Public Services Exhibit

Cascade Renewable Transmission

Wasco, Hood River, and Multnomah Counties, Oregon

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Prepared for
Cascade Renewable Transmission, LLC

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Oregon Energy Facility Siting Council

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Acronyms

ADT	average daily traffic
BMP	best management practices
BPA	Bonneville Power Administration
ESCP	erosion and sediment control plan
FHWA	Federal Highway Administration
HDD	horizontal directional drilling
HVAC	high-voltage alternating current
HVDC	high-voltage direct current
I-205	Interstate 205
I-5	Interstate 5
I-84	Interstate 84
LOS	level of service
NPDES	National Pollutant Discharge Elimination System
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
ODOT	Oregon Department of Transportation
PGE	Portland General Electric
ROW	right-of-way
RV	recreational vehicle
SR 120	Oregon State Route 120
SR 197	Oregon State Route 197
SR 30	Oregon State Route 30
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency

1 Introduction

This exhibit provides information about how construction of the Cascade Renewable Transmission Project (Project) and operation of the transmission facility (Facility) would impact public and private service providers in the analysis area. This exhibit was prepared pursuant to the public services standards in Oregon Administrative Rule (OAR) 345-022-0110.

2 Applicable Rules and Standards

This exhibit demonstrates that the proposal complies with the approval standard in OAR 345-022-0110:

> ***345-022-0110 Public Services***
>
> *(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impact to the ability of public and private providers within the analysis area described in the project order to provide: sewers and sewage treatment, water, storm water drainage, solid waste management, housing, traffic safety, police and fire protection, health care and schools.*
>
> *(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.*
>
> *(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.*

RESPONSE

3 Analysis Area

The Project Order identifies the analysis area for this exhibit as communities within 10 miles of the site boundary, which is defined in detail in the Background Information Exhibit.

The Applicant does not anticipate that the proposal would impact service providers in communities outside of the Portland, Oregon metro area and The Dalles, Oregon micro area. Those two statistical areas are large enough to serve the entire Project area. The Applicant also does not anticipate that in-water high-voltage direct current (HVDC) cable installation would impact public or private service providers. Therefore, this analysis focuses primarily on service providers within the Portland metro area and The Dalles micro area around the aboveground built components (converter stations).

The analysis area is shown on Figure 1 in Section 7.

3.1 Information Required by OAR 345-022-0110(4)(a)(A)

(4) To assist the Council in determining whether the standard outline in (1) through (3) has been met, the Applicant must submit:

(a) Information about significant potential adverse impacts of construction and operation of the proposed facility on the ability of public and private providers in the analysis area to provide the services listed in OAR 345-022-0110, providing evidence to support a finding by the Council as required by OAR 345-022-0110. The applicant must include:

(a) The important assumptions the applicant used to evaluate potential impacts;

RESPONSE

3.1.1 Assumptions Used to Evaluate Potential Impacts

Potential impacts were evaluated based on the assumption of the number of employees needed to construct and operate the Facility and the use of transportation routes, as described below.

3.1.1.1 Employment

Construction

As identified in the Background Information Exhibit, the proposed converter stations are scheduled for construction at the same time as when the proposed transmission line is scheduled for installation, which would take approximately 3 years. The underground transmission cable conduit installation would occur prior to pulling the cable sections through the conduits and splicing them together. The in-river transmission cable installation would occur from roughly November to February during the in-water work windows; the installation would be completed in two campaigns in consecutive years, below the Bonneville Lock and Dam one year and above the Bonneville Lock and Dam the following year.

During construction, an estimated maximum of 585 workers would be on site in The Dalles and in North Portland at one time, as contractors from multiple disciplines complete their work simultaneously (Table 1). This estimate includes up to 60 workers for in-river cable installation, up to 85 workers for underground cable installation, and up to 220 workers at each converter station. Per Attachment 1, the Applicant has confirmed the availability of local workers with the International Brotherhood of Electrical Workers and the International Union of Operating Engineers.

The Applicant is committed to hire construction workers locally as much as possible, depending on the availability of workers with appropriate skills. Non-local personnel may be needed for specialized aspects of construction such as the installation of conversion and control equipment as well as system testing and commissioning. The Applicant assumes non-local construction workers would relocate to the area temporarily during construction; but very few, if any, would relocate permanently.

The Applicant anticipates approximately 467 of the estimated 585 construction workers (80 percent) in Oregon would be hired locally – that is, from cities and communities near the Columbia River in both Oregon and Washington. This estimate accounts for each type of construction shown in Table 1.

Table 1. Local and non-local workers by type of construction.

Type of construction	Local workers	Non-local workers	Total workers
Portland, OR Area			
Western Converter Station	187 (85%)	33 (15%)	220
Underground Cable Installation – Cable Installation and Splicing	6 (30%)	14 (70%)	20
Underground Cable Installation – Civil works	30 (100%)	0	30
In-River Cable Installation below the Bonneville Dam	18 (60%)	12 (40%)	30
Portland Area Total	241	59	300
The Dalles, OR Area			
Eastern Converter Station	187 (85%)	33 (15%)	220
Underground Cable Installation – Cable Installation and Splicing	6 (30%)	14 (70%)	20
Underground Cable Installation – Civil works	15 (100%)	0	15
In-River Cable Installation above the Bonneville Dam	18 (60%)	12 (40%)	30
The Dalles Area Total	226	59	285
Total	**467 (80%)**	**118 (20%)**	**585**

Operation and Maintenance

During operations, approximately 12 permanent employees would be located at each converter station. Additionally, approximately 30 temporary contract workers would be hired for supplemental staffing during annual maintenance periods at each converter station. The Applicant would engage local contractor firms who uses their own contract employees to perform supplemental work such as cleaning insulators, performing fire protection testing, and maintaining the grounds, based on their areas of specialization.

The Applicant would hire operations staff locally to the extent that skilled workers are available. The Applicant assumes that the Project will be in operation for at least 50 years.

Facility Retirement

If the Project is retired (decommissioned), operational jobs would be eliminated. Retirement would require removing most Facility components and restoring disturbed areas (see the Retirement and Financial Assurance Exhibit). These activities would result in temporary construction employment similar to temporary employment generated during Project construction.

3.1.1.2 Transportation

Various transportation routes would provide access during construction and operations of the proposed converter stations. These routes would be used for the transportation of converter station components, construction equipment and materials, water, and workers.

Primary construction transportation routes are identified in Table 2, below, and on Figure 2 in Section 7. These primary transportation routes would carry most of the construction-related trucks and workforce traffic.

Table 2. Primary construction transportation routes

Project Area	Classification	Jurisdiction	Route
Eastern Converter Station (The Dalles - Wasco County)	Interstate	Oregon Department of Transportation (ODOT)	Interstate 84 (I-84)
	U.S. Highway	ODOT	U.S. Route 197 (US 197)
	U.S. Highway	ODOT	U.S. Route 30 (US 30)
	Local Road	City of The Dalles	E. 2nd Street
	County Road	Wasco County	Columbia View Drive (outside BPA property)
	Private	Bonneville Power Administration (BPA)	Columbia View Drive (within BPA property)
Western Converter Station (Portland – Multnomah County)	Interstate	ODOT	Interstate 5 (I-5)
	U.S. Highway	ODOT	U.S. Route 30 (US 30 Bypass/N Lombard Street)
	U.S. Highway	ODOT	U.S. Route 30 (US 30 Bypass/NW Saint Helens Road)
	Oregon Highway	ODOT	State Route 120 (SR 120/N Marine Drive)
	Oregon Highway	ODOT	State Route 120 (SR 120/N Portland Road)
	Oregon Highway	ODOT	Oregon Route 99E (NE Martin Luther King Boulevard)
	Local Road	City of Portland	N Hayden Island Drive
	Local Road	City of Portland	N Leadbetter Road
	Local Road	City of Portland	N Columbia Boulevard
	Local Road	City of Portland	N Ramsey Boulevard
	Local Road	City of Portland	N Rivergate Boulevard

3.1.2 Affected Public and Private Service Providers and Potential Impacts (OAR 345-022-0110(4)(a)(B) through (D))

(B) Identification of the public and private providers in the analysis area that would likely be affected;

(C) A description of any likely adverse impact to the ability of the providers identified in (B) to provide the services listed in OAR 345-022-0110;

(D) Evidence that adverse impacts described in (C) are not likely to be significant, taking into account any measures the applicant proposes to avoid, reduce or otherwise mitigate the impacts;

RESPONSE

3.1.2.1 Sewers and Sewage Treatment

As described in the Waste Minimization Exhibit, impacts to community sewer systems are not anticipated.

During construction, sanitary waste would be collected on site in portable toilets maintained by a licensed subcontractor and disposed of in accordance with local jurisdictional regulations.

During operations, domestic wastewater discharges from the converter stations would be minimal since each converter station would have approximately 12 full-time employees. Wastewater from the western converter station would discharge to the Portland municipal system; the parcel is served by a municipal sewer main within the utility easement that abuts N. Leadbetter Road. At the eastern converter station, it is unknown at this time if wastewater from the building would discharge to a municipal system or require an on-site septic system. There are three options available to the Applicant: 1) tie directly into BPA's private system, which connects into the municipal system, 2) build a sewer line (approximately 1 mile) to connect to the municipal system, or 3) install a septic system. The final option will be based on coordination with BPA and during final design. If an on-site septic system is used, it would be licensed, constructed, and maintained in compliance with state permit requirements and would have a discharge capacity of less than 2,500 gallons per day.

3.1.2.2 Water Usage

As described in the State and Local Laws and Regulations Exhibit, during construction, water would be used for mixing concrete, mixing drilling mud for horizontal directional drilling (HDD), site grading and compaction, and dust suppression. No water would be consumed for in-river cable installation – water from the Columbia River would be pumped onto the vessel and into the jet plow line, then returned to the river. It is anticipated that water needed for construction would be obtained from the City of The Dalles and the City of Portland under existing municipal water rights.

During construction, the Project would require an anticipated maximum of approximately 1,250,336 gallons of water. The Applicant has contacted the City of The Dalles and the City of Portland, who each have indicated a willingness and ability to supply the amount of water needed during construction and operations. See the State and Local Laws and Regulations Exhibit for details.

During operation, approximately 150 gallons of water per day would be required for bathroom and kitchen facilities at the converter stations. At the western converter station, the City of Portland would provide water. At the eastern converter station, water would be provided by a new on-site well, which would be exempt from groundwater permits under Oregon Revised Statutes (ORS) 537.545.

The proposal would not require groundwater permits, water rights, or surface water permits.

Attachment 3 to the State and Local Laws and Regulations Exhibit contains records of communication between the Applicant and both the City of The Dalles and the City of Portland. Both cities indicate their willingness and ability to supply the amounts of water needed during construction and operations. Therefore, public water systems would not be adversely affected by Project construction or Facility operation.

3.1.2.3 Stormwater Drainage

All construction work would be done in compliance with an erosion and sediment control plan (ESCP) satisfactory to the Oregon Department of Environmental Quality (ODEQ) and as required under the National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit #1200-C (see the Soil Protection Exhibit, Attachment 3 for the draft/example ESCP). The Project will comply with federal, state, and local statutes and regulations related to construction stormwater runoff, including drainage districts and other flood protection providers, including but not limited to the Multnomah County Drainage District regarding potential impacts to the Portland Metro Levee System and the NPDES 1200-C ESCP, which will be completed prior to construction. Construction best management practices (BMPs) associated with these permits are expected to reduce any stormwater impacts below the established requirements as outlined in ODEQ's 1200-C permit requirements.

For permanent stormwater management during operation, the converter stations would be designed to comply with BMPs and applicable federal, state, and local statutes. The stormwater management approach is to use natural drainage practices and infiltrate the stormwater on both sites via infiltration trench. Stormwater management for the converter stations will be determined during final design. The transmission cables would be installed underground in all other areas, and affected areas will be returned to pre-project ground contours; therefore, no stormwater would be generated at these locations.

The Applicant is actively coordinating with the U.S. Army Corp of Engineers (USACE) Section 408 Project Development Team (PDT) to ensure that the Portland Metro levee system and The Dalles Levee system are not adversely impacted by the Project. The USACE guidance is through Engineer Circular (EC) 1165-2-220, “Water Resource and Policies and Authorities, Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408.” The current alignment avoids the Portland Metro levee system entirely. The current alignment is within the vicinity of the Dalles Levee. Through coordination with Section 408 PDT, the current plan aligns the transmission line directly on top of the levee above the 100-year flood water level and does not detract from the porosity of the levee nor decrease flood fighting capabilities, which are critical considerations by the Section 408 PDT. The transmission line transitions to HDD in the vicinity of the Dalles Levee to allow the line to enter into the water. The HDD pit is located on the riverward side of the Dalles Levee which allows the line to travel away from the levee and not interfere with seepage paths. This plan is also considered levee avoidance by the Section 408 PDT.

3.1.2.4 Solid Waste Management

Potential impacts on the ability of communities to provide solid waste management services could occur if the solid waste management needs from the Facility during construction or operations cannot be met through existing facilities or if meeting those demands interferes with the ability of service providers to meet other community waste management needs (e.g., if local landfill capacity is inadequate to handle the needs of the Facility).

As stated in the Waste Minimization Exhibit, solid waste generated during construction, operation, and decommissioning in North Portland will be required to be delivered to an Oregon Metro-authorized material recovery facility whether it is to be recycled or disposed. There are two mixed waste recovery disposal locations in North Portland, Recology Oregon Material Recovery and Greenway Recycling where waste could be sent; there are also other mixed waste recovery disposal locations throughout the greater Portland metro area. Waste generated in The Dalles area would be disposed of at the Wasco County landfill.

Solid waste disposal during construction and operations will be provided through a private contract with a local, licensed commercial hauler or haulers and is not anticipated to disrupt services already being provided in the greater Portland metro area and The Dalles micro area. The construction contractor will submit a plan for approval by the Applicant on how solid waste materials during construction will be reused, recycled, or disposed of in accordance with OAR 340-093-0010. That plan will specify the names and locations of appropriate recycling and waste disposal facilities, collection requirements, and hauling requirements. Therefore, the Facility will not have any significant adverse impact on the ability of any community in the area to provide solid waste management services. The Waste Minimization Exhibit includes detailed information about types and quantities of solid waste and disposal locations, which include:

Construction:

- approximately 5,000 to 10,000 cubic yards of waste would be produced during construction of the converter stations, and approximately 1,000 to 2,000 cubic yards of waste would be produced during installation of the underground and in-river cables
- approximately 281,556 cubic yards of excavated dirt and rock spoils would be disposed of at an Oregon Metro-authorized material recovery facility
- approximately 114,048 cubic yards of excavated dirt and rock spoils would be disposed of at the Wasco County landfill

Operation:

- approximately 2 cubic yards of solid waste would be produced weekly during operations at each converter station

In addition, as stated in the Soil Protection Exhibit, transformer oils would arrive on an as-needed basis and be transferred into the receiving components by a licensed contractor; none would be stored on site during construction or operation. Hazardous identified/classified fluids transported onto site or transported from site will be performed by a licensed transporter utilizing the required hazardous material handler/transporter manifest documentation. This documentation tracks the waste from “cradle to grave” and will identify the disposal facility. Copies of all related paperwork will be filed and retained as per local and federal guidelines.

The Applicant has communicated with Recology, an Oregon Metro-authorized material recovery facility that serves Portland and has not yet received a response (Attachment 2). When a response is received, the Applicant will update Attachment 2.

The Applicant has communicated with Wasco County Landfill and received confirmation from the service provider that they can accept the project materials and that the landfill facility has an anticipated life span of 32 years. Correspondence with the landfill did not specify any concerns regarding solid waste generation from construction and operation of the proposed project (Attachment 2).

3.1.2.5 Housing

See Section 3.1.1 above for assumptions about the number of employees during construction and operation, and what percentage are anticipated to be hired locally (Table 1).

During construction, the Applicant estimates that temporary housing would be required for approximately 118 non-local workers, including approximately 59 in the Portland area and 59 in The Dalles area (see Table 1). Some construction workers, particularly those employed for the entire duration of construction (3 years) and/or coming from outside of the project vicinity, may rent a house or apartment during construction of the project. Other temporary housing options include recreational vehicle (RV) parks. Research into the availability of typical temporary housing options is summarized in Table 3.

Table 3. Typical temporary housing options and availability.

Type of temporary housing	Availability research	
	The Dalles, OR area	Portland, OR area
Hotels and Motels	According to Expedia.com and Booking.com, there are about 14 hotels and motels within 20 miles of The Dalles.[1,2] In the Oregon 2nd Congressional District, which covers eastern Oregon including Wasco County, hotels have an average of 52 rooms according to the American Hotel and Lodging Association.[3] Using this average, the Applicant estimates that The Dalles area has 728 rooms available. Although not all of these would be available at a given time, there is an adequate supply in relation to the number of non-local temporary workers.	According to Expedia.com and Booking.com, there are over 200 hotels and motels in the Portland metro area.[1,2] This is an adequate supply in relation to the number of non-local temporary workers.
Short-term Apartment and Home Rentals	As of the 2020 Census decennial dataset, there were approximately 1,443 vacant housing units in Wasco County. Of those, 503 units (34.9%) are estimated to be rental units, based on the county's home ownership rate of 65.1%.[4,5]	As of the 2020 Census decennial dataset, there were approximately 22,489 vacant housing units in Multnomah County. Of those, 10,682 units (47.5%) are estimated to be rental units, based on the county's home ownership rate of 52.5%.[5,6]
RV Spaces	According to RVParky.com and GoodSam.com, there are around 45 RV parks and campgrounds within 50 miles of The Dalles, OR. [7,8]	According to RVParky.com and GoodSam.com, there are around 30-60 RV parks and campgrounds within 50 miles of Portland, OR. [7,8]

[1] Expedia.com. 2024. Available online: https://www.expedia.com/.
[2] Booking.com. 2024. Available online: https://www.booking.com/.
[3] AHLA. 2024. Available online: https://ahla.morningconsultintelligence.com/districts/or-2/.
[4] U.S. Census Bureau. 2020. Wasco County, Oregon. Available online: https://data.census.gov/profile/Wasco_Cou...?g=050XX00US41065.
[5] Note: The U.S. Census Bureau's Decennial Census of Population and Housing data is from 2020, which is the latest data available. This dataset updates once every ten years (U.S. Census Bureau, 2025).
[5] U.S. Census Bureau. 2020. Multnomah County, Oregon-Housing. Available online: https://data.census.gov/profile/Multnomah_County,_Oregon?g=050XX00US41051#housing.
[6] RVParky.com. 2023. Available online: https://www.rvparky.com/.
[7] GoodSam.com. 2025. Available online: https://www.goodsam.com/campgrounds-rv-parks

Given the information in Table 3, the Applicant does not anticipate that construction employment would impact housing availability in the analysis area.

If the Applicant anticipates insufficient temporary housing for construction employees, the Applicant may implement one or more of the following mitigation measures:

- Provide information to non-local workers about affordable housing options prior to the start of their employment.
- Hire a housing coordinator to manage housing-related planning and communication with employees, housing providers, and local officials.
- Work with local officials to preemptively address potential issues related to RV sites and hookups.

No impacts to housing are anticipated as a result of employing operational personnel. Per Section 3.1.1.2, there would be approximately 12 full-time employees at each converter station, plus approximately 30 additional temporary workers during annual maintenance periods at each converter station. The operations staff would be hired locally to the extent that skilled workers are available.

3.1.2.6 Transportation and Traffic Safety

As identified in Table 2, the providers of transportation services at the eastern converter station area are the Wasco County Road Division within the Public Works Department, The City of The Dalles Transportation Division within the Public Works Department, and the Bonneville Power Administration (BPA). The provider of transportation services at the western converter station area is the City of Portland. The Oregon Department of Transportation (ODOT) provides transportation services to both areas.

Project construction would temporarily increase local traffic in North Portland and The Dalles, involving large trucks and construction equipment as well as construction worker vehicles primarily to and from the converter station locations.

Minor temporary impacts to local traffic are anticipated during placement of the underground portion of the HVDC cables in road right-of-way (ROW) along SR 197 to SR 30 to E 2^{nd} Street in The Dalles; and along N Marine Drive and N Leadbetter Road to the western converter station location in Portland. During trenching, a backhoe, a utility truck, and a dump truck for spoilage haul would be located adjacent to the paved portion of the roadway, off the road shoulder in the road ROW (similar to what is shown in Photo 1). Traffic cones or other measures for maintenance and protection of traffic and public safety could be needed for areas where the road shoulder is not wide enough and would be coordinated with each jurisdiction, as needed.

Photo 1. Photo of HVDC trench excavation alongside New York's Wantagh State Parkway during the upland construction phase of the Neptune Regional Transmission System in 2005.

Temporary impacts to local traffic are anticipated during placement of the underground high-voltage alternating current (HVAC) from the western converter station to the edge of the Willamette River through the industrial area of North Portland. Due to the width of the trench required to place the HVAC cables (9 feet wide), it is anticipated that one lane of traffic would be subject to closures in sections of approximately 600 feet in length, for periods of about 1 week in duration for the approximately 2-month construction period as conduit installation progresses on N Columbia Boulevard and N Rivergate Boulevard along approximately 3.05 miles of roadway (Figure 2 in Section 7).

Performance Standards and Existing Traffic

An impact could occur if construction or operation of the Project meaningfully lowers the efficiency and functionality of the existing public roads. For example, if the number of Project-related vehicles added considerably to the current volume of drivers, delays in travel times and/or damage to the roads could result.

Table 4 and Table 5 shows existing Average Daily Traffic (ADT) data for primary transportation routes around the Western Converter Station and Eastern Converter Station that would carry most of the construction-related truck and workforce traffic for the project. In the following subsections of this document, these ADT estimates will be compared to projected trip generation and V/C ratio measurements during Project construction to determine if there is capacity in the system to accommodate the Project.

Table 4. Average Daily Traffic (ADT) for Construction Transportation Routes around the Eastern Converter Station (The Dalles - Wasco County)

Roadway	Average Daily Traffic (ADT)
I-84	24,696
U.S. Route 197 (US 197)	5,991
U.S Route 30 (US 30)	5,309
E. 2nd Street	969
Columbia View Drive	Not Available

Source: ODOT TransGIS, 2023.

Table 5. Average Daily Traffic (ADT) for Construction Transportation Routes around the Western Converter Station (Portland - Multnomah County)

Roadway	Average Daily Traffic (ADT)
Interstate 5 (I-5)	106,760
OR 99E (NE MLK Boulevard)	14,431
N Marine Drive (SR 120)	31,437
N Leadbetter Road	2,053
N Hayden Island Drive	Not Available
N Columbia Boulevard	12,461
N Ramsey Boulevard	Not Available
N Rivergate Boulevard	Not Available
N Portland Road (SR 120)	9,736
U.S. 30 Bypass (Lombard St)	15,539
U.S. 30 (NW Saint Helens Rd)	22,809

Source: ODOT TransGIS, 2023; City of Portland, 2011; City of Portland, 2017.

Road Design Standards

ODOT publishes a bi-annual pavement condition report, which rates the condition of all state mainline highways that are under ODOT's jurisdiction. The Applicant reviewed the findings of this report for the roads in Table 2 that are under ODOT's jurisdiction to understand if the pavement can withstand the additional stress from the trucks that this Project requires.

ODOT rates pavements on a 100-point scale with five subsections: very good, good, fair, poor, and very poor. This rating is based on the riding quality, amount of cracking, patching, or other deformations, and if rutting has occurred on the road. One of ODOT's key performance metrics is to keep 85 percent of roads in their jurisdiction in fair or better condition. ODOT prepared the report on pavement conditions for interstate, non-interstate high volume roads, and some low volume highways; therefore, the study does not analyze many local roads that the Project would use, including Columbia View Drive, N Marine Drive, N Leadbetter Road, N Columbia Boulevard/N Lombard Street, N Ramsey Boulevard, and N Rivergate Boulevard.

In Wasco County, all segments of I-84 have a rating from fair to very good. Segments of SR 30 from Columbia River Bridge to the junction with Highway 292 have a rating of fair, while segments of that route from the Gate I-84 Connector to The Dalles all have ratings of good. Portions of SR 197 from the junction with Highway 292 to SR 30 have pavement ratings of fair to good (ODOT 2022). These segments of roadways meet ODOT's standards and are not in need of major repairs.

In Multnomah County, segments of I-84 are rated fair or better, except for the stretch between N Banfield Interchange - 181st Avenue. All sections of SR 30 that are within Multnomah County are rated fair or better. Most segments of I-5 in Multnomah County are rated fair or better, but a few other areas are rated poor, including Marquam Bridge - Burnside Street and N Lombard Street - N Columbia Boulevard. All sections of I-205 within Multnomah County are rated fair or better. Most of the OR-30 Bypass is rated poor, with a few sections rated fair. Not all sections of SR 120 are rated, but those that are rated are rated poor (ODOT 2022). Based on the ratings provided, some sections of the roads that the proposed Project would use in Multnomah County need repairs and maintenance.

Project Trip Generation

Construction

Traffic generated by Project construction would include workers commuting in personal vehicles, supplies transported to temporary laydown areas for converter stations, equipment transported to temporary HDD areas, and equipment transported for trenching ("truck trips"). Supplies would be transported using a range of vehicles, including, but not limited to, pickup trucks, box trucks, flatbed trucks, semi-trucks with trailers, water tank trucks, and concrete trucks. It is anticipated that some of the larger supplies (transformers, cables, etc.) would arrive via ship to Port of Portland and be transported to each converter station via the most economical and feasible transport route. The manufacturer would use a local logistics company in the area who is most familiar with routes that will have the least negative impact to communities and local traffic.

Placement of the underground portion of the HVDC cables via trench would require construction equipment, including a backhoe, a utility truck, and a dump truck for spoilage haul in The Dalles and

Portland areas. Similar equipment would be used during placement of the underground portion of the HVAC cables from the western converter station to the edge of the Willamette River.

Table 6 presents the number of truck trips and commute trips expected during construction. Worker commute trip estimates are based on the employment numbers in Section 3.1.1.1 and the assumption that workers would carpool at a rate of 1.25 workers per vehicle.

Construction of the converter stations, underground transmission line, and placement of the in-river cables is estimated to last 3 years. Installation of the in-river transmission cables is restricted to the 4-month in-water work window during 2 of those years. As shown in Table 6, the most vehicle trip intensive period for this construction effort would be during the 7 months when power modules, converter cooling equipment, transformers, and DC hall equipment are installed at the converter stations, with approximately 244 trips per day. However, these activities would occur at each converter station simultaneously; therefore, to understand impacts on roads in the Portland area separately from roads in The Dalles, this analysis divides the 244 total trips per day by two to reach 122 trips per day for each city (61 round trips). Another vehicle trip intensive period would be during construction of the underground transmission, where 7 months of civil work occurring in North Portland is expected to generate vehicle trips at 192 trips per day. These estimated 192 trips per day will add traffic volumes to nearby roadways, with distribution based on the most likely access route to each construction site.

Table 6. Anticipated truck and commute trips during construction

Tasks in Oregon	Length of Time	Anticipate Heavy Truck Trips*	Average Truck Trips per Day	Anticipated Number of Workers	Anticipated Worker Commute Trips per Day	Total Calculated Trips per Day
Converter Station Building & Civil Works						
Civil Construction (Site Preparation & Grounding, Module Hall, Transformer Bays, DC Hall, Control Building, AC switchyard, landscaping, fencing)	12 months (approximately 247 working days)	646	2.6	60	96.0	98.6
Installation & Precommissioning (auxiliary power, AC Switchyard East and West),	4 months (approximately 84 working days)	66	0.8	62	99.2	100.0
Installation & Precommissioning (power module, converter cooling, transformer, and DC hall equipment installation)	7 months (approximately 148 working days)	74	0.5	152	243.2	243.7
Install Control Systems	5 months (approximately 105 working days)	20	0.2	50	80.0	80.2
Underground Transmission						
HDD Works (Hayden Island, The Dalles, Willamette River)	17 weeks (not continuous; approximately 83 days)	208	2.5	55	88.0	90.5
The Dalles Civil Work (HDD SR 197, SR 30, RR tracks, open trenching, restoration)	3 months + 3 weeks (not continuous; approximately 92 days)	72	0.8	28	44.8	45.6
North Portland Civil Works (HDD Hayden Island, open trenching, restoration, HDD Columbia Slough, Harborton substation trenching HAB RR tracks, restoration)	7 months (not continuous; approximately 143 working days)	452	3.2	118	188.8	192.0
North Portland 320 KV DC and FO Land Cable System Installation (install cables, joints, transition joints)	2.5 months (not continuous; approximately 52 working days)	138	2.7	36	57.6	60.3
The Dalles 320 KV DC and FO Land Cable System Installation (install cables, joints, transition joints)	3 months (not continuous; approximately 61 working days)	156	2.6	48	76.8	79.4

Tasks in Oregon	Length of Time	Anticipate Heavy Truck Trips*	Average Truck Trips per Day	Anticipated Number of Workers	Anticipated Worker Commute Trips per Day	Total Calculated Trips per Day
230-kV AC and FO Land Cable System Installation (install cables, joints, transition joints in North Portland, including Harborton connection)	6 months (approximately 123 working days)	260	2.1	108	172.8	174.9
HVAC and HVDC Cable Systems Testing and Commissioning						
HVAC and HVDC Cable Systems Testing at Western Converter Station (North Portland)	3 weeks (approximately 15 working days)	0	0	7	11.2	11.2
Commissioning and more testing (North Portland)	8 months (approximately 185 working days)	0	0	6	9.6	9.6
Commissioning and more testing (The Dalles)	8 months (approximately 185 working days)	0	0	6	9.6	9.6

* These numbers are for the entire length of time indicated for each task and represent vehicles that would be heavier than a standard pick-up truck

kV=kilovolt; AC=alternating current; DC=direct current; FO=fiber optic

Operations and Maintenance

During operations, an estimate of 12 employees will be carpooling at a rate of 1.25 workers per vehicle, which would add up to 20 commuting vehicle trips per day (10 round trips) for each converter station. During the annual maintenance period, an estimate of 30 employees will be carpooling at a rate of 1.25 workers per vehicle, which would add up to 48 commuting vehicle trips per day (24 round trips) for each converter station during the one annual 3- to 5-day maintenance period (Table 7).

Table 7. Anticipated commute trips during operation and maintenance

Location	Anticipated Number of Workers	Anticipated Worker Commute Trips per Day (one way)	Anticipated Worker Commute Round Trips per Day
Each converter station during operation	12	10	20
Each converter station during maintenance (3-5 days annually)	30	24	48

Impacts to Roadways Based on Existing Conditions

Construction

At the height of traffic during construction of the converter stations, up to 122 trips per day (61 round trips) would be added to roadways in Wasco and Multnomah counties, approximately 2 of which would involve heavy or possibly oversized vehicles. Additionally, at the height of traffic during construction of the underground transmission line, up to 192 additional trips per day (81 round trips) would be added to the roadways in Multnomah County. All analyzed roadways in both Wasco and Multnomah counties had high existing ADT measurements of over 1,000 vehicles a day. Private roads, such as Columbia View Drive on BPA property, are assumed to have low ADTs and increased traffic on these private roads is not expected to impact the public.

Table 8 below provides a summary of current peak hour traffic volumes, projected additional trips, and the resulting changes or impacts to the volume-to-capacity ratios (V/C ratios) on the affected roads during construction. Volume to Capacity (V/C) ratio is a simple way to measure how crowded or busy a road or highway is compared to how much traffic it can handle. The V/C ratio is calculated by dividing the volume by capacity. A V/C ratio of 1.0 indicates that the roadway is operating at capacity. As shown in Table 8, during construction, the V/C ratio on affected roadways would increase slightly, ranging from 0.01 to 0.04. Majority of roadways used during construction are expected to remain well below ODOT's maximum threshold; except North Portland, Interstate 5, N Marine Drive (SR 120) and N Lombard Street, which would exceed maximum V/C ratio threshold. Roadways that exceed the maximum V/C ratio threshold are heavily traveled and operate near or at capacity under existing conditions. Further increase in traffic may lead to longer delays and potential queuing. Despite the minor operational impacts, no significant safety concerns are expected. These roadways are in urban environments where lower travel speeds are common, and drivers are generally familiar with stop-and-go conditions during peak hours.

Table 8. Evaluation Of Trip Impacts On Volume To Capacity Ratios (V/C Ratio) For Roadways Used During Construction

Project Area	Route	Road Classification	Existing Peak Traffic Volume	Peak Hour Road Capacity[3]	Existing V/C Ratio	Estimated Trips Added	With Construction Peak Hour Traffic Volume	With Construction V/C Ratio	Increase in V/C Ratio From Construction	ODOT Maximum V/C Ratio	V/C Ratio Exceeds ODOT Threshold Maximum with Construction
Eastern Converter Station (The Dalles)	Interstate 84 (I-84)	Interstate	2,865	6,536	0.44	98	2,962	0.45	0.01	0.60	No
	U.S. Route 197 (US 197)	U.S. Highway	617	3,458	0.18	122	739	0.21	0.04	0.70	No
	U.S, Route 30 (US 30)	U.S. Highway	494	1,492	0.33	12	506	0.34	0.01	0.75	No
	E. 2nd Street	Local Road	102	3,040	0.03	12	114	0.04	0.00	0.70	No
	Columbia View Drive	County Road	448	3,458	0.13	122	570	0.16	0.04	0.70	No
Western Converter Station (Portland)	Interstate 5 (I-5)	Interstate	8,434	10,260	0.82	98	8,532	0.83	0.01	0.75	Yes
	OR 99E (NE MLK Boulevard)	Oregon Highway	1,587	3,007	0.53	24	1,612	0.54	0.01	0.80	No
	N Marine Drive (SR 120)	Oregon Highway	3,144	3,333	0.94	122	3,266	0.98	0.04	0.80	Yes
	N Leadbetter Road	Local Road	257	3,534	0.07	122	379	0.11	0.03	0.85	No
	N Hayden Island Drive	Local Road	848	3,686	0.23	48	896	0.24	0.01	0.85	No
	N Columbia Boulevard	Local Road	1,346	3,249	0.41	29	1,375	0.42	0.01	0.85	No
	N Ramsey Boulevard[6]	Local Road	Data Not Available							0.85	No
	N Rivergate Boulevard	Local Road	896	3,458	0.26	48	944	0.27	0.01	0.85	No
	N Portland Road (SR 120)	Oregon Highway	974	3,458	0.28	10	984	0.28	0.00	0.85	No

Project Area	Route	Road Classification	Existing Peak Traffic Volume	Peak Hour Road Capacity[3]	Existing V/C Ratio	Estimated Trips Added	With Construction Peak Hour Traffic Volume	With Construction V/C Ratio	Increase in V/C Ratio From Construction	ODOT Maximum V/C Ratio	V/C Ratio Exceeds ODOT Threshold Maximum with Construction
	U.S. 30 Bypass (Lombard St)	U.S. Highway	1,383	1,625	0.85	38	1,421	0.87	0.02	0.85	Yes
	U.S. 30 (NW Saint Helens Rd)	U.S. Highway	2,281	6,840	0.33	48	2,329	0.34	0.01	0.80	No

Notes:

1. Existing peak traffic volumes were conservatively estimated using the highest recorded traffic volume data along the travel routes adjacent to the project site.
2. Traffic data sources include ODOT TransGIS, City of Portland traffic counts, and local transportation plans. Where peak volumes are unavailable, peak volumes are assumed to be 15 percent of average daily trips.
3. Peak hour roadway capacities were estimated using an ideal saturation flow rate of 1,900 passenger cars per hour per lane (pcphpl) from the Highway Capacity Manual (HCM), adjusted for signal timing and truck percentages according to the Oregon Highway Design Manual (ODOT 2025).
4. "With facility" peak traffic volume is calculated by adding existing peak traffic volume plus the number of facility-related truck and car trips assumed to occur during the same timeframes.
5. The increase in V/C ratio from the facility construction is calculated by subtracting the existing V/C ratio from the "with facility" V/C ratio.
6. Traffic data for N Ramsey Blvd were not available. However, based on the local traffic patterns, the V/C ratio for this roadway is unlikely to exceed the maximum threshold.

For road design standards, the maximum weight on interstates is 80,000 pounds per vehicle, except where lower weights are mandated due to bridge strength[1]. In Portland, N Marine Drive and N Columbia Boulevard are designated as industrial roads designed for high volumes of freight traffic.[2,3] N Ramsey Boulevard and N Rivergate Boulevard also have a maximum weight of 80,000 pounds gross weight per vehicle.[4] In Wasco County, there are no clearly defined maximum weight loads. Approximately eight trucks carrying converter station transformers to each converter station would require over-sized load permits. Four large converter station transformers would be shipped to the Port of Portland, loaded onto a specialty truck with many tires to minimize damage to roads, and driven approximately 0.5 miles to the western converter station location. The other four large converter station transformers would be shipped to the Port of Vancouver, loaded onto a barge, offloaded at The Dalles, and transported via specialty truck along local roads to the eastern converter station. The Applicant assumes that the route would be similar to the route used to transport the large converter station transformers to the Celilo converter station near the proposed eastern converter station in the BPA complex. That route is approximately 8 miles through The Dalles at night. No other trucks for this Project are expected to carry loads of over 80,000 pounds gross weight.

The Applicant has been coordinating with the ODOT since 2022 and will maintain coordination throughout the construction of the Project (Attachment 3).

Operation and Maintenance

During operation, there would be an additional 20 commuting vehicle trips per day (10 round trips) to each converter station. During the annual maintenance, there would be an additional 48 commuting vehicle trips per day (24 round trips) to each converter station for the 3- to 5-day maintenance period. Due to relatively low increases to traffic from trip generation during operations and maintenance, it is expected that impacts to traffic during operations would be minimal.

Mitigation Measures

Before construction, the construction contractor would consult with Wasco County, City of Portland, and ODOT to determine if segments of any roadway or bridges are restricted for travel and obtain any permits required.

Because state highways are built to accommodate overweight vehicles with permits, impacts to safety or roadway pavement conditions are not expected. However, pavements managed by ODOT and rated below fair could be impacted by over-dimension vehicles or substantial use. BMPs would be put in place, when needed, to minimize hazards, road closures, disruption of emergency services, and disruption of traffic flow. Examples of these practices include:

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[1] Code of Federal Regulations. 2024. Title 23. Accessed October 2024: https://www.ecfr.gov/current/title-23/chapter-I/subchapter-G/part-658.

[2] City of Portland. 2024. PBOT StreetsPDX. Accessed October 2024: https://pbotapps.portland.gov/streets-pdx/streets?extent=-13687224.855598854,5709320.68039277,-13648738.811857319,5730493.737227736.

[3] City of Portland. 2024. PBOT StreetsPDX, Industrial Roads. Accessed October 2024: https://pbotapps.portland.gov/streets-pdx/street-types/industrial-road.

[4] City of Portland. 2025. TRN-2.07 – Over-Dimensional Permits. Accessed February 2025: https://www.portland.gov/policies/transportation/traffic/trn-207-over-dimensional-permits.

- Use signage denoting a construction entrance and warning slowing and turning traffic.
- Coordinate the timing and locations of road closures or oversize load movements in advance with emergency services such as fire, paramedics, and essential services such as mail delivery and school buses.
- Maintain emergency vehicle access to private property.
- Minimize movements of normal heavy trucks (dump trucks, concrete trucks, standard size tractor-trailers or flatbeds, etc.; essential deliveries only) and prohibit movements of oversize trucks, to the extent practicable, during peak traffic times.
- Develop plans, as required by city, county, or state permit, to accommodate traffic where construction would require closures of city, state, or county maintained roads for longer periods.
- Post signs on city, county, and state maintained roads, where appropriate, to alert motorists of construction and warn them of slow, merging, or oversize traffic.
- Maintain at least one travel lane at all times so that roadways will not be closed to traffic due to construction vehicles entering or exiting public roads.

With the above measures, no significant adverse impacts to traffic safety or road conditions are expected from construction of the Project.

During operation, up to 12 permanent employees and up to 30 temporary supplemental employees would commute to each converter station in personal vehicles. The relatively low volume of Project operations and maintenance traffic when compared to the current traffic is not expected to impact traffic safety or road conditions.

Other Major Public Infrastructure Projects in the Columbia River Corridor

The Hood River-White Salmon Interstate Bridge Replacement project may overlap with the in-water placement of the HVDC transmission cables in this portion of the Columbia River. This bridge is a major conduit in the region, as it serves an average of 4 million users annually[5] and connects Hood River County, Oregon to Klickitat County, Washington. Construction of the new bridge and demolition of the old bridge are scheduled to occur between 2025 and 2031.[6] While these two projects would require some coordination, placement of the in-water transmission cables in the area of the Hood River-White Salmon Bridge is expected to take less than 1 day (the hydroplow can place up to 1 mile of cable per day; see the Background Information Exhibit for more details) and would not interrupt work conducted on the bridge project. The Applicant has initiated coordination with the Hood River-White Salmon Bridge Authority and will maintain coordination throughout the construction of the Project (Attachment 4).

The Interstate Bridge Replacement Program (I-5 bridge replacement) is a vital transportation route over the Columbia River that may overlap with construction of the proposed Project. The bridge

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[5] Port of Hood River. 2024. “Hood River Bridge.” Accessed October 2024: https://www.portofhoodriver.com/hood-river-bridge.

[6] Hood River Bridge-White Salmon Bridge Replacement. 2024. “About the project.” Accessed October 2024: https://hoodriverbridge.org/about.

connects ports in Portland, Oregon and Vancouver, Washington, and in 2019, served approximately 13,500 trucks daily.[7] Bridge construction is expected to start in 2026, which overlaps with the construction timeline of the proposed Project (ODOT and WSDOT 2024). While these two projects would require some coordination, placement of the in-water transmission cables in the area of the I-5 bridge is expected to take less than 1 day (hydroplow can place up to 1 mile of cable per day; see the Background Information Exhibit for more details) and would not interrupt work conducted on the bridge project. The Applicant has initiated coordination with the Interstate Bridge Replacement Program and will maintain coordination throughout construction of the Project (Attachment 4).

Operation of the Project is not expected to impact construction or operation of either the Hood River-White Salmon Bridge or the I-5 bridge because the in-river transmission cables would be below the riverbed surface and adjacent to the navigation channel. The Project alignment is currently sited to be approximately equidistant between bridge footings of both the Hood River-White Salmon Bridge and the I-5 bridge. If maintenance of the in-water transmission cables is needed, it would be coordinated with the proper authorities to avoid any issues with major infrastructure projects.

At the time of preparing this exhibit, no other large projects have been identified that could potentially interact with the Project. The Applicant has been conducting regular community and industry outreach in the communities surrounding the Project since 2022 and will continue to monitor for large projects to ensure coordination occurs.

In-Water Transportation and Traffic Safety

For in-water HVDC cable installation, the cables would be delivered via the installation vessel (ship or barge) from overseas into the Port of Portland. While the width and depth of the Columbia River varies, the navigation channel is maintained at approximately 600 feet wide and 43 feet deep. As observed on Marine Traffic[8] and aerial imagery, most vessels travel in single file eastbound or westbound lanes in wider portions of the river, particularly near the Portland, Oregon and Vancouver, Washington ports. In narrower areas, vessels do not transport beside each other but instead travel along these narrow corridors one by one.

Other crafts that may navigate the Columbia River include oil tankers, tugs, towing oil barges, recreational boats, fishing vessels, passenger vessels, and cargo ships (Ecology 2017). Approximately 180 oil tankers, tug barges, and tugs towing oil barges deliver gas and fuel to Oregon and Washington each year. Furthermore, over 240 tugs with tank barges transport petroleum from Portland, Oregon and Vancouver, Washington upstream to eastern Washington, Oregon, and Idaho. Approximately 1,300 cargo ships, transporting grain, logs, cement, steel, chemicals, and other goods, are estimated to travel the Columbia River each year (Ecology 2017). Most traffic that occurs between The Dalles and Vancouver, Washington, includes the transport of grain, fertilizer, petroleum products, forest products, and sand and gravel aggregates (USDA n.d.). The size of vessels on the Columbia River ranges from small, recreational boats to large container ships.

During construction, potential in-water traffic would be minimized through compliance with existing recreation, navigation, and barge interaction regulations. Vessel traffic would be coordinated through

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[7] ODOT and WSDOT. 2023. “About the Program: The Case for IBR.” Interstate Bridge Replacement Program. Accessed October 2024: https://www.interstatebridge.org/case4IBR.

[8] Marine Traffic. 2023.Available at: https://www.marinetraffic.com/en/ais/home/centerx:-122.5/centery:45.6/zoom:11.

the U.S. Coast Guard (USCG) local notices to mariners. The Applicant anticipates minimal to no impact to in-water traffic based on required USCG coordination and management given its affiliate's experience with USCG on other projects (Hudson). On the Hudson project, the marine contractors were required to give advanced notice of in-water work to the local USCG district office, the USCG in turn would use this information to issue a Notice to Mariners alerting marine traffic in the vicinity of the work. The USCG Northwest (formerly District 13) would be contacted prior to construction; see the Navigation Center webpage for Local Notices to Mariners by CG District (https://navcen.uscg.gov/local-notices-to-mariners-by-cg-district) for process and regulations. Impacts to water recreation during construction are expected to be minimal (see the Recreation Exhibit); the in-water work would be conducted during times of low recreation use (in-water work windows). As such, no substantial impacts are expected to occur to water transportation in and out of the Port of Portland, as only one installation vessel with materials and a support vessel would be required, as described in the Background Information Exhibit.

Operation of the Project is not expected to impact in-water transportation and traffic. If maintenance of the in-water transmission cables is needed, it would be coordinated with the proper authorities to avoid any transportation or traffic issues as described above in coordination with the USCG.

Air Transportation

The construction of aboveground structures at the converter stations would involve using a crane to install equipment. The western converter station is proposed within the City of Portland's Airport Landing overlay zone. The lowest height restriction at the proposed western converter station site is 890 feet.[9] The expected maximum height of the construction crane is 150 feet, and the maximum operational height of aboveground converter station components is 60 feet, which are below the overlay zone's height restriction. The proposed location of the eastern converter station is not subject to zoning-related height restrictions. Establishing the eastern converter station in an area adjacent to existing critical energy infrastructure with greater heights would not create or cause interference with radar line of sight. Outdoor lighting at the converter station would be kept to the minimum required for safety; motion sensors would be installed, if required, to reduce lighting when an area is not in use; and lighting would be directed downward and inward to prevent off-site glare (see the Land Use Exhibit). In addition, the Facility is not anticipated to be an applicable development or use subject to Wasco County's Military Airspace Overlay Zone (OZ-15) regulations. The Military Airspace Overlay Zone ensures early coordination with the Department of Defense when development projects represent potential encroachment to military airspace designated for military training and transport activities. The Applicant is coordinating with the Department of Defense (see the Land Use Exhibit).

[9] City of Portland Personal Communication between Ruthann Richards of HDR and Thomas Soppe with City of Portland, October 14, 2024.

Because the proposed converter stations are more than 20,000 feet from an airport and Project components are shorter than 200 feet)[10], the Applicant need not complete an airspace analysis[11] for the Federal Aviation Administration (FAA).

Therefore, in terms height and glare, proposed Project converter stations are expected to have no impact on air transportation.

3.1.2.7 Law Enforcement

Various law enforcement service providers support the Project. The Applicant does not anticipate that the construction and operation of the Project will impact law enforcement services in communities outside the Portland, Oregon, metro area and The Dalles, Oregon, micro area. Between these locations, the Project's construction and operation will primarily involve the installation and management of components buried in the bed of the Columbia River, which will not generate demand for law enforcement services (e.g., due to vandalism or other crimes during construction or operations) since these activities will take place on and within the Columbia River. Therefore, law enforcement providers in those areas were not contacted.

During construction and operation of the converter stations, the Applicant will provide 24-hour on-site security cameras and secure the areas with fencing and effective communications will be established between on-site security personnel and the local law enforcement jurisdiction.

The proposed eastern converter station will be within the jurisdiction of the Wasco County Sheriff's Department and the City of Dalles Police Department. Both the Wasco County Sheriff's Department and the City of Dalles Police Department have indicated that the construction and operation of the Project will not impact their ability to provide police services to their respective districts (Attachment 5). Additional law enforcement services are available through the Oregon State Police, who have an office in The Dalles.

The proposed western converter station will be within the jurisdiction of the Portland Police Bureau. The Applicant has communicated with the Portland Police Bureau on multiple occasions and has not yet received a response (Attachment 5). Additional law enforcement service is available through the Oregon State Police who have an office south of Portland in Milwaukie, Oregon.

3.1.2.8 Fire Protection

The Applicant does not anticipate that the construction and operation of the Project will impact fire protection services in communities outside of the Portland, Oregon, metro area and The Dalles, Oregon, micro area. Between these locations, the Project's construction and operation would primarily involve the installation and management of components buried in the bed of the Columbia River, which would not present a fire risk since these activities will take place primarily on or within the Columbia River. Therefore, the Applicant did not contact fire protection providers in this area.

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[10] State of Oregon. 2024. Oregon Airspace and Tall Structures. Accessed October 2024: https://www.oregon.gov/aviation/plans-and-programs/pages/tall-structures.aspx

[11] State of Oregon. 2024. Oregon Airspace and Tall Structures. Accessed October 2024: https://www.oregon.gov/aviation/plans-and-programs/pages/tall-structures.aspx

The western converter station would be within the jurisdiction of Portland Fire and Rescue that is responsible for providing fire protection services in Portland city limits and Hayden Island. The Applicant has communicated with Portland Fire and Rescue and has not yet received a response (Attachment 6). When a response is received, the Applicant will update Attachment 6.

The eastern converter station would be primarily within the jurisdiction of Mid-Columbia Fire and Rescue. Mid-Columbia Fire and Rescue is responsible for providing fire protection services for approximately 107 square miles of Wasco County. The Applicant has communicated with Mid-Columbia Fire and Rescue and received confirmation from the agency that they provide fire protection services to the area, including the BPA Starr Complex. Attachment 6 includes a record of correspondence with the Mid-Columbia Fire and Rescue confirming that the construction and operation of the Project, including all proposed facilities, would not impede their abilities to provide emergency services unless temporary road closures would occur. As stated above, the Applicant will coordinate the timing and locations of road closures or oversize load movements in advance with emergency services such as fire, paramedics, and essential services such as mail delivery and school buses to minimize impacts to service providers. In addition, BPA has a working relationship with Mid-Columbia Fire and Rescue but does not have formal arrangements/contracts with them.

To reduce the potential for construction-related fires, the Applicant has prepared a draft fire prevention and suppression plan to ensure that fire prevention and suppression measures are carried out in accordance with federal, state, and local regulations. In addition, the site would be cleared and graded prior to work commencing to clear vegetation (see the Wildfire Prevention and Risk Mitigation Exhibit).

During operation, the converter stations would be equipped with fire protection systems and equipment in accordance with Oregon Fire Code and their respective jurisdictions - municipal code in Portland for the western converter station and Wasco County Code for the eastern converter station (see the Background Information Exhibit). Given the inherent fire safety features of the converter stations and that significant adverse impacts related to wildfires is not likely, significant demands on fire protection resources are not anticipated (see the Wildfire Prevention and Risk Mitigation Exhibit).

3.1.2.9 Healthcare

The hospital nearest to the eastern converter site is Adventist Health Columbia Gorge, located approximately 4.5 miles from the facility at 11700 E 19th Street in The Dalles. Ambulance service is provided by Mid-Columbia Fire and Rescue. The closest station is Mid-Columbia Fire and Rescue Station 2, which is approximately 1.4 miles from the eastern converter station. Emergency airlift provides service from Life Flight Network at Dallesport, which is approximately 3 air miles from the eastern converter station (Life Flight Network 2024). The western converter site is located approximately 9 miles from the Legacy Good Samaritan Medical Center at 1015 NW 22nd Avenue in Portland. The Applicant reached out to the Health Officer Operations Manager at Multnomah County Health Department who indicated that multiple service providers serve Multnomah County (Attachment 7). At the eastern edge of the county near Cascade Locks, the Cascade Locks Fire and Ambulance provide service to approximately mile marker 36 on I-84. From there, American Medical Response (AMR) Northwest, provides ground response ambulance services. EMS first response would come from Corbett Fire, Gresham Fire, Port of Portland Fire, and City of Portland Fire. In addition, both Port of Portland Fire, and City of Portland operate rescue boats on the river. Life Flight

Network provides emergency airlift service from the Aurora State Airport, approximately 25 miles south of the western converter station. Given the number of EMS providers in Multnomah County, the number of roads available for access, availability of air ambulance, and that the Applicant will coordinate the timing and locations of road closures or oversize load movements in advance with emergency services such as fire, paramedics, and essential services such as mail delivery and school buses to minimize impacts to service providers, impacts to health care providers and EMS services should be minimal.

Impacts on local health care services during both construction and operation would be minimized by careful management of site health and safety risks. The approximate number of temporary employees during construction and permanent and temporary employees during operations and maintenance is not expected to place significant new demands on the healthcare facilities that serve the facility areas.

3.1.2.10 Schools

Dry Hollow Elementary School, The Dalles Middle School, and The Dalles High School are the public schools nearest to the eastern converter station location. Sitton Elementary School, George Middle School, and Roosevelt High School are the schools nearest to the western converter station location.

No significant adverse impacts to schools are anticipated during facility construction and operation. Construction would be temporary and short term (36 months) at both converter station locations, and much of the peak work period would occur during the summer months when school is not in session. Consequently, existing students would not be impacted, and children of workers are not expected to relocate to the area during construction.

During facility operations, there would be minimal (if any) increase in the local school populations due to the small number of permanent employees (12 at each converter station), most of whom are expected to be from the local area.

3.1.3 Proposed Monitoring Programs (OAR 345-022-0110(4)(a)(E))

(E) The applicant's proposed monitoring program, if any, for impacts to the ability of the providers identified in (B) to provide the services listed in OAR 345-022-0110.

RESPONSE

Since no adverse impacts are anticipated during either the construction or operations phases of the proposed Project, no monitoring program is proposed.

4 Materials Analysis (OAR 345-022-0110)(4)(b)(A) through (C)

A materials analysis is included in the Soil Protection Exhibit. The materials analysis in the Soil Protection Exhibit addresses the following:

(A) An inventory of substantial quantities of industrial materials flowing into and out of the proposed facility during construction and operation;

(B) The applicant's plans to manage hazardous substances during construction and operation, including measures to prevent and contain spills; and

(C) The applicant's plans to manage non-hazardous waste materials during construction and operation.

5 Conclusions

For the reasons set forth in this exhibit, the Applicant does not anticipate that the construction and operation of the proposed Project would significantly impact the ability of public or private providers to provide the services listed in OAR 345-022-0110.

6 References

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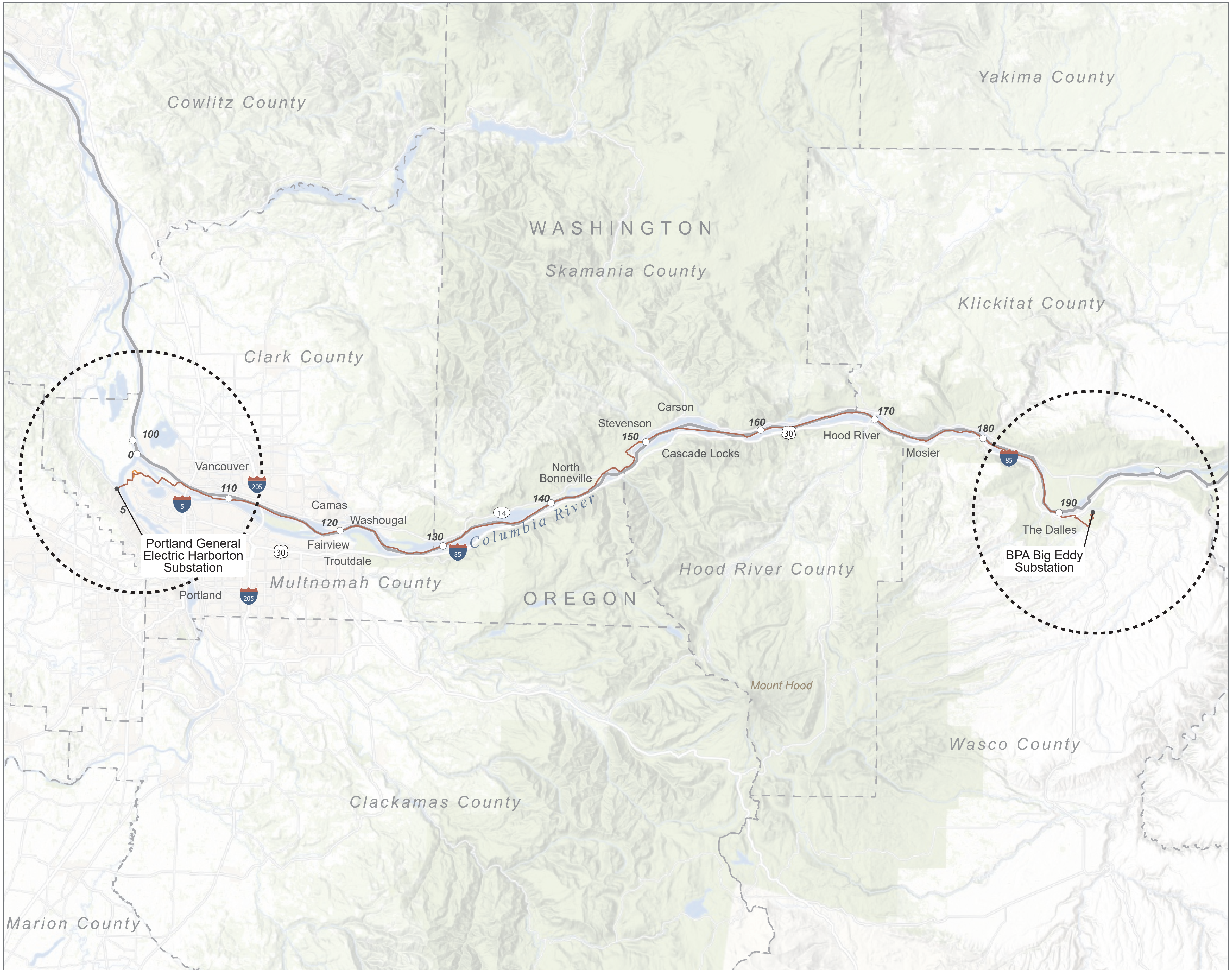
7 Figures

FIGURE 1
ANALYSIS AREA

FOR INFORMATION ONLY - CONCEPT DRAWING

- PROPOSED ALIGNMENT
- ALTERNATIVES
- RIVER MILES (USACE)
- COUNTY BOUNDARY
- STATE BOUNDARY
- EXHIBIT U ANALYSIS AREA (10 MI)



CASCADE RENEWABLE TRANSMISSION

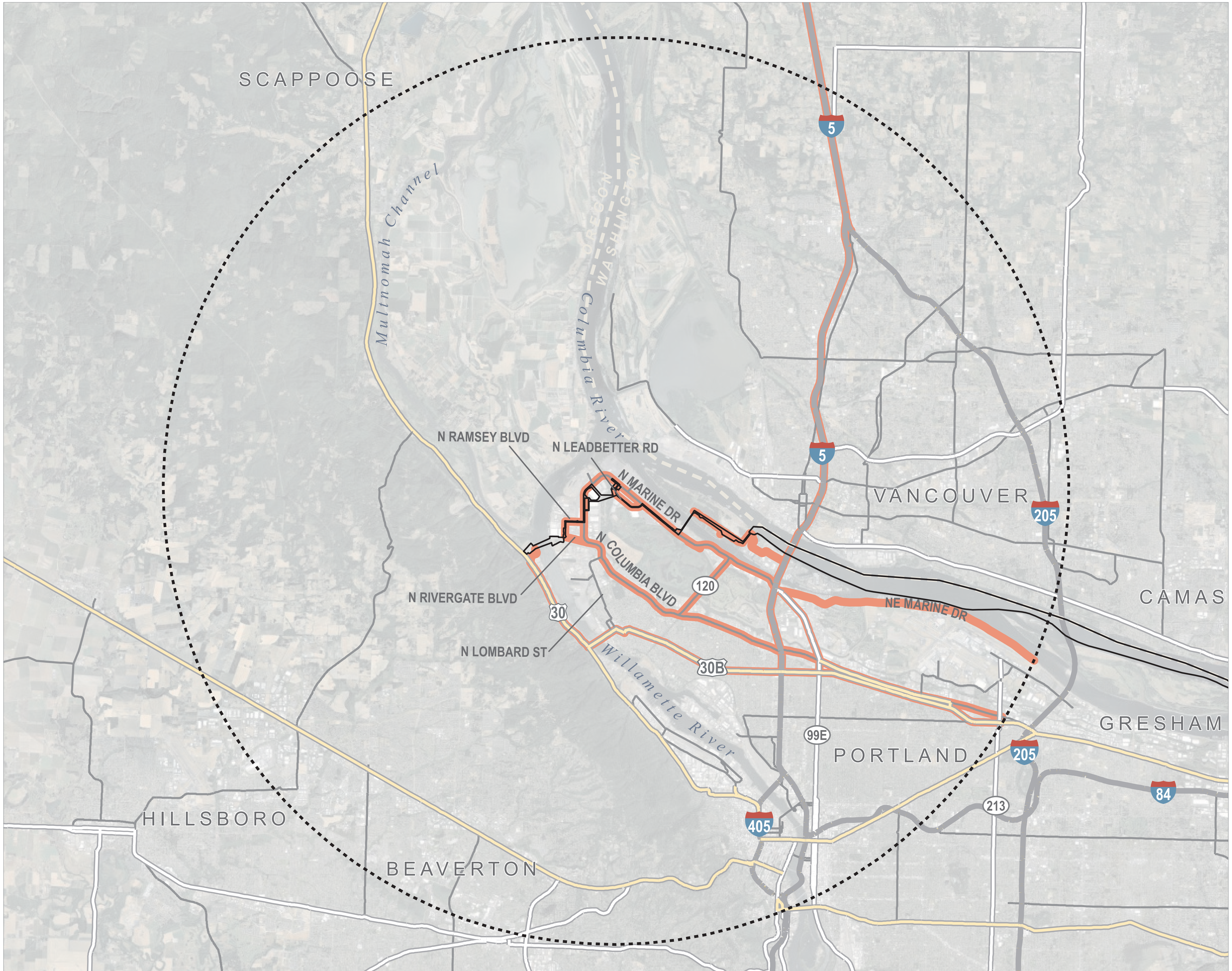
0 10 mi
1:525,000

10/14/2025 NAD 1983 State Plane Oregon North Feet Data Sources: Esri, HDR.

FIGURE 2
PRIMARY CONSTRUCTION TRANSPORTATION ROUTES
PAGE 1 OF 3

FOR INFORMATION ONLY - CONCEPT DRAWING

- OREGON EFSC SITE BOUNDARY
- STATE BOUNDARY
- INTERSTATE
- US ROUTE
- STATE ROUTE
- LOCAL ROADS
- EXHIBIT U ANALYSIS AREA (10 MI)
- PRIMARY CONSTRUCTION TRANSPORTATION ROUTES



CASCADE RENEWABLE TRANSMISSION

0 3 mi
1:140,000

12/3/2025 NAD 1983 State Plane Oregon North Feet Data Sources: Esri, HDR.

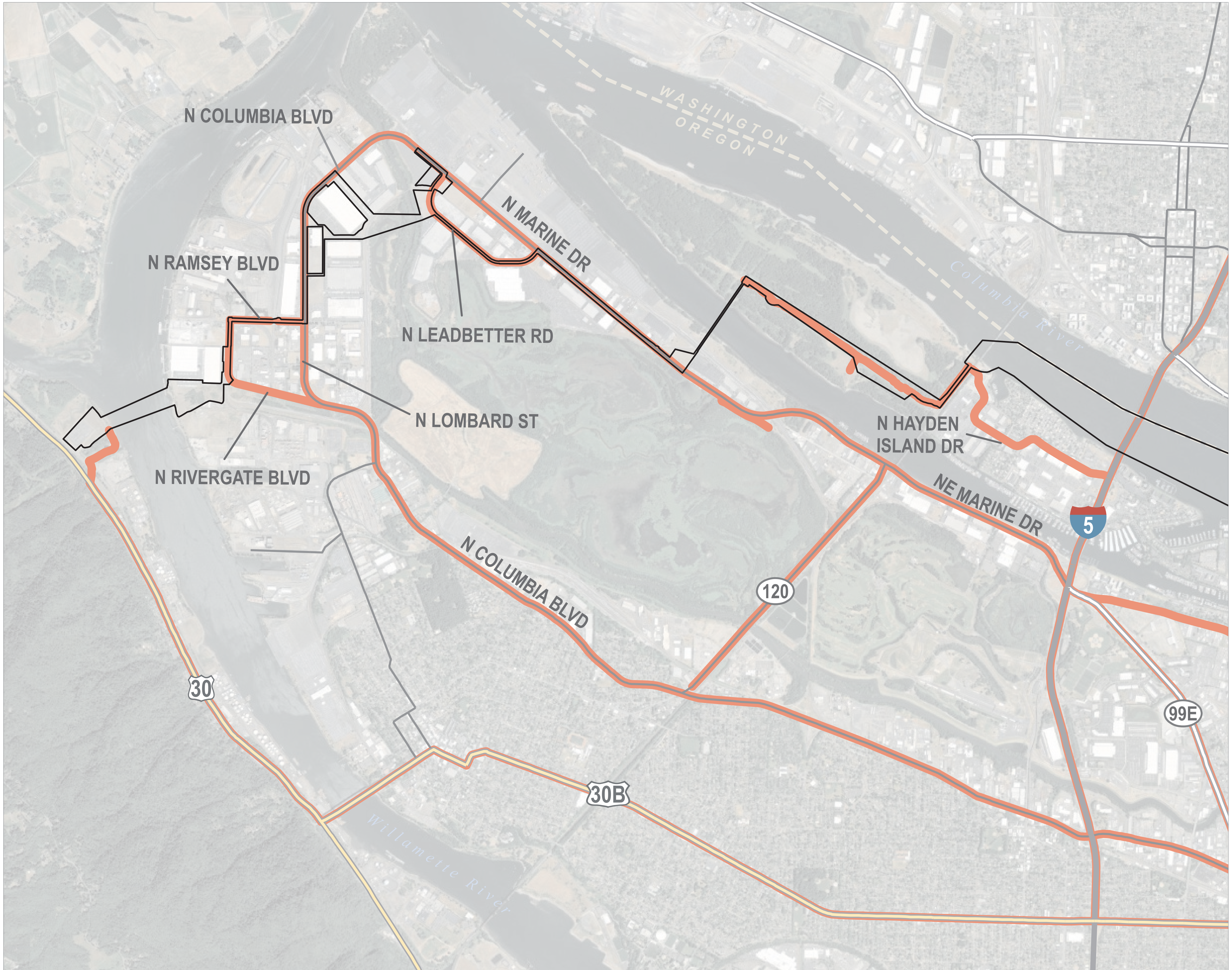
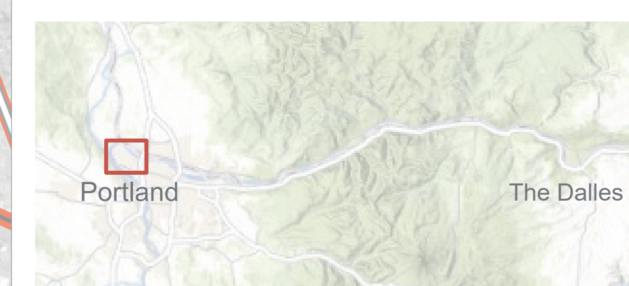


FIGURE 2
PRIMARY CONSTRUCTION TRANSPORTATION ROUTES
PAGE 2 OF 3

FOR INFORMATION ONLY - CONCEPT DRAWING

OREGON EFSC SITE BOUNDARY
STATE BOUNDARY
INTERSTATE
US ROUTE
STATE ROUTE
LOCAL ROADS
EXHIBIT U ANALYSIS AREA (10 MI)
PRIMARY CONSTRUCTION TRANSPORTATION ROUTES

CASCADE RENEWABLE TRANSMISSION



0 0.7 mi
1:35,000

12/3/2025 NAD 1983 State Plane Oregon North Feet Data Sources: Esri, HDR.

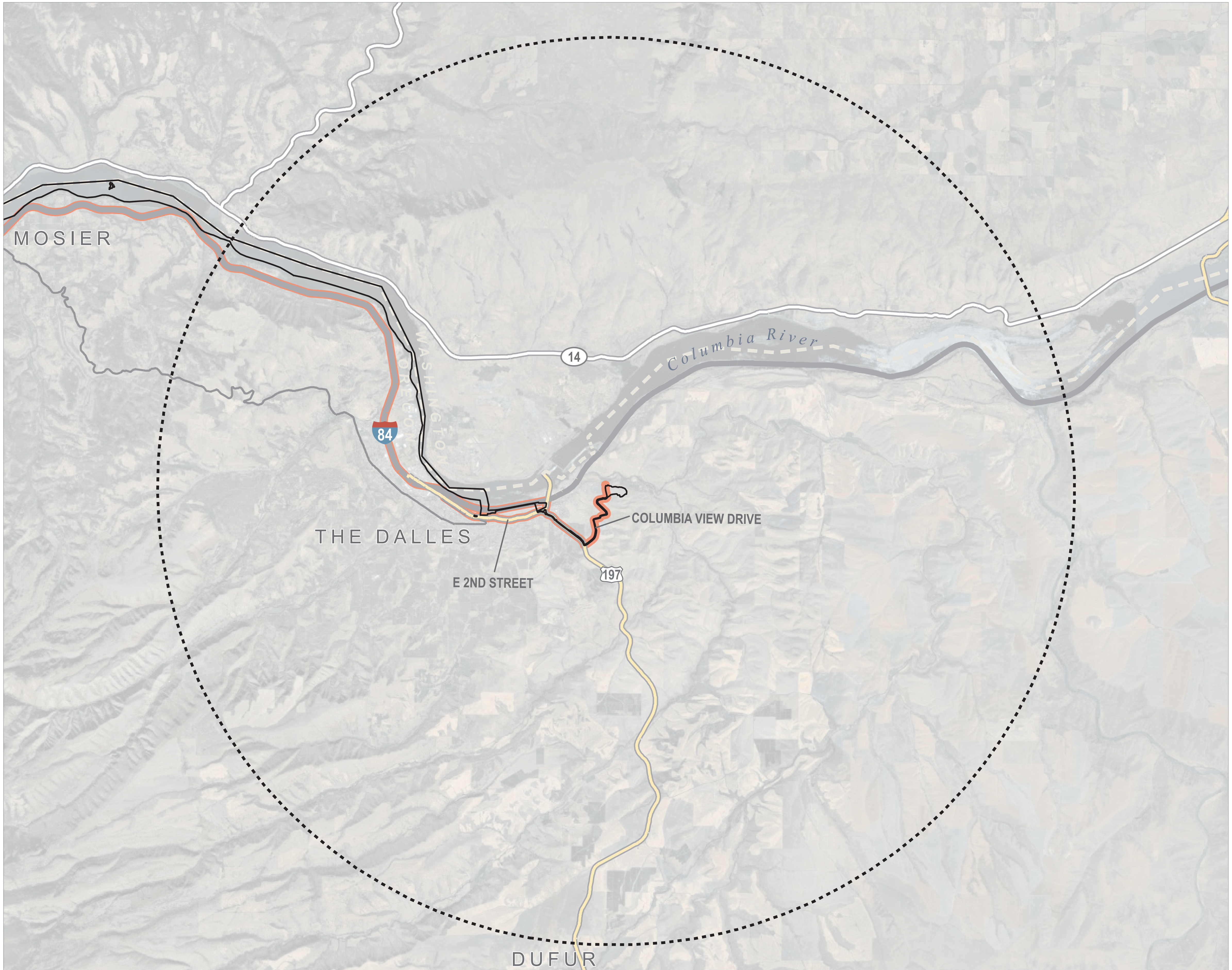


FIGURE 2
PRIMARY CONSTRUCTION TRANSPORTATION ROUTES

FOR INFORMATION ONLY - CONCEPT DRAWING

OREGON EFSC SITE BOUNDARY
STATE BOUNDARY
INTERSTATE
US ROUTE
STATE ROUTE
LOCAL ROADS
EXHIBIT U ANALYSIS AREA (10 MI)
PRIMARY CONSTRUCTION TRANSPORTATION ROUTES

CASCADE RENEWABLE TRANSMISSION

HDR

0 3 mi
1:140,000

12/3/2025 NAD 1983 State Plane Oregon North Feet Data Sources: Esri, HDR.

Attachment 1. Letters from International Brotherhood of Electrical Workers and the International Union of Operating Engineers

IBEW 48
UNION ELECTRICAL WORKERS

International Brotherhood of Electrical Workers
15937 NE Airport Way
Portland, OR 97230

April 9, 2024

Dear Sir or Ma'am,

IBEW Local 48 represents a large jurisdiction of Electrical Workers in Oregon and Washington. Our boundaries start on the West Coast and extend East to the John Day River in Oregon and Alderdale on the Washington side of the Columbia River.

IBEW Local 48 is confident that we are able to provide staffing for Electrical Work in any part of our jurisdiction.

We currently have the following available for work on our referral lists.

- Inside Journey Level – 389
- S&C Journey Level – 61
- Material Handler - 745

The following numbers represent the number of people that are registered with IBEW Local 48 who reside in the following Oregon and Washington counties – Benton, Clackamas, Clark, Columbia, Cowlitz, Hood River, Jefferson, Klickitat, Morrow, Multnomah, Pacific, Sherman, Skamania, Tillamook, Wahkiakum Wasco, Washington, Yakima, Yamhill.

- Inside Journey Level – 4,050
- Inside Wire Apprentice - 818
- S&C Journey Level - 668
- S&C Apprentice - 114
- Material Handler – 1,200 (+/-)

There have been several large projects in the last 4 years in IBEW Local 48's jurisdiction we have successfully fulfilled requests for labor on. Some of these projects include Lund Hill Solar (250+ workers), Data Centers in The Dalles (125+ Workers), Bake Oven Solar (100-200 Workers), Data Centers and High Tech facilities in Hillsboro (1,500-2,500 Workers), and several projects in Columbia County (150-300 Workers), to name a few.

Should you have any questions, please feel free to our office.

Sincerely,

Garth Bachman
Business Manager/
Financial Secretary
GB:lk
OPEIU#11/AFL-CIO

LOCAL 701
iuoe701.com
International Union of Operating Engineers
555 E. First Street, Gladstone, OR 97027
Office: 503-650-7701 | Dispatch: 503-650-7721
Fax: 503-650-7715 | Trust Office: 503-657-9740
JAMES ANDERSON
Business Manager & Financial Secretary

May 13, 2024

To Whom It May Concern:

The International Union of Operating Engineers Local 701 (IUOE Local 701) is a progressive, diversified trade union that primarily represents operating engineers who work as heavy equipment operators, mechanics, surveyors, marine construction, and dredging in the construction industry. The boundaries of IUOE Local 701 cover the entire State of Oregon and the following areas in the State of Washington: The counties of Klickitat, Skamania, Clark, Cowlitz, Wahkiakum and the portion of Pacific County south of a straight line made by extending the north boundary line of Wahkiakum County west to the Pacific Ocean and the Pacific Ocean bordering the territorial jurisdiction.

IUOE Local 701 is certain that we can deliver the Operating Engineers necessary to fulfill the requirements for the type of work that is going to be needed for the Cascade Renewable Transmission Project (CRTP).

We currently have 703 Journey members and 46 Registered Apprentices in the following counties which border the CRTP.

- Washington State: Klickitat, Skamania, and Clark
- Oregon State: Wasco, Hood River, Multnomah

IUOE Local 701 has 3847 Journey members and 100 Registered Apprentices who reside within our jurisdiction.

IUOE Local 701 has a track record of fulfilling the requirements for some of the large projects that have been put in front of them in the area of the CRTP . Some of the projects include Lund Hill Solar Farm, Bake Oven Solar Farm, Day Break Solar Farm, Montague Solar Farm, Wheatridge Wind Farm, Bigalow I, II, III Wind Farms. Leaning Juniper Wind Farm also maintaining the dredging for the Columbia River channel.

If any other questions come up, please feel free to contact our office.

Sincerely,

James Anderson
Business Manager/Financial Secretary
IUOE Local 701

Attachment 2. Landfill Communication

Cavanagh, Suzy

From: Allen, Elizabeth
Sent: Thursday, March 6, 2025 8:48 AM
To: ccarey@recology.com; cpeters@recology.com; CustomerService103@Recology.com
Cc: Cavanagh, Suzy
Subject: Cascade Renewable Transmission Project

Hello,

I am contacting you on behalf of the proposed Cascade Renewable Transmission Project. The proposed project is a 400-kilovolt (kV) high-voltage direct current (HVDC) transmission line that would span approximately 100 miles between The Dalles and Portland.

More information and a map of the project can be found following the link below:

State of Oregon: Facilities - Cascade Renewable Transmission System

HDR Engineering, Inc. is contracted to assist with the Oregon Department of Energy (ODOE) permitting process. To this end, we will provide ODOE with evidence of consultation with local companies we have been in contact with regarding solid waste management services for the project's construction, operation, and decommissioning. **Specifically, we are asking for information confirming if the project's construction, operation, and decommissioning would impact your ability to provide solid waste services and determine if the landfill would have the ability to accommodate waste generated from the project.**

Our current, conservative estimate of non-hazardous waste anticipated for construction in Portland over a 3-year time period is outlined below:

- *Construction*
  Construction of the project would generate a small amount of non-hazardous waste. Anticipated waste materials include scrap metal (e.g., wire and rebar scraps), wood, concrete, concrete washout, and other debris. It is estimated that approximately 2,500 to 5,000 cubic yards of waste would be produced during the construction of the converter station. Approximately 500 to 1,000 cubic yards of waste and approximately 281,556 cubic yards of excavated dirt and rock spoils would be produced during the installation of the underground cables.

- *Operation and Maintenance*
  A small amount of non-hazardous solid waste would be generated during operation and maintenance. This waste is estimated at approximately 1 cubic yard produced weekly at each converter station.

- *Decommissioning*
  The anticipated working lifespan of the project is 50 years. Transformers, converter station equipment, metals, and electrical components are expected to be recycled as scrap during decommissioning. Concrete foundations will be disposed of as construction waste. Any letter

from you to me on the subject will not constitute a contract and you are not obligated to supply waste management services for the facility.

If you could please provide a letter addressing the Cascade Renewable Transmission Project as soon as possible, that would be greatly appreciated. It can be a statement on your letterhead with your signature if you like or even a reply to this email. A mention of when the landfill is projected to reach capacity and how long the current solid waste disposal permit is valid would be great to include.

Thank you in advance and please let me know if you have any questions.

Elizabeth Allen
Environmental Planner II

HDR
412 E. Parkcenter Blvd, Ste 100
Boise, ID 83706
D 208-387-7238 **M** 208-703-5408
elizabeth.allen@hdrinc.com

hdrinc.com/follow-us

Allen, Elizabeth

From: Jocelyn Jones <Jocelyn.Jones@WasteConnections.com>
Sent: Friday, February 28, 2025 5:45 AM
To: Allen, Elizabeth
Subject: Re: RESPONSE NEEDED - Cascade Renewable Transmission Project

Elizabeth,
Wasco can accept this material and has an anticipated life span of 32 years.
Jocelyn

From: Allen, Elizabeth
Sent: Tuesday, February 18, 2025 2:57 PM
To: Jocelynr@wcnx.org
Cc: Cavanagh, Suzy <Suzy.Cavanagh@hdrinc.com>
Subject: RESPONSE NEEDED - Cascade Renewable Transmission Project

Hello,

I am contacting you on behalf of the proposed Cascade Renewable Transmission Project. The proposed project is a 400-kilovolt (kV) high-voltage direct current (HVDC) transmission line that would span approximately 100 miles between The Dalles and Portland.

More information and a map of the project can be found following the link below:

State of Oregon: Facilities - Cascade Renewable Transmission System

HDR Engineering, Inc. is contracted to assist with the Oregon Department of Energy (ODOE) permitting process. To this end, we will provide ODOE with evidence of consultation with local companies we have been in contact with regarding solid waste management services for the project's construction, operation, and decommissioning. **Specifically, we are asking for information confirming if the project's construction, operation, and decommissioning would impact your ability to provide solid waste services and determine if the landfill would have the ability to accommodate waste generated from the project.**

Our current, conservative estimate of non-hazardous waste anticipated for construction near The Dalles over a 3-year time period is outlined below:

1. *Construction*

Construction of the project would generate a small amount of non-hazardous waste. Anticipated waste materials include scrap metal (e.g., wire and rebar scraps), wood, concrete, concrete washout, and other debris. It is estimated that approximately 2,500 to 5,000 cubic yards of waste would be produced during the construction of the converter station. Approximately 500 to 1,000 cubic yards of waste and approximately 114,048 cubic yards of excavated dirt and rock spoils would be produced during the installation of the underground cables.

1. *Operation and Maintenance*

A small amount of non-hazardous solid waste would be generated during operation and maintenance. This waste is estimated at approximately 1 cubic yard produced weekly at the converter station.

1. *Decommissioning*

   The anticipated working lifespan of the project is 50 years. Transformers, converter station equipment, metals, and electrical components are expected to be recycled as scrap during decommissioning. Concrete foundations will be disposed of as construction waste.

Any letter from you to me on the subject will not constitute a contract and you are not obligated to supply waste management services for the facility. <u>If you could please provide a letter addressing the Cascade Renewable Transmission Project as soon as possible, that would be greatly appreciated. It can be a statement on your letterhead with your signature if you like or even a reply to this email.</u> A mention of when the landfill is projected to reach capacity and how long the current solid waste disposal permit is valid would be great to include.

Thank you in advance, and please let me know if you have any questions.

Elizabeth Allen
Environmental Planner II

HDR
412 E. Parkcenter Blvd, Ste 100
Boise, ID 83706
D 208-387-7238 **M** 208-703-5408
elizabeth.allen@hdrinc.com

hdrinc.com/follow-us

Attachment 3. Oregon Department of Transportation Communication

Cavanagh, Suzy

From: Upton, Dick <Richard.Upton@hdrinc.com>
Sent: Monday, August 1, 2022 8:46 AM
To: Chris Hocker
Cc: John Ostrowski; Ernie Griggs; Susan Brown; Bassett, Malia; Dammarell (Connors), Amy
Subject: FW: ODOT letter
Attachments: Hwy Proposed Power Line Letter.pdf

Here is the signed letter for the Dalles! No changes from our original.

Dick Upton
Sr. Project Manager

HDR
660 Hawthorne Ave SE
Suite 220
D 503.423.3704 **M** 503.339.6528
Richard.Upton@HDRInc.com

hdrinc.com/follow-us

From: CIMMIYOTTI Patrick N
Sent: Friday, July 29, 2022 7:37 PM
To: Upton, Dick
Cc: LOPEZ Daniel H ; SHANAHAN Dan T
Subject: RE: Letter attached this time

Dick,

Attached is the signed copy of the letter.

Thanks

From: Upton, Dick
Sent: Thursday, July 21, 2022 8:18 AM
To: CIMMIYOTTI Patrick N
Subject: FW: Letter attached this time

Pat – Have you had a chance to look at the letter and sketch? The attached version came from CRT, the folks we met with. If we captured everything correctly, you can sign this version. If we need modifications, let me know what they are and we'll adjust

Thanks.

Dick Upton
Sr. Project Manager

HDR
660 Hawthorne Ave SE
Suite 220
D 503.423.3704 **M** 503.339.6528
Richard.Upton@HDRInc.com

hdrinc.com/follow-us

From: Chris Hocker <chocker@powerbridge.us>
Sent: Tuesday, July 19, 2022 7:41 AM
To: Upton, Dick <Richard.Upton@hdrinc.com>
Cc: John Ostrowski <jostrowski@powerbridge.us>; Susan Brown <sbrown@powerbridge.us>; Ernie Griggs <egriggs@powerbridge.us>
Subject: Letter attached this time

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Sorry – here's the letter.

Chris Hocker
VP, Planning
PowerBridge, LLC
203-416-5590 (o)
203-417-9684 (m)

CASCADE
RENEWABLE TRANSMISSION

July 18, 2022

Pat Cimmiyotti
Acting District 9 Manager
Oregon Department of Transportation
3313 Bret Clodfelter Way
The Dalles, OR 97058

RE: Power transmission line placement along Oregon Route 197 (OR197) and Federal Route 30 (US30)

Thank you for meeting with CRT LLC in your office and at proposed transmission line locations on June 30, 2022. We appreciate your clarity, assistance, and insights during our visit. This letter is to confirm and memorialize our agreement on a suitable route and construction methods for transmission line placement along OR197 and US30.

As discussed, Cascade Renewable Transmission, LLC, is in the early stages of evaluating an underground transmission line beneath the bed of the Columbia River, referred to as the Cascade Renewable Transmission System (Project). The proposed Project is a high-voltage direct current (HVDC) 1,100-megawatt (MW) electric transmission facility interconnecting the existing Bonneville Power Administration (BPA) Big Eddy 500-kilovolt (kV) AC substation located in The Dalles, Oregon (Eastern Interconnection), and the existing Portland General Electric (PGE) Harborton 230-kV substation located in Portland, Oregon (Western Interconnection). The 1,100-MW HVDC project would follow a east-west route primarily buried under the bed of the Columbia River.

The transmission line will have portions on land at both ends and around Bonneville Dam, in Washington State. The land portion at the east end is in The Dalles along OR197 and US30, as depicted in the attached sketch titled "Transmission Line Route: OR197 & US30". The transmission line will be underground and placed by either open trenching/back fill or horizontal directional drilling (HDD). CRT, LLC understands that ODOT does not allow utilities beneath the active roadway section or in locations that would impair the State's ability to operate and maintain the highway system.
The placement we agreed to from south to north includes:

- Placing the transmission line by open trenching at base of fill or in ditch lines along most of the approximately 1.3-mile route from the Celilo Complex access road to E. 2nd Street as depicted in the attached sketch.
- HDD across the OR197 from southeast ditch at the intersection of Fremont Street/Columbia View Drive to the northwest ditch.
- HDD across OR197 to the triangular median in the OR197/US30 intersection, then again along US30 to the vacant lot ODOT owns west of Big Jim's Diner.
- Open trench across the vacant lot to East 2nd Street which is local jurisdiction.

In the HDD segments, the transmission line will either be placed outside the guardrail or deep enough to not interfere with guardrail posts. In general, we will employ best efforts to keep the bore outside the guard rail system with the exception of when needed to meet the temporary intermediate drill pit as indicated on the drawing. For this section, the bore will intrude under the paved roadway in order to achieve the required arc to follow the roadway.

At the box culvert south of the OR197/US30 intersection, the transmission line will be over the box culvert then a retaining wall would be built that spans the culvert to retain fill to cover the transmission line.

If you concur with this description of the route and construction methods described, please sign below and return a copy of this letter to me at the address provided in the letterhead or by email to chocker@PowerBridge.us

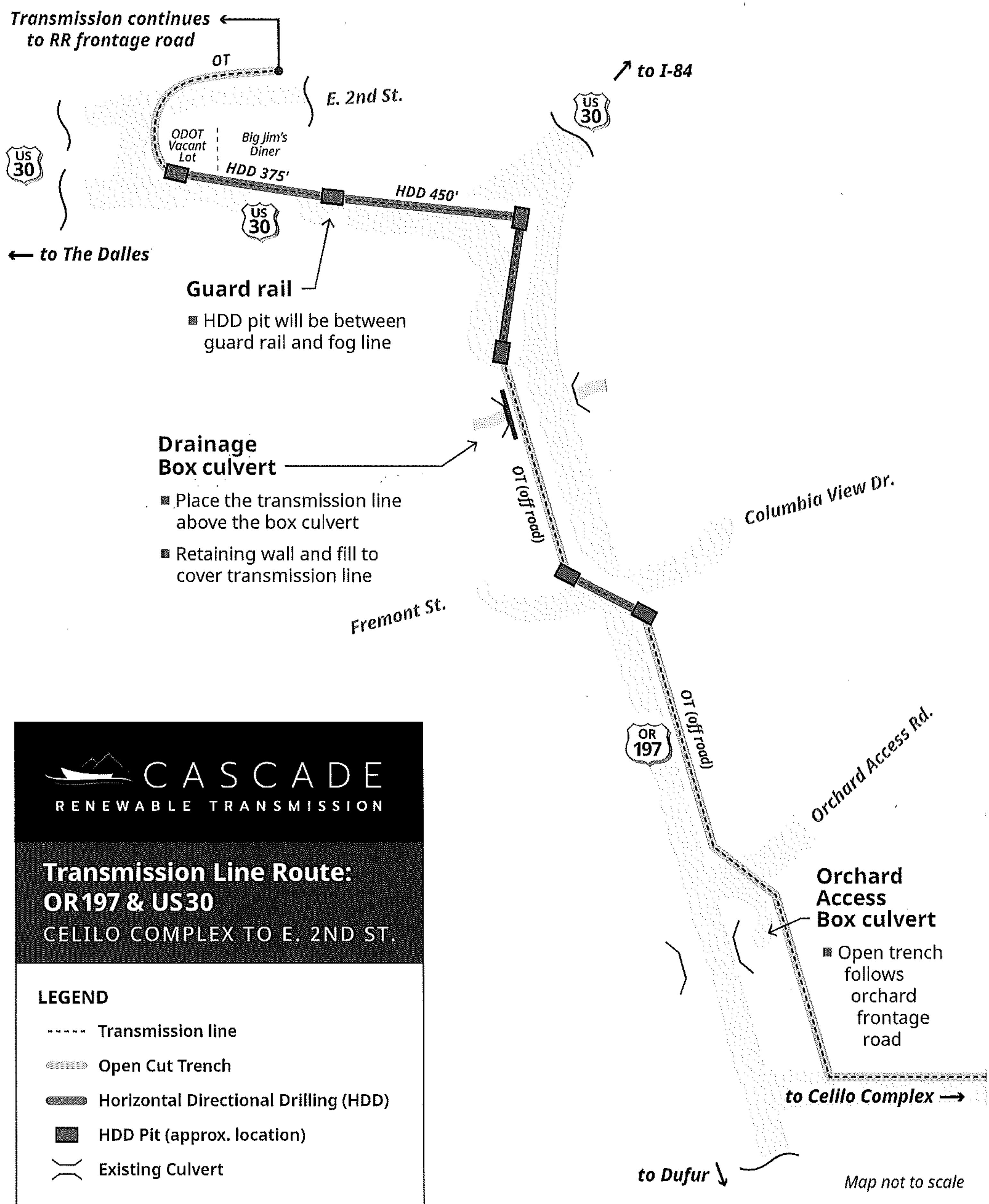
Sincerely,

Christopher Hocker
Vice President of Planning

Date: 7/29/22

Pat Cimmiyotti
Acting District 9 Manager
Oregon Department of Transportation
3313 Bret Clodfelter Way
The Dalles, OR 97058

My signature above confirms District 9 support of placing the proposed utility as shown on the attached conceptual drawing. Details of the placement as the exact location, depth and other conditions will be determine through the district permitting process.



Transmission continues to RR frontage road
OT
E. 2nd St.
to I-84
US 30
ODOT Vacant Lot
Big Jim's Diner
HDD 375'
HDD 450'
US 30
US 30
to The Dalles
Guard rail
HDD pit will be between guard rail and fog line
Drainage Box culvert
Place the transmission line above the box culvert
Retaining wall and fill to cover transmission line
OT (off road)
Columbia View Dr.
Fremont St.
OT (off road)
OR 197
Orchard Access Rd.
Orchard Access Box culvert
Open trench follows orchard frontage road
to Celilo Complex
to Dufur
Map not to scale
CASCADE
RENEWABLE TRANSMISSION
Transmission Line Route: OR197 & US30
CELILO COMPLEX TO E. 2ND ST.
LEGEND
Transmission line
Open Cut Trench
Horizontal Directional Drilling (HDD)
HDD Pit (approx. location)
Existing Culvert

Cavanagh, Suzy

From: SHANAHAN Dan T <Dan.T.SHANAHAN@odot.oregon.gov>
Sent: Tuesday, October 17, 2023 3:39 PM
To: Bassett, Malia; theodore.c.miller
Cc: Rodriguez Torres, Marcela; John Ostrowski; Ernie Griggs; daniel.h.lopez; Chris Hocker; Susan Brown; Cavanagh, Suzy; Spellecacy, Ronalee R.
Subject: RE: Cascade Renewable Transmission Project - ODOT Informative Meeting

Hi Malia,

I am open to meeting virtually, I had just accepted this position when you met with Pat so our current Permit's Specialist was at the meeting and has notes on it as well. I know we had a tentative plan for the interchange but the crossing for i-84 was undetermined but I see it now in the .kmz file. It does appear you are in the ROW of our interstate there and attempting to cross near the exit 85 overpass if I am reading that correctly. Is that the intent?

Let me know when you would like to meet.

Thanks,

Dan Shanahan
District 9 Manager

Oregon Department of Transportation
Phone: 541.296.2927 Mobile: 503.881.0582
3313 Bret Clodfelter Way, The Dalles, OR 97058
Email: dan.t.shanahan@odot.oregon.gov

From: Bassett, Malia <Malia.Bassett@hdrinc.com>
Sent: Tuesday, October 17, 2023 2:15 PM
To: SHANAHAN Dan T <Dan.T.SHANAHAN@odot.oregon.gov>; MILLER Theodore C <Theodore.C.MILLER@odot.oregon.gov>
Cc: Rodriguez Torres, Marcela <Marcela.Rodriguez@hdrinc.com>; John Ostrowski <jostrowski@powerbridge.us>; Ernie Griggs <egriggs@powerbridge.us>; Chris Hocker <chocker@powerbridge.us>; Susan Brown <sbrown@powerbridge.us>; Cavanagh, Suzy <Suzy.Cavanagh@hdrinc.com>; Spellecacy, Ronalee R. <ronalee.spellecacy@hdrinc.com>
Subject: Cascade Renewable Transmission Project - ODOT Informative Meeting

Hi Dan,

We are following up on questions/comments raised by you and Ted during the 9/18/23 Agency Coordination Kickoff Meeting for the Cascade Renewable Transmission (CRT) Project. We would like to discuss the concerns that came up during the meeting, particularly the 197-30 Interchange coordination we had with Pat Cimmiyotti before he retired (signed letter attached). I am also attaching a KMZ of the proposed alignment to help you orient with the sketch in the letter.

Would you be amenable to a virtual meeting? If so, I can send out a poll to get a good date/time down for everyone.

Thank you,

Malia Bassett (she/her), AICP
Senior Environmental Planner

HDR
600 University Street, Suite 500
Seattle, WA 98101
M 253.432.6166
malia.bassett@hdrinc.com

hdrinc.com/follow-us

Cavanagh, Suzy

From:	Bassett, Malia
Sent:	Tuesday, October 17, 2023 3:15 PM
To:	dan.t.shanahan; theodore.c.miller
Cc:	Rodriguez Torres, Marcela; John Ostrowski; Ernie Griggs; Chris Hocker; Susan Brown; Cavanagh, Suzy; Spellecacy, Ronalee R.
Subject:	Cascade Renewable Transmission Project - ODOT Informative Meeting
Attachments:	2022-07-18_CRT Hwy 197-30_Letter.pdf; CRTS_DRAFT_ProposedAlignment_2023_1001.kmz

Hi Dan,
We are following up on questions/comments raised by you and Ted during the 9/18/23 Agency Coordination Kickoff Meeting for the Cascade Renewable Transmission (CRT) Project. We would like to discuss the concerns that came up during the meeting, particularly the 197-30 Interchange coordination we had with Pat Cimmiyotti before he retired (signed letter attached). I am also attaching a KMZ of the proposed alignment to help you orient with the sketch in the letter.

Would you be amenable to a virtual meeting? If so, I can send out a poll to get a good date/time down for everyone.

Thank you,

Malia Bassett (she/her), AICP
Senior Environmental Planner

HDR
600 University Street, Suite 500
Seattle, WA 98101
M 253.432.6166
malia.bassett@hdrinc.com

hdrinc.com/follow-us

Cavanagh, Suzy

From: SHANAHAN Dan T <Dan.T.SHANAHAN@odot.oregon.gov>
Sent: Tuesday, January 30, 2024 6:59 AM
To: John Ostrowski
Cc: Ernie Griggs
Subject: RE: Site Visit

HI John,

What days were you thinking? I have some commitments the afternoon of the 6th and all day the 7th.

Thanks,

Dan Shanahan
District 9 Manager

Oregon Department of Transportation
Phone: 541.296.2927 Mobile: 503.881.0582
3313 Bret Clodfelter Way, The Dalles, OR 97058
Email: dan.t.shanahan@odot.oregon.gov

From: John Ostrowski
Sent: Tuesday, January 30, 2024 5:41 AM
To: SHANAHAN Dan T
Cc: Ernie Griggs
Subject: Site Visit

Good Morning Dan:

Hope all is well with you and that you have had a good start to 2024.

Some CRT team members will be in the area next week for Washington public meetings. Ernie and I will be using some hours to revisit various work locations to confirm design and coordination needs for the project. One of our stops will be in The Dalles and we wanted to meet with you if that would be possible. We plan to be in that area on Tuesday Feb 6th to look at the marine HDD area along with the route down Rte 197 and would appreciate a site meeting with us.

Please let me know if you have any times convenient for your schedule.

Looking forward to seeing you there.

Regards,

John Ostrowski

PowerBridge, LLC
Vice President, Construction
201-968-8139 (Mobile)

Cavanagh, Suzy

From: John Ostrowski <jostrowski@powerbridge.us>
Sent: Thursday, February 8, 2024 10:26 AM
To: Cavanagh, Suzy; Dammarell (Connors), Amy; Chris Hocker; Susan Brown; Ernie Griggs
Subject: Fwd: I84 Corridor

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

More info

Sent from my O Phone

Begin forwarded message:

> **From:** LOPEZ Daniel H <Daniel.H.LOPEZ@odot.oregon.gov>
> **Date:** February 8, 2024 at 9:20:30 AM PST
> **To:** John Ostrowski <jostrowski@powerbridge.us>
> **Cc:** PETERS Scott <Scott.PETERS@odot.oregon.gov>, SHANAHAN Dan T <Dan.T.SHANAHAN@odot.oregon.gov>
> **Subject: RE: I84 Corridor**
>
> John,
>
> This link has the Variance request and other utility forms. https://www.oregon.gov/odot/Maintenance/Pages/Permits.aspx
>
> Daniel H. Lopez
> ODOT-District 9 - Permits
> 3313 Bret Clodfelter Way
> The Dalles, OR, 97058
> C: 541.980.3770
>
> ---
>
> **From:** John Ostrowski <jostrowski@powerbridge.us>
> **Sent:** Thursday, February 8, 2024 8:51 AM
> **To:** SHANAHAN Dan T <Dan.T.SHANAHAN@odot.oregon.gov>
> **Cc:** PETERS Scott <Scott.PETERS@odot.oregon.gov>; LOPEZ Daniel H <Daniel.H.LOPEZ@odot.oregon.gov>
> **Subject:** RE: I84 Corridor

Some people who received this message don't often get email from jostrowski@powerbridge.us. Learn why this is important

This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

Thank you Dan. I will get this over to HDR and start the process. We also have some ideas to help make this work.

Appreciate your help.

Regards,

John Ostrowski

PowerBridge, LLC
Vice President, Construction
201-968-8139 (Mobile)

From: SHANAHAN Dan T <Dan.T.SHANAHAN@odot.oregon.gov>
Sent: Thursday, February 8, 2024 11:42 AM
To: John Ostrowski <jostrowski@powerbridge.us>
Cc: PETERS Scott <Scott.PETERS@odot.oregon.gov>; LOPEZ Daniel H <Daniel.H.LOPEZ@odot.oregon.gov>
Subject: RE: I84 Corridor

Hi John,

I would start here: Oregon Secretary of State Administrative Rules.

If you want to look into this more you will need to show how your request meets the requirements in Division 55 rules especially the exception process in OAR 734-055-0080.

In addition the permit variance request form (form 734-2515) needs to be completed as well.

After that the agency will need to review these items and it would need to be abundantly clear there was no other option and it would be something me and the Maintenance Engineer would review. After us it would go to FHWA and they would review. If they were good with the recommendation we could allow a permit. That being said FHWA does not normally allow permits in these areas.

Daniel or Scott anything else you would add about permitting along the interstate in ROW?

Thanks,

Dan Shanahan
District 9 Manager

Oregon Department of Transportation
Phone: 541.296.2927 Mobile: 503.881.0582
3313 Bret Clodfelter Way, The Dalles, OR 97058
Email: dan.t.shanahan@odot.oregon.gov

From: John Ostrowski <jostrowski@powerbridge.us>
Sent: Wednesday, February 7, 2024 12:13 PM
To: SHANAHAN Dan T <Dan.T.SHANAHAN@odot.oregon.gov>
Subject: I84 Corridor

Good Afternoon Dan:

Thank you very much for meeting with us to discuss field conditions associated with our Cascade project. We appreciate your guidance and feedback regarding the design and construction of our HVDC line from Big Eddy to the Columbia Rver. Once we have better HDD designs/engineer drawings, we will share with you to get ODOT involved early in the process as you requested.

At the levee, you mentioned an ODOT moratorium on excavating and installing facilities outside the guard rail but within the I84 ROW. Could you please send me some documentation on this moratorium that I could share within my group. We want to look at options available to keep on our route.

Thank you and talk soon.

Regards,

John Ostrowski

PowerBridge, LLC
Vice President, Construction
201-968-8139 (Mobile)

Cavanagh, Suzy

From: SHANAHAN Dan T <Dan.T.SHANAHAN@odot.oregon.gov>
Sent: Monday, February 10, 2025 2:16 PM
To: John Ostrowski; daniel.h.lopez
Cc: Bryan Sanderson; Jeff Wood
Subject: RE: CRT Project Rtes 30 and 197

John,

Can you send your latest site plan/concept map of the area you want to discuss? I have the engineer team identified I just need to frame up the conversation.

How do you prefer to schedule?

Thanks,

Dan

From: John Ostrowski
Sent: Monday, February 10, 2025 6:42 AM
To: SHANAHAN Dan T ; LOPEZ Daniel H
Cc: Bryan Sanderson ; Jeff Wood
Subject: RE: CRT Project Rtes 30 and 197

> This message was sent from outside the organization. Treat attachments, links and requests with caution. Be conscious of the information you share if you respond.

We will put HDDs in our design plan which will be coming to you. I will send a brief explanation to AKS this morning to prep them.

Appreciate the feedback.

John Ostrowski

PowerBridge, LLC
Vice President, Construction
201-968-8139 (Mobile)

From: SHANAHAN Dan T <Dan.T.SHANAHAN@odot.oregon.gov>
Sent: Monday, February 10, 2025 9:36 AM
To: John Ostrowski <jostrowski@powerbridge.us>; LOPEZ Daniel H <Daniel.H.LOPEZ@odot.oregon.gov>
Cc: Bryan Sanderson <bsanderson@powerbridge.us>; Jeff Wood <jwood@powerbridge.us>
Subject: RE: CRT Project Rtes 30 and 197

Hi John,

I am meeting with our development review team today on this and got some preliminary feedback on the site location. There are some concerns on how we perform future maintenance near culverts that in a traditional trench the lines would go over the top of. Future repair of the culverts may require pulling the culvert up from the road side.

For the 2 culverts can you bore under them or do you have a solution already for this issue?

Thanks,

Dan Shanahan
District 9 Manager

Oregon Department of Transportation
Phone: 541.296.2927 Mobile: 503.881.0582
3313 Bret Clodfelter Way, The Dalles, OR 97058
Email: dan.t.shanahan@odot.oregon.gov

From: John Ostrowski <jostrowski@powerbridge.us>
Sent: Monday, February 3, 2025 11:45 AM
To: SHANAHAN Dan T <Dan.T.SHANAHAN@odot.oregon.gov>; LOPEZ Daniel H <Daniel.H.LOPEZ@odot.oregon.gov>
Cc: Bryan Sanderson <bsanderson@powerbridge.us>; Jeff Wood <jwood@powerbridge.us>
Subject: CRT Project Rtes 30 and 197

Hi Dan and Daniel:

Hope all is well with both of you. I appreciate you both meeting with us back in December and the feedback you provided.

Since then, we engaged Ben Beseda who performed a survey study for us regarding the alignment along the levee and Rte 84. We have held productive conversations with the USACE 404 team regarding use of the levee and HDR with making some contact with ODOT Salem and the FHWA regarding use of the area off Rte 84. Somehow, we collectively need to make something work.

Also, we have engaged AKS Darrin Eckman to work with Ben to come up with a design package for the roadway behind Big Jims and up the hill a bit to our crossover at Fremont. Just in case you see them out there or you have some conversations with them, you know where this is coming from.

Question: I recall you were going to look further and come up with a preferred area for us to use between the Fremont crossover and the crossover where 197 and 30 meet? Any further thoughts from you as we begin our design process?

Thank you and look forward to hearing back from you.

John Ostrowski

PowerBridge, LLC
Vice President, Construction
201-968-8139 (Mobile)

At the box culvert south of the OR197/US30 intersection, the transmission line will be over the box culvert then a retaining wall would be built that spans the culvert to retain fill to cover the transmission line.

If you concur with this description of the route and construction methods described, please sign below and return a copy of this letter to me at the address provided in the letterhead or by email to chocker@PowerBridge.us

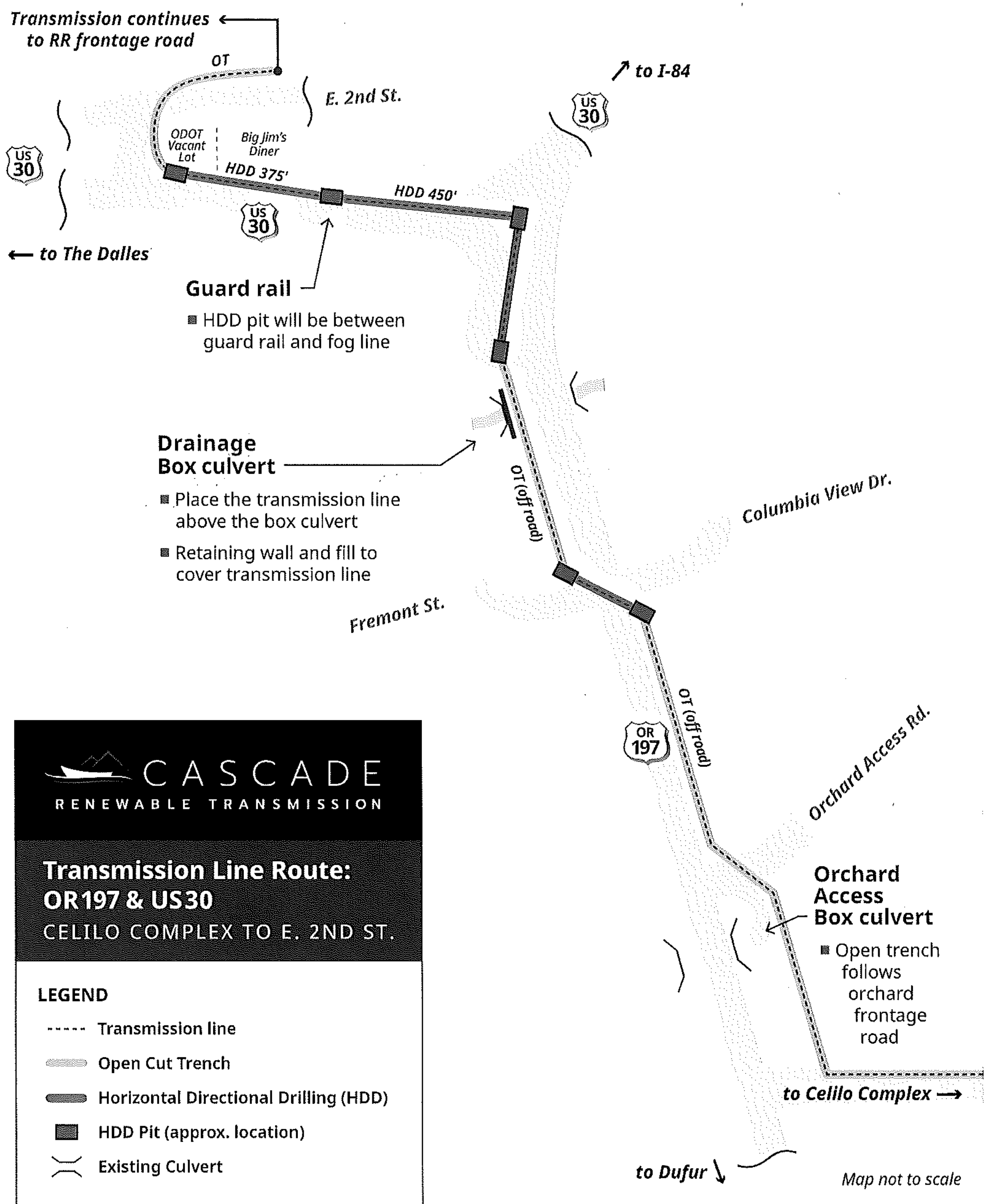
Sincerely,

Christopher Hocker
Vice President of Planning

Date: 7/29/22

Pat Cimmiyotti
Acting District 9 Manager
Oregon Department of Transportation
3313 Bret Clodfelter Way
The Dalles, OR 97058

My signature above confirms District 9 support of placing the proposed utility as shown on the attached conceptual drawing. Details of the placement as the exact location, depth and other conditions will be determine through the district permitting process.



Transmission continues to RR frontage road
OT
E. 2nd St.
to I-84
US 30
ODOT Vacant Lot
Big Jim's Diner
HDD 375'
HDD 450'
US 30
US 30
to The Dalles
Guard rail
HDD pit will be between guard rail and fog line
Drainage Box culvert
Place the transmission line above the box culvert
Retaining wall and fill to cover transmission line
OT (off road)
Columbia View Dr.
Fremont St.
OT (off road)
OR 197
Orchard Access Rd.
Orchard Access Box culvert
Open trench follows orchard frontage road
to Celilo Complex
to Dufur
Map not to scale
CASCADE RENEWABLE TRANSMISSION
Transmission Line Route: OR197 & US30
CELILO COMPLEX TO E. 2ND ST.
LEGEND
Transmission line
Open Cut Trench
Horizontal Directional Drilling (HDD)
HDD Pit (approx. location)
Existing Culvert

Attachment 4. Hood River-White Salmon Bridge Authority and Interstate Bridge Replacement Program Projects Communication

From:	Susan Brown
To:	Cavanagh, Suzy
Cc:	Chris Hocker
Subject:	FW: Cascade Renewables Pre-Application - Coordination with Hood River-White Salmon Bridge Replacement Project
Date:	Thursday, October 10, 2024 2:22:56 PM
Attachments:	image001.png image002.png

Suzy- see below for update on HR-WS Bridge project for Exh. U
Susan

From: Giridhar Reddy <greddy@HNTB.com>
Sent: Thursday, October 10, 2024 4:15 PM
To: Susan Brown <sbrown@powerbridge.us>; Michael Shannon <mwshannon@HNTB.com>
Cc: Chris Hocker <chocker@powerbridge.us>
Subject: RE: Cascade Renewables Pre-Application - Coordination with Hood River-White Salmon Bridge Replacement Project

Hi Susan,

Thank you for reaching out to us. Mike is currently on vacation but I figured I can provide the updates you are looking for in his absence. As of right now we are still on track with the schedule we had laid out previously for our project. We are on track for our construction portions to be between Oct 2025 and Oct 2029. We are going through our preliminary design still and expect to have conceptual work done towards the end of this phase – which is currently scheduled for end of this year. I think meeting sometime early next year will be a good point for us to go through our conceptual design. That will give you an idea of where we are expected to be in the water when you are looking to cross the bridge here.

Lets stay in touch and Ill put a reminder for myself to schedule a meeting with you guys early next year once we have our conceptual design in place.

Hope this helps. Please don't hesitate to reach out to us with anything with regards to the coordination of these two projects.

Thanks!
Giridhar Reddy, PE
HNTB CORPORATION

From: Susan Brown <sbrown@powerbridge.us>
Sent: Wednesday, October 9, 2024 1:08 PM
To: Michael Shannon <mwshannon@HNTB.com>
Cc: Chris Hocker <chocker@powerbridge.us>; Giridhar Reddy <greddy@HNTB.com>
Subject: RE: Cascade Renewables Pre-Application - Coordination with Hood River-White Salmon Bridge Replacement Project

Hi Michael,

It's been a while since we've been in touch, so I wanted to take a moment to provide an update on the Cascade Renewable Transmission (CRT) Project and to inquire about the status of the HR-WS Bridge Replacement Project.

CRT submitted an Application for Permit (NWP-2022-126-2) to the US Army Corps of Engineers Portland District at the end of July and is finalizing Applications for Site Certificates to the Oregon Dept of Energy - Energy Facility Siting Council (EFSC) and the Washington Energy Facility Site Evaluation Council (EFSEC).

When we last communicated, construction of the new HR-WS Bridge was scheduled to take place between October

2025 and October 2029 with demo of the existing bridge to follow. CRT's schedule is dependent upon receipt of all required state and federal permits, but construction is projected to take place between 2027-2029, with in-river work likely taking place during November to February windows.

I'd appreciate hearing back from you, specifically if there have been any changes to your project design or schedule. And, of course, please let me know if you have any questions about CRT. I'd be happy to jump on a call if that works best for you.

Regards,
Susan

Susan Brown
Project Coordinator
PowerBridge, LLC
501 Kings Highway East, Suite 300
Fairfield, CT 06825
Tel. 203-416-5590
Mobile. 203-243-5412

From: Michael Shannon <mwshannon@HNTB.com>
Sent: Friday, March 8, 2024 12:20 PM
To: Susan Brown <sbrown@powerbridge.us>; Giridhar Reddy <greddy@HNTB.com>
Cc: Chris Hocker <chocker@powerbridge.us>; CLARK Christopher * ODOE <Christopher.CLARK@energy.oregon.gov>
Subject: RE: Cascade Renewables Pre-Application - Coordination with Hood River-White Salmon Bridge Replacement Project

Thank you,

As for our project, we are in the process of finalizing our contract with the Progressive Design Build team and are schedule to provide them NTP in April of this year. We will keep you updated our progress as well.

Thank you,

Michael Shannon, PE
Project Director
Cell (425) 577-8071
Email **mwshannon@hntb.com**

HNTB CORPORATION
777 108th Ave NE, Ste. 1000 | Bellevue, WA 98004 | hntb.com

From: Susan Brown <sbrown@powerbridge.us>
Sent: Friday, March 8, 2024 9:16 AM
To: Giridhar Reddy <greddy@HNTB.com>; Michael Shannon <mwshannon@HNTB.com>
Cc: Chris Hocker <chocker@powerbridge.us>; CLARK Christopher * ODOE <Christopher.CLARK@energy.oregon.gov>
Subject: RE: Cascade Renewables Pre-Application - Coordination with Hood River-White Salmon Bridge Replacement Project

Good morning, Giridhar and Michael.
Thank you for your interest in Cascade Renewable Transmission (CRT) Project. While the construction window for CRT spans 2027 through mid-2029, the specific timeframe for the in-water cable installation has not been determined yet. We agree that it will be important to connect with your team to coordinate well in advance of undertaking any work in the vicinity of the Hood River-White Salmon Bridge replacement project. I have added both of you to the Project's stakeholder contact list to receive future

information about CRT. In the meantime, please feel free to let us know if you have any questions about the Project or would like more information. We'd be happy to jump on a call with you.
Regards,

Susan Brown
Project Coordinator
PowerBridge, LLC
501 Kings Highway East, Suite 300
Fairfield, CT 06825
Tel. 203-416-5590
Mobile. 203-243-5412

From: CLARK Christopher * ODOE <christopher.clark@energy.oregon.gov>
Sent: Thursday, February 8, 2024 4:04 PM
To: Giridhar Reddy <greddy@HNTB.com>; Michael Shannon <mwshannon@HNTB.com>
Cc: Chris Hocker <chocker@powerbridge.us>; Susan Brown <sbrown@powerbridge.us>
Subject: RE: Cascade Renewables Pre-Application - Coordination with Hood River-White Salmon Bridge Replacement Project

Hello Giridhar,

Thank you for reaching out. I am a siting analyst supporting the Oregon Energy Facility Siting Council's review of the project. As part of that review, we will be evaluating whether the construction and operation of the project will adversely impact transportation infrastructure and would welcome any comments or recommendations you have on how impacts to the bridge replacement project can be avoided. My agency will also reach out to the Bridge Authority for comment during the permitting review process. You can sign up to receive updates on our siting review and the associated public hearings at: http://web.energy.oregon.gov/cn/a6n53/subscribe.

All that said, based on your message you may have been hoping to connect with the project developer, and they would be able to give you much better information about their expected construction schedule. I've cc'd Chris Hocker and Susan Brown from PowerBridge on this email so you can coordinate with them directly, but please let me know if I can be of any further assistance.

Thank you,

Christopher M. Clark
Senior Siting Analyst
550 Capitol St. NE | Salem, OR 97301
P: 503-871-7254
P (In Oregon): 800-221-8035

From: Giridhar Reddy <greddy@HNTB.com>
Sent: Wednesday, February 7, 2024 11:54 AM
To: CLARK Christopher * ODOE <christopher.clark@energy.oregon.gov>
Cc: Michael Shannon <mwshannon@HNTB.com>
Subject: Cascade Renewables Pre-Application - Coordination with Hood River-White Salmon Bridge Replacement Project

You don't often get email from greddy@hntb.com. Learn why this is important

Hi Chris,

I attended the meeting yesterday regarding the Cascade Renewables Pre-Application and got your information from there. I wanted to reach out to you and connect with regards to the Hood River – White Salmon Bridge Replacement project. I work for the company HNTB and we have been engaged by the Hood River – White Salmon Bridge Authority to help deliver the construction of the replacement bridge between the cities of Hood River and White Salmon.

Our project is set to go to construction starting in late 2025 and through mid/late 2031. The construction of the new bridge is expected to be completed around late 2029 but we will still be in and around the water to demolish/remove the existing bridge from then until the project end date.

I noticed in your presentation yesterday that your current schedule for installing the lines in water from the Dalles to Bonneville Dam is showing 2027. I figured now is a great time to get on your radar so that we can coordinate appropriately at the right time as you approach/pass through our project area.

We would love to get on an update email blasts etc you have going out so that we can keep up to date on your project and will also do the same and add you to our stakeholder distributions list. Let us know if you want us to include anyone else as well.

Please feel free to reach out to either myself or to our Project Manager Mike Shannon (cc'ed above) with regards to this coordination effort.

Thanks!

Giridhar Reddy, PE
HNTB CORPORATION
777 108th Ave NE, Ste. 1000 | Bellevue, WA 98004 | hntb.com

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This e-mail and any files transmitted with it are confidential and are intended solely for the use of the individual or entity to whom they are addressed. If you are NOT the intended recipient and receive this communication, please delete this message and any attachments. Thank you.

From:	Sherri Robisch
To:	Susan Brown
Cc:	Ernie Griggs; Chris Hocker; John Ostrowski; Carol Loughlin
Subject:	RE: Cascade Renewable Transmission Project
Date:	Tuesday, April 30, 2024 10:39:35 AM

Wonderful, I'll send an invite out shortly

Sherri Robisch
Executive Assistant to
Greg Johnson, Program Administrator
Frank Green, Asst. Program Administrator
Ray Mabey, Asst. Program Administrator
Paige Schulpp, Asst. Program Administrator
Jim Ruddell, Program Manager
C: 951-809-4143
E: sherri.robisch@interstatebridge.org
interstatebridge.org

From: Susan Brown <sbrown@powerbridge.us>
Sent: Tuesday, April 30, 2024 7:34 AM
To: Sherri Robisch <Sherri.Robisch@interstatebridge.org>
Cc: Ernie Griggs <egriggs@powerbridge.us>; Chris Hocker <chocker@powerbridge.us>; John Ostrowski <jostrowski@powerbridge.us>; Carol Loughlin <cloughlin@lakeridgeresources.com>
Subject: RE: Cascade Renewable Transmission Project

Sherri,
5/29 at 10 a.m. (PT) works for us.
Susan

From: Sherri Robisch <Sherri.Robisch@interstatebridge.org>
Sent: Monday, April 29, 2024 3:46 PM
To: Susan Brown <sbrown@powerbridge.us>
Cc: Ernie Griggs <egriggs@powerbridge.us>; Chris Hocker <chocker@powerbridge.us>; John Ostrowski <jostrowski@powerbridge.us>; Carol Loughlin <cloughlin@lakeridgeresources.com>
Subject: RE: Cascade Renewable Transmission Project

Darn, neither of those will work for my team (not sure how May has already become so crazy busy)

Is there any chance you could do 5/29 at 10 or 5/30 2-4?

Sherri Robisch
Executive Assistant to
Greg Johnson, Program Administrator
Frank Green, Asst. Program Administrator

Ray Mabey, Asst. Program Administrator
Paige Schulpp, Asst. Program Administrator
Jim Ruddell, Program Manager
C: 951-809-4143
E: sherri.robisch@interstatebridge.org
interstatebridge.org

From: Susan Brown <sbrown@powerbridge.us>
Sent: Monday, April 29, 2024 12:40 PM
To: Sherri Robisch <Sherri.Robisch@interstatebridge.org>
Cc: Ernie Griggs <egriggs@powerbridge.us>; Chris Hocker <chocker@powerbridge.us>; John Ostrowski <jostrowski@powerbridge.us>; Carol Loughlin <cloughlin@lakeridgeresources.com>
Subject: RE: Cascade Renewable Transmission Project

Hi, Sherri.
Thanks for the prompt reply.
Our team (copied here) is currently available to meet on either May 9 or May 23 between 9 a.m. and 2 p.m. (PT). If your team has a one-hour slot available on one of those days, please let us know what time works best or if you need to try another date altogether.

Regards,
Susan

Susan Brown
Project Coordinator
PowerBridge, LLC
501 Kings Highway East, Suite 300
Fairfield, CT 06825
Tel. 203-416-5590
Mobile. 203-243-5412

From: Sherri Robisch <Sherri.Robisch@interstatebridge.org>
Sent: Monday, April 29, 2024 12:59 PM
To: Susan Brown <sbrown@powerbridge.us>
Subject: RE: Cascade Renewable Transmission Project

Good morning Ms. Brown

Thank you for reaching out the IBR program. I would be happy to see what I could set up for you to meet with our program leadership. If you could let me know what might be a good time to target for you and your team, I'd be happy to propose some dates and times that would work for my team.

Thank you and I look forward to hearing from you.

Sherri Robisch
Executive Assistant to
Greg Johnson, Program Administrator
Frank Green, Asst. Program Administrator
Ray Mabey, Asst. Program Administrator
Paige Schlupp, Asst. Program Administrator
Jim Ruddell, Program Manager
C: 951-809-4143
E: sherri.robisch@interstatebridge.org
interstatebridge.org

From: Susan Brown <sbrown@powerbridge.us>
Date: Friday, April 26, 2024 at 11:44 AM
To: Info <info@interstatebridge.org>
Subject: Cascade Renewable Transmission Project

Good afternoon, Messrs. Johnson and Mabey.

I am writing to introduce myself and the Cascade Renewable Transmission, a proposed green energy electric transmission Project intended to help Washington and Oregon achieve their clean energy goals and meet the challenges of the climate crisis.

The Project is a 100-mile transmission cable that will for the most part (80 miles) be installed in the bed of the Columbia River. It begins in The Dalles and ends in the Rivergate Industrial area of Portland, exiting the river for about 7 miles to bypass the Bonniville Dam underground. It will be built over a 3-year period with in-water installation work taking place in the late fall and early wintertime periods to avoid impacts to fisheries and habitats.

We are in the process of submitting permit applications to the Army Corps of Engineers and the Energy Facility Siting Agencies in both states.

We would welcome the opportunity to meet with your team (virtually) and share information about our Project as well as to learn more about the IBR project. If this is of interest to you, I will be happy to set up a meeting with key members of our respective project teams.

Regards,
Susan

Susan Brown
Project Coordinator
PowerBridge, LLC
501 Kings Highway East, Suite 300
Fairfield, CT 06825
Tel. 203-416-5590
Mobile. 203-243-5412

Attachment 5. Law Enforcement Communication

Cavanagh, Suzy

From: Allen, Elizabeth
Sent: Monday, May 19, 2025 8:15 AM
To: ppbpio@police.portlandoregon.gov; cityattorneysoffice@portlandoregon.gov
Cc: Cavanagh, Suzy
Subject: RE: Cascade Renewable Transmission Project

Importance: High

Good morning,

Checking in to see if anyone has had a chance to review the information provided below regarding the Cascade Renewable Transmission Project? As a requirement of the Oregon Department of Energy permitting process, we need confirmation if the project's construction and operation would or would not impact your ability to provide services.

Let me know if you have any questions.

Thank you,

Elizabeth Allen
D 208.387.7238 **M** 208.703.5408

hdrinc.com/follow-us

From: Allen, Elizabeth
Sent: Friday, January 24, 2025 3:16 PM
To: ppbpio@police.portlandoregon.gov
Cc: Cavanagh, Suzy <Suzy.Cavanagh@hdrinc.com>
Subject: Cascade Renewable Transmission Project

Hello,

I am contacting you on behalf of the proposed Cascade Renewable Transmission Project. The proposed project is a 400-kilovolt (kV) high-voltage direct current (HVDC) transmission line that would span approximately 100 miles between The Dalles and Portland.

Within the boundaries of the Portland Police Department, 400-kV HVDC lines would be installed in road rights-of-way and under North Portland Harbor. The aboveground-built components would include a converter station connecting to the existing Portland General Electric Harborton substation via an underground 230-kV high-voltage alternating current (HVAC) cable that would be installed in road rights-of-way and under the Columbia Slough and Willamette River (see attached figure).

More information and a map of the project can be found following the link below:

State of Oregon: Facilities - Cascade Renewable Transmission System

HDR is under contract to assist with the Oregon Department of Energy (ODOE) permitting process. To this end, we will provide ODOE with evidence of consultation with local agencies that we have been in contact with regarding emergency services for the project's construction and operation. **Specifically, we are asking for information confirming if the project's construction and operation would impact your ability to provide services.**

Any letter from you to me on the subject will not constitute a contract, and you are not obligated to supply emergency services for the facility.

If you could please provide a letter addressing the project regarding your ability to provide services as soon as possible, that would be greatly appreciated. It can be a statement on your letterhead with your signature if you like, or even a reply to this email.

Thank you in advance, and please let me know if you have any questions.

Elizabeth Allen
Environmental Planner II

HDR
412 E. Parkcenter Blvd, Ste 100
Boise, ID 83706
D 208-387-7238 **M** 208-703-5408
elizabeth.allen@hdrinc.com

hdrinc.com/follow-us

From:	Susan Brown
To:	ppbpio@police.portlandoregon.gov
Cc:	Steele, Morgan
Subject:	Cascade Renewable Transmission Project
Date:	Wednesday, July 2, 2025 11:36:00 AM
Attachments:	Portland Police Email 01.24.25.pdf

Dear Chief Day,

I am reaching out on behalf of the Cascade Renewable Transmission a proposed 400-kV high voltage direct current (HVDC) transmission line that would span approximately 100 miles between The Dalles and Portland.
The project has retained the services of HDR to assist with its application to obtain an Energy Facilities Siting Certificate (EFSC) from the Oregon Department of Energy (ODOE). In our permit application we will need to provide evidence that we have been in contact regarding emergency services for the project's construction and operation. I am writing today to follow up on HDR's earlier request (attached) for this information and more specifically to ask for information confirming if the project's construction and operation would impact Portland Police Bureau's ability to provide services.

If you could please provide a letter addressing the project regarding Portland Police Bureau's ability to provide services, that would be greatly appreciated. It can be a statement on department letterhead with your signature if you like, or even a reply to this email. We will, in turn, provide the documentation to ODOE as part of the Project's EFSC permitting process. Please be assured that any communication from Portland Police Bureau to me on this subject will not constitute a contract, and Portland Police Bureau is not obligated to supply emergency services for the facility.

More information and a map of the Project location can be found on the ODOE website at https://www.oregon.gov/energy/facilities-safety/facilities/Pages/CRT.aspx and, of course, feel free to give me a call if you have any questions or would like to notify me that there is someone else I should contact regarding this matter.

Regards,
Susan

Susan Brown
Project Coordinator
PowerBridge, LLC
501 Kings Highway East, Suite 300
Fairfield, CT 06825
Tel. 203-416-5590

Mobile. 203-243-5412

Allen, Elizabeth

From:	Allen, Elizabeth
Sent:	Friday, January 24, 2025 3:16 PM
To:	ppbpio@police.portlandoregon.gov
Cc:	Cavanagh, Suzy
Subject:	Cascade Renewable Transmission Project
Attachments:	Figure B-1 CRT Facility Vicinity Map.pdf

Hello,

I am contacting you on behalf of the proposed Cascade Renewable Transmission Project. The proposed project is a 400-kilovolt (kV) high-voltage direct current (HVDC) transmission line that would span approximately 100 miles between The Dalles and Portland.

Within the boundaries of the Portland Police Department, 400-kV HVDC lines would be installed in road rights-of-way and under North Portland Harbor. The aboveground-built components would include a converter station connecting to the existing Portland General Electric Harborton substation via an underground 230-kV high-voltage alternating current (HVAC) cable that would be installed in road rights-of-way and under the Columbia Slough and Willamette River (see attached figure).

More information and a map of the project can be found following the link below:

State of Oregon: Facilities - Cascade Renewable Transmission System

HDR is under contract to assist with the Oregon Department of Energy (ODOE) permitting process. To this end, we will provide ODOE with evidence of consultation with local agencies that we have been in contact with regarding emergency services for the project's construction and operation. **Specifically, we are asking for information confirming if the project's construction and operation would impact your ability to provide services.**

Any letter from you to me on the subject will not constitute a contract, and you are not obligated to supply emergency services for the facility.

If you could please provide a letter addressing the project regarding your ability to provide services as soon as possible, that would be greatly appreciated. It can be a statement on your letterhead with your signature if you like, or even a reply to this email.

Thank you in advance, and please let me know if you have any questions.

Elizabeth Allen
Environmental Planner II

HDR
412 E. Parkcenter Blvd, Ste 100
Boise, ID 83706
D 208-387-7238 **M** 208-703-5408
elizabeth.allen@hdrinc.com

hdrinc.com/follow-us

Allen, Elizabeth

From:	Tom Worthy <tworthy@ci.the-dalles.or.us>
Sent:	Friday, January 24, 2025 3:37 PM
To:	Allen, Elizabeth
Subject:	RE: Cascade Renewable Transmission Project

HDR Inc
Boise Idaho,

1-24-2025

Dear sir or Madame,

Please receive this electronic mail message as my understanding and consent to proceed with your electronic cable project. The Dalles Police work closely with our Public Works Department and city permitting entities to ensure that emergency services are always able to access our citizens and provide emergency services. I appreciate the notification about your forthcoming project and wish you well and great success as you proceed.

Respectfully,

TOM M. WORTHY
Chief Of Police
City of The Dalles Oregon

Tom M. Worthy M.S. He/Him
Chief of Police
401 Court Street
The Dalles OR 97058
541-296-2613
A Community Policing Agency

From: Allen, Elizabeth <Elizabeth.Allen@hdrinc.com>
Sent: Friday, January 24, 2025 2:19 PM
To: Tom Worthy <tworthy@ci.the-dalles.or.us>
Subject: Cascade Renewable Transmission Project

Hello,

I am contacting you on behalf of the proposed Cascade Renewable Transmission Project. The proposed project is a 400-kilovolt (kV) high-voltage direct current (HVDC) transmission line that would span approximately 100 miles between The Dalles and Portland.

Within The Dalles city limits, a 400-kV (1,100-megawatt [MW]) HVDC transmission cable would be installed under road rights-of-way and under the Columbia River. No above-ground components would be located in city limits (see attached figure).

More information and a map of the project can be found following the link below:

State of Oregon: Facilities - Cascade Renewable Transmission System

HDR is under contract to assist with the Oregon Department of Energy (ODOE) permitting process. To this end, we will provide ODOE with evidence of consultation with local agencies that we have been in contact with regarding emergency services for the project's construction and operation. **Specifically, we are asking for information confirming if the project's construction and operation would impact your ability to provide services.**

Any letter from you to me on the subject will not constitute a contract, and you are not obligated to supply emergency services for the facility.

If you could please provide a letter addressing the project regarding your ability to provide services as soon as possible, that would be greatly appreciated. It can be a statement on your letterhead with your signature if you like, or even a reply to this email.

Thank you in advance, and please let me know if you have any questions.

Elizabeth Allen
Environmental Planner II

HDR
412 E. Parkcenter Blvd, Ste 100
Boise, ID 83706
D 208-387-7238 **M** 208-703-5408
elizabeth.allen@hdrinc.com

hdrinc.com/follow-us

Allen, Elizabeth

From: Lane Magill <lanem@co.wasco.or.us>
Sent: Wednesday, January 29, 2025 3:19 PM
To: Allen, Elizabeth
Cc: Scott Williams
Subject: Re: Cascade Renewable Transmission Project

Thanks for the clarification on the project. The actual construction site is in the Sheriff's Office response area, however at this time I don't see any issues about how it will impact our agency. I'm sure security will be tight but based on what I'm seeing I don't think this would be an issue.

As it relates to the underground cable, this is mostly under the jurisdiction of ODOT and OSP so I will defer to them for input.

Please consider this email our approval to move forward.

Sheriff Magill

On Wed, Jan 29, 2025 at 12:29 PM Allen, Elizabeth <Elizabeth.Allen@hdrinc.com> wrote:

> Good afternoon,
>
> Thank you for the response. Below is an image showing more information. The red line indicates where the HVDC cable would be buried underground, and the big yellow box indicates the anticipated location of the converter station within the BPA Starr Complex adjacent to the Big Eddy substation.
>
> Since we are working on permitting with Oregon and Washington and federal permitting, the construction start date is not anticipated until late 2026.
>
> Let me know if any other information would be helpful.

Elizabeth Allen

D 208.387.7238 **M** 208.703.5408

hdrinc.com/follow-us

From: Lane Magill <lanem@co.wasco.or.us>
Sent: Wednesday, January 29, 2025 11:32 AM
To: Allen, Elizabeth <Elizabeth.Allen@hdrinc.com>
Cc: Scott Williams <scottw@co.wasco.or.us>
Subject: Re: Cascade Renewable Transmission Project

Elizabeth,

I apologize for the delayed response as I have been out of the state on a family emergency.

I have reviewed your request however I don't believe there is enough information regarding the project for me to support it. While I understand certain transmission lines will be installed I do not see the exact location of the "converter station" construction site. The construction site will be critical in our response as we need to know who the primary responding public safety agency would be. Additionally it would be nice, but not required, when the estimated construction date would be.

Thank you for your consideration.

Sheriff Magill

On Fri, Jan 24, 2025 at 2:22 PM Allen, Elizabeth <Elizabeth.Allen@hdrinc.com> wrote:

> Hello,
>
> I am contacting you on behalf of the proposed Cascade Renewable Transmission Project. The proposed project is a 400-kilovolt (kV) high-voltage direct current (HVDC) transmission line that would span approximately 100 miles between The Dalles and Portland.
>
> Within the boundaries of Wasco County Sheriff, a new converter station would be constructed to connect to the existing Bonneville Power Administration Big Eddy substation with approximately 500 feet of 500kV overhead high-voltage alternating current (HVAC) wire supported by two new lattice structures approximately 80 feet wide and 60 feet tall. The remaining system within your agency jurisdiction boundary would consist of a 400-kV (1,100-megawatt [MW]) HVDC transmission cable installed under road rights-of-way and under the Columbia River (see attached figure).
>
> More information and a map of the project can be found following the link below:
>
> State of Oregon: Facilities - Cascade Renewable Transmission System
>
> HDR is under contract to assist with the Oregon Department of Energy (ODOE) permitting process. To this end, we will provide ODOE with evidence of consultation with local agencies that we have been in contact with regarding emergency services for the project's construction and operation. **Specifically,**

we are asking for information confirming if the project's construction and operation would impact your ability to provide services.

Any letter from you to me on the subject will not constitute a contract, and you are not obligated to supply emergency services for the facility.

If you could please provide a letter addressing the project regarding to your ability to provide services as soon as possible, that would be greatly appreciated. It can be a statement on your letterhead with your signature if you like, or even a reply to this email.

Thank you in advance, and please let me know if you have any questions.

Elizabeth Allen

Environmental Planner II

HDR

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elizabeth.allen@hdrinc.com

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--

Lane Magill | ***Wasco County Sheriff***

SHERIFF'S OFFICE

lanem@co.wasco.or.us | www.co.wasco.or.us
541-506-2592 | Fax 541-506-2581
511 Washington St. Suite 102 | The Dalles, OR 97058

--

Lane Magill | ***Wasco County Sheriff***
SHERIFF'S OFFICE

lanem@co.wasco.or.us | www.co.wasco.or.us
541-506-2592 | Fax 541-506-2581
511 Washington St. Suite 102 | The Dalles, OR 97058

Attachment 6. Fire Protection Communication

Allen, Elizabeth

From: Jay Wood <jwood@mcfr.org>
Sent: Monday, January 27, 2025 5:29 PM
To: Allen, Elizabeth
Cc: Cavanagh, Suzy
Subject: RE: Cascade Renewable Transmission Project

You don't often get email from jwood@mcfr.org. Learn why this is important

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon Elizabeth,

Specifically, we are asking for information confirming if the project's construction and operation would impact your ability to provide services.
We don't see any reason that this project would impact us in any way other than temporary road closures, or other temporary work.

Please let me know if you have any questions.

Jay

Jay Wood, Division Chief
Prevention/Public Education
Mid-Columbia Fire and Rescue
1400 W. 8th Street
The Dalles, Oregon 97058
jwood@mcfr.org
Office: 541-296-9445

Educate, Serve and Protect

From: Allen, Elizabeth <Elizabeth.Allen@hdrinc.com>
Sent: Monday, January 27, 2025 7:17 AM
To: Jay Wood <jwood@mcfr.org>
Cc: Cavanagh, Suzy <Suzy.Cavanagh@hdrinc.com>
Subject: Cascade Renewable Transmission Project

Hello,

I am contacting you on behalf of the proposed Cascade Renewable Transmission Project. The proposed project is a 400-kilovolt (kV) high-voltage direct current (HVDC) transmission line that would span approximately 100 miles between The Dalles and Portland.

Within the boundaries of Mid-Columbia Fire and Rescue, a new converter station would be constructed to connect to the existing Bonneville Power Administration Big Eddy substation with approximately 500 feet of 500kV overhead high-voltage alternating current (HVAC) wire supported by two new lattice structures approximately 80 feet wide and 60 feet tall. The remaining system within your agency jurisdiction boundary would consist of a 400-kV (1,100-megawatt [MW]) HVDC transmission cable installed under road rights-of-way (see attached figure).
More information and a map of the project can be found following the link below:

State of Oregon: Facilities - Cascade Renewable Transmission System

HDR is under contract to assist with the Oregon Department of Energy (ODOE) permitting process. To this end, we will provide ODOE with evidence of consultation with local agencies that we have been in contact with regarding emergency services for the project's construction and operation. **Specifically, we are asking for information confirming if the project's construction and operation would impact your ability to provide services.**

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Thank you in advance, and please let me know if you have any questions.

Elizabeth Allen
Environmental Planner II

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Boise, ID 83706
D 208-387-7238 **M** 208-703-5408
elizabeth.allen@hdrinc.com

//hdrinc.com/follow-us

Allen, Elizabeth

From:	Jay Wood <jwood@mcfr.org>
Sent:	Monday, January 27, 2025 5:29 PM
To:	Allen, Elizabeth
Cc:	Cavanagh, Suzy
Subject:	RE: Cascade Renewable Transmission Project

Good afternoon Elizabeth,

Specifically, we are asking for information confirming if the project's construction and operation would impact your ability to provide services.
We don't see any reason that this project would impact us in any way other than temporary road closures, or other temporary work.

Please let me know if you have any questions.

Jay

Jay Wood, Division Chief
Prevention/Public Education
Mid-Columbia Fire and Rescue
1400 W. 8th Street
The Dalles, Oregon 97058
jwood@mcfr.org
Office: 541-296-9445

Educate, Serve and Protect

From: Allen, Elizabeth <Elizabeth.Allen@hdrinc.com>
Sent: Monday, January 27, 2025 7:17 AM
To: Jay Wood <jwood@mcfr.org>
Cc: Cavanagh, Suzy <Suzy.Cavanagh@hdrinc.com>
Subject: Cascade Renewable Transmission Project

Hello,

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State of Oregon: Facilities - Cascade Renewable Transmission System

HDR is under contract to assist with the Oregon Department of Energy (ODOE) permitting process. To this end, we will provide ODOE with evidence of consultation with local agencies that we have been in contact with regarding emergency services for the project's construction and operation. **Specifically, we are asking for information confirming if the project's construction and operation would impact your ability to provide services.**

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Thank you in advance, and please let me know if you have any questions.

Elizabeth Allen
Environmental Planner II

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Boise, ID 83706
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elizabeth.allen@hdrinc.com

//hdrinc.com/follow-us

Attachment 7. EMS Provider Communication

From: Aaron Monnig <aaron.monnig@multco.us>
Sent: Tuesday, May 20, 2025 10:09 PM
To: Allen, Elizabeth <Elizabeth.Allen@hdrinc.com>
Cc: Mark Prinzmetal <mark.prinzmetal@multco.us>; EM DUTY Officer <em.dutyofficer@multco.us>
Subject: Re: Cascade Renewable Transmission Project - Emergency Services

Elizabeth,
Sorry for the delayed response a long piece of geography that this project will cover - will try to map out the Multnomah County piece

I have reached out to relevant agencies in Multnomah County.
Starting at the eastern edge county line Cascade Locks Fire and Ambulance provide service in to roughly mile marker 36 on I 84. That is basically the eastern edge of Multnomah Falls parking lot all along I-84 wi h would include down to the rivers edge.

From there west AMR Multnomah County will be the ground ambulance on the Oregon side of the river. AMR Clark County will primarily be the ground provider on the north side of the river.

Air Ambulance is Life Flight and the closest base is Aurora. Pretty rare that they are used as you get closer to the urban growth boundary (sandy river).

EMS first response will be Corbett Fire, Gresham Fire, Port of Portland Fire, and City of Portland Fire on the Oregon side. Both Port of Portland Fire, and City of Portland operate rescue boats on the river. As the project comes inland from the river that area is City of Portland and AMR Multnomah County.

North of the river will be Vancouver Fire for EMS first response, and they also operate a Fire rescue boat.

There are also several 911 PSAPs over the course of the project Hood River, BOEC City o& Portland, and Port of Portland on the south, and CRESA Clark County on the north.

Please feel free to reach out to Mark Prinzmetal or myself with additional information or if response plans, or preplanning needs to occur with any of these agencies. We are both with Multnomah County EMS and coordinate and regulate EMS in the County.

Thank you,
Aaron

Aaron Monnig
Health Officer Operations Manager
Multnomah County Health Department
Office (503)988-9799
Cell (971)322-7494
Gladys McCoy Building
619 NW 6th Avenue Portland, OR 97209

On Mon, May 19, 2025 at 3:26 PM EM DUTY Officer <em.dutyofficer@multco.us> wrote:
FYI

Richard

Multnomah County Emergency Management
Email: em.dutyofficer@multco.us | **Phone:** 503-988-6700
501 SE Hawthorne Blvd, Suite 200
Portland, OR 97214

Website | Twitter | Facebook, Multnomah Emergency Response Readiness: Training, Exercises & Events Calendar. **Sign up here** for the Multnomah County Emergency Management Monthly Newsletter.

---------- Forwarded message ---------
From: **Allen, Elizabeth** <Elizabeth.Allen@hdrinc.com>
Date: Mon, May 19, 2025 at 2:09 PM
Subject: Cascade Renewable Transmission Project - Emergency Services
To: em.dutyofficer@multco.us <em.dutyofficer@multco.us>
Cc: Cavanagh, Suzy <Suzy.Cavanagh@hdrinc.com>

External -

Good afternoon,

I am contacting you on behalf of the proposed Cascade Renewable Transmission Project. The proposed project is a 400-kilovolt (kV) high-voltage direct current (HVDC) transmission line that would span approximately 100 miles between The Dalles and Portland.

In the Portland area, the 400-kV HVDC cables would be installed in the bed of the Columbia River, underground across Hayden Island, and underground in road rights-of-way in North Portland (N Marine Drive and N Leadbetter Rd). The aboveground-built components would include a new converter station on N Leadbetter Road. From the converter station, underground 230-kV high-voltage alternating current (HVAC) cables would be installed under the Columbia Slough, in road rights-of-way (N Lombard St to N Rivergate) and under the Willamette River to the existing PGE Harborton substation (see attached figure).

More information and a map of the project can be found following the link below:

State of Oregon: Facilities - Cascade Renewable Transmission System

HDR is under contract to assist with the Oregon Department of Energy (ODOE) permitting process. ODOE requires us to contact EMS services to determine if construction of the project would impact the EMS service provider's ability to respond to emergencies if there are temporary restricted roadways (closed to one lane) during project construction. **Would you be able to tell me which ground and air ambulance service providers serve the project area?**

Let me know if you have any questions.

Thank you,

Elizabeth Allen

Environmental Planner II

HDR

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elizabeth.allen@hdrinc.com

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