

# CASCADIA ULTRA HIGH SPEED GROUND TRANSPORTATION

FRAMEWORK FOR THE FUTURE



## EXECUTIVE SUMMARY

DECEMBER 2020

# CASCADIA UHSGT FRAMEWORK FOR THE FUTURE



*Initial studies identified the metro areas of Vancouver, Seattle, and Portland as key anchors of the corridor. As the UHSGT project moves to the development stage, planning efforts could consider additional connections to serve needs in Oregon, British Columbia, and eastern Washington.*

The Cascadia ultra-high-speed ground transportation (UHSGT) system would connect people and communities, increase economic competitiveness, and improve quality of life across the Cascadia megaregion. This fast, safe, predictable way to travel would connect the metro areas of **Vancouver, B.C.; Seattle, WA; Portland, OR**, and points between and beyond. With equity as a guiding principle, the UHSGT project could help connect local workers to family-wage jobs, increase access to affordable housing choices, and offer greater mobility for almost 9 million people. This project is also part of a growing movement to mitigate the impacts of climate change by using clean energy. Rather than relying on congested highways or increasing air traffic, UHSGT offers a sustainable alternative to traveling greater distances quickly and reliably.

The 2017-2018 UHSGT feasibility study confirmed the viability and demand for this project. The 2019 business case explored benefits of the project including economic growth potential in excess of \$355 billion, with 200,000 new family-wage jobs related to construction and ongoing operation of the service.

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

## 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.

and long-term economic benefits, while providing zero-emission, equitable and modern infrastructure for future generations. This UHSGT 2020 Framework for the Future lays out a potential path forward with the critical next steps for decision-makers to advance the project in the areas of governance, strategic engagement, and funding and financing.

“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*

“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*

“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*

The 2019 business case identified broad project stages. As shown below, the Cascadia UHSGT project is currently in the project initiation stage. Large, transformative projects like the UHSGT project take time, resources, and commitment to advance from project initiation to project development.



**What is next:** The graphic on the next page depicts the key steps for the Cascadia UHSGT project, which are then summarized on the following pages. Additional detail on each step is found in the related chapters of the final report. Successful implementation of these steps will bring the Cascadia region one step closer to building this once-in-a-lifetime connection that would improve quality of life, increase economic competitiveness, and significantly mitigate climate change impacts.

# CASCADIA UHSGT FRAMEWORK FOR THE FUTURE

## LEGEND



### GOVERNANCE FRAMEWORK

- G1 Develop enabling agreement between the three jurisdictions
- G2 Develop governance structure for the Project Development Stage



### STRATEGIC ENGAGEMENT PLAN

- S1 Build support from decision-makers for Coordinating Entity
- S2 Develop/refine a project identity and vision
- S3 Initiate equitable local engagement
- S4 Initiate ongoing consultation with Tribes and Indigenous Communities
- S5 Build a broader coalition of support



### FUNDING AND FINANCE STRATEGY

- F1 Establish funding for Coordinating Entity
- F2 Evaluate federal and state/provincial funding options and develop a strategy for securing funding commitments
- F3 Pursue and secure federal and state/provincial funding opportunities
- F4 Evaluate best techniques for capturing value

## DEVELOPMENT ENTITY

- Environmental Clearance
- Preliminary (NEPA/CEQA)
- Engineering/Design
- Risk Assessment
- Procurement and P3 Policies

## CONSTRUCTION

- Land Acquisition
- Vehicle Procurement
- Final Design
- Construction

## FEASIBILITY STUDY (2017-2018)

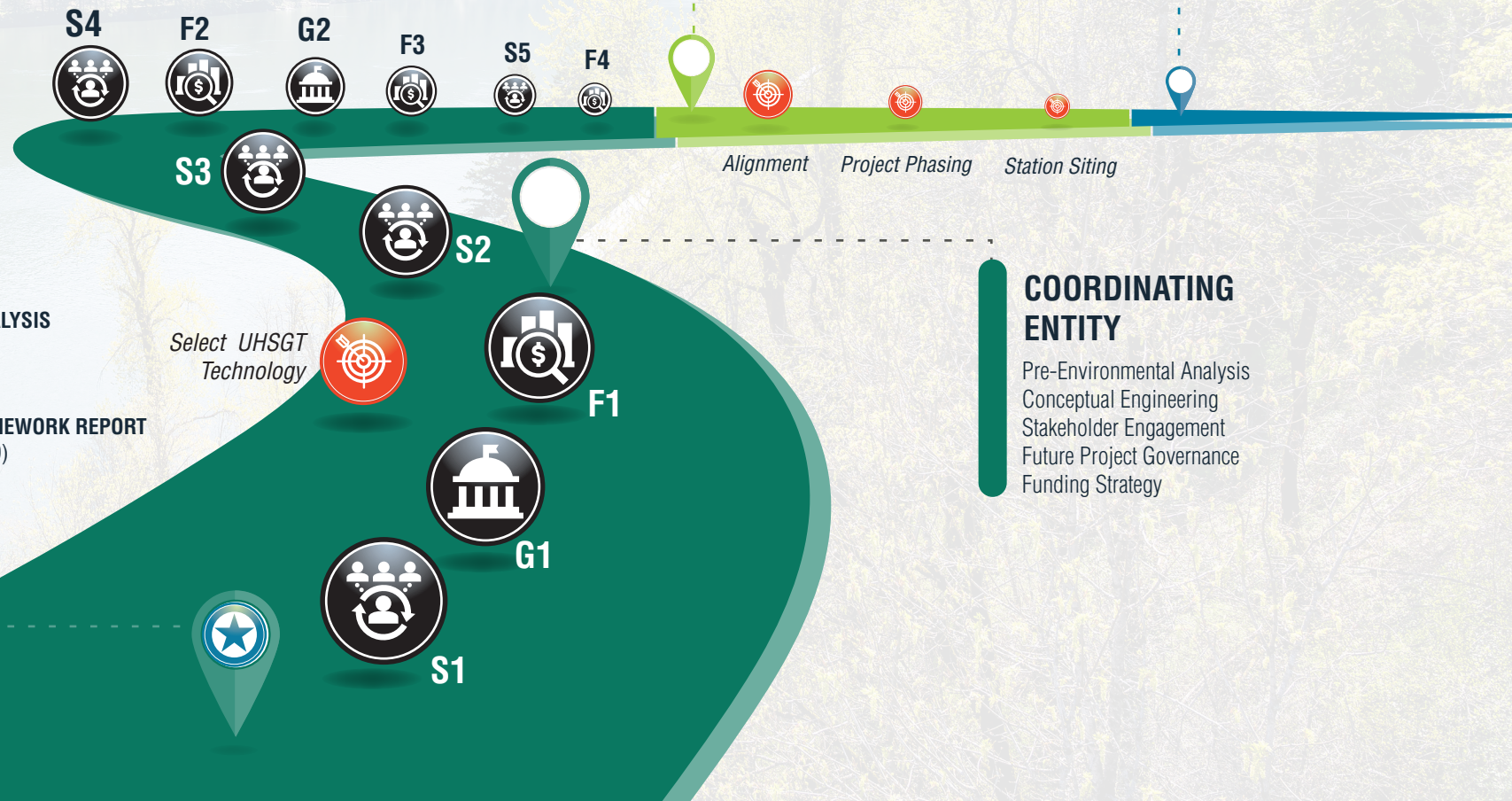
## BUSINESS CASE ANALYSIS (2019)

## FRAMEWORK REPORT (2020)

Select UHSGT  
Technology

## COORDINATING ENTITY

- Pre-Environmental Analysis
- Conceptual Engineering
- Stakeholder Engagement
- Future Project Governance
- Funding Strategy



# UHSGT NEXT STEPS

---

To date, the Cascadia UHSGT project has been led by an informal partnership that has advanced the project through initial project studies. Eventually, the project will need a formal, independent, cross-jurisdictional structure, like a Development Entity, to navigate the complexities of detailed design, construction, and operations. A potential interim step is creating a more formal but non-binding structure such as a Coordinating Entity to complete project initiation before creating a Development Entity for project development. This two step approach is consistent with lessons learned from other large multi-jurisdiction projects and resonated with regional UHSGT stakeholders and industry experts. Development of this interim Coordinating Entity would benefit the UHSGT project by:

- Formalizing the partnership between British Columbia, Washington, and Oregon around a shared outcome
- Crafting an entity that builds momentum for future project stages
- Developing a structure for shared funding and staffing resources
- Creating an entity that can coordinate project activities in all three jurisdictions but still allow the jurisdictions authority to undertake outreach and other activities individually

The Coordinating Entity would be responsible for advancing the project through the project initiation stage. This would include activities such as preliminary environmental analysis, conceptual engineering, scenario planning, development of a project phasing strategy, development of a financial strategy, and robust equitable community engagement.

This UHSGT Framework for the Future creates a guide of next steps to establish a Coordinating Entity that would provide a more formal, collaborative approach to completing these important tasks.

## IMMEDIATE NEXT STEPS

### Build support from decision-makers for Coordinating Entity (S1)



Moving from an informal partnership to a Coordinating Entity will require political support from state and provincial governments. Each jurisdiction would engage the appropriate governmental entities to ensure support for a formalized and continued partnership between British Columbia, Washington, and Oregon. Understanding and incorporating each jurisdiction's needs to support the project is critical to ensuring this effort has sufficient support across the region throughout all project stages.

## Develop the enabling agreement between the three jurisdictions (G1)



Once political support and agreement on formalizing the UHSGT partnership is secured, the next step is for the jurisdictions of British

Columbia, Washington, and Oregon to document the parameters of the Coordinating Entity in an enabling agreement, such as a Memorandum of Understanding (MOU) or partnership agreement. The agreement could include:

- Commitment to work together to continue to plan and study for the project
- Goals and purpose of the Coordinating Entity
- Decision-making model and identification of decision-makers from each jurisdiction
- Dedicated resources, including conceptual funding and/or staffing commitment over multiple years
- Reporting requirements for the Coordinating Entity back to the jurisdictions

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 agreement.

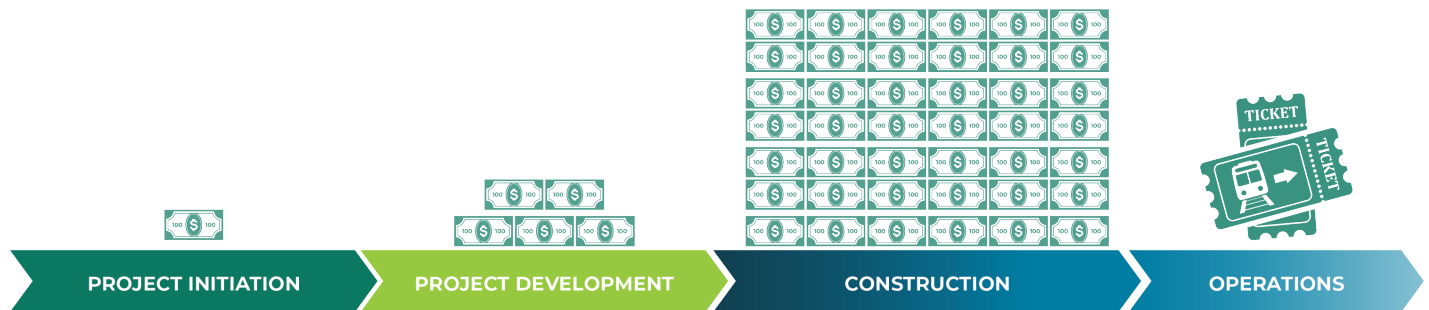
## Establish funding for Coordinating Entity (F1)



An early order of business for the Coordinating Entity would be the establishment of a stable funding stream.

Conceptual agreement on the funding needs for completing project initiation should be discussed as a part of the enabling agreement approval process. Once the Coordinating Entity is in place, funds from the jurisdictions (and partners if applicable) should be formally identified. In addition to state/provincial funding support, the Coordinating Entity could apply for federal planning grants to assist with project initiation. The share of the overall cost in each project stage will increase over time, as shown in Figure 1.

**Figure 1:** Cascadia UHSGT order of magnitude cost by project stage



# COORDINATING ENTITY ACTIVITIES

## Develop/refine a project identity and vision (S2)



One critical first step to help build momentum is to refine a vision and develop a project identity that can help a diverse set of stakeholders see themselves as part of the UHSGT project. A clear project vision and identity are necessary to build a coalition, solicit feedback, and sustain project momentum through the project initiation stage. The 2019 UHSGT business case identified broad vision elements as a starting point. Conducting scenario planning and the selection of a UHSGT technology could help define the project identity.

The Coordinating Entity is a formalized partnership between the three jurisdictions created by an MOU. Close coordination among the jurisdictions will facilitate efficient project development.

## Build a broader coalition of support and engage with key partners (S3, S4, S5)



A broad coalition of support is critical to the success of funding and implementing a UHSGT corridor in the Cascadia megaregion. As a coordinated group, a coalition can significantly raise the UHSGT project's visibility with consistent messaging and by leveraging strategic relationships with policymakers. A broad coalition could include the business community, labor organizations, community-based organizations, and aligned existing advocacy organizations. Specific actions during project initiation should include:

- Engage communities to ensure deep and equitable local engagement across the corridor
- Continue utilization of advisory committees and engagement work groups
- Brief and enlist government leadership to drive political support both in the Cascadia region and in federal agencies in Ottawa and Washington, D.C.
- Consult with Tribes and Indigenous Communities
- Connect with the business community

## Pursue funding for project development and construction (F2, F3, F4)



Large infrastructure projects need to secure a variety of funding and financing sources to move forward. The UHSGT project should plan for and pursue funding for project development and construction from the following sources:

- **Federal Funding:** Apply for established federal grant programs and encourage federal action on new programs applicable to UHSGT. Federal funding can be an important catalyst for projects and could play a critical role in the project's financial plan. Limited resources are available for projects like UHSGT, so it is important for the Coordinating Entity to support new, targeted funding on the federal level for large capital projects and ultra-high-speed ground transportation in particular.

- **Provincial/State Funding:** Build on the commitments made in the near term to support project initiation. The Coordinating Entity should engage state/provincial governments and regional stakeholders to develop and enact corridor funding plans. Identifying a longer-term, dedicated funding source in each jurisdiction to support project development and construction will be critical to the project’s success.
- **Value Capture:** Although revenue from value capture will not be realized until project construction, begin work early to lay the foundation to maximize value capture. The Coordinating Entity should identify and assess the best techniques for capturing value, consider a corridor where real value can be created to benefit communities, and build a consortium of parties and communities to support value capture.
- **Financing:** Financing mechanisms and project delivery tools such as public-private partnerships (P3) can transfer risk and provide flexibility to help projects time their repayment of funds for when resources are available. However, financing requires a dedicated repayment source. The Coordinating Entity should evaluate the project delivery approach for applicability of P3, public, or private financing tools.

**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.

## Develop a governance structure for the project development stage (G2)



One of the Coordinating Entity’s key activities could be to plan for the governance structure of the project development stage. The project will need substantially more decision-making and fiscal management capabilities to deliver the project’s increasingly complex activities, such as the responsibility to oversee planning, engineering, project outreach, financial management, procurement, and construction across all three jurisdictions. The Coordinating Entity could coordinate the development of the optimal governance structure and work with each jurisdiction to develop legislation that would enable a Development Entity for this tri-state/provincial and bi-national project.



# CASCADIA UHSGT PARTNERS

---



## In appreciation

Special thanks to members of the UHSGT Executive Committee, who provided input on the Framework for the Future from a variety of perspectives. The group included representatives from the public, private, and nonprofit sectors in Washington, Oregon, and British Columbia. Members represented the following organizations and agencies:

- British Columbia Ministry of Jobs, Economic Development and Competitiveness
- British Columbia Ministry of Transportation and Infrastructure
- British Columbia Intergovernmental Relations Secretariat
- Canada Infrastructure Bank
- City of Portland
- City of Seattle
- City of Surrey
- City of Vancouver
- City of Mount Vernon
- Futurewise
- Microsoft
- Oregon Department of Transportation
- Oregon Metro
- Oregon Office of the Governor
- Oregon Transportation Commission
- Puget Sound Regional Council
- Transport Canada
- Translink
- Transportation Choices Coalition
- Western Washington University
- Washington Building Trades
- Washington Roundtable
- Washington State Department of Commerce
- Washington State Department of Transportation
- Washington State Governor's Office
- Washington State House of Representatives
- Washington State Senate

Report prepared by WSP USA, IMG Rebel, Enviroissues, and DHM Research

**Americans with Disabilities Act (ADA) Information:** This material can be made available in an alternate format by emailing the Office of Equal Opportunity at [wsdotada@wsdot.wa.gov](mailto:wsdotada@wsdot.wa.gov) or by calling toll free, 855-362-4ADA(4232). Persons who are deaf or hard of hearing may make a request by calling the Washington State Relay at 711.

**Title VI Notice to Public:** It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin or sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its programs and activities. Any person who believes his/her Title VI protection has been violated, may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For additional information regarding Title VI complaint procedures and/or information regarding our non-discrimination obligations, please contact OEO's Title VI Coordinator at (360) 705-7090.