

From: Plummer David F.

Sent: Tuesday, December 14, 2021 3:43 PM

To: Council <Council@bellevuewa.gov>

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Subject: Bellevue Aquatic Facility Options

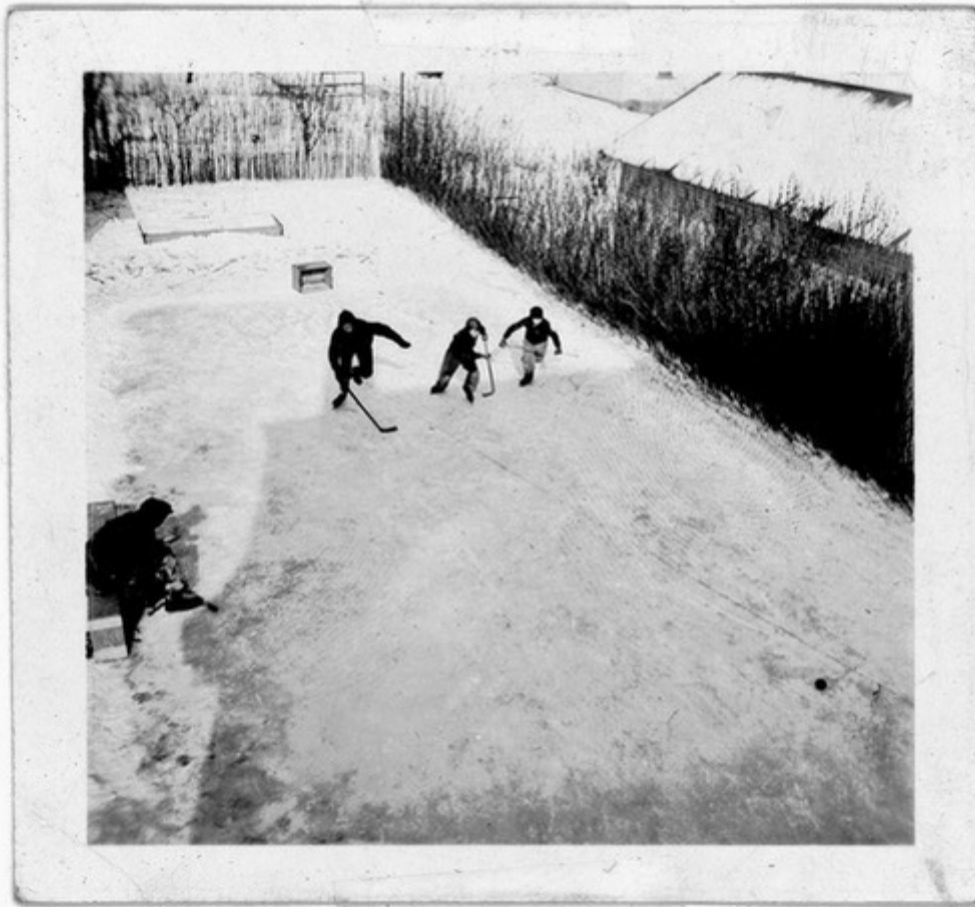
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Hello Council Members!

Reference:

- a. Bellevue Aquatic Center Feasibility Study Update; City of Bellevue and ARC; June 2020
- b. BAC_Working_Cost_Estimate_RCP_Study_Discussion, March 2021
- c. Letter 2-2500-204, 30 September 2020; "Levelized Admission Costs for a Possible new Bellevue Aquatic Center"
- d. Bellevue Parks Department presentation to Council, 18 Oct 2021
- e. Bellevue Aquatic Center Final Feasibility Study, April 2009; City of Bellevue, Ballard*King, ARC, Water Technology, Inc.

As the City transitions into the 'new' version of winter (global-warming, part 2), it's difficult not to remember the old days - whenever they were. In my case, I call up memories of the Ohio winters, especially during the second-great depression of 1937-1940 when my family lived in Cuyahoga Falls, Ohio, a few miles north of Akron (the city that our former police chief immigrated to a few months ago). And the advent of the new Seattle hockey team caused me to drag out this photo of **our** hockey team during a practice session in the winter of '39-'40:



As you can see from the photo, the town of Cuyahoga Falls was too cheap (or was it the economy) to provide us with a full-size, indoor ice rink, so we had to make do with the 'natural' version - one made by flooding the back yard; still, we were able to perfect our skills, and consistently defeated other local (back-yard) teams. The big benefit was that our rink only cost a few penny's for the water; Mother Nature supplied the refrigeration, and spectators brought their own cardboard box seats.

Well, these ancient memories faded, and I returned to reality, and to my concerns about the vast sum of money that the Bellevue Parks and Recreation Department wants to spend our hard-earned tax dollars for, namely, on a new regional aquatic center: their **overnight-build** project cost guesstimate (as presented to you at your 18 October 2021 meeting) is \$123.831 million (2021 \$s, not including Odle renovation costs, and not including any long-term facility replacement costs at the end of the facility's service life; capital recovery costs are also not included in the staff's project cost). The staff's allowance for annual operating/maintenance costs range between \$5.392 million and \$5.752 million (2021 \$s, "10% variability" - whatever that means), and do not include acquisition cost recovery nor any cost allocation for facility replacement at the end of the facility's economic service life (ca 35 years). The City staff does not provide references for any of their cost estimates, but they have apparently used some WA OFM cost estimating information/guides (released in 2015) to develop an estimate of the A&E fees for the project; I've attached a couple of sheets that the staff apparently developed from the WA/OFM scheme that show this information. However, since WA RCW 39.35B encourages cities and towns to

adopt life cycle cost programs and procedures, I've developed a rough estimate of the life cycle cost for the staff's preferred concept; details are given in the attached Excel file, but here's a summary:

***Bellevue Aquatic Facility 35-Year Life Cycle Cost,
Millions of YoE \$s; Base Year: 2021***

Acquisition: \$135.646
Ownership: \$351.275
Retirement Planning: \$8.048
Acquisition Cost Recovery: \$319.924
Reserve Sinking Fund: \$64.567
TOTAL: \$879.461

NB! As shown in the attached Excel file, the reserve sinking fund is assumed to be invested by the City at an assumed rate equal to the City's current cost of capital - ca 4%; so the sinking fund **annual** contributions will equal about \$135.6 million in 35 years, i.e., the current acquisition cost.

The staff notes (in their 18 October 2021 presentation), that they did not include \$200,000 per year in a sort of 'reserve' account for facility end-of-life replacement and some sort of 'maintenance'; but this amount would only total \$7.0 million in 35 years, so I don't think the staff-recommended amount makes any sense at all. The correct way to calculate an annual reserve account value is to use the sinking fund procedure; this is what I've done (see Excel file), and the correct **yearly** charge is \$1.845 million. Assuming this amount is invested at the City's cost of capital rate (4% in my analysis) it will yield an amount equal to the facility's acquisition cost at the end of 35 years; whether this amount would actually 'buy' a new facility in 2062 is certainly debatable, but the sinking fund procedure certainly yields a more credible value for a 'reserve fund' compared to the staff's miserly amount of \$200,000 per year. According to the staff presentation at your 18 October 2021 meeting, they're assuming about 60-65% of the project acquisition cost would come from 'public funding sources' (taxpayers??), and the balance would be from private funding; if this proves to be correct, private investors may, indeed, require recovery of their contributions to the facility's funding account.

Now, the staff (and you people) normally plan on recovering the acquisition, ownership, and retirement costs for any new **City** facilities as part of our property and utility taxes, utility rates, and other methods - a forced wealth transfer with no alternatives for tax/rate payers. However, the City's Utilities Department **does** collect **capital recovery charges** from new entrants (rate payers) into the City's utilities customer base; for example, during the years 2013-2020, the Utilities Department collected an average of \$2.4 million per year in capital recovery charges. Thus, the City could include the capital recovery amount shown above (about \$11.163 million per year - see attached Excel file) in the facility's operating-cost, raising that cost to about \$16.7 million per year, thus reducing the operating-cost recovery to about 30%. The problem with this sort of 'back-of-the-envelope' arithmetic is that the staff plans to only collect costs for personnel, commodities, utilities, professional services, and City 'support' for the new aquatic facility; the City 'support' does, apparently include about \$250,000/year for facility replacement allocation. A better approach to evaluating these costs would be to determine the levelized admission cost for the new facility; a procedure for developing such a cost was described in Reference c.

Since it's unlikely that you or the staff have any serious interest in getting a better estimate of the life cycle cost of a new aquatic facility, it is really more important to learn why the City staff and you people are wasting a lot of time (and tax-payer monies) in considering this project. Indeed, based on the capital and operating costs shown in pages 19-21 of reference a, the costs per visit (2020 \$s) are approximately \$146 (option 1), \$159 (option 2), and \$179 (option 3), and \$224 (2021 \$s) for the staff recommended facility set forth in reference d. The annual subsidies (though seriously understated) required are approximately \$1.4 million (option 1), \$1.0 million (option 2), \$1.4 million (option 3), and ca \$0.75 million for the staff- recommended facility (it seems difficult to believe that the operating costs for the staff-recommended facility would be **lower** than the operating costs for all the other options). So why did the City's Parks Department recommend the most expensive option to you as the preferred option for the Bellevue Aquatic Facility? (Maybe the staff had a private showing of the movie **Field of Dreams**; I think there was a line in there somewhere "... If you build it, they will come ..." - or something like that; or is the exhortation **go big&broke, or go home** a good enough rationale?)

As for **reasonably current public** input on the proposed new aquatic facility, there has been essentially none: see Appendix B of reference a. Representatives of Ballard*King ARC and a City staff member conducted a series of so-called 'stakeholder' meetings during 26-27 June 2019; the public did not participate in or observe these meetings, which obtained comments from 12 groups (Bellevue Aquatic Center, PNW Local Swimming Committees, PNW Association of Masters Swimming, Seattle Metropolitan Aquatic Club, etc.). Earlier contacts by the City's contractor (ARC/Ballard*King) as part of the City's 2007-2009 study contacted primarily aquatic facility owner/operators, user/advocate groups, and a few potential contributors to a facility capital fund; these included King County Parks, Bellevue Community College (BCC), BSD, BCoC, BDA, several nearby municipalities (Sammamish, Redmond, Kirkland, etc.), and two school districts (Issaquah and Lake Washington). There was essentially no interest expressed in contributing to the capital requirements, although the BCC president indicated that the college might be able to provide \$1-2 million through a matching State fund if such funds were available. During the past 10-12 years there has been no effort to take contact with members of the broad public, except for a telephone survey conducted by City staff in November 2007 that contacted 406 households in Bellevue. In contacting other facility owners/operators and user/advocate groups, it appears that the City's contractor (ARC) provided no information on the expected acquisition and ownership costs, nor any information on a possible construction schedule.

In the staff presentation to the City Council at the Council's 18 October 2021 meeting, the staff summarized on page 2 of their 18 October 2021 agenda memo the aquatic facility concept jointly recommended by the City staff and Splash/Forward (S/F). Neither the staff agenda memo or presentation materials for the meeting provided any rationale for the recommended facility, other than the assertion that it "... meets the aquatics needs of the Bellevue community, potential partner groups, and that (it) will be a center that promotes community health and wellness." Further, there is no evidence in reference d that any widespread contact was made with the public within the three service areas that the recommended facility is intended to support. Rather, the City staff, its contractors and S/F, and a narrow/select number of so-called 'stakeholders' (see paragraph F on page 16, and Appendix B of reference a) have provided self-serving inputs on the aquatics facilities/activities **desired** by these groups; the City staff and S/F have provided no information on the **requirements** for such a facility **designed for the City of Bellevue**.

There are many aquatic/swimming facilities in Bellevue and Bellevue's surrounding areas. These facilities are clearly capable of servicing the City's current and future demands **for teaching people to**

swim; this is the only even remotely credible need that the City should consider in developing a new aquatic center. So why are you and the staff pursuing this issue when there are many more important issues that demand attention: global climate warming; housing for homeless persons; reducing our property taxes and utility rates; etc.? Teaching persons competitive aquatic sports (water polo, diving, synchronized swimming, etc.), and recreational swimming are clearly demands that private enterprise can respond to. For example, Splash/Forward apparently is a local advocate group for various aquatic organizations and providers; they ought to be able to organize an aquatics facility consortium to serve any unmet aquatic needs in the King County area by building a new facility to service these needs. It should be noted that none of aquatic studies done by Bellevue, King County, and Splash/Forward in the last several years have provided any **quantitative** data on the current and predicted demands for the various types of aquatics service in the three service areas defined by the reference a. Pages 10-12 and Appendix A of reference a describe the *primary*, *secondary*, and *tertiary* service areas that were considered by CoB and ARC in producing that document, but most of Appendix A to that document is demographic information rather than providing information on the various types of aquatic demands within each of the 3 service areas. Further, many of the persons, organizations, and government staff contacted by the City over the last 10-15 years have stated that there is no need for another regional aquatic facility, and doubt that the regional market would support it.

I urge you to direct the City manager to terminate any further City efforts to develop a **regional** aquatic center; the staff should identify the forecasted City demands for **swimming instruction** and compare that forecast with the City's current and future capacities for servicing those demands. With this information a decision can be made on whether there is any need to construct new facilities, and/or improve the existing Bellevue Aquatic Center (Odele Pool).

Sincerely yours; I would appreciate some feedback on my comments above.
Happy holidays to you all!

David F. Plummer

14414 NE 14th Place
Bellevue, WA. 98007

Project: Bellevue Aquatics Center Study

DESCRIPTION	AIRFIELD SITE			BELLEVUE COLLEGE SITE			DELTA
	SQ. FT.	COST/SF	EXT.	SQ. FT.	COST/SF	EXT.	
BUILDING OPTIONS:							
Preferred Concept Plan	130,000	\$442.74	\$ 57,556,000	164,000	\$416.97	\$ 68,383,000	\$ 10,827,000
Deep Pile Foundation system			\$ 6,320,000			\$ -	\$ (6,320,000)
Building Subtotal			\$ 63,876,000			\$ 68,383,000	\$ 4,507,000
STRUCTURED PARKING:							
Construction Costs (below grade/bldg)	85,000	\$ 80.00	\$ 6,800,000			\$ -	
Construction Costs (above grade)			\$ -	324,000	\$ 80.00	\$ 25,920,000	
Struct Parking Subtotal			\$ 6,800,000			\$ 25,920,000	\$ 19,120,000
SITE DEVELOPMENT:							
Landfill Excavation @ BAC	1	LS	\$ 4,000,000			\$ -	
Landfill Additional Contingency for Park	1	LS	\$ 6,000,000				
Site Preparation	1	LS	\$ 2,278,000	1	LS	\$ 2,625,000	
Paving and Parking	1	LS	\$ 900,000	1	LS	\$ 1,122,000	
Landscape and Site Amenities	1	LS	\$ 1,902,000	1	LS	\$ 1,588,000	
Storm Drainage	1	LS	\$ 1,978,000	1	LS	\$ 2,067,000	
Water	1	LS	\$ 165,000	1	LS	\$ 225,000	
Sanitary Sewer	1	LS	\$ 158,000	1	LS	\$ 694,000	
Site Electrical	1	LS	\$ 396,000	1	LS	\$ 619,000	
Site Subtotal			\$ 17,775,000			\$ 8,938,000	\$ (8,837,000)
MAAC			\$ 88,451,000			\$ 103,241,000	\$ 14,790,000
Soft Costs (40% of MACC)			\$ 35,380,400			\$ 41,296,400	\$ 5,916,000
PROJECT TOTAL			\$ 123,831,400			\$ 144,537,400	\$ 20,706,000
Escalation Factor (start Q2 2026)		25%	\$ 30,957,850		25%	\$ 36,134,350	\$ 5,176,500
Premium Contingency*		10%	\$ 11,940,885		10%	\$ 13,937,535	\$ 1,996,650
ADDITIONAL POTENTIAL COST TOTAL			\$ 42,898,735			\$ 50,071,885	\$ 7,173,150
2026 PROJECT TOTAL			\$ 166,730,135			\$ 194,609,285	\$ 27,879,150

COMMENTS

General:

*Contingency for construction/design/GCCM or Design/Build Cost Premium

The estimate does not include renovation to existing ODLE facility.

Costs are Construction Costs in "Today's (March 2021) Dollars".

Costs include current WSST and design contingency.

Escalation is not included.

Anticipate construction inflation at an annual rate of 5% from the present day to the construction mid point month.

Soft costs (design, permits, fees, FF & E, etc.) are included.

Project Total Cost per SF is based upon Aquatics Center building gross square footage.

The construction is based upon one continuous operation under one general contract.

The estimate is based four to six responsive bids under a competitive bid environment for a fixed price contract.

Civil and Site:

Assumed site materials and not contaminated. Site clean up and mitigation not included but for Airfield site.

Assumed native soil is not suitable for utility trench backfill or structural backfill.

Backflow protection for the fire protection system is within the building

For stormwater flow control, an underground detention vault is assumed.

GC/CM and Des Build Notes:

<https://apps.leg.wa.gov/row/default.aspx?cite=39.10>

<https://www.fhwa.dot.gov/construction/contracts/acm/cmhc.cfm>

<https://www.fhwa.dot.gov/construction/contracts/acm/db.cfm>

Contracts - require 5% capital

MACC established at 90% documents

Total projects must be greater than \$2M

Projected AE fees*

WA State Guidelines for A/E Fees

AIRFIELD			BELLEVUE COLLEGE		
A	B	C	A	B	C
Complex	Average	Not difficult	Complex	Average	Not difficult
6.44%	5.52%	4.60%	6.23%	5.34%	4.45%
\$ 5,892,162.82			\$ 6,428,780.49		
\$ 4,881,088.06			\$ 5,513,353.98		
\$ 4,089,973.30			\$ 4,597,927.46		

*WA Guidelines do not include Civil, Street frontage, or Landscape

AE Fee Breakdown

		AIRFIELD			BELLEVUE COLLEGE		
Phase	%						
Schematic							
A&E	18%	\$ 1,024,589	\$ 878,592	\$ 732,595	\$ 1,157,180	\$ 992,404	\$ 827,627
SITE		\$ 2,503,072	\$ 2,503,072	\$ 2,503,072	\$ 2,817,734	\$ 2,817,734	\$ 2,817,734
SCHEMATIC TOTAL		\$ 3,527,661	\$ 3,381,664	\$ 3,235,667	\$ 3,974,915	\$ 3,810,138	\$ 3,645,361
Design Development							
A&E	20%	\$ 1,138,433	\$ 976,214	\$ 813,995	\$ 1,285,756	\$ 1,102,671	\$ 919,585
SITE		\$ 2,781,191	\$ 2,781,191	\$ 2,781,191	\$ 3,130,816	\$ 3,130,816	\$ 3,130,816
DESIGN DEV TOTAL		\$ 3,919,623	\$ 3,757,404	\$ 3,595,185	\$ 4,416,572	\$ 4,233,487	\$ 4,050,402
Construction Docs							
A&E	31%	\$ 1,764,570	\$ 1,513,131	\$ 1,261,692	\$ 1,992,922	\$ 1,709,140	\$ 1,425,358
SITE		\$ 4,310,846	\$ 4,310,846	\$ 4,310,846	\$ 4,852,765	\$ 4,852,765	\$ 4,852,765
CONST DOC TOTAL		\$ 6,075,416	\$ 5,823,977	\$ 5,572,537	\$ 6,845,687	\$ 6,561,905	\$ 6,278,122
Bidding							
A&E	2%	\$ 113,843	\$ 97,621	\$ 81,399	\$ 128,576	\$ 110,267	\$ 91,959
SITE		\$ 278,119	\$ 278,119	\$ 278,119	\$ 313,082	\$ 313,082	\$ 313,082
BIDDING TOTAL		\$ 391,962	\$ 375,740	\$ 359,519	\$ 441,657	\$ 423,349	\$ 405,040
Construction Admin							
A&E	27%	\$ 1,536,884	\$ 1,317,888	\$ 1,098,893	\$ 1,735,771	\$ 1,488,606	\$ 1,241,440
SITE		\$ 3,754,608	\$ 3,754,608	\$ 3,754,608	\$ 4,226,602	\$ 4,226,602	\$ 4,226,602
CONST ADMIN TOTAL		\$ 5,291,491	\$ 5,072,496	\$ 4,853,500	\$ 5,962,372	\$ 5,715,207	\$ 5,468,042
Close Out							
A&E	2%	\$ 113,843	\$ 97,621	\$ 81,399	\$ 128,576	\$ 110,267	\$ 91,959
SITE		\$ 278,119	\$ 278,119	\$ 278,119	\$ 313,082	\$ 313,082	\$ 313,082
CLOSE OUT TOTAL		\$ 391,962	\$ 375,740	\$ 359,519	\$ 441,657	\$ 423,349	\$ 405,040

Projected Soft Costs

Professional Services

	AIRFIELD	BELL COLLEGE
Master Plan Update	\$175,000	\$0
Environmental (SEPA/CUP)	\$250,000	\$120,000
Architectural Base Fee:	\$ 5,692,163	\$ 6,428,780
Site Work Base Fee:	\$8,851,313	\$9,996,754
Other Design Fee (including the following):	\$5,054,641	\$5,657,327
Estimating		
Acoustics		
LEED Certification		
Value Engineering		
Pool Mechanical		
Commissioning		
Landfill Systems Engineer (Airfield)		
Construction Testing	\$3,714,942	\$4,749,086
Permits, Utility Hook Up, Inspection, Mitigation Fees	\$3,361,138	\$3,923,158
COB Direct Costs - Planning & Project Management	\$2,653,530	\$3,097,230
FFE	\$5,307,060	\$7,226,870
Misc Expenses	\$320,613	\$97,195
SOFT COST TOTAL	\$35,380,400	\$41,296,400

**Table B10A. Sinking Fund Payments, Years 1-35, Yearly
Payment for Sys. Replacement**

7-Dec-21

Annual Payment	Accumulated Balance	Year
\$1,844,786	1,844,786	1
\$1,844,786	1,918,577	2
\$1,844,786	1,995,320	3
\$1,844,786	2,075,133	4
\$1,844,786	2,158,138	5
\$1,844,786	2,244,464	6
\$1,844,786	2,334,242	7
\$1,844,786	2,427,612	8
\$1,844,786	2,524,716	9
\$1,844,786	2,625,705	10
\$1,844,786	2,730,733	11
\$1,844,786	2,839,963	12
\$1,844,786	2,953,561	13
\$1,844,786	3,071,704	14
\$1,844,786	3,194,572	15
\$1,844,786	3,322,355	16
\$1,844,786	3,455,249	17
\$1,844,786	3,593,459	18
\$1,844,786	3,737,197	19
\$1,844,786	3,886,685	20
\$1,844,786	4,042,152	21
\$1,844,786	4,203,839	22
\$1,844,786	4,371,992	23
\$1,844,786	4,546,872	24
\$1,844,786	4,728,747	25
\$1,844,786	4,917,896	26
\$1,844,786	5,114,612	27
\$1,844,786	5,319,197	28
\$1,844,786	5,531,965	29
\$1,844,786	5,753,243	30
\$1,844,786	5,983,373	31
\$1,844,786	6,222,708	32
\$1,844,786	6,471,616	33
\$1,844,786	6,730,481	34
\$1,844,786	6,999,700	35

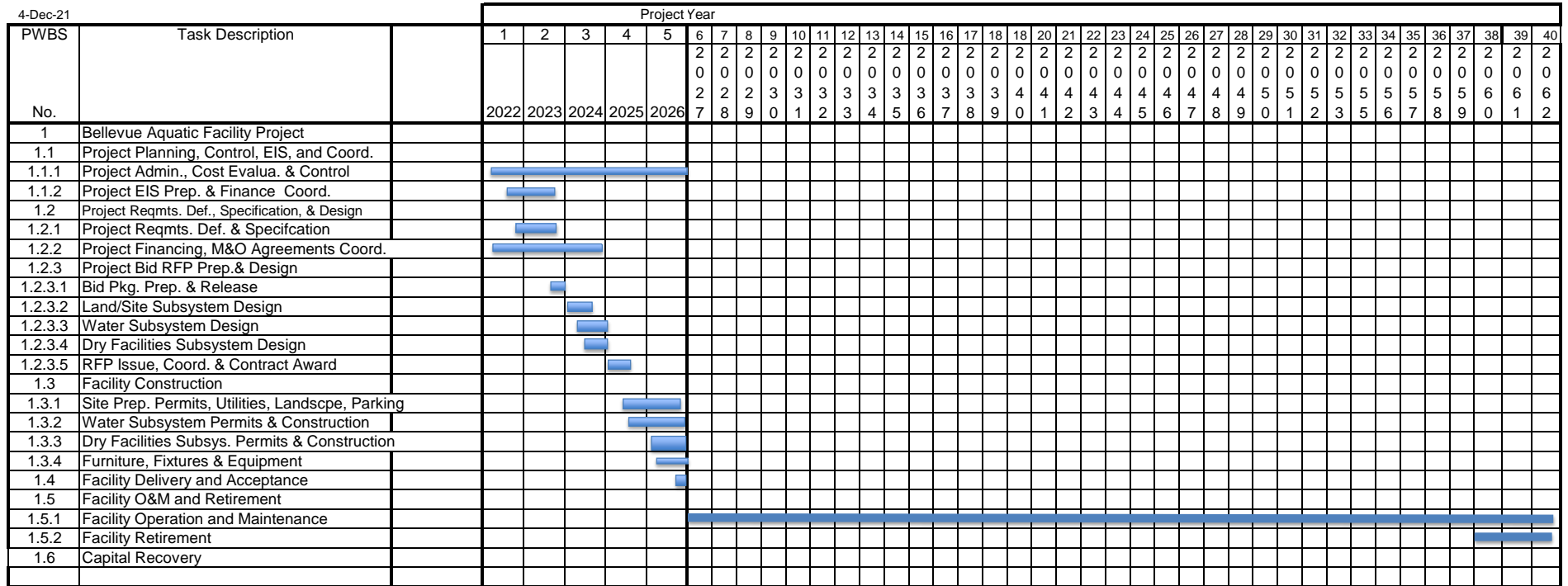
Total

\$64,567,496 135,872,564

Note: Sinking fund payments are invested at 4% annual interest.

**Figure 5A. Acquisition and Ownership Schedule, Aquatic Regional Facility at Airfield Park,
With Dive Tank, WBS and Cost, Millions of Then-Year \$s**

4-Dec-21



Regional Facility, Airfield Park Site, w/Deep Tank
attached to main 50m pool, and below-grade structured parking.

		Cost		Escalation Rate, % Per Year																																										
		2021 \$s	YoE \$s																																											
1.1	Site Planning, EIS, A&E and Proj. Admin.			3.50%	3.50%	3.50%	3.00%	3.00%																																						
1.2	Requirements Def., Specification & Design			N/A																																										
1.2.1	Proj. Requirements Def. & Specification			4.00%	4.00%																																									
1.2.2	Project Financing, M&O Agreements Coord.			3.00%	3.50%	3.50%	3.00%																																							
1.2.3	Project Bid RFP Prep.& Design			3.50%	3.50%	3.50%	3.50%																																							
1.3	Facility Construction			N/A																																										
1.3.1	Site Prep., Permits , Utilities, Landscape, Parkg			3.00%	3.00%	3.00%	4.00%	4.50%																																						
1.3.2	Water Subsystem Permits & Construction			3.00%	3.00%	3.00%	4.00%	3.50%																																						
1.3.3	Dry Facilities Subsys. Permits & Construction			3.00%	3.00%	3.00%	3.00%	3.50%																																						
1.3.4	Furniture, Fixtures & Equipmt Purch. & Install			4.00%	4.00%	3.50%	3.50%	3.00%																																						
1.4	Facility Delivery and Acceptance			3.50%	3.00%	3.00%	3.00%	3.00%																																						
1.5	Facility Operation, Maintenance, & Retirement			N/A																																										
1.5.1	Operation & Maintenance Costs/Yr			3.50%	3.50%	3.50%	3.00%	2.50%																																						
1.5.2	Facility Retirement (Note 3, Table BAF-5A)			2.50%																															###	###	###									
1.6	Capital Recovery (Repayment to Investors)			N/A																																										

Source: 1. Sequence, timing, and length of tasks estimated by author.

Notes: 1. Includes structured parkng facility below grade

**Table BAF-5A. Life Cycle Cost, City of Bellevue Regional Aquatic Center, Option 3,
Airfield Park Site, Millions of Then-Year \$\$, 2022-2060 (Base Year-2021)**

WBS No.	Option No. 3 (Note 4)	Acquisition Cost, Millions of Then-Year \$\$						Total Acq. Cost	Retire Planning Note #3	Operating & Maint. Cost			Acquisition Cost Recovery	Water Loss, Gal./Mo.				Total
		2009-21	2022	2023	2024	2025	2026			Year No	Calendar Yr	O&M Cost		Main/Pro. Pool	Well. Pool	Leisure Pool	Cardio Pool	
Snk Cst	Studies by CoB, ARC, etc.	0.600						0.600		1	2027	5.572	7.271	37,950	7,080	18,930	23,400	87,360
1.1	Project Planning, Control									2	2028	5.683	7.271					117ccf/mo
1.1.1	CoB Support	0.250	0.346	0.440	0.653	0.456	0.464	2.609		3	2029	5.797	7.271					\$656/mo
1.1.2	Plan/Scope/EIS/CUP		0.259	0.264				0.523		4	2030	5.913	7.271	Makeup Water: Evaporation Splash Leaks				
1.2	Projct. Reqmts. Def. & Spec									5	2031	6.031	7.271					
1.2.1	Reqmts Def. & Spec		2.600	5.025				7.625		6	2032	6.152	7.271					
1.2.2	Project Financing/M&O		1.542	3.985	2.472			7.999		7	2033	6.275	7.271					
1.2.3	Design & Bid RFP			2.078	3.580	1.480		7.138		8	2034	6.400	7.271	Capital Recovery CRF = $k/(1-(1+k)^{-N})$ = $0.04/(1-(1.04)^{-35})$ = $0.04/(1-0.2534)$ = 0.0536 Acq. Cost \$135.646				
1.3	Facility Construction									9	2035	6.528	7.271					
1.3.1	Site Prep., Permits & Admin.									10	2036	6.659	7.271					
1.3.1.1	Landfill Excavation					7.066	6.956	14.022		11	2037	6.792	7.271					
1.3.1.2	Site Prep. & Deep Found.					7.091		7.091		12	2038	6.928	7.271	Capital recovery yearly payment: $(0.0536) \times (\text{Acq. Cost})$ look				
1.3.1.3	Paving/Parking						8.666	8.666		13	2039	7.067	7.271					
1.3.1.4	Landscape						2.205	2.205		14	2040	7.208	7.271					
1.3.1.5	Storm Drain						2.291	2.291		15	2041	7.352	7.271					
1.3.1.6	Water Service					0.096	0.096	0.192		16	2042	7.499	7.271	Retirement Planning 2060 2061 2062 2.683 2.683 2.683 Total 8.049				
1.3.1.7	Sewer Service					0.092	0.092	0.184		17	2043	7.649	7.271					
1.3.1.8	Electrical Service					0.230	0.230	0.460		18	2044	7.802	7.271					
1.3.2	Water Subsys. Const						50.042	50.042		19	2045	7.958	7.271					
1.3.3	Dry Facilities Const.						16.681	16.681		20	2046	8.117	7.271	Total Project 35-Year Life Cycle Cost (Note2A) Acquisition \$135.646 Ownership \$351.275 Retirmt. Plan \$8.049 Cap. Recover \$319.924 Sinking Fund \$64.567 Total \$879.461 Note 2A				
1.3.4	Furniture, Fixtures & Equip.						6.152	6.152		21	2047	8.280	7.271					
1.4	Facility Delivry & Acceptance						0.464	0.464		22	2048	8.445	7.271					
1.5	Acquisition Cost Funding									23	2049	8.614	7.271					
1.5.1	Loan Orig.Fee @0.5% of Acq. Cost			0.702				0.702		24	2050	8.786	7.271	Notes: 1A. Odle/CoB Aquatics Center built in 1970 2A. Costs are millions of YoE \$\$				
1.5.2	Retirement Planning								8.049	25	2051	8.962	7.271					
1.6	Facility Replcmnt Sinking Fund							64.567		26	2052	9.141	7.271					
Totals		0.850	4.747	12.494	6.705	16.511	94.339	135.646		27	2053	9.324	7.271					
							Total Acq.	135.646		28	2054	9.511	7.271	O&M Sink fund Total Retrmt Plan Total Qwner 278.569 64.657 8.049 351.275				
Source:	1. Site prep, permits & construction costs derived from ARC provided draft cost data, 11 Oct 2019; and Bellevue Aquatic Center Feasibility Study Update, Draft, June 2020									29	2055	9.701	7.271					
	2. Total paid admissions (614,000) from Bellevue Parks Department Aquatic Center Feasibility Study Update Draft, page 21, June 2020									30	2056	9.895	7.271					
Notes:	1. Total yearly paid admissions = ca 614,000 (ref. pg 21 of Bellevue 2020 Exec. Summary)									31	2057	10.093	7.271					
	2. Acquisition and ownership costs escalated at values shown on sheet 1									32	2058	10.295	7.271	Total Project 35-Year Life Cycle Cost (Note2A) Acquisition \$135.646 Ownership \$351.275 Retirmt. Plan \$8.049 Cap. Recover \$319.924 Sinking Fund \$64.567 Total \$879.461 Note 2A				
	3. Retirement plan. allowance estimated as 2.5% of acquisition cost spread over 3 years (2060, 2061, 2062)									33	2059	10.501	7.271					
	4. Option 3 is a regional aquatic center with 50m x 25yd, 8 lane pool with dive tank and 2 'bulkheads' for dividing the pool into 3 major use functions; facility surface area is ca 130,000 ft sq; subsurface parking is 500 spaces; water program functions include competition meets; wellness/therapy; leisure/recreation; cardio/fitness; located at Airfield Park									34	2060	10.711	7.271					
	5. Makeup water cost for 2020 is \$5.61/ccf									35	2061	10.925	7.271					
	6. Capital recovery costs calculated from CRF; see sheet 1; sunk costs for 2017-2021 author's estimate									36	2062	11.143	7.271	Total Project 35-Year Life Cycle Cost (Note2A) Acquisition \$135.646 Ownership \$351.275 Retirmt. Plan \$8.049 Cap. Recover \$319.924 Sinking Fund \$64.567 Total \$879.461 Note 2A				
	7. Project start: 1 Jan 2022; facility open 1 Jan 2027									37	2063	11.366	7.271					
	8. Ownership costs include costs for reserve/replacement; see sheet 1									38	2064	11.594	7.271					
	9. Base year for costs is 2021; the CRF is 0.05 (see sheet 1)									39	2065	11.825	7.271					
	10. Site for facility is Airfield Park									40	2066	12.062	7.271	Notes: 1A. Odle/CoB Aquatics Center built in 1970 2A. Costs are millions of YoE \$\$				
	11. Dry-side facilities were estimated: 25,000 sq ft @ \$600/ft sq									41	2067	12.303	7.271					
										42	2068	12.549	7.271					
										43	2069	12.800	7.271					
										44	2070	13.056	7.271	Total Project 35-Year Life Cycle Cost (Note2A) Acquisition \$135.646 Ownership \$351.275 Retirmt. Plan \$8.049 Cap. Recover \$319.924 Sinking Fund \$64.567 Total \$879.461 Note 2A				
												278.569	319.924					

**Table B-8A. City of Bellevue Weighted Cost of Debt,
General Obligation Bonds, 2012-2015 and Capital Recovery Factor**

7-Dec-21

Bellevue Long Term Debt			
Year Issued	Amount, Millions of Then-Year \$s	Interest Rate	Wtd Interest Rate, %
1995	5.475	5.475	0.0672
2010	11.825	3.500	0.0928
2010	9.595	3.000	0.0645
2012	55.875	3.500	0.4384
2012	43.185	3.500	0.3389
2013	62.605	3.500	0.4913
2013	6.300	3.500	0.0494
2015	3.295	4.000	0.0295
2015	7.855	4.000	0.0704
2015	79.140	4.000	0.7097
2015	7.645	4.000	0.0686
2017	99.600	2.860	0.6386
2020	10.915	4.000	0.0979
2020	42.730	1.000	0.0958
Total	446.040	-	4.01%

Source: "Notes" to financial statements; 2020 Bellevue CAFR, pg.73

$$SFF = k / [(1+k)^N] - SFF = 0.04 / \{(1.04)^{35} - 1\} = 0.0136$$

$$k = 0.04 \quad N = 35$$

$$CRF = (k) / \{1 - (1+k)^{-N}\}$$

Acq. Cost \$208,261,000

CRF
0.0536

Capital Recovery

Facility Cap. \$11,162,789.60
Recovery M\$s per Year

SFF = sinking fund factor

$$\text{Annual Paymt} = (SFF) * (\text{Acq. Cost})$$

$$= 0.0136 \quad 208261000$$

\$1,844,786 SFF payment

Acq. Cost \$208,261,000

Years 35

Annual Rate 2%

Annual Paymt: CRF*(Acquisition Cost) \$11,162,790 Repay to investors

Note: 1. k is the cost of capital to CoB, or approx. 4%.

Table 6A. Bellevue Project Support Team, WBS1.1.1

30-Nov-21

City Dept.	Type Personnel	% of Time	Cost		Major Task
			Per Month	Per Year	
City Attny	Attorney	30	\$10,800	\$38,880	Support development of funding scheme
Finance	Budget Analyst	40	\$7,700	\$36,960	Finance/budget planning
	Director	10	\$10,800	\$12,960	Funding plan
	Investmt/Debt	20	\$9,300	\$22,320	Funding plan
Fire	Fire Special Anal	10	\$7,300	\$8,760	Safety & fire planning
Parks	Parks Resource Mgr	60	\$9,500	\$68,400	Project mgmt
	Facility Mgmt & Plan	50	\$9,500	\$57,000	Facility planning & design
	Aquatics Project Mgr	100	\$10,000	\$120,000	Direct/Manage Project
	Sr. Budget Analyst	30	\$7,800	\$28,080	Facility cst. contrl./ budget
	Parks Engineer	60	\$6,500	\$46,800	Facility design, O&M
Utilities	Senior Eng., Sewer	30	\$9,000	\$32,400	Sewer design support
	Utilities Tech. Specialist	40	\$6,500	\$31,200	Utilities planning & design
	Senior Eng., Storm Wtr	40	\$9,000	\$43,200	Storm water system design
	Senior Eng., Water	40	\$8,000	\$38,400	Water system design
Total/Yr				\$585,360	

Years	2022	2023	2024	2025	2026
% Team Effort	0.20	0.40	0.60	0.40	0.40
Total Cost in Year	\$117,072	\$186,144	\$351,216	\$175,608	\$117,072.00
Person. Benefit Factor	\$146,340	\$232,680	\$439,020	\$234,144	\$234,144.00
Escalation Rate	3.50%	3.50%	3.50%	3.00%	3.00%
Incidental/Intangibles	\$200,000	\$207,000	\$214,245	\$221,744	\$229,505
Total YoE \$s	\$346,340	\$439,680	\$653,265	\$455,888	\$463,649

Total Support Cos: \$2,358,821

Source: 1. Cost per month: Bellevue Preliminary 2021-2022 budget, pp569-606
2. Team selection and utilization: author

Notes: 1. Costs to be increased by a factor of 1.25 to account for personnel benefits costs (social security, retirement, healthcare, etc.)