

POINT ELLICE PARK SHORELINE REHABILITATION



PARTICIPANTS

Owner: City of Victoria

Developer: Dockside Green

Environmental Design: Small and Rossell Landscape Architects, Archipelago Marine Research Ltd., Aqua-Tex

Scientific Contractor: Farmer Construction

KEY WORDS: , marine riparian restoration, beach enhancement, marsh planting

PROJECT OBJECTIVE

Contain eroding fill with the softest and greenest shore protection practical, while improving habitat functions and aesthetics of the waterfront. Demonstration of the social and recreational value of a sustainable shore design in an urban environment.

PROJECT LOCATION

Victoria, BC, west side of the harbour between the Point Ellice and Johnson Street Bridges.

PROJECT BACKGROUND

The site is former industrial land built on foreshore fill. The fill was failing in many areas along the shore and invasive plants, particularly Himalayan blackberry, dominated the upland. As part of the master development agreement, Dockside Green rehabilitated approximately 250m of the shore zone of Point Ellice Park and upgraded a section of the popular Galloping Goose bike and walking trail.

OVERALL DESIGN STRATEGY

The strategy was to enhance shoreline characteristics and ecological function with a minimum amount of shoreline hardening. This included re-establishing areas of natural coastal riparian vegetation and intertidal marshes, and an intertidal sand and gravel beach contained by a boulder headland.

PLANTING PLAN

Over 1,750 native coastal shrubs and grasses were planted, including snowberry, Nootka and baldhip rose, Oregon grape and dunegrass. Other additions included approximately 100 trees— Garry oak, arbutus and dogwood— and over 800 intertidal marsh plantings including *Carex sp.*, *Salicornia sp.* and *Distichlis sp.*

EROSION AND POLLUTION CONTROL

All intertidal work was done during daylight low tides. A floating silt curtain was used to contain the worksite. The silt curtain was kept buoyant at the surface with an oil spill absorbing boom, thereby ensuring both sediment and spill containment.

LESSONS LEARNED

The overall shore design was such a significant improvement over the existing situation that project approvals were very easy to obtain.

It was valuable to have a design team working closely with a committed construction team. For example, during a routine site visit, a landscape architect and foreshore biologist concluded that the rock toe at the beach face was higher than necessary. The contractor willingly removed a layer of rock, resulting in a more functional and visually pleasing riparian zone.

In protected areas such as this site, pit run gravel is a cost effective choice for beach fill material, which sorts naturally along the beach.

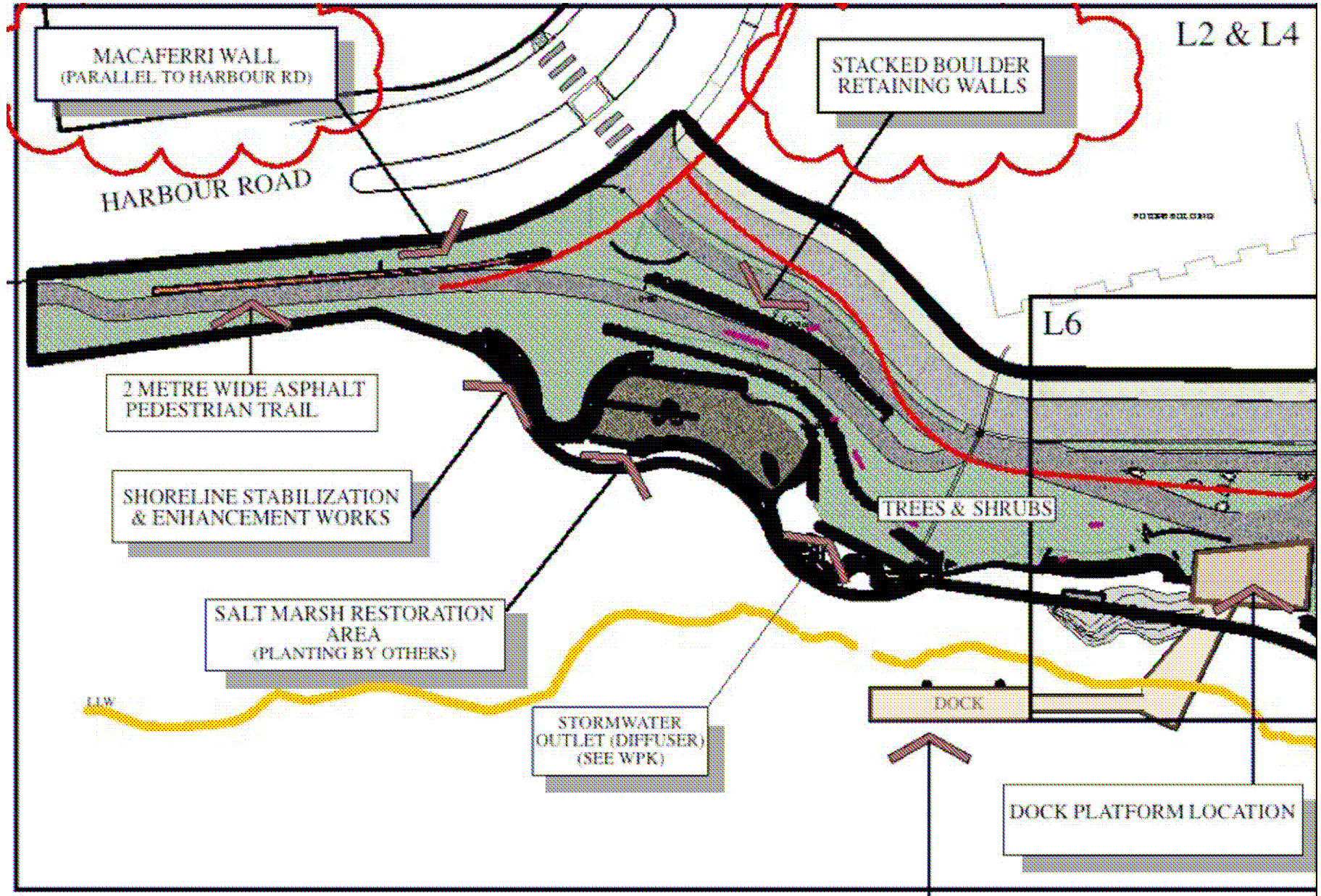
KEY CHALLENGES

The Point Ellice Park rehabilitation was a small part of the overall Dockside Green development. For this reason, it was challenging to keep the development team focused on this aspect of the project. In addition, project planning and budgeting did not fully address the rehabilitation issues for the intertidal and toe of bank areas of Point Ellice Park. This is a key lesson in future shore renewal projects: more than the top of bank needs to be considered.

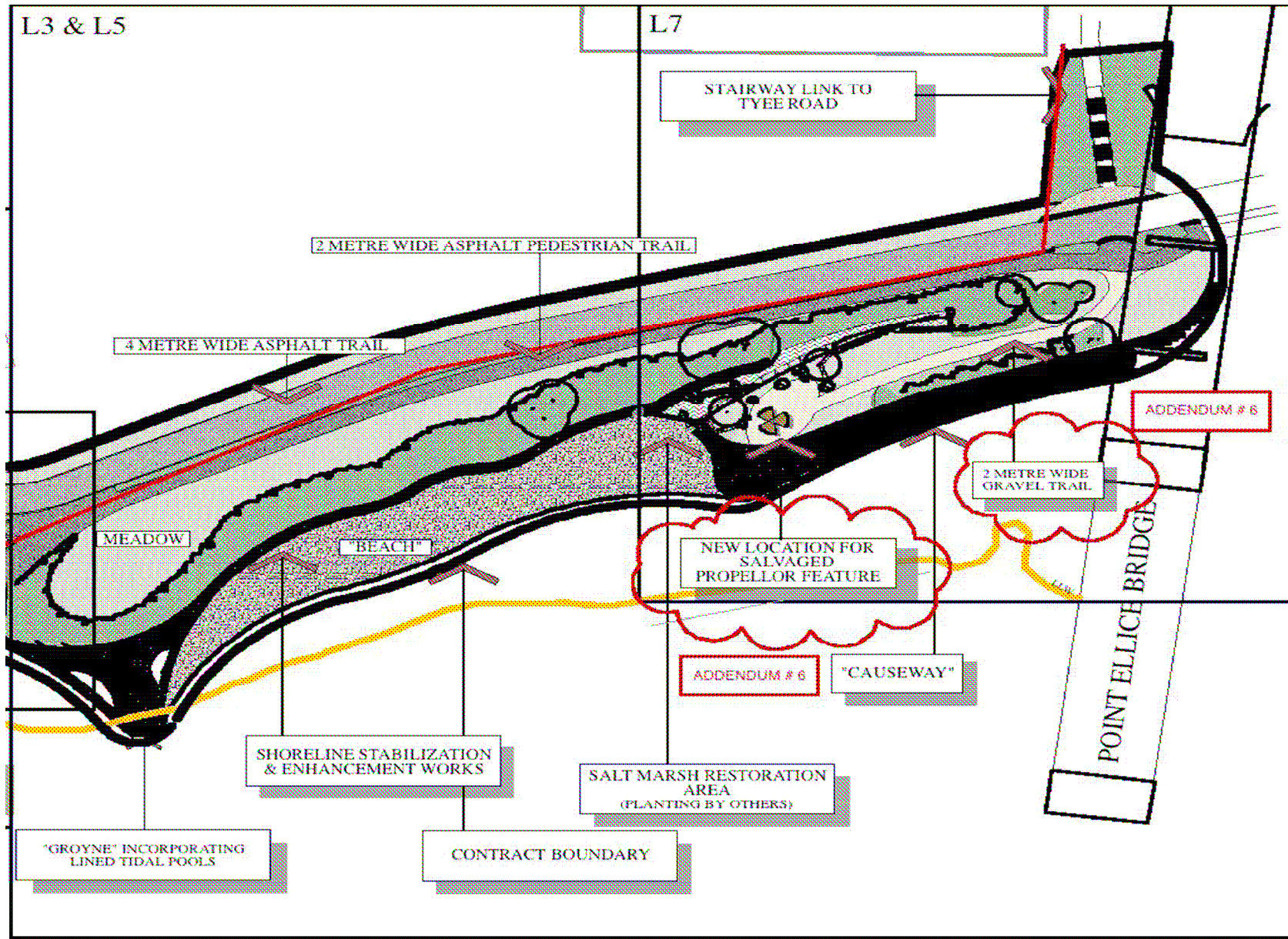
OUTCOME

The project created a rejuvenated shore zone, which is appreciated by users of the Galloping Goose trail. Both the riparian and marsh plantings have successfully established, although there is an ongoing need to clear debris from the marsh planting sites. Natural sorting of the pit run material has resulted in a sandy area at the Point Ellice Bridge side of the shore area.

CONCEPTUAL DESIGN GRAPHICS



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Pre-Construction



Construction Phase

