

Rumble Beach Marina Final Report

For the Island Coastal Economic Trust



September 2014
Revised December 2014

Port Alice 
Gateway to the Wild West Coast

Prepared By:

The Village of Port Alice



**The Village of Port Alice
1061 Marine Drive
PO Box 130
Port Alice, BC
V0N 2N0
Phone: 250 284-3391
Email: info@portalice.ca**

www.portalice.ca

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About Port Alice

“The residents of Port Alice see their community as a vibrant, inclusive, engaged community with a healthy, diverse economy based on a range of business, particularly tourism related...capitalizing on the Village’s attractive oceanfront setting.”

Village of Port Alice Official Community Plan, October 2010

The Village of Port Alice is strategically located on the BC Coastal Marine Highway, the largest of the four communities located up the Quatsino Sound, the others being Winter Harbour, Quatsino and Coal Harbour. Port Alice is strategically located to offer a wide range of services for the marine traveler and is the only incorporated municipality within the Regional District of Mt Waddington which is located on Vancouver Island’s rugged west coast and falls within the traditional territory of the Quatsino First Nation whose support was integral to the project. Quatsino Band members are among the many local beneficiaries to the marine improvements, which provide a convenient public moorage within the Neroutsos Inlet. In 2010, the Village adopted the tagline, Gateway to the Wild West Coast, and the gateway is now that much more accessible, as the newly constructed Rumble Beach Marina invites commercial and recreational marine travelers into the heart of our community.



Project Background

A pressing need to diversify the Port Alice economy was identified in the 2010 Official Community Plan and to increase tourism specifically. A long-standing barrier to marine tourism here was the lack of moorage for transient boaters. The privately owned Port Alice Yacht Club, located next to the public boat ramp, has long served the resident population but could offer nothing for transient recreational or commercial boaters. Port Alice would briefly see the transient boaters on their way out to the fishing grounds as they dropped off their vehicles along the side of the road and launched



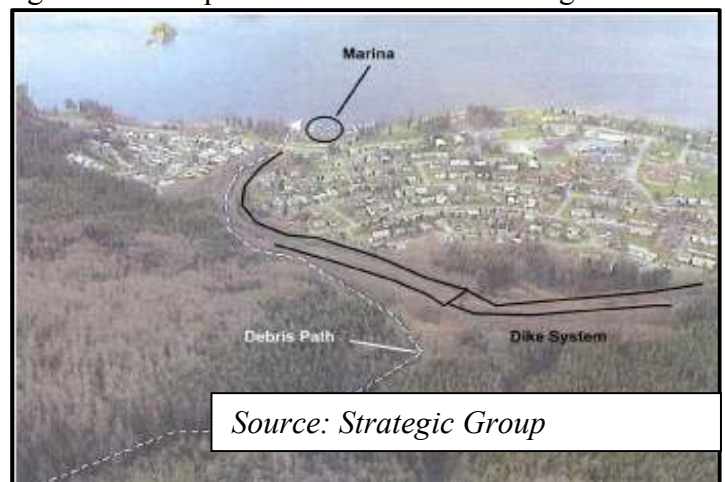
their boats at the unmanaged boat ramp.

With no short-term moorage to offer, the Village had no opportunity to share its amenities with visiting boaters as they passed through the community on their way to other places. Clearly, Port Alice was in need of public marina facilities.

The existing public boat launch served as the core for the Rumble Beach Marina development, so named because of the historic marine place name for this location, which pre-dated the founding of Village here in 1965. A dilapidated set of wooden floats were onsite but no longer serviceable and in dire need of replacement. The existing pilings, too, were worn beyond their useful life. But the water lot was in place and would accommodate a larger and more permanent structure. Parking was also available on the adjacent uplands property, conveniently owned by the Village.

Site Challenges

The site was not without its challenges. The Village is protected from landslide activity by a deflection dike built in the 1970's. The dike is designed to catch and divert debris flows that typically occur once or twice per year and to deposit the material directly into the marine environment downslope of the settlement area. The

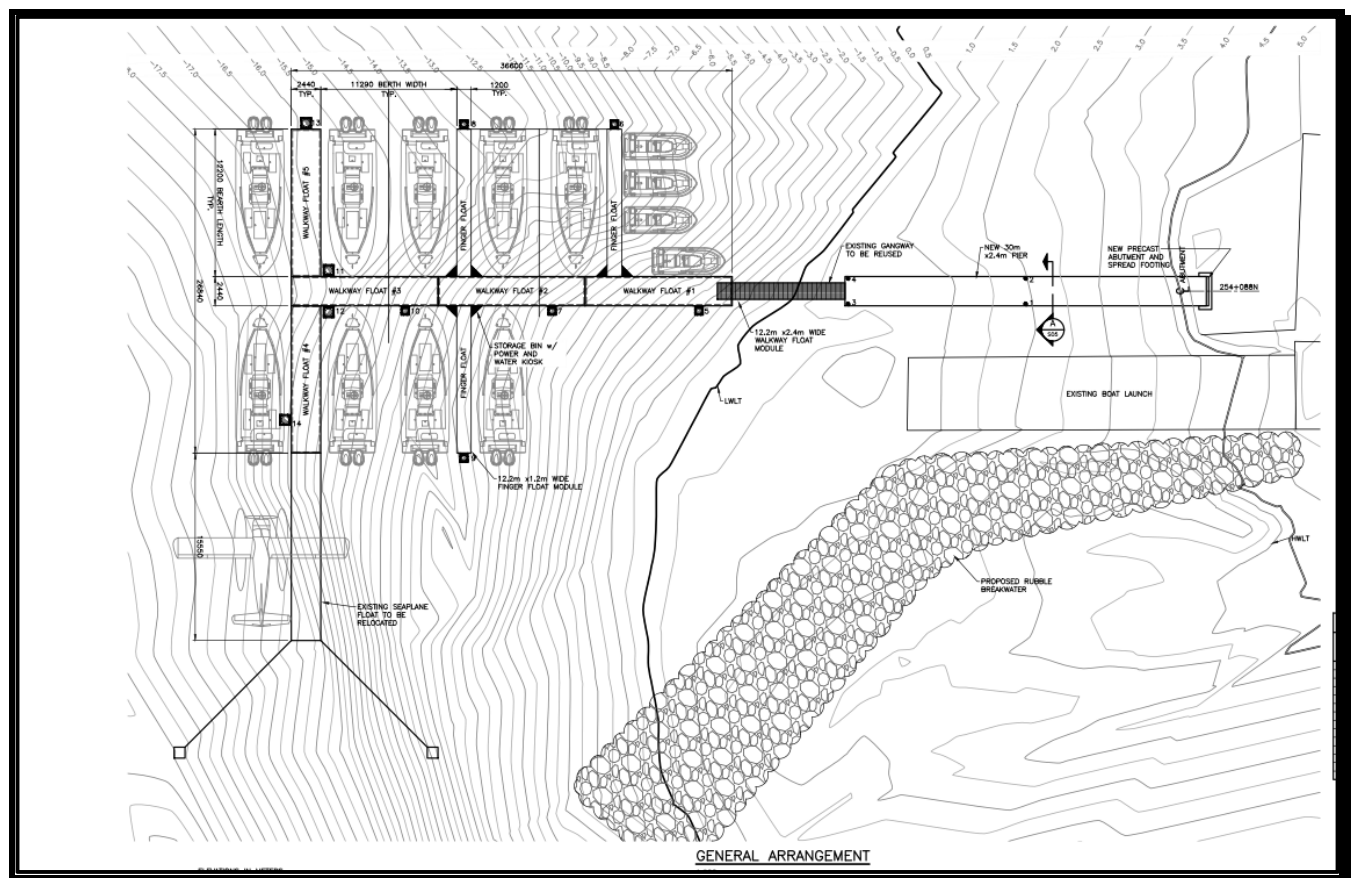


system works well although when the flow rates are high enough, the material tends to encroach on the boat ramp, requiring the Village to clear the area with heavy equipment. Over time the material builds up below the high tide line necessitating dredging of the marine basin, a costly and environmentally undesirable activity.

Engineering

The Village Council approved a Herold Engineering marina layout design in July of 2012 which provided for a twelve to twenty-slip marina comprised of concrete floats affixed to steel piles.

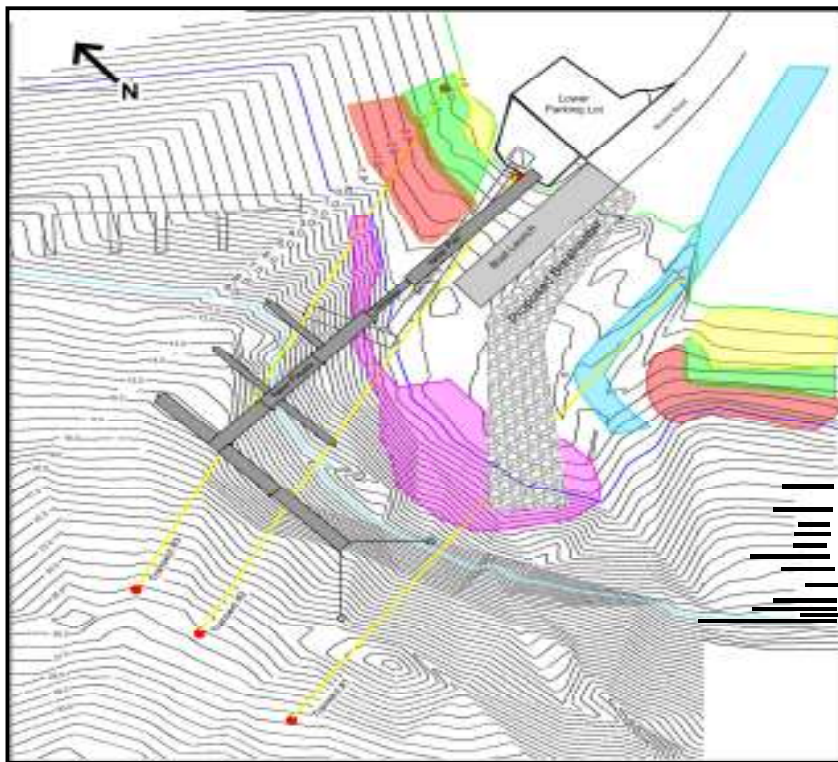
The Village then worked with Herold to determine the best design to provide a breakwater for the marina which would also deflect future debris flows from the marina basin. Several designs were considered, including a steel sheet pile deflection wall, before the rip rap design was adopted.



Source: Herold Engineering

Environmental Assessment

Before work commenced, the Village contracted the Strategic Group to undertake a biological assessment of the foreshore and marina basin. The study inventoried existing sea life and foreshore habitat in the area and suggested specific measures to ensure that the project resulted in no damage or net loss to habitat. A detailed bathymetric survey of the seafloor was conducted as part of the habitat review. Strategic went on to provide environmental monitoring services throughout the project. All equipment on the project was carefully inspected against contamination, no materials or spoilage was stored in the foreshore area, pile driving noise was stopped during the presence of marine mammals, and dredging was restricted to debris flow deposits only so as to not disturb the natural bottom of the seafloor.



Port Alice Marina Expansion

Habitat Overview Figure A4-1

-  Low Water Debris
-  Channel Sea Asparagus
-  Rockweed
-  Ribbon Kelp, Sea lettuce
-  Grasses
-  Survey Transects
- Approximate Scale
1:500

Source: Strategic Group



Site Preparation

Dredging took place early in 2013 which saw the removal of several thousand cubic meters of clean aggregate material from the marina basin. The material had been deposited over the course of several years, since the 2010 failure of the original steel barrier wall which was in place to divert landslide debris from the marina area. The material was recycled as fill by Western Forest Products at the Quatsino Dryland Sort.



Breakwater Retaining Structure

Construction began on the breakwater retaining wall early in 2013. The rock was made available by Western Forest Products who generously donated the material from a nearby pit. The closest commercial source of rock was 50 kilometers away and transportation of the material would have proved cost prohibitive. Port Hardy Rock Pro did the blasting at Western's pit, Port Alice Logging excavated the material and Steelhead Enterprises of Port McNeill built the wall placed the material in accordance with Herold Engineering's design.



Marina Construction

Sure Float Engineered Concrete Docks out of Duncan BC supplied the five main 8' wide floats and the three 4' finger floats. Local marine contractor Dabber Contracting drove the 17 steel piles to depths assigned by Herold Engineering based on bathometric data. A land-based fixed pier and a floating dry finger loading platform finished the project. There is water service to the dock and the floats are plumbed for additional services such as power, which could be added at a later date.



A 130 ton crane offloaded the floats.



The outermost piles were the last to go in.



Steel girders on pilings support a 25 m fixed pier.



Cedar decking & rails was custom milled locally.



The floats & pier were designed to accommodate king tides and storm surge events.

Safety Equipment



Aluminum brackets secure the fingers to the main floats, providing a place to install signage and safety equipment. The Port Alice Marine Rescue Society set up a free children's life jacket station at the head of the pier. Swim ladders and life rings are installed throughout the facility.



Project Partners & Finance

This project was made possible by support from Island Coastal Economic Trust, Coast Sustainability Trust, and West Coast Community Adjustment Program for the creation of a Tourist Friendly Recreation Site. Initial efforts to secure funding and planning stages were guided by the Chief Administrative Officer and Council. The project was managed by Village staff in consultation with Herold Engineering.

Mayor and Council	
Jan Allen	Mayor
Marc Brackett	Councilor
Janice MacLeod	Councilor
Dave Stewart	Councilor
Scott Roberts	Councilor

Project Management	
Name	Title
Madeline McDonald	Chief Administrative Officer
Gord Ward	Public Works Foreman



The funding partnership for this project was based on the following budget:

Island Coastal Economic Trust	\$140,000
Village of Port Alice	\$60,000
West Coast Community Assistance Program	\$200,000
Coast Sustainability Trust	\$200,000

Final costs of \$585,436 were 2.5% under the original \$600,000 budget

The Village of Port Alice Mayor and Council 2011-2014



Final Capital Costs – Rumble Beach Marina

Rumble Beach Marina Project							
PROJECT MANAGEMENT	SERVICE	INV #	INVOICE DATE			%	
Herold Engineering	Marina plan and presentation	26281	27-Jul-12	4630		4,630	0.77
Herold Engineering	Engineering	26501	25-Aug-12	2493		2,493	0.42
Herold Engineering	Engineering	26854	11-Oct-12	12821		12,821	2.14
Herold Engineering	Engineering	27614	21-Jan-13	1425		1,425	0.24
Herold Engineering	Engineering	29617	19-Aug-13	1964		1,964	0.33
Herold Engineering	Engineering	29292	7-Dec-13	3145		3,145	0.52
Herold Engineering	Engineering	29776	7-Sep-13	825		825	0.14
Mountain Peaks	Spec pilings	1010	6-May-13	780		780	0.13
Strategic	Assessment	VPA121031	7-Nov-12	1650	29	1,679	0.28
Strategic	Permitting & Monitoring	VPA121231	4-Jan-13	11046	193	11,239	1.87
Strategic	Monitoring	VPA130331	31-Mar-13	4959	87	5,046	0.84
Strategic	Monitoring	VPA130430	7-May-13	3484		3,484	0.58
Strategic	Monitoring	VPA130215	21-Feb-13	1346	24	1,370	0.23
Strategic	Monitoring	VPA130930	28-Oct-13	783		783	0.13
Strategic	Walkway Design & Permitting	VPA140228				1,005	
						52,686	8.781
DREDGING & SITE PREP							
Steelhead	Dredging Foreshore	347	18-Dec-12	5063	89	5,151	0.86
Dabber Contracting	Dredging Foreshore	550	18-Dec-12	1105	19	1,124	0.19
Port Alice Dredging	Dredging Foreshore	334	11-Jan-13	4463	78	4,540	0.76
						10,816	1.80
BREAKWATER/RETAINING WALL							
Rock Pro	Blasting Rock	4-Mar-13	4-Mar-13	7439	130	7,569	1.26
Rock Pro	Blasting Rock	28-Mar-13	28-Mar-13	12846	225	13,071	2.18
Rock Pro	Hauling Rock	28-Mar-13	28-Mar-13	1758	31	1,788	0.30
Rock Pro	Blasting Rock	9-Apr-13	9-Apr-13	2338	0	2,338	0.39
Rock Pro	Blasting Rock	29-Apr-13	29-Apr-13	950		950	0.16
Trans Sign	Signs for haul	140245	10-Dec-12	1045	18	1,064	0.18
Dabber Contracting	Developing Rock	542	24-Jul-12	226	4	230	0.04
Dabber Contracting	Developing Rock	531	12-Jan-12	320	6	326	0.05
Dabber Contracting	Developing Rock	553	29-Mar-13	22275	390	22,665	3.78
Dabber Contracting	Developing Rock May 2 - April 8	556	23-Jul-13	5115	90	5,205	0.87
Hall's Trucking	Hauling Rock	268	28-Feb-13	380	7	387	0.06
Steelhead	Truck & Hoe	355	20-Feb-13	9880	173	10,053	1.68
Steelhead	Truck & Hoe	362	1-Apr-13	9560	167	9,727	1.62
Steelhead	Trucking rock	367	4-May-13	10120		10,120	1.69
Port Alice Dredging	Boomsticks to improve breakwater					3192	
						88,684	14.78
FLOATS & INSTALLATION							
Surefloat	Floats	7733	14-Jun-13	166156	11631	177,787	29.63
Port Alice Dredging	Barge work - Installation	374	23-Jul-13	81175		81,175	13.53
Port Alice Dredging	Barge work - Installation	380	19-Aug-13	47556		47,556	7.93
Purity Castings	Anodes	18376	26-Aug-13	2472	160	2,632	0.44
Wallpepper Designs	Signs	3310 & 3275	Sept 10 & 25	956	43	999	0.17
Purolator	Shipping for signs	42067	30-Sep-13	69		69	0.01
Port Alice Petroleum	Life Rings	9344	6-Sep-13	1163	81	1,244	0.21
Port Alice Dredging	Install Signs & Anodes	418		1500	0	3,450	0.58
Port Alice Dredging	Install Walkway	561		4500		6,905	
Transign	Sign Posts	143317		507.3		507	
Transign	Sign Post Shipping	143589		272.02		272	0.05
						322,596	53.77
PIER & PILINGS							
Pipe & Piling Supplies	Pilings & Metal	519174	28-May-13	31603	2053	33,656	5.61
Pipe & Piling Supplies	Pilings & Metal	519218	5-Jun-13	26549	1690	28,240	4.71
Pipe & Piling Supplies	Pilings & Metal	519258	21-Jun-13	24706	1561	26,268	4.38
Spiketop Cedar	Wood deck for pier	2106	8-Jun-13	6747	472	7,219	1.20
Abemethy	Pier Abutment	0515-13	3-Jun-13	6805		6,805	1.13
AJ Forsythe	Pile cap metal		27-Jun-13	435	30	465	0.08
O.K. Paving	Paving	P13-016	27-Aug-13	8000		8,000	1.33
						110,653	18.44
9/10/2014						PROJECT TOTAL \$	585,436
							97.57

Project Summary

The Rumble Beach Marina now accommodates transient commercial and recreational boat traffic, mother ships and groups of paddlers. It also serves as a gateway to Port Alice for our Quatsino Sound neighbors in Winter Harbour, Coal Harbour and Old Quatsino as well as the regular stream of marine adventurers who take on the circumnavigation of Vancouver Island. The Rumble Beach Marina pier, pilings, floats and breakwater were completed in August of 2013 and opened immediately to the travelling public. Final touches on the Marina, including signage and a dry finger walkway alongside the boat launch were completed in the spring of 2014. The Marina's first full seas proved to be a big success with visitors from BC and beyond, as well as with tourism operators in the area.



A J & C Pacific Charter boat is tied up after a busy summer of fishing & diving tours

The original capital budget of \$600,000 was an accurate projection, with the final cost of construction coming in just 2.5% under budget. The proposed annual operating budget of \$18,250 cited in the original proposal exceeded the actual operating costs. The Marina currently operates at

a cost of approximately \$16,000 annually and brings in revenue of approximately \$14,000, a gap that may be closed with lower insurance costs in future. The sale of annual parking/boat launch passe have proved to be very popular with both residents and visiting boaters. Transient recreational moorage has also sold well and there is one commercial operator who has become an anchor tenant at the facility. Two charter companies are regularly working out the Marina, one of them a long established local operator. The other, who runs two vessels out of the facility, has grown his business with the establishment of the marina.



Rumble Beach Charters heads out around the breakwater on a sunny September afternoon.

The fifteen temporary jobs created during the construction phase of the Marina provided work for north island residents over the one year. After the first full year of operation, three permanent seasonal positions have been created in the chartering business and led to the development of a new boat storage facility, currently under construction. Opportunities still exist for the establishment of commercial kayaking operations and an expanded recreational dive sector.

All of the Village's economic partners in this project recognized the value of creating a public marina in Port Alice and their confidence in this vision helped bring it to fruition. The Village will continue to enhance its marine tourism facilities and will strongly support the private sector as it grows in concert with the recreational opportunities within Port Alice and throughout the Quatsino Sound region.
