

OceanWest Phase 5

Client: Weyerhaeuser Company Ltd.

Capital Cost: \$6 Million

End Date: 2025

Location: Ucluelet, BC

Industry Segment: Roads, water, sewer, stormwater, wetland remediation, trail network for community

Key Team Members

Nathan Trobridge, Dan Pedersen, Kailen Elander, Harrison Read, Mike Shepherd, Jordan May, Scott Sled, Ben Rosen

Challenges:

- For this project, the environment and terrain posed the biggest challenge.
- Due to the site being on the side of a mountain in the rainforest, the terrain was steep and challenging to build on.
- A number of creeks and streams run through the site, which required working with an environmental consultant to determine appropriate setbacks.

Solutions:

- Green space corridors for wildlife were identified and protected.
- A unique open-shoulder road was designed, featuring rock lined ditches and french drains as a natural, cost-effective and efficient way to absorb rainfall back into the ground.
- A trail system through the site was created, adding to the expansive network of trails in the area that the community can enjoy.
- Enhancement of existing wetlands and creation of new wetland area.

Deliverables:

- 33-lot subdivision
- Full project cycle: concept to completion
- Low impact development for stormwater management

Newcastle Engineering was hired to complete Phase 5 of an ongoing project in Ucluelet, BC, building a 33-lot subdivision in difficult terrain. This environment posed significant challenges, due to steep slopes, existing wetlands, large volumes of rock and earthworks, and strict regulations.

Environmental and Archaeological assessments were completed to ensure appropriate compliance with—and respect for—the surroundings.

Because the area frequently experiences heavy rainfalls, streamlined stormwater drainage was key. A unique open-shoulder road was designed, featuring rock lined ditches and french drains as a natural, cost-effective and efficient way to absorb rainfall back into the ground.

While Phase 5 is complete, Newcastle Engineering is looking forward to working on future phases of this project.



33

Lot subdivision created

Improved Infrastructure

Improved connectivity to community, better emergency response routes

Stormwater Management

Low impact development techniques used for stormwater design and to maintain natural environment

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End Date: 2025

Location: Ucluelet, BC

Industry Segment: Roads, water, sewer, stormwater, wetland remediation, trail network for community

Key Team Members

Nathan Trobridge, Dan Pedersen, Kailen Elander, Harrison Read, Lorry Mackay, Mike Shepherd, Jordan May, Scott Sled, Ben Rosen

Challenges:

- For this project, the environment posed the biggest challenge, especially as the Province changed the definition of what is considered a wetland, meaning that redesigns were necessary to adhere to the new regulations.
- Due to the site being on the side of a mountain in the rainforest, the terrain was steep and challenging to build on.
- A number of creeks and streams run through the site, which required working with an environmental consultant to determine fish-bearing bodies of water.

Solutions:

- Free space corridors for wildlife to safely stay in were identified.
- We consulted with local First Nations, who did a site inspection to make sure the environment would be respected.
- A unique open-shoulder road was designed, using natural rock to create French drains, allowing the water to seep back into the ground on-site rather than being transported through pipes all the way to the ocean. This method has been used for over 20 years in the area with great success, and requires less maintenance than pipes.
- A trail system through the site was created, adding to the expansive network of trails on the island that the community can enjoy.
- Enhancement of existing plants and wetland protection remediation.

Deliverables:

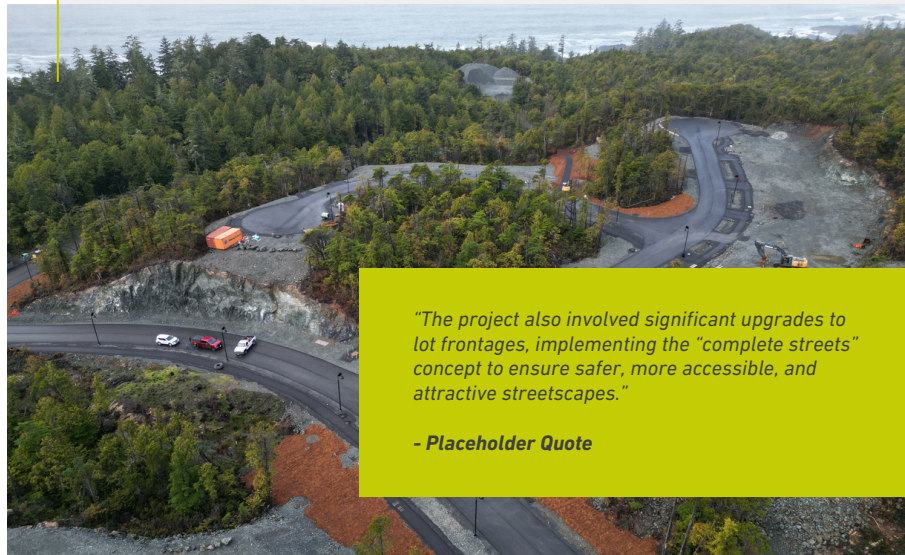
- 33-lot subdivision
- Upfront studies and plans
- French Drain stormwater management system

Newcastle Engineering was hired to complete Phase 5 of an ongoing project in Ucluelet, BC, building a 33-lot subdivision on the side of a steep hill in the rainforest. This environment posed significant challenges, especially due to the Province updating the definition of wetlands, requiring redesigns midway through the project to fit the new regulations.

Environmental consultants and First Nations people were involved to assess and ensure appropriate compliance with—and respect for—the surroundings.

Because the area frequently experiences heavy rainfalls, streamlined stormwater drainage was key. A unique open-shoulder road was designed, featuring ditches with French drains as a natural, cost-effective and efficient way to absorb rainfall back into the ground or transport it away from the road.

While Phase 5 is complete, Newcastle Engineering is looking forward to working on future phases of this project.



"The project also involved significant upgrades to lot frontages, implementing the "complete streets" concept to ensure safer, more accessible, and attractive streetscapes."

- Placeholder Quote

33

Lot subdivision created

Better Infrastructure

Improved connectivity to community, better emergency response routes

Stormwater Drainage

Efficient French Drain installed to improve water drainage on-site