners such as Amtrak or regional entities to access those sources of funds. It can receive funds as a subrecipient. Exhibit 3.2 summarizes USRC authorizations as they relate to the SEP.

Exhibit 3.2: USRC SEP-related authorizations

Action	Authorized
Direct federal grant funding applicant / recipient	✗
Receive federal grant funding as a subrecipient*	☑
Procure and award contracts	☑
Enter construction contracts	☑
Form committees or subcommittees to organize internal and external resources	☑
Form subsidiary	☑
Renegotiate leases and other contracts	☑

Action	Authorized
Undertake SEP technical scope in coordination with other entities	☑
Enter into agreements with third parties	☑
Retain project income	☑
Borrow and finance	☑
Act on behalf of other entities across SEP / Union Station Complex**	☑

**USRC will need to comply with federal grant funding flow down requirements imposed on primary recipient*

***Requires further agreements*

USRC has representation from Key Stakeholders. The USRC Board currently includes primary SEP stakeholders, including USDOT, FRA, Amtrak, and DC, and can therefore act as a facilitator and neutral party in advancing towards project milestones. Additionally, the USRC structure can accommodate new board members and establish committees and subcommittees using authorized processes. These structures can also give voice and representation to those stakeholders who are not represented at the board but nevertheless have an important role or interest in the station.

USRC can be organized to bring a singular focus to SEP activities. Under its bylaws, USRC can, as a DC nonprofit corporation, create a subsidiary corporation or a committee that is specifically dedicated to the SEP. It can use either a SEP-focused subsidiary or committee to bring in dedicated SEP staff, as well as use committee functions (i.e., form subcommittees) to organize working groups consisting of internal and external parties to advance specific elements of the scope of work.

USRC has strong executive leadership. New USRC executive leadership was appointed by the USRC Board in 2022. The leadership has experience in major station redevelopment and aspects of complex public project funding and financing. USRC is currently in the process of expanding capabilities. USRC will need further investment to build out full organizational capacity and capabilities to deliver the SEP. It requires adequate funds to be able to address all aspects of the SEP scope of work in a timely way.

2023 USRC Board resolution affirms its broad Union Station role. The USRC Board of Directors through a unanimous Board Resolution authorized USRC as SEP Project Sponsor in September 2023. This resolution empowers USRC to begin Project Development activities immediately following the NEPA ROD to advance the SEP, in coordination with Amtrak and

other stakeholders (both Station and Track Infrastructure) to be ready for construction. The authorization is broad as it does not limit USRC to any stage of the project. It authorizes USRC to deliver the SEP.

USRC needs to coordinate with a range of entities to deliver the SEP. USRC, FRA, Amtrak, and DC Government have collaborated closely during the production of the Environmental Impact Statement. This collaboration was underpinned by agreements that were established specifically for that scope of work. The Record of Decision (ROD) has completed that process and ends the agreements that are currently in place. To advance Project Development work, the entities will need to enter new agreements for the new scope of work to appropriately organize for the work ahead.

In addition to the above, a range of other agencies and organizations need to collaborate and work with the Project Sponsor, including WMATA, VRE, MARC, bus operators, DDOT, and a range of approving and permitting agencies. A noted, USRC can organize subcommittees and working groups to address areas of the SEP scope. These areas include Technical, Legal and Commercial, Funding and Financing, and Policy. This approach can integrate both internal staff and external partners for collaborative work.

Maryland and Virginia are currently not included in the SEP governance structure and should participate in the delivery of the SEP. This Study determined that the State of Maryland and the Commonwealth of Virginia have multiple interests in Union Station but are not currently represented within the USRC governance structure. The rail commuter services run by MARC[66] and VRE[67], as well as intercity bus operators, all which transport citizens to and from Washington, DC, are key interests. These services rely on Union Station and presently cannot increase services because of capacity constraints at Union Station. The SEP will better accommodate run-through trips for VRE and MARC customers, facilitating greater levels of multimodal integration. Additionally, the wide range of benefits and opportunities that would accrue to the residents of Maryland and Virginia (see SEP Benefits) represent significant drivers at the political level. Therefore, USRC's governance structure needs to facilitate the representation of Maryland and Virginia with respect to the SEP.

No perfect structure for SEP Project Sponsor is currently available. The Study analysis found that a new public authority, either created by a single party, such as the federal government, or multi-party authority consisting of a combination of some or all of DC, Maryland, Virginia, and Amtrak, could also meet the above criteria but this would take significant effort and time (e.g., significant political advocacy resulting in legislation) to create which may have cost and schedule impacts to the SEP. The uncertainty associated with realizing such an organization required its viability to be significantly discounted by the Study Team.

An existing entity (other than USRC) may not be able to bring the required level of stakeholder participation combined with project focus that a single-project entity can bring without significant amendments to its governance structure, which may also take significant time and effort. There is not

an existing entity that can fulfil the governance criteria and currently has authorization to undertake SEP work.

The Project will evolve and therefore it is appropriate to revisit the analysis at the next major milestone to ensure that the Project Sponsor is empowered to succeed. As the project advances through Project Development into Final Design & Construction, the governance structure should evolve to address the needs of the project. A potential disadvantage of USRC to carry out construction-related activities is its status as a DC nonprofit corporation. The review of mega-projects in the US and internationally show they have commonly been delivered by public and quasi-public entities, including special purpose entities that have oversight over a single project or program. However, USRC is a unique organization charged with the management of a unique asset.

Public entities may better meet the criteria during the Final Design & Construction phase as they can bring greater transparency, accountability and oversight requirements which are critical for mega-project delivery and continued stakeholder support. Creating these entities and implementing mega-projects almost all require specific legislation that clarifies the role of key stakeholders and their respective project commitments, such as providing funding and other resources. Therefore, Key Stakeholders may consider moving towards USRC enhanced with legislation in parallel with the Project Development activities.

Activities and outcomes from the Project Development stage may further inform the governance structure for the SEP. Therefore, SEP Stakeholders may re-evaluate the Project Sponsor role in the future based upon information that becomes available including:

- Performance of the Project Sponsor, such as advancement of key activities and milestones, human resource development, capabilities, and further alignment with evaluation criteria.
- Feedback from Key Stakeholders.
- New information related to design, commercial structure, and funding commitments.
- Accountability, transparency, and oversight in mega-project delivery.

Decisions around any transition of Project Sponsor responsibilities between entities must be taken well before the start of construction. The efficiency and effective operation of the Project Sponsor is a critical success factor to on-time and on-schedule delivery and this work begins well before construction. If a transition takes place, it must be done in a way that preserves project knowledge and skill to the greatest extent. Transition may impact schedule if subject to political risk or requires legislative action.

SEP-specific legislation would be beneficial. To achieve the ambitious goal of SEP delivery, it would be beneficial for new or amended federal and regional legislation to clarify, modernize and update the existing framework of governing agreements. While it is possible to deliver the project under the current legal framework, the benefit of new and amended legislation is that it can be tailored to the specific needs of the SEP and the organizations that will deliver it. This legislation would be comprehensive in nature and establish project funding, governance and oversight and set out the key requirements for delivery. A project of this size and importance warrants dedicated legislation

that reflects present day thinking on funding and delivery, and firmly secures Union Station for one hundred more years of operation with the goal of financial and asset sustainability.

Recommendations: Governance

Recommendation #A: The Union Station Redevelopment Corporation (USRC) is the appropriate entity to undertake the role of Project Sponsor for SEP Project Development activities. The USRC Board should review and assess the Project Sponsor role at major project development milestones (30% design and prior to construction start).

The Study's independent analysis led the Advisory Group to affirm the FRA's designation of USRC as SEP Project Sponsor because of core strengths in USRC's board and delivery governance. USRC is the most appropriate entity to play the role of a neutral project integrator which is critical to effectively bringing together the multimodal project elements of the SEP. USRC has representation of Key Stakeholders (USDOT, FRA, Amtrak, and DC) acting through the USRC Board.

USRC's historical role within the Union Station Complex and mission statement defined in foundational documents provides it with a strong precedent and justification to be the SEP Project Sponsor. Structured as a DC nonprofit, USRC has sufficient flexibility to incorporate new board members, such as Maryland and Virginia, and can be organized to effectively undertake the SEP scope of work both in the immediate term for Project Development Stage activities, and to evolve to best deliver the SEP as it moves to the Final Design & Construction Stage. Additionally, it is an entity with a singular focus on the development and maintenance of Union Station.

The FRA named USRC as Project Sponsor in the Supplemental Draft Environmental Impact Statement in May 2023. The USRC Board acknowledged USRC's role as the Project Sponsor for the Project Development stage through a Board Resolution in September 2023.

Recommendation #B: USRC should organize to effectively undertake the responsibilities of both the SEP and the historic station.

Best practices and case studies show that a singular focus is important for organizations charged with mega-project delivery. Therefore, USRC should bifurcate its duties to create a clear line of separation, creating a singular organizational focus for both sides of the business. Establishment of a subsidiary is permitted through USRC authorizations as a DC nonprofit. A bifurcation of corporate duties through the creation of a subsidiary will also practically separate SEP project accounts and funds, which is important for compliance and accurate reporting.

Separating activities through a subsidiary will create a more focused forum for the Board to address direction and guidance to SEP activities. It will also permit the inclusion of VA and MD into an SEP-specific governance structure.

As Project Sponsor, USRC will need to coordinate and collaborate with many external entities. These entities include Amtrak, FRA, DC, WMATA, Maryland (MARC/MDOT), Virginia (VPRA/VRE), Akridge, and bus operators. This will include a range of activities to support the Project Development scope of work which includes technical, financial, procurement, and legal elements. USRC can convene working groups by forming subcommittees and invite external entities to participate, as needed.

To support this added work, USRC should scale up its own resources through direct hire staff or consultants to address all elements of the Project Development scope of work.

Recommendation #C: USRC, Amtrak, and DC, should agree on a collaboration structure that can advance near-term station, terminal infrastructure investments, and SEP Project Development activities. This can be achieved through a Memorandum of Understanding (MOU) or partnership agreement.

USRC, FRA, Amtrak, and DC Government have collaborated closely during the production of the Environmental Impact Statement. This collaboration was underpinned by agreements that were established specifically for that scope of work. Completion of the Record of Decision (ROD) was achieved in March 2024. This has completed the agreements that were in place to support that process.

To progress Project Development work, the above entities should now enter agreements for the new scope of work to appropriately organize for the work ahead. This agreement will include roles and responsibilities, schedule, participation, approval rights and potential funding contributions. This step will formalize the process and bring structure and organization to the next stages of SEP development.

Project Development stage agreements can take the form of a Memorandum of Understanding (MOU) or a partnership agreement. The scope of the agreement can be limited to Project Development stage activities and target a specific project milestone such as reaching 30% design. During this process, the parties should agree on how to organize the work at both the leadership and working group levels. This will enable the technical aspects of the work to advance, as well as the advocacy, funding, and project governance elements. This form of agreement does not need to include construction stage activities.

A collaboration structure should also include agreement to funding and advancement of Union Station state of good repair works, enabling works and independent projects with inter-related benefits. It can also include agreement to support and advocacy (from non-federal entities) for the project and USRC.

Recommendation #D: Maryland and Virginia should play an integral role in the development and delivery of the SEP, including through the provision of project funding. As a first step, USRC should integrate MD/VA into SEP governance and Project Development activities.

This Study found that significant benefits will accrue to Maryland and Virginia as a result of the construction and completion of the SEP. Further analysis is required to determine exactly what benefits accrue to whom; however, current available information indicates that Maryland and Virginia will be primary beneficiaries of network enhancement, economic growth, job opportunities, enhanced mobility, social equity and long-term greenhouse gas reduction.

From a network capacity perspective, the SEP will positively impact MARC and VRE operations, intercity bus connectivity, and will enhance other regional investments such as Long Bridge and Frederick Douglass Tunnel. Without the SEP, the value and capacity enhancement of these current investments cannot be fully realized. Therefore, Maryland and Virginia are important stakeholders in the project and need to be engaged at both leadership and working group levels. USRC will benefit from a structured approach to collaboration that memorializes commitments and includes dedicated human resources and Project Development funding dollars.

Additionally, USDOT has also communicated through the Study feedback process that the SEP requires strong regional participation and contribution. This includes Project Development and Construction funding contributions and the provision of other supporting resources, including a role in project governance, political support, and technical assistance. Early discussions have already taken place between USRC, FRA and regional entities and positive expressions of support for the project were received.

USRC should therefore develop a plan for near-term (Project Development) and long-term (Capital Costs and Operations) funding contributions which includes the careful integration of MD and VA into the SEP development process. As project information and understanding increases, confidence in delivery will also increase which can lead to a greater level of funding participation.

4. FUNDING & FINANCING

Approach: Funding & Financing

Funding Source Identification and Capital Stack

The Study Team identified and evaluated funding and financing sources for the SEP based on the project components, project timeline, and readiness. The Study Team reviewed the criteria of the federal grant programs against the SEP to determine eligibility and applicability. The Study Team also presented the AG with comparable projects and case studies to determine successful models for building a capital stack from planning to construction.

The Study Team reviewed funding and financing opportunities from the following sources:

Federal Funding: Infrastructure Investment and Jobs Act (IIJA) created and provided funding for discretionary funding programs for rail and multimodal transportation infrastructure. Additionally, the Study Team reviewed federal financing programs and tax-advantaged structures that are available through the Inflation Reduction Act (IRA). Opportunities for federal funding (e.g., direct appropriations) were also considered. Over the course of the Study, the Study Team met with representatives from USDOT and FRA on specific grant programs to solicit feedback on opportunities that would be appropriate for SEP.

State & Local Funding: The Study Team reviewed existing and potential funding from state and local sources. Examples of this included direct appropriations, grants, and financing mechanisms that could be applied to the project. The Study Team reviewed comparable projects in the region and the applicability the station due to its location and ownership structure. This included meeting with representatives from District government who have experience in the District's funding and financing mechanisms to solicit feedback on opportunities and challenges. Preliminary discussions were held with representatives of Virginia and Maryland as well research related to their Capital Investment Plans (CIPs).

Private Financing: Private sources of financing were reviewed to understand how they can be integrated into the SEP. This included analyzing comparable projects where private financing has been integrated and the advantages and disadvantages of using these types of funds, and the various structures under which the private sector can lend and invest into public projects. This area is also highly correlated to commercial delivery structure, as private investment within public infrastructure is often packaged within a longer-term contract with other responsibilities.

New Revenue Sources: This review focused upon the identification of new and innovative revenue sources that could be applied to the project. This included looking at similar or comparable assets, even where current enabling legislation does not currently exist or there are certain preclusions to station usage, to determine if new forms of revenue are possible and how they can be used.

This work culminated in the development of a funding matrix which identified viable funds from all sources. The Advisory Group was presented with this information to deliberate the relative merits of each and discuss preferred actions for pursuing them.

Development of Case for Investment

The Study Team developed a framework for a case of investment, which is the rationale for stakeholders to support and invest in the project. The framework goes beyond the financial return (e.g., Investment Rate of Return (IRR)) and includes the broader economic and policy benefits that are generated from public investments in infrastructure. Investment by governments into public infrastructure should not

be limited to financial returns but should also include economic growth, access to jobs, climate change mitigation, quality of life, safety, and other socio-economic factors.

The Study Team identified information where data on project benefits was available and categorized these into a high-level distribution of benefits between stakeholders to understand who will be the beneficiaries of the SEP.

Key Findings: Funding & Financing

The section summarizes the analysis and key findings on how to fund and finance Project Development stage activities and potential funding sources for Final Design and Construction when the project is ready to move into the next stage.

The SEP needs funding for Project Development activities and does not yet need construction funding. The project requires funding for the Project Development scope of work to advance design to 30% and undertake all other supporting activities. At this time construction funding is not required.

The project may lose momentum after the NEPA ROD if funding is not identified. Amtrak, FRA and USRC have provided the majority of the funding to undertake the studies and analyses to support the NEPA process, which have been undertaken and managed by FRA. However, the Key Stakeholders have not identified and agreed on funding to advance the project to be ready for construction. Without a strategy and consensus among the potential funding partners, the project is at risk of stalling now that the NEPA ROD has been issued.

USRC needs a source of funding to undertake its role to manage Union Station and advance the SEP. USRC's role and responsibilities will increase significantly over the next 3 to 4 years as it undertakes the role of SEP Project Sponsor. USRC will also coordinate with partners for major renovations at Union Station, including the sub-basement, as well as other works across the complex. All of these responsibilities will require USRC to build its capacity, staff, and resources to manage and oversee these projects. This will require a commensurate amount of funding. Today, USRC's funding comes mainly from revenues received from the existing parking garage at Union Station and retail concession leases, which are not sufficient to fund SEP Project Sponsor activities.

SEP Project Development activities are competitive for federal grant programs. The Bipartisan Infrastructure Law (BIL) provides significant funds for public infrastructure investment including in major rail projects. Union Station, as a multimodal hub, with a range of public transportation components and broad alignment with Biden Administration policies, is eligible for several federal programs. Research and analysis identified programs for which the SEP is eligible and can provide funding for Project Development activities:

Federal-State Partnership for Intercity Passenger Rail – Northeast Corridor (FSP-NEC)

The FSP-NEC program is the largest program for intercity rail projects and is specifically focused on the Northeast Corridor (NEC). The program has up to $24 billion in funding available from advanced appropriations, of which approximately $16.4 billion has been awarded to projects. An additional $5.3 billion has been conditionally committed through Letters of Intent (LOI), a mechanism in the program for FRA to provide a non-binding commitment to provide future funding to projects.[68] This leaves approximately $2.3 billion in funding availability based, assuming LOI commitments are honored.

The SEP is eligible for this program and can use its funding for Project Development activities. The FY24 FSP-NEC NOFO is scheduled to be released in late spring 2024 and applications will be due within 90 days. This would result in awards towards the end of 2024 and funding available in early 2025. The program is authorized through FY26.

Consolidated Rail Infrastructure and Safety Improvements (CRISI)

The CRISI program presents another opportunity for the SEP to secure federal funding for Project Development activities. The program has $3.5 billion of remaining funding in the program through FY26. The program aims to improve railroad safety, efficiency, and reliability; mitigate congestion at intercity passenger rail chokepoints; enhance multimodal connections; and lead to new or substantially improved rail corridors. The CRISI program has a limitation of 80% federal funding, and the FRA gives preference for projects that request less than a 50 percent share. The program opens in December or January each year and applications are due approximately 90 days after release.

The SEP will be ready for the FY25 cycle of CRISI. The application for CRISI requires a benefit-cost analysis for the underlying project. The FRA has issued guidance on benefit-cost analysis, which encourages using recommended methodologies to quantify the impacts of the project against the project baseline. The draft EIS contains some of this information, but the project may require additional analysis and inputs from local and regional travel models. This analysis requires a long lead time and therefore this work should be prioritized and initiated early in the process to be prepared for the application process.[69]

Rebuilding American Infrastructure with Sustainability and Equity (RAISE)

IIJA appropriates $1.5 billion per year and Congress can appropriate additional funds[1]. The program aims to support multimodal, multi-jurisdictional projects.[70]

The RAISE program is especially appropriate for Project Development activities because its maximum grant amount is limited to $25 million. Applications open within 30 days of the passage of the Housing and Transportation bill and are due within 90 days. In discussions with USDOT, the SEP is considered an eligible project under the legislation for these two categories: *a passenger rail or freight rail transportation project eligible for assistance under this title; and, any other surface transportation infrastructure project that the Secretary considers to be necessary to advance the goal of the program.* However, the FY2023 NOFO included a policy decision to restrict funding for "federally owned facilities." This is a policy decision and not in the federal legislation authorizing the RAISE program, and therefore could be changed to allow the SEP to be eligible. Exhibit 4.1 summarizes the primary federal programs that the SEP is eligible for.

[1] The FY2023 Appropriations Act provided an additional $800 million for RAISE.

Exhibit 4.1: Federal Programs and SEP Eligibility

Program	Administering Agency	Alignment to SEP Project Development	Alignment to SEP Project Construction
Federal-State Partnership – Northeast Corridor (FSP-NEC)	FRA	High	High
Consolidated Rail Infrastructure and Safety Improvements (CRISI)	FRA	High	High
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	USDOT	High	Low
Urbanized Area Formula Grants	FTA	Medium	Medium
National Infrastructure Project Assistance (MEGA)	USDOT	Low	High
Capital Investment Grants Program (Core Capacity)	FTA	Low	High
Reconnecting Communities Pilot Program – Planning Grants and Capital Construction Grants	USDOT	Low-Medium	Medium
Low or No Emission Bus Grants	FTA	N/A	Low-Medium
Bus and Bus Facilities Program	FTA	Low	Low
Pilot Program for Transit-Oriented Development Planning	FTA	Low	N/A
Strengthening Mobility and Revolutionizing Transportation Grants (SMART)	USDOT	Low	Low
Smart Grid Investment Matching Grant Program	DOE	N/A	Low
Energy Efficiency and Conservation Block Grant Program	DOE	Low	Low
Brownfields: Community-wide Assessment Grants / Assessment Coalition Grants	EPA	Low	Low
Brownfields Clean Up	EPA	Low	Low
Building Resilient Infrastructure and Communities	FEMA	Low	Low
Transportation Alternatives Set-Aside / Surface Transportation Block Grant (STBG) program	FHWA	Low	Low

Program	Administering Agency	Alignment to SEP Project Development	Alignment to SEP Project Construction
Advanced Transportation Technologies & Innovative Mobility Development	FHWA	Low	Low
Safe Streets and Roads for All (SS4A) Grant Program	USDOT	Low	Low
Neighborhood Access and Equity Program	USDOT	Low	Low
INFRA - Nationally Significant Multimodal Freight & Highway Projects	USDOT	Low	Low

The SEP will require support and investments from USRC, Amtrak, and regional partners to leverage federal funding. By law, federal grant programs require non-federal funding to match the investment of federal funds to a project. The federal funding portion is limited to 80% of the project cost, but applications are more competitive if the requested federal funding is lower. Projects should expect to receive 50% to 80% federal funding and the remaining amounts from non-federal sources. USRC, Amtrak, DC, Virginia, and Maryland are major beneficiaries of the project and should contribute to the non-federal match, including in-kind contributions as part of the overall match for the application. The parties are currently in the process of exploring their contributions.

USRC will need to partner with Amtrak, DC, Maryland, or Virginia (or eligible agencies therein) to submit applications for federal funding. This is because USRC is not an eligible applicant to the three federal grant programs identified above, as nonprofit entities are not included on the list of eligible applicants. However, USRC can receive funding as a subrecipient. In this model, Amtrak or public entities from DC, Maryland, or Virginia would lead an application and identify USRC as a subrecipient. The most competitive applications will demonstrate strong support from regional partners.

Generally, federal grants operate on a reimbursement basis. This means that the grant recipient, and subrecipient, are required to outlay funds for eligible scope which is then reimbursed by the federal grant upon review and approval. This means that the recipient and subrecipient need to carefully manage their project cashflow and working capital to ensure that there are adequate funds to keep the work moving while expended funds are being processed for reimbursement.

The SEP will benefit the region which justifies the need for regional investment in the project. Investment in Union Station is a challenge due to its unique ownership structure. Union Station is the only passenger rail station in the country that is owned by the federal government and the track infrastructure owned by Amtrak. Because of this structure, the station maintenance, rehabilitation, and improvements historically have not been the responsibility of the regional jurisdictions of DC, Maryland, and Virginia.

However, the planned SEP improvements will not only accrue to the station, but the broader rail network and the resulting economic, social, and environmental benefits will be felt across the region. The project is expected to reduce travel times and create more frequent and reliable connections between DC, Maryland, and Virginia. MARC service is expected to increase 151% and VRE by 249%.[71] The SEP will also create 6,300 jobs annually throughout the region. The SEP will better connect the economies of the Northeast and the Southeastern US. The SEP, along with other investments along the NEC, will help enable Amtrak's NEC service to increase 95% by 2040.[72] Additionally, as the Southeast rail plan is executed, Union Station will become a key part of that network allowing travelers to transition to and from the Northeast Corridor.

A Case for Investment and defined a Capital Stack for construction can be identified upon completion of 30% design.

The SEP needs to mature through Project Development so that the project benefits can be more fully defined and quantified. This includes additional certainty on the project's cost and schedule, and impacts on job growth, mobility and connectivity, and other socio-economic benefits. This analysis (e.g., Benefit-Cost Analysis (BCA) will not only help to articulate the benefits of the investment in the SEP but is a requirement for many federal funding program applications.

As noted, the Key Stakeholders are considering their contribution to the Project Development activities, which can be an entry point to further funding discussions and to provide those parties with a level of ownership over the way the project develops. This will allow for the Key Stakeholders to contribute to shaping the SEP elements and engage in future regional and national discussions for the much larger investment in construction of the SEP.

A Case for Investment can help Key Stakeholders in determining their funding contribution.

The Key Stakeholders will need to agree to their funding project contributions so that the SEP can advance into construction, including when, how, and how much each party is willing to contribute. By analyzing and understanding the benefits of the SEP investment to each of the different stakeholders through a case for investment, the Key Stakeholder can use this as a basis for determining their contribution to the project to receive those benefits.

It is too early to quantify these benefits now because there is not sufficient detail in the design and resulting cost and schedule, and therefore too early to determine and commit funding for construction. By advancing design, bringing more specificity to cost and schedule and clearly articulating project benefits the parties can move toward agreeing funding contributions.

A comprehensive articulation of Project Benefits is critical to building a strong Case for Investment.

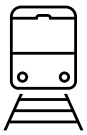
Preliminary data on project benefits has been developed for inclusion in the environmental impact statement. The SEP is forecast to generate between $296 and $557 million in annual labor income and from approximately $414 million to $778 million annually in economic activity for the region over a 13-year period, creating an average of approximately 6,300 jobs annually in the process.[73] Bringing further detail to the identification and allocation of SEP benefits will help build a strong case for federal and regional investment. A preliminary allocation of project benefits has been developed based upon currently available information and Advisory Group review and discussion. This is presented in Exhibit 4.2.

Exhibit 4.2: Summary of Allocation of Project Benefits

Project Benefit	Primary Beneficiary
More Efficient Rail Service	
More Efficient Union Station	
Better USRC Financial Position	
Larger Sense of Community	
Enhanced Safety	
Increased Mobility	
Regional Economic Growth	
Positive Environmental Impacts	

Beneficiary Legend

	United States Government/Nation
	Amtrak
	District of Columbia
	State of Maryland
	MARC
	Commonwealth of Virginia
	VRE
	WAMATA
	Intercity Bus Operators
	Akridge



More Efficient Rail Service: An expanded Union Station will make train movements more streamlined and well ordered. This could allow for more passengers to move through the station and an increased number of daily train arrivals and departures. This allows for expanded services and greater network capacity, which in turn can drive demand and ridership. The primary beneficiaries are the Federal Government, Amtrak, MARC, and VRE.

More Efficient Union Station: The project will eliminate pinch points at ticketing and waiting areas making boarding and disembarking trains easier and more comfortable. A better experience will lead to more revenues per passenger. Additionally, a more efficient Union Station will attract more users, and users making multimodal journeys. The primary beneficiaries are Amtrak, MARC, VRE, and Bus Operators.

Enhanced Financial Sustainability: The SEP is expected to enhance station revenue generation. This will result from the provision of better quality, modern amenities, and the increase in passenger volumes. Increased revenues can contribute to the maintenance of the historic building, and the increased operational and capital costs associated with a larger footprint. The primary beneficiaries of enhanced financial sustainability are the U.S. Government (USDOT and FRA) and Amtrak.

Larger Sense of Community: A more aesthetically pleasing area with added shops, green space, and transit interconnections will elevate the community feel in and around the station. A station that is more of a destination will bring more visitors from the surrounding areas. This benefit includes social equity and quality-of-life benefits. The primary beneficiary is the District.

Enhanced Safety: The project will increase safety of train movements, circulation of passengers and vehicles moving around Union Station. More safety protocols will reduce accidents, lower insurance expenses, and make travel through the station safer and more pleasurable. The primary beneficiaries would be the U.S. Government, the District, Amtrak, MARC, and VRE.

Increased Mobility: The project will allow more people to access the station via the metro, buses, and other means of public transportation. More ingress and egress will allow for efficient use of non-motorized vehicles and ADA access. The primary beneficiaries will be the District, WMATA, MARC, and VRE.

Regional Economic Growth: More efficient access to the District, coupled with development in and around the station will drive employment, housing, and commerce in the station area. Maryland and Virginia will also see follow-on economic benefits from commuters that want to live near the more efficient VRE and MARC systems. The primary beneficiaries will be the District, Maryland and Virginia.

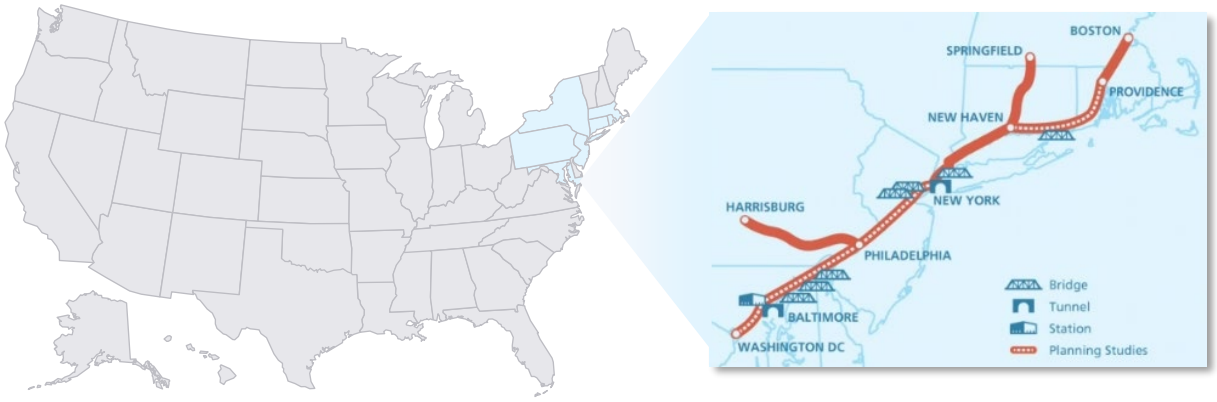
Environmental Benefits: The project is expected to be built with net zero goals. In addition, more efficient rail operations, increased mobility, more pedestrian and bicycle access, and planned green space will provide environmental benefits in many areas. The primary beneficiaries would be the District, the states of Maryland and Virginia.

The funding required to construct the SEP is beyond the time frame of current available funding in the Bipartisan Infrastructure Law. The BIL has advanced appropriations that fund rail and multimodal programs through FY26 but then relies on Congress to appropriate additional funding for the programs in the future. Based on the timeline for the SEP to advance through Project Development activities, additional federal funding for these programs will be needed to provide funding to the SEP for construction. However, it is essential for Key Stakeholders to advance the SEP through Project Development to ensure it can take advantage of the future funding sources.

The section of this report entitled, '*Looking Ahead to Construction*' includes various options for considering how the capital stack for the project can be configured.

The SEP will enable other regional investments to be fully realized. Union Station is a vital component of the larger suite of upgrades to the Northeast Corridor which extends from Washington, DC to Boston, Massachusetts. This is reflected by its inclusion in the 2022 Northeast Corridor Project Inventory. The tens of billions in investments that are taking place along the corridor including the extensive bridge, tunnel, station, track and signaling upgrades are all highly connected and will ultimately deliver a modern, efficient, and safe network. Other regional investments such as the Long Bridge and Frederick Douglass Tunnel projects require the SEP to realize their full potential.

Exhibit 4.3: Amtrak NEC major investments

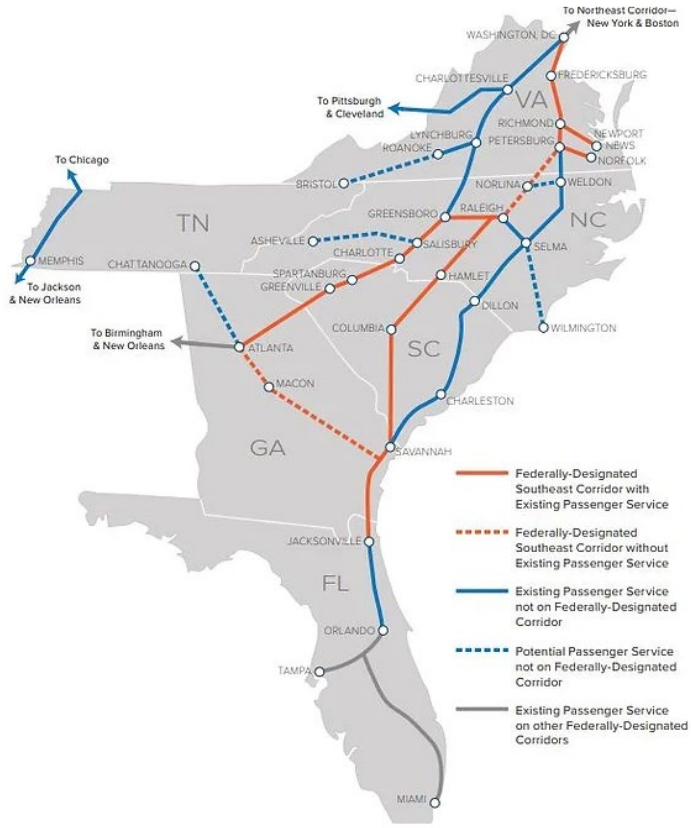


Source: Amtrak

The Southeast Regional Rail Plan is a multi-state effort to increase rail capacity and usage in the southeast portion of the US. The Southeast Corridor is centered around the economic hub of Atlanta. From Atlanta, three high-speed lines would link the Southeast region: Atlanta to Tampa Bay via Jacksonville and Orlando, Atlanta to Nashville and Atlanta to Washington DC via Charlotte and Raleigh. This service would carry about 70 percent of the region's passenger rail travelers with service at top speeds over 125 mph. It connects the entire Southeast region by combining dedicated high-speed rail lines with the geographic coverage of tracks that handle both passenger and freight trains. This

approach delivers steady and incremental progress by identifying the core of the network and then building out additional segments from there.[74]

Exhibit 4.4: Southeast Rail Plan



This plan will improve connectivity throughout the region and would strengthen the case for more regional and emerging service. The entire network would then connect 70% of the region's population directly to passenger rail, while improved transit and bus service could be built out to reach even more of the region's population. Washington Union Station is a critical connection between both systems and is the gateway to the Southeast regional rail corridor from the Northeast.

Source: Southeast Corridor Commission

The value of the investments in network modernization and network capacity upgrades cannot be achieved if Union Station is not modernized.

$2.3 Billion Investment **$4.7 Billion Investment**

Source: Amtrak

Recommendations: Project Development Phase Funding & Financing

Recommendation #E: USRC should identify near-term funds for immediate Project Development activities (prior to the receipt of grant funds), including collaborating with regional political supporters to advocate to Congress for near-term funding.

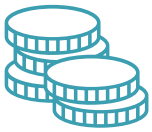
USRC requires immediate funds to enable the SEP Project Development activities. Potential grant funds (even on the most expedited schedule) will not be available until mid-2025. Without access to near-term funding, Project Development activities will be delayed which will create follow-on delays to project delivery. There is no practical mechanism for the region to provide funding to station activities outside of a grant application. Therefore, options for near-term, immediate funding are limited to direct federal appropriations.

To address this issue, USRC and DC mayoral and congressional leadership should organize political support to advocate to Congress to provide funding for the next 12-18 months of work which will bridge the period through to a potential first receipt of grant funds. This coordination will extend to regional entities such as Metropolitan Washington Council of Governments (MWCOG), as well as other regional advocacy groups.

Agreement to a long-term plan for the financially sustainable management of the Union Station Complex is needed. Concurrently, USRC should identify and develop sources of funds that can contribute to the delivery of the SEP and the long-term financial sustainability of the Union Station Complex.

In certain cases, new and innovative revenue streams may require legislative action to realize. As USRC works through this process of revenue identification and analysis, it should coordinate with congressional and local leadership to determine the potential strategies and specific actions for enhancing current revenues (more detail in Recommendation #H).

Recommendation #F: USRC should collaborate with Amtrak and District of Columbia to apply to the FSP-NEC program (FY24 cycle) for SEP Project Development activities.



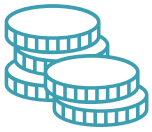
Study analysis shows that the SEP is well aligned with FSP-NEC grant program. It is included in the NEC Inventory and is showing readiness as a Track 2 project which is a requirement of program access. The FY24 Notice of Funding Opportunity is due to be released in Spring 2024 and presents a strong opportunity to access funds for the project on a timeline that supports the overall schedule.

USRC is not an eligible applicant for these funds but is an eligible subrecipient. This means that an eligible applicant should apply to the program and include USRC as a subrecipient for those funds. Given the timing, the Study concludes that Amtrak presents the best option to be the primary applicant for an FY24 application. Discussions have begun on this topic between the parties. It will be necessary for the parties to reach an agreement about the share of non-federal contributions, and identify and allocate funding as soon as possible, to achieve the short timeline to submission.

While outreach has been initiated with Virginia and Maryland, there has been limited discussion on funding contributions. Therefore, immediate regional funding contributions are not possible. From a procedural perspective, the SEP is not included within current Virginia and Maryland Capital Improvement Plans, which are budgeted on an annual cycle that has already passed for FY 24. However, strong expressions of support from Virginia and Maryland should be included within an FY24 application, along with the future goal of securing financial contributions for an FY25 application. See Recommendation #G for more detail on this parallel effort to work with Virginia, Maryland and DC.

USDOT views strong regional and state-level support favorably during the application review process. It is highly advantageous for the application to include financial and declared support (for example, letters of support) from the region. This will result in more favorable scoring, and ultimately a grant award. There is strong regional precedent for both Amtrak and regional entities providing non-federal matching funding. For example, Baltimore Penn Station received $100M; Amtrak was lead entity and provided $16M of the $20M non-federal contribution and MD provided $4M).[75]

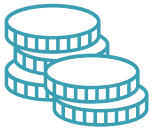
Recommendation #G: USRC should collaborate with Amtrak, District of Columbia, Virginia, and Maryland to apply to the FSP-NEC program (FY25 cycle) for SEP Project Development activities.



The FY25 cycle for FSP-NEC grant applications presents a good opportunity for USRC to coordinate with Virginia and Maryland for a well-supported package of regional, non-federal contributions within a grant application. This requires USRC to build strong relationships in the region and generate greater support for the project. Depending on its eligibility status at that time, USRC should determine the most appropriate lead applicant for an FY25 application.

An FY25 application should ideally include a combination of USRC, Amtrak, DC, VA, and MD funds. The specific combination of contributions will depend on the outcome of the FY24 strategy. This combination of supporting entities would demonstrate strong regional support for the project. This is viewed as a medium-term strategy as federal funds from this source would not be available until 2026.

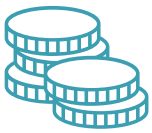
Recommendation #H: USRC should collaborate with Amtrak and regional funding entities to apply for other federal funding programs such as CRISI and RAISE for Project Development activities.



There are many federal funding programs for which the SEP is eligible because of the multimodal nature of the asset and its proximity to historically underserved communities. However, with limited resources to apply for grants, initial focus should be on FSP-NEC and other programs as they are released. CRISI and RAISE, as well as other scope-specific sources, can be used to address specific SEP Project Development needs and elements of the scope of work. RAISE is particularly competitive due to its limited funds and broad applicability. Therefore, a SEP RAISE application needs to be carefully assessed against other competing applications.

Resources, time and the ability to come to agreement with non-federal funding entities mean that this initiative should wait until FSP funds are made available. The process should be managed carefully to integrate regional entities into the project, building confidence and understanding in both USRC and the SEP. USRC does not currently have eligibility to apply directly these programs and must access funds by being a subrecipient to an eligible entity.

Recommendation #I: USRC should seek amendment to the Bipartisan Infrastructure Law to allow it to be a direct eligible applicant for federal funding programs.



USRC is not an eligible direct grant recipient because of its status as a nonprofit corporation. This means that it cannot directly apply for federal grant dollars to applicable federal funding programs for which the SEP has eligibility. Direct recipient status, although not technically a necessity, would be highly advantageous and would give USRC greater autonomy and flexibility to undertake its SEP role. This is important for the Project Sponsor of this large and regionally significant mega-project.

USRC should undertake advocacy to Congress to seek an amendment to the current language related to federal grant programs in the Bipartisan Infrastructure Law (BIL). Amendments should specifically include USRC as an eligible entity and restore historic language that allows USRC to have greater flexibility as it relates to the required percentage of non-federal contribution. This change would acknowledge the uniqueness of USRC, which comprises three federal agencies on its five-member board, and the District of Columbia's annual budget being subject to Congressional approval.

This advocacy should be undertaken by USRC, in coordination with both local and federal representatives from the District of Columbia, Virginia and Maryland. Union Station's political champions need to organize on advocacy for the project to create a compelling and singular voice for the funding and advancement of the SEP. USRC, in leading this outreach should identify individuals and organizations who are willing to publicly support the SEP and expend political capital in advocating for the legislative changes set out above. Amtrak, FRA and other federal entities cannot lobby for federal legislation.

5. DELIVERY

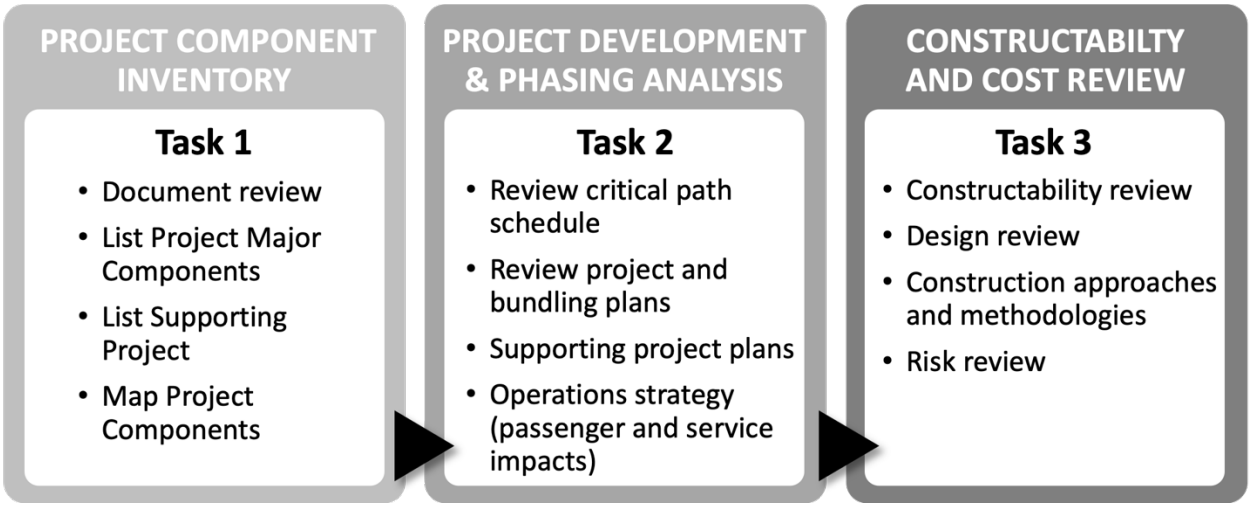
Approach: Delivery

Technical Delivery Review

The Study Team analyzed the information that supports the Draft Environmental Impact Statement (DEIS) and Supplementary Draft Environmental Impact Statement (SDEIS) including project phasing, cost, constructability, and project delivery. This information was provided by FRA, Amtrak and USRC and has primarily been used to support the development of the Environmental Impact Statement.

The DEIS, which was released before the SDEIS, was reviewed because it contains relevant and important technical information which is pertinent to the Preferred Alternative (Alternative F) presented in the SDEIS and FEIS. The goal of this work was to provide a high-level review on the supporting EIS documentation and to provide the Study Team with an understanding and information to undertake other related tasks.

Exhibit 5.1: Sequencing of tasks within the Technical Delivery Workstream



As a first step, the Study Team reviewed available technical detail from the SDEIS and DEIS and created an inventory of the work components of the SEP as well as adjacent projects known as the SEP Project Component Inventory. The Study Team mapped these project components to better understand how each interacts within the physical space.

Next, a Project Development and Phasing Analysis was developed. Based on the SEP Project Component Inventory, the Study Team conducted a review of plans for project delivery and the planned project phasing. This work focused on the sequencing that the project is currently planned to take and the ordering of work to understand the reasonableness of the construction plan. Key focus areas included the SEP's critical delivery path schedule, the reasonableness of existing project and asset bundling plans, other projects needed to enable or be enabled by SEP construction at the station, impacts on passengers and the need to maintain existing levels of service during construction.

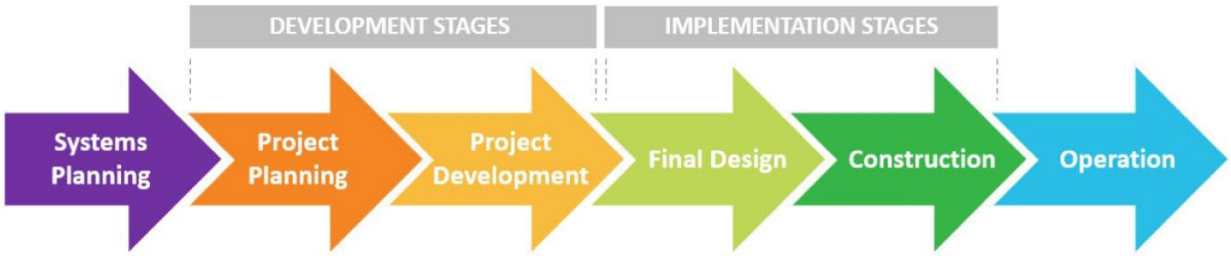
The Study Team then conducted a Constructability and Cost Review of existing plans for the SEP to determine whether the project can be constructed as planned, identify issues or limitations with the

existing design, identify issues or flaws with the current construction strategy and catalogue potential project risk items and mitigations. Finally, the Study Team analyzed whether there is sufficient accounting of potential delivery and construction costs, and construction quantities.

The Study Team utilized American Society of Civil Engineers (ASCE)[76], The International Building Code (IBC)[77], American Railway Engineering and Maintenance-of-Way Association (AREMA)[78], American Association of State Highway and Transportation Officials (AASHTO)[79], DDOT[80], DC Building codes[81], and FRA Safety[82] regulations for the reviews.

Fundamentally, this work helped to inform the Study Team about the status of the design and to determine where the project is on the project development schedule. To establish a common framework for project progression, the Study adopted the project development lifecycle stages used in FRA's "Guidance on Development and Implementation of Railroad Capital Projects" issued in 2023.[83] These lifecycle stages assist railroad capital project sponsors in managing, sequencing, and implementing activities in a practical and productive manner.

Exhibit 5.2: FRA's Designation of Life Cycle Stages for Railroad Capital Projects



Commercial Delivery Review

A commercial and procurement delivery review was included within the technical workstream. This work focused on the commercial and contractual structures that the SEP could be delivered through. This includes traditional delivery models such as Design-Bid-Build, as well as collaborative or alternative delivery methods such as Design-Build and Design-Build-Finance-Operate-Maintain. The selection of these models is highly associated with the technical delivery approach, selected funding and financing and governance models. Key aspects of this review included:

	**Contract Sizing:** The potential sizing of contracts, based on total dollars and scope packaging considerations, including acceptability to the contracting market.
	**Contract Phasing:** On a large project like the SEP, contracts can happen concurrently or sequentially and as a result construction work can be staged to meet other goals such as maintaining operations or alignment to funding. Additionally, some contracts may be better positioned to occur first, as they can enable smoother construction of future elements of the project and mitigate certain risks like the presence of utilities or archaeological impacts. The phasing of contracts in different ways presents different risks, funding requirements, and interfaces and should be carefully considered.

	Contract Integration: The management and integration of the various contract packages to deliver the entire project so that it is delivered in a seamless way. Wherever multiple contracts are active within a project there is potential for risks and issues to arise. Therefore, understanding how different contracts fit together, as well as the combined overall risks that they present to the owner, is an important factor in assessing the overall risk profile of the project.
	Risk Transfer: Every mega-project entails a wide variety of project risks. The most successful mega-projects manage and mitigate these risks through efficient risk allocation between the public sector and private sector contractors. There are different ways to manage risk, and this can be achieved primarily though contract packaging.
	Other Commercial Topics: Other topics include procurement and contract structuring action items that will ensure a commercially viable outcome for Union Station. This includes areas such as project planning, governance, and access to funding and financing.

The analysis included a review of SEP specific information as well as case studies and best practices that were presented to the Advisory Group for consideration. Case Studies were deemed beneficial to help inform the AG about how the practical challenges of similar projects have been overcome and identify structures that have a demonstrated track record of success.

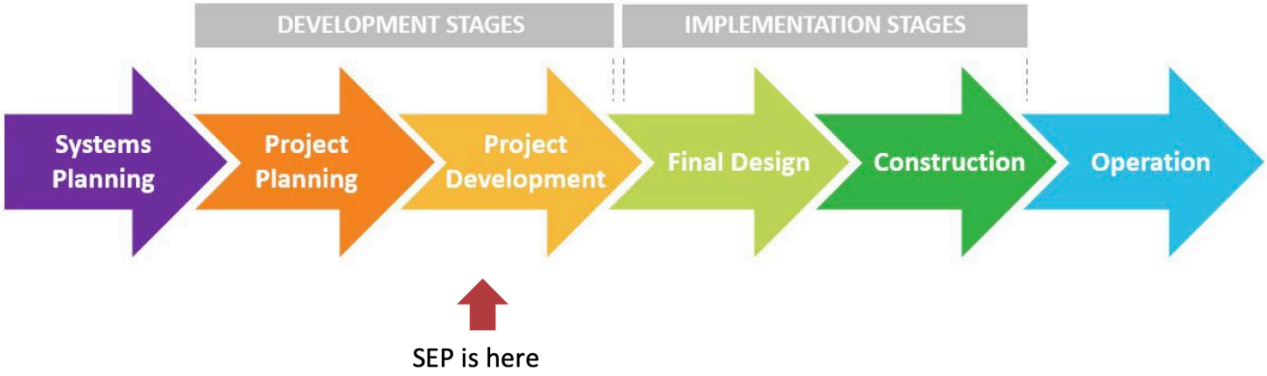
Best practices have been refined from national and international infrastructure projects. These best practices were combined from the Study Team's experiences, academic and industry information and synthesized by the Advisory Group during workshops to determine which are most important and applicable to the SEP. Best practices are discussed further in the Governance chapter. In undertaking this analysis the Study Team consulted with USDOT guidance on the development of alternative delivery structures.[84]

Key Findings: Delivery

Based on the analysis, the Study Team identified the following key findings:

The SEP is currently at a 10% conceptual design. The Study Team assessed current SEP design to be at the 10% conceptual design level. The Advisory Group concurred with this assessment. This means that the concept of the project has been established but many of the details have yet to be fully developed. This is conventional for a project of this magnitude that is in Project Development. The Study Team concluded that the SEP is constructable based on conceptual plans and identified several considerations for the SEP as part of its constructability review based upon the information provided. The project can be constructed as identified in current design plans. Additional constructability analyses are planned as the SEP design evolves and advances.

Exhibit 5.3: SEP within FRA Project Development Life Cycle Stages



The SEP is within the Project Development stage and requires further work to advance to Final Design and Construction. The SEP is within the Project Development stage as designated by FRA. Further work is required to advance the project to be able to enter the Final Design & Construction Stage; the project is not yet ready to enter that stage.

The next major project milestone is to achieve a design at 30%. A key next step for the project is to advance design to 30% to enhance stakeholder understanding of the project requirements and to affirm a strategy for further project development, procurement, and funding. The immediate next step is for USRC, Amtrak and Akridge to undertake constructability analysis. This process should be undertaken in collaboration with representatives from Virginia and Maryland. This work should be followed by advancement of the design. Design advancement will offer greater clarity on the project's potential costs and schedule, and help identify procurement options and pathways for the SEP.

The Study Team worked closely with the AG to agree the major activities that will need to be undertaken during to prepare the project for Final Design and Construction. This work includes the following activities:

- Constructability review (including site surveys and engineering)
- 30% design
- Identification of cost reduction opportunities
- Funding and financing analysis
- Identification of asset revenue maximization opportunities
- Project benefits analysis
- Project delivery and procurement analysis
- Industry outreach
- Stakeholder outreach

The process to agree a detailed scope of work and Project Development schedule is ongoing between USRC and Amtrak, in coordination with Akridge. This process will include providing detail to each of the categories above and assigning a budget and schedule to each. Current high-level projections estimate that this work will take between 3 to 4 years, at which point the project should be ready to enter the Final Design & Construction Stage.

Cost and schedule reduction opportunities exist. The SEP is currently estimated to have a construction cost of $8.8 billion and a 13-year schedule for delivery. There are opportunities to reduce costs and schedule as the project advances toward and beyond 30% design, particularly in reviewing and confirming technical requirements related to station design criteria, security, and safety, and required levels of service during construction. The cost estimate includes 30% contingency and additional inflationary impacts to account for the project schedule which could be reduced as project design advances.

Examples of cost reduction opportunities include bringing more specificity to risks which can then be more accurately priced and mitigated. By accurately identifying and managing these risks pricing reductions can be achieved. Shortening of the project schedule represents another opportunity for cost reduction. Inflation, which is a timebound impact, has major cost implications. By reducing the schedule by even one year there are opportunities for savings, as well as realizing project benefits sooner.

Project phasing and bundling opportunities exist. The proposed project staging described in the SDEIS and DEIS is feasible, with track infrastructure phases in one contractual package and station infrastructure in a separate package(s). The division of the overall project into various project packages will require consideration of the various design and construction factors as the project advances.

Based on past regional project experiences with the Long Bridge Project and the Woodrow Wilson Bridge, ideal contract sizes are in the $500 million to $1 billion range as this creates sufficient scale to generate market interest without being too big to limit the market participants. Given the size and complexity of the SEP, multiple contracts will be needed to deliver the project. Ongoing dialogue and feedback from the contracting industry can inform and configure optimal construction packages.

As the project design advances and with it brings more certainty around cost and schedule it will be possible to determine the optimal contractual package or packages for delivery. Often the selection of the optimal structure represents a compromise. For example, a single contract for the entirety of SEP will bring the benefit of a single contractual interface, no contractual integration risk, and a partner that is empowered to work to minimize risk across the entire project. However, the downside of this approach will be a limited number of bidders due to contract size and scope, the potential for inefficient pricing as a result, and ultimately the reliance on a single partner to deliver the entire project. Conversely multiple contracts may limit exposure to a single bidder and may be highly competitive but will present much greater risk to interface and ultimate risk transfer from the owner. It is therefore necessary to carefully balance the trade-offs of each option.

Key project risks can be mitigated or eliminated through project management practices. As with any transportation mega-project, there are key SEP risks related to project development and delivery that will need to be managed. There are actions, if taken early as part of the project development and procurement processes, that can significantly mitigate or eliminate these common project risks. The development of a risk register to

identify, catalogue and quantify risks, and an analysis of strategies to manage and mitigate these risks is necessary.

USRC and Amtrak are in the process of collaboratively identifying enabling works projects for the SEP. An early works construction package can reduce the risk of SEP delay by laying the groundwork for major construction activities. Early project advancement can also help reduce inflation impacts, identify risks such as utilities, and better prepare the project site for SEP construction to be phased in an effective and efficient way.

All commercial delivery options are available to the SEP but it is too early to select one.

The current level of project design means that no commercial delivery options have been precluded and the Project Sponsor can select a traditional delivery method or an alternative delivery method. This decision should be taken at the 30% design milestone when there is a greater understanding of the project definition, cost, schedule and risks. This decision should be based upon careful consideration and analysis of project risks, industry appetite, project sizing, available funding, and the identification of new revenue streams.

A number of enabling and inter-related projects surround the SEP.

In addition to works within the SEP, there are also other projects that are ongoing in and around Union Station. Some of those projects directly impact SEP and others represent local and regional transportation enhancements. These projects, led by USRC, Amtrak, DDOT and WMATA, include state of good repair works within the historical building, near-term track and signal improvements, sub-basement works, utility relocations, VRE Midday Storage Facility, and Metrorail Station Improvements. It is important that all projects are advanced in an organized and collaborative way to deliver the full value of investments. Exhibit 5.4 shows enabling and inter-related projects to SEP. Exhibit 5.5 shows dependent and coordinated projects to the SEP.

Exhibit 5.4: Enabling and Inter-Related Projects to SEP

No.	Project Name	Location	Description	Organization
1.	**H Street Bridge**	H St NE between North Capitol St and 3rd St NE	The H Street Bridge extends from North Capitol Street to 2nd Street NE. DDOT plans to reconstruct the H Street Bridge to accommodate the future infrastructure needs including the Washington Union Station Expansion and Burnham Place development.[85]	DDOT
2.	**Amtrak Washington Union Station Enabling Projects**	Union Station	Catenary Sectionalization Overhead Catenary Support Systems Signal Design for Track Reconfiguration Terminal Switch Modernization K Tower C&S Relocation, Replacement, and Decommissioning CP Avenue Modifications CSX Metropolitan Subdivision/MARC Brunswick Lead Modifications[86]	Amtrak

No.	Project Name	Location	Description	Organization
3.	**Ivy City Rail Yard & VRE Midday Storage Facility**	North of New York Ave	Replace the current storage space leased from Amtrak at the Ivy City Coach Yard in the District. Environmental review by the Federal Transit Administration was completed in 2019 and final design was slated to begin in 2020.[87]	Amtrak & VRE
4.	**State of Good Repair and Sub-basement**	Union Station	USRC and Amtrak are planning sub-basement utility relocations and underground structural work within the historic station building. Amtrak has planned track and signal improvements at the station that require coordination with USRC.[88]	USRC and Amtrak
5.	**Near-term**	Union Station	Claytor Concourse and North Hanger Passenger Improvements.[89]	Amtrak

Exhibit 5.5: Dependent and Coordinated Projects to the SEP

No.	Project Name	Location	Description	Organization
	Burnham Place Development	North and South of H St, NE	Approximately 3.8 million square feet of development, including 2.1 million square feet of office space; 1.05 million square feet of residential space; 410,000 square feet of hotel space; and 120,000 square feet of retail space; Access from H Street NE via three intersections.[91]	Akridge
	Metrorail Station Improvements and First Street Tunnel upgrades	Union Station Metrorail station	Phased projects to address capacity problems at the Union Station Metrorail station. Relocation and expansion of the entrance from First Street into the North Mezzanine.[92]	Amtrak and WMATA

In January 2022 Mayor Muriel Bowser and the District Department of Transportation (DDOT) announced the receipt of federal funding for DC's bridges. Along with local funds, this will help rehabilitate important bridge connections within the District, including the H Street Bridge in Northeast. The Mayor's FY22 budget included $215 million to completely replace the H Street Bridge to improve safety and support a Union Station redevelopment and expansion of high-speed rail in and out of DC.[93] The H Street Bridge spans over 1st Street NE, WMATA tracks, Amtrak tracks and platforms, and 2nd Street NE at Union Station. The new bridge will accommodate the H/Benning Streetcar Line, allow for Amtrak to increase its train capacities at Union Station, and allow for development of the air rights above the tracks. Exhibit 5.6 shows an aerial view of the H Street Bridge.

Exhibit 5.6: H St Bridge (aerial view), Washington DC

Source: H Street Bridge Project

Recommendations: Project Development Phase Delivery

Recommendation #J: USRC, in collaboration with Amtrak, DDOT, WMATA, Virginia and Maryland should immediately advance further Project Development work including both station and track infrastructure elements of the SEP as directed by the USRC Board Project Sponsor Resolution.

The NEPA process has brought a broad group of stakeholders together to agree on the definition of the project. Additionally, this Study has resulted in a high degree of collaboration between Key Stakeholders to bring a detailed and collective understanding of the status of the SEP within the project life cycle. The Project must now retain momentum from the NEPA process and build further collaboration from this Study. Project Development activities will bring clarity and refinement to SEP design, cost, and schedule. Immediate advancement of work will allow the SEP to maximize the contribution from current federal programs. SEP Project Development work will include:

- Constructability review (including site surveys and engineering)
- 30% design
- Identification of cost reduction opportunities
- Funding and financing analysis
- Identification of asset revenue maximization opportunities
- Project benefits analysis
- Project delivery and procurement analysis
- Industry outreach
- Stakeholder outreach

Preliminary technical analysis indicates that there are opportunities to reduce capital costs and schedule, particularly through reduction in contingencies, escalation provisions and through design and constructability enhancements. The Study Team undertook constructability and design assessments and identified that current capital cost estimates include a 30% contingency plus additional inflation costs that are based upon current schedule assumptions. This is conventional for a large project at the 10% design level. Opportunities for cost and schedule reduction include construction phasing, scheduling, and staging, and the degree of operational impacts during construction. Cost and schedule reductions will enhance the financial feasibility of the project, mitigate long-term operational impacts during construction, and deliver benefits sooner.

USRC should quantify the benefits arising from delivery of the SEP. These benefits can build the project's case for investment and support grant applications. These impacts should be quantified and applied to specific beneficiaries. This work includes benefits analysis to be used for SEP public relations purposes and a more methodology-specific Benefit Cost Analysis (BCA) to support federal grant applications.

The benefits should be sufficiently detailed to identify the groups of beneficiaries from a geographical and demographic perspective. These quantified benefits include network capacity, safety, economic, labor, environmental, mobility, community justice, and quality-of-life benefits. These benefits can be used to determine equitable funding shares for funding partners. The importance of the quantification of benefits was a key learning from the Gateway Program and other similar sized mega-projects.

Recommendation #K: USRC, in coordination with Amtrak, should undertake a process to inform an efficient and risk-mitigated SEP delivery strategy.

The SEP is still at an early stage of development. Further Project Development stage work will bring greater clarity to the aspects of its design, construction, cost, and schedule. Therefore, at this stage all potential sources of funding and financing (federal, regional, state, local and private) should be considered as the project iterates toward a capital stack and a financially feasible structure. There are opportunities for innovative funding and finance, including private finance depending on the selected delivery method, and the use of federal loan programs. Access to funding sources will rely on a strong case for investment based upon the quantification of benefits.

With design at 10%, the contracting and developer industry should be kept informed about the project as it advances. This includes undertaking ongoing industry outreach to build confidence in the project and solicit design and delivery feedback and to make it both attractive and biddable from an industry perspective as the project definition, risk profile, cost and schedule become clearer as work advances. There are opportunities for financing and design innovation, acceleration of funds through financing, and structures that can more optimally allocate and mitigate project risks. USRC can advance this level of project understanding and should use industry to help inform optimal structures. As the project advances industry should be informed of milestones and new information so they are well informed prior to procurement and contracting. This can result in more pricing efficiency and increased competition.

Planning for the whole life of the asset will include planning for its long-term state of good repair so that it can function as a best-in-class station for the entirety of its useful life. To support this strategy, appropriate financial and commercial structures need to be put in place. Financial structures include the identification of long-term secure sources of funding that can address capital, operating and state of

good repair needs. Commercial structures include procurement and delivery methods that focus on whole-of-life asset approaches, risk mitigation and cost reduction.

USRC should explore how the asset can maximize public and private revenues, and how private financing can be integrated into the project to reduce the need for upfront public funding. This includes exploring opportunities for new forms of revenue such as Pick Up / Drop Off (PUDO) fees, Passenger Facility Charge (PFC) fees, sales tax measures, tax increment financing, increasing advertising revenues, events, and location rental.

6. RECOMMENDATIONS SUMMARY

Summary of recommendations

The following recommendations were developed from the analysis undertaken during the Study. They represent the consensus of the Advisory Group. Exhibit 6.1 is a summary of recommendations that are described in the prior sections.

Exhibit 6.1: Summary of Recommendations

Governance

A	The Union Station Redevelopment Corporation (USRC) is the appropriate entity to undertake the role of Project Sponsor for SEP Project Development activities. The USRC Board should review and assess the Project Sponsor role at major project development milestones (30% design and prior to construction start).
B	USRC should organize to effectively undertake the responsibilities of both SEP and the historic station.
C	USRC, Amtrak, and DC, should agree on a collaboration structure that can advance near-term station, terminal infrastructure investments, and SEP Project Development activities. This can be achieved through an MOU or partnership agreement.
D	Maryland and Virginia should play an integral role in the development and delivery of SEP, including through the provision of project funding. As a first step, USRC should integrate MD/VA into SEP governance and Project Development activities.

Funding

E	USRC should identify near-term funds for immediate Project Development activities (prior to the receipt of grant funds), including collaborating with regional political supporters to advocate to Congress for near-term funding.
F	USRC should collaborate with Amtrak and DC to apply to the FSP-NEC program (FY24 cycle) for SEP Project Development activities.
G	USRC should collaborate with Amtrak, DC, VA and MD to apply to the FSP-NEC program (FY25 cycle) for SEP Project Development activities.
H	USRC should collaborate with Amtrak and regional funding entities to apply for other federal funding programs such as CRISI and RAISE for Project Development activities.
I	USRC should seek amendment to the Bipartisan Infrastructure Law to allow it to be a direct eligible applicant for federal funding programs.

Delivery

J	USRC, in collaboration with Amtrak, DDOT, WMATA, Virginia and Maryland should immediately advance further Project Development work including both station and track infrastructure elements of SEP as directed by the USRC Board Project Sponsor Resolution.
K	USRC, in coordination with Amtrak, should undertake a process to inform an efficient and risk mitigated SEP delivery strategy.

Exhibit 6.2: Timeline of Recommendations Implementation

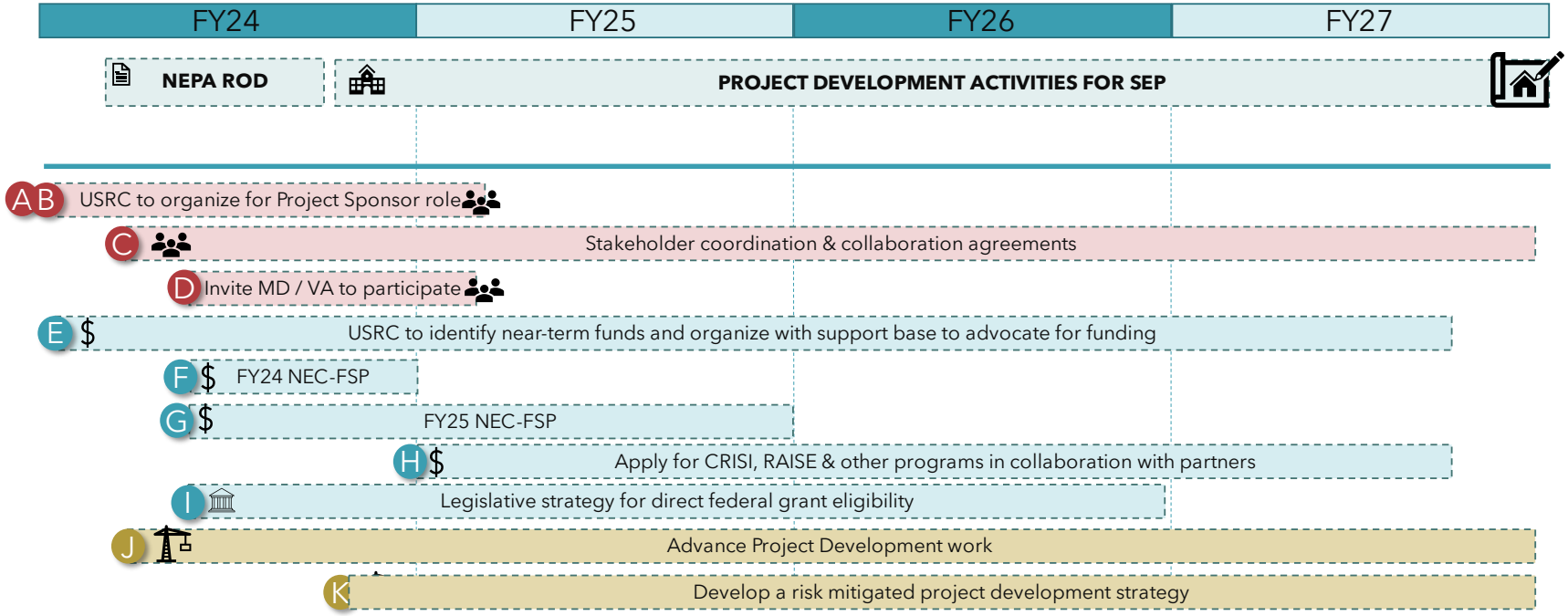
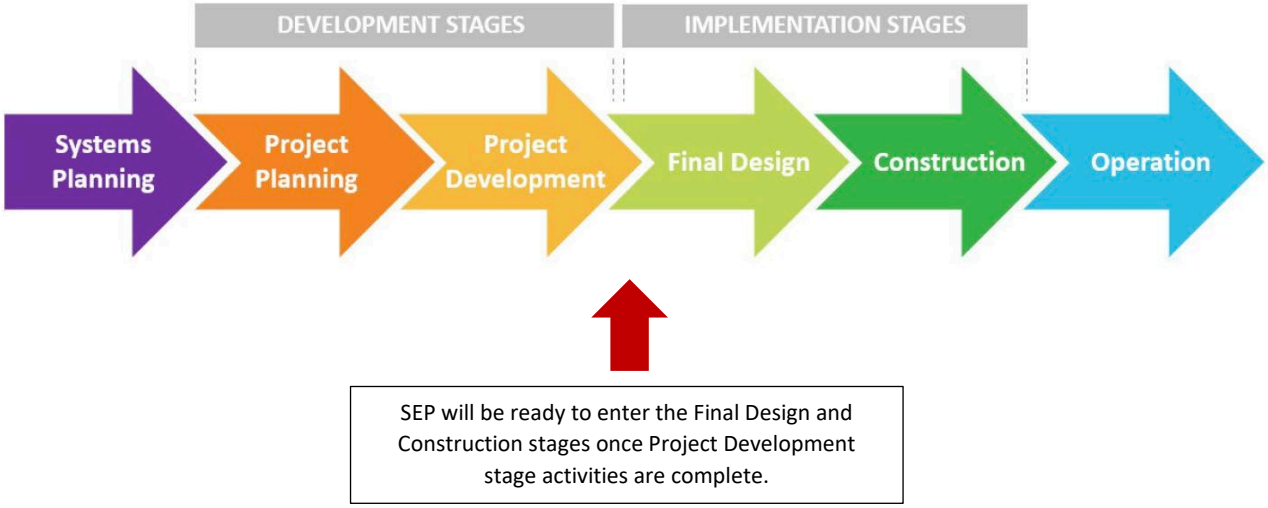


Exhibit 6.2 above describes the timing and inter-related nature of the key recommendations. Project development activities require the establishment of the agreements between major contributing parties to be in place prior to commencement. This includes early agreement and participation from Virginia and Maryland. As the project moves forward, ongoing coordination and collaboration among project stakeholders is necessary. With governance in place, the strategy for access to funding can be established. This includes access to near-term funds to advance work. USRC's legislative strategy can be undertaken concurrently with ongoing funded Project Development activities, as can the quantification of project benefits, which will be used to build stakeholder support. Finally, projects that support the SEP must be delivered and in place by the time SEP construction begins.

Completion of Project Development Stage and transition to Final Design and Construction Stage

Once Project Development Stage activities are complete, the project will have achieved the 30% Design milestone. At that point it will be ready to enter the Final Design & Construction stage.

Exhibit 6.3: SEP status at the end of Project Development stage



30% Design Milestone

The 30% design milestone will advance understanding of the following areas:

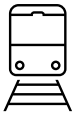
Construction cost: Design, engineering, and constructability reviews that are undertaken following ROD will provide a greater level of certainty in respect of capital costs. The 30% design level can support a range (low, base, and high) of potential outturn construction costs based upon probabilistic analysis. This range can be narrowed as design continues to advance. More accuracy in cost and schedule will bring more specificity to funding requests including required timing and access to funds.

Schedule: This is an important consideration and the 30% design level will further inform Key Stakeholders about the duration that their operations will be impacted based on project phasing and what the mitigations will be. This may impact decisions about project participation, and further inform funding discussions, as well as planning for operational impacts.

Major risks: Project risks will be given more specificity. These risks will include technical and contractual interfaces, utilities, third party, real estate, geotechnical, operations, funding, and procurement. The advancement of understanding of risk allows for more substantive discussions around their appropriate allocation between public and private participants. Further analysis and understanding of risk will inform the commercial delivery structures that can be employed.

Preferred commercial delivery structures: The 30% design milestone represents the point when substantive analysis can be undertaken to determine the relative value of different commercial delivery and procurement methods for construction. Preliminary work can be undertaken as the 30% design is being prepared, with a shortlisting of potential commercial and procurement options. These delivery structures will have significant impacts on the advancement of design past 30%, the composition of funding and financing, and the allocation of risks.

Potential funding parties: Stakeholders will be more confident in their commitment of funds once there is more specificity around how much funding will be required for the SEP and when. The identification of project benefits will support construction of a public case for investment based upon a demonstration of project financial feasibility.



Operations: Operations need to be considered during both construction and at steady state following substantial completion. Service providers are primarily concerned with the operations of their services, the impacts that construction will have and the benefits and opportunities for expansion upon SEP completion. Further design work will bring more clarity to the construction phasing plan, and impact to operations during that time, which will be an extended period and represent disruption to provision of services. Construction stage operational impacts will need to be carefully weighed against potential schedule savings from more intrusive construction approaches.

Project benefits: A greater level of project design can better inform project benefits. Once benefits are well understood and quantified this provides an avenue for discussions around project funding and development of cost allocation principles. Project benefits can also be used to drive public and political support for the project.

7. LOOKING AHEAD TO CONSTRUCTION

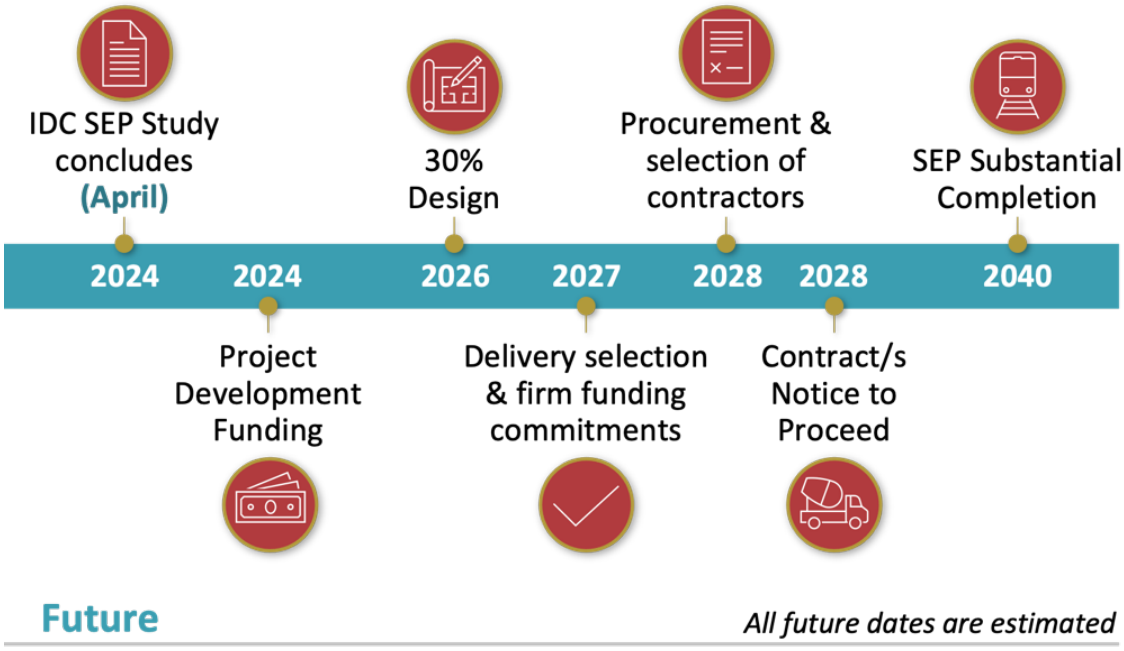
Looking Ahead to Construction of the SEP

Introduction

Once the Project Development activities are complete and more accurate cost, schedule, and project benefits estimates are available, the USRC Board will need to take a number of key decisions relating to how the project will be constructed. The USRC Board will need to consider what technical and procurement delivery options are best aligned with the goals of the project, how to structure the funding and financing package, and if the current governance framework is suitable or should be modified based upon demonstrated experience. Underneath these large categories of decisions are many smaller decisions which all contribute to the commercial, financial, and technical solution that will be proposed for the SEP.

While this information is not fully available today and will be produced as the result of 3 to 4 more years of Project Development work, it is possible to describe what form those decisions will take and the considerations and factors that will influence them. This section presents an analysis of those decisions that will be made toward the end of Project Development and before Construction. Exhibit 7.1 below shows the major milestones associated with the completion of construction of the SEP and the return of the Union Station Complex to steady state operations. This information was assembled based upon an analysis of the SDEIS and supporting project information. It reflects analysis undertaken by the Study Team to understand the possible options for the completion full construction of the project.

Exhibit 7.1 Look forward to major milestones.



Governance

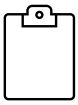
The Study Process and Findings sections of this report describe how project governance can and should evolve over time as new information comes to light. As the Project Development activities are completed, the USRC Board and Key Stakeholders should assess the governance structure with USRC as the Project Sponsor to identify enhancements for Final Design & Construction.

Comparable projects have demonstrated that the Project Sponsor role can transition between entities as the project evolves. For example, the Gateway Program initiated Project Development utilizing a New Jersey nonprofit, then transitioned to a commission structure, once the bi-state legislation was passed. This served the purpose of allowing the Program to advance early work while concurrently developing a public authority that was more appropriate for the program's status as a regional mega-project. The approach used for the Gateway Development Corporation was relatively informal to start, utilizing a Memorandum of Understanding among the parties to advance early activities.

The assessment criteria, used to assess Project Development stage governance for the Study, can be used to re-analyze the list of potential project sponsors to determine the appropriate entity to undertake the role during the Final Design and Construction stage. This process can be further informed by the following:

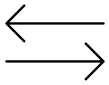
Demonstrated Progress: The USRC Board can measure whether USRC has demonstrated its ability to advance the project. The USRC Board should evaluate USRC against key performance indicators (KPIs) such as access to funding, completion of the hiring plan, compliance with reporting targets, meeting budget and schedule in reaching key milestones, and the internal capabilities in core areas. The USRC Board should also evaluate whether adequate funding, resources and time has been provided to USRC to achieve these KPIs.

Eligibility for Funding: A key factor for the construction stage is whether USRC is an eligible entity to apply for federal funding programs. The Study Team has identified that this would require legislative change under current circumstances. The ability to access federal funds during the construction stage will allow USRC to fully manage the process of deploying funds to the construction contracts. This can make project working capital management more efficient and streamline the reimbursement and reporting process.

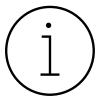


Feedback from Key Stakeholders: The USRC Board should invite Key Stakeholders to provide feedback on the SEP and USRC's performance during the Project Development activities. This could be performed in a Board meeting or within an alternative meeting format. This process would allow Key Stakeholders to communicate input and opinions about how the process has been undertaken, opportunities for refinement or improvement, and to agree to the next milestone under the same or revised structure. One key area is whether USRC has demonstrated its ability to neutrally and equitably address input from Key Stakeholders. As a multimodal hub of regional importance, one of USRC's key strengths is its ability to bring in representation from different stakeholders into its governance structure. This will also act as a key accountability mechanism to stakeholders.

Industry Outreach: Industry outreach that is conducted by USRC with the contracting industry will provide important insights about how potential bidding entities perceive the SEP and its associated risk profile. This includes potential contractual counterparties' assessment of USRC as Project Sponsor for the Final Design and Construction stage. The contractor industry is focused on the project delivery risks that it will accept within the contractual structure, the adequacy of the funding package and the public sector counterparty with whom it will contract. Industry feedback is vital to configuring a competitive bidding process that will drive the key goals of the asset owner. Feedback on the governance structure will be a key consideration.



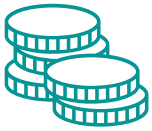
Practicality of Transition: Any potential transition between entities will inevitably take time to achieve and can present risks such as the loss of legacy project knowledge, key skills and capabilities, and time taken for the new entity to become fully functional. The Board must carefully consider this within the risk profile of the project and its schedule.



New Information: Additional information may be available in the future that significantly influences decisions related to the project. This could include the emergence of a political champion for the SEP, access to significant funding sources through a specific channel, or a presented opportunity or set of circumstances that might influence the outcome of the SEP. While this information is not available today, any relevant and available information should be fully considered during this process.

Funding & Financing

The size of the SEP means that it will require local, regional, and federal investment. The construction stage also allows for opportunities for the creation of new funding streams and public and private financing as part of the capital stack. This section describes those opportunities and how they can be combined to deliver a fully funded project.



A fully funded construction package will comprise federal and non-federal sources.

During the Study the Advisory Group carefully reviewed and considered the historical facts and precedents that are important factors in formulating a plan for the delivery of the SEP. Part of this analysis included contextualizing the unique nature of investment in Union Station to date: In 1901, the U.S. Senate Park Commission invited master American architect and planner Daniel Burnham to create a plan for DC which included a design for the station. In 1902, construction was initiated by the Pennsylvania (PRR) and Baltimore & Ohio (B&O) Railroad. Subsequently, Congress passed S.4825 entitled, "An Act to provide a union railroad station in the District of Columbia" along with legislation creating the Washington Terminal Company. President Teddy Roosevelt signed it into law on February 28th, 1903. Work was completed in 1908.

The station was taken over by the federal government following the Second World War. In 1981, Congress passed the Union Station Redevelopment Act (40 USC 6901-6910) stating that the Secretary of Transportation shall provide for the rehabilitation and redevelopment of the Union Station Complex primarily as a multiple-use transportation terminal serving the Nation's Capital, and secondarily as a commercial complex, in accordance with specific prescribed goals. Union Station Redevelopment Corporation (USRC) was created in 1983 by Secretary of Transportation, Elizabeth Dole to oversee the station's restoration and renaissance. This unique approach, using a non-federal entity (a DC nonprofit corporation) as the primary delivery vehicle, was intended to bring the best elements of both public and private funding sources: the provision of catalytic funding from the federal government combined with a mandate for financial sustainability. Arguably, given its limited resources, this structure has proven to be an enduring and resilient approach. [94]

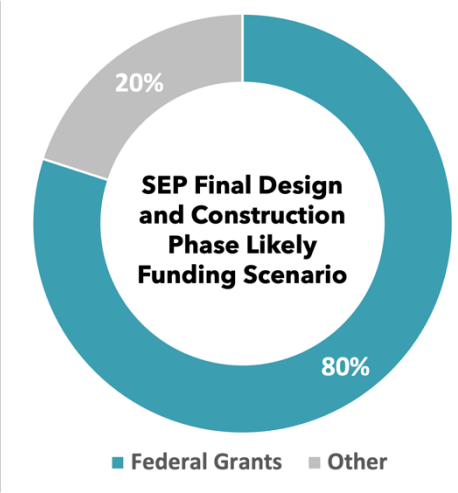
As a federal asset, Union Station has historically not required any local or regional match to fund capital investments. There is no precedent for local or regional funding for Union Station and the previous appropriations for the 1980s redevelopment removed the need for local match (this language was subsequently removed; however, calls have recently been made for its restoration)

Federal Grant Funding Opportunities

The Infrastructure Investment and Jobs Act (also known as the Bipartisan Infrastructure Law) expanded and created funding programs for transportation, providing a significant, once in a generation injection of funds to restore and renovate America's transportation infrastructure. Many rail and station projects throughout the nation are now benefitting from this infusion through a range of federal programs. This is discussed in more detail in the Findings section of this report.

These programs generally require a minimum of 20% non-federal contribution but typically receive less than 80%. Among comparable projects, federal funding contribution trends closer to a 50% split for final design and construction. Higher proportions of non-federal contributions can also further enhance competitiveness for federal discretionary programs. However, Union Station is not a typical project that the federal grant programs would be commonly applied to due to its federal ownership. Therefore, alternative funding arrangements may be possible, as demonstrated by the structure employed in the original 1980s redevelopment.

Exhibit 7.2: SEP Final Design and Construction Phase likely funding scenario



Study feedback and analysis suggests that federal funding will be the base on which other funding can be built. However, existing authorization for federal programs expires in FY26 and it is not clear if the SEP will be ready to enter construction before that date. This presents uncertainty to project funding and means that funding for the SEP will require federal re-authorization and appropriations to existing or new programs for the Final Design and Construction stage. There are also macro-level economic and political factors that can influence total available program funding. The Study identifies current relevant programs for the purposes of this report.

The Project Sponsor can make the SEP competitive for federal funding by cultivating broad regional support that is demonstrated in both funding commitments and strong public expressions of support. Additionally, adhering to project readiness guidelines within the relevant grant programs will ensure that the project is well aligned to their requirements and competitively positioned. This can be achieved by advancing Project Development to a sufficiently mature level whereby cost and schedule is more certain. This is at least 30% design.

Direct Federal Appropriation

Federal funding to the project can also be provided through direct appropriation. A federal appropriation could fund the entire project based on the federal ownership of Union Station but would require congressional action for appropriations. Pursuing this strategy would require a strong political champion to advocate for the project. Feedback received from USDOT during this Study suggests that a 100% federally funded scenario is remote because of both the scale of the project and resulting capital contributions required, and the regional nature of the SEP. Feedback also indicates that the grant program path will yield better outcomes from a federal funding perspective.

Exhibit 7.3: Funding Scenarios for SEP Construction

Project Name	Description	Examples/Precedent
Direct Federal Appropriation to Fund SEP	The federal government appropriate construction funding to SEP without requirement of non-federal match based on its ownership of Union Station	Union Station Redevelopment Act of 1981 that funded the rehabilitation of Union Station
Regional Investment Combined Federal Grant Programs	Regional partners, Amtrak, private entities, and other operators invest funding and access federal funding through grant programs	Gateway Program, Baltimore Penn Station, Woodrow Wilson Bridge

Non-Federal Funding Opportunities

Non-federal sources of funds will play an important role in the funding of the SEP. These funds can be used individually but create greater leverage when part of a federal funding strategy. The Study Team identified sources from Amtrak, DC, Maryland, and Virginia, as well as exploring how value and revenues created from the SEP can yield other funds.

Amtrak

Amtrak

Amtrak funds can be considered both federal and non-federal, depending upon their source. Amtrak received $22 billion in "supplemental funding" from the IIJA, of which $6 billion is dedicated to the NEC. [95] The IIJA specifically identifies that supplemental funding as eligible to be used as matching funds for federal funding programs. However, this funding is, or will be, used or dedicated to other projects by the time the SEP requires capital funds. Amtrak is a major beneficiary of the SEP and may also chose to support the SEP development by providing other non-federal funds, such as ticket-based revenue allocations. Amtrak is required to apply for these funds.[74]

Regional

District of Columbia

The District of Columbia (DC) is one of the main beneficiaries of the SEP as the main employment center for the region and with respect to the potential transformative real estate benefits and tax base created by the project. DC has already contributed $246 million for the reconstruction of the H Street Bridge[96] that will modify the existing piers of the bridge to allow for the SEP and the Burnham Place project. While this is not a contribution to the SEP, it represents a significant enabling project.

As the project develops, DC may consider additional funding for the project through a direct appropriation. DC can commit public funding from the District's annual budget which is approved by the City Council and Mayor's Office.

Maryland

Maryland residents make up a significant portion of the projected users at Union Station through the MARC services. Maryland is a key beneficiary of SEP and those benefits will extend well beyond capacity upgrades to significant socio-economic impacts. Maryland funds transportation (including the MARC Service) through the dedicated Transportation Trust Fund (TTF) overseen by the Maryland Department of Transportation.[97] The TTF is funded through a portion of fuel taxes, titling fees, registration fees, and corporate income tax. For larger investments, appropriations directly from the State Legislature may be needed to supplement the TTF. A project of the magnitude of the SEP will potentially require a direct appropriation. It will be necessary for the USRC to collaborate closely with Maryland leadership to identify the most appropriate actions for funding allocations.

Virginia

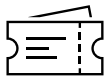
In the Commonwealth of Virginia, the Commonwealth Transportation Fund (CTF) acts as the primary vessel for all transportation revenues, including motor vehicle fuels taxes, vehicle registration fees, highway use fees, various statewide sales and use taxes, and more.[98] Like Maryland, Virginia is a key beneficiary of the SEP. As such, the broad benefits accruing to the Commonwealth must be quantified to form the basis for a funding contribution. It will be necessary for USRC to collaborate closely with Virginia leadership to identify the most appropriate actions for funding allocations.

New Revenue Opportunities

To limit the requirements for public sources, USRC should develop an asset revenue maximization strategy. This strategy would focus on driving the maximum value out of the Union Station Complex. To do this, new and innovative revenue structures will be needed as existing sources are currently fully utilized and may in certain cases be reduced as a result of the SEP.

The Study Team identified a range of potential revenue streams that could be used to support the SEP. Revenue streams could be monetized, provided they fulfil relevant financing criteria, and applied to construction costs, or could be used to offset operating costs or contribute to the payment of long-term contracts.

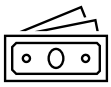
In certain cases, such identified revenue streams have not been used for station development or do not have authorization for use within the station complex. However, it is contemplated that such options could be available upon receiving the relevant approvals and authorizations. As such, a wide range of options have been considered. They are summarized below:



Facility Charges: USRC, working with the operators at Union Station could add a charge or fees for goods or services provided within Union Station. This concept is similar to passenger facility charges that are charged by airlines and provided to airport authorities for use on projects approved by the Federal Aviation Administration. The revenues from these charges would be dedicated to the SEP. For example, WMATA has considered various options to add user fee charges to tickets that can contribute to capital improvements.

Fees have not been commonly charged by stations in the US to date and this concept may require legislation. A dedicated source of revenue, based upon user demand that could create a long-term sustainable source of funding would be very beneficial.

Pick-Up/Drop-Off or Taxi/Rideshare Fee: The SEP will improve the pick-up and drop-off facilities at Union Station and generate significant additional rideshare trips due to the increased train and bus traffic at the station. A fee could be charged to users of the pick-up/drop-off area. For example, a portion of DC's Digital Dispatch Fee, currently at 6% of a trip's cost, could be allocated to the SEP. [99] The funds collected from the Digital Dispatch Fee within this geofenced zone would be directed towards the SEP as a recurring funding source. While this fee does not currently generate high revenues, it could provide a valuable contribution to a larger package of fees.

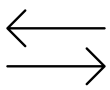


Incremental Tax Revenue: The District could create a tax increment financing (TIF) district for the Burnham Place development and dedicate the incremental property taxes, sales tax, hotel occupancy tax, or a combination thereof as a revenue source for the SEP. DC would delineate the TIF district and issue debt to pay for SEP improvements. As the SEP leads to new property taxes, these funds would be used to repay the debt. This structure would need to be authorized for use specifically on the Union Station site due the federal ownership. Currently, the District has reached its debt capacity and will need to analyze its ability to introduce new TIFs in the future, prior to providing any project-specific commitments.

Payment-in-Lieu-of-Taxes (PILOTs) and/or Special Assessment: DC could agree to substitute its property taxes for a PILOT from the owner of the air rights (e.g., for the property that may be used a public space) and dedicate these funds to the project or USRC. DC and the property owners could agree to a special assessment, such as on hotel occupancy, at the air rights properties to create a new revenue stream. These are new taxes and fees that could impact the economic viability of the air rights development. This approach was used for the Hudson Yards project in New York City.[100] However, it should be noted that the potential tax base is smaller for the SEP.

Local or Regional Sales Tax Measure: A local sales tax measure can be a powerful tool for funding infrastructure projects. A sales tax measure adds a small percentage to the sales tax rate on eligible goods and services purchased within a financing jurisdiction. The additional revenue generated from the increased sales tax is specifically earmarked for infrastructure projects. These measures can be particularly effective in funding projects that directly benefit the local population and address critical infrastructure needs, as they tap into the spending patterns and economic activity within the community. Examples of this in DC include the Convention Center, Nationals Park, and Anacostia Waterfront.[101]

It is unlikely that the above revenue sources can be implemented concurrently. Further work will determine the optimal structure by considering the validity of the source, the projected revenues, and the political support for it.



Ancillary Revenue Sources: There are a range of sources available to the SEP that could support enhanced revenue generation through the asset. The asset currently generates its primary external revenue sources from parking and station-area retail (through leases). Other ancillary revenues can include enhanced station-area retail and concessions; revenues from the federal air rights; EV charging; parking; naming rights; sponsorship; solar power generation; energy storage; events; and renewable power generation.

The challenge with revenues that arise from the SEP is that they will generally become available once the project is realized and not before. This creates a timing challenge because funds are needed in advance of or during the construction stage. To accelerate those funds to the period in which they can be used to pay for construction activities, they require some type of future flow financing mechanism to be used. This can be achieved using public and private financing structures.

Federal Loan Programs and Public Finance

The federal government has established two infrastructure financing programs that the SEP can access. These programs are designed to accelerate future revenue streams so that they can be applied to capital costs. The key difference in these programs, compared to the sources above, is that they require repayment. Therefore, they represent a cost to the project. However, if sufficient project revenues can be identified, as described in the prior section, they can become a valuable component in the composition of the project funding package.

TIFIA

The Transportation Infrastructure Finance and Innovation Act (TIFIA): The TIFIA program provides credit assistance through direct loans, loan guarantees, and lines of credit to eligible projects; to date, TIFIA has only issued direct loans. TIFIA can accelerate the development of critical transportation infrastructure, including intermodal facilities and more. TIFIA loans offer favorable terms, such as flexible repayment schedules and lower interest rates, making them attractive financing options for both public and private entities involved in infrastructure development. By providing long-term financing solutions (up to 75 years in some cases), the TIFIA program plays a crucial role in advancing transportation projects that enhance mobility, reduce congestion, and promote economic growth across the country.[102]

RRIF

The Railroad Rehabilitation and Improvement Financing (RRIF): The RRIF program provides direct loans and loan guarantees to eligible borrowers, including railroads, government entities, private entities, and certain joint ventures. RRIF's primary objective is to promote the efficient and safe operation of railroads by facilitating the funding of critical projects including track rehabilitation and capacity expansion. RRIF credit assistance offers flexible terms, favorable interest rates and attractive financing options.[103]

The federal ownership of Union Station presents a unique set of circumstances for the use of federal loan programs. The federal government will not lend to itself. However if the application is initiated by a non-federal entity, then access to a credit facility may be possible. Nonetheless, there are important circumstantial and credit considerations that would need to be reviewed by the Build America Bureau to determine SEP eligibility and creditworthiness.

Public Debt Instruments: A creditworthy entity, such as Maryland, Virginia, or DC, could provide contingent support to the project through a form of guarantee or payment support to debt issued to finance the SEP. For example, if USRC issues debt backed by passenger facility charges (see description above), a more creditworthy entity could potentially support the debt to gain more favorable terms or reduce interest costs through a "guarantee" instrument. For example, the City of New York provided "interest support payments" to debt issued by Hudson Yards Infrastructure Corporation (HYIC) in the event that the PILOT revenues from the Hudson

Yards were insufficient to meet the interest payments.[104] DC has also used credit enhancements for TIF bonds through support from the Downtown TIF.

Private Investment

Structured correctly, the SEP can attract private financing and investment through public-private partnerships and transit-oriented development. Private participation in public infrastructure can take many different forms. At its simplest this can be a contractual relationship for goods or services. At its most innovative, it can include the design, construction, financing, operation, and maintenance of the asset for a long duration.

In certain cases, and if structured correctly, the inclusion of debt and equity can have positive impacts on the project risk profile. This includes enhanced levels of project oversight and project management.

Moving to Firm Funding Commitments for Construction

Firm funding commitments will be made to the SEP when there is a strong and compelling, stakeholder-specific case for investment. The contribution of early planning funds by various parties can be used as a starting point to advance to more substantive funding discussions and to provide those parties with a level of ownership and 'skin in the game' for the development of the SEP that will be valuable for future more detailed discussions regarding larger investments in construction stage activities.

As noted in the Findings section of this report, there are significant project benefits that will accrue as a result of the realization of the SEP. For multi-stakeholder projects, project benefits have often been the basis on which costs have been allocated, given the equitable outcome-based nature of this approach. These benefits will form the basis of the case for investment in the project.

The capital stack structure will continue to be refined during the Project Development stage in line with cost information but should be largely determined prior to entering Final Design and Construction. Further constructability and design work could reduce capital cost estimates (including reduction in contingencies, inflation, and further value engineering).

Additionally, if a public-private partnership model is selected, this could introduce different elements of private financing compared to a traditional delivery model and will necessarily change the funding stack. It will also change how the case for investment is determined and will need to demonstrate a viable return using conventional investment parameters.

Depending on the sequencing of phasing, it is possible that all funds will not be identified for the entire project at the initiation of phase one of construction. This is common for large infrastructure projects that potentially include multi-jurisdictional funding sources. This will be further informed by the concurrent advancement of constructability, design and financial analysis.

Once the capital stack becomes clearer and the general allocation of public and private funding is better understood, it will be necessary for the federal and regional entities to agree to a cost allocation framework for the public funds that will be contributed to the project.

There are several cost allocation structures that could be used to achieve a successful funding allocation outcome. These can include utilizing an existing body such as the Northeast Corridor Commission to

facilitate the process, or to identify a new structure that all parties are agreeable to. Fundamentally, the result of the cost allocation structuring process would be for all parties to agree and commit to funding levels that would enable the completion of the project. Any selected structure should present a fair and equitable assignment of cost based upon the agreed methodologies. Additionally, there could be provisions for escalation should parties not be able to come to agreement. The structure would need to include representatives from each of the funding parties who were empowered to negotiate on their behalf and commit them to funding up to predetermined levels.

Preliminary Capital Stack Options

The capital stack analysis is expected to be fluid and will change as the project planning and development phase progresses. This is because the final composition of the stack is dependent on a range of factors that a not fully known today. Those primary factors are final cost and schedule, selection of the preferred procurement and technical delivery approaches and firm funding commitments. Therefore, USRC will regularly undertake analyses from now and through the selection of a final capital stack for the project.

In line with mega-project delivery, we expect this project to access funds in the following sequence:

- Grant funding and direct appropriations
- Debt and equity
- Land value capture

The Budget Support Act requires that the report contain forward looking projections as to how the project's construction costs can be paid for. This analysis provides example cases to analyze how funding and financing participation may be structured in the future based upon notional contributions from funding entities. These cases have been developed using the concepts that have been discussed and analyzed in the Findings section.

It is noted that while 80% is generally the maximum allowable federal contribution under the relevant programs, in practice projects often provide a higher non-federal contributing value. Federal funding provided beyond an 80% match requires a direct appropriation from Congress.

When considering each of the federal programs, it is also important to consider that the amount of funding required for the SEP is substantial in comparison to the total amount appropriated to the programs. When considering Mega Grants, in 2022 approximately $6.5 billion was awarded in funding to 13 different projects.[105] The CRISI grant program had a total funding pool of $1.4 billion which is spread across numerous projects. [106] Further, the Federal-State Partnership-NEC program had $8.9 billion in the 2022 funding pool which was also spread across numerous projects.[107]

For the purposes of this analysis, it is anticipated that funding will be allocated to the project in these programs or successor programs (from 2027 onwards) over the entire construction term, and these federal funding programs will continue to be appropriated past 2026. It should be noted that large allocations to SEP will need to be competitively awarded against a number of competitive applications. This may warrant the need for direct funding appropriations. When considering the federal funding requirements on a year over year basis, the funding required is much less substantial when compared to the federal dollars appropriated to the respective program on a yearly basis. As such, it may be reasonable to expect the federal programs to have the ability to allocate the necessary dollars to the project on a continuing basis over the entire construction term of the project.

Delivery

This section discusses how future decisions can be made regarding the structure and procurement of contracts for the construction stage of the SEP. When the 30% design milestone is reached, a number of decisions will need to be taken about how the project progresses.

This includes a decision on SEP procurement and delivery methods. Procurement and delivery methods refer to how a construction project is designed and built, and the responsibilities of the parties involved (including the public owner and private sector contractor). Some delivery methods may include greater responsibilities for the contractor around private finance and long-term operations and maintenance. Delivery methods in practice take the form of a contract between the public owner and a private sector contractor, whereby the performance requirements and responsibilities of each party are expressly defined and laid out in a legally binding agreement.

A range of analyses to determine appropriate contracting structures will help inform the strategy to get from 30% design to the Construction Stage for the SEP, as well as inform the plans for long-term operations and maintenance of the SEP once complete. There are different definitions for both 60/65% and 90% design, depending on the project type and other factors. The definitions below were developed in this Study using information from GSA Building Standards.[108]

Exhibit 7.4: Definition of Major Design Milestones

Design %	Definition
60-65%	This stage is the progression of the design and its details. At this stage the design has substantially progressed. This stage includes further development of Geometrics (Plans, Profiles, and Cross sections) of the design, advancing the structural design, utility relocation or construction design, stormwater design, electrical design, mechanical design, plumbing design, landscaping design, and related design elements. Specifications are identified for various elements of the design. Any design waivers or variances are reconfirmed at this stage.
90%	This set of plans is very close to a final set with minor modifications after this stage. This stage brings the design very close to completion such that the Geometrics (Plans, Profiles, and Cross sections) of the design, the structural design, utility relocation or construction design, stormwater design, electrical design, mechanical design, plumbing design, landscaping design, and related design elements are almost at completion. Approvals of any design waivers or variances are received at this stage. These plans are ready to be used to develop quantities and estimates. Specifications are included for various elements of the design.

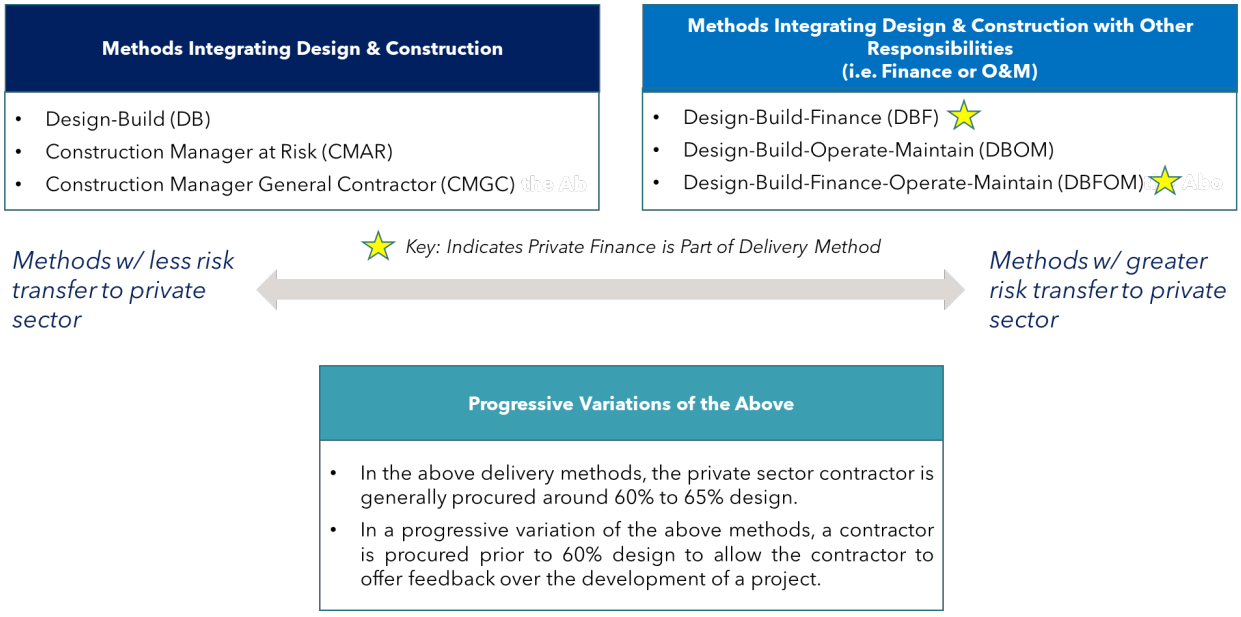
Commercial Delivery Structures

During the Study, the Study Team undertook analyses to determine the contractual delivery methods available to the SEP. These further informed considerations about how and when procurement decisions should be taken. There are different approaches to procurement and delivery methods available to the SEP:

Traditional Delivery Methods: Contracting methods historically employed by the public sector to deliver infrastructure. This includes Design-Bid-Build (DBB) where the public sector (or its design consultant) is responsible for 100% design. The project is then bid separately for construction.

Collaborative or Alternative Delivery Methods: Contracting methods where a private contractor assumes greater project responsibilities that include both final design and construction. Historically, private sector contractors have only been responsible for construction. Collaborative delivery includes a private sector participant more holistically in the process of infrastructure delivery. These delivery methods may also include a private finance or long-term operations and maintenance component. Exhibit 7.5 shows potential collaborative delivery methods.

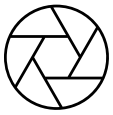
Exhibit 7.5: Collaborative Delivery Methods



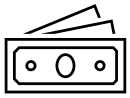
Key Project Delivery Considerations

In practice there are a wide range of delivery methodologies available to the SEP and for a project of this magnitude and complexity, a highly tailored solution will be needed that potentially incorporates one or more kinds of contractual structure. This is because the SEP has many different project elements that may lend themselves to different types of contracts. The Study Team conducted a review of similar projects to the SEP, as well as a detailed assessment of available delivery methods and alignment with current SEP project information. Based on this review, the following findings were identified:

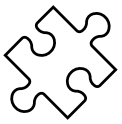
All delivery methods are available for the SEP. At this stage of design no procurement structure is precluded from use by the SEP. This is an advantageous position as it allows the Project Sponsor to select the most effective structures, based upon quantitative and qualitative analysis, as the project concept advances. The selection of the project delivery method should consider:



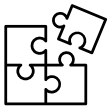
Project Risk: Project Risk encapsulates a broad range of issues but at its heart it is related to the risks that the Project Sponsor will take on as it endeavors to deliver the project. These risks can range from unknown utilities to faults in the design to delays and associated operational impacts. Each risk can be identified and quantified. There are ways to shift those risks by contracting them out to a third party.



Funding and Financing Structure: The capital stack is intrinsic to the delivery method. In traditional delivery, funding is generally sourced from the public entities in the form of grants or appropriations, or funds are accessed through the capital markets using a debt raise or loan program. Under alternative delivery methods it is possible to include both debt and equity as private financing elements. This can change the cash flow timing for the Project Sponsor and potentially allow for the acceleration of funds.



Technical Complexity: The SEP is a technically complex project, which is further complicated by the need to maintain operations over an extended period of time while construction is underway. Increased technical complexity presents a variety of risks and these should be carefully analyzed to determine which parties are best placed to hold and manage them.



Need or Desire for Innovation: Certain contracting structures lend themselves to more innovation. Innovation can come in several forms, including technical and financial innovation. Traditional procurement is generally highly prescriptive from the point of view of technical specifications, but this is often necessary when working in a highly regulated and safety-focused environment. Procurement structures that focus on performance outcomes can often bring new ideas and approaches from contractors. The Project Sponsor will need to carefully assess and weigh these concepts prior to delivery methodology selection.

The selected delivery method for the SEP will determine the path to get to Final Design & Construction. Exhibit 7.6 illustrates how the sequence of activities after 30% design will vary depending on the selected delivery method. The graphic outlines when major activities that support procurement will need to occur based on the associated SEP design milestone and the responsible parties for major actions. When collaborative procurement and delivery approaches are used, these responsibilities generally fall more on the private sector partner; when traditional delivery is used, this is retained by the public sector entity.

In general, collaborative delivery contracts, including progressive delivery which encourage early participations from contractors, are typically procured prior to 60-65% design. The contractor will then be responsible, and assume many of the risks, for the activities to get to Final Design & Construction.

Traditional delivery contracts generally cover only construction and are typically procured closer to 100% design. In traditional delivery, the public sector may complete the final design in-house or opt for a separate design contract to get to 100% design.

Public-Private Partnership models should be analyzed to determine if they hold value for SEP delivery. Infrastructure assets, like SEP, are usually long-lived and require a significant amount of capital to design, construct, and maintain. Due to these characteristics, infrastructure assets have traditionally been developed by public sector entities (governments, municipalities, agencies, and/or authorities). However, over the last three decades, more development and operation and maintenance of these public sector assets has shifted to some level of private sector participation. A large amount of private money has been raised to invest and lend to infrastructure projects as a result and there is an established industry for structuring these types of transactions.

The objective of a public-private partnership (P3) structure is to allocate project risks inherent in the delivery, management, and/or financing of an infrastructure asset to the parties best able to manage and mitigate them. This means that unlike traditional delivery, in which the public sector owner generally holds most of the risks, the contractual structure allocates risk in an efficient way between public and private sector parties. This does not mean that the public sector role is entirely free of risk but that it only holds the risks that it is best placed to manage.

The benefit of P3 approaches, which can take many forms, is that they can accelerate projects by bringing in private dollars to public projects, bring innovative approaches to design, construction, and asset management, and bring additional project oversight. Structured correctly this can result in high levels of ongoing state of good repair throughout the asset's life, including high-quality and well-maintained facilities that perform consistently to the owner's expectations. Other benefits can arise from cost reductions from a competitive procurement process.

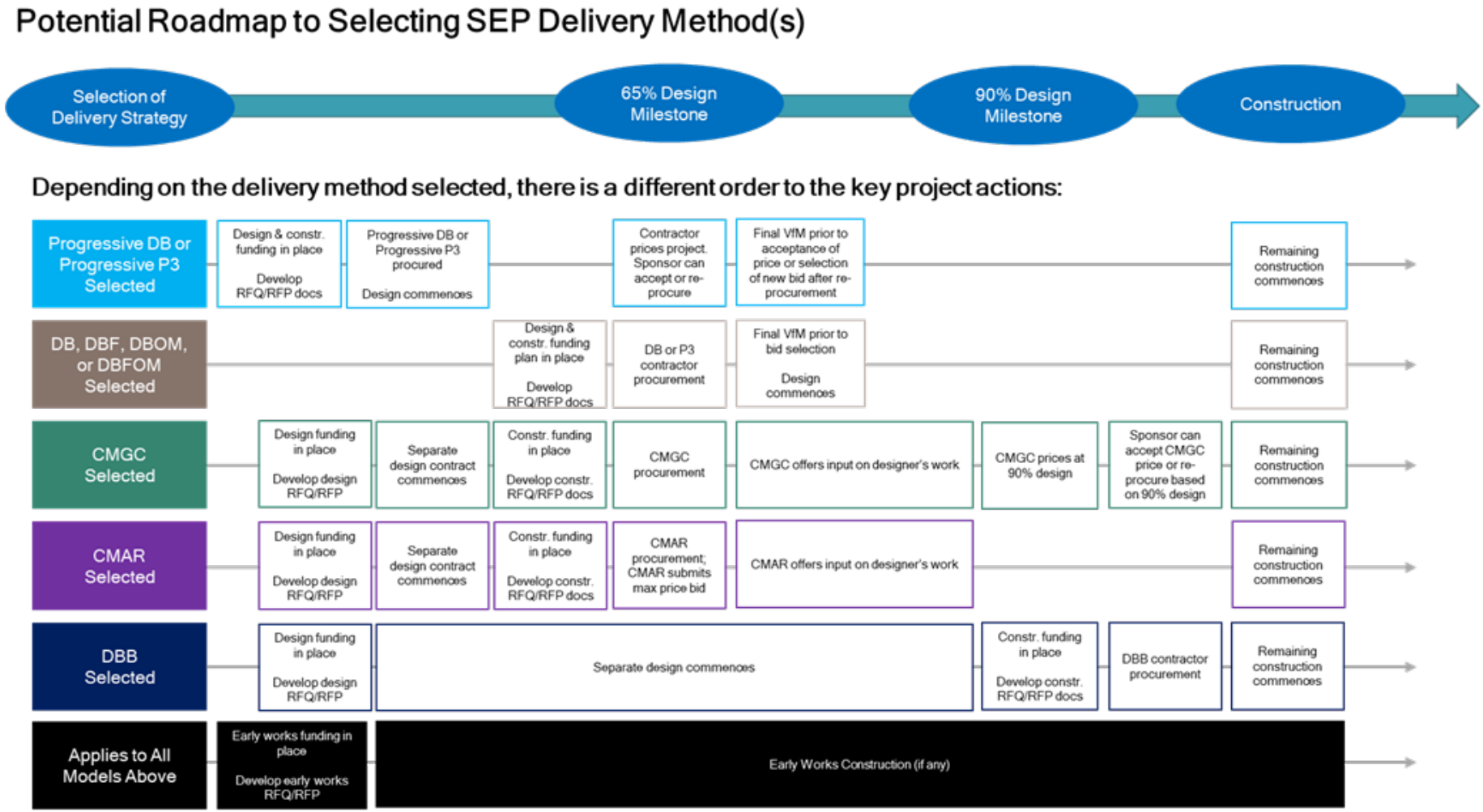
These structures require the identification of one or more creditworthy sources of revenue that can be used to repay the financing which will include debt and equity. These revenues can be based on user demand for the asset, or they can be delinked from the financial structure, meaning that the investor does not take the risk on asset usage. Both have advantages and disadvantages. Ultimately the asset owner must decide how to manage risk and structure the transaction, but this should be undertaken with feedback from the investor community so that any procurement is acceptable to the market and will generate high levels of interest and competition.

For the SEP, USRC will need to determine whether the inclusion of a P3 structure presents value to the project. This generally requires carefully weighing the advantages and disadvantages of the proposed structures and undertaking a qualitative analysis. The size of the project and its construction cost are at the high end of P3 project capital values however, it may be possible to isolate smaller projects within the whole as appropriate for this type of delivery.

Both qualitative and quantitative analyses can be used to identify preferred delivery methods for the SEP. Quantitative value-for-money (VfM) financial analysis and risk assessment can be used to calculate how the shortlisted delivery method delivers long-term value to the asset owner by quantifying the value of transferred risk. VfM and quantitative risk assessment are USDOT-recommended tools for procurement decision-making.[109]

The development of the project agreement and performance specifications based on the above analyses can be used to define how the owner of the asset expects it to perform throughout its life cycle.

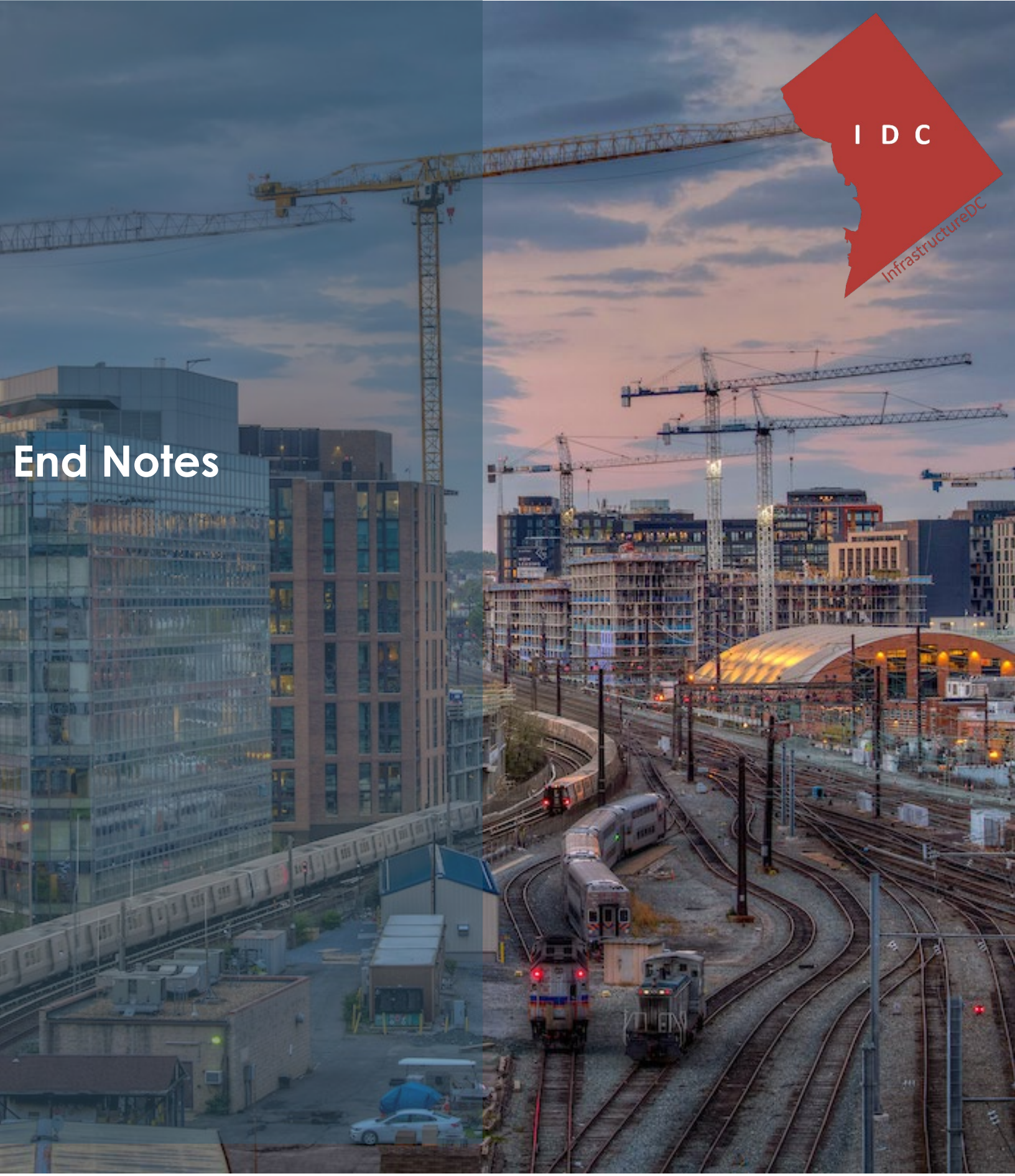
Exhibit 7.6: Roadmap to Final Design & Construction



Notes:
- Different delivery methods / phasing strategies can be selected for different elements of the project.

Engage with industry to determine if it is optimal for Project Sponsor and contractors to break scope into component pieces.

The Project Sponsor should engage with industry and contractors to solicit their feedback and insights on how the SEP should be delivered, including what responsibilities and risks are appropriate to transfer to the private sector, and what the success factors are to ensure multiple competitive and affordable bids. Early industry outreach is crucial to the success of the SEP as it will build momentum for the project and cultivate interest from the investor and contractor community. For a project of this complexity and size, the Project Sponsor should solicit industry feedback around technical approaches (e.g., constructability and design), key risks, and funding and financing structures.



End Notes

End Notes

1. National Register of Historic Places (U.S. National Park Service) (nps.gov)
2. Union Station Passenger Numbers: Final Environmental Impact Statement for the Washington Union Station Expansion Project
    a. Page 2-1
3. Union Station Projected Ridership Projections: Final Environmental Impact Statement for the Washington Union Station Expansion Project
    a. Page 2-9
4. Union Station Expansion Project Cost and Schedule: Final Environmental Impact Statement for the Washington Union Station Expansion Project
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23. SEP: Final Environmental Impact Statement for the Washington Union Station Expansion Project
    a. Page 4-1
24. Union Station Projected Ridership Projections: Final Environmental Impact Statement for the Washington Union Station Expansion Project
    a. Page 2-9
25. Union Station Projected Ridership Projections: Final Environmental Impact Statement for the Washington Union Station Expansion Project
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    a. Page 1-10
36. Final Environmental Impact Statement for the Washington Union Station Expansion Project

a. Page 1-10

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Appendix A: Coordinating Stakeholders

Appendix A: Coordinating Stakeholders

Appendix A provides further information on **Coordinating Stakeholders.** Coordinating Stakeholders are stakeholders who play a direct role in the station and the project from the perspective of coordination, approvals, or impacts to operations. An example of these stakeholders are rail service operators who will need to closely coordinate to identify service impacts, both during and after construction and agree the range of mitigations. Additionally, approval and permitting agencies will need to closely coordinate with the Project Sponsor. Virginia and Maryland are currently important coordinating stakeholders. If the states decide to take a more active role in the project, they can become Key Stakeholders.

Exhibit A-1: Coordinating Stakeholders	
Organization	**Role**
Akridge	**Role:** Akridge is a full-service commercial real estate company and a prominent investor and developer in the Washington, DC region and nation. Akridge invests in, develops, and manages commercial real estate, from office buildings to mixed-use space. **Interest in Union Station:** Akridge owns private air rights above rail yards at Union Station in Washington, DC. Akridge are planning a mixed-use development known as Burnham Place. This development is highly connected to the SEP and requires significant collaboration and interface with USRC and Amtrak. Additionally, Preferred Alternative F requires the usage of some of the air rights that Akridge holds.
State of Maryland (MD)	**Role:** The State of Maryland borders the District of Columbia. As such their economies, transportation needs, and broader policy goals are intrinsically tied together. **Interest in Union Station:** Governor Wes Moore and Lt. Gov. Aruna Miller are supportive of transportation investments and are key stakeholders to support the SEP given Maryland's investment in MARC and passenger rail service.
Maryland Department of Transportation (MDOT)	**Role:** MDOT oversees transportation infrastructure and services in the state of Maryland. **Interest in Union Station:** MDOT provides oversight and funding to MARC, which runs rail services into Union Station. Additionally, it has an interest in state bus lines that provide Maryland-DC services.
Maryland Area Rail Commuter (MARC)	**Role:** Maryland Area Rail Commuter (MARC) is a commuter rail system in the Baltimore–Washington metropolitan area. MARC is administered by the Maryland Transit Administration and operated under contract by Alstom and Amtrak on track owned by CSX Transportation and Amtrak. **Interest in Union Station:** Maryland Transit Administration (MTA) and MARC have indicated that it plans to increase its service to Union Station and

Exhibit A-1: Coordinating Stakeholders	
Organization	**Role**
	potentially run-through service to Virginia. The SEP will enhance MARC capacity and allow for long-term ridership growth.
Metropolitan Washington Council of Governments (MWCOG)	**Role:** Metropolitan Washington Council of Governments (MWCOG) is an independent, nonprofit association where area leaders address regional issues affecting the District of Columbia, suburban Maryland and Northern Virginia. This organization provides a membership of key regional organizations. MWCOG sets its regional capital budget priorities via the Transportation Planning Board (TPB). **Interest in Union Station:** As a central transportation hub for the region, Union Station and the SEP are of interest to MWCOG from mobility, equity and justice, climate mitigate and economic growth perspectives.
Northeast Corridor Commission (NEC Commission)	**Role:** Northeast Corridor Commission (NEC) was established by U.S. Congress to promote mutual cooperation and planning among owners and operators on the Northeast Corridor (NEC) rail line and to advise the U.S. Congress on Corridor policy and investment needs. NCC consists of one member from each of the NEC states and the District of Columbia; four members from Amtrak; and five members from the U.S. Department of Transportation. The Commission also includes non-voting representatives from four freight railroads, states with feeder corridors, and commuter authorities not directly represented by a Commission member. The Commission also includes non-voting representatives from four freight railroads, states with feeder corridors, and commuter authorities not directly represented by a Commission member. The Commission includes representation from both DDOT and MDOT. Virginia is not a voting member, but the Virginia Passenger Rail Authority is represented as a non-voting member. **Interest in Union Station:** Union Station is the Southern terminus of the NEC and therefore its operations and functionality are critical to the planned upgrade of the entire system.
National Capital Region Congressional Delegation (Regional Congressional Delegation)	**Role:** The National Capital Region Congressional Delegation advocates for the interest of the Capital Region. **Interest in Union Station:** As a central transportation hub for the region, Union Station and the SEP are of interest from mobility, equity and justice, climate mitigate and economic growth perspectives. SEP has the ability to advance broader policy goals of the Capital Region and deliver quality of life and economic benefits.

Exhibit A-1: Coordinating Stakeholders	
Organization	**Role**
Commonwealth of Virginia (VA) 	**Role:** The Commonwealth of Virginia borders the District of Columbia. As such their economies, transportation needs, and broader policy goals are intrinsically tied together. **Interest in Union Station:** Governor Youngkin is interested in supporting Virginia's historic investment in passenger rail Richmond to New York, and Virginia connections to the SEC to enhance regional economic competitiveness and transportation link development.
Virginia Department of Rail and Public Transportation (DRPT)	**Role:** Virginia Department of Rail and Public Transportation (DRPT) oversees programs and initiatives that support freight investments and delivers data-driven planning recommendations and policies for both passenger and freight rail in the Commonwealth of Virginia. **Interest in Union Station:** As a key transportation hub for the region, Union Station is directly and indirectly critical to the services that VPRA oversees.
Virginia Department of Transportation (VDOT)	**Role:** VDOT is the state agency that plans, builds, maintains and operates Virginia's transportation system. **Interest in Union Station:** As a key transportation hub for the region, Union Station is directly and indirectly critical to the services that VDOT oversees.
Virginia Railway Express (VRE)	**Role:** Virginia Railway Express (VRE) is a commuter rail service that connects outlying small cities of Northern Virginia to Union Station in Washington, DC. VRE has also increasing service to Union Station and potential run-through service to Maryland. **Interest in Union Station:** The SEP will potentially create service impacts during the construction period and long-term ridership growth and demand long term. VRE will significantly benefit from service and capacity enhancements because of the SEP.
The Virginia Passenger Rail Authority (VPRA)	**Role:** The Virginia Passenger Rail Authority (VPRA) manages all administrative and fiduciary responsibilities for Virginia's state-supported passenger rail services, including the current eight daily roundtrip Amtrak Northeast Regional services originating in Roanoke, Norfolk, Newport News, and Richmond. The VPRA is responsible for promoting, sustaining, and expanding the availability of passenger and commuter rail service in the Commonwealth. **Interest in Union Station:** As a key transportation hub for the region, Union Station is directly and indirectly critical to the services that VPRA oversees.

Exhibit A-1: Coordinating Stakeholders	
Organization	**Role**
The Washington Metropolitan Area Transit Authority (WMATA)	**Role:** The Washington Metropolitan Area Transit Authority (WMATA), commonly referred to as Metro, is a tri-jurisdictional government agency that operates transit service in the Washington metropolitan area. WMATA provides services at Union Station. **Interest in Union Station:** Prior to the COVID-19 pandemic, Union Station was WMATA's busiest station and a point of intermodal transition. The SEP will creates service impacts during the construction period and long term ridership growth and demand long term.
Intercity Bus Operators	**Role:** Intercity bus operators are direct users of the bus facility located in the garage at Union Station. Note there are multiple entities within this group (including Megabus, Greyhound Lines Inc., DC Trails, 44 and the American Bus Association). Collectively, they provide a range of short and long-distance services into the station. **Interest in Union Station:** They have a vested interest in the current and future state of the facility as the bus facility is an integral part of SEP. The SEP will potentially create service impacts during the construction period and long-term ridership growth and demand long term.

Appendix B: Washington Union Station Expansion Project (SEP)

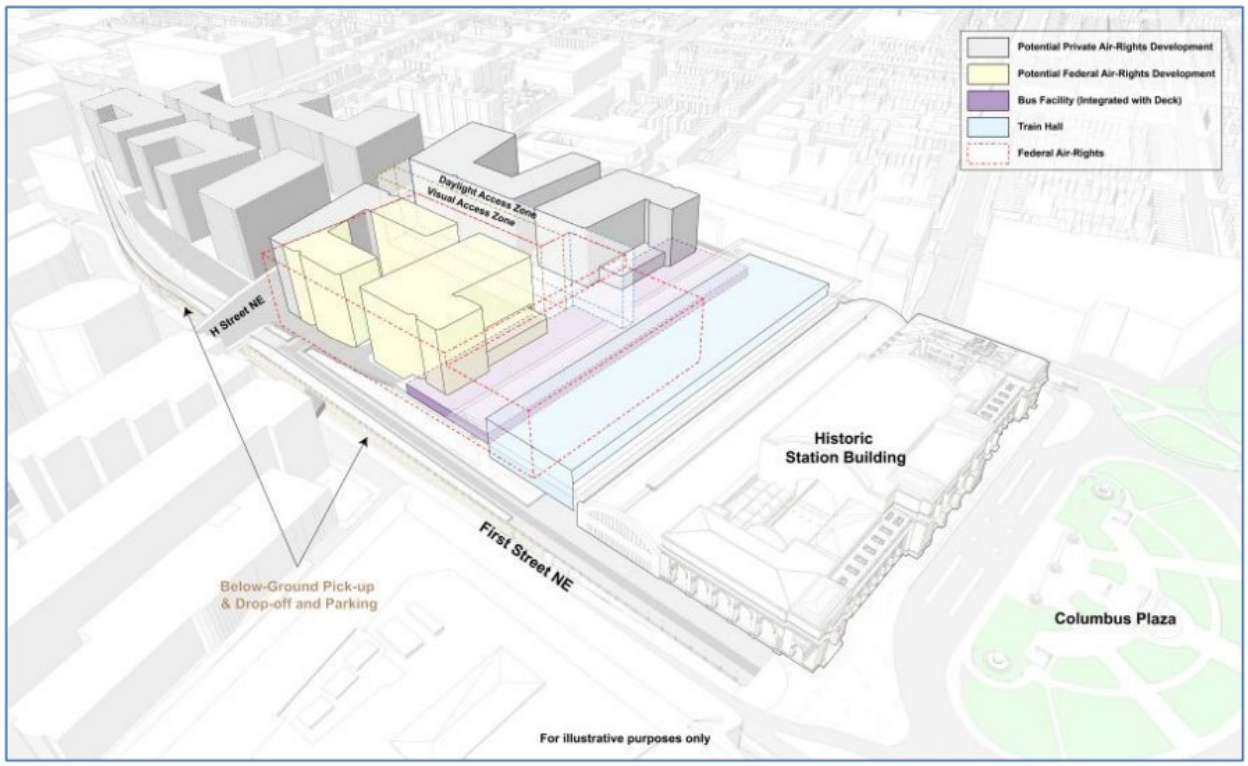
Appendix B: Washington Union Station Expansion Project (SEP)

This appendix provides further detail regarding the Washington Union Station Expansion Project. This information is sourced from the Draft, Supplemental Draft and Final Environmental Impact Statements, as well as discussions with the Advisory Group.

Washington Union Station Expansion Project

The Washington Union Station Expansion Project (SEP) will expand and modernize Union Station, the National Capital Region's principal intermodal transportation hub. The SEP will provide a positive customer experience; support current and future rail service and operational needs; facilitate intermodal transportation; preserve and maintain the historic Station; sustain the economic viability of the station; and integrate the station with the adjacent neighborhoods, businesses, and planned development. The SEP incorporates the comprehensive redevelopment and upgrading of the entire station, including tracks, platforms, all concourse facilities, and all multimodal elements. Fundamentally, it will add capacity and modernize the facility for its second century of existence.

Exhibit B-1: Illustration of Preferred Alternative (Alternative F)



Source: FRA, Final Environmental Impact Statement

Exhibit B-2: Station Expansion Project footprint

Source: FRA, Final Environmental Impact Statement

Exhibit B-2 above shows the extent of the SEP project area.

The SEP is currently estimated to cost $8.8 billion and take 13 years to construct. The resulting work will accommodate significant projected ridership growth from Amtrak, VRE, MARC, and bus lines through 2040 and beyond, enable more efficient and safe train operations, including Americans with Disabilities Act (ADA) upgrades, provide more space for passenger circulation and improved experience, and emergency egress. As shown on Exhibit 3 the footprint of the SEP is significantly larger than the historic building and will extend as far north as Amtrak's Ivy City Yard. Additionally, the following image provides a cross section of the SEP and illustrates the various new passenger, train infrastructure, multimodal transit, retail, parking, and office / support spaces that will be created by the project.

Exhibit B-3: SEP Concourse

Source: Akridge

The SEP will include upgrades to the following major project components:

Historic Station Building: The historic station will be preserved and integrated into the SEP. The historic station building is a renowned architectural masterpiece. It is listed in the National Register of Historic Places. It will remain as the primary entrance to the station. There will be visual and daylight access zones that are free of SEP elements.

Rail Infrastructure: The rail terminal will be reconstructed to replace the existing tracks and platforms with 19 new tracks, 12 stub-end tracks on the west side and seven run through tracks on the east side, along with associated platforms. The additional run-through tracks will enable increased capacity on through service between the Northeast Corridor and Virginia. Ten new wider (30-foot) double sided platforms will be constructed, enhancing passenger accessibility and mobility and improving station emergency egress.

Concourses: Four concourses including:

(1) Concourse A (at platform level replacing the existing Claytor Concourse running east-west);

(2) H Street Concourse (at lower concourse level running east-west);

(3) Central Concourse (running north-south connecting H St concourse to Concourse A and historic station);

(4) First Street Concourse (running north-south connecting the east-west concourses and providing direct access to Metro station.

These concourses will occupy approximately 330,000 square feet and provide opportunities for new retail and enhanced passenger experiences. These portals into Union Station will also be fully compliant with the ADA and meet 21st century mobility standards.

Train Hall: A new east-west train hall that will replace the existing Claytor Concourse, located north of the historic station building, will create a connection between the historic station building and the new tracks and platforms as well as the new bus facility. The train hall roof will provide coverage over lead locomotive cars (and constituent weather sensitive components) as well as the first passenger car of all trains utilizing the station. The train hall will occupy 150,000 square feet.

Office Space: This space will be located mostly north of H Street, NE and that can provide office space for Amtrak and related support areas. It will occupy approximately 379,400 square feet.

Retail Space: New retail space would be approximately 64,000 square feet and will bring leading-edge retail, dining, and passenger amenity concepts, further cementing Union Station's role as the historic gateway into the nation's capital.

Parking: Parking (including for rental cars) would be provided on one below-ground level parking facility shared with a pick-up and drop-off facility. There would be space to park approximately 400 to 550 cars. Access to and from the parking facility would be via ramps on G Street NE and First Street NE. This represents a reduction from the current 1500 spaces available today.

Buses: The one-level integrated bus facility would connect directly to the train hall, facilitating access and intermodal transfers. The bus facility would have 38 slips in normal configuration. An additional slip could be provided in the island platform when needed, for a total of 39 slips. In times of unusually high demand from tour and charter buses, buses could make use of the deck-level pick-up and drop-off area adjacent to the train hall, which would provide the equivalent of approximately 15 bus slips. Buses would access the bus facility via H Street NE and a new intersection on the east side of the H Street Bridge. Buses would exit back to H Street NE via a new intersection on the west side of the bridge. The following image illustrates the direct connection between the bus / parking facility and the train hall.

Exhibit B-4: SEP Bus Depot

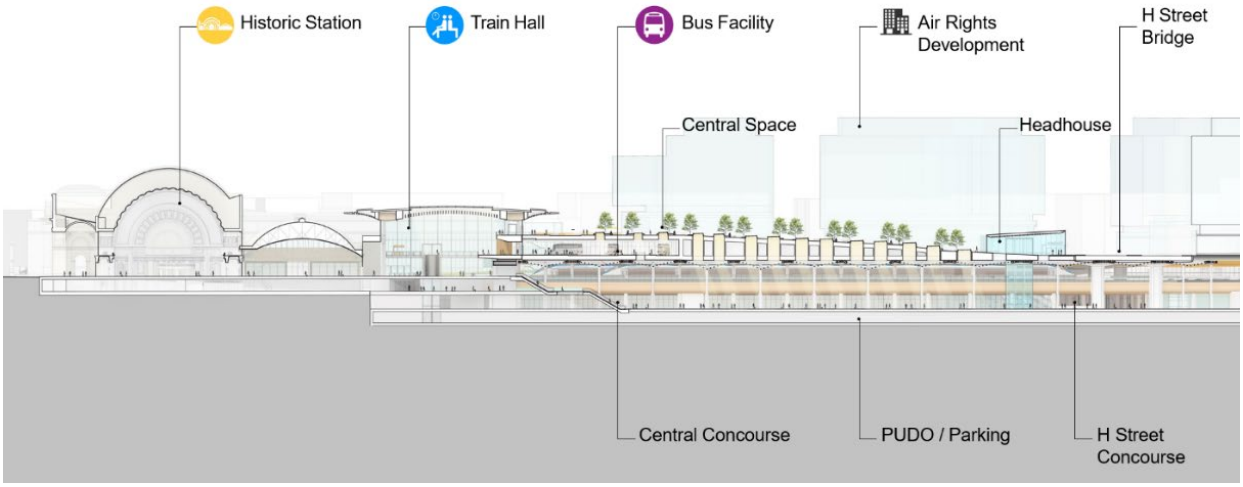
Source: Akridge

For-Hire Vehicles/Pick-up and Drop-off: A pick-up and drop-off facility would be provided on one below-ground level, shared with the parking facility. Access would be via the ramps on G Street NE and First Street NE described above for parking. In addition, there would be an exit ramp on the east side of WUS allowing taxis to drive to the front of the station to pick up passengers. The facility would provide the equivalent of approximately 60 pick-up and drop-off spaces. Pick-up and drop-off areas would also be provided in front of WUS, on First and Second Streets NE near H Street NE, and at deck-level next to the train hall, above the bus facility.

Bicycles: Bicycle access would be facilitated by two ramps, one on the west side and one on the east side of the station. Parking and storage for approximately 900 bicycles would be provided beneath the ramps and in the H Street Concourse near the entrances from First and Second Streets NE. Additional bikeshare spots would also be provided (approximately 100).

Pedestrians: Pedestrians would access WUS via the existing Metrorail station's First and G Street NE entrance; the southwest portico of WUS; the front of the station; and from H Street NE. New entrances would be located under the H Street Bridge and headhouses would be provided at deck level on both sides of the H Street Bridge. Pedestrian access would also be facilitated by the two previously mentioned ramps on the west and east sides of the station.

Exhibit B-5: Major Components of the Preferred Alternative - Alternative F



Source: FRA, Supplemental Draft Environmental Impact Statement, 10% Design Report

Columbus Circle: Located at the front entrance of the historic station building, the Columbus Circle will be re-configured slightly without impacting the open green space. A third lane would be added to the approach from the southeast. Modification of the east ramp would allow southbound traffic and provide an exit from the ramp to F Street NE. The connection for vehicles traveling NB from Massachusetts Ave NE and Columbus Circle to F Street NE would stay as it is.

G Street Ramp: A new ramp will be constructed from G Street, NE to the lower level. The ramp will be located in a portal in the middle of G Street, NE between North Capitol Street and First Street, NE. This ramp will provide additional access for parking.

The SDEIS specifically excludes the Burnham Place development. However, it is an interdependent project of SEP that requires a high degree of collaboration between the Akridge, the air rights holder, Amtrak and USRC. Additionally, it is noted that the public project as described in Alternative F requires 2.9 acres of air rights to be transferred from the private developer to be realizable. This will require further agreement between the parties.

Project Phasing

Infrastructure projects can be completely constructed at one time (single phase) or they can be divided into multiple phases. In other words, phased construction splits the project into several small projects that can be constructed at different times instead of constructing the entire project at one time. Large projects usually take months and sometimes years to complete which may require the entire project site to be inaccessible for business operations. Large complex projects, especially where certain elements of the project must be kept in service while other sections are being constructed, require a phased approach to construction. Phase construction can add cost and time to the project; however, these are

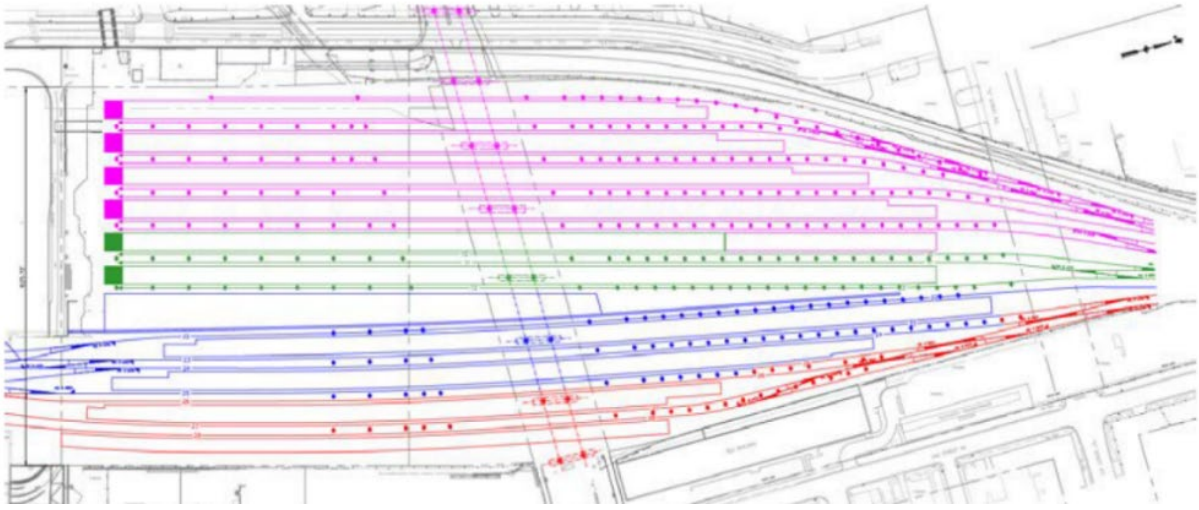
balanced by the ability to: minimize service/operation disruptions, avoid a complete shutdown of the project site, and maintain business operations open during construction.

Exhibit B-6: Arial view of Union Station

Source: FRA, Supplemental Draft Environmental Impact Statement, 10% Design Report

Because of the large-scale use of this station, it will be extremely difficult to completely shut down the station and construct the entire project in one phase. The SEP requires maintaining active intercity and commuter rail operations while construction is ongoing. Due to the train operations certain passenger amenities will also need to be kept operational during construction. Therefore, SEP is proposed with a multi-phased construction approach.

Exhibit B-7: Phasing view of Union Station: Proposed Track and Platform Configuration



Source: FRA, Supplemental Draft Environmental Impact Statement, 10% Design Report

Source: FRA, WUS Supplemental Draft Environmental Impact Statement

In order to maintain the existing levels of train services at Union Station during construction, the track and rail infrastructure will be sequenced over four phases. In the Supplemental Draft Environmental Impact Statement (SDEIS) and 2019 Track Infrastructure Report, various construction phasing approaches were studied, and the development team determined that a four-phase approach with infrastructure construction and replacement from an east to west direction would best maintain train service and passenger needs. Additionally, the development team determined in 2019 that station infrastructure work should be completed only after the four phases of the rail infrastructure project are complete.