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# TRANSIT

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## WHO WE ARE

Lund Opsahl (LO) is a 35-person Structural Engineering firm that collaborates with clients across various markets to bring unique projects to life, placing exceptional client service at the heart of our operations.

Our accolades reflect our expertise and commitment to thoughtful, innovative design. Our team is dedicated to delivering your project with optimal solutions and awesome client service.

## INSPIRED BY OUR VALUES

Our Core Values inspire us to listen to every voice, unite as a community, and collaboratively develop creative solutions. We thrive on feedback, embrace challenges, and are intentional in bringing your vision to life.

## LICENSES

AR, BC, CA, CO, FL, HI, ID, KY, MI, MT, NY, ND, NV, OH, OK, OR, PA, SD, TX, UT, WA, Washington, D.C.

## CERTIFICATIONS

OMWBE SBE  
King County SCS



Team



Growth



Discipline



Innovation



Passion



Quality



Integrity

## Intercity Transit Pattison MOA Expansion and Rehabilitation

Lacey, WA

Operating well over capacity, the Intercity Transit Pattison Base's current maintenance, operations, and administration (MOA) facilities were unable to support efficient operations. Scope began as an assessment and development of expansion and rehabilitation alternatives, and developed into the design of a new 41,715 SF visitor center/administration building, a new 25,634 SF fuel and wash facility, and complete renovations and seismic upgrades to their existing 39,500 maintenance facility.



2023 Patrick K. Lyneis Memorial Safety Excellence Award, Northwest Construction Consumer Council



## King County Metro Transit Interim Base Electrification

Tukwila, WA

This project facilitates King County Metro Transit's (KCMT) plans to move to a 100% zero-emissions fleet powered by renewable energy by 2035. Employing an optimized, modular and interchangeable steel gantry truss system connected by an elevated equipment platform to support bus charging pantographs overhead. The design minimizes the carbon footprint of the steel framing and concrete footings while providing an efficient and quickly constructable structure. The project will provide parking and charging stations for 120 zero emissions buses (ZEBs). **Salmon Safe. Design-Build.**



## KCMT South Annex Base

Tukwila, WA

In support of the seven existing and over capacity Metro Transit bases, this \$400 million project will include a significant addition to the maintenance and charging stations of KCMT's growing electric and hybrid electric fleet. Over the course of the project, LO will provide engineering services for extensive parts of the complex's dry utility (power, fiber, and telecommunication) and electrical systems, including supports for the fleet's existing battery electric bus (BEB) charging stations. When completed, South Annex Base will house 250 ZEBs. **Pursuing Living Building Challenge principles.**





## TriMet Powell Garage Electrification and BEB Installation

Tukwila, WA

LO supported the design for the first electric bus charging infrastructure at Powell Base. Our work includes designing the electrical power infrastructure, charging pantographs, and charge management systems, as well as foundations and anchorage for on-grade equipment and the gantry structure supporting overhead chargers—carefully coordinating the foundations with underground utilities. Upon completion, the base will support a fleet of 286 ZEBs, ready to drive TriMet into a more sustainable future.

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## King County Parks Central Maintenance Facility

Renton, WA

This multi-building, sustainable, 5.7-acre redevelopment will provide much needed space for King County's Parks and Recreation Division. Scope includes design and engineering services for new administration offices, vehicle maintenance and storage facilities, infrastructure, and site improvements. This project involves complex scheduling, phasing, and coordination to maintain continuous operations without disruption of utility services or access to existing facilities, and minimal disruption to King County Park's Operations unit. **Net-Positive Energy. Pursuing Living Building Certification.**

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## Skagit Transit MOA Facility

Burlington, WA

Having outgrown their existing facilities, Skagit Transit needed to relocate its MOA facility to a new site. The new site will provide sufficient space for growth for the next 40+ years. Scope includes the conversion of an existing 69,000 SF pre-engineered metal warehouse into the new MOA, enabling a second floor addition. Additional new buildings will provide ancillary functions, including fueling stations and a bus wash.

Phase 1 is fully funded by the Federal Transit Administration (FTA).

## Ben Franklin Transit Operations Center

Richland, WA

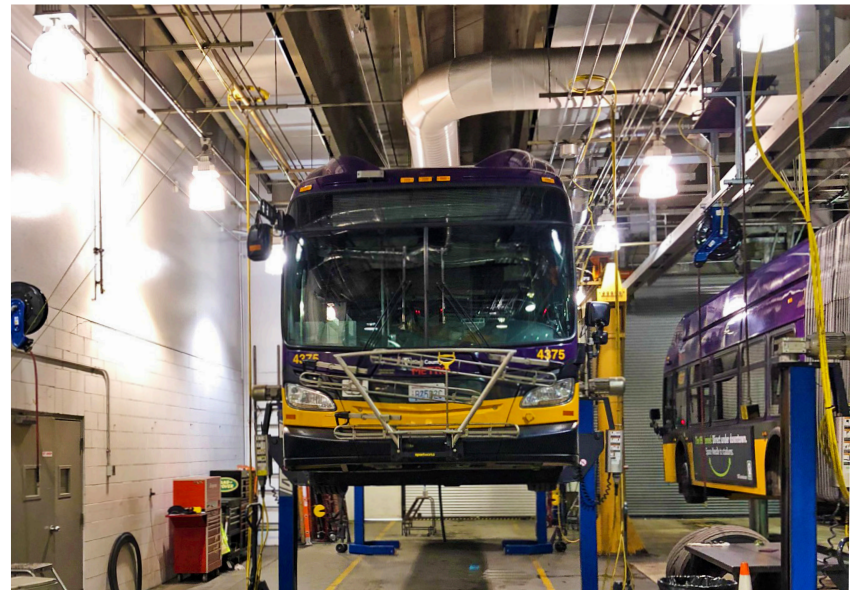
This multi-phased project includes both new construction and renovation projects, beginning with an analysis of the existing MOA facilities. The team was tasked to develop recommendations to replace or modify and make improvement recommendations for this campus. Ben Franklin selected to replace the existing Operations Building with a new two-story, 16,000 SF steel-framed office building. The replacement focused on improving work flow and developing plans for future growth. This project is partially funded with a Federal Transportation Administration (FTA) grant.



## King County Base HVAC Replacements

King County

Atlantic, East, and South bases, three of seven transit bases in King County, manage bus dispatch, driver assignments, and oversee bus service operations 24/7. The HVAC systems in these bases were nearing the end of their useful life. Replacement followed the model of the North Base HVAC replacement in 2014 where LO was Structural Engineer of Record. Following a robust alternatives analysis, this was determined to be the most up-to-date HVAC technology available and meets the goals of the King County Strategic Climate Action Plan to reduce energy consumption and production of greenhouse gas emissions in King County facilities.



## KCMT Rapid Ride Kiosk Design

Seattle, WA

KCMT's RapidRide kit-of-parts is a shelter design with an adaptable fabrication process, tailored to site-specific conditions while maintaining a cohesive and recognizable set of amenities that enhance the passenger experience. Our team developed details for the shelter's foundation designs and reviewed the architectural plans for structural adequacy, ensuring compliance with International and local building codes. These design details now form the basis for thousands of shelters across the KCM service area. Additionally, our work order manager provides ongoing construction support, adjusting designs to accommodate site-specific conditions.





## **City of Redmond Maintenance and Operations Center Feasibility Study**

Redmond, WA

Development of a master plan for the City of Redmond Maintenance and Operations Center (MOC) that includes administrative offices, maintenance facilities, a parking garage, site storage, and emergency operations center (EOC) facilities.

## **Washington State Department of Transportation Consolidated Shops**

Wenatchee, WA

This 42,000 SF high bay vehicle maintenance facility for the Washington State Department of Transportation includes parts storage, machine shops, and training rooms. The structure is tilt-up building with concrete wall panels supporting a steel frame roof.

## **Grays Harbor Transit Feasibility Study**

Hoquiam, WA

This assessment examines existing site conditions for current and proposed facilities, develops a structural basis of design and narrative for a new facility, and identifies upgrades to extend the lifespan of the existing facility.



## **Pierce Transit Electric Bus Charging Stations**

Tacoma, WA

LO supported the installation of three electric bus charging stations. Bus turning movements and employee safety are critical design considerations.

## **Kitsap Transit Base Siting Study**

Bremerton, WA

Currently located on two campuses, the team provided expansion recommendations to accommodate current and future demands. The team identified facility needs, made site recommendations, completed Federal Transit Administration (FTA) documentation, collaborated with Kitsap Transit staff, and engaged in community outreach.

## **The Boeing Company IDIQ Contracts**

Multiple in WA

LO was awarded two-year, IDIQ contracts for structural engineering services under \$100K from 2014-2016, 2016-2018, 2022-2024. Projects have included mezzanine designs, handrails, and skylight replacements at multiple facilities in the Puget Sound region.

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