

# 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

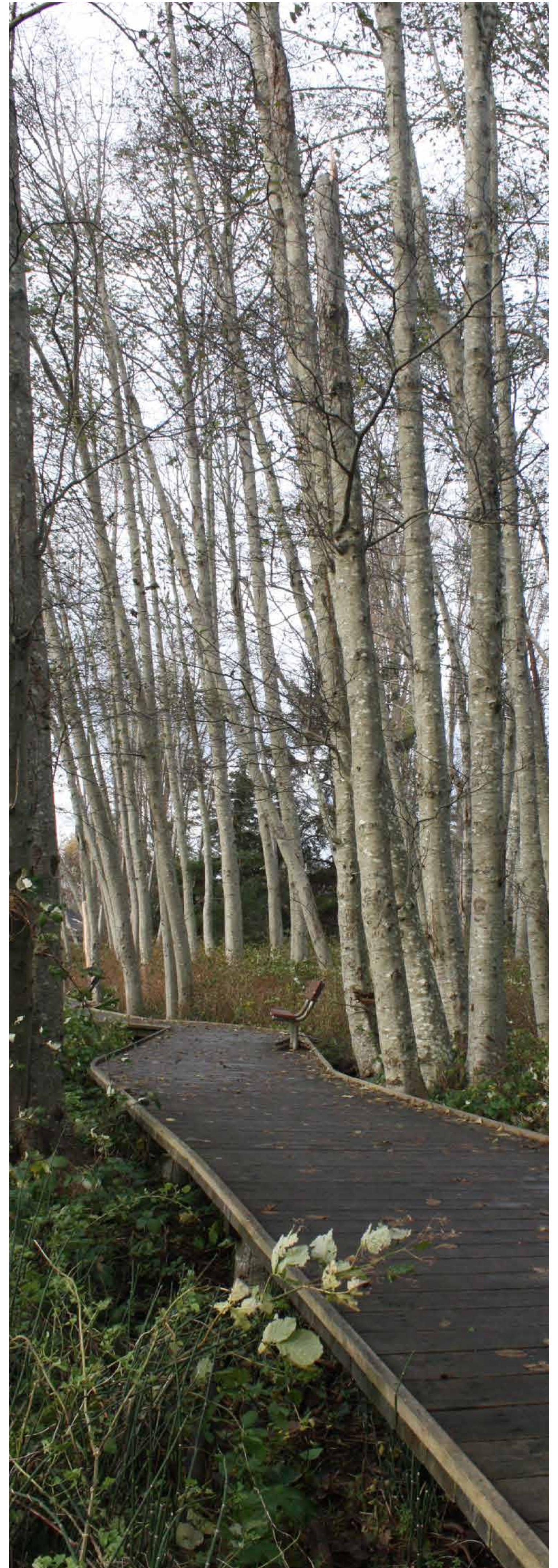
# Project Update

## 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.



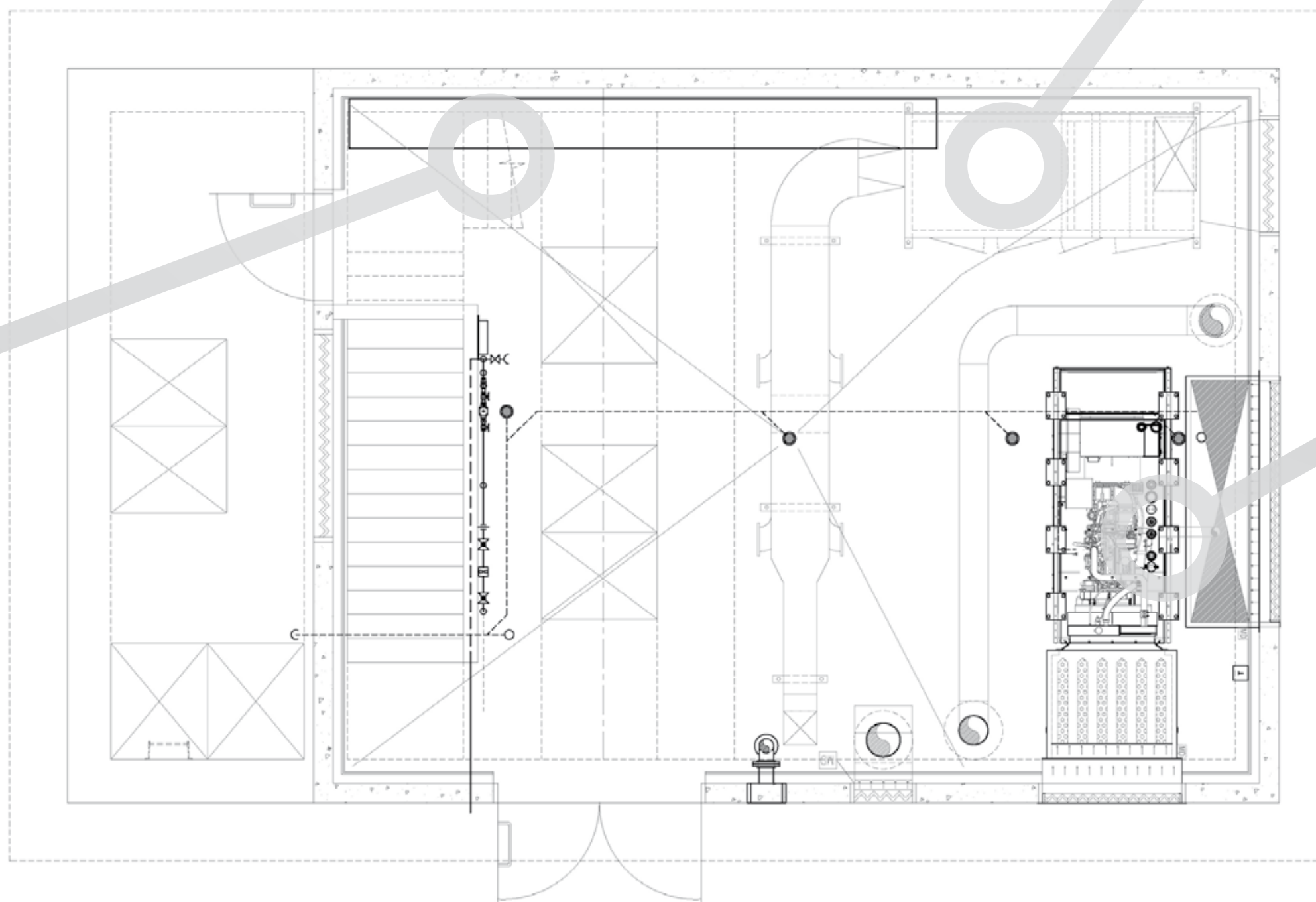
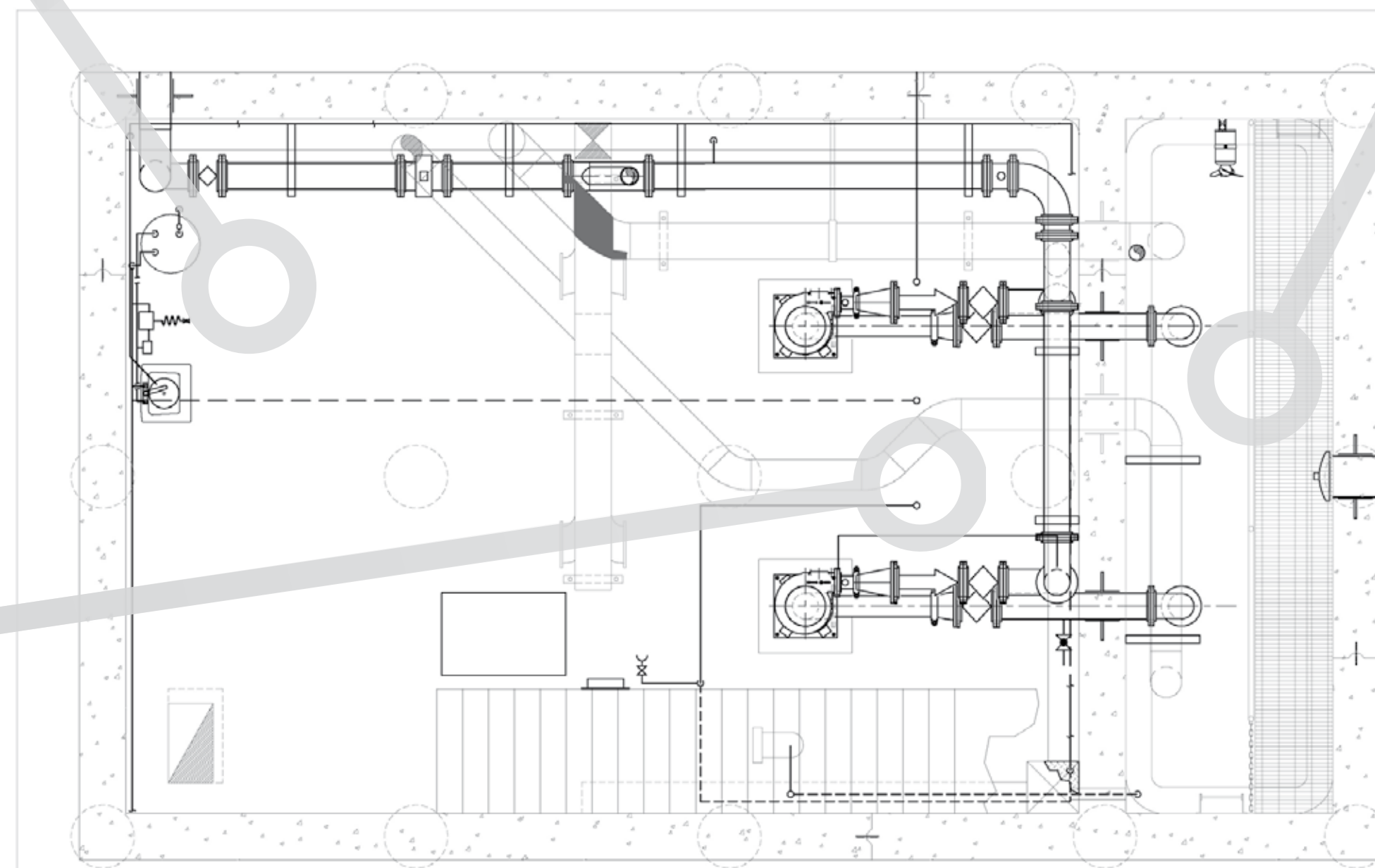
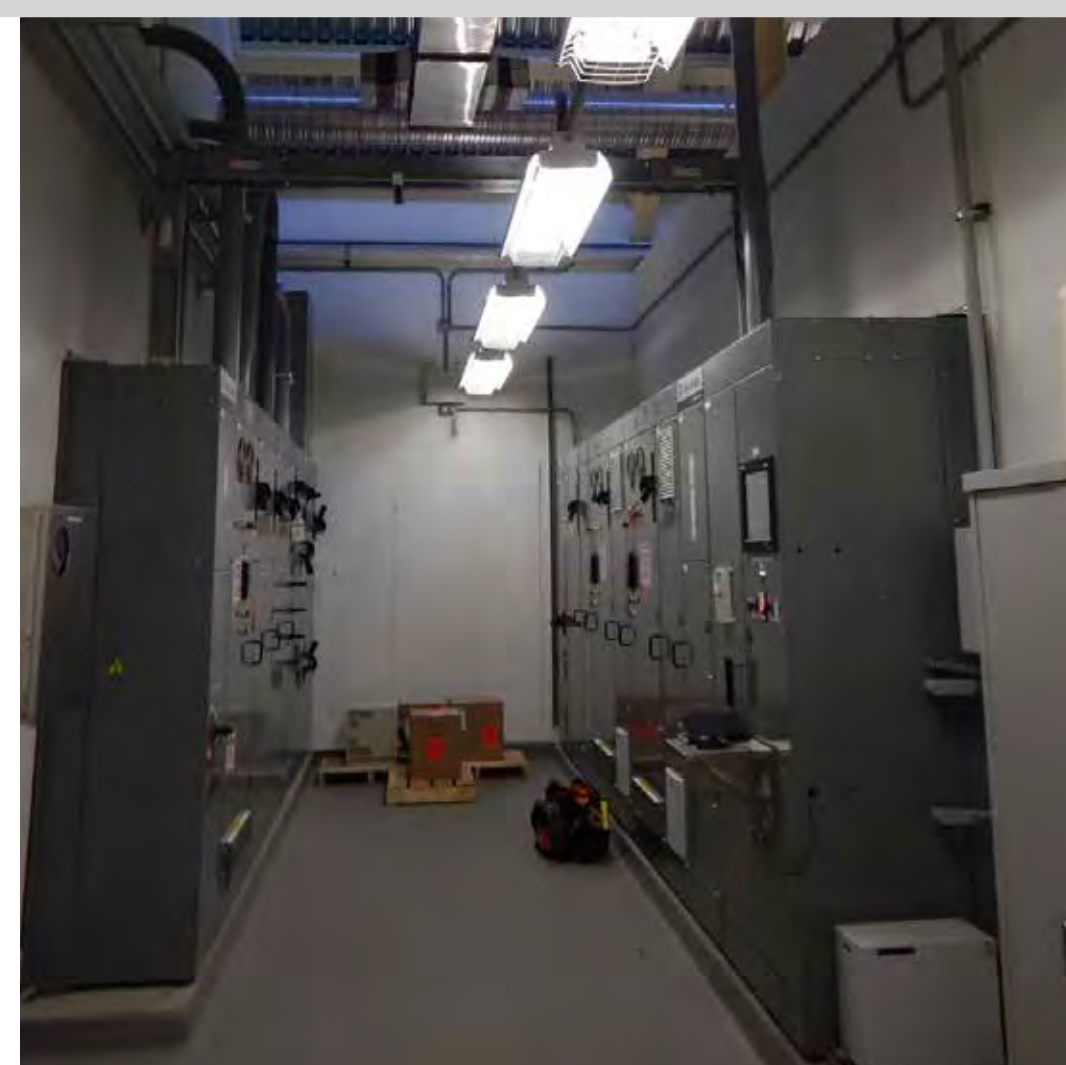
## Dry Well

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.



# Summary of Feedback from Workshop #1

## Overall Themes:

1. Dissatisfaction with process followed to date/ low confidence in assurances
2. Emphasis on values as described in Community Plan – design/planning should reflect spirit of that document
3. Focus on maintaining quality of life, rather than design (no odour, vibration, noise and protection of groundwater/wells and views)

## Specific Feedback:

- Rural/semi-rural, established neighbourhood
- Quiet, natural environment
- Organic feel to community, long-term residents
- Less about the look, more about protecting quality of life (no odour, vibration, noise and protection of groundwater/wells and views)
- No street or night lights
- No storm sewers, maintain ditches
- Maintain views
- Mitigate impact/damage during construction



# Summary of Feedback from Workshop #2

## Overall Themes:

1. General acceptance of design approach, but seeking more detailed sections, elevations to fully visualize and understand the concept
2. Continued focus on impacts of project to quality of life (water supply, noise, smell, vibration, lighting), both during construction and afterwards
3. Seeking firm guarantees that commitment to "0" odour, noise, vibration at the property line will be implemented and that construction and positioning of the facility will not impact water supplies
4. Lack of confidence in the political process and concern that if project exceeds budget, cost-cutting will occur and that wants and needs of neighbourhood will be lost (i.e. guarantees)

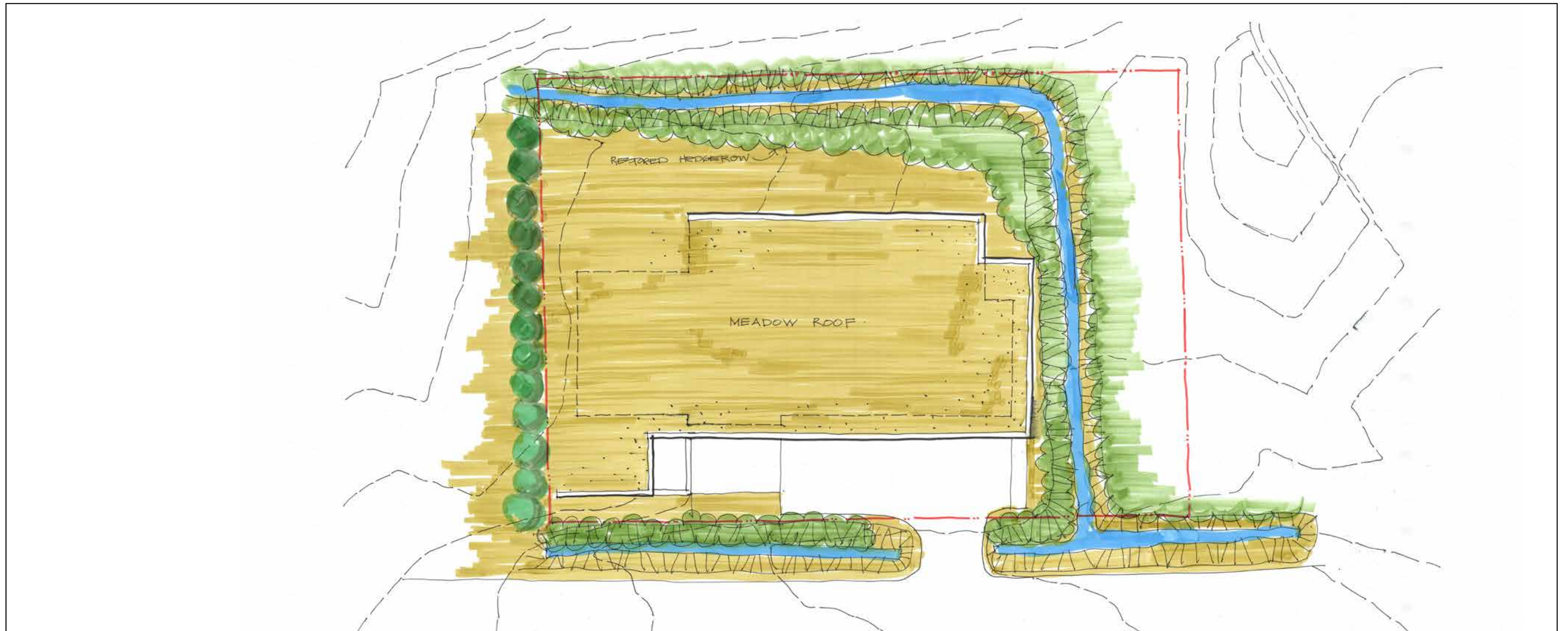
## Specific Feedback:

- No public use of site
- Require more detailed drawings and sections (height, setback, relation to neighbouring homes)
- No lights, dark neighbourhood
- Concern about how depth of the structure will affect the water supply for the homes below the station
- No well on property – pipe in municipal water for station's use
- Strong interest in technical requirements of project
- Wrong location for Comox and Courtenay only pump station
- Area B Director should be permanent, voting member of Sewage Commission
- Unfair, undemocratic process
- No faith that politicians will approve/pay for high quality project

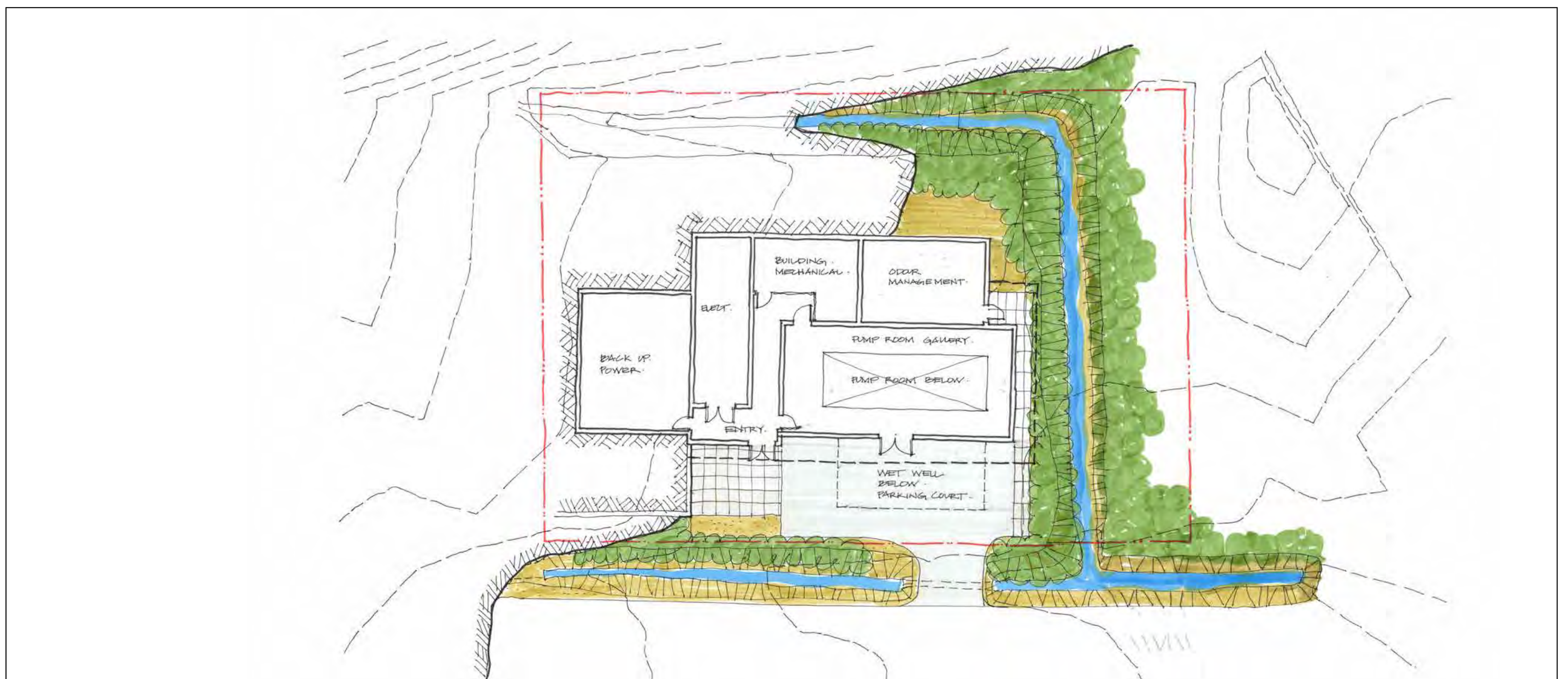


# General Design Concept

## Site Plan



## Floor Plan



## Elevation



# Concept Design Views

**View from street**



**View from neighbour's Living Room window**



# Design Features

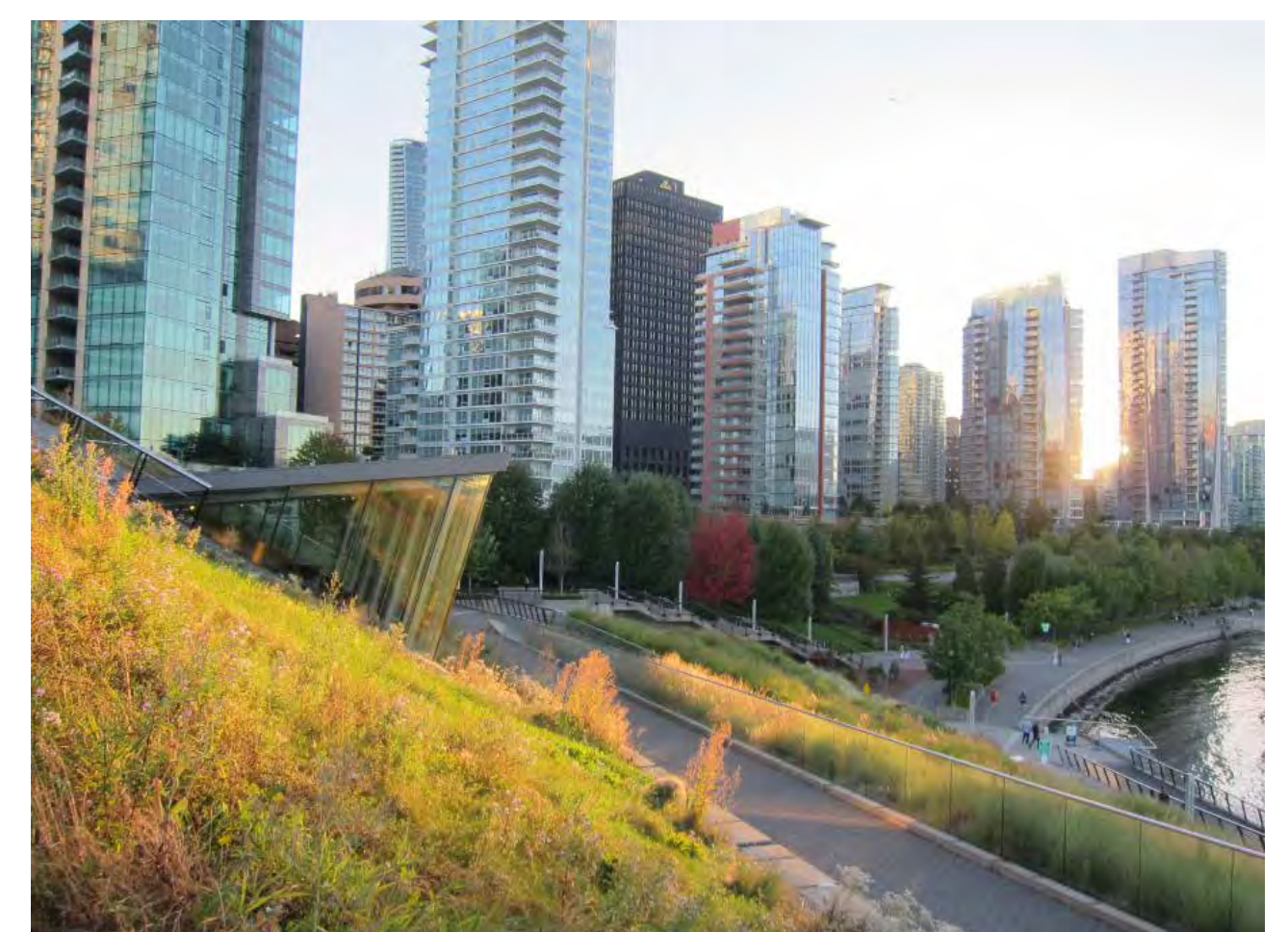
## Sight Preservation

- Sink building into ground with green roof
- Retain sightlines from adjacent properties over building
- Restore natural habitat over building
- Restore hedgerows
- Preserve and protect natural drainage systems
- Two side access only



## Noise, vibration, and odour

- Air management toward roads and greenspace to south
- Mitigate noise through internal acoustic attenuation and utilizing underground construction
- Concrete exterior wall construction
- Oversized rooms for odour treatment and noise



# Additional Features that could be included in Project Scope

- Fire hydrant on day one to reduce fire insurance costs in the neighbourhood
- Potential for future water supply
- Emergency power supply connection

