

# Welcome

## DESIGN WORKSHOPS OVERVIEW

Thank-you for coming and participating in an important conversation about critical infrastructure in the Comox Valley.

### Why are we talking design?

We know there are questions you have about the proposed Comox No. 2 pump station – some of which are still being assessed. In order to provide all the information needed to the Comox Valley Sewage Commission to allow them to make a decision about whether or not to move forward with this project (in June/July), these design workshops are happening simultaneously while assessment of other critical issues (ie: groundwater, geotechnical, routing and conditions assessments) continues.

### What's to come:

#### Workshop 1: March 29, 2017

This session will focus on collecting your feedback on key values of your community and your priorities/concerns about aesthetics of a potential facility.

#### Workshop 2: April 26, 2017

Potential design approaches will be presented for feedback/comment, based on the input provided at the first session.

#### Workshop 3: May 24, 2017

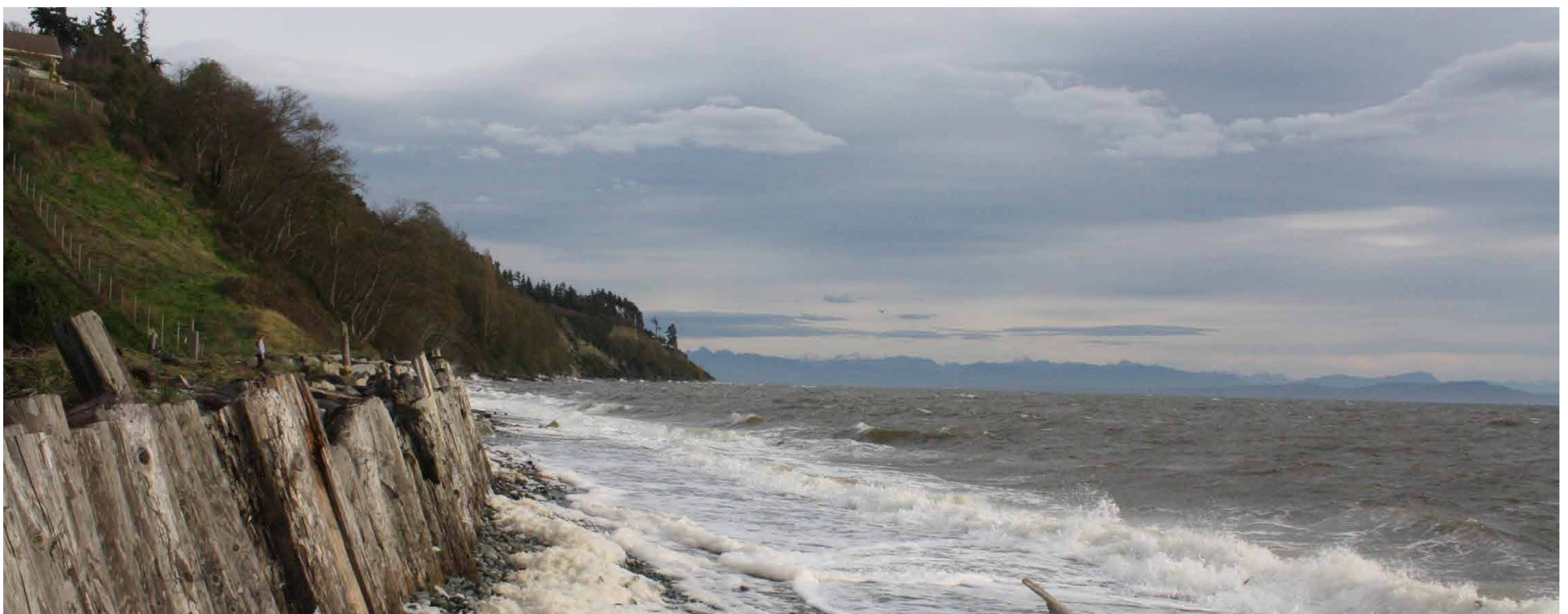
Developed based on feedback from workshops 1 & 2, a preferred design will be presented, with feedback and additional questions received.

### Please:

- Sign in at the door
- Review the boards and ask any questions about the project you have
- When ready, move onto the facilitated feedback stations to add your comments/input
- Fill out and leave a comment form – or take it home and send back to us in the coming week

Thank-you for being a part of this important community conversation,

*Comox No. 2 Pump Station Team*



# Timeline

## COMOX NO. 2 PUMP STATION

JAN. 2017

FEB. 2017

MAR. 2017

APR. 2017

MAY 2017

JUN./JUL.  
2017

JUL.-SEP.  
2017

OCT.-DEC.  
2017

JAN. 2018-  
MAR. 2019

### Indicative Design Phase Begins

- Opus awarded contract with CVRD:

#### Additional Study of Site:

- Groundwater Assessment
- Geotechnical Assessment

#### Condition Assessment:

- Assessment of foreshore pipe connecting Jane Place to Comox No.2 location
- Assess whether forecasted lifespan is accurate

#### Prepare for Potential Next Steps:

- Updated cost and estimate schedule
- **Design workshops**

### Results considered

In June/July, the CV Sewage Commission will decide whether to move forward with the proposed Comox No. 2 Pump Station at the Beech Street location:

- Are red flags removed about the proposed site?
- Can the facility be constructed without harming the neighbourhood?
- Does it still make the most financial sense?

#### Decision is YES

##### July - September 2017

Implementation Phase begins

- Develop draft agreement and Request For Proposals

##### October - December 2017

- Request for proposals for Design-Build
- Notice of Award

##### January 2018

Construction Phase begins

#### Decision is NO

##### July 2017 - Onward

Alternate steps considered for rerouting of the Willemar Bluffs forcemain

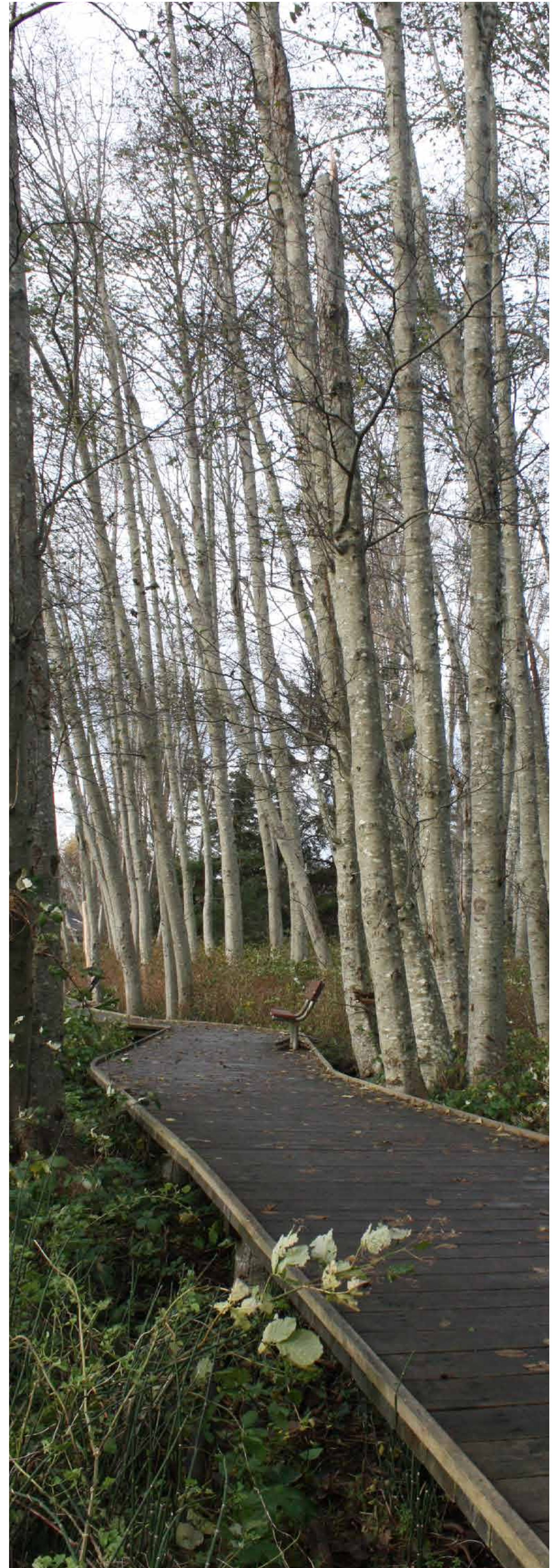
# Project Update

## WHAT'S HAPPENING NOW

In January 2017, the CVRD awarded engineering firm Opus the contract as Owner's Engineer (OE). Their work starts with the Pre-Implementation Phase, including the indicative design – a critical step in determining next steps for the Comox No. 2 Pump Station.

### During this phase:

- Groundwater and any potential impacts on wells will be assessed:
  - Work being conducted by GW Solutions
  - Residents in area may see test holes drilled and other activity
- Geotechnical suitability of property will be assessed:
  - Work being conducted by Exp
  - Test drills will be done on the site in Spring 2017
- Condition Assessment of existing forcemain will be completed:
  - Focused on stretch between Jane Place (Courtenay) pump station and proposed connection point for new watermain
- Cost estimates will be updated:
  - Last updates completed in 2015
  - Revised cost will be "Class B" (Substantive), +/-15-25% accuracy
- Decommissioning plans for the Willemar Bluff section of forcemain will be developed:
  - Assess options for existing pipe and consider timing
- Construction plan that focuses on reducing impact on the community will be outlined:
  - Will consider methods, timing and routes



# What is a Pump Station?

All pump stations have a similar purpose – to convey fluids from one place to another. The size and layout of each pump station is dependent on many factors. However, sanitary pump stations typically consist of the following main components:

## Mechanical Room

This room would house potable water service, hot water tanks, and other mechanical equipment.



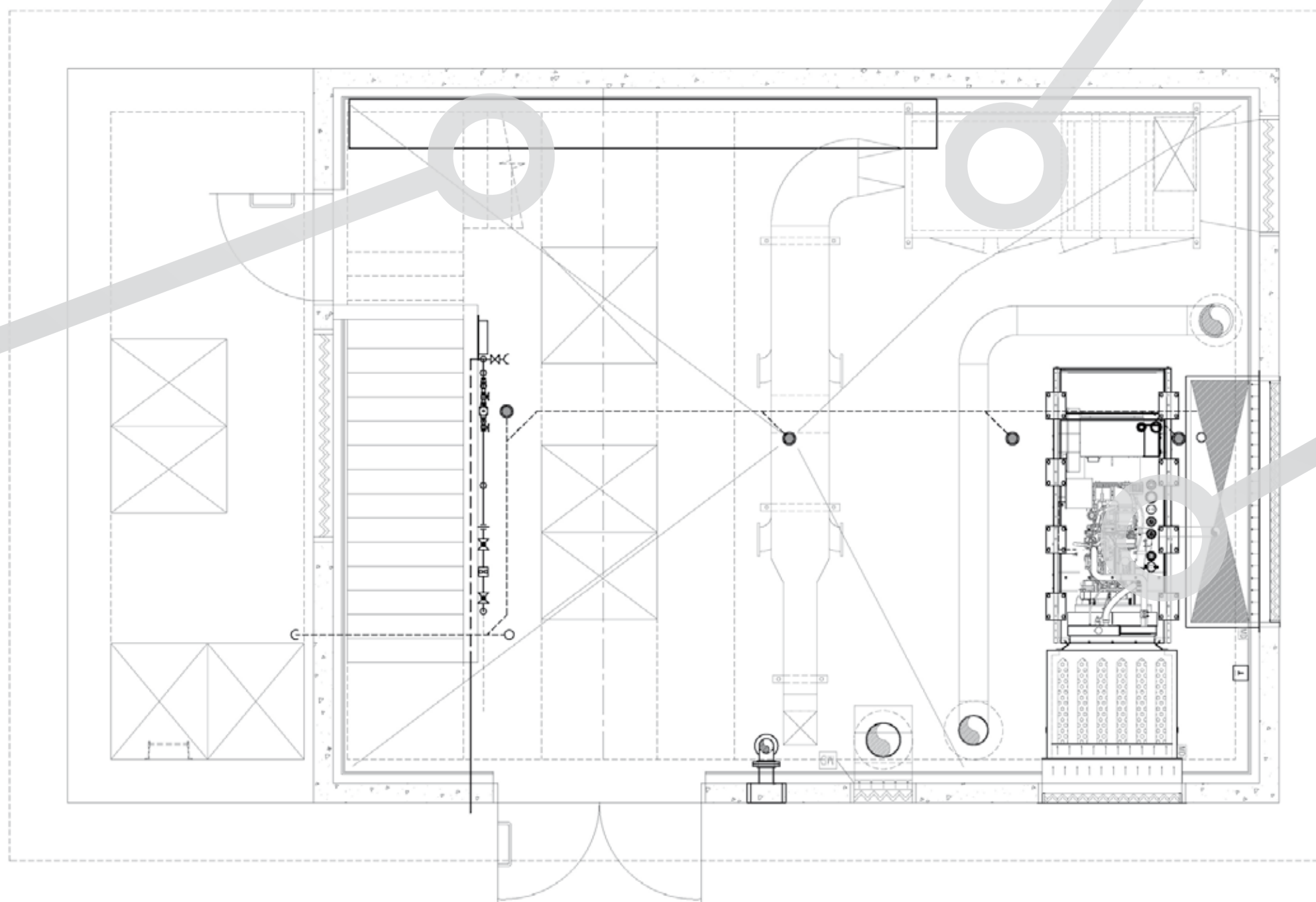
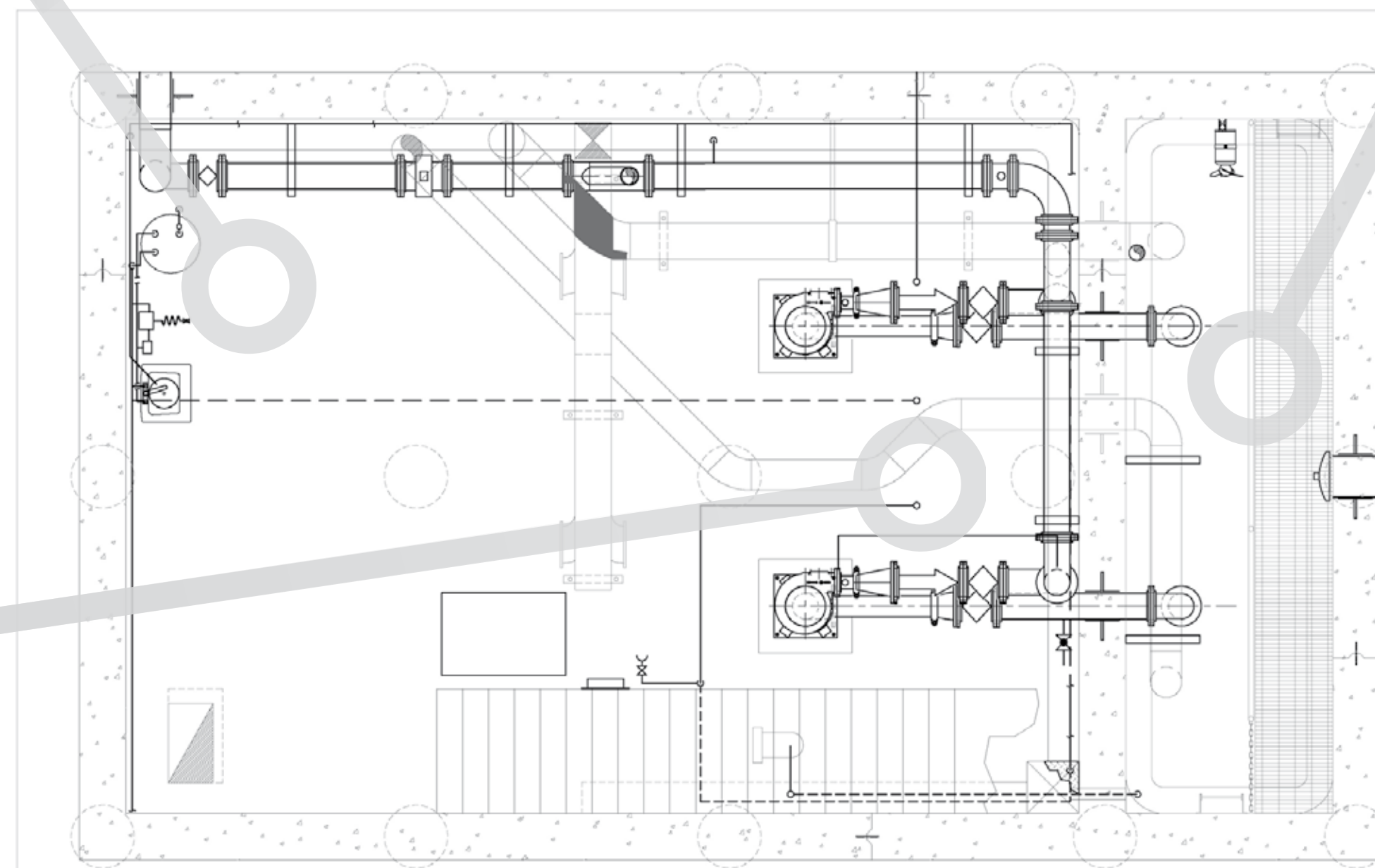
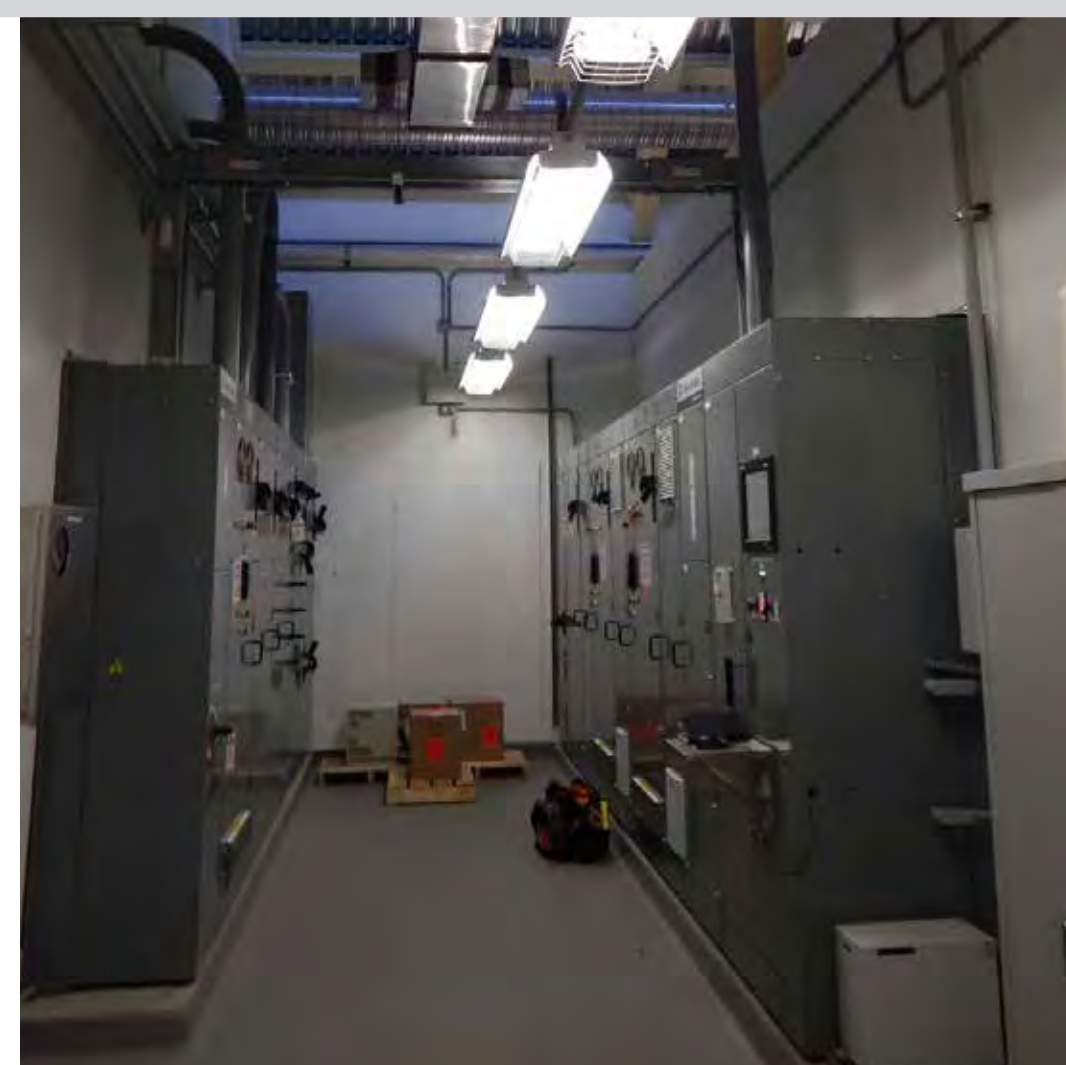
## Dry Well

Connected to the wet well through suction pipes, pumps are housed in this room where noise and vibration mitigation measures are implemented.



## Electrical Room

The electrical panel and control components are installed here.



## Wet Well

A water-tight and fully-enclosed concrete basin used for balancing in and out flows from the pumps.

(In this photo, the wet well is underground.)



## Odour Control

Air drawn from the wet well will pass through odour control technology to eliminate odours prior to release to the environment.



## Genset Room

The backup power generator, fuel storage, secondary containment and noise control would be housed in this room.



# Examples of Design

## WHAT DOES A PUMP STATION LOOK LIKE?

Every pump station looks different in order to suit the local settings and spacial requirements. Below are just a few examples of how aesthetics have been adapted to suit the setting they're constructed in.



### Gilmore Pump Station (Burnaby)

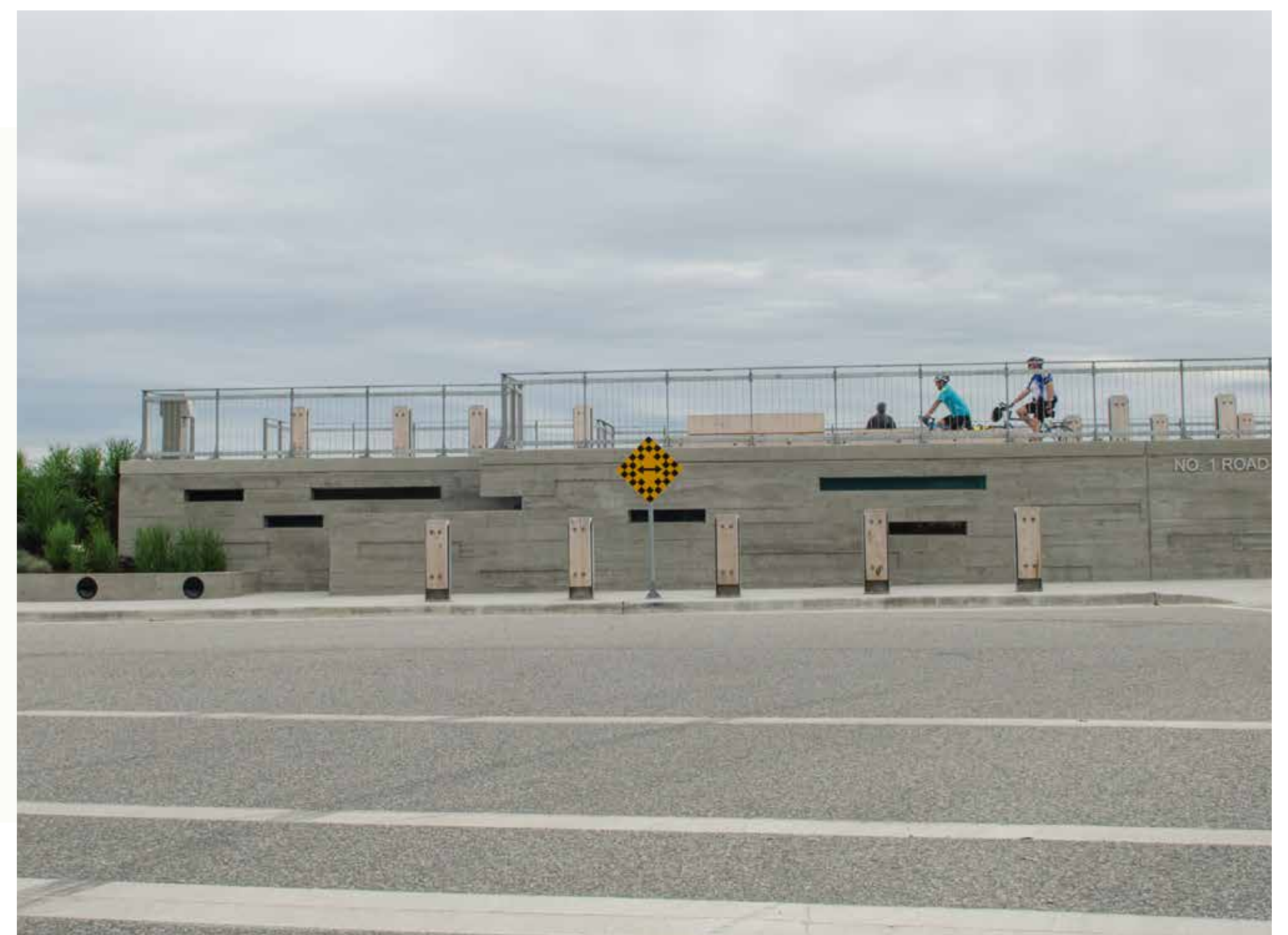
#### Features/Considerations

- Green roof
- Compact design for small space
- High-traffic area

### No. 1 Road Pump Station (Richmond)

#### Features/Considerations

- Provides trail node and viewing area above dike
- Incorporated features to limit shading of natural light to riparian areas
- Could not project above height of finished dike



### Northeast Sector Pump Station (Whistler)

#### Features/Considerations

- Minimize visual impact on natural surroundings
- Residential neighbourhood
- Materials and roofline to suit municipal design policies

# Examples of Design

## WHAT DOES A PUMP STATION LOOK LIKE?

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### Granville Island Pump Station (Vancouver)

#### Features/Considerations

- Next to multi-family residential
- Adjacent to popular trail and pond
- Materials selected to reflect west-coast aesthetic

### Emerald Estates Pump Station (Whistler)

#### Features/Considerations

- Situated near residences
- Next to lake and public park/trail access
- Includes public washroom



### Townline Pump Station (Abbotsford)

#### Features/Considerations

- Located in a rural neighbourhood
- Added features to make consistent with other buildings
- Need to minimize visual impact

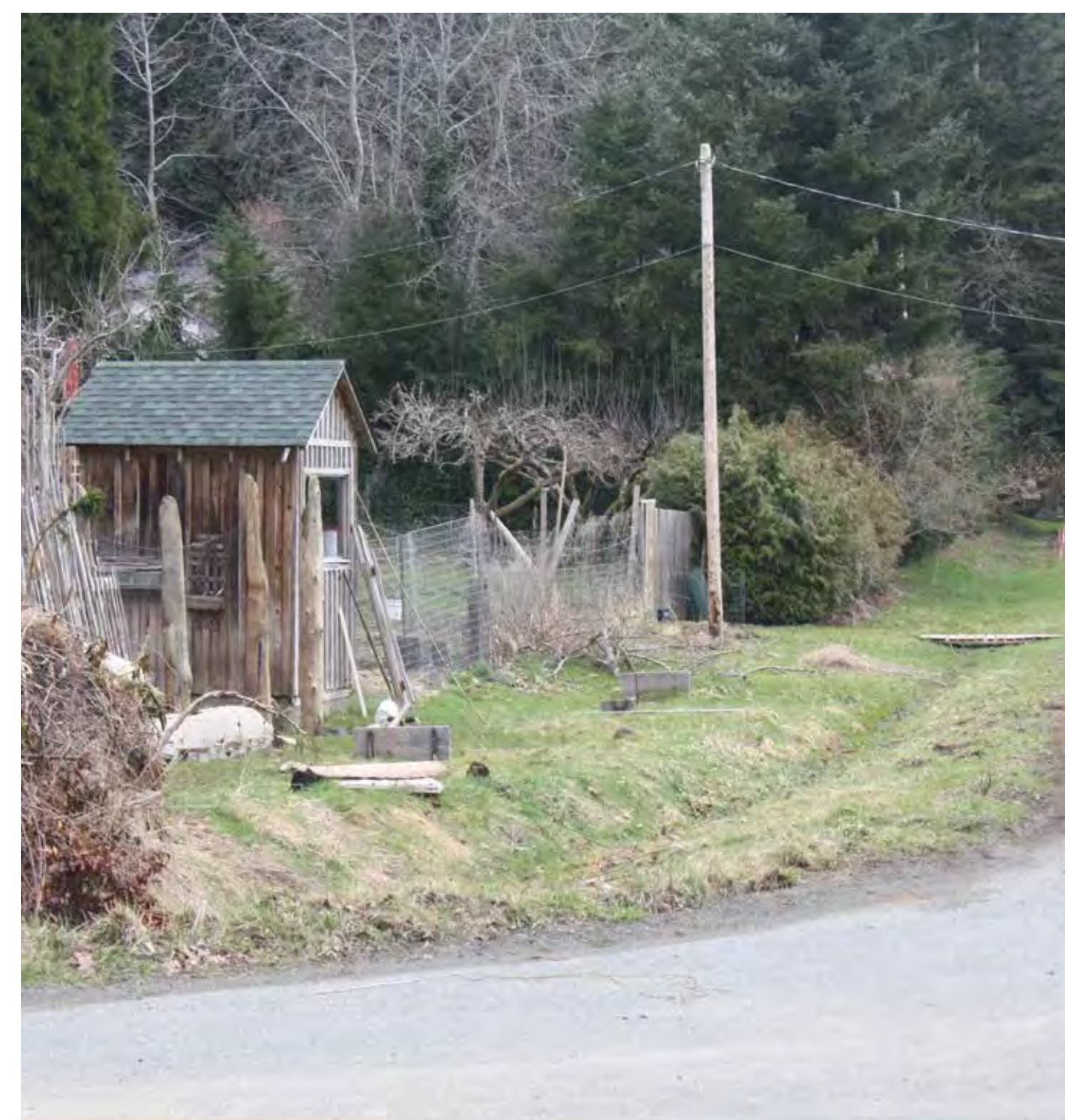
# Neighbourhood Values

## COMMUNITY FEEDBACK

Understanding what defines your community can help ensure that design respects those values.

### Sample Questions:

- What do you **value** about your neighbourhood?
- How would you **describe** your neighbourhood?
- What **feeling** does your neighbourhood create?



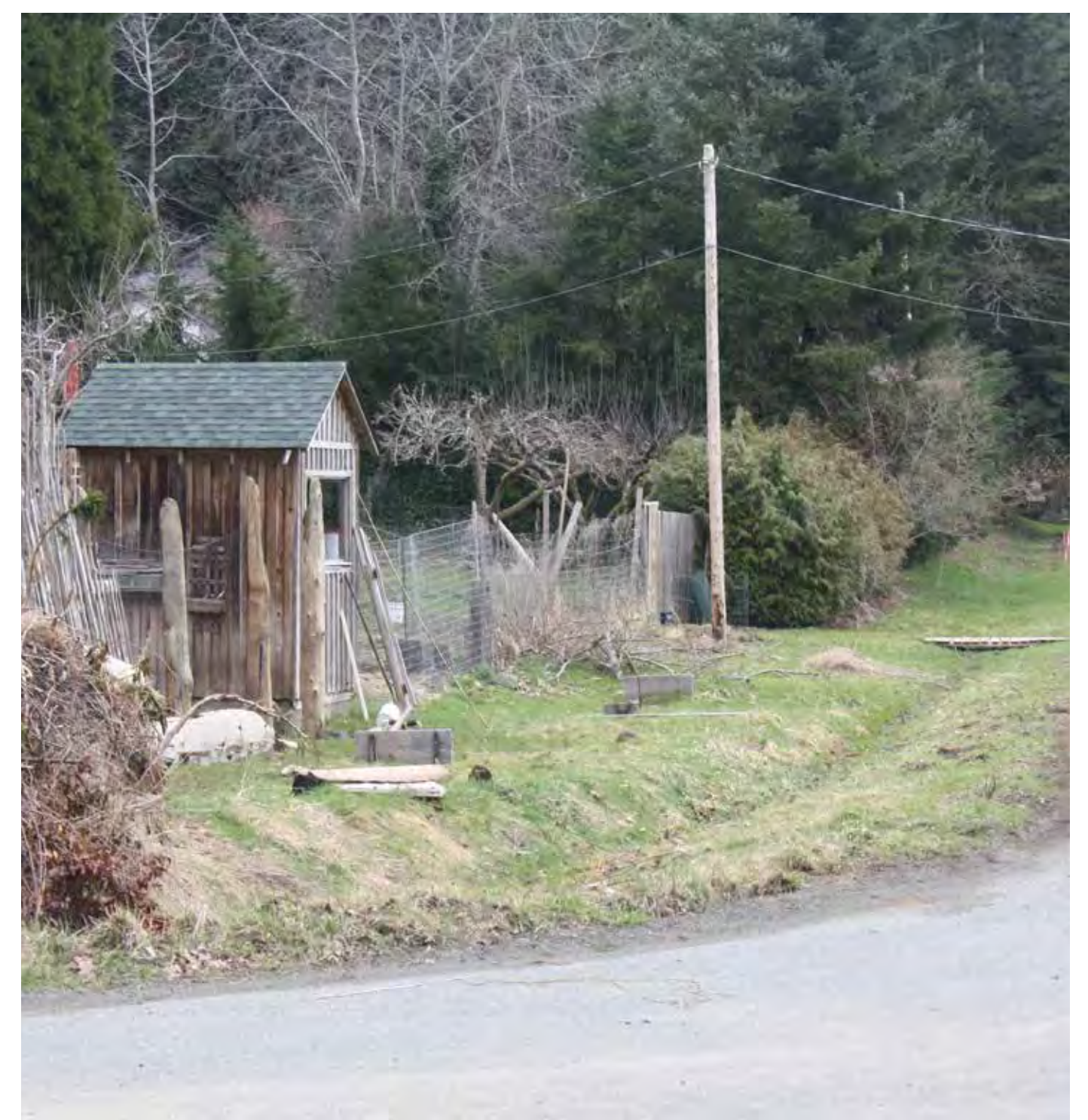
# Preferences and Choices

## COMMUNITY FEEDBACK

There are many options when it comes to design and aesthetics - we want to know where the community's preferences lie.

### Sample Questions:

- Do any of the design samples on the "What does a pump station look like" boards stand out as **more suitable** than others?
- How would you like to see the property **landscaped**?  
(ie: Natural woodland (trees & shrubs), rural (grasses & shrubs), or residential)



# What Else Should We Know?

## COMMUNITY FEEDBACK

This is an important opportunity for us to hear from the community. Please share any additional thoughts/comments about the design/aesthetics of the community.

### Sample Questions:

- Is there something about the **look/feel** of the community you want us to consider?
- What do you not want to see in terms of **design/aesthetics**?

