

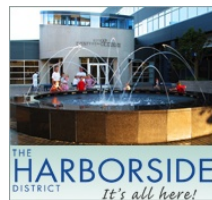
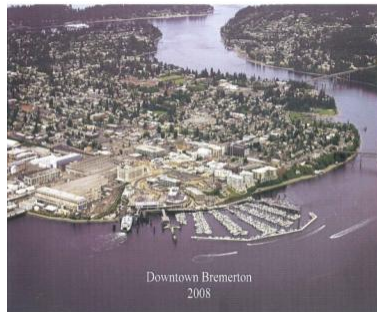
Lean Construction Institute

Building Knowledge in Design and Construction

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Target Value Design – Case Study

Bremerton Parks Department,
Maintenance Division Relocation

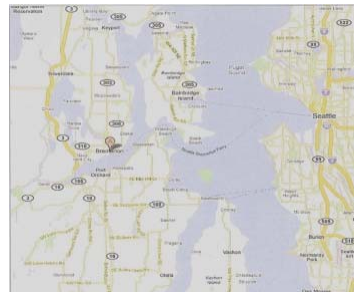


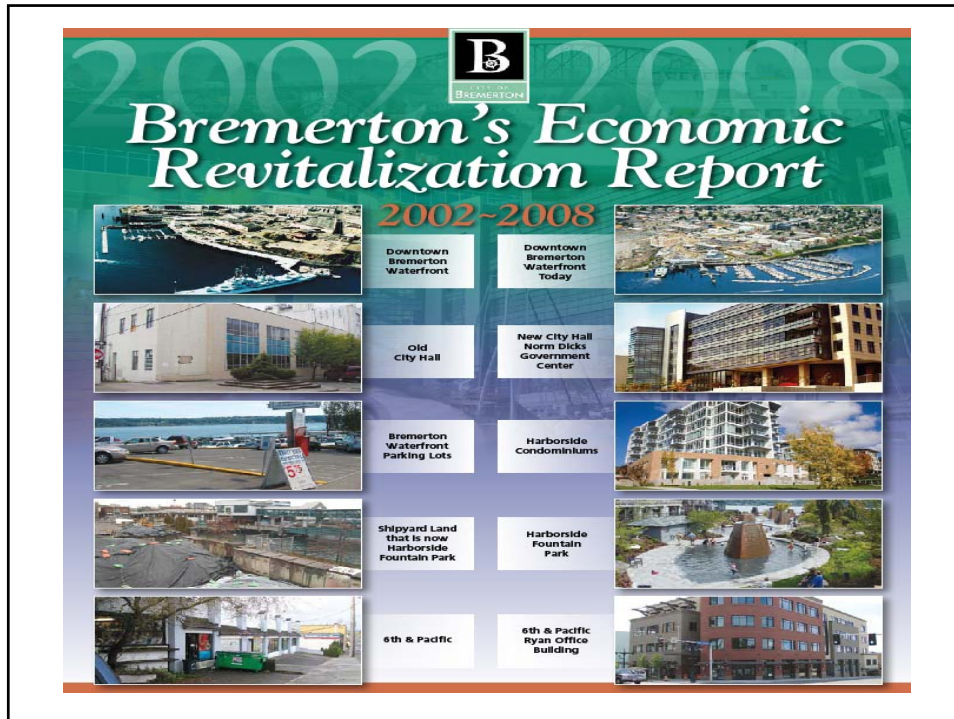
City of Bremerton

- Area – 23 Square Miles
- Population - 38,000
- Ferry Ride to Seattle
- Massive Redevelopment

Underway (examples):

- New Kitsap Conference and Transportation Center
- World-Class Floating Breakwater and 300 Slip Marina
- New Harborside District Tunnel for Ferry Traffic & Pedestrian-Friendly Downtown Waterfront Parks





Bremerton Parks & Recreation Responsibilities

32 Parks - approximately 250 acres of property

Two 18-hole public golf courses

Jarstad Aquatic Center

Sheridan Park Community Center

Bremerton Senior Center

Cemetery

Maintain Streetscapes, Flower Program

Maintain all irrigation systems within the City

Litter and trash pickup within the City

Develop new parks



TVD – Large or Small Project – Does it really matter?

- Process is the same
- Challenges are present in every project and unique to every project/team
- Process is designed to “force” the team to think productively in a collaborative manner
- Outcomes are amazing, exciting
- Picked small project to illustrate some key points quickly

Sheridan to Olympus Relocation Project Scope

- Change work areas in Olympus Drive Building (Renovate Inside):
 - Maintenance Crews with Break/Day Room of 17 Permanent and 6 Seasonal Employees
 - Offices for 2 Supervisors
 - Leave 2 Bays fully open for large vehicles
 - Build Storage Room over southernmost vehicle bay at 10' and above.
 - Leave 2 Conference Rooms in South end of Second Floor Intact
 - Abandon Public Works offices in Second floor
 - Abandon Water Department Billing operations in First Floor
- Additionally, study the following structures outside the building (Site Improvements):
 - Locate 12 bay vehicle shed in the parking lot on the west side
 - Locate 3 bay vehicle shed west of parking lot
 - Locate and size Chemical storage shed in parking lot on SW Corner
 - Relocate two 30' x 84' Greenhouses from Stephenson Canyon Park (if Possible)
- Perform a traffic circulation study around the building and locate possible gates and fencing (Security and traffic flow)
- Budget Constraint = \$340,000
- Achieve LEED 2.2 Certified Rating (26 Points)

Facilities Involved in Move

- Sheridan Park Recreation Center
33,000 SF – WWII Vintage Navy
Recreation Center
Parks and Rec Headquarters
Includes portions of maintenance
function
- Olympus Facility
15,000 SF – 1983 Vintage PEB
Currently Houses Public Works &
Utilities Headquarters
Public Works & Utilities moving to
new facility in 2009



Project Specific Challenges

- Very limited study budget (\$25,000) and schedule (6 weeks)
- Very tight design and construction budget (\$340,000)
- Current operation widely distributed – to be consolidated onto one site
- Co-located with Fire Department Headquarters and Special Operations Group (police)
- Olympus building is fire code deficient
- No electronic as-built drawings for either facility

TVD Innovation Start Point

- Set a target productivity better than previous best
 - Do clients usually know what they need? – No.
 - Do AE firms know what clients need? – No.
 - How then do we determine the need? – Determine the “as-is” workflow and optimize that at the new site and do that collaboratively.

Collaboration Strategy

- Initial brainstorming with all maintenance staff – build list of functions with levels of importance (functional wants)
- Follow-up meetings with key staff to prioritize lists of functions and area requirements (prioritize wants)
- Develop several design alternatives with costs (assemble wants into organized workflow constrained by site & bldg)
- Follow-up meetings to explain alternatives and obtain feedback (understand functional constraints and “must-haves”)
- Final “mix & match” meeting (assemble best ideas from each alternative to optimize “must haves” – leads to real needs)
- Develop phasing plan to meet needs in near-term

What makes this work?

- Listening
- Power of relationships – people working together
- Diligent focus – keep eyes and ears open – write it down!
- Different perspectives
- All leading to synergy

Scope Results

Bremerton Parks Maintenance Relocation Study							
PLANNING PHASE		PRELIMINARY STUDY		Options Analysis Data Table			
BY:		Art Anderson Assoc					
SPECTICS:							
Data Table summarizing how facility space requirements are met by each proposed option							
Code	Facility	Existing	Want	OPT1	OPT2	OPT3	OPTP
SH1	Small engine repair	600 SF	1500 SF	940 SF + 830 SF	800 SF + 735 SF	900 SF + 650 SF	930 SF + 550 SF
				St: 130 SF	St: 75 SF + 130 SF	St: 75 SF + 130 SF	St: 590 SF
SH2	Paint		100 SF	100 SF	225 SF	100 SF	250 SF
SH3	Carpentry	600 SF	1600 SF	900 SF + 735 SF	1350 SF	800 SF + 530 SF	790 SF
				St: 75 SF + 130 SF		St: 110 SF + 130 SF	
SH4	Irrigation shop & parts storage	400 SF	600 SF	435 SF	770 SF	590 SF	735 SF
SH5	Equip. maintenance & cleaning		1600 SF	800 SF	1200 SF + 705 SF	1000 SF + 560 SF	(SH1)
					St: 130 SF	St: 130 SF	
ST1	Dry bagged storage	400 SF	600 SF	400 SF	600 SF	435 SF + 435 SF	435 SF
ST2	Chemical storage	150 SF	400 SF	400 SF	430 SF	Y	200 SF
ST3	Flammable storage	Locker	2-3 cabinets	Y	Y	Y	Y
ST4	Small equipment storage		800 SF	260 SF	195 SF	195 SF	260 SF
ST5	Paper products storage		400 SF	600 SF	435 SF	600 SF	210 SF
OC1	Offices		3 - 100 SF	150, 190, 160 SF	110, 150, 190 SF	100, 150, 190 SF	110, 150, 190 SF
OC2	Briefing room		450 SF	715 SF	690 SF	595 SF	690 SF
OC3	Conference room		300 SF	415 SF	Y	Y	860 SF
OC4	Records storage		150 SF	150 SF	150 SF	115 SF	150 SF
OC5	Restrooms, lockers		Y	Y	Y	Y	Y
OC6	Lunch/break room		300 SF	380 SF	380 SF	380 SF	380 SF
OC7	Laundry facilities		Y	Y	Y	Y	Y
OC8	Recreational area		Y	Y	Y	Y	N
V1	Cov. shelt. for truck-trailers		Three 45' 20'x30'	40'x30'	40'x30'	Same as Opt2	50'x30'
V2	Cov. shelt. for trucks & trailers		20-25 22'x9'	40'x70' + 20'x120'	20'x150'	Y	20'x185'
V3	Cov. shelt. for mowers & tractors		15 12'x8'	40'x50' + 20'x120'	40'x50'	Y	50'x50'
V4	Vehicle wash station		Y	Y	Y	Y	Y
P1	Greenhouses	2	Up to 6	6	6	Y	2 + 4 fut.
P2	Greenhouse supplies storage		Y	Y	Y	Y	2-16'x18'
P3	Large plant storage	5000 SF		3500 SF	2000 SF	Y	3000 SF
OS1	Ecology block bins		4	5	5	Y	8-16'x18'
OS2	Compost area			4500 SF	3300 SF	Y	5000 SF
OS3	Trash/recycling area			Y	Y	Y	2 8.5'x24' Dump

Preferred Site Results

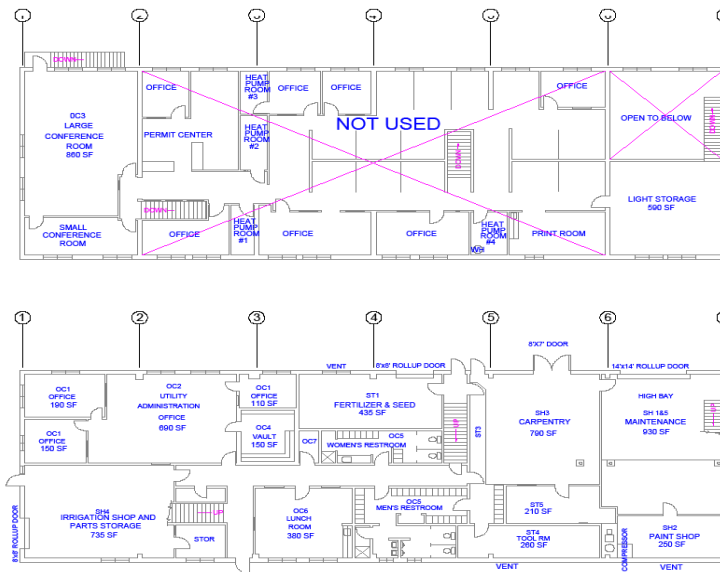


ART ANDERSON
ARCHITECTS

**PARK MAINTENANCE FACILITY
RELOCATION STUDY**

DATE: 08/14/13
DRAWN BY: JAVIER
CHECKED BY: JAVIER
SCALE: AS SHOWN
SHEET: P.3

Preferred Interior Results



Cost Results

- Detailed costs developed for each alternative
- Examined use of PW and Parks Labor to lower costs
- Phased each alternative to allow for near-term implementation of all critical functions

Cost Performance

Alternative	1	2	3	Preferred
	Maximize Use of Bldg	Maximize Out Bldgs	Minimize Bldg Demo	Mix & Match
Purpose				
Phase 1	\$422,217	\$236,818	\$222,153	\$210,442
Phase 2				\$440,385
Total	\$887,808	\$650,292	\$636,403	\$628,040
Total Using PW & Parks Labor	\$809,222	\$581,234	\$561,218	\$539,925

LEED Results

- 28 Points certain, 9 more possible
 - Sustainable Sites – 8 Points
 - Water Efficiency – 2 Points
 - Energy & Atmosphere – 0 Points (Cannot achieve Pre-requisite 2)
 - Materials & Resources – 11 Points
 - Indoor Environmental Quality – 6 Points
 - Innovation & Design – 1 Point
- Silver Rating is feasible

Questions?