Fieldwork 101

Sound Transit is in the early planning phase for the West Seattle and Ballard Link Extensions project. As part of this phase, Sound Transit is coordinating with property owners throughout the corridor to collect and analyze information necessary to plan and design possible light rail alignments to be studied in the environmental review process.

Crews will perform the fieldwork activities outlined below in various places along possible alignments after receiving the signed approval from and coordinating with property owners.

Civil Survey

Crews of two or three will use equipment mounted on small tripods or hand-held computers to gather information on a property such as topography, locations of trees, buildings and utilities. Each surveying activity will typically take two to three days to complete and may require follow up visits, as needed.

Design/Site Reconnaissance Activities

Crews will use computers, measurements, and sketch pads to gather site-specific information to prepare and verify data. Work will likely take one to three days per visit. Light cutting may be required if there is thick brush or blackberries in the area.

Phase 1 Environmental Site Assessments

Crews will walk the site with the property owner and interview them as part of a visual site assessment.

Utility Locates

Utility companies will locate their subsurface utilities and mark the locations on the ground with small amounts of spray paint.

Noise and Vibration Monitoring

Crews will install, monitor and remove sound and vibration testing equipment to document ambient noise levels in both indoor and outdoor locations, as well as understand how vibration might travel from potential light rail alignments. Monitoring typically takes about one day to complete, which includes set up, testing and take down.

Cultural and Historical Resource (Archaeological)

Archaeologists will walk the site and excavate about seven feet of soil using shovels. They will examine the soil for archaeological artifacts. No artifacts will be removed from the site. Work occurs in multiple steps and may take up to one week to complete. Archaeologists will identify potential cultural and/or historical resources. Any holes will be filled once investigation is complete.
**Wetland and Stream Delineation**

These activities will include analysis of plants, water conditions and soils by biologists. Crews will dig small holes and refill them once analysis is complete. Generally, the assessments will be done visually; if there is thick brush or blackberries in the area, light cutting may be required. Some small flags may be placed to identify boundaries and study sites.

**Tree Analysis**

Certified arborists will visit properties to evaluate trees larger than four inches in diameter and identify the species, height, diameter and potential hazards. Trees may be marked with a tag or small dot of paint. Work will typically take one to three days per visit; more than one visit may be required.

**Bathymetric Surveys**

One small boat with sonar and survey equipment will travel back and forth in a defined area to collect data to map the ground line underneath the water. Work will take place over 2-4 days and will not block other vessel traffic.

**Dewatering Well(s)**

This work will include the drilling, installation and decommissioning of dewatering well(s). These wells are typically about four feet in diameter and up to 200 feet deep. Specific details about each dewatering well will be provided to property owners by Sound Transit staff. Any dewatering well will be covered and decommissioned in accordance with state regulations.

**Historic Building Inventory**

Historians will view properties from public right-of-way, take photos of structures, and take notes on features of structures. The work generally takes less than 10 minutes per property. Section 106 of the National Historic Preservation Act requires inventory of all properties 50 years or older in the vicinity of proposed projects that receive federal funding in order to identify potentially historic properties and to assess potential impacts to these properties.

**Potholing**

To determine the precise location and depth of existing utilities, crews will use steam and equipment to evacuate soils and investigate underground conditions. Equipment used for this work will sound similar to a large truck running. Noise typically lasts for about two to four hours. Once the work is complete, crews will restore the ground to as close to its prior condition as possible.

**Geotechnical Drilling**

In order to study soil and groundwater conditions, drilling or “borings” are necessary to collect soil samples for analysis and install groundwater monitoring equipment. A drill rig attached to a truck will perform borings that will remove soil and install a monitoring device. Crews will monitor water levels by visiting these sites about every few months to take measurements throughout final design of the project. Each hole will be covered with a metal plate until they are refilled and patched to match previous conditions as closely as possible. In accordance with all local regulations, borings will be done carefully to avoid soil erosion and dirt or mud from leaking into surface waters, wetlands and drainage systems. Each site may take about one week to complete.

**Biological Assessment**

Crews will visually assess wildlife habitat and vegetation conditions using computers, cameras and other hand-held equipment. No digging will be done; no flags will be placed. Work typically takes about one to three days to complete; multiple visits may be required.

**Questions? Contact us**

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soundtransit.org/wsblink

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**About the project**

The West Seattle and Ballard Link Extensions will provide fast, reliable light rail connections to dense residential and job centers throughout the region. In addition, a new downtown Seattle light rail tunnel will provide capacity for the entire regional system to operate efficiently. These two separate light rail extensions are part of the regional ST3 package that voters approved funding for in November 2016. Get more project details at soundtransit.org/wsblink