

CASCADIA ULTRA HIGH SPEED GROUND TRANSPORTATION

FRAMEWORK FOR THE FUTURE



FINAL REPORT

DECEMBER 2020

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We are living in unprecedented times that call on us to envision our future in new ways. Transformative infrastructure projects like this one could help us rebuild our economy in the short term and provide us with a strong competitive advantage in the future. Imagine fast, frequent and reliable travel with the potential for zero emissions and the opportunity to better compete in a global economy. It could transform the Pacific Northwest.”

— *Washington Governor Jay Inslee*



Improving connectivity in the Pacific Northwest region through ultra high-speed rail presents enormous potential for job and economic growth on both sides of the border. This study provides a path forward for British Columbians and gives us a clearer vision of what can be achieved when we all work together.”

— *British Columbia Premier John Horgan*



High-speed rail will shrink travel times throughout the Cascadia Corridor, providing a strong transportation core for our region. This report provides a valuable roadmap for making this international project a reality.”

— *Microsoft President Brad Smith*



Bringing high-speed rail to the Pacific Northwest would bolster our economies while contributing to our efforts to combat climate change. This study affirms that a regional high-speed rail system would yield an equitable and modern transportation infrastructure that benefits people, the environment, and the economy. This type of bold investment would help position our region for the future.”

— *Oregon Governor Kate Brown*

1. OVERVIEW OF THE CASCADIA UHSGT FRAMEWORK FOR THE FUTURE



Ultra-high-speed ground transportation

refers to technology such as high-speed electrified rail, hyperloop, or magnetic levitation with a maximum operating speed of up to 250 miles per hour or 402 kilometers per hour.

The 2017-2018 Feasibility Study estimated \$355 billion in economic growth and 200,000 new jobs related to construction and ongoing operation of a future Cascadia UHSGT project.

Washington, Oregon, and British Columbia are studying how ultra-high-speed ground transportation (UHSGT) might serve as a catalyst to transform the Pacific Northwest. The Cascadia UHSGT system will connect the metro areas of Vancouver, BC; Seattle, WA; Portland, OR, and points between and beyond, with frequent service running at speeds as high as 250 miles per hour (400 kilometers per hour). The UHSGT system could improve quality of life across the Cascadia megaregion by creating fast, safe, reliable connections for almost 9 million people. This high-speed travel option across the region could unlock access to family-wage jobs for local workers, increase opportunities for more affordable housing choices, and reduce greenhouse gas emissions by using clean energy. As 2020 draws to a close, the Cascadia region is facing an unparalleled health, economic, climate, and social justice crisis that requires rethinking the status quo and developing new ways of doing things. Bold investments in projects such as UHSGT can provide an infusion of near-term construction jobs and long-term economic benefits, while providing zero-emission, equitable, and modern infrastructure for future generations.

From 2017 to 2018, work on a preliminary UHSGT feasibility study was an important first step in understanding and quantifying the potential benefits of a new transportation system in the Cascadia megaregion. This study preliminarily estimated capital costs for the project ranging from \$24 billion to \$42 billion USD (2017).¹ The 2019 UHSGT business case that followed developed a benefit analysis, assessment of potential economic gains, and

¹ Preliminary estimates for project costs and benefits from the business case and feasibility study are subject to change as the UHSGT project moves forward.

early ridership and revenue forecasts. This study projected ridership exceeding 3 million annual trips on the UHSGT system. The 2019 business case also defined the broad project stages of initiation, development, construction, and operations and maintenance (O&M) that are used throughout this report.

This 2020 Framework for the Future (Framework) charts a potential path forward on project governance, strategic engagement, and funding and financing to advance the UHSGT project. A combination of expert interviews and case study research informs this report's recommendations. This Framework Final Report consists of three primary chapters: Governance Framework, Strategic Engagement Plan, and Financial Strategy, which together create structure, processes, and strategies for management of the Cascadia UHSGT project. The final chapter captures more detail about the project initiation activities that will be necessary to launch the project.

GOVERNANCE FRAMEWORK



The Governance chapter of this Framework explains key next steps and considerations to formalize the UHSGT's governance structure. As other large infrastructure projects demonstrate, complex multi-jurisdictional projects take time, resources, and commitment to implement. Advancing the current informal partnership into a Coordinating Entity or an independent Development Entity will help formalize commitments and streamline the decision-making process for project initiation and project development.

STRATEGIC ENGAGEMENT PLAN



The Strategic Engagement chapter of this Framework highlights the essential strategies needed to build awareness, understanding, and support for the UHSGT project. Developing a project vision and identity can help diverse stakeholders incorporate their vision and values into the project. Demonstrating the project's commitment to advancing equity in the region from the beginning will increase stakeholder support. The strategic engagement plan identifies key steps, tools, and stakeholders for each project stage.





FINANCIAL STRATEGY




The Financial Strategy chapter of this Framework includes strategies for securing funding for each stage of the UHSGT project from project initiation, to project development, and into construction. It also includes three potential funding scenarios for each project stage that depict how increased or decreased funding from one source impacts contribution levels needed from other sources. These scenarios depict how funding and financing sources could come together to create a complete funding approach.

Table 1-1 summarizes project milestones and activities over the UHSGT project lifecycle with specific steps related to governance, strategic engagement, and funding and financing.

Table 1-1: Project milestones and activities

PROJECT STAGES	PROJECT INITIATION		PROJECT DEVELOPMENT	CONSTRUCTION	OPERATIONS & MAINTENANCE (O&M)
GOVERNANCE STRUCTURE RECOMMENDATION	INFORMAL PARTNERSHIP	COORDINATING ENTITY	DEVELOPMENT ENTITY		ENTITY TBD
<p>SCOPE / PROJECT ACTIVITIES</p>  <p>UHSGT Framework for the Future (2020)</p>	<p>Feasibility Study (2017 to 2018) Business Case Analysis (2019)</p>	<p>Pre-Environmental Clearance; Conceptual Engineering; Stakeholder Engagement; Future Project Governance; Funding Strategy</p>	<p>Environmental Clearance; Preliminary (NEPA/CEAA) Engineering/Design; Risk Assessment; Procurement and public-private partnership (P3) Policies</p>	<p>Land Acquisition; Vehicle Procurement Final Design; Construction</p>	<p>Operations and Maintenance</p>
 <p>PROJECT MILESTONES</p>		<p>Select UHSGT Technology Scenario Planning</p>	<p>Project Alignment Project Phasing</p>	<p>Station Siting and Design Groundbreaking</p>	<p>Grand Opening Revenue Service</p>
 <p>LEGISLATIVE & REGULATORY ACTIONS</p>	<p>Develop the enabling agreement between the three jurisdictions to establish the Coordinating Entity</p>	<p>Develop a governance structure for the project development stage</p>	<p>Develop procurement processes and policies, including public-private partnership process if applicable</p>		
 <p>STRATEGIC ENGAGEMENT STRATEGY</p>	<p>Develop support from decision-makers during approval process for the Coordinating Entity</p>	<p>Develop a project identity and vision Build a broader coalition of support Consult with key elected Tribal and Indigenous Community leadership Engage advisory groups through all three stages Ensure deep and equitable local engagement</p>	<p>Continue to engage advisory groups Continue consultation with Tribes and Indigenous Communities Ensure deep and equitable local engagement Partner with regional transportation agencies on alignment Partner with schools to create curriculum for workforce training and host design competitions</p>	<p>Continue to engage advisory groups Continue equitable local engagement, including soliciting feedback on impacts Continue consultation and honor commitments to Tribes and Indigenous Communities Commit to offering equitable economic opportunities to local businesses Host groundbreaking and ribbon-cutting ceremonies</p>	<p>Focus on partnerships to maintain momentum, increase ridership, and build excitement</p>

PROJECT STAGES	PROJECT INITIATION		PROJECT DEVELOPMENT	CONSTRUCTION	OPERATIONS & MAINTENANCE (O&M)
GOVERNANCE STRUCTURE RECOMMENDATION	INFORMAL PARTNERSHIP	COORDINATING ENTITY	DEVELOPMENT ENTITY		ENTITY TBD
 <p>FUNDING AND FINANCING STRATEGY</p>	<p>Evaluate funding and financing options</p> <p>Develop strategy for securing funding commitments</p> <p>Secure funding from established state/provincial funding sources to further project initiation</p>	<p>Pursue federal funding from established programs, and encourage federal action on new funding programs</p> <p>Engage state/provincial governments and regional stakeholders to develop action plans for corridor funding</p> <p>Pursue private contributions</p> <p>Develop value capture plans</p> <p>Align financing strategy with project delivery approach</p>	<p>Pursue federal funding from established/new programs</p> <p>Enact enabling legislation for new state/provincial/regional funding streams</p> <p>Implement strategies to capture value</p> <p>Identify revenue streams to repay financing</p> <p>Implement funding agreements with private contributors</p>	<p>Implement and enact value capture funding plans</p> <p>Pursue appropriate financing mechanisms to leverage identified funding</p>	<p>In advance of O&M phase:</p> <p>Develop refined forecasts of projected ridership and fare revenue</p> <p>Estimate O&M funding needs and evaluate funding options</p> <p>Develop and execute strategy for securing funding commitments, including enactment of any dedicated funding streams for O&M</p>
PROCUREMENT AUTHORITY	Lead jurisdiction procures on behalf of the informal partnership	One jurisdiction procures on behalf of the Coordinating Entity	Formal procurement and contracting authority is required for the project. The Development Entity will need to establish robust procurement procedures, processes, and strategies. In most cases, the Development Entity will conduct procurement directly		Formal procurement and contracting authority will be needed to manage any contracting needs of the Entity in this stage

2. GOVERNANCE FRAMEWORK



To date, the UHSGT project has completed initial feasibility studies through an informal partnership. To propel the project forward, a more formal governance framework, with dedicated resources and strong buy-in from British Columbia, Washington, and Oregon, would help to advance the project through the project development process. This Governance chapter makes recommendations based on:

- Interviews with regional Cascadia stakeholders and national experts
- Case study research into national and international governance structures
- Lessons learned from existing high-speed projects in North America

Based on this research, there are three potential governance structures for the UHSGT project to consider that vary in independence and formality: (1) continuation of the informal partnership, (2) creation of a more formal but non-binding structure such as a Coordinating Entity, and (3) a Development Entity with formal independent management authority.

Figure 1 outlines the strengths and challenges of these three governance options for the project initiation stage.

Figure 1: Project governance options

INFORMAL PARTNERSHIP		COORDINATING ENTITY		DEVELOPMENT ENTITY	
↑	↓	↑	↓	↑	↓
Allows maximum flexibility for jurisdictions to participate	Difficult to gain momentum beyond a study at a time	Allows jurisdictions to formalize near-term commitments Having dedicated resources creates momentum to complete project activities Provides time to explore Development Entity requirements	Requires two-step process to create Development Entity	Establishes binding decision-making structure that could expedite completion of project activities One step process avoids effort of first establishing a non-binding entity	Requires concerted effort in the near term to establish formal Development Entity Likely requires enactment of legislation by all jurisdictions
THE RISK TO THE PROJECT ASSOCIATED WITH EACH SELECTION					
The project moves slower, with less commitment.		It requires two concerted efforts to establish governance structures to move forward.		The level of commitment needed from each jurisdiction is substantial and would likely require legislation. The project may stall while trying to gain political support.	

The consolidated decision-making of an independent body solely focused on advancing the multi-jurisdictional project makes the Development Entity the optimal governance structure to develop and build the UHSGT project. The Coordinating Entity provides an interim step that could expand awareness and support, further inform decision-making, complete project initiation activities, and better prepare the project for development and construction.

The governance structure of the Cascadia UHSGT project will evolve as the project advances, incorporating lessons learned and adapting to the needs of each project development stage. Using the approach of first creating a Coordinating Entity and then a Development Entity follows the two-step process of most megaprojects examined in case study research.

Governance During Operations and Maintenance: This chapter focuses on governance for project initiation and development, which will help the project reach and begin the construction stage. As the project progresses past capital construction, the primary focus will pivot to operating and maintaining a safe, reliable, and efficient ultra-high-speed ground transportation system. The governance model should also evolve to match the operating requirements and coordination needed between the primary jurisdictions. Development of these requirements should be considered during the project development stage and may depend on the project delivery method.

2.1 CREATION OF A COORDINATING ENTITY

Creation of a Coordinating Entity is an intermediate step that provides more structure and formalizes agreement among the three jurisdictions to conduct activities needed to move the project into development. To drive support for the UHSGT project, it is recommended that Washington, Oregon, and British Columbia enter into an enabling agreement that establishes a tri-jurisdictional partnership affirming all parties support the project.

Agreements such as Memorandums of Understandings (MOUs) are tools to formalize partnerships and move forward with project development. Typically, the agreement does not confer independent authority on the Coordinating Entity.

Figure 2: What is a Coordinating Entity?

COORDINATING ENTITY CHARACTERISTICS	
PURPOSE	A coordinating entity would formalize management of the project and build forward momentum to ensure the completion of the project initiation activities. Primary goals are to determine membership and stakeholder roles of the development entity, secure initial funding, and build broader political support.
STRUCTURE	Partnership Agreement, MOU or as directed by legislation.
STRATEGIC ENGAGEMENT	Building Momentum: Consult with Tribes and Indigenous Communities, create vision and identity, and engage federal and state/provincial leaders. Early assessment of targeted community engagement.
FUNDING & FINANCING	Determine funding needs for project initiation activities. Develop funding and financing plans for future project development.
PROJECT DEVELOPMENT	Entity will move forward in defining the alignment, receiving pre-environmental clearances, and with conceptual engineering. Develop cost share breakdown between project partners.
PROCUREMENT AUTHORITY	One jurisdiction procures on behalf of the Coordinating Entity.

The following next steps are critical to launching the Coordinating Entity:
(1) build political support, (2) develop an enabling agreement, and (3) secure resources.

2.1.1 BUILD SUPPORT FROM POLITICAL LEADERSHIP

Support of political leadership in British Columbia, Washington, and Oregon is essential to establishing the Coordinating Entity. Although representatives of each jurisdiction have contributed to the project initiation activities to date, creation of a Coordinating Entity would require renewed discussion and commitment from the jurisdictions. Each jurisdiction would need to engage the relevant units of government to resolve any concerns and define key parameters of a Coordinating Entity. After these initial conversations, continued engagement with elected officials on the importance of this project to the Cascadia megaregion will help build and maintain political support, which is critical for a project of this complexity.

Jurisdiction-specific designations, such as Washington state's "project of statewide significance" designation, can help demonstrate ongoing political support and expedite project completion. This and other similar designations should be considered for the UHSGT project.

2.1.2 DEVELOP ENABLING AGREEMENT

Concurrent with developing leadership support, the jurisdictions of British Columbia, Washington, and Oregon should draft a partnership agreement or MOU to establish the Coordinating Entity. The agreement should include a common understanding of the Coordinating Entity and the project's next steps. Topics for discussion during the drafting of the agreement could include:

- Goals and purpose of the Coordinating Entity
- Decision-making model and identification of decision-makers from each jurisdiction
- Identification of resources, including conceptual funding and/or staffing commitment over multiple years (may also be decided by the Coordinating Entity once established)
- Reporting requirements for the Coordinating Entity back to the jurisdictions
- Shared commitment to continue with the project initiation activities



Coordination between jurisdictions such as the Provincial Parliament in British Columbia will be essential for the success of the project. Photographer Credit: Janusz Sliwinski

British Columbia, Washington, and Oregon have a history of working together and participating in agreements and partnerships, and there are many simple — yet collaborative — examples to guide the discussion and drafting of the enabling agreement. In addition, there are no explicit constitutional, legislative, or regulatory barriers to Washington, Oregon, and British Columbia entering into an MOU or other type of agreement for the purposes of creating a new tri-state/provincial and bi-national project Coordinating Entity. All three entities would be able to enter MOUs or otherwise cooperate on an informal basis without requiring the involvement of the Canadian or U.S. federal governments.

2.1.3 SECURE RESOURCES FOR COORDINATING ENTITY

Identifying resources is an important aspect of fueling the momentum for the UHSGT project. The Coordinating Entity will need staff time and funds to complete project initiation activities. Project studies to date have been funded by all three jurisdictions, with contributions from other partners as well. Building on this shared commitment and to strengthen support for the work, funding contributors should consider multi-year budget allocations.

A multi-year commitment with steady, dependable funding will build momentum for the project by sustaining synergies and ensuring forward progress. This would allow interdisciplinary work to happen concurrently and expedite project delivery. The Coordinating Entity could leverage these state/provincial commitments to demonstrate support for the project and apply for federal planning grants to assist with some project initiation activities. More information on the potential sources and strategies for securing funding during project initiation is provided in section 4.2.1 of the Financial Strategy chapter.

2.2 COORDINATING ENTITY GOVERNANCE ACTIVITIES

This section outlines how to develop the Coordinating Entity's governance structure during project initiation.

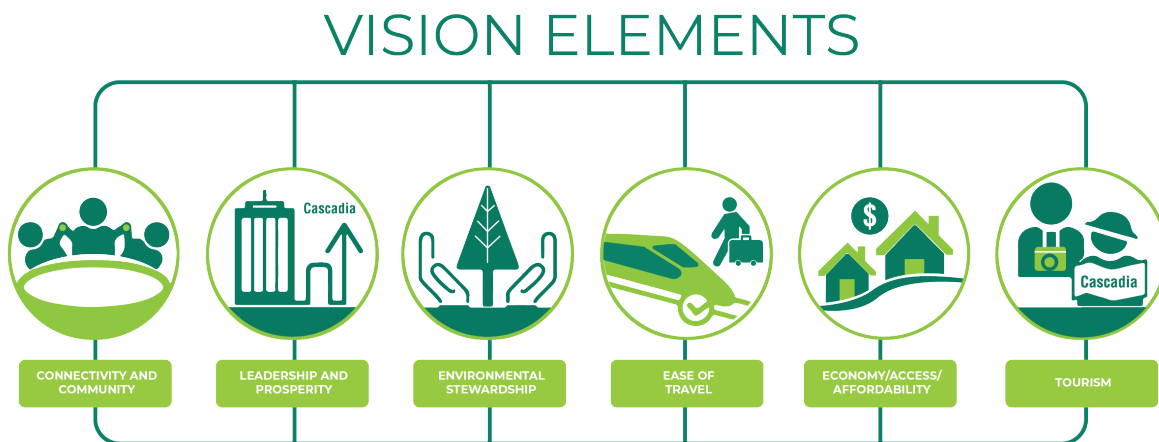
2.2.1 REFINE PROJECT VISION, GOALS, AND IDENTITY

For the Coordinating Entity's governance structure, the refined project vision and project goals will provide guiding principles for how the project is developed. A project identity that defines the project for the public will be used to engage and gain support from stakeholders. Refining and socializing the project vision and identity is an essential first step for the Coordinating Entity.

Alignment on the project's refined vision is necessary for the project's political resiliency across the megaregion.

The vision elements shown in Figure 3 were developed during the 2019 business case analysis and can provide a starting point for further refining the project vision.

Figure 3: UHSGT vision elements



Section 3.3.1 of this report provides more detail about the strategic engagement process to develop this refined vision and identity.

Three key areas that are interlinked with the project vision and identity are:

- ✓ Conducting Scenario Planning
- ✓ Selection of a UHSGT technology
- ✓ Planning work that will lead to the selection of the project alignment

Work by the Coordinating Entity to create clarity in these areas could help define the project identity and vision and create a more concrete future for early planning work and coalition building.

2.2.2 FORMALIZE MEMBERSHIP AND DECISION MAKING

Membership: The Coordinating Entity could be led by an Executive Committee, including representatives of the three major jurisdictions. Additional Committee members may include other funding partners, federal governments, and potentially underrepresented communities impacted by the project. Intentionally incorporating the voices of various stakeholders in the Coordinating Entity membership can sustain support for the project and reduce revisiting decisions in later stages. The Coordinating Entity may wish to structure both subcommittees and advisory groups to provide input and recommendations for decisions by the Executive Committee. Subcommittees could drive the project initiation activities, and Advisory Groups could gather a diverse set of inputs reflecting the range of perspectives in the communities. Membership in both should be tailored to address a wide spectrum of perspectives and, when possible, be informed by the outreach work completed under the strategic engagement plan. Not all subcommittees and advisory groups may be active at any given time, and membership and representation should be tailored to each specific focus area.

Examples of topics the subcommittees or advisory groups could explore include:

- Financial strategy
- Corridor development and planning
- Strategic engagement (discussed in strategic engagement plan)
- Cross-border alignment and coordination
- UHSGT technology discovery
- Climate change/environmental

Decision-Making Processes: Based on the enabling agreement, a charter for the Executive Committee should be developed with the relevant scope and decision-making framework. A decision-making framework could detail which decisions can be made by the Coordinating Entity with coordination and approval from legislative and executive branch leadership, as well as the types of topics that would require additional consultation, discussion, and vetting with leadership from each jurisdiction before a decision is made. Case study research has demonstrated that consensus-building among the Executive Committee could help create comity among the members. Another lesson learned from case study research is to limit veto power from any one jurisdiction.

2.2.3 PROCUREMENT AUTHORITY FOR THE COORDINATING ENTITY

A Coordinating Entity could leverage the procurement authority already given to the jurisdictional partners for any procurement and contracting actions needed to support the project initiation stage. Typically, one of the Coordinating Entity partners performs the procurement actions and contract administration duties. One agency in the Coordinating Entity may perform all these tasks, or each jurisdiction may take the lead on the administrative procurement and contractual actions for various contracts, allocating work to the appropriate jurisdictions. The Executive Committee charter or enabling agreement may be a vehicle to specify the administrative agency responsible for procurement actions. No additional procurement authority is anticipated for the Coordinating Entity.



Involvement in the project from the legislatures of all three jurisdictions, including the Washington State Legislature, will be helpful in establishing momentum for the project.
Source: WSDOT

2.3 ESTABLISHMENT OF A DEVELOPMENT ENTITY

As outlined in the introduction to this Governance chapter, a Development Entity would be the ideal structure for this multi-jurisdictional project's development activities. The project will need greater decision-making and fiscal management capabilities to deliver the increasingly complex activities needed at this stage. If a two-step approach is taken, one of the Coordinating Entity's key activities will be to plan for the governance structure at the development stage. This work could also be undertaken now by the existing informal partnership. This section explores some preliminary items to consider as the Coordinating Entity or informal partnership begins to consider the Development Entity structure. Any lessons learned and adjustments made during the project initiation stage should inform the evaluation of these items. Figure 4 provides a brief overview of a Development Entity.

Figure 4: What is a Development Entity?

DEVELOPMENT ENTITY CHARACTERISTICS	
PURPOSE	A Development Entity is a formal organization that has the legal authority to undertake multi-jurisdictional project development activities.
STRUCTURE	Authority, consortium, commission, etc.
STRATEGIC ENGAGEMENT	Robust Engagement: engage communities in assessing impact, develop community benefits agreement, engage around formal Environmental Impact Statement (U.S.) and Impact Assessment (Canada), offer economic opportunities for local businesses and broader business community
FUNDING & FINANCING	Review and update the financial strategy, actively pursue federal funding, seek legislation necessary to enable new state/provincial/regional funding streams, evaluate the best techniques for capturing value, negotiate funding agreements with private contributors, identify revenue streams to repay financing
PROJECT DEVELOPMENT	Complete environmental clearance (NEPA/CEAA), finalize corridor plan and alignment, conduct preliminary engineering/design, conduct risk assessment and enact risk mitigation actions, formalize procurement processes
PROCUREMENT AUTHORITY	Formal procurement and contracting authority required for the project. Entity will establish robust procurement procedures, processes, and strategies. In most cases, the Development Entity will conduct procurement directly.

2.3.1 GOVERNANCE CONSIDERATIONS OF A DEVELOPMENT ENTITY

The Development Entity would need to include governance considerations of the following:

- Legal processes required in each jurisdiction
- Membership
- Powers
- Decision-making processes
- Cost allocation
- Scope of decision-making authority
- Use of separate development corporation
- Authorized forms of procurement
- Withdrawal rights

The Coordinating Entity should conduct the engagement and research to recommend the governance structure of the Development Entity. Considerations to start the discussion could include:

Membership Considerations:

- Membership should include representation from each of the major jurisdictions. Consideration should be given to how many representatives should be included from each jurisdiction and whether representatives are appointed by the executive and/or legislative branches of governments. A formal approval process for each appointment is recommended.
- Additional membership (primary or advisory) could include funding partners, private sector entities, community representatives, federal governments, and/or individuals serving on the Coordinating Entity subcommittees or advisory groups.

- Terms could be staggered and designed to weather election cycles.
- Subcommittees or advisory groups could focus on particular project elements, for example, bringing more local representation for communities near specific segments.

Scope of Responsibility: Considerations for powers of the Development Entity should include the ability to secure funding, conduct procurement processes, negotiate land use and right-of-way, approve designs, and conduct engagement activities with Tribes and Indigenous Communities. Defining the scope of independent authority would be an important determination when establishing the Development Entity. For example, project and community engagement would be a critical element to coordinate and ensure alignment between the Development Entity and the involved jurisdictions. Specific roles of each party should be articulated in the Development Entity agreement or operating procedures.

Decision-Making Process: The decision-making processes should be articulated as the Development Entity is established. Based on the membership and scope of responsibilities, an Executive Director or other individual with delegated authority could address operational decisions, while a full vote of the leadership would be needed for significant decisions. Defining the threshold for these levels of decision-making could be part of the Development Entity agreement or operating procedures. Also considered in the decision-making process would be the procedure if an entity wishes to withdraw from the project, which could require a structured exit approval plan.

2.3.2 PROCUREMENT AUTHORITY NEEDED FOR THE DEVELOPMENT ENTITY

As the project transitions into the project development stage, the Development Entity will need direct formal procurement authority. Lessons learned from other similar multi-jurisdictional projects show that the ability to procure goods and services is essential to deliver a large multi-jurisdictional capital program effectively and efficiently. In addition to the legal authority needed for procurement activities, the Development Entity will need to establish robust procurement policies and procedures.



A Memorandum of Understanding, similar to the one signed between Governor Jay Inslee and Premier John Horgan, is recommended to form a Coordinating Entity. Source: Province of British Columbia

2.3.3 PREPARE LEGISLATION TO ESTABLISH DEVELOPMENT ENTITY

The creation of a Development Entity responsible for overseeing the outreach, planning, design approval, financial management, procurement, construction, and delivery phases of the project across all three jurisdictions would require enabling legislation. Based on consultation with legal advisors in the primary jurisdictions as part of the preliminary legislative review of this study, it appears that there are no constitutional, legal, or regulatory barriers that would block the creation of a tri-state/provincial and bi-national Development Entity. Additionally, governance structures for other similar projects, such as the Gordie Howe International Bridge Project between Detroit, Michigan, and Windsor, Ontario, and the I-5 Bridge Replacement Project between Oregon and Washington, could serve as a model for any necessary enabling legislation in each jurisdiction.^{2,3}

Potential key steps to developing enabling legislation for a Development Entity include:

- **Coordinate among key stakeholders.** The Coordinating Entity might begin by liaising with key stakeholders who would not be part of the Development Entity but who would play essential roles in approving the UHSGT project at a state/provincial or federal level, such as each nation's border security agencies, environmental agencies, and any impacted Tribes and Indigenous Communities. Gathering feedback from these entities can inform what authorities will need to be included in enabling legislation.

- **Carry out a comprehensive legal review.** Once the optimal governance structure for the Development Entity is selected, the Coordinating Entity could determine the Development Entity's specific legal and regulatory needs, including any legislation needed across the three jurisdictions to grant the entity the necessary responsibility to pursue a range of project procurement options for the length of the corridor.
- **Draft and adopt project-specific "mirror legislation" in each jurisdiction to create a single authorized Development Entity.** The Coordinating Entity could work with each jurisdiction to adopt a piece of identical legislation to develop the governance entity for this tri-state/provincial and bi-national project. This legislation would need to satisfy each state or province's laws as well as adhere to each federal government's laws. This "mirror legislation" would authorize the creation of the Development Entity, and include all necessary authority to plan, procure, and develop the project. In addition, if the project plans to pursue a public-private partnership (P3) delivery model, mirror legislation should include joint authority granted by each jurisdiction for the Development Entity to enter into a P3 agreement and serve as a single project sponsor along the entire project corridor.

² Windsor-Detroit Bridge Authority Mandate, Mission and Governing Legislation

³ Enabling Washington State Legislation for I-5 Bridge Replacement Project

3. STRATEGIC ENGAGEMENT PLAN



This plan describes strategic engagement principles and strategies for the UHSGT project as it completes project initiation activities and moves through project development and into construction. Because the geographic scale of this project is so broad, strategies will need to be tailored to regional and local audiences and communities. For example, strategies that are effective in

Washington may not resonate as well in British Columbia or Oregon. Similarly, urban and rural communities may require different engagement approaches. Still, the principles and strategies described in this plan provide a solid foundation to build from in customizing the overall UHSGT engagement approach to meet the needs of different constituency groups.

To develop this Strategic Engagement Plan, a work group of Executive Committee members and other regional experts met to discuss key engagement needs for the UHSGT project. Over four meetings, representatives from British Columbia, Washington, and Oregon shared perspectives on foundational principles, engagement strategies, lessons learned, and key considerations. These discussions and expertise formed the foundation of the outreach framework described below.

3.1 FIVE EARLY STRATEGIES TO BUILD AND MAINTAIN MOMENTUM

As the Cascadia UHSGT project moves forward, early implementation of the following five strategies will help build and maintain momentum for the project.

1. **Develop a project identity:** An important first step in building momentum is to develop a vision and identity that can help a diverse set of stakeholders see themselves as part of the UHSGT project. A vision and identity are necessary to create key messages, materials, and a website that will help to both build a coalition and sustain its momentum as the UHSGT project moves through project initiation. Conducting scenario planning, selecting a specific UHSGT system technology, and refining the project corridor may help define the project identity.

2. Build a broader coalition of support: As a coordinated group, a coalition of the business community, labor organizations, community-based organizations, and aligned existing advocacy organizations can significantly raise the visibility of the UHSGT project.

3. Consult with key elected officials, Tribes and Indigenous Communities: Local, state, and provincial leaders who are willing to support the Cascadia UHSGT project will be necessary to secure state/provincial and federal funding. Building and maintaining relationships with these leaders is important for the governance considerations discussed in chapter 2, as well as to ensure continued focus and support for UHSGT over time. Once the project has a clear path forward and associated funding, the UHSGT project will be responsible and accountable for consulting in an official government-to-government capacity with Pacific Northwest Tribes and Indigenous Communities. As part of this process, it is important to understand each country's protocol for Indigenous consultation. While British Columbia, Washington, and Oregon will align in consultation, the United States and Canada will follow separate consultation processes in line with treaty agreements with their respective Tribes and Indigenous Communities.

4. Engage advisory groups through all three stages: Building on the momentum of the Executive Committee process from the project initiation work to date, the UHSGT project should continue advisory group engagement in future stages. This engagement will need to be adapted to fit each unique stage and expanded to engage the voices who both have expertise and may experience positive and negative impacts from the project.



*Ensuring deep and equitable local engagement is an important early strategy in building project momentum.
Source: WSDOT*

5. Ensure deep and equitable local engagement: An undertaking of this scale and scope has tremendous potential impact, both in the broader Cascadia megaregion and in communities that have historically been either not engaged or under-engaged. Authentic, thoughtful, and transparent engagement from the start of this work is critical in building trust and alignment at all levels. This project must take into account historical policies and practices associated with capital projects that have perpetuated social inequities and lead in a new direction. Combined with current

demographic data and input from community leaders, the project will identify priority communities along the UHSGT corridor. In partnership with local leaders, the Coordinating Entity can launch an assessment to understand the most effective ways to engage priority communities and offer opportunities for community members to get involved with UHSGT across the inform/engage/participate spectrum.

3.2 FOUR STRATEGIC ENGAGEMENT GUIDING PRINCIPLES

Strategic engagement for the UHSGT project encompasses a broad range of stakeholders and a potentially decade-long process. From elected leaders at the state, provincial, and federal levels to neighborhood groups in local communities, a successful engagement strategy will be built on solid principles that provide a foundation for this work over time. As the UHSGT project progresses, the engagement strategies and tactics will evolve. Establishing the following fundamental principles will ensure engagement is meaningful and transparent, intends to achieve equitable outcomes, and continues to build support for the Cascadia UHSGT project.

Ensure significant and deep engagement.

An undertaking of this scale and scope has tremendous potential impact, both in the broader Cascadia megaregion and in individual communities. Authentic and thoughtful engagement from the start of this work is critical to listening to communities and building stakeholder alignment at all levels. As the work advances,

engagement strategies must evolve to respond to the project stage, as well as to the needs of communities and stakeholders.

Commit to equitable outcomes. Too often, large infrastructure projects have resulted in harmful impacts to communities of color, Tribes and Indigenous Communities, low-income neighborhoods, and other historically marginalized communities. In the 2019 UHSGT business case, the Advisory Group recommended that a commitment be made early in the planning process to social equity and economic inclusiveness as core values in developing the UHSGT system. Today that recommendation is even stronger as the Executive Committee has expressed a commitment to considering equity when making decisions about the potential impact of a project of this size and scope. This commitment could begin by identifying who will benefit from new infrastructure and acknowledging systemic challenges and historical inequities. Decisions could center around the needs of those most impacted, with decision-makers listening deeply and responding in ways that create systemic change. This work includes addressing harmful impacts that might result from factors such as alignment selection, station locations, hiring practices, and land use.



Source: Province of British Columbia

Be transparent. As the UHSGT project is developed, countless significant decisions will be made, including route selection and station locations. A clear, defined process and criteria for this decision-making will be critical to maintaining public support as the project advances, and people must understand how they can participate in that decision-making process. Ultimately, the success of the project will depend on people seeing it as something they are part of instead of something that was done to them. As the UHSGT project continues, there will undoubtedly be challenges or unexpected developments. Often agencies are reluctant to communicate publicly about these kinds of issues, but in fact those are the times when transparent communication is most needed to build trust with communities and maintain public support.

Share vision to build support. Stakeholders and the public need to connect with the vision for the UHSGT project and the opportunities it could provide, such as greater connectivity and job creation. The communications strategy needs to describe benefits of the project beyond transportation infrastructure, and help people see their future as part of a more connected megaregion.

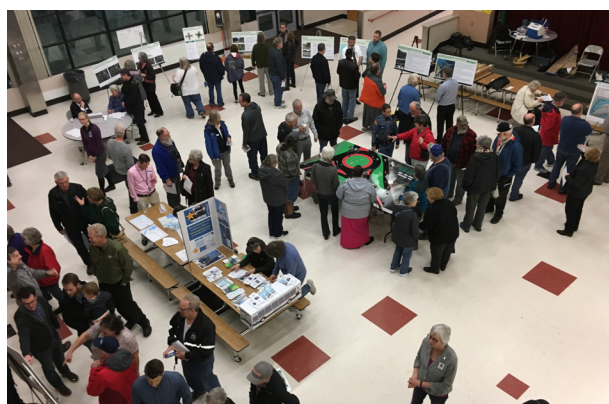
3.3 OUTREACH FRAMEWORK

As the Cascadia UHSGT project moves through the project stages, it will be important to tailor communication and outreach strategies to each stage. In addition, it will be helpful to continue to review and refresh each stage’s strategies and outcomes as the project matures, adjusting as needed. Figure 5 provides the connection between project stage and key outcome for strategic engagement.

Figure 5: Outcomes of strategic engagement by project stage



3.3.1 PROJECT INITIATION



Open houses are a valuable way to gather public input early on in the project process. Source: WSDOT

Engaging political leaders at the state and provincial level to create buy-in for a Coordinating Entity will be one of the most important first steps during project initiation.

As discussed in section 3.1 above, developing a vision and identity with the appropriate collateral materials will be key to building momentum and support for the project.

A coalition of champions can help spread the word about the value of the UHSGT project. With a well-articulated vision and identity for

the project, they can tell stories of why high-speed ground transportation matters to them. To generate additional momentum, the project can engage and coordinate with already established groups and partner organizations, such as the Cascadia Innovation Corridor or Challenge Seattle. The Cascadia Innovation Corridor initiative is part of a broader partnership that also includes the UHSGT project, while Challenge Seattle is an alliance of the region's largest employers that has identified goals in alignment with those of the UHSGT project.

Broad engagement with communities can build support as the UHSGT project moves closer to dedicated funding for project initiation and project development. Engaging local communities across Washington, Oregon, and British Columbia will be important, as will engaging with Tribes and Indigenous Communities. This engagement may span from awareness-building to engaging communities on the broader benefits of UHSGT in their communities.

Table 3-1 outlines the tools, key partners, and strategies suggested to move towards the key outcome in project initiation, building momentum and awareness of UHSGT.

Table 3-1: Project initiation strategies

STRATEGY	TOOLS	KEY PARTNERS
	Reference Appendix C.1	Reference Appendix C.2
<p>Ensure decision-maker buy-in</p> <p>The next phase of UHSGT planning should include an agreement, memorandum of understanding (MOU), or legislation to launch a Coordinating Entity. To prepare for the formation of that entity, it is necessary to understand what the signatories will need to continue in partnership to advance UHSGT. Clear conversations about the needs of each partner are important to building shared buy-in and support from the primary partners.</p>	<ul style="list-style-type: none"> • Key messages • Briefings 	<ul style="list-style-type: none"> • Executive Committee members • State and provincial leaders
<p>Develop project vision and identity</p> <p>Engage key coalition members from Washington, Oregon, and British Columbia in creating project vision and identity to cement the UHSGT project's value and clearly state its goals. This exercise will lead to the development of:</p> <ul style="list-style-type: none"> • Project name • Project logo • Key messages that can be informed by partners and market research • Website • Factsheet • Digital media content 	<ul style="list-style-type: none"> • Website • Factsheet • Digital media content • Key messages • Visual storytelling 	<ul style="list-style-type: none"> • Executive Committee members • Community-based organizations • Community leaders

STRATEGY	TOOLS	KEY PARTNERS
	Reference Appendix C.1	Reference Appendix C.2
<p>Form advisory committees</p> <p>Build on the momentum of the Executive Committee processes during previous stages to expand membership to form the following committees to advise on actions throughout the project initiation process including but not limited to:</p> <ul style="list-style-type: none"> • Equity Advisory Committee • Governance Advisory Committee • Funding and Financing Advisory Committee • Strategic Engagement Advisory Committee <p>The advisory committees may also be expanded to include additional topics, as needed, such as Workforce Development and Technology, as the UHSGT project plans for project development and construction.</p>	<ul style="list-style-type: none"> • Advisory groups 	<ul style="list-style-type: none"> • Executive Committee members • Community leaders • Non-profit organizations • Advocacy organizations • State, local, and provincial leaders • Agency leaders
<p>Engage elected leaders and agencies at a state and provincial level</p> <p>It will be necessary to find state and provincial leaders who want to support the UHSGT project through federal and state funding opportunities and project development. In addition to engaging elected leaders, it is also important to sustain momentum by:</p> <ul style="list-style-type: none"> • Engaging non-political leaders who can carry the funding objectives and needs of the project across political cycles. • Engaging state/provincial advocacy organizations who focus their efforts on working with elected leaders during legislative sessions to bring UHSGT priorities into their conversations. 	<ul style="list-style-type: none"> • Factsheet • Key messages • Press releases and/or press conferences • Blog posts • Visual storytelling 	<ul style="list-style-type: none"> • State and provincial leaders • Local elected officials • Business or sector-based associations • Agency leaders • Advocacy organizations
<p>Engage elected leaders and agencies at the federal level</p> <p>Building and maintaining relationships with legislators and elected leaders is important to ensure continued focus and support for UHSGT over time. Steps to successful engagement with elected leadership include:</p> <ul style="list-style-type: none"> • Engage transportation policy leads to align with administrative funding priorities. • Engage congressional delegation and parliamentary delegation to support their efforts to testify or engage in authorizing and appropriating committees where decisions are being made. • Engage federal and national agencies to ensure they have accurate and timely information. • Continue to refine the business case for the UHSGT project to outline economic benefits and impacts that can be shared with the congressional and parliamentary delegation and will continue to generate interest in the project. 	<ul style="list-style-type: none"> • Factsheet • Key messages • Press releases and/or press conferences • Blog posts • Visual storytelling 	<ul style="list-style-type: none"> • State and provincial leaders • Congressional and parliamentary leaders, business or sector-based associations • Advocacy organizations • Congressional and parliamentary staff • Federal and national agencies and leaders • U.S. Department of Transportation • U.S. Office of Management and Budget • Transport Canada • Department of Finance (Canada) • Treasury Board Secretariat (Canada)

STRATEGY	TOOLS	KEY PARTNERS
	Reference Appendix C.1	Reference Appendix C.2
<p>Consult with Pacific NW Tribes and Indigenous Communities</p> <p>Early engagement differs from the government-to-government consultation in that Tribes and Indigenous Communities will have the opportunity to define the path forward. It will be important to engage with trusted liaisons that may be impacted by the UHSGT project, including those that are not federally recognized.</p> <p>The official government-to-government consultation process will likely begin towards the end of the project initiation once the UHSGT project has a clear path forward and associated funding. As part of this process, it is important to understand each country's protocol for consultation. While British Columbia, Washington, and Oregon will align in consultation, the United States and Canada will lead consultation processes in line with treaty agreements with their respective Tribes and Indigenous Communities.</p> <p>The role and purpose of the government-to-government consultation with Tribes and Indigenous Communities is different from the purpose of broader public involvement efforts with black, indigenous, people of color (BIPOC) generally, which is captured in more detail in the public engagement strategies below. Both are critical, but this consultation will focus on representatives of Tribes and Indigenous Communities, from elected officials to traditional leaders and respected elders to Tribal and Indigenous Community staff.</p> <p>Washington and Oregon consultation process</p> <p>In addition to consulting with Tribal and Indigenous Community elected officials, the project team will need to engage with technical staff on potential impacts. Impacts can include a possibility that the alignment will touch Tribal and Indigenous Community reservation land or enterprises, be near cultural resources that are sacred to the Tribe/Indigenous Community, be near natural resources where the Tribe/Indigenous Community has treaty rights, be near landmarks of significance to multiple Tribes/Indigenous Communities, or be near land that needs to be negotiated as right-of-way for the project. In the consultation process, the entity would consult with the Tribes and Indigenous Communities on what engagement would look like moving forward.</p>	<ul style="list-style-type: none"> • Factsheets • Key messages • Formal consultation meetings 	<ul style="list-style-type: none"> • Tribes and Indigenous Communities • Liaisons to Tribes and Indigenous Communities

STRATEGY	TOOLS	KEY PARTNERS
	Reference Appendix C.1	Reference Appendix C.2
<p>British Columbia consultation process</p> <p>British Columbia has committed to engage in the government-to-government consultation process with the goal of meeting or exceeding legal requirements and the United Nations’ Declaration on the Rights of Indigenous Peoples. The aim of free, prior, and informed consent (FPIC) is to engage and consult with affected Indigenous populations prior to the beginning of development on ancestral land or using resources within the Indigenous Communities’ territory. The UHSGT project can build from previous capital project successes when engaging with Indigenous leadership and plan to use a multi-pronged approach of engaging not only elected leaders but also Indigenous businesses and communities. Gaining consent for UHSGT is crucial, not just for the success of the project but also as a meaningful effort towards reconciliation.</p>	<ul style="list-style-type: none"> • Factsheets • Key messages • Formal consultation meetings 	<ul style="list-style-type: none"> • Tribes and Indigenous Communities • Liaisons to Tribes and Indigenous Communities
<p>Conduct community assessments</p> <p>Many communities will be affected by this project, and a comprehensive assessment and engagement strategy will be crucial to the project’s success. The project must coordinate closely with local leaders, agencies, and organizations to understand community needs and prepare for the broad-scale engagement required as part of the Environmental Impact Statement (EIS)/Impact Assessment (IA) process. The assessments will address:</p> <ul style="list-style-type: none"> • What is important to each community? • What are the benefits of the project to each community? • What are the barriers to engagement for communities? 	<ul style="list-style-type: none"> • Surveys • In-person and online open houses • Focus groups • Outreach events 	<ul style="list-style-type: none"> • Community leaders • Non-profit organizations and community-based organizations

STRATEGY	TOOLS	KEY PARTNERS
	Reference Appendix C.1	Reference Appendix C.2
<p>Build a broad coalition for UHSGT</p> <p>A strong coalition can further the agenda of the UHSGT project, strengthen the project's goals and outcomes, and leverage resources and relationships to secure funding. As a coordinated group, a coalition of the business community, labor, and community-based organizations (CBOs) can significantly raise the visibility of the UHSGT project with consistent messaging and strategic relationships with legislators and policymakers. The project can also partner with organizations with similar values, such as the Cascadia Innovation Corridor or Challenge Seattle, to build on the momentum and engage individuals with similar interests through:</p> <ul style="list-style-type: none"> • Partnering with existing coalitions: Coalitions of public and private sector stakeholders, like the Cascadia Innovation Corridor or Challenge Seattle, already exist. The UHSGT project can partner with these coalitions to build a group of interested stakeholders as the project moves toward a more formal entity and identity. • Conferences: While the UHSGT project may not start formal coalition building until a formal MOU has been signed, the Governors and Premier already attend and host regular conferences and meetings with NW Tribes and Indigenous Communities, community leaders, and elected officials where they can describe the significance of the project to lay the groundwork for future engagement. • Visioning and goal alignment: As the UHSGT works to expand its coalition, it will be important to work closely with diverse groups across Washington, Oregon and British Columbia on visioning and goal alignment to ensure they can see themselves in the project and understand how it may improve their quality of life. 	<ul style="list-style-type: none"> • Speeches • Fact sheets • Key messages • Conferences • Best practices “scan” tour • Advisory groups • Website • Social media content • Conferences • Briefings • Visual storytelling 	<ul style="list-style-type: none"> • State, provincial and local elected leaders • Community leaders • Pacific Northwest Tribes and Indigenous Communities • City and county associations • Private sector business leaders • Business or sector-based associations • Non-profit organizations and community-based organizations

3.3.2 PROJECT DEVELOPMENT



As the project reaches the project development stage, it will have to undertake environmental impact work across the region. Photographer Credit: Geoff Werbicki

When the Cascadia UHSGT project approaches the end of the project initiation stage, stakeholder engagement activities should be refreshed to match project development stage requirements. Outreach during project development will consist of EIS/IA-related requirements and additional outreach to continue the thoughtful engagement begun during the project initiation stage.

Although the EIS/IA process is complex, with different requirements in the United States

and Canada, there are consistent approaches to consider in all jurisdictions. This stage of the project will require robust engagement to support alignment selection as well as station location and design, which will include dialogue at the local and regional level along the entire corridor.

Additional outreach beyond the EIS/IA process includes opportunities to build excitement and momentum through partnerships with educational institutions that engage and educate the public about the UHSGT project. The engagement work during this stage also provides an opportunity to form advisory groups and negotiate a community benefits agreement.

Table 3-2 below outlines the tools, key partners, and strategies suggested to move towards the key strategic engagement outcome in project development, and in deep and equitable public engagement. These strategies and actions should be refined by future project teams to specifically address the current culture and landscape of involving all in an equitable manner.

Table 3-2: Project development strategies

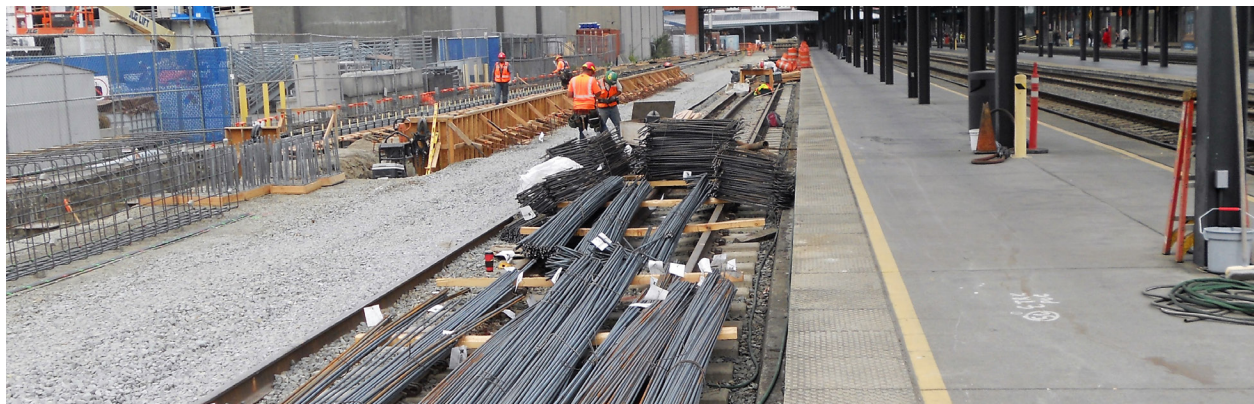
STRATEGY	TOOLS	KEY PARTNERS
	Reference Appendix C.1	Reference Appendix C.2
<p>Environmental Impact Statement/Impact Assessment</p> <p>Legally required EIS/IA engagement should be considered the bare minimum, and deeper engagement of communities along with intentional coordination between the jurisdictions will help ensure the continued success and support of the project. Because the EIS/IA process will span two states, one province, and two countries, the UHSGT project may benefit from incorporating a collaborative and integrated approach in its planning, environmental and outreach process. This process should include planned, coordinated, and regularly cadenced opportunities for engagement and dedicate significant time and resources to this work.</p> <p>Impacts on Tribes and Indigenous Communities</p> <p>Impacts of the UHSGT project could include environmental, social, economic, cultural, spiritual, and other positive or negative impacts on Tribes and Indigenous Communities. Identify ways to provide opportunities and benefits to Tribes and Indigenous Communities and prioritize their engagement beyond a duty to consult. See the Cultural Resources Review section below for an example.</p> <p>Impacts on local communities</p> <p>Historical engagement of local communities about transportation projects often was inadequate, and caused harm to communities of color. Coordinate early with community-based organizations, non-profits, and social service agencies that are trusted by black, indigenous and people of color (BIPOC) to build an understanding of the impacts and benefits of the UHSGT project.</p>	<ul style="list-style-type: none"> • Website • Open houses and online open houses • Telephone town halls • Outreach events • Visual storytelling • Key messaging • Fact sheet/folio • Briefings • Website • Media • Surveys 	<ul style="list-style-type: none"> • Executive Committee members • Federal and national government • Pacific Northwest Tribes and Indigenous Communities leadership • State and provincial governments • Local communities • Large businesses • Small businesses • Business associations • Industry: labor and agricultural • Regional transportation • Non-profit organizations and community-based organizations • Advocacy organizations

STRATEGY	TOOLS	KEY PARTNERS
	Reference Appendix C.1	Reference Appendix C.2
<p>Form advisory committees</p> <p>Continue advisory committees as a strategy to focus conversation throughout project development. The advisory committees could include, among others:</p> <ul style="list-style-type: none"> • State, Provincial, and Tribal/Indigenous Community Advisory Committee • Alignment Advisory Committee • Regional transit agencies • Community leaders from priority communities based on the outcomes of the community assessment <p>It is important to note that advisory committees for state, provincial, and Tribal leaders do not replace formal government-to-government consultation but instead provide another means to engage leaders in understanding and providing input in this work.</p>	<p>Advisory groups</p>	<ul style="list-style-type: none"> • Pacific Northwest Tribal and Indigenous Communities leadership • State and provincial governments • Community leaders • Non-profit organizations • Agency leaders • Regional transit agencies
<p>Cultural resource review</p> <p>A lack of awareness of cultural resources in an area can substantially slow down or even halt a project. As part of reviewing cultural resources of an area, the Coordinating Entity can hire Tribes who have treaty rights or ties to the area to develop the ethnography studies with their elders who know the history of the land and know which cultural resources need protection as the UHSGT project moves forward.</p>	<p>Tools will reflect guidance and coordination with tribal liaisons</p>	<p>Pacific Northwest Tribal and Indigenous Communities and staff</p>
<p>Partner with regional transit agencies</p> <p>Understand how the route alignment can be augmented and connected to more communities by assessing where regional transit can connect UHSGT to local communities, homes, businesses, and other destinations. This partnership can be facilitated through a regional transit forum that strategically assesses the connections between long-range planning efforts.</p>	<p>Advisory groups</p>	<p>Regional transit agencies</p>
<p>Engage federal, state, provincial, and local communities early and often in planning and alignment</p> <p>It is crucial to engage broadly so all stakeholders—including federal, state and local government, small and large businesses, the labor and agricultural industry, non-profits, and local community members—feel included and valued as key project decisions are made.</p> <p>Clearly explain how communities can engage at each stage of the UHSGT project, share information that is accessible for communities, and show how feedback will be used to shape the UHSGT project. Regular project updates and ongoing engagement will maintain those relationships and support informed decision-making.</p>	<ul style="list-style-type: none"> • Visual storytelling • Telephone town halls • Region-wide media campaign • In-person and online open house • Outreach events • Key messaging • Fact sheet/folio • Briefings • Website • Media • Surveys • Focus group 	<ul style="list-style-type: none"> • Local communities, especially focusing on priority communities • Small businesses • Industry: labor and agricultural • Non-profit organizations and community-based organizations

STRATEGY	TOOLS	KEY PARTNERS
	Reference Appendix C.1	Reference Appendix C.2
<p>Develop community benefits agreements</p> <p>Partner with Tribal and Indigenous Community leaders, staff, and community members (especially the participation of BIPOC community members) to identify and design for environmental, economic, equitable, social, cultural, spiritual, and other benefits. A community benefits agreement can be used as an accountability tool to note the community goals and benefits and how they will be used through construction.</p>	Advisory groups	<ul style="list-style-type: none"> • Pacific Northwest Tribal and Indigenous Communities leadership • Local communities, especially focusing on priority communities
<p>Partner with schools to design curriculum and/or host competitions</p> <p>Elementary schools, middle schools, high schools, vocational schools, colleges, and universities can develop curriculum at the capstone or project level and help create excitement and the workforce needed to design, build, operate, and maintain UHSGT.</p> <p>Partner with universities to host the competition and consider opportunities for tribes and communities of color to have naming rights.</p>	<ul style="list-style-type: none"> • Curriculum • Design competition • Conferences 	Educational institutions

3.3.3 CONSTRUCTION AND OPERATIONS AND MAINTENANCE

During the construction stage, outreach will be primarily focused on mitigating construction impacts to the local community, aligning workforce needs with equitable project goals, and celebrating project milestones. In the O&M stage, the engagement strategies can support public education and explore partnership models to promote ridership.



Public outreach strategies for the UHSGT may adapt and change as the project enters the construction stage. Source: WSDOT

Table 3-3 outlines the tools, key partners, and strategies suggested to move towards the key strategic engagement outcomes in construction and O&M as well as implementation of agreements and commitments from previous project stages. These strategies and actions should be refined and updated as the project evolves to specifically address the current culture and landscape to involve all affected and engaged parties in an equitable manner.

Table 3-3: Construction and operations and maintenance strategies

STRATEGY	TOOLS	KEY PARTNERS
	Reference Appendix C.1	Reference Appendix C.2
<p>Commit to offering economic opportunities to local businesses and women-owned or minority-owned business enterprise (WMBEs)</p> <p>Support for local businesses can mitigate construction impacts and create a legacy of opportunity, including priority hiring of WMBEs during construction.</p> <p>Closely follow Tribal and Indigenous Community employment rights ordinance (TERO) for Washington and Oregon if any portion of the alignment is on reservation land. TERO requires that all employers who operate on reservations give preference to qualified Tribes and Indigenous Community members in all aspects of employment, contracting, and other business activities. The project may also be required to pay a TERO fee if the alignment passes through Tribal and Indigenous Community reservation land.</p>	<p>Tools will reflect guidance and coordination with state and provincial governments</p>	<ul style="list-style-type: none"> • Pacific Northwest Tribes and Indigenous Communities • Local communities, especially focusing on priority communities • Small businesses
<p>Continue consultation with Tribes and Indigenous Communities’ representatives</p> <p>During construction, the UHSGT project will need to continue to follow federal and state/provincial treaty requirements, in addition to staying accountable to any agreements from project development. This may include observing construction near any site with cultural resources, frequent updates when working near waterways that are of particular interest regarding fishing, and updates on work near Indigenous Communities’ reservations or enterprises.</p>	<p>Tools will reflect guidance and coordination with liaisons to Tribes and Indigenous Communities</p>	<p>Pacific Northwest Tribes and Indigenous Communities</p> <p>Liaisons with Tribes and Indigenous Communities</p>
<p>Host groundbreaking and ribbon cutting ceremonies</p> <p>Celebrating significant milestones can keep elected leaders engaged, sustain positive momentum, and provide an opportunity for leaders to share their vision and support for the future.</p>	<p>Press releases</p> <p>Public event</p>	<p>Federal and national government</p> <p>Pacific Northwest Tribes and Indigenous Communities</p> <p>State and provincial governments</p> <p>Local communities</p> <p>Advocacy organizations</p>
<p>Solicit feedback on and address construction impacts often in local communities, including businesses</p> <p>Receive and address feedback on construction impacts and communicate impacts in multiple languages and formats that are accessible to people with hearing and vision impairment and/or disabilities.</p>	<p>Telephone town halls</p> <p>Surveys</p>	<p>Local communities, especially focusing on priority communities</p> <p>Small businesses</p>
<p>Develop educational programs</p> <p>Once the service is operating, partner with organizations to speak to the unique features of the infrastructure and the areas around the corridor.</p>	<p>Curriculum:</p> <p>Educational videos</p> <p>Television programs</p>	<p>Partners will depend on future opportunities</p>
<p>Create marketing strategies</p> <p>Promote partnerships with sports teams, food destination hotspots, concert venues, airlines and hotels to support tourism and use of UHSGT.</p>	<p>Tools will reflect coordination with partner organizations</p>	<p>Partners will depend on future opportunities</p>

3.4 LESSONS LEARNED

As the strategies and actions outlined in the tables of this engagement framework are implemented and refined, it is useful to consider engagement strategies utilized for other projects that share similar qualities to the UHSGT project. The lessons learned presented in this chapter are shared in the spirit of continuous learning on the best ways to engage our communities in the Cascadia megaregion.

NERD BIRD – SEAPLANE SERVICE BETWEEN VANCOUVER, B.C. AND SEATTLE

The Nerd Bird is a partnership between Harbour Air and Kenmore Air to provide seaplane service between Vancouver, B.C. and Seattle. This partnership used many of the strategies that are proposed for this UHSGT project, such as:

- **Building federal momentum:** Assistance was needed from Canada's Border Services Agency (CBSA) to create a customs facility at the Coal Harbour terminal in British Columbia. CBSA and Harbour Air worked collaboratively to establish the center, making a quick shuttle between the two cities possible.
- **Coalition building in the private sector:** Business leaders were also important advocates in building momentum and a coalition to make this route a reality. Tech companies with expanding operations in Vancouver, such as Microsoft and Google, were among the biggest supporters of the service.
- **Building on the strong vision of the Cascadia Innovation Corridor:** The Cascadia Innovation Corridor already has a strong identity, vision, and purpose, connecting Vancouver, B.C. to Seattle to Portland. The Nerd Bird built on this purpose, highlighting the seaplane service as a key link in the Cascadia Innovation Corridor between tech companies, such as Microsoft, with expanding operations in Vancouver, B.C. and their home offices in Seattle. Ultimately, it took the advocacy and direct leadership of Governor Inslee, Premier Horgan, and Prime Minister Trudeau to allow this new service to take flight.

2010 WINTER OLYMPICS



Photographer Credit: Melissa Doroquez

The Vancouver, B.C. 2010 Winter Olympics was an opportunity for the Vancouver, B.C. region to showcase its city, region, and values to the world. This event was the largest in the region over the last decade and required close collaboration with partners across British Columbia and in Northwest Washington just across the border. A few lessons learned from the large-scale planning that went into the 2010 Winter Olympics, include:

- **A clear vision:** In preparing for the event, the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games set out a strategic plan that went beyond the traditional Olympic focus of environmental stewardship and expanded to include social responsibility, economic opportunity, sport development, culture, and health promotion.
- **Close collaboration with Tribes and Indigenous Communities:** In showcasing British Columbia to the rest of the world, it was important to partner with Tribes and Indigenous Communities to tell their story. While many saw this in the opening ceremony, there was significant work done leading up to the event to engage Tribes and Indigenous Communities in setting a vision, planning, and executing the 2010 Winter Olympics.
- **Cross-border coordination:** With many commuting across the border to watch the 2010 Winter Olympics and Northwest Washington helping to provide lodging for guests, Vancouver, B.C. had to coordinate closely to keep communication clear and keep traffic moving between Seattle and the 2010 Winter Olympic sites.

INTERSTATE BRIDGE REPLACEMENT (FORMERLY COLUMBIA RIVER CROSSING)



Source: ODOT

The Columbia River Crossing (CRC) was a \$3.2 billion bi-state project led by the Washington and Oregon departments of transportation and supported by their local and federal agency partners. From 2005 to 2014, the project advanced through many major milestones, including

completing a NEPA environmental review process, identified funding sources, a design to support validated cost estimates, investment-grade financing plans, and a construction procurement plan. After 9 years and nearly \$200 million spent on planning and early design, the project failed to receive funding necessary to proceed with construction. In 2019, Governors Kate Brown and Jay Inslee signed a bi-state Memorandum of Intent to restart work to replace the Interstate Bridge, with significant progress on the new environmental process expected by July 2021. Public involvement was and remains an important feature of the project through long-range planning, project development, and now in restart, utilizing many of the same tools proposed for UHSGT.

- **Building coalition through relationships at the grassroots and grasstops:** The CRC project represented a formidable challenge that required a complex and coordinated legislative strategy and political will across a diverse landscape of state and local government priorities and community needs. This strategy also entailed the support of a business and labor coalition that worked to advocate for the project's benefits to jobs and the economy. While the project conducted significant outreach and information sharing with the public (including participation in 1,277 public events, leading to 33,984 face-to-face contacts), the balance of investment in relationship building by the project shifted to business-focused opinion leaders, people with connections to elected officials, and elected officials themselves. Advocacy strategies that focus on elected officials and opinion leaders were and will remain critical on such a high-impact and expansive project. However, additional investment in community-focused relationships, working with community-based champions, and processes that more authentically and transparently engage people at the grassroots level are needed to build trust. The two approaches working in coordination can bring greater attention to the issues, provide touchpoints where challenges need context or support, and ultimately influence the ability to effect change.
- **Managing project identity over long periods of time and through uncertainty:** The CRC project began in 2005, but earlier planning work focused on replacing the bridge went back even further to 1999, and the regional conversation carried on for years before then. A lengthy formal project development phase screened 70 components into 12, then 5, combined alternatives. The construction schedule and cost estimates shared with the public changed several times before the project ended. There were natural reasons for this long development period and changes, including the need to continue to build a case as elected leaders shifted in both states, calls for an independent review, and permitting challenges. Partisan changes in the legislature brought in elected leaders who were philosophically opposed to key components of the project, and ultimately decided to eliminate its funding. After more than 15 years in the public's imagination, and after multiple shifts in course, it became more difficult for the project to tell the full story, or to pivot communications without confronting its sprawling history. A long-term communications approach that includes proactive change management strategies sensitive to the inevitable twists and turns of a megaproject can help anticipate and navigate the public's perception of a project.

CALIFORNIA HIGH-SPEED RAIL



California High Speed Rail (CAHSR), as the most developed HSR service in the U.S., provides valuable lessons learned for the UHSGT project. Photo Credit: California High Speed Rail

The California High-Speed Rail (CAHSR) project will provide high-speed train service between San Francisco and the Los Angeles basin. Construction is currently underway on the Central Valley segment, connecting Merced, Fresno, and Bakersfield, and is planned to start operations in 2028-2029. In planning and building the nation's first high-speed rail system, CAHSR has considerable experience that offers lessons learned for the UHSGT project:

- **Share vision and ensure deep engagement:** As a result of funding requirements and restrictions, CAHSR moved forward with project construction before conducting large-scale, comprehensive stakeholder and public engagement. This missed opportunity to broadly engage stakeholders meant the project was not able to lay a solid foundation of support and buy-in with stakeholders and the public, which ultimately resulted in several lawsuits that created significant delays in the project and escalated costs. Investing time in engaging communities and stakeholders early and often is an important element to contribute to project success.
- **Build political resiliency:** CAHSR has endured difficult changing politics at the state and federal levels. Changes in federal administrations have resulted in reduced support for high-speed rail investment nationally, including a de-obligation of federal funds that were previously awarded to CAHSR to support construction. At the state level, support for CAHSR has differed between administrations, and the program has been scaled back from its original scope. Political changes are inevitable during development and construction of a project of this magnitude, but it is critical to identify bi-partisan elected and non-elected leaders and decision-makers who can continue to provide support for the project over time. Cultivating this diversity of support is important to building political resiliency that can sustain the project well into the future.
- **Engage the business community:** Silicon Valley leaders have not provided significant support for CAHSR, nor have they provided any funding contribution to the project. There is an opportunity to partner meaningfully with the private sector to build excitement for the vision of high-speed rail and describe how it can support growth and innovation across the region. The involvement of leading companies in the geography is an important element to building a strong coalition of support.

- **Integrate with local and regional transportation agencies:** Proposition 1A approved by the voters of California provided funding support for improvements and connectivity to the commuter rail programs at the “bookends” of the planned CAHSR system. Strategically, this investment in local/regional projects made sense to build support for CAHSR. However, these bookend projects moved forward early in the construction timeline, and the public did not relate these projects to the overall success of the CAHSR program in the long term. For the UHSGT project, it is important to create strong integration with local and regional transportation agencies to maintain the linkage between progress at all scales of the project over time and ensure continued buy-in for the project.

4. FINANCIAL STRATEGY



Large infrastructure projects, like the UHSGT project, need to secure a variety of funding and financing sources to move forward. As part of making the case for funding, the benefits of UHSGT should resonate with the public, and strategies discussed in this chapter should incorporate the vision and values developed in the strategic engagement process discussed in chapter 3. The UHSGT project is in the project initiation stage and will need to secure funding to advance from project initiation through project development and into construction. This chapter makes recommendations based on:

- Interviews with regional Cascadia stakeholders and national experts
- Research into federal funding, broad-based state/provincial funding, and value capture mechanisms (including ancillary revenues and naming rights)
- Evaluation of funding case studies from similar projects in North America

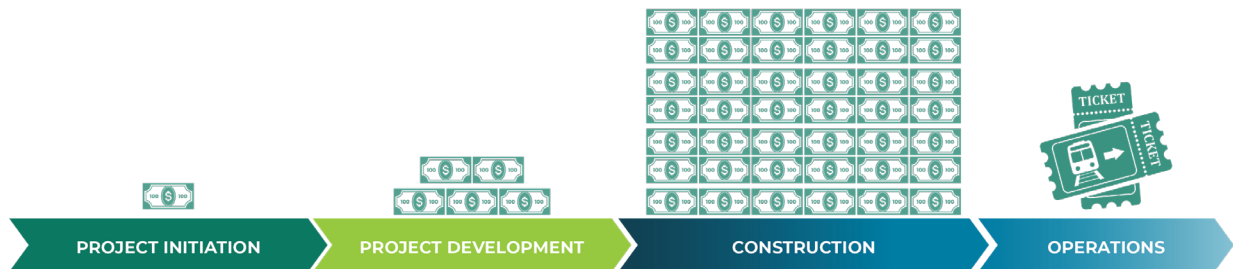
This financial strategy includes specific next steps for implementing a funding strategy for each project stage and then lays out three scenarios for how the strategy could play out. Although these recommendations are broken down by stage, funding will need to be secured for each stage before activities in that stage can begin. This means that, although it is important to focus on immediate-term steps related to completing project initiation, at the same time, the UHSGT project should be setting the stage and taking steps to line up funding for the project development and construction stages. Figure 6 displays the project stages and relative cost for each stage.

Funding v. Financing: this report intentionally uses two distinct and different terms related to the UHSGT financial strategy.

• **Funding** refers to grants, appropriations, revenue, and other funds that do not have to be paid back.

• **Financing** refers to loans, bonds, and equity investments, which borrow against future funding and must be repaid with interest in the future.

Figure 6: Cascadia UHSGT order of magnitude cost by project stage



4.1 IDENTIFYING FUNDING OPTIONS

To address the strategic financial needs for the UHSGT project, funding and financing options must be considered relative to the project timeline. This study evaluated potential federal (United States and Canada), state/provincial, and value capture funding options for the project, as well as public and private financing. This evaluation was informed by case studies of similar North American projects to better understand the funding and financing approaches for large-scale, intercity, non-highway-based transportation projects. Based on this research, a funding strategy with key next steps, as well as several funding and financing scenarios, was developed for the project.

The study considers both established and new funding options, defined as follows:

- ✓ **Established Funding:** An existing revenue stream presently enabled and generating revenue within a given jurisdiction, regardless of whether the stream currently provides funding support to rail programs. Established revenue streams must be increased or broadened to provide funding for UHSGT.
- ✓ **New Funding:** A new revenue stream not presently enabled within a given jurisdiction that would need to be enabled and established to provide UHSGT funding.

The financial strategies and scenarios are specific to each project stage to align with the funding and financing options that might become available to the project over time. The project stages anticipate the following funding and financing mixes:

- **Project Initiation:** Mixture of established state/provincial and federal funding programs, along with private contributions.
- **Project Development:** Mixture of established and new state/provincial funding programs, established and new U.S./Canadian federal funding programs, and private contributions. The mix of established vs. new funding varies by scenario.
- **Construction:** Mixture of established and new state/provincial funding programs, established and new U.S./Canadian federal funding programs, private contributions, and value capture mechanisms. The mix of established vs. new funding varies by scenario, but generally anticipates more funding from new programs than at the project development stage.

As the UHSGT project advances through the project stages, the Coordinating Entity, and later the Development Entity, will have more time to explore funding sources, and more funding options may be available to support the project. In the project initiation stage, the project must rely on readily available funding sources, such as established state/provincial funding, to develop the immediate-term funding strategy. As the Coordinating Entity is formalized, funding partners may bring unique funding sources as their commitment to the project and will need to coordinate to ensure resources are available to keep the project moving forward. In later stages, established and new federal funding may be an option, but established or new state and provincial funding must be identified to provide a match.

4.2 FUNDING STRATEGY BY STAGE

Each potential funding and financing option will require various steps to initiate and commit the funding stream to the project. This section summarizes the specific actions the UHSGT project should undertake to secure funding for the project initiation, project development, and construction stages. The scenarios in the next section depict how these funding strategies could come together for each project stage.

4.2.1 PROJECT INITIATION

Currently in the project initiation stage, the UHSGT project is being funded by study-based appropriations to develop the vision, business case, and framework for next steps. To date, the informal partnership has been working to:

1. Evaluate promising federal and state/provincial funding and financing options
2. Develop a strategy for securing federal and state/provincial funding commitments
3. Secure funding from established state/provincial funding programs to further project initiation

When established, the Coordinating Entity should undertake the actions outlined in Table 4 -1. These actions aim to maximize opportunities for U.S. and Canadian federal funding from established funding sources; work to create new federal funding streams to support later stages of UHSGT; line up opportunities for private contributions and value capture; and position the project for state/provincial funding—which will be necessary to make up any gaps in funding from other sources.

Table 4-1: Funding & financing strategy steps by the Coordinating Entity

STRATEGY	POTENTIAL ACTIONS
Continue working to secure funding from established state/provincial funding programs and private sector to further project initiation	<ul style="list-style-type: none"> • Ensure funding commitments for continued support from each of the funding partners are part of the MOU negotiations • Apply to be a designated project of statewide significance in Washington and Oregon • Allocate resources to maintain dedicated staff to support the Coordinating Entity • Allocate funding through ongoing annual appropriations/budget process or other approach to fund project initiation activities
Pursue federal funding from relevant established programs	<ul style="list-style-type: none"> • Confirm established federal programs for which the project is eligible • Develop sufficient project definition to pursue a BUILD or CRISI planning grant • Develop coordinated approach and prepare for future grant cycles
Actively encourage U.S. and Canadian federal action to establish new funding programs aimed at providing substantial support to UHSGT projects like the Cascadia corridor	<ul style="list-style-type: none"> • Identify UHSGT and Cascadia megaregion champions and engage regarding federal funding • Invest in strategy with MOU partners to engage federal agencies and congressional delegations • Confirm that proposed new federal programs align with UHSGT project • Support adoption of new programs by federal governments • Identify similar projects and make connections with project leadership for supporting new funding programs

STRATEGY	POTENTIAL ACTIONS
Engage state/provincial governments and regional stakeholders to develop action plans for corridor funding	<ul style="list-style-type: none"> • Engage UHSGT and Cascadia megaregion champions regarding state/provincial funding • Coordinate regarding estimated funding required from British Columbia, Washington, and Oregon to support the project • Develop state/province-specific action plans to secure funding
Initiate conversations with interested private parties regarding private contributions (expected to make up a small share of the project cost)	<ul style="list-style-type: none"> • Conduct specific outreach to private partners • Assess interest in contributing to the project
Lay the foundation to maximize value capture from the project	<ul style="list-style-type: none"> • Identify and assess the best techniques for capturing value early • Identify a corridor where real value can be created, particularly around stations • Build a consortium of parties and communities to support value capture
Align Financing Strategy with Project Delivery approach	<ul style="list-style-type: none"> • Assess project delivery approach for applicability of P3 or private financing tools • Develop a business plan for the project that considers responsibilities/risks to be retained by the public sponsor and transferred to private-sector partners • Consider potential applicability of public financing options, including CIB, TIFIA, and RRIF

4.2.2 PROJECT DEVELOPMENT

As the UHSGT project approaches the end of project initiation, the Coordinating Entity should refresh the funding and financing strategy, including refining the project development steps, to leverage the current programs and political landscape at the time. Strategies that the Development Entity should undertake to implement funding during the project development stage are displayed in Table 4-2:

Table 4-2: Funding & financing steps during project development

STRATEGY	POTENTIAL ACTIONS
Pursue applicable federal funding from established and new funding programs	<ul style="list-style-type: none"> • Apply for federal funding opportunities as identified in the funding and financing strategy
Enact legislation necessary to enable new state/provincial/regional funding streams	<ul style="list-style-type: none"> • Clearly articulate what the program will provide to the public, including local and regional benefits and coordinated connections between transportation systems • Connect with leading policymakers and stakeholders to champion the project • Engage local governments, business community, organized labor, and environmental justice organizations early in the process
Implement strategies to capture value	<ul style="list-style-type: none"> • Finalize value capture strategy • Engage parties and communities supportive of value capture to build support • Coordinate with state/provincial and local governments as needed to enable value capture districts • Enact value capture districts and initiate revenue collection
Identify revenue streams to repay financing	<ul style="list-style-type: none"> • Project revenue generated by enacted revenue streams • Evaluate potential of revenue streams to be leveraged through debt financing • Engage financial advisors to develop detailed debt financing plans
Implement funding agreements with private contributors	<ul style="list-style-type: none"> • Negotiate funding agreements with private contributors, specifying the scope of the project to be funded by each

4.2.3 CONSTRUCTION

Most of the steps required to implement funding for the construction stage will likely be undertaken by the Development Entity during the project development stage. Additional strategies to implement funding during the construction stage are displayed in Table 4-3:

Table 4-3: Construction stage funding and financing steps

STRATEGY	POTENTIAL ACTIONS
Implement agreements and commitments from previous project stages	<ul style="list-style-type: none"> • Enact and implement value capture funding plans • Pursue appropriate financing mechanisms to leverage identified funding, including engagement of financial advisors to issue debt on behalf of the project and/or pursue public financing

4.3 FUNDING SCENARIOS BY PROJECT STAGE

There are an exponential number of funding scenarios that could be developed for the UHSGT project, involving various potential assumptions and circumstances. Because this strategy focuses on securing public dollars to fund the project, either outright or to repay public or private financing, the scenarios depicted focus on the relationship between federal and state/provincial funding. The scenarios also incorporate the addition of new federal and/or state/provincial funding. Any new funding will require time to build local and regional support for the project and approve the new funding sources. The three scenarios for each stage are as follows:

Scenario 1 Significant federal funding: Generally, this scenario assumes that new, large-scale federal funding programs are enacted in the United States and/or Canada and the UHSGT project is successful in securing substantial federal funding. This decreases the state/provincial share likely to be required to fund the project, although a sizable share of state/provincial funding is still required to match federal funds and fully fund the project.

Scenario 2 Balanced funding: Scenario 2 assumes that new federal funding programs are enacted in the United States and/or Canada providing a modest amount of new funding for UHSGT and other rail projects. This scenario assumes that the project secures funding from new and established federal funding programs, providing a moderate share of funding for the project. The remainder of funding is largely composed of state/provincial funding. The scenario anticipates a balance between the significant federal funding anticipated in Scenario 1, and the significant state/provincial funding anticipated in Scenario 3.

Scenario 3 Significant state/provincial funding: This scenario assumes limited new federal funding opportunities, and a project funded with a significant share of state/provincial funding.

The resources needed for each project stage increase exponentially as seen in Figure 6, making it critical that the UHSGT project first secure the immediate-term funds and then focus on securing funding for project development and construction.

4.3.1 PROJECT INITIATION FUNDING SCENARIOS

The project initiation stage primarily relies on a mixture of established state/provincial and federal funding programs, along with private contributions. Because any new funding will require time to build the local and regional support for the project and to approve new funding sources, only existing funding options are included in these scenarios. Potential established state and provincial funding options could include the following programs shown in Table 4-4.

Table 4-4: Province/state funding sources in project initiation

PROVINCE/STATE FUNDING SOURCES IN PROJECT INITIATION	
WASHINGTON	<ul style="list-style-type: none"> • State funding appropriation • Regional property tax around station area locations
OREGON	<ul style="list-style-type: none"> • State funding appropriation • Regional property tax around station area locations
BRITISH COLUMBIA	<ul style="list-style-type: none"> • Provincial funding appropriation • Regional property tax around station area locations • An extension of the province’s motor fuel taxes

Potential existing U.S. and Canadian federal funding options include, but are not limited to, the following programs shown in Table 4-5.

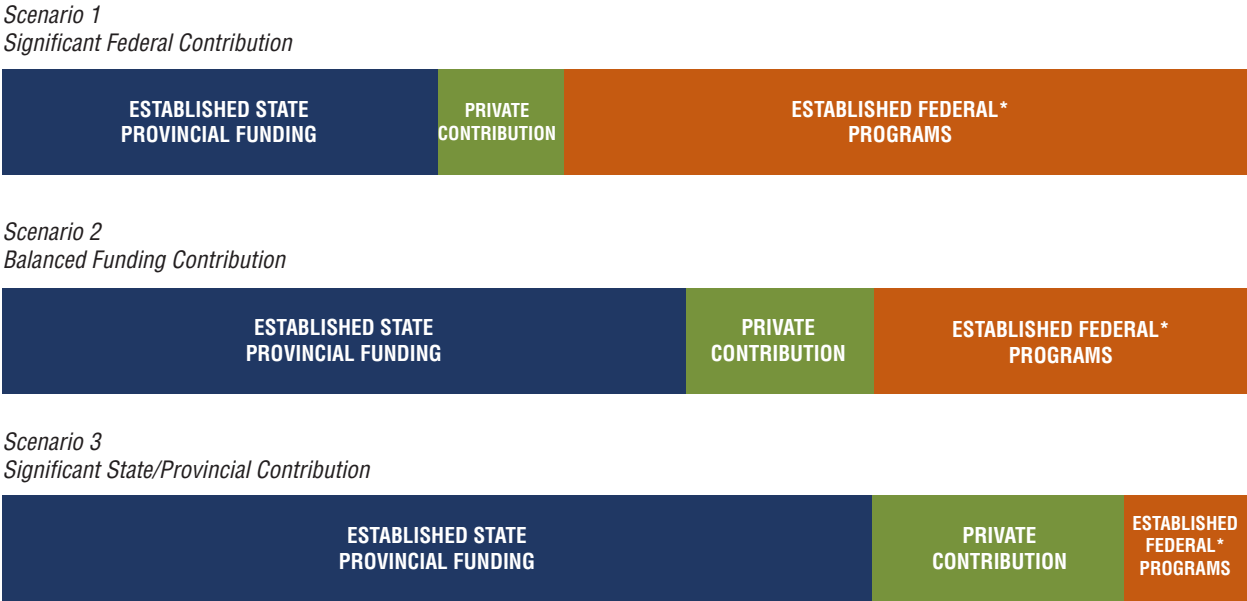
Table 4-5: Federal funding sources in project initiation

FEDERAL FUNDING SOURCES IN PROJECT INITIATION	
UNITED STATES	<ul style="list-style-type: none"> • Consolidated Rail Infrastructure and Safety Improvements (CRISI) program • Better Utilizing Investments to Leverage Development (BUILD) grant program
CANADA	<ul style="list-style-type: none"> • Invest in Canada Plan Gas Tax Fund (GTF) • Investing in Canada Infrastructure Program (ICIP) • Canada Infrastructure Bank (CIB)

In addition, private contributions that do not have to be repaid could be a small share of funding for the project. However, the bulk of the funding in the project initiation stage will need to be made up of state/provincial and federal funding.

The estimated specific mix for each scenario during the project initiation stage is shown in Figure 7 and described below:

Figure 7: Project initiation stage funding scenarios



(*Federal represents U.S. and Canadian federal programs)

Scenario 1 anticipates a significant federal funding contribution and relies to a large extent on funding from established federal funding programs, including BUILD and CRISI. Some funding from private contributions is anticipated, with the remainder of funding from established state/provincial funding programs. The established state/provincial funds can be used as a local match when applying for federal funds and will make the project more competitive if it can demonstrate an ongoing commitment from the region.

Scenario 2 anticipates a balanced funding contribution from federal and state/provincial sources, with a slightly larger share of funding from private contributions. Federal funding may come in the form of BUILD or CRISI, but possibly not both. A larger share of funding from established state/provincial funding programs will be required to round out funding for this stage.

Scenario 3 anticipates a small share of funding from established federal programs—possibly only a small BUILD grant—with the remainder of funding from established state/provincial funding programs and private contributions. This scenario demonstrates how the project initiation stage would need to be funded if the UHSGT project is not successful in securing competitive federal funds, relying on a very large share of state/provincial funds.

4.3.2 PROJECT DEVELOPMENT FUNDING SCENARIOS

The project development stage is estimated to cost 5 to 10 times as much as the project initiation stage. This stage primarily relies on a mixture of established and new state/provincial funding programs, established and new U.S. and Canadian federal funding programs, and private contributions. The mix of established versus new funding varies by scenario.

Established state and provincial funding options are similar to the options listed for project initiation in section 4.2.1. New state and provincial funding options include, but are not limited to, the programs displayed in Table 4-6 (more details are provided in Appendix D).

Table 4-6: Provincial/state funding sources in project development

PROVINCIAL/STATE FUNDING SOURCES IN PROJECT DEVELOPMENT	
WASHINGTON	<ul style="list-style-type: none"> • Emissions-based fees like a carbon tax or a statewide cap-and-trade program • Regional property tax
OREGON	<ul style="list-style-type: none"> • A statewide cap-and-trade program • Regional property tax around station area locations • Other miscellaneous taxes and fees (e.g., vehicle dealer privilege taxes, road usage charges)
BRITISH COLUMBIA	<ul style="list-style-type: none"> • Regional property tax around station area locations • An extension of the province's motor fuel taxes • Congestion pricing ⁴

Potential federal funding options in the United States and Canada include options summarized for the project initiation stage, plus any new funding programs enacted in each country. In the United States, this could include programs such as the Projects of National and Regional Significance (PNRS) program and the Passenger Rail Improvement, Modernization, and Expansion (PRIME) program proposed in the Investing in a New Vision for the Environment and Surface Transportation (INVEST) in America Act surface transportation reauthorization proposal.

Private contributions are included for the project development stage as a potential funding source. Private contributions are funding provided by a private entity with no assumption of repayment. The private contributions for this stage are likely to be a small share relative to the cost of the project stage. The remaining funding gap will need to be filled by state/provincial and federal funding streams

The specific assumptions regarding each scenario during the project development stage are shown in Figure 8 and described below.

⁴ The current provincial government does not support congestion pricing

Figure 8: Project development stage funding scenarios

Scenario 1

Significant Federal Contribution



Scenario 2

Balanced Funding Contribution



Scenario 3

Significant States/Provincial Contribution



(*Federal represents U.S. and Canadian federal programs)

Similar to the scenarios described in section 4.2.1, the specific assumptions regarding each scenario during the project development stage are as follows:

Scenario 1 anticipates a significant federal funding contribution and relies to a large extent on funding from both new and established federal funding programs. This scenario anticipates significant new federal funding for project development of UHSGT projects in both the United States and Canada, as well as potential funding from existing programs such as CRISI and BUILD (if not previously exhausted). Some funding from private contributions is anticipated, with the remainder of funding sourced from new and established state/provincial funding programs.

Scenario 2 anticipates a balanced funding contribution from federal and state/provincial sources. This scenario anticipates moderate new federal funding for project development of UHSGT projects in both the United States and/or Canada, and potentially funding from existing programs such as CRISI or BUILD (if not previously exhausted). This scenario also includes some funding from private contributions

Scenario 3 anticipates a smaller share of funding from established federal programs and none from new federal funding programs, anticipating that no new federal funding programs are adopted to fund this stage. Federal funding is anticipated from existing programs such as CRISI or BUILD (if not previously exhausted). The remainder of funding comes from a combination of new and established state/provincial funding programs, plus some funding from private contributions.

4.3.3 CONSTRUCTION FUNDING SCENARIOS

This section summarizes financial scenarios for the project construction stage. This stage is estimated to cost 5 to 20 times as much as the project development stage. The specific strategy for funding this construction stage will need to be identified and implementation begun in project development. This stage applies a mixture of established and new state/provincial funding programs, established and new U.S./Canadian federal funding programs, private contributions, and value capture mechanisms. The mix of established versus new funding varies by scenario, but generally anticipates more funding from new programs than at the project development stage.

Potential funding options include the options summarized for the project initiation and project development stages. Potential **value capture** mechanisms to fund the construction stage include, but are not limited to, the following programs:

- Tax increment financing (TIF)
- Special tax assessments/districts
- Development impact fees
- Right-of-way use agreements
- Selling the naming rights of the asset

Private financing is included as a potential source for the construction stage.

Private financing is possible if there is a significant revenue stream to back the financing mechanism, such as more farebox revenues than are needed to cover operations and maintenance costs. Other financing structures, such as availability payments, would require a public subsidy to make payment to the concessionaire beyond what the farebox revenue stream contributes. In summary, the construction stage could use private financing as long as the project has positioned itself to be attractive for private involvement. Private financing instruments could include private activity bonds and/or federal loans, as well as private equity.

Similar to the scenarios described in the prior project stages, the specific assumptions regarding each scenario during the construction stage are as follows in Figure 9.

Figure 9: Construction stage funding scenarios

Scenario 1

Significant Federal Contribution



Scenario 2

Balanced Funding Contribution



Scenario 3

Significant States/Provincial Contribution



(*Federal represents U.S. and Canadian federal programs) | (**Paid back by farebox revenue)



Transit Oriented Developments, like Metrotown in British Columbia pictured above, are potential funding options for the UHSGT Project

Scenario 1 anticipates a significant federal funding contribution and relies largely on funding from new federal funding programs, with a smaller share from established federal programs. This scenario anticipates enactment of significant new federal funding programs for construction of UHSGT projects in both the U.S. and Canada, and that this project is successful in securing funding from those programs. Some funding from value capture and private financing, leveraging farebox revenues, is anticipated.

The remainder of funding is anticipated from new and established state/provincial funding programs.

Scenario 2 anticipates a balanced funding contribution from new and established federal and state/provincial sources. This scenario anticipates enactment of new federal funding programs for construction of UHSGT projects in the U.S. and/or Canada, with this project competitively securing a moderate share of new funding. Some funding from value capture and private financing, leveraging farebox revenues, is anticipated. The scenario anticipates a greater share of funding from new programs than established ones.

Scenario 3 anticipates a small share of funding from new and established federal programs, with the remainder of funding from new and established state/provincial funding programs and private financing. This scenario anticipates limited new federal funding for construction

of UHSGT projects in the U.S. and/or Canada, and a small share of new funding for this project. Some funding from value capture and private financing, leveraging farebox revenues, is anticipated. The scenario anticipates a greater share of funding from new programs than established ones. This demonstrates how the construction stage could be funded if there is limited federal funding available for this stage.

5. OVERVIEW OF ADDITIONAL PROJECT INITIATION ACTIVITIES

The Coordinating Entity would be responsible for advancing preliminary environmental activities, corridor and scenario planning, conceptual engineering, and developing of a project phasing strategy. In addition to the activities described in the preceding chapters as the framework of project initiation, other activities the Coordinating Entity could undertake include:

- Sustain and improve a broad political consensus on the project's need and support
- Increase private sector interest
- Conduct scenario planning
- Implement processes that link planning, environmental, and stakeholder engagement activities
- Solicit transportation technology provider interests
- Develop regionally based success metrics, including benefits, beneficiaries, and equitable outcomes
- Catalog and document current federal permitting requirements as they relate to the early project development stage
- Select UHSGT technology
- Plan work that will lead to the selection of the project alignment
- Develop a data-based foundation for alignment and transportation network scenarios
- Develop realistic metrics and timelines to measure these successes
- Develop working groups to move project initiation activities forward



Coordination among project stakeholders will be essential during the project initiation stage. Source: WSDOT

The 2019 business case identified preliminary environmental assessment planning and design actions to take place during project initiation:

- ✓ Develop specific alignment alternatives during the preliminary design and pre-environmental stages.
- ✓ Continually refine cost estimates based on selected alignments and station locations.
- ✓ Assess impact of future increased highway congestion and other possible changes on ridership forecasts (including sensitivities analysis).
- ✓ Expand ridership analysis to include commuter and local travel markets.
- ✓ Conduct further analysis of the economic impact of UHSGT including both user and wider impacts and possible application of Canadian guidelines.
- ✓ Continue exploration of emerging technology options.


5.1.1 CONDUCT EARLY CORRIDOR PLANNING ACTIVITIES

Conducting early planning activities is part of completing project initiation efforts. Due to the cross-jurisdictional nature of the project, it may be important to conduct one coordinated approach for the length of the corridor. Each jurisdiction may require flexibility to conduct outreach and pre-planning activities for its individual communities. In some cases, this may result in each jurisdiction coordinating separately coordinating with land use and planning agencies. Implementing an approach that coordinates the overall project while retaining jurisdictional flexibility could drive overall project momentum while building local buy-in.

The following actions will assist the Coordinating Entity in moving the project into the project development stage by using a corridor planning approach:

- Include land-use plans and growth management plans in corridor and scenario planning activities
- Use Municipal Planning Organization (MPO)/Regional Transportation Planning Organization (RTPO) transportation models and possibly other private data to identify origin and destinations, including intraregional destinations, to better understand travel patterns, including non-commute travel patterns
- Develop regional measures that integrate the experiences and data collection efforts of MPOs/RTPOs, local stakeholders, and agencies, including social equity metrics, transportation modes and behaviors, and quality of life metrics
- Add environmental scan layers to corridor planning tools drawn from state/provincial and federal agencies and meetings with Tribes and Indigenous Communities

This research and development work will be used to inform public outreach and regional planning activities.



As part of this 2020 governance study, an online Corridor Planning Tool was developed. The goal of this interactive map is twofold:

- Outline the upcoming planning and land use studies lead by MPOs/RTPOs along the corridor by location and timeline
- Lay the groundwork for outreach and the planning processes necessary to include the UHSGT project into these plans and studies

The tool also includes additional layers that will support preliminary planning analysis, including political districts, Tribal and Indigenous community lands/reservations, highways, transit services, transportation hubs, land use, and socio-economic layers along the corridor.

CASCADIA ULTRA HIGH SPEED GROUND TRANSPORTATION

FRAMEWORK FOR THE FUTURE



FINAL REPORT APPENDICES

DECEMBER 2020

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APPENDIX A: PROJECT BACKGROUND AND APPENDICES CONTEXT

A.1 PROJECT BACKGROUND

This Cascadia UHSGT Framework for the Future is the third significant study advancing the UHSGT project. The goals of the studies completed to date and the funding committed are listed below for context and reference.

A.1.a. PROJECT TIMELINE TO-DATE

2016 - During a 2016 conference on the Cascadia Innovation Corridor, Governor Jay Inslee and British Columbia Premier Christy Clark signed an agreement stating they wanted to work together to create a new technology corridor that would include a high-speed transportation system. With support from the governor, the Washington State Legislature then asked the Washington State Department of Transportation (WSDOT) to analyze the feasibility of such a system to help lawmakers decide if it made sense and to identify the next steps they could take to move it forward.¹

2017 - The 2017 Ultra-High-Speed Ground Transportation Feasibility study was submitted to the Washington State Legislature on December 14, 2017.² Highlights from the December 2017 report were presented to the Joint Transportation Committee at that time.³

Ultra-high-speed ground transportation

refers to technology such as high-speed electrified rail, hyperloop, or magnetic levitation with a maximum operating speed of up to 250 miles per hour or 402 kilometers per hour.

2018 - An economic impacts addendum was added to the final report document on February 1, 2018.

Following the release of the 2017–2018 study, the Washington State Legislature determined that a more in-depth analysis was warranted and approved funding for WSDOT to conduct a business case study that was completed in June 2019.⁴ British Columbia, Oregon, and Microsoft Corporation also contributed funding to undertake that next phase of analysis.

2019 - The business case study analysis was submitted to the Washington State Legislature in July 2019. It further confirms that an ultra-high-speed transportation system could be viable in the Pacific Northwest. The 2019 report focused on:

- Corridor options, including possible station areas, connections to other travel modes (such as transit), and costs
- Potential ridership and revenue based on some express service trips stopping at only a few locations, interspersed with other trips that stop at more locations

¹ ESB 5096, Sec. 222 (2017): <https://app.leg.wa.gov/documents/billdocs/2017-18/Htm/Bills/Senate%20Passed%20Legislature/5096.PL.htm>

² 2017 UHSGT Feasibility Study: https://wsdot.wa.gov/publications/fulltext/LegReports/17-19/UltraHighSpeedGroundTransportation_FINAL.pdf

³ Joint Transportation Committee Presentation: <https://wsdot.wa.gov/sites/default/files/2018/01/16/ultra-high-speed-ground-transportation-highlights.pdf>

⁴ ESB 6106, Sec. 222 (2018): <http://leap.leg.wa.gov/leap/budget/lbns/2018Tran6106-S.SL.pdf>

- Governing structures to administer such a project across state and international borders
- Funding and financing alternatives
- Key benefits related to better travel connections, economic development, housing, environment, and safety

2020 - This current 2020 Cascadia Ultra-High-Speed Ground Transportation (UHSGT) Framework for the Future Final Report identifies options to develop and establish the long-term decision-making framework needed to implement the system and makes recommendations for the next steps in the project's trajectory. The focus of this 2020 study fulfills the Washington State Legislature proviso and includes the following elements:⁵

- Proposed corridor governance, general powers, operating structure, legal instruments, and procurement authority
- A short-, medium-, and long-term funding and financing strategy
- An engagement plan for policy leadership, elected officials, stakeholders, and the public across the three jurisdictions for implementation in the next stage

A.1.b. FUNDING

2020 Budget

This \$895,000 study is funded by approximately equal contributions from Washington, Oregon, British Columbia, and the Microsoft Corporation.

2018–2019 Budget

The 2018–2019 study was paid for with \$750,000 from the Washington State Legislature and an additional \$650,000 from the Province of British Columbia, ODOT, and the Microsoft Corporation.

2017 Budget

The 2017 feasibility study was paid for with \$300,000 from the Washington State Legislature. The Microsoft Corporation and labor unions also contributed funds to conduct a more in-depth economic impact study.

A.2 FOLLOWING APPENDICES

Appendices B, C, and D support chapters 2, 3, and 4, respectively, of the Cascadia UHSGT Framework for the Future Final Report.

Appendix B includes information gathered to support the recommendations of chapter 2, Governance Framework. Research focused on two areas: understanding the political and institutional landscape (B.1) and a regulatory and enabling legislation review (B.2). Appendix B outlines the key takeaways and themes from this research.

Appendix C includes more detailed descriptions of the engagement partners (C.2) and tools (C.1) discussed in chapter 3, Strategic Engagement Plan.

Appendix D summarizes information gathered to build the funding and financing strategies and scenarios included in chapter 4, Financial Strategy. This research examined federal funding (D.2), state/provincial broad-based funding (D.3), and value capture (D.4) options. It also analyzed how other large projects have brought these different funding sources together in a review of funding case studies (D.1).

⁵ ESHB 2322, Sec. 222 (2020): <https://app.leg.wa.gov/documents/billdocs/2017-18/Htm/Bills/Senate%20Passed%20Legislature/5096.PL.htm>

APPENDIX B: KEY GOVERNANCE THEMES



Case study research and jurisdictional interviews guided the recommendations outlined in the Framework for the Future. Governance research focused on two areas

(1) understanding the political and institutional landscape and (2) conducting an enabling legislation and regulatory review.

The following sections summarize the relevant themes of the governance research conducted for the project.

B.1. POLITICAL AND INSTITUTIONAL LANDSCAPE

The research into the political and institutional landscape focused on documenting key policy issues related to structuring multi-jurisdictional entities. Key takeaways and discussion were informed by case study research and interviews, including engagement and interviews with representatives of the respective governors' and premier's offices and regional and national leaders of transportation agencies.

The defining features to consider for a UHSGT project governance structure include:

- The multi-jurisdictional nature of the project
- The need for robust project initiation activities like public engagement to establish broad-based support
- The importance of integrated decision-making given the number of jurisdictions involved
- The ability for a governance entity to weather changes in political leadership while maintaining multi-partisan support

Many of the experts interviewed noted the importance of a more formal entity to complete project initiation activities, authorized through a partnership agreement or MOU among the three major jurisdictions. Through this Coordinating Entity, project partners can work together to identify and solidify the shared vision and goals for the project that will serve as the basis for creating the formal Developmental Entity that will lead the complex project development stage. Both case study reviews and jurisdictional interviews indicated that this two-step approach would be optimal for the UHSGT project.

Table B-1 displays the defining features of the UHSGT project, other projects that have similar defining features, and the key takeaways from various interviews and case study research.

Table B-1: Governance defining features case study key takeaways

UHS GT DEFINING FEATURES	SIMILAR GOVERNANCE STRUCTURES	KEY TAKEAWAYS
<p>Multi-jurisdictional coordination</p> <p>The project traverses two nations and three states/provinces.</p>	<ul style="list-style-type: none"> • Gordie Howe Bridge • Columbia River Treaty • FinEst Link Project • International Joint Commission • Port Authority of New York and New Jersey • Gateway Development Commission • Southern Rail Commission 	<ul style="list-style-type: none"> • No single jurisdiction should hold enough power to make major decisions alone. • Depending on the structure of the partnership, major decisions can be made at either the national or state/provincial level.
<p>Governance development timelines</p> <p>A project of this magnitude will take many years to develop and construct, resulting in a need for longer-term engagement.</p>	<ul style="list-style-type: none"> • Gordie Howe Bridge • Gateway Development Commission • Southern Rail Commission 	<ul style="list-style-type: none"> • Intensive coordination, consensus-building, and public and political support are the main drivers that will push a project forward. • Driving momentum and support will be a focus for the full duration of the project.
<p>Project initiation activities</p> <p>It is important to maintain momentum to complete project initiation activities such as public engagement, planning, and feasibility/environmental work.</p>	<ul style="list-style-type: none"> • Gordie Howe Bridge • FinEst Link Project 	<ul style="list-style-type: none"> • Formal partnerships between major stakeholders can accomplish project initiation activities efficiently by allowing project partners to develop shared goals and project definitions, gain funding, and establish public support before beginning formal development work. • Formal partnerships can assist in the “big-tent” approach while also laying the groundwork for a formal Development Entity.
<p>Clear decision-making process for project development</p> <p>Major and minor project stakeholders (federal, state, provincial, local, non-governmental organizations) working together to accomplish shared project goals.</p>	<ul style="list-style-type: none"> • Regional Consortium of Transportation for Madrid • Southern Rail Commission • International Joint Commission • Gateway Development Commission • Port Authority of New York and New Jersey 	<ul style="list-style-type: none"> • Having broad authority to enter contracts, acquire land, borrow money, or issue bonds can expedite project processes by avoiding lengthy approvals from other governmental entities. • Bringing together various stakeholders and engaging with them while centralizing decision-making enhances the entity’s efficiency.
<p>Political resiliency</p> <p>Maintaining project consistency through changes in political office.</p>	<ul style="list-style-type: none"> • International Joint Commission • Southern Rail Commission 	<ul style="list-style-type: none"> • Overlapping terms for appointed officials in the governance structure insulates organizations from changes in political office. • Developing strong economic development cases and support from the business community will help maintain bipartisan support. • Establishing technical and experience-based criteria for appointed leadership insulates organizations from politicization.

A number of common themes emerged in the interviews conducted with the jurisdictional stakeholders, particularly regarding the next stage of the UHS GT project. These are reflected in

the statements listed below, which should be considered a synthesis of current thinking by the jurisdictional stakeholders and may be used to shape and contextualize the project's next steps.

Completing project initiation:

- To move forward and generate public buy-in for the UHSGT project, it will be necessary to establish a more formal structure, referred to as the Coordinating Entity. This structure would have the following key features:
 - » British Columbia, Washington, and Oregon will be the key members of any governance structure for the project.
 - » The roles of all members of the Coordinating Entity should be developed as part of project initiation activities.
 - » The Coordinating Entity will involve federal governments as necessary for UHSGT project development and progression.
 - » Political resiliency must be encouraged through both governance and funding and financing strategies for the project to succeed. The Coordinating Entity should pursue broad support on the federal and state/provincial levels, including dedicated funding and regional/national designations of significance.
 - » The structure of the Coordinating Entity should be flexible enough for jurisdictions to undertake specific tasks separately but still developed in coordination with the decision-making of other jurisdictions. For example, planning and environmental activities need to be coordinated by the Coordinating Entity but could be conducted by each of the jurisdictions.
- Strategic engagement and community outreach, as described below, are critical in building support for the UHSGT project's

success and longevity:

- » Stakeholders need assurance that equity is prioritized at every level and action of the project, including outreach and planning, hiring, board makeup, etc.
 - » An inclusive “big-tent” approach for project development including input from a variety of stakeholders should be encouraged to support shared outcomes.
 - » Political support from all jurisdictions is important to keep the project moving forward.
 - » Consultation with Tribes and Indigenous Communities is an important effort that all jurisdictions must undertake early in the agreement process. A working group for Tribes and Indigenous Community relations should be considered within the Coordinating Entity, with significant time and resources allocated on both the Canadian and U.S. sides.
- A distinct funding and financing strategy must be developed by the Coordinating Entity in the short term and built upon for the future Development Entity, with the following features:
 - » This strategy should include approaches to attract private investment and revenue sharing.
 - » UHSGT development may rely heavily on the geographic phasing of the project, the location of the initial operating segment, and cost-sharing of that initial operating segment.

Preparing for the project development stage:

- A formal entity, referred as the Development Entity, should be implemented to manage the complex activities of the project development stage, as follows:
 - » The Development Entity should have broad powers to sign agreements, secure funding sources, enter contracts, negotiate land use and right of way, borrow money, and issue bonds.
 - » The Development Entity should operate on an equal level with other transportation agencies and relevant stakeholders.
 - » The Development Entity should involve a multi-pronged leadership structure that does not allow any single representative or jurisdiction to delay or dictate project direction without the consent of other parties (i.e., a consensus-based model).
 - » The Development Entity should involve the federal governments at different levels; they can be part of decision making or remain at a high level in a supervisory role.
 - » Sub-committees or advisory councils can allow for continued involvement and engagement with local agencies and governments without offering them seats on the board.
 - » To bolster the political resiliency necessary for the project to succeed, consider approaches such as legislative enactment of the Development Entity, staggered board member terms, and a skills matrix or experience requirement attached to each board seat.
 - » The Development Entity should pursue financial support from state and provincial legislatures, which could be reflected by a separate appropriation of funds to implement various tasks within each jurisdiction as needed during the project development stage.
- The project could adopt specific policies to enable a streamlined project delivery process, such as:
 - » Identify legislation and work with legislative bodies to update any policies that could inhibit the establishment of a tri-state/provincial and bi-national formal project Development Entity, potentially including P3 authority.
 - » Authorizing legislation could include provisions that reduce the reliance on lengthy approval processes and stringent requirements related to P3 authorization or project administration more generally— the Development Entity should remain nimble.
- The project should continue to conduct deep equitable engagement as follows:
 - » Formalizing coordination with Tribes and Indigenous Communities to interface directly with the Development Entity's governing body.
 - » A strong economic development case and business community support can help gain multi-partisan support.
 - » Grassroots and community support are the strongest methods of ensuring political longevity.

Considerations for private sector membership in the governance structure

Including private sector input on project direction is crucial for reflecting the business needs of the megaregion and continuing to build a broad base of support for the project politically. The private sector has diverse and often conflicting interests, and it would benefit the project to establish engagement systems that welcome, balance, and seek out additional business-driven perspectives. Key considerations when engaging with the private sector include:

- Be specific when using the term ‘private sector.’ Define the interests being sought, such as large employers, higher education, technology companies, healthcare, agriculture exporters, small businesses, and other categories that seek to define the range of business groups in the corridor.
- Convening an advisory group or subcommittee specifically to focus on private sector interests would give all businesses a place to plug in.
- Targeting specific messaging and engagement topics to the business advisory group or subcommittee would provide a forum for discussing their concerns and opportunities to enlist their support of the project. Many of the engagement strategies outlined in the Strategic Engagement Plan could utilize the private sector group as a conduit to making local connections were appropriate.
- Establishing a chairperson who periodically reports out to the executive committee would give members opportunities to represent the perspective of the group, instead of the businesses where they work.

The need for private sector input, support, and advocacy of the project will continue throughout all project stages. The exact structure of an advisory committee or subcommittee, and the nature of the topics provided, will evolve as the project and governance entity progresses.

B.2. ENABLING LEGISLATION AND REGULATORY REVIEW

The Enabling Legislation and Regulatory Review’s objective was to identify the relevant governmental entities and the existing constitutional, legislative, and regulatory frameworks that could affect the UHSGT project in the province of British Columbia and the states of Washington and Oregon. The research focused on any limitations on changes to the governance structure and included a review of P3-enabling legislation. These findings informed the considerations of governance structures for the UHSGT project.

B.2.a. RELEVANT ENTITIES

Interviews were conducted with several primary entities, including representatives of Transport Canada, the Federal Railroad Administration, the British Columbia Ministry of Transportation and Infrastructure, and the Oregon and Washington Departments of Transportation. Some entities had more experience than others in bi-state or bi-national project development and delivery, but key themes emerged across the interviews, including the following:

- British Columbia, Washington, and Oregon are the primary entities for inclusion in the governance structure.
- A relatively large number of key stakeholders in each of the provincial and state jurisdictions and at the national level will be necessary for developing a formalized Development Entity agreement.

- Other entities, such as each nation's border security agencies, environmental agencies, rail safety agencies, and any impacted Tribes and Indigenous Communities' governments, will play an important role in approving the UHSGT project and will need to be consulted regularly, even if they are not a party to the Development Entity.

B.2.b. CONSTITUTIONAL, LEGISLATIVE, AND REGULATORY AUTHORITY

Preliminary findings indicate that there are no overarching impediments to entering into a tri-state/provincial or bi-national project agreement. Additional legal research is recommended when a specific agreement, and its terms, are known and can be explored in detail.

Neither federal government precludes itself from entering into a cross-border agreement for project delivery or ongoing operation of the project.

The Gordie Howe International Bridge Project connecting Detroit, Michigan, and Windsor, Canada, is the most recent example of a cross-border agreement. Under the terms of a 2012 "Crossing Agreement" between Canada and the State of Michigan, a joint "International Authority" with members from both jurisdictions was established with a project oversight role, including the power to approve project design, financing, and construction. A separate "Crossing Authority" was tasked with undertaking the new bridge's design, construction, finance, operation, and maintenance.

State and provincial constitutional and legislative frameworks do not preclude a tri-state/provincial or bi-national project.

Neither the Washington nor the Oregon state constitutions preclude entering into tri-state/provincial or bi-national agreements. Both states have legislation that enables such agreements, suggesting that there would be no legislative or constitutional conflict with creating a Coordinating Entity and an eventual Development Entity to serve as the project's sponsor. Likewise, the province of British Columbia does not appear to preclude authority for the development of a bi-national project. Several such tri-state/provincial and bi-national agreements and projects already exist in the Cascadia Corridor, including the Sydney-Anacortes ferry and the Blaine Peace Park between Washington and British Columbia, and several bridge maintenance and operation agreements between Washington and Oregon.

Each state and province have policies related to capital projects, but there are no formal processes specific to tri-state/provincial or bi-national projects outlined in the regulations in British Columbia, Washington, or Oregon. This lack of guidance could present a challenge to creating the new governance entity, or it could be an opportunity for each jurisdiction to adopt "mirror" legislation and regulations in a coordinated effort.

B.2.c. PUBLIC-PRIVATE PARTNERSHIPS

While there are many forms of private participation in public capital projects, references specifically to “public-private partnerships” in this report refer to a concession arrangement that includes the designing, building, financing, operating, and maintaining of a publicly owned project by the private sector. While each jurisdiction has the authority to implement a P3 delivery mechanism, their degrees of practical experience with P3s vary as follows:

- **British Columbia** is familiar with the P3 model, and a provincially owned entity, Partnerships British Columbia Inc., provides support, leadership, expertise, and consistency to public sector owners related to complex capital projects by using private sector innovation, a variety of procurement models, services, and capital to deliver measurable benefits for taxpayers.
- **Oregon** has broad enabling P3 legislation but has not completed any significantly sized transportation infrastructure projects using P3 as a delivery method.
- **Washington** has enabling legislation, but the implementation could be hindered by restrictive regulations that limit private financing options, and by procedural hurdles.

Representatives from each jurisdiction were interviewed about P3s. All stated that their state or province has mechanisms for a joint entity to enter into a P3 agreement. However, new legislation could be passed at the state or provincial level to help fully authorize such an agreement. This authorization could be included as part of any necessary establishing legislation for the project governance model. Selecting a P3 approach may require one entity to enter into the contract and manage it for the entire corridor. New legislation may be required to authorize one entity to act on behalf of the entire project.

APPENDIX C: STRATEGIC ENGAGEMENT THEMES

C.1. KEY ENGAGEMENT TOOLS



Strategic engagement for UHSGT must incorporate numerous communications tools. This appendix provides an additional explanation of the tools listed in chapter 3,

Strategic Engagement Plan.

C.1.a. MATERIALS AND MESSAGING

Visual Storytelling

Using graphics, videos, printed materials, and online media is critical to building and maintaining excitement for a long-term project such as the UHSGT project. All materials should be available in accessible format, including:

- Adapting materials to multiple languages to reflect non-English-speaking audiences
- Ensuring that videos and graphics are accessible for screen readers and captioning
- Ensuring that all materials conform to current accessibility standards

Key Messaging

Development of key messaging will continue to build momentum during the planning phase while simultaneously telling the story of the project.

Factsheet/Folio

Factsheets and folios can be used to share key messages, renderings, and updated information about the project with elected officials, businesses, and community organizations, who can share the information with their members.

Press Releases

Like press conferences, press releases can be used to announce key project milestones, or they can be used to announce a press conference. They can also be used when an in-person press conference is not necessary.

Speeches

Speeches from elected leaders can be useful communications tools; while they may not focus entirely on the UHSGT project, they can incorporate a note or section about the project's importance to spread awareness and build momentum.

Curriculum

Elementary, middle, and high schools; vocational schools; colleges; and universities can develop curricula at the capstone or project level and help create excitement and train the workforce needed to build and operate the UHSGT system.

C.1.B. IN-PERSON ENGAGEMENT

Best Practices “Scan” Tour

Seeing other examples of UHSGT may inspire ideas among current and potential supporters regarding how to plan, design, and operate UHSGT in the Pacific Northwest. It may be useful to convene a group of private sector and public sector stakeholders to go on a tour, internationally if possible, to visit and learn about how other UHSGT projects have been designed and operated.

Open Houses (physical and virtual)

Open houses provide opportunities to engage a community in providing feedback. When scheduling a physical open house, it must be paired with other strategies because there are often barriers to participating in an event on a certain day at a certain time. Online open houses often provide a greater opportunity for interested parties to engage on their own schedules.

Advisory Groups

Advisory groups can provide strategic advice and guidance during every phase of the project. Members of an advisory group could be made up of corporations, government officials and staff, community members, and non-profit and grassroots organizations.

Focus Groups

Focus groups provide opportunities to obtain feedback on specific project features (e.g., station alignment or station design). Focus groups are tools for conducting market research.

Formal Consultation Meetings (Pacific Northwest Tribes and Indigenous Communities)

Formal government-to-government consultation meetings with Pacific Northwest Tribes and Indigenous Communities can be held to discuss any project decision that directly affects Tribes and Indigenous Communities' land, natural resources, or cultural resource interests.

Design Competition

The project can partner with educational institutions to host a design competition and consider opportunities for Tribes and Indigenous Communities, and communities of color, to have naming rights. Such partnerships can help maintain momentum and help the community feel a sense of ownership and participate in the creation of their local station.

Conferences

Project representatives can convene, or participate in, a conference for all high-speed ground transportation authorities to discuss strategies and lessons learned to inform the project. The project also might be a topic for presentation at other related conferences.

Briefings

Briefings will provide project updates to specific stakeholders during the project development and construction stages.

Outreach Events

Outreach events are informal events where project spokespeople can share information about UHSGT. These events are also an opportunity to gauge community interest and could include:

- Fairs and festivals
- Kiosks
- Drop-ins
- Local community events

Celebratory Events

Events like groundbreakings and ribbon cuttings help sustain momentum and offer project partners opportunities to celebrate all the hard work and collaboration it took to get to the construction and completion of the project.

Press Conferences

The achievement of key project milestones is an ideal moment for a press conference to celebrate with funders, continue to build momentum to the next phase of the project, and increase public awareness. Press conferences should highlight the partnerships between the governments moving this project forward.

C.1.c. ONLINE AND REMOTE PROJECT PRESENCE

Website

A website is a way to build the project's transparency and vision by sharing project materials, key messages, and values with the public. The website is also a key component of building momentum and giving champions and engaged stakeholders a tool to share information about the project.

Online Open Houses

Online open houses provide opportunities to engage the broader community in providing feedback without the barriers that can come with in-person open house events. An online open house can be made accessible to non-English-speaking viewers and those who use screen readers and allows users the time to process the information at their own pace. Pairing this option with an in-person option works well to meet the community's needs for those who may not be able or comfortable accessing the information online.

Media

All forms of media will be an essential part of building awareness and momentum throughout all phases of the UHSGT project. Media will include press conferences and releases noted above, as well as:

Digital Media Strategy (includes social media)

This will help build awareness and engagement in specific outreach phases of the project.

Earned Media

Through writing press releases, articles, editorials, op-eds, and blogs, project representatives can strategically engage the media to write stories and inform the broader public about UHSGT.

Ethnic Media

Using ethnic media, both digital and print, will ensure that all communities are being reached along the future corridor.

Telephone Town Halls

Telephone town halls help disseminate information and provide an opportunity for the public to ask questions. Town halls may reach millions of phone lines.

Region-wide Media Campaign

A multilingual media campaign can be conducted in areas around the corridor to build on the community assessment and market research done in the project initiation stage, generate excitement about the project, and engage communities at key points when their input will be most needed.

Surveys

Surveys can be used throughout the project to solicit feedback from communities along the future corridor at key points in project initiation, development, and construction.

C.2. STRATEGIC ENGAGEMENT PARTNERS

Engagement for UHSGT must occur at the national, state/provincial, and local levels.

The project's future phases include securing significant and ongoing funding, selecting an alignment, completing an environmental impact assessment, station design, and construction. Engagement in these efforts must be broad-based and wide-reaching.

Federal and National Government

Engagement in UHSGT at this level of government will initially focus on policy-level support and funding authorizations. As the project moves forward, engagement will also include federal permitting and oversight. Federal or national stakeholders include elected leaders and national agency leaders or staff, such as:

- Federal Rail Administration
- U.S. Department of Transportation
- Transport Canada
- Congressional delegation
- Parliamentary delegation

Pacific Northwest Tribal and Indigenous Communities Leadership

The U.S. and Canadian governments have a long history of negatively impacting Tribes and Indigenous Communities' wellbeing through displacement, treaty violations, and genocide. Acknowledging harm and rebuilding trust and relationships with Tribes and Indigenous Communities is one step toward reconciling such a violent history. This project provides an opportunity for the state and provincial governments to engage with Tribes and Indigenous Communities in a meaningful, sensitive, and respectful manner that centers on how Tribes and Indigenous Communities would like to engage. This engagement will continue throughout the project, from the initial building of momentum through construction and operations, with dozens of Tribes and Indigenous Communities. Project representatives would work with liaisons from each state and province to create a list of Tribes and Indigenous Communities to start a formal government-to-government consultation process once the project has a signed MOU between British Columbia, Washington, and Oregon. This list would be created by speaking with Tribes and Indigenous Communities with treaty areas, reservation land, natural resource interests, and/or cultural resource interests along the corridor.

State and Provincial Governments

Much of the work on UHSGT to date has been conducted at the state and provincial level. Continued leadership in this work will be critical to the success of UHSGT, including securing funding and working with communities during the planning and design stages. State leadership in Washington and Oregon, and provincial leadership in British Columbia, includes:

- Washington Governor's office
- Oregon Governor's office
- British Columbia Premier's office
- Washington State Department of Transportation (WSDOT)
- Oregon Department of Transportation (ODOT)
- British Columbia Ministry of Jobs, Economic Development and Competitiveness

Local Communities

Broad engagement of communities along the corridor between Vancouver, B.C., and Portland, Oregon will be critical to the success of UHSGT. The project encompasses 325 miles from end to end, moving through urban population centers and rural communities. Decisions throughout the project will have a deep impact on local jurisdictions and require robust conversation and engagement centered on the unique needs and context of each jurisdiction. Although the list of local stakeholders below captures broad coalitions that can help to build momentum, this list will need to be expanded as the project moves from building momentum into setting an alignment:

- Local government (e.g., Chief Administrative Officers, Mayors, Deputy Mayors, and Councilmembers)
- Union of British Columbia municipalities

- Chambers of commerce, Business Improvement Areas of British Columbia, Business Council of British Columbia
- Large employers
- Economic development groups
- Labor organizations
- Regional economic officers
- Regional directors of transportation
- U.S. metropolitan planning organizations
- Regional WSDOT administrators
- Regional ODOT administrators
- British Columbia Ministry of Transportation and Infrastructure
- British Columbia Ministry of Jobs, Economic Development and Competitiveness

In addition, it will be imperative to engage priority communities, such as the following, along the corridor that have historically been disproportionately impacted by transportation projects and be prepared to communicate key benefits and opportunities associated with UHSGT:

- Black, Indigenous, and people of color
- Immigrants and refugees
- Youth
- Seniors, particularly if there will be a senior fare option
- Low-income individuals, particularly if there will be a reduced fare option
- The agricultural community, especially small farmers and farmworkers
- People living along the right of way who may not benefit from having a rail station
- People experiencing homelessness: the messaging may be focused more on how the project will reduce displacement or help find alternative housing rather than on how people experiencing homeless would benefit from UHSGT

Large Businesses

Businesses such as Microsoft have already been involved in Cascadia Corridor improvements to make it easier for their employees to travel between Seattle and Vancouver, B.C. This coalition could continue to expand, with businesses like Amazon, Expedia, Google, and others being excited about the prospect of quick travel for their employees from satellite offices to headquarters.

Small Businesses

Small businesses are likely to have diverse interests, depending on their proximity to the corridor and their communities' unique needs. Given this project's scale, it will be important to work with trusted small business coalitions to determine small business needs such as construction impacts to business operations and potential opportunities to work on and support the UHSGT project.

Business Associations

Given this project's scope and scale, it will be key to partner with business associations as a trusted voice to communicate with multiple businesses in their communities.

Industry

Industry involves many audiences across the region, with different goals.

- **Labor sector:** The prospect of UHSGT brings the promise of many industry jobs to the area—from design to engineering to construction. These industries could be partners in advocating for UHSGT as the project moves forward and tells the story of why UHSGT will improve their industry.

- **Agricultural sector:** Close coordination will be necessary with the agricultural industry, especially as the UHSGT alignment is determined and it becomes more apparent how the agricultural industry may benefit from the project or need to have project-related impacts mitigated.

Regional Transportation

UHSGT stations can connect to regional transportation along the alignment, such as airports, light rail, regional busing, and ferries, improving local transportation throughout the Cascadia Corridor. These regional transportation entities will be key partners as the project moves through the environmental planning process and determines an alignment. Moreover, as trusted partners in their own communities, they have the potential to be partners in sharing information with their riders.

Non-profit Organizations, Community-Based Organizations, and Coalitions

Non-profit and community-based organizations are key partners in connecting with communities along a future corridor. As trusted voices that already partner with communities, it will be important to partner with and pay these organizations to help conduct outreach with their respective audiences. One entity will not be able to reach out to the diverse communities along the corridor, but by partnering with many organizations, the UHSGT project can hear, respond to, and engage with communities.

Advocacy Organizations

Environmental and transportation-related advocacy organizations will be key partners in building political momentum for the UHSGT project and generating interest and excitement among their members.

Educational Institutions

Educational institutions can support the project during design and as the project prepares for construction through student design competitions to build momentum and prepare students for planning, design, and construction careers. Many also are expected to be proponents of this project since it might make their institutions more accessible to students, faculty, and researchers.

Executive and Advisory Committee Members

Executive and Advisory Committee members have been key partners throughout the informal partnership of the UHSGT project to date. Continuing to engage these key partners and build on these relationships will be important to the project's success.

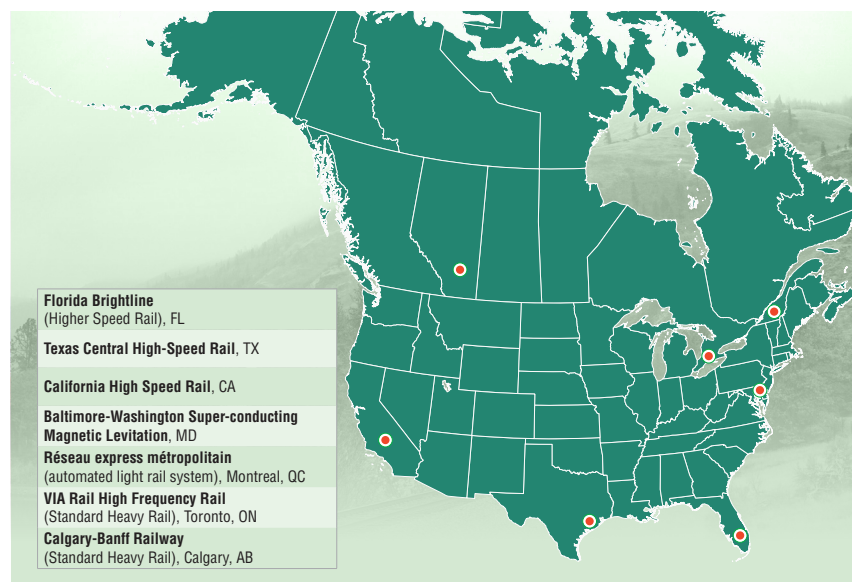
APPENDIX D: KEY FUNDING AND FINANCING THEMES

The research team conducted seven interviews with representatives from public agencies, legislative bodies, and quasi-public institutions in British Columbia, Washington, and Oregon. The findings presented in this appendix are based on the content of these interviews and supporting research. Before conducting each agency interview, publicly available documents were reviewed regarding existing transportation infrastructure funding programs as well as proposed legislation. Background research included investigating potential funding options, including federal funding, state/provincial broad-based funding, and value capture mechanisms. Research also included a case study review of similar projects in North America to better understand the funding and financing approaches for large-scale, intercity, non-highway-based transportation projects. Interview questions were designed to gather detailed background information and lessons learned from the short list of intercity high-speed transportation infrastructure projects in the United States and Canada. The following sections provide an overview of the findings of the case study review, and the research into federal funding, state/provincial broad-based funding, and value capture mechanisms.

D.1. CASE STUDIES

This section summarizes key takeaways from seven U.S and Canadian case study projects examined to help inform the development of funding and financing mechanisms to deliver the UHSGT project in the Cascadia megaregion. The case studies represent a survey of funding and financing approaches for large-scale, intercity, non-highway-based transportation projects in North America. Case studies reviewed include the Florida Brightline, Texas Central, California High-Speed Rail (CAHSR), and Baltimore-Washington Superconducting Magnetic Levitation (SC Maglev) projects in the United States and the Montreal Réseau express métropolitain (REM), VIA Rail's (VIA) High-Frequency Rail (HFR) proposal, and Calgary-Banff Railway projects in Canada. The location of these case studies can be seen in Figure 1.

Figure 1: Map of case studies



The key takeaways of the case study review include:




- **Establishing funding sources that are resilient to electoral cycles provides project stability.** Decision-making bodies and governance structures supporting the UHSGT project should be designed to withstand changes in elected leadership at all levels of government. Relying exclusively on state and federal funding may create funding delays as a result of changing political priorities associated with electoral cycles and/or funding appropriations cycles. Dedicated funding streams may prove to be more resilient to these trends.
- **Publicly announcing that the project will never use public funds limits project funding/financing flexibility** and leaves the project open to criticism from opponents, particularly if the project eventually applies for federal grants or loans as the Texas Central High-Speed Rail project is currently considering.
- **U.S. federal funding will likely not cover a majority of project costs.** Even in the CAHSR program, the best-case scenario of the seven case studies evaluated, federal funding represents just over 25 percent of the capital costs for the project's initial operating segment.
- **Involvement from private companies is advantageous.** The private sector's continued involvement, such as Microsoft's participation in the Cascadia Innovation Corridor and Ultra-High-Speed Ground Transportation studies, could prove to be a project advantage. This involvement demonstrates broad support for the UHSGT project through the political support, education, and/or funding contributions these companies can provide. It will be essential to keep business stakeholders involved and incentivize private sector capital investment from the early stages of the UHSGT project.
- **Consider methods for project sponsors to reduce risk and incentivize significant private sector investment in these projects.** Potential approaches include investments/loans from development banks, issuance of tax-free private activity bond allocations, revenue return guarantees, detailed due diligence in the form of ridership/revenue forecasting, and permitting/environmental clearance assurances.
- **The Canada Infrastructure Bank (CIB) and the Japan Bank for International Cooperation (JBIC) are both development banks that have the ability to provide loans and equity investments.** They may entice large institutional investors, such as pension funds to finance international projects that either support economic growth in Canada for the CIB or deploy Japanese rail technologies in the case of JBIC.
- **Private activity bonds (PABs) have been a vital financing mechanism for high-speed rail projects in the United States** and could be available to the UHSGT project with additional authorization from the U.S. Congress or through state PAB allocations, like those used to finance the Florida Brightline and XpressWest projects.








D.2. FEDERAL FUNDING


The objective of the Federal Funding review was to outline the existing and potential funding sources and financing mechanisms to help support the development of the UHSGT project. Large infrastructure projects need to secure a variety of funding and financing sources to move forward. Federal funding can be an important catalyst for projects, and it is important to note that federal funding programs generally require a state/provincial match before awarding funds to projects.

As part of its overall funding strategy, UHSGT project sponsors should pursue resources from existing funding programs like the Consolidated Rail Infrastructure and Safety Improvements (CRISI) program and the Better Utilizing Investments to Leverage Development (BUILD) grant program in the United States, as well as Canadian programs like the Investing in Canada Plan Gas Tax Fund (GTF) and Investing in Canada Infrastructure Program (ICIP). These programs may be able to assist with a portion of the project costs. However, they are not sufficient to support the total overall costs of the UHSGT project. Given the UHSGT project's magnitude, it will be important for the project sponsors to pursue funding from these existing programs while stimulating and supporting federal efforts to establish new significant funding streams for high-speed ground transportation programs. Two potential new programs that could support the UHSGT project currently pending in the U.S. Congress are the Passenger Rail Improvement, Modernization, and Expansion (PRIME) and the Projects of National and Regional Significance (PNRS) grant programs. Federal financing mechanisms may also help the project fill in the gaps and timing of resources; however, financing requires dedicated repayment sources before any funds will be provided. The funding programs outlined in the federal funding research are summarized in Table D-1.

Table D-1: Existing and proposed U.S. and Canadian federal funding and financing sources for the UHSGT project

PROGRAM NAME	FUNDING AMOUNT ¹	MATCHING REQUIREMENTS	FUNDING CYCLE	ELIGIBLE STAGES		
				PLANNING	ENV. & FINAL DESIGN	CONSTRUCTION
 GTF <i>Canadian Gas Tax Fund</i>	\$280–306M CAD annually in B.C. (2020–2024)	None	Twice annual			✓
 ICIP <i>Investing in Canada Infrastructure Program</i>	\$3.9B CAD in B.C. over 10 years	60% for municipal and not-for-profit projects; 50% for provincial projects; 25% for projects with Indigenous partners; or 75% for for-profit private-sector projects	Rolling			✓
 CRISI Program <i>Consolidated Rail Infrastructure and Safety Improvements</i>	\$312M USD FY 2020	Minimum of 20% non-federal match may be public and/or private sector funding	Annual	✓	✓	✓

PROGRAM NAME	FUNDING AMOUNT ¹	MATCHING REQUIREMENTS	FUNDING CYCLE	ELIGIBLE STAGES		
				PLANNING	ENV. & FINAL DESIGN	CONSTRUCTION
 BUILD Grants <i>Better Utilizing Investments to Leverage Development</i>	\$1B USD available for FY 2020	For urban projects, minimum of 20% non-federal match may be public and/or private sector funding	Annual	✓	✓	✓
 CIG – New Starts <i>Capital Investment Grants</i>	\$2.3B USD appropriated for FY 2020 \$1.46B USD for New Starts	New Starts maximum CIG share of 60%, 80% total federal (in practice, federal share is generally less than 50%); funds must be used for public transportation improvements	Rolling		✓	✓
<i>Existing Financing Options</i>						
 CIB <i>Canadian Infrastructure Bank</i>	\$35B CAD	Requires private sector partner and risk transfer	Rolling	✓	✓	✓
 RRIF <i>Railroad Rehabilitation and Improvement Financing</i>	\$35B USD	100% financing; requires dedicated repayment stream	Rolling	✓	✓	✓
 TIFIA <i>Transportation Infrastructure Finance and Innovation Act</i>	\$3B USD in loans	33% financing; requires dedicated repayment stream	Rolling	✓	✓	✓
 PABs <i>Private Activity Bonds</i>	\$15B USD, less than \$1B remaining	Requires dedicated repayment stream	Rolling	✓	✓	✓
<i>Proposed Funding Options</i>						
 PRIME Grant <i>Passenger Rail Improvement, Modernization, and Expansion</i>	\$19B over five years	Minimum of 10% non-Federal match may be public and/or private sector funding	Passed by U.S. House; Pending U.S. Senate approval	✓	✓	✓

PROGRAM NAME	FUNDING AMOUNT ¹	MATCHING REQUIREMENTS	FUNDING CYCLE	ELIGIBLE STAGES		
				PLANNING	ENV. & FINAL DESIGN	CONSTRUCTION
 <p>PNRS Grant <i>Projects of National and Regional Significance</i></p>	\$9B	PNRS grant could cover a maximum of 60% of project costs. Other federal funds could comprise matching funds so long as the total Federal assistance provided does not exceed 80% of the total project cost. PNRS grant and matching funds must amount to sufficient funding to construct at least a minimum operable segment.	Passed by U.S. House; Pending U.S. Senate approval	✓	✓	✓

D.3. BROAD-BASED FUNDING

Over the last decade, voters and legislative bodies across the Cascadia megaregion have approved and established sizeable revenue streams to fund a collection of transportation infrastructure projects and programs. The precedent of having established these funding streams provides a potential template for securing funding for the UHSGT project, though the mechanisms for generating these revenues differ in each jurisdiction. Across all three jurisdictions, the following factors are potentially helpful for generating broad-based funding support for the UHSGT project:

- Presenting a package of projects across each state or province
- Demonstrating a nexus between the funding mechanism and the UHSGT project's goals and objectives
- Clearly articulating what the funding program will provide to the public, particularly for those who may not live along the UHSGT corridor
- Coordinating with regional and local entities like public transit providers, airport commissions, passenger rail operators, and other public agencies that deliver transportation infrastructure that will also be seeking applicable funding for non-highway modes in the region

British Columbia, Washington, and Oregon, and the regions, counties, and localities within them, represent a diverse array of methods for funding and financing public infrastructure and services. Tax and fee structures to fund public programs, including transportation infrastructure projects, differ widely across the Cascadia megaregion, in part due to differences in constitutional law and other legislation.

¹ Funding amount shown in the currency of the country offering the funding opportunity

Funding strategies may involve slightly different tactics in each of the three jurisdictions:

- **British Columbia:**

- » The UHSGT project could pursue broad-based funding in Canada by exploring a legislative approach, modeled after existing transit agencies such as TransLink and BC Transit.
- » Developing partnerships with private sector entities for investment, leveraged by public sector investment vehicles such as the Canada Infrastructure Bank or Partnerships British Columbia Inc., has been advised as a possible course of action.
- » At later stages of the project, it may be possible to reach agreements with local municipalities that align the project's beneficial outcomes with their strategic priorities, and those of the province overall, and capture and direct development benefits effectively toward those goals.
- » Construction and operation of stations can have great economic benefit in communities as a result of real estate development.

- **Washington:**

- » Engage local governments, the business community, organized labor, and environmentalists early in the process.
- » Clearly articulate what the program will provide to the public.
- » Statewide funding packages should ensure that investments, and thus benefits, are conferred across Washington to garner broad support, including from those who do not live along the UHSGT alignment.
- » An integrated regional transportation network is vital in advancing equitable access to opportunities.
- » Successful funding mechanisms include funding for a package of

projects at both the statewide and regional levels.

- » Involvement from private companies is advantageous.

- **Oregon:**

- » Considering a UHSGT project alignment extending to Salem and Eugene may help secure broad-based funding support.
- » A successful statewide transportation funding program includes a variety of projects to ensure that benefits are conferred across Oregon to match the funding base.
- » To maximize support for regional funding for this project, the ultimate UHSGT system should confer local and regional benefits.
- » Since Portland is proposed to be a major stop along the UHSGT line, establishing a regional funding source could be a viable option.
- » The UHSGT project should engage the Port of Portland Board of Commissioners, which manages the port and airport, two key elements of the regional transportation system.

Based on the findings from the Executive Committee interviews, past transportation funding efforts provide a precedent for establishing a new funding package to support the development of the UHSGT project. However, the mechanisms and strategies of establishing new revenue sources for transportation projects differ among jurisdictions. Ultimately, establishing long-term, state/provincial, and regional funding sources, coupled with private sector investment, could be a possible strategy to secure full funding for the project.

Table D-2 displays the funding mechanisms that currently constitute the most promising options to support the UHSGT project in each jurisdiction.

Table D-2: Top potential funding mechanisms for UHSGT in each jurisdiction

JURISDICTION	FUNDING MECHANISMS	REASON FOR SELECTION
Washington	Emissions-based fees like a carbon tax or a statewide cap-and-trade program	<ul style="list-style-type: none"> Established nexus with climate change mitigation goals Growing broad-based (urban and rural) public interest in solutions to address climate change
	Regional property tax	<ul style="list-style-type: none"> Existing method of funding infrastructure projects in the state
Oregon	Regional property tax around station area locations	<ul style="list-style-type: none"> Existing method of funding non-highway infrastructure projects in the state
	A statewide cap-and-trade program	<ul style="list-style-type: none"> Established nexus with climate change mitigation goals Growing broad-based (urban and rural) public interest in solutions to address climate change Proposed legislation to establish a cap-and-trade program in Oregon passed the State House of Representatives by a large majority (36-22) in 2019 and has strong support from the governor's office
	Other miscellaneous taxes and fees (e.g., vehicle dealer privilege taxes, road usage charges)	<ul style="list-style-type: none"> Proven method of establishing statewide funding mechanism to deliver non-highway infrastructure projects in the state (House Bill 2017: Keep Oregon Moving)
British Columbia	Regional property tax around station area locations	<ul style="list-style-type: none"> Proven method of funding transit and rail projects in the province (TransLink and BC Transit)
	An extension of the province's motor fuel taxes	<ul style="list-style-type: none"> Existing method of providing a dedicated funding source for public transit systems throughout the province (TransLink and BC Transit)
	Congestion pricing	<ul style="list-style-type: none"> TransLink is interested in implementing a congestion pricing program in the province and has conducted preliminary analysis and a planning/feasibility study. The Mobility Pricing Independent Commission has been established to study the potential implementation of a system in the Vancouver metropolitan area.

D.4. VALUE CAPTURE

Value capture refers to a set of techniques that aim to monetize increases in property values, economic activity, and growth linked to infrastructure investment. The captured value can fund part of that investment or can be used for future projects. Value capture can also include techniques—often termed ancillary revenues—that seek to maximize the full revenue potential of

the asset itself. There are several value capture techniques; the most pertinent for the UHSGT project are tax increment financing, special tax assessments/districts, development impact fees, right of way use agreements, and sale of the naming rights of the asset.

Value capture is likely to be one piece of the funding/financing puzzle, but not the primary source. Because value capture techniques take a long time to put in place, it is recommended that project initiation activity include developing value capture options, such as:

- **Identifying a corridor where real value can be created, particularly around stations:** With the long view of value capture’s potential in mind, seek to select an alignment that provides the greatest potential for growth around the right of way and easy integration with the community surrounding it. This may translate into choosing a corridor that cuts through less developed areas, where there may be more “value creation” potential. Further, the project could seek to develop stations with an eye to generating long-term value and revenues through mixed-use and transit-oriented development and integration with local transit systems.
- **Identifying and assessing the best techniques for capturing value early:** Because value capture occurs at the local or district level, and new districts often require the consent of those in the district, value capture techniques can take years to get approved, and even longer to reach the point of raising revenue. Identifying locations, building business cases, and developing buy-in cannot start early enough. Given that the UHSGT project is still in its early days, there may be time to create new techniques specific to the project—e.g., a special district that runs the length of the corridor.

- **Building a consortium of parties and communities to support value capture:** Early on, the UHSGT project should start to build a consortium to support the use of value capture. As voter and community approval (and often proactive sponsorship) are needed for some techniques, it is crucial to get “boots on the ground” in the relevant communities to build consensus and a network of support.

D.4.a. PRIVATE CONTRIBUTIONS AND PRIVATE EQUITY/FINANCING

Private contributions of direct funding or other support is an advantage, as noted in section D.1 and exemplified by Microsoft’s participation in the Cascadia Innovation Corridor and Ultra-High-Speed Ground Transportation studies to date.

A variety of public, quasi-public, and private financing options exist to help develop and construct large transportation infrastructure projects in the United States and Canada. As discussed in section D.2, financing options, however, are not grants, appropriations, or revenue and therefore need to be repaid. To attract larger funding and financing mechanisms from private investors, it may help to explore how project sponsors may minimize risk and increase incentives for investing. The involvement of the private sector through a public-private partnership (P3) in the capital construction or operation of the project could help advance the project by bringing financing or private equity. Potential approaches include investments/loans from development banks, issuance of tax-free private activity bond allocations, revenue return guarantees, investment-grade detailed due diligence in the form of ridership/revenue forecasting, and granting permitting/environmental clearance assurances.