



Utilities Memorandum

Prepared for:



**Washington State
Department of Transportation**



Prepared by:



**Washington State
Department of Transportation**

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Acronyms and Abbreviations

BPA	Bonneville Power Administration
CDID #1	Consolidated Diking Improvement District No. 1
Cowlitz PUD	Cowlitz Public Utility District
EIS	Environmental Impact Statement
gpm	gallons per minute
GSA Alternative	Grade-Separated Option A Alternative
IRC	Industrial Rail Corridor
PGSB Alternative	Partial Grade-Separated Option B Alternative
SR	State Route
SUE	Subsurface Utility Engineering
WSDOT	Washington State Department of Transportation

1.0 INTRODUCTION

The Industrial Way / Oregon Way Intersection Project is located in the industrial area of Longview, Washington at the intersection of Industrial Way (State Route (SR) 432), Oregon Way, and SR 433. This intersection provides a critical connection of two Highways of Statewide Significance that support significant passenger and freight truck movement. The purpose of the project is to develop an affordable long-term solution that:

- Maintains or improves emergency response
- Improves travel reliability for all vehicles
- Accommodates current and future freight truck and passenger vehicle movement through the intersection and across the region and states.

The purpose of this document is to describe the existing utility conditions, discuss effects and benefits the project would have on those conditions, and recommend mitigation measures to address adverse effects. The information contained in this technical analysis supports the project's Environmental Impact Statement (EIS).

2.0 DESCRIPTION OF ALTERNATIVES

Three alternatives are being evaluated to address the project's purpose and need: the No Build Alternative, the Grade-Separated Option A Alternative (GSA Alternative), and the Partial Grade-Separated Option B Alternative (PGSB Alternative). Each alternative is described in Chapter 2 of the project's EIS.

3.0 AFFECTED ENVIRONMENT

The presence of private or public utilities in highway right-of-way means that coordination with utility owners is necessary if a utility has the potential to conflict with proposed road construction. This coordination would take place during final project design when the exact impacts to utilities are better known. Utility lines in the project corridor include water; sanitary sewer; storm drainage; telephone, fiber optics, and cable television; and natural gas and electric utilities. Utilities are present above and below ground in the project area.

There are at least 10 entities that provide utility services to residential, commercial, and industrial areas in the study area. This analysis included limited field survey and coordination. This analysis did not include comprehensive field surveys, potholing, or other physical explorations to confirm the location of underground utilities.

The following sections identify the primary utility lines of concern for the project.

3.1 Municipal Water

Municipal water is supplied by the City of Longview. Based on City of Longview GIS data, water lines run parallel and/or cross beneath the following that include Industrial Way (SR 432), Oregon Way, East Port Way, Columbia Boulevard, Alabama Street, and 14th Avenue.

3.2 Sanitary Sewer Service

Sanitary sewer services are provided by the City of Longview. Based on City of Longview GIS data, sewer lines run parallel and/or cross beneath the following that include Industrial Way, Oregon Way, East Port Way, Columbia Boulevard, Alabama Street, and 14th Avenue.

3.3 Storm Drainage and Sewer Service

Storm drainage includes City of Longview, Washington State Department of Transportation (WSDOT) and Consolidated Diking Improvement District No. 1 (CDID #1). Storm water in the project area drains to CDID Ditch No. 3.

CDID #1 facilities include CDID Ditch No. 3 that crosses under Oregon Way North of the Industrial Way/Oregon Way Intersection (Figure 1, Photo 2). CDID Ditch No. 3 includes twin 48-inch culvert cross under Oregon Way.

The Oregon Way Pump Station is located north of Industrial Way and west of Oregon Way on the south side of CDID Ditch No. 3 (Figure 1, Photo 1). This pump station has a total capacity of 70,000 gallons per minute (gpm). Water is pumped a distance of 3/4 mile to the Columbia River and through the levee at the East end of the Weyerhaeuser Co. mill site. A 66-inch pipe from the pump station to the Columbia River crosses under Industrial Way and runs parallel to West Port Way. The Oregon Way Pump Station is one of seven pumping stations operated by CDID #1 The combined capacity of the pumping stations is 700,000 gallons per minute. These pump stations are located throughout the greater Longview area and are instrumental for removing stormwater and preventing local and area wide flooding.

A 72-inch lake bypass drainage pipe runs parallel to on the west side of Oregon Way from Lake Sacajawea to CDID Ditch No. 3 with an energy dissipation feature on the north side of the ditch near Oregon Way.

Based on City of Longview GIS data, a network of sewer lines run parallel and/or cross beneath the following that include Industrial Way, Oregon Way, East Port Way, Alabama Street, and 14th Avenue.

Figure 1. Representative Photographs of CDID #1 Facilities



Photo 1: Oregon Way Pump Station



Photo 2: View of CDID Ditch No. 3 on the east side of Oregon Way, looking east

3.4 Telephone, Fiber Optics, and Cable Television

Telephone, Fiber Optics, and Cable Television in the project area includes Century Link, Wave Broadband/Cascade Network, Comcast, Sprint and NoaNet.

3.5 Natural Gas

Natural gas in the project area includes Cascade Natural Gas.

3.6 Electrical Services

Electrical Services in the project area include Cowlitz Public Utility District (Cowlitz PUD) and Bonneville Power Association (BPA). Cowlitz PUD is present with both above and underground facilities. Utility pole are present in locations that include Industrial Way, SR 433, Oregon Way, East Port Way, Alabama Street, and 14th Ave (Figure 2, Photos 3 and 4).

BPA electrical transmission lines designated as LONG-COWL-1 run parallel and to the north of CDID Ditch No. 3 (Figure 2, Photo 5). BPA Transmission Tower 3/11, and 3/12 are respectively to the west and east of Oregon Way.

Figure 2. Representative Photographs of Electrical Services in the Project Environment

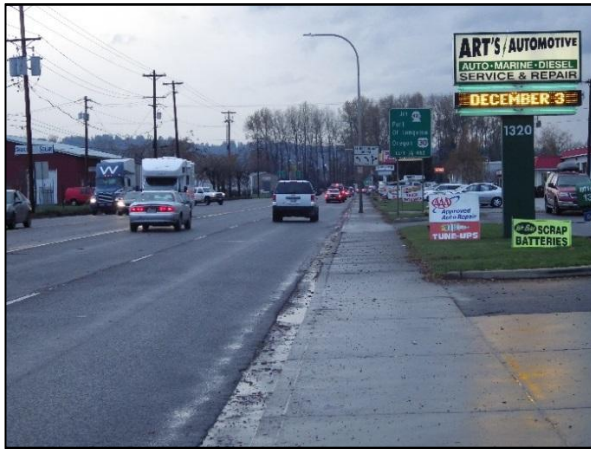


Photo 3: OR 432 east of the intersection with Oregon Way, looking west. Utility poles along south side of Industrial Way on left side of photo.



Photo 4: View from SR 433 traveling north toward the intersection with Industrial Way, looking north. Utility poles along East Port Way on right side of photo.



Photo 5: BPA transmission lines along CDID Ditch No. 3.

4.0 ENVIRONMENTAL CONSEQUENCES

This section describes and documents the potential adverse, beneficial or neutral effects to utilities with the two build alternatives and the No Build Alternative.

4.1 No Build Alternative

The No Build Alternative would include minor improvements, repair, and routine maintenance in the project area; therefore, there would be minor impacts to utilities. Standard upgrades and maintenance to utility lines would continue to be performed by utility owners.

4.2 Grade-Separated Option A (GSA) Alternative

Utilities that are in the project footprint are likely to be impacted due to stage construction and improvement constructed by the project. These utilities including water; sanitary sewer; storm drainage;

telephone, fiber optics, and cable television; and natural gas and electric utilities as identified in Section 3.0.

Additionally, the GSA Alternative would construct a street improvement parallel to the Industrial Rail Corridor (IRC) with a connection to Columbia Boulevard/Industrial Way. Utilities present in this area are likely to be impacted under the GSA Alternative.

4.3 Partial Grade-Separated Option B (PGSB) Alternative

Utilities that are in the project footprint are likely to be impacted due to stage construction and improvement constructed by the project. These utilities including water; sanitary sewer; storm drainage; telephone, fiber optics, and cable television; and natural gas and electric utilities as identified in Section 3.0.

Additionally, the PGSB Alternative would construct street improvements along Alabama Street from Oregon Way to 14th Avenue and constructs street improvements on 14th Avenue from Beech Street to Alabama Street. Utilities present in this area are likely to be impacted by the PGSB Alternative.

As indicated above, both GSA and PGSB are expected to have comparable utility impacts.

5.0 RECOMMENDATIONS FOR FURTHER INVESTIGATIONS

During future design efforts, the location of utilities in the project area will be confirmed by field investigations, including locating lines below ground.

The project will also consider conducting a Subsurface Utility Engineering (SUE) study for this project. The SUE process combines civil engineering, surveying, and geophysics. It utilizes several technologies, including vacuum excavation and surface geophysics. SUE benefits both highway agencies and the impacted utilities by providing accurate utility information to the highway designers early enough in the development of a project to design around many potential conflicts. SUE has been shown to reduce relocations normally necessitated by highway construction projects, reduce delays to the project caused by waiting for utility work to be completed so highway construction can begin, and reduce unexpected conflicts with utilities.