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

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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

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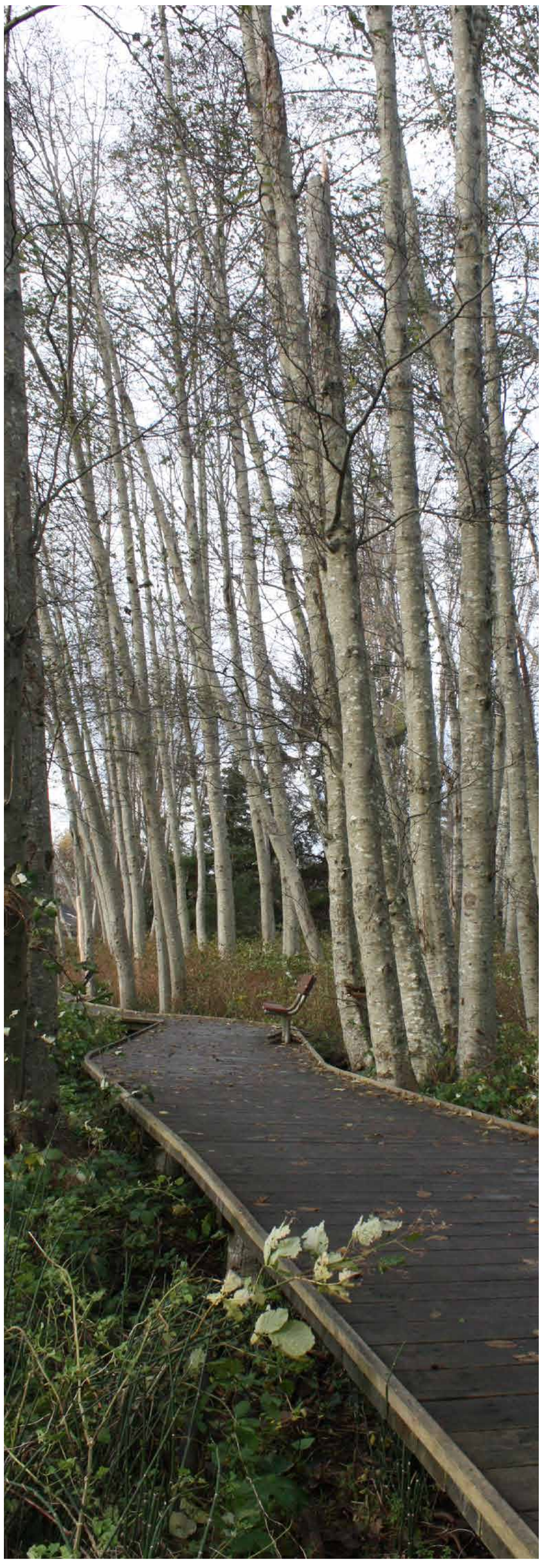
Project Update

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



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What is a Pump Station?

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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

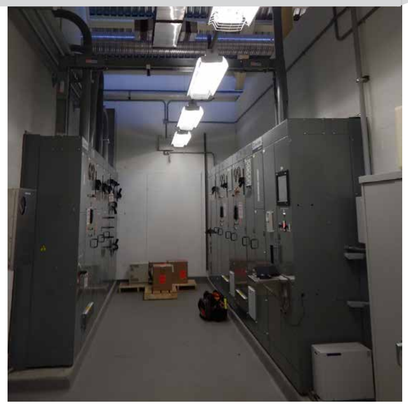
This room would house potable water service, hot water tanks, and other mechanical equipment.

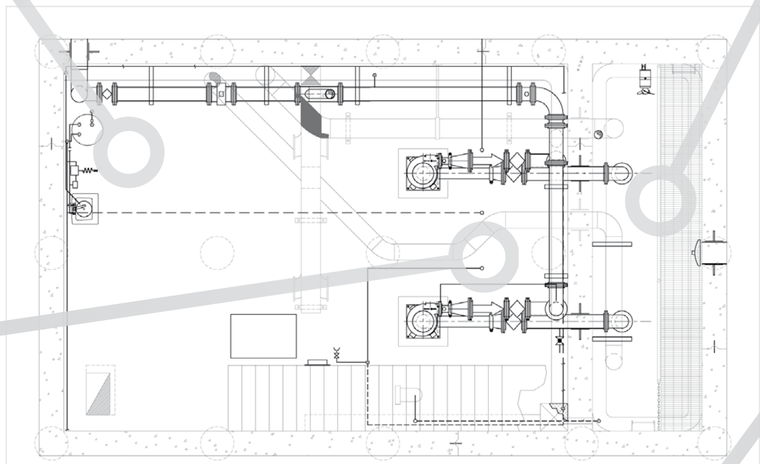
Dry Well

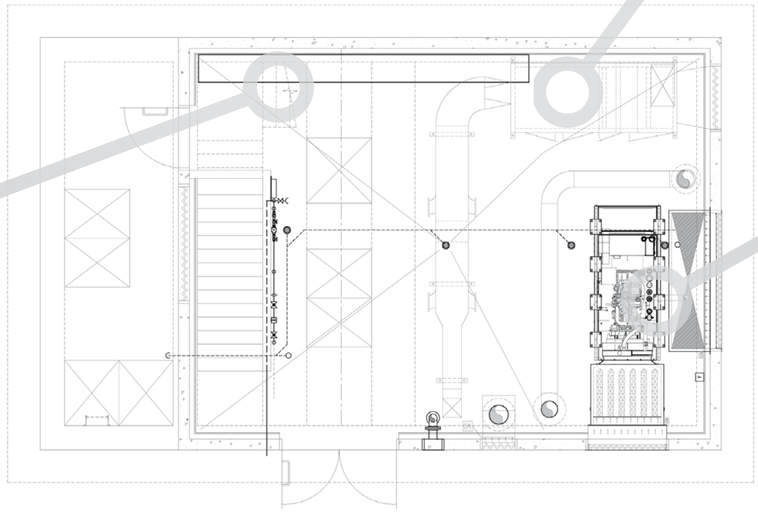
Connected to the wet well through suction pipes, pumps are housed in this room where noise and vibration mitigation measures are implemented.

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.

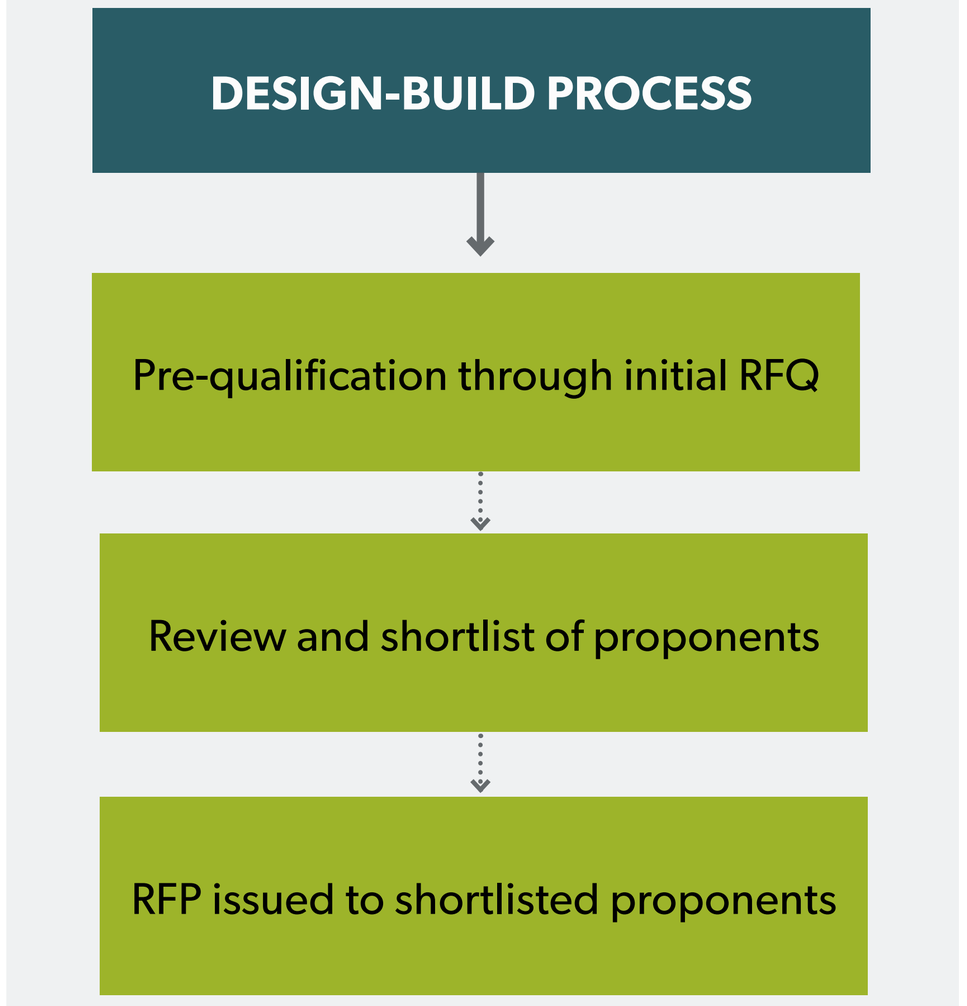
Genset Room

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

What is Design-Build?

Design-Build (D-B) is a project delivery system used in the construction industry. It is a method to deliver a project in which the design and construction services are contracted by a single entity known as the design-builder or design-build contractor.

- Two phase procurement process, where pre-qualification occurs through an initial Request for Qualification (RFQ) process. Proponents are then reviewed and shortlisted, normally to a maximum of three qualified proponents.
- Request for Proposal (RFP) is then issued to the shortlisted proponents only.



What building requirements/ specifications can be secured via the Design-Build RFQ/RFP process?

- Aesthetics
- Noise
- Vibration
- Odour
- Protection of groundwater/wells
- Mitigation of impact/damage during construction

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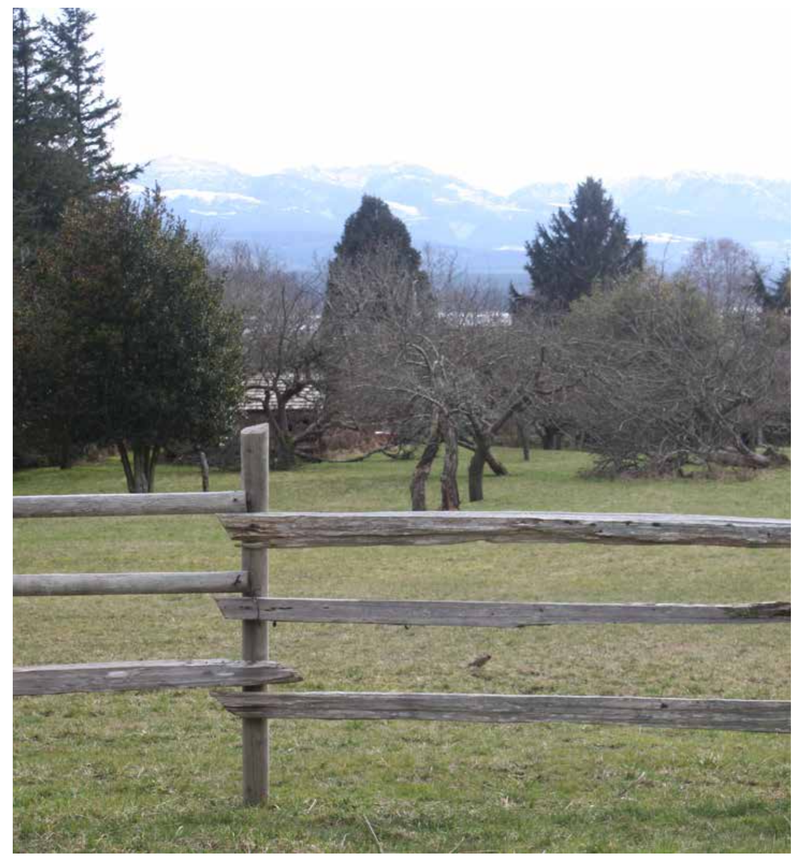
What We Heard

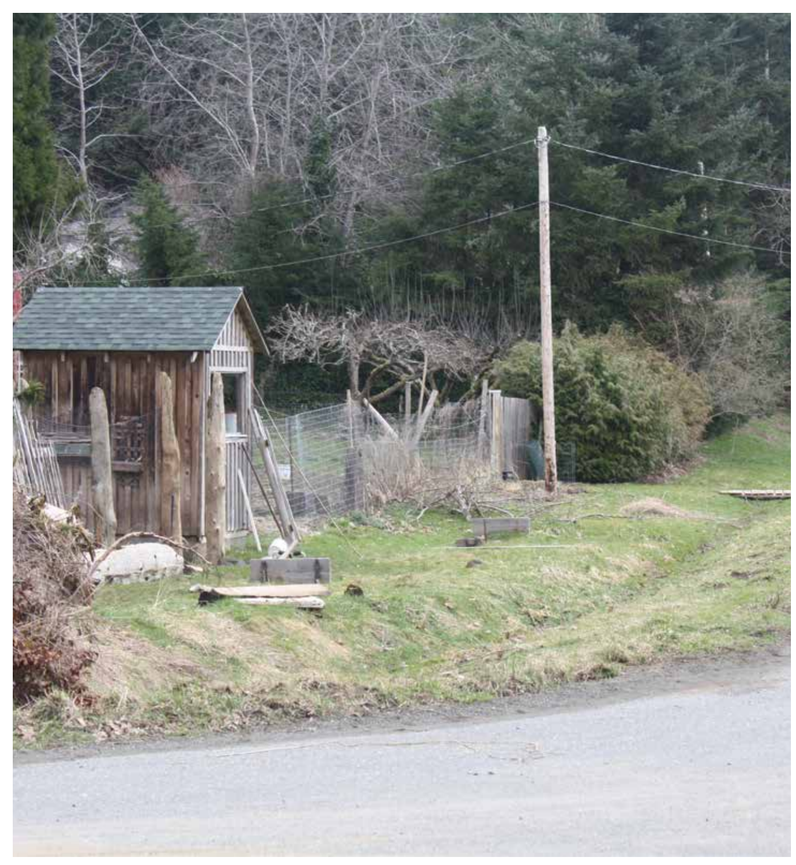
Overall Themes:

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





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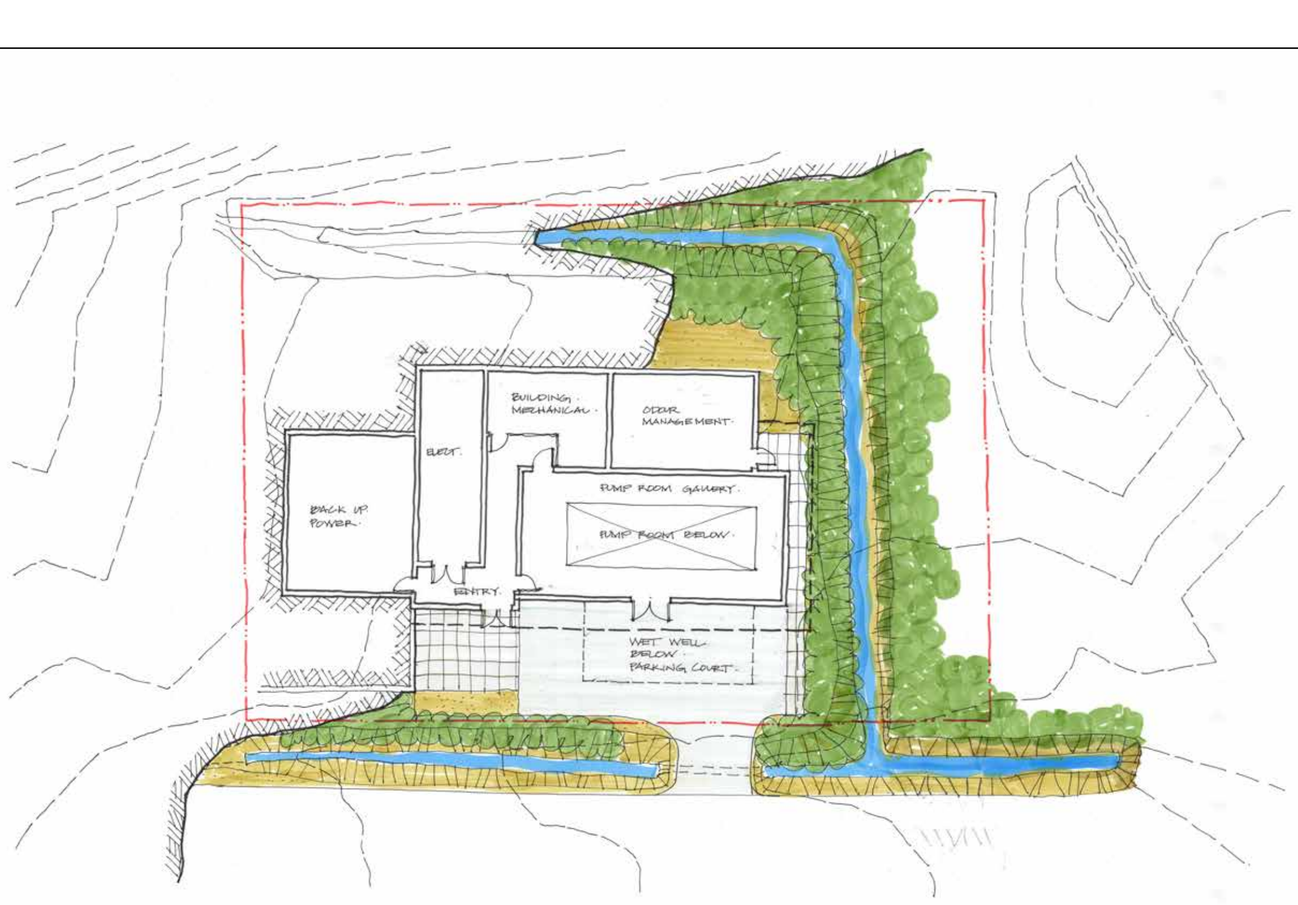
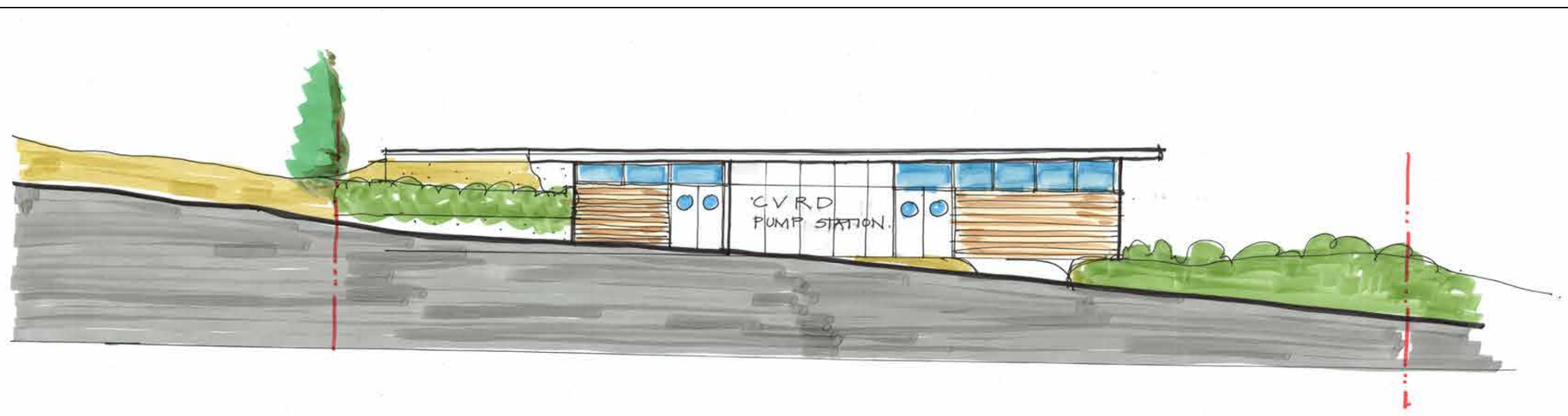
General Design Concept

Site Plan

Floor Plan



Elevation



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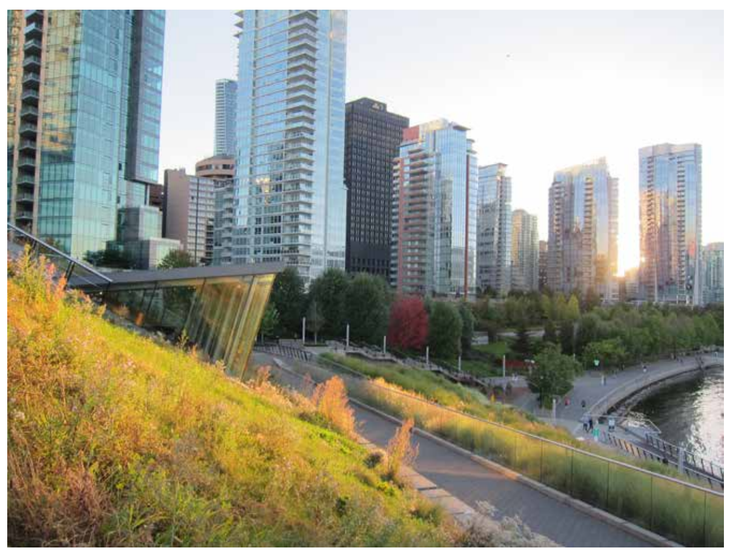
Design Features

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



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Additional Options

Community Amenity Opportunity

- Info board
- Community bench
- Potable water fountain
- Other ideas?

Public Use of Site

Building Features

- Building is buried under a large green roof to have a meadow treatment.
- Large overhang, screening activity and light at night.
- All exterior lighting to be low level down light to protect dark skies.
- Building materials on exposed building faces (facing street and southern neighbour) to be warm and woody to blend with the neighbourhood.
- All landscaping to support restoration of natural habitat for site inhabitants.

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