

## Appendix F – WWTP Improvement Alternatives Preliminary Cost Estimates

**Operation and Maintenance Annual Cost Estimate**

City of Newport WWTP

Alternate A: Do Nothing, Continue Operation of Existing Plant

Description	Estimated Weekly Labor Hours	Estimated Annual Labor Hours	Labor Rate	Labor Cost	Equipment Cost	Electrical Cost	Chemical Cost	Other	Total
Clerical/Administration	3	156	\$ 53	\$ 8,268	\$ 1,000				\$ 9,268
Influent Flow Meters	8	416	\$ 53	\$ 22,048	\$ 2,500				\$ 24,548
Receiving Station (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Headworks-Bar Rack	2	104	\$ 53	\$ 5,512	\$ 300				\$ 5,812
Headworks-Mechanical Fine Screen	2	104	\$ 53	\$ 5,512	\$ 12,500				\$ 18,012
Headworks-Vortex Grit Chamber	2	104	\$ 53	\$ 5,512	\$ 6,500				\$ 12,012
Primary Clarifier (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Aeration Basin-Oxidation Ditch	8	416	\$ 53	\$ 22,048	\$ 7,500				\$ 29,548
Secondary Clarifier 1	8	416	\$ 53	\$ 22,048	\$ 7,000				\$ 29,048
Secondary Clarifier 2	8	416	\$ 53	\$ 22,048	\$ 7,000				\$ 29,048
Chlorine Contact Basin, Injection Equipment	2	104	\$ 53	\$ 5,512	\$ 2,000		\$ 2,800		\$ 10,312
Outfall to Pend Oreille River	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Primary Solids Pumps (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Anaerobic Digester (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Activated Sludge Pump Station 1	8	416	\$ 53	\$ 22,048	\$ 12,000				\$ 34,048
Activated Sludge Pump Station 2, Reclaim Water Pump	10	520	\$ 53	\$ 27,560	\$ 15,000				\$ 42,560
Aerobic Digester (Solids Holding Lagoon)	4	208	\$ 53	\$ 11,024	\$ 10,000				\$ 21,024
Belt Filter Press, Gravity Belt Thickener	8	416	\$ 53	\$ 22,048	\$ 7,000		\$ 6,500		\$ 35,548
Site Maintenance and Upkeep	2	104	\$ 53	\$ 5,512	\$ 1,000				\$ 6,512
Reclaimed Water Distribution System	6	312	\$ 53	\$ 16,536	\$ 3,500				\$ 20,036
Plant Power, Lighting, Heating						\$ 50,000			\$ 50,000
Water Utilities								\$ 60,000	\$ 60,000
Outside Lab Costs								\$ 7,000	\$ 7,000
Sludge Hauling Service								\$ 31,000	\$ 31,000
DOE Permits								\$ 6,500	\$ 6,500
Office and Operating Supplies								\$ 30,000	\$ 30,000
Fuel Consumed								\$ 11,000	\$ 11,000
<b>TOTAL</b>	<b>86</b>	<b>4472</b>		<b>\$ 237,016</b>	<b>\$ 94,800</b>	<b>\$ 50,000</b>	<b>\$ 9,300</b>	<b>\$ 145,500</b>	<b>\$ 536,616</b>

**Newport WWTP**  
**Summary Alternative B Detailed Costs**

Pg. #	Item Description	Construction Cost	Construction Cost + Contingency +AIS/BABAA/Prevailing Wage + Sales Tax	Total Cost with Contingency, Taxes, Engineering, Prevailing Wages/AIS, Admin
1	Overall Site Improvements	\$ 2,295,000	\$ 3,696,000	\$ 4,561,000
2	Headworks Improvements	\$ 366,000	\$ 589,000	\$ 727,000
3	Lab Office Upgrades/Renovation	\$ 1,180,000	\$ 1,900,000	\$ 2,345,000
4	Belt Filter Press Upgrades	\$ 542,000	\$ 873,000	\$ 1,078,000
5	Existing Oxidation Ditch Upgrades	\$ 1,108,000	\$ 1,784,000	\$ 2,201,000
6	Clarifier Repairs	\$ 1,344,000	\$ 2,164,000	\$ 2,670,000
7	New Clarifier #3	\$ 2,168,000	\$ 3,491,000	\$ 4,307,000
8	Pumphouse #1 Upgrades	\$ 1,708,000	\$ 2,750,000	\$ 3,393,000
9	Pumphouse #2 Upgrades	\$ 1,656,000	\$ 2,667,000	\$ 3,291,000
10	Aerobic Digester	\$ 1,697,000	\$ 2,732,000	\$ 3,371,000
	<b>TOTAL</b>	<b>\$ 14,064,000</b>	<b>\$ 22,646,000</b>	<b>\$ 27,944,000</b>
11	New Shop/Office (alternate to renovation)	\$ 2,422,000	\$ 3,900,000	\$ 4,812,000
	<b>TOTAL with New Shop/Office, no existing upgrades</b>	<b>\$ 15,306,000</b>	<b>\$ 24,646,000</b>	<b>\$ 30,411,000</b>

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B					DATE:	5/26/2023
PROJECT DESCRIPTION: Overall Site Improvements						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Onsite Domestic Fire Hydrant	1	LS	\$15,000	\$15,000	
2	SCADA system with security cameras	1	LS	\$275,000	\$275,000	
3	Combine power sources into one feed	1	LS	\$200,000	\$200,000	
4	Yard valve replacement throughout plant	20	EA	\$5,000	\$100,000	
5	Reclaimed water system replacement and filtration system	1	LS	\$350,000	\$350,000	
6	Backup generator	1	LS	\$500,000	\$500,000	
7	Vactor truck	1	LS	\$600,000	\$600,000	
8					-	
9					-	
10					-	
11					-	
12					-	
13					-	
14					-	
15	Additional Elements (estimated % of above)				-	
16	Contractor mobilization / administration			10.0%	\$204,000	
17	Yard Piping			0.0%	\$0	
18	Site Civil			0.0%	\$0	
19	Electrical and instrumentation			0.0%	\$0	
20	Bonding			2.5%	\$51,000	
SUBTOTAL					\$ 2,295,000	
Construction Contingency: 30.0%					\$ 689,000	
AIS/BABAA Escalation: 15.0%					\$ 448,000	
Sales Tax: 7.7%					\$ 264,000	
Design / CMS: 25.0%					\$ 858,000	
Legal and Administrative: 0.2%					\$ 7,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 4,561,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B					DATE:	5/26/2023
PROJECT DESCRIPTION: Headworks: Screening, furnace replacement, move MCC room						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
	<u>Fine Screening</u>				-	
1	2 mgd fine screen	1	EA	\$175,000	\$175,000	
2	Installation at 20%	1	EA	\$35,000	\$35,000	
3	Electrical revisions for independent screen operation	1	LS	\$100,000	\$100,000	
4	Replace/support grit chamber piping	1	LS	\$15,000	\$15,000	
5						
6	Additional Elements (estimated % of above)					
7	Contractor mobilization / administration			10.0%	\$33,000	
8	Yard Piping			0.0%	\$0	
9	Site Civil			0.0%	\$0	
10	Electrical and instrumentation			0.0%	\$0	
11	Bonding			2.5%	\$8,000	
SUBTOTAL				\$	366,000	
Construction Contingency: 30.0%				\$	110,000	
AIS/BABAA Escalation: 15.0%				\$	71,000	
Sales Tax: 7.7%				\$	42,000	
Design / CMS: 25.0%				\$	137,000	
Legal and Administrative: 0.2%				\$	1,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	727,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B					DATE:	5/26/2023
PROJECT DESCRIPTION: Lab/Office Renovation						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Demolition for office/break room addition	576	SF	\$150	\$86,400	
2	Office/break room addition	576	SF	\$600	\$345,600	
3	Roof replacement over entire structure	1568	SF	\$40	\$62,720	
4	New flooring, countertops, cubboards in lab area	1	LS	\$60,000	\$60,000	
5	Extend bathroom into old chlorine room and add shower/sink	128	SF	\$350	\$44,800	
6	Remove all unused electrical panels, bring up to code	1	LS	\$200,000	\$200,000	
7					-	
8					-	
9					-	
10					-	
11	Additional Elements (estimated % of above)				-	
12	Contractor mobilization / administration			10.0%	\$80,000	
13	Yard Piping			0.0%	\$0	
14	Site Civil			5.0%	\$40,000	
15	Electrical and instrumentation			30.0%	\$240,000	
16	Bonding			2.5%	\$20,000	
SUBTOTAL				\$	1,180,000	
Construction Contingency: 30.0%				\$	354,000	
AIS/BABAA Escalation: 15.0%				\$	230,000	
Sales Tax: 7.7%				\$	136,000	
Design / CMS: 25.0%				\$	441,000	
Legal and Administrative: 0.2%				\$	4,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	2,345,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B					DATE:	5/26/2023
PROJECT DESCRIPTION: Belt filter press building renovations (upgrades to support systems, refurbishing existing)						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Replace heaters	8	EA	\$4,000	\$32,000	
2	1100 gallon pressure tank	1	LS	\$20,000	\$20,000	
3	Upgrade shower boxes on gravity and press section	1	LS	\$80,000	\$80,000	
4	Domestic water feed line	1	LS	\$20,000	\$20,000	
5	Air gap skid system	1	LS	\$150,000	\$150,000	
6	Upgrade lift station with new pumps	1	LS	\$50,000	\$50,000	
7	Sludge trailer	1	LS	\$130,000	\$130,000	
8					-	
9					-	
10					-	
11					-	
12	Additional Elements (estimated % of above)				-	
13	Contractor mobilization / administration			10.0%	\$48,000	
14	Yard Piping			0.0%	\$0	
15	Site Civil			0.0%	\$0	
16	Electrical and instrumentation			0.0%	\$0	
17	Bonding			2.5%	\$12,000	
SUBTOTAL					\$ 542,000	
Construction Contingency: 30.0%					\$ 163,000	
AIS/BABAA Escalation: 15.0%					\$ 106,000	
Sales Tax: 7.7%					\$ 62,000	
Design / CMS: 25.0%					\$ 203,000	
Legal and Administrative: 0.2%					\$ 2,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 1,078,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B				DATE: 5/26/2023		
PROJECT DESCRIPTION: Oxidation ditch upgrades for existing ditch						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Upgrade drive, gear box, paddle system	1	LS	\$175,000	\$175,000	
2	Replace building over drive system	100	SF	\$250	\$25,000	
3	New control panel with VFD for drive system w/DO control	1	LS	\$125,000	\$125,000	
4	Construct backup aeration system on opposite end of basin	1	LS	\$350,000	\$350,000	
5	Replace grating on influent distribution box	80	SF	\$120	\$9,600	
6	Repair outflow distribution box	1	LS	\$300,000	\$300,000	
7					-	
8					-	
9					-	
10					-	
11	Additional Elements (estimated % of above)				-	
12	Contractor mobilization / administration			10.0%	\$98,000	
13	Yard Piping			0.0%	\$0	
14	Site Civil			0.0%	\$0	
15	Electrical and instrumentation			0.0%	\$0	
16	Bonding			2.5%	\$25,000	
SUBTOTAL				\$	1,108,000	
Construction Contingency: 30.0%				\$	332,000	
AIS/BABAA Escalation: 15.0%				\$	216,000	
Sales Tax: 7.7%				\$	128,000	
Design / CMS: 25.0%				\$	414,000	
Legal and Administrative: 0.2%				\$	3,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	2,201,000	



ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B					DATE:	5/26/2023
PROJECT DESCRIPTION: Clarifier repairs						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Clarifier #1 equipment replacement	1	LS	\$250,000	\$250,000	
2	Clarifier #1 concrete inspection and repairs	2200	SF	\$75	\$165,000	
3	Clarifier #2 equipment replacement	1	LS	\$250,000	\$250,000	
4	Clarifier #2 concrete inspection and repairs	2500	SF	\$75	\$187,500	
5	Reshape Clarifier #2 trough and level weir	1	LS	\$90,000	\$90,000	
6					-	
7					-	
8					-	
9					-	
10					-	
11	Additional Elements (estimated % of above)				-	
12	Contractor mobilization / administration			10.0%	\$94,000	
13	Yard Piping			0.0%	\$0	
14	Site Civil			0.0%	\$0	
15	Electrical and instrumentation			30.0%	\$283,000	
16	Bonding			2.5%	\$24,000	
SUBTOTAL					\$	1,344,000
Construction Contingency: 30.0%					\$	403,000
AIS/BABAA Escalation: 15.0%					\$	262,000
Sales Tax: 7.7%					\$	155,000
Design / CMS: 25.0%					\$	502,000
Legal and Administrative: 0.2%					\$	4,000
TOTAL PROBABLE COST (2023 DOLLARS)					\$	2,670,000

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B				DATE: 5/26/2023		
PROJECT DESCRIPTION: New Clarifier #3						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Concrete - Vertical Walls	76	CY	\$1,500	\$114,000	
2	Concrete - Slab on Grade	81	CY	\$1,000	\$81,000	
3	Concrete - Weir Channel	15	CY	\$2,200	\$33,000	
4	Appurtenant Mechanical Equipment	1	LS	\$325,000	\$325,000	
5	Hand Rail	130	LF	\$250	\$32,500	
6	Structure Excavation	1680	CY	\$50	\$84,000	
7	Excavation Shoring	3020	SF	\$75	\$226,500	
8	Excavation Dewatering	1	LS	\$75,000	\$75,000	
9	Underdrain with outlet pipe	1	LS	\$50,000	\$50,000	
10	Yard Piping			10.00%	\$102,100	
11	Valving in Pumphouse #2	1	LS	\$450,000	\$450,000	
12	Chlorination upgrades	1	LS	\$150,000	\$150,000	
13	Electrical and Instrumentation			20.00%	\$204,200	
14					-	
15					-	
16					-	
17					-	
18	Additional Elements (estimated % of above)				-	
19	Contractor mobilization / administration			10.0%	\$193,000	
20	Yard Piping			0.0%	\$0	
21	Site Civil			0.0%	\$0	
22	Electrical and instrumentation			0.0%	\$0	
23	Bonding			2.5%	\$48,000	
SUBTOTAL					\$ 2,168,000	
Construction Contingency: 30.0%					\$ 650,000	
AIS/BABAA Escalation: 15.0%					\$ 423,000	
Sales Tax: 7.7%					\$ 250,000	
Design / CMS: 25.0%					\$ 810,000	
Legal and Administrative: 0.2%					\$ 6,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 4,307,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B					DATE:	5/26/2023
PROJECT DESCRIPTION: Pumphouse #1 repairs						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Replace piping and valving	1	LS	\$375,000	\$375,000	
2	Ventilation with monitoring for basement area	1	LS	\$125,000	\$125,000	
3	Excavate and seal basement walls with drainage	4500	SF	\$50	\$225,000	
4	New sump pump system (WAS line and flows from PH #2)	1	LS	\$100,000	\$100,000	
5	Replace conduits with water issues	1	LS	\$50,000	\$50,000	
6	Overhead hoist in basement	1	LS	\$175,000	\$175,000	
7	Basement extension for stairway, concrete - vertical walls	23	CY	\$1,500	\$34,500	
8	Basement extension for stairway, concrete - slab on grade	13	CY	\$1,000	\$13,000	
9	Building above basement	176	SF	\$300	\$52,800	
10	Structure excavation	320	CY	\$50	\$16,000	
11	Excavation shoring	1230	SF	\$75	\$92,250	
12	Underdrain with outlet pipe	1	LS	\$75,000	\$75,000	
13	Yard piping (as percentage of extension costs)			30%	\$85,065	
14	Electrical and Instrumentation and HVAC (as %of extension)			35%	\$99,243	
15					-	
16					-	
17					-	
18					-	
19	Additional Elements (estimated % of above)				-	
20	Contractor mobilization / administration			10.0%	\$152,000	
21	Yard Piping			0.0%	\$0	
22	Site Civil			0.0%	\$0	
23	Electrical and instrumentation			0.0%	\$0	
24	Bonding			2.5%	\$38,000	
SUBTOTAL				\$	1,708,000	
Construction Contingency: 30.0%				\$	512,000	
AIS/BABAA Escalation: 15.0%				\$	333,000	
Sales Tax: 7.7%				\$	197,000	
Design / CMS: 25.0%				\$	638,000	
Legal and Administrative: 0.2%				\$	5,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	3,393,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B				DATE: 5/26/2023		
PROJECT DESCRIPTION: Pumphouse #2 repairs						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Replace 8" valves RAS-AUX-WAS	2	EA	\$7,000	\$14,000	
2	Ventilation for basement area	1	LS	\$135,000	\$135,000	
3	Excavate and seal basement walls with drainage	7500	SF	\$50	\$375,000	
4	Upgrade motor control center	1	LS	\$330,000	\$330,000	
5	Repair damaged bathroom	64	SF	\$200	\$12,800	
6	Overhead hoist in basement	1	LS	\$175,000	\$175,000	
7	Replace sump pump	1	LS	\$12,000	\$12,000	
8	Basement extension for stairway, concrete - vertical walls	23	CY	\$1,500	\$34,500	
9	Basement extension for stairway, concrete - slab on grade	13	CY	\$1,000	\$13,000	
10	Building above basement	176	SF	\$300	\$52,800	
11	Structure excavation	320	CY	\$50	\$16,000	
12	Excavation shoring	1230	SF	\$75	\$92,250	
13	Underdrain with outlet pipe	1	LS	\$45,000	\$45,000	
14	Yard piping (as percentage of extension costs)			\$0	\$76,065	
15	Electrical and Instrumentation and HVAC (as %of extension)			\$0	\$88,743	
16					-	
17					-	
18					-	
19					-	
20					-	
21	Additional Elements (estimated % of above)				-	
22	Contractor mobilization / administration			10.0%	\$147,000	
23	Yard Piping			0.0%	\$0	
24	Site Civil			0.0%	\$0	
25	Electrical and instrumentation			0.0%	\$0	
26	Bonding			2.5%	\$37,000	
SUBTOTAL				\$	1,656,000	
Construction Contingency: 30.0%				\$	497,000	
AIS/BABAA Escalation: 15.0%				\$	323,000	
Sales Tax: 7.7%				\$	191,000	
Design / CMS: 25.0%				\$	619,000	
Legal and Administrative: 0.2%				\$	5,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	3,291,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B					DATE:	5/26/2023
PROJECT DESCRIPTION: Aerobic digester						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Demolish existing structure	2800	SF	\$60	\$168,000	
2	Construct new building with overhead hoist	2800	SF	\$400	\$1,120,000	
3	Building lighting	1	LS	\$100,000	\$100,000	
4	Digester lift station upgrade for dual pumps on rails	1	LS	\$120,000	\$120,000	
5					-	
6					-	
7					-	
8					-	
9					-	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16					-	
17					-	
18	Additional Elements (estimated % of above)				-	
19	Contractor mobilization / administration			10.0%	\$151,000	
20	Yard Piping			0.0%	\$0	
21	Site Civil			0.0%	\$0	
22	Electrical and instrumentation			0.0%	\$0	
23	Bonding			2.5%	\$38,000	
SUBTOTAL					\$ 1,697,000	
Construction Contingency: 30.0%					\$ 509,000	
AIS/BABAA Escalation: 15.0%					\$ 331,000	
Sales Tax: 7.7%					\$ 195,000	
Design / CMS: 25.0%					\$ 634,000	
Legal and Administrative: 0.2%					\$ 5,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 3,371,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative B					DATE:	5/26/2023
PROJECT DESCRIPTION: New Shop/Office/Lab						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Clearing and grubbing	0.69	ACRE	\$12,000	\$8,280	
2	Site excavation	14400	CY	\$20	\$288,000	
3	Steel shop/lab/office building, 50'X100'	5000	SF	\$250	\$1,250,000	
4	Finish office/lab space, 30'X50'	1500	SF	\$300	\$450,000	
5	Extend 8" water line to shop	250	LF	\$110	\$27,500	
6	Fire hydrant	1	LS	\$8,000	\$8,000	
7	Extend sewer line to shop/office/lab	200	LF	\$90	\$18,000	
8	Crushed surfacing top course for driveway	620	TONS	\$50	\$31,000	
9	Hot mix asphalt for driveway	400	TONS	\$180	\$72,000	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16	Additional Elements (estimated % of above)				-	
17	Contractor mobilization / administration			10.0%	\$215,000	
18	Yard Piping			0.0%	\$0	
19	Site Civil			0.0%	\$0	
20	Electrical and instrumentation			0.0%	\$0	
21	Bonding			2.5%	\$54,000	
SUBTOTAL					\$ 2,422,000	
Construction Contingency: 30.0%					\$ 727,000	
AIS/BABAA Escalation: 15.0%					\$ 472,000	
Sales Tax: 7.7%					\$ 279,000	
Design / CMS: 25.0%					\$ 905,000	
Legal and Administrative: 0.2%					\$ 7,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 4,812,000	

**Operation and Maintenance Annual Cost Estimate**

City of Newport WWTP

Alternate B: Repair and Upgrade Existing Facilities

Description	Estimated Weekly Labor Hours	Estimated Annual Labor Hours	Labor Rate	Labor Cost	Equipment Cost	Electrical Cost	Chemical Cost	Other	Total
Clerical/Administration	3	156	\$ 53	\$ 8,268	\$ 1,000				\$ 9,268
Influent Flow Meters	8	416	\$ 53	\$ 22,048	\$ 2,500				\$ 24,548
Receiving Station (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Headworks-Bar Rack	2	104	\$ 53	\$ 5,512	\$ 300				\$ 5,812
Headworks-Mechanical Fine Screen	2	104	\$ 53	\$ 5,512	\$ 12,500				\$ 18,012
Headworks-Vortex Grit Chamber	2	104	\$ 53	\$ 5,512	\$ 6,500				\$ 12,012
Primary Clarifier (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Aeration Basin-Oxidation Ditch	8	416	\$ 53	\$ 22,048	\$ 7,500				\$ 29,548
Secondary Clarifier 1	8	416	\$ 53	\$ 22,048	\$ 7,000				\$ 29,048
Secondary Clarifier 2	8	416	\$ 53	\$ 22,048	\$ 7,000				\$ 29,048
Chlorine Contact Basin, Injection Equipment	2	104	\$ 53	\$ 5,512	\$ 2,000		\$ 2,800		\$ 10,312
Outfall to Pend Oreille River	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Primary Solids Pumps (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Anaerobic Digester (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Activated Sludge Pump Station 1	8	416	\$ 53	\$ 22,048	\$ 12,000				\$ 34,048
Activated Sludge Pump Station 2, Reclaim Water Pump	10	520	\$ 53	\$ 27,560	\$ 15,000				\$ 42,560
Aerobic Digester (Solids Holding Lagoon)	4	208	\$ 53	\$ 11,024	\$ 10,000				\$ 21,024
Belt Filter Press, Gravity Belt Thickener	8	416	\$ 53	\$ 22,048	\$ 7,000		\$ 6,500		\$ 35,548
Site Maintenance and Upkeep	2	104	\$ 53	\$ 5,512	\$ 1,000				\$ 6,512
Reclaimed Water Distribution System	3	156	\$ 53	\$ 8,268	\$ 3,500				\$ 11,768
Plant Power, Lighting, Heating						\$ 50,000			\$ 50,000
Water Utilities								\$ 20,000	\$ 20,000
Outside Lab Costs								\$ 7,000	\$ 7,000
Sludge Hauling Service								\$ 31,000	\$ 31,000
DOE Permits								\$ 6,500	\$ 6,500
Office and Operating Supplies								\$ 30,000	\$ 30,000
Fuel Consumed								\$ 11,000	\$ 11,000
<b>TOTAL</b>	<b>83</b>	<b>4316</b>		<b>\$ 228,748</b>	<b>\$ 94,800</b>	<b>\$ 50,000</b>	<b>\$ 9,300</b>	<b>\$ 105,500</b>	<b>\$ 488,348</b>

**Newport WWTP**  
**Summary Alternative C Detailed Costs**

<b>Pg. #</b>	<b>Item Description</b>	<b>Construction Cost</b>	<b>Total Cost with Contingency, Taxes, Engineering, Prevailing Wages/AIS, Admin</b>
2	Overall Site Civil Improvements	\$ 3,402,000	\$ 6,760,000
3	Headworks Improvements	\$ 1,739,000	\$ 3,455,000
4	Lab/Office Renovation	\$ 1,180,000	\$ 2,345,000
5	Belt Filter Press Upgrades	\$ 964,000	\$ 1,915,000
6	Existing Oxidation Ditch Upgrades	\$ 1,366,000	\$ 2,714,000
7	Clarifier #1&2 Repairs	\$ 1,344,000	\$ 2,670,000
8	Pumphouse #1 Upgrades	\$ 1,708,000	\$ 3,393,000
9	Pumphouse #2 Upgrades	\$ 1,656,000	\$ 3,291,000
10	Aerobic Digester	\$ 2,186,000	\$ 4,344,000
11	Primary Clarifier Repairs	\$ 713,000	\$ 1,417,000
12	Anaerobic Digester Repairs	\$ 1,093,000	\$ 2,172,000
13	Primary Solids Pump Station Repairs	\$ 793,000	\$ 1,576,000
	<b>TOTAL</b>	<b>\$ 18,144,000</b>	<b>\$ 36,052,000</b>
14	New Shop/Office (Alternate to Renovation)	\$ 2,422,000	\$ 4,812,000
	<b>TOTAL with New Shop/Office, no existing upgrades</b>	<b>\$ 19,386,000</b>	<b>\$ 38,519,000</b>



ENGINEER'S OPINION OF PROBABLE COST					
					Planning
PROJECT:			DATE: May 26,2023		
City of Newport WWTP Alternative C					
PROJECT DESCRIPTION:					
Overall Site Improvements					
CLIENT:					
City of Newport					
P/N: 70-20-023					
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Clearing & Grubbing	2.50	AC	\$12,000	\$30,000
2	Retaining Wall Repairs	200	SF	\$40	\$8,000
3	Chain link fence removal and replacement	2100	LF	\$80	\$168,000
4	Fence retaining wall	2000	SF	\$100	\$200,000
5	Sidewalk and steps	61	CY	\$1,200	\$73,333
6	Onsite Domestic Fire Hydrant	1	LS	\$15,000	\$15,000
7	Replace fire extinguisher boxes	20	EA	\$250	\$5,000
8	SCADA system with security cameras	1	LS	\$275,000	\$275,000
9	Electrical upgrades throughout plant	1	LS	\$500,000	\$500,000
10	Combine power sources into one	1	LS	\$200,000	\$200,000
11	Yard valve replacement throughout plant	20	EA	\$5,000	\$100,000
12	Reclaimed water system replacement and filtration system	1	LS	\$350,000	\$350,000
13	Backup generator	1	LS	\$500,000	\$500,000
14	Vactor Truck	1	LS	\$600,000	\$600,000
15					
16					
17					
18					-
19					-
20					-
21					-
22	Additional Elements (estimated % of above)				
23	Contractor mobilization / administration			10.0%	\$302,000
24	Yard Piping			0.0%	\$0
25	Site Civil			0.0%	\$0
26	Electrical and instrumentation			0.0%	\$0
27	Bonding			2.5%	\$76,000
28					
SUBTOTAL				\$	3,402,000
Construction Contingency: 30.0%				\$	1,021,000
AIS/BABAA Escalation: 15.0%				\$	663,000
Sales Tax: 7.7%				\$	392,000
Design / CMS: 25.0%				\$	1,272,000
Legal and Administrative: 0.2%				\$	10,000
TOTAL PROBABLE COST (2023 DOLLARS)				\$	6,760,000

## ENGINEER'S OPINION OF PROBABLE COST

Planning

## PROJECT:

City of Newport WWTP Alternative C

## DATE:

May 26, 2023

## PROJECT DESCRIPTION:

Headworks: Screening, furnace replacement, move MCC room

## CLIENT:

City of Newport

## P/N:

70-20-023

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	<u>Channel repairs</u>				-
2	Reshape bar grate channel for composite sampler	1	LS	\$12,000	\$12,000
3	Replace gates and rails	1	LS	\$20,000	\$20,000
4	Bypass pumping for channel repairs	1	LS	\$5,000	\$5,000
5	<u>Fine Screening</u>				-
6	2 mgd fine screen	1	EA	\$175,000	\$175,000
7	Installation at 20%	1	EA	\$35,000	\$35,000
8	Electrical revisions for independent screen operation	1	LS	\$100,000	\$100,000
9	Replace heating system	1	LS	\$75,000	\$75,000
10	<u>Relocate MCC Room</u>				-
11	Demolish existing MCC room	140	SF	\$750	\$105,000
12	Construct Rollup Door in current MCC room location	1	LS	\$8,000	\$8,000
13	Construct MCC Addition	450	SF	\$600	\$270,000
14	<u>Grit Removal</u>				-
15	Replace existing grit pump	1	EA	\$20,000	\$20,000
16	Installation at 15%	1	EA	\$3,000	\$3,000
17	Replace/support grit chamber piping	1	LS	\$15,000	\$15,000
18	Traveling bridge crane 4000 lbs, free standing, with hoist	1	LS	\$175,000	\$175,000
19	<u>Odor Control</u>				-
20	Odor control for venting, carbon filtration, retrofit	1	LS	\$5,700	\$5,700
21	Cover channels with mats	1	LS	\$5,000	\$5,000
22	Air gap skid system	1	LS	\$150,000	\$150,000
23					-
24	Additional Elements (estimated % of above)				-
25	Contractor mobilization / administration			10.0%	\$118,000
26	Yard Piping			0.0%	\$0
27	Site Civil			5.0%	\$59,000
28	Electrical and instrumentation			30.0%	\$354,000
29	Bonding			2.5%	\$29,000
30					
<b>SUBTOTAL</b>				<b>\$</b>	<b>1,739,000</b>
Construction Contingency: 30.0%				<b>\$</b>	<b>522,000</b>
AIS/BABAA Escalation: 15.0%				<b>\$</b>	<b>339,000</b>
Sales Tax: 7.7%				<b>\$</b>	<b>200,000</b>
Design / CMS: 25.0%				<b>\$</b>	<b>650,000</b>
Legal and Administrative: 0.2%				<b>\$</b>	<b>5,000</b>
<b>TOTAL PROBABLE COST (2023 DOLLARS)</b>				<b>\$</b>	<b>3,455,000</b>

## ENGINEER'S OPINION OF PROBABLE COST

Planning

## PROJECT:

City of Newport WWTP Alternative C

## DATE:

May 26, 2023

## PROJECT DESCRIPTION:

Lab/Office Renovation

## CLIENT:

City of Newport

## P/N:

70-20-023

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Demolition for office/break room addition	576	SF	\$150	\$86,400
2	Office/break room addition	576	SF	\$600	\$345,600
3	Roof replacement over entire structure	1568	SF	\$40	\$62,720
4	New flooring, countertops, cubboards in lab area	1	LS	\$60,000	\$60,000
5	Extend bathroom into old chlorine room and add shower/sink	128	SF	\$350	\$44,800
6	Remove all unused electrical panels, bring up to code	1	LS	\$200,000	\$200,000
7					-
8					-
9					-
10					-
11					-
12					-
13					-
14					-
15					-
16					-
17					-
18					-
19					-
20					-
21					-
22					-
23	Additional Elements (estimated % of above)				-
24	Contractor mobilization / administration			10.0%	\$80,000
25	Yard Piping			0.0%	\$0
26	Site Civil			5.0%	\$40,000
27	Electrical and instrumentation			30.0%	\$240,000
28	Bonding			2.5%	\$20,000
29					
<b>SUBTOTAL</b>					<b>\$ 1,180,000</b>
Construction Contingency: 30.0%					\$ 354,000
AIS/BABAA Escalation: 15.0%					\$ 230,000
Sales Tax: 7.7%					\$ 136,000
Design / CMS: 25.0%					\$ 441,000
Legal and Administrative: 0.2%					\$ 4,000
<b>TOTAL PROBABLE COST (2023 DOLLARS)</b>					<b>\$ 2,345,000</b>

## ENGINEER'S OPINION OF PROBABLE COST

Planning

<b>PROJECT:</b>		<b>DATE:</b> May 26, 2023			
City of Newport WWTP Alternative C					
<b>PROJECT DESCRIPTION:</b>					
Belt filter press building renovations					
<b>CLIENT:</b>					
City of Newport					
<b>P/N:</b> 70-20-023					
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Replace heaters	8	EA	\$4,000	\$32,000
2	Replace lights	11	EA	\$1,000	\$11,000
3	Traveling bridge crane and hoist	1	LS	\$180,000	\$180,000
4	1200 gallon pressure tank	1	LS	\$20,000	\$20,000
5	Rebuild thickener system	1	LS	\$150,000	\$150,000
6	Fix floor drains	1	LS	\$3,000	\$3,000
7	Upgrade shower boxes on gravity and press section	1	LS	\$80,000	\$80,000
8	Domestic water feed line	1	LS	\$20,000	\$20,000
9	Air gap skid system	1	LS	\$150,000	\$150,000
10	Repair wall around conveyor system	1	LS	\$6,000	\$6,000
11	Upgrade lift station with new pumps and full rails	1	LS	\$75,000	\$75,000
12	Sludge trailer	1	LS	\$130,000	\$130,000
13					-
14					-
15					-
16					-
17					-
18					-
19					-
20					-
21					-
22					-
23	Additional Elements (estimated % of above)				-
24	Contractor mobilization / administration			10.0%	\$86,000
25	Yard Piping			0.0%	\$0
26	Site Civil			0.0%	\$0
27	Electrical and instrumentation			0.0%	\$0
28	Bonding			2.5%	\$21,000
29					
<b>SUBTOTAL</b>				<b>\$</b>	<b>964,000</b>
Construction Contingency: 30.0%				<b>\$</b>	<b>289,000</b>
AIS/BABAA Escalation: 15.0%				<b>\$</b>	<b>188,000</b>
Sales Tax: 7.7%				<b>\$</b>	<b>111,000</b>
Design / CMS: 25.0%				<b>\$</b>	<b>360,000</b>
Legal and Administrative: 0.2%				<b>\$</b>	<b>3,000</b>
<b>TOTAL PROBABLE COST (2023 DOLLARS)</b>				<b>\$</b>	<b>1,915,000</b>

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative C					DATE: May 26,2023	
PROJECT DESCRIPTION: Oxidation ditch upgrades for existing ditch						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Upgrade drive, gear box, paddle system	1	LS	\$175,000	\$175,000	
2	Replace building over drive system	100	SF	\$250	\$25,000	
3	New control panel with VFD for drive system w/DO control	1	LS	\$125,000	\$125,000	
4	Replace grating on influent distribution box	80	SF	\$120	\$9,600	
5	Repair outflow distribution box	1	LS	\$150,000	\$150,000	
6	Replace sprayer system	1	LS	\$30,000	\$30,000	
7	Dredge oxidation ditch	1	LS	\$200,000	\$200,000	
8	Divert flow from ditch, drain, clean, inspect, rehabilitation (spot repairs, 6" concrete veneer, coatings at scum line)	1	LS	\$500,000	\$500,000	
9					-	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$121,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			0.0%	\$0	
28	Bonding			2.5%	\$30,000	
29						
SUBTOTAL					\$	1,366,000
Construction Contingency: 30.0%					\$	410,000
AIS/BABAA Escalation: 15.0%					\$	266,000
Sales Tax: 7.7%					\$	157,000
Design / CMS: 25.0%					\$	511,000
Legal and Administrative: 0.2%					\$	4,000
TOTAL PROBABLE COST (2023 DOLLARS)					\$	2,714,000

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative C					DATE: May 26,2023	
PROJECT DESCRIPTION: Clarifier repairs						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Clarifier #1 equipment replacement	1	LS	\$250,000	\$250,000	
2	Clarifier #1 concrete inspection and repairs	2200	SF	\$75	\$165,000	
3	Clarifier #2 equipment replacement	1	LS	\$250,000	\$250,000	
4	Clarifier #2 concrete inspection and repairs	2500	SF	\$75	\$187,500	
5	Reshape Clarifier #2 trough and level weir	1	LS	\$90,000	\$90,000	
6					-	
7					-	
8					-	
9					-	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$94,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			30.0%	\$283,000	
28	Bonding			2.5%	\$24,000	
29						
SUBTOTAL					\$ 1,344,000	
Construction Contingency: 30.0%					\$ 403,000	
AIS/BABAA Escalation: 15.0%					\$ 262,000	
Sales Tax: 7.7%					\$ 155,000	
Design / CMS: 25.0%					\$ 502,000	
Legal and Administrative: 0.2%					\$ 4,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 2,670,000	

## ENGINEER'S OPINION OF PROBABLE COST

Planning

## PROJECT:

City of Newport WWTP Alternative C

## DATE:

May 26, 2023

## PROJECT DESCRIPTION:

Pumphouse #1 repairs

## CLIENT:

City of Newport

## P/N:

70-20-023

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Replace piping and valving	1	LS	\$375,000	\$375,000
2	Ventilation with monitoring for basement area	1	LS	\$125,000	\$125,000
3	Excavate and seal basement walls with drainage	4500	SF	\$50	\$225,000
4	New sump pump system (WAS line and flows from PH #2)	1	LS	\$100,000	\$100,000
5	Replace conduits with water issues	1	LS	\$50,000	\$50,000
6	Overhead hoist in basement	1	LS	\$175,000	\$175,000
7	Basement extension for stairway, concrete - vertical walls	23	CY	\$1,500	\$34,500
8	Basement extension for stairway, concrete - slab on grade	13	CY	\$1,000	\$13,000
9	Building above basement	176	SF	\$300	\$52,800
10	Structure excavation	320	CY	\$50	\$16,000
11	Excavation shoring	1230	SF	\$75	\$92,250
12	Underdrain with outlet pipe	1	LS	\$75,000	\$75,000
13	Yard piping (as percentage of extension costs)			30%	\$85,065
14	Electrical and Instrumentation and HVAC (as %of extension)			35%	\$99,243
15					-
16					-
17					-
18					-
19					-
20					-
21					-
22					-
23	Additional Elements (estimated % of above)				-
24	Contractor mobilization / administration			10.0%	\$152,000
25	Yard Piping			0.0%	\$0
26	Site Civil			0.0%	\$0
27	Electrical and instrumentation			0.0%	\$0
28	Bonding			2.5%	\$38,000
29					
<b>SUBTOTAL</b>				<b>\$</b>	<b>1,708,000</b>
Construction Contingency: 30.0%				<b>\$</b>	<b>512,000</b>
AIS/BABAA Escalation: 15.0%				<b>\$</b>	<b>333,000</b>
Sales Tax: 7.7%				<b>\$</b>	<b>197,000</b>
Design / CMS: 25.0%				<b>\$</b>	<b>638,000</b>
Legal and Administrative: 0.2%				<b>\$</b>	<b>5,000</b>
<b>TOTAL PROBABLE COST (2023 DOLLARS)</b>				<b>\$</b>	<b>3,393,000</b>

## ENGINEER'S OPINION OF PROBABLE COST

Planning

## PROJECT:

City of Newport WWTP Alternative C

## DATE:

May 26, 2023

## PROJECT DESCRIPTION:

Pumphouse #2 repairs

## CLIENT:

City of Newport

## P/N:

70-20-023

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Replace 8" valves RAS-AUX-WAS	2	EA	\$7,000	\$14,000
2	Ventilation for basement area	1	LS	\$135,000	\$135,000
3	Excavate and seal basement walls with drainage	7500	SF	\$50	\$375,000
4	Upgrade motor control center	1	LS	\$330,000	\$330,000
5	Repair damaged bathroom	64	SF	\$200	\$12,800
6	Overhead hoist in basement	1	LS	\$175,000	\$175,000
7	Replace sump pump	1	LS	\$12,000	\$12,000
8	Basement extension for stairway, concrete - vertical walls	23	CY	\$1,500	\$34,500
9	Basement extension for stairway, concrete - slab on grade	13	CY	\$1,000	\$13,000
10	Building above basement	176	SF	\$300	\$52,800
11	Structure excavation	320	CY	\$50	\$16,000
12	Excavation shoring	1230	SF	\$75	\$92,250
13	Underdrain with outlet pipe	1	LS	\$45,000	\$45,000
14	Yard piping (as percentage of extension costs)			30%	\$76,065
15	Electrical and Instrumentation and HVAC (as %of extension)			35%	\$88,743
16					-
17					-
18					-
19					-
20					-
21					-
22					-
23	Additional Elements (estimated % of above)				-
24	Contractor mobilization / administration			10.0%	\$147,000
25	Yard Piping			0.0%	\$0
26	Site Civil			0.0%	\$0
27	Electrical and instrumentation			0.0%	\$0
28	Bonding			2.5%	\$37,000
29					
<b>SUBTOTAL</b>				<b>\$</b>	<b>1,656,000</b>
Construction Contingency: 30.0%				<b>\$</b>	<b>497,000</b>
AIS/BABAA Escalation: 15.0%				<b>\$</b>	<b>323,000</b>
Sales Tax: 7.7%				<b>\$</b>	<b>191,000</b>
Design / CMS: 25.0%				<b>\$</b>	<b>619,000</b>
Legal and Administrative: 0.2%				<b>\$</b>	<b>5,000</b>
<b>TOTAL PROBABLE COST (2023 DOLLARS)</b>				<b>\$</b>	<b>3,291,000</b>



ENGINEER'S OPINION OF PROBABLE COST					
					Planning
PROJECT:			DATE: May 26,2023		
City of Newport WWTP Alternative C					
PROJECT DESCRIPTION:					
Aerobic digester					
CLIENT:					
City of Newport					
P/N: 70-20-023					
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Demolish existing structure	2800	SF	\$60	\$168,000
2	Construct new building with overhead hoist	2800	SF	\$400	\$1,120,000
3	Bulding lighting	1	LS	\$100,000	\$100,000
4	Repair waste line supports in digester	1	LS	\$60,000	\$60,000
5	Replace decant pipe system	1	LS	\$150,000	\$150,000
6	Digester lift station upgrade for dual pumps on rails	1	LS	\$120,000	\$120,000
7	Replace digester center access catwalk	1	LS	\$75,000	\$75,000
8	Replace perimeter catwalk	1100	SF	\$125	\$137,500
9	Replace sump pump	1	LS	\$12,000	\$12,000
10					-
11					-
12					-
13					-
14					-
15					-
16					-
17					-
18					-
19					-
20					-
21					-
22					-
23	Additional Elements (estimated % of above)				-
24	Contractor mobilization / administration			10.0%	\$194,000
25	Yard Piping			0.0%	\$0
26	Site Civil			0.0%	\$0
27	Electrical and instrumentation			0.0%	\$0
28	Bonding			2.5%	\$49,000
29					
SUBTOTAL				\$	2,186,000
Construction Contingency: 30.0%				\$	656,000
AIS/BABAA Escalation: 15.0%				\$	426,000
Sales Tax: 7.7%				\$	252,000
Design / CMS: 25.0%				\$	817,000
Legal and Administrative: 0.2%				\$	7,000
TOTAL PROBABLE COST (2023 DOLLARS)				\$	4,344,000

## ENGINEER'S OPINION OF PROBABLE COST

Planning

<b>PROJECT:</b>		<b>DATE:</b> May 26, 2023			
City of Newport WWTP Alternative C					
<b>PROJECT DESCRIPTION:</b>					
Primary Clarifier repairs					
<b>CLIENT:</b>					
City of Newport					
<b>P/N:</b> 70-20-023					
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Clarifier #1 equipment replacement	1	LS	\$235,000	\$235,000
2	Clarifier #1 concrete inspection and repairs	2200	SF	\$75	\$165,000
3	Piping/Valving inspection and repairs	1	LS	\$100,000	\$100,000
4					-
5					-
6					-
7					-
8					-
9					-
10					-
11					-
12					-
13					-
14					-
15					-
16					-
17					-
18					-
19					-
20					-
21					-
22					-
23	Additional Elements (estimated % of above)				-
24	Contractor mobilization / administration			10.0%	\$50,000
25	Yard Piping			0.0%	\$0
26	Site Civil			0.0%	\$0
27	Electrical and instrumentation			30.0%	\$150,000
28	Bonding			2.5%	\$13,000
29					
<b>SUBTOTAL</b>					<b>\$ 713,000</b>
Construction Contingency: 30.0%					\$ 214,000
AIS/BABAA Escalation: 15.0%					\$ 139,000
Sales Tax: 7.7%					\$ 82,000
Design / CMS: 25.0%					\$ 267,000
Legal and Administrative: 0.2%					\$ 2,000
<b>TOTAL PROBABLE COST (2023 DOLLARS)</b>					<b>\$ 1,417,000</b>

ENGINEER'S OPINION OF PROBABLE COST					
					Planning
PROJECT:			DATE: May 26,2023		
City of Newport WWTP Alternative C					
PROJECT DESCRIPTION:					
Anaerobic digester repairs					
CLIENT:					
City of Newport					
P/N: 70-20-023					
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Digester excavation and cleaning	1	LS	\$80,000	\$80,000
2	Digester equipment replacement	1	LS	\$350,000	\$350,000
3	Digester concrete inspection and repairs	2200	SF	\$85	\$187,000
4	Piping/Valving inspection and repairs	1	LS	\$150,000	\$150,000
5					-
6					-
7					-
8					-
9					-
10					-
11					-
12					-
13					-
14					-
15					-
16					-
17					-
18					-
19					-
20					-
21					-
22					-
23	Additional Elements (estimated % of above)				-
24	Contractor mobilization / administration			10.0%	\$77,000
25	Yard Piping			0.0%	\$0
26	Site Civil			0.0%	\$0
27	Electrical and instrumentation			30.0%	\$230,000
28	Bonding			2.5%	\$19,000
29					
SUBTOTAL				\$	1,093,000
Construction Contingency: 30.0%				\$	328,000
AIS/BABAA Escalation: 15.0%				\$	213,000
Sales Tax: 7.7%				\$	126,000
Design / CMS: 25.0%				\$	409,000
Legal and Administrative: 0.2%				\$	3,000
TOTAL PROBABLE COST (2023 DOLLARS)				\$	2,172,000

## ENGINEER'S OPINION OF PROBABLE COST

Planning

<b>PROJECT:</b>		<b>DATE:</b> May 26, 2023			
City of Newport WWTP Alternative C					
<b>PROJECT DESCRIPTION:</b>					
Primary solids pump station rehabilitation					
<b>CLIENT:</b>					
City of Newport					
<b>P/N:</b> 70-20-023					
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Pump station interior concrete repairs and cleaning	240	SF	\$500	\$120,000
2	Pump station piping valving replacement	1	LS	\$400,000	\$400,000
3					-
4					-
5					-
6					-
7					-
8					-
9					-
10					-
11					-
12					-
13					-
14					-
15					-
16					-
17					-
18					-
19					-
20					-
21					-
22					-
23	Additional Elements (estimated % of above)				-
24	Contractor mobilization / administration			10.0%	\$52,000
25	Yard Piping			0.0%	\$0
26	Site Civil			0.0%	\$0
27	Electrical and instrumentation			40.0%	\$208,000
28	Bonding			2.5%	\$13,000
29					
<b>SUBTOTAL</b>				<b>\$</b>	<b>793,000</b>
Construction Contingency: 30.0%				<b>\$</b>	<b>238,000</b>
AIS/BABAA Escalation: 15.0%				<b>\$</b>	<b>155,000</b>
Sales Tax: 7.7%				<b>\$</b>	<b>91,000</b>
Design / CMS: 25.0%				<b>\$</b>	<b>297,000</b>
Legal and Administrative: 0.2%				<b>\$</b>	<b>2,000</b>
<b>TOTAL PROBABLE COST (2023 DOLLARS)</b>				<b>\$</b>	<b>1,576,000</b>

ENGINEER'S OPINION OF PROBABLE COST					
					Planning
PROJECT:			DATE: May 26,2023		
City of Newport WWTP Alternative C					
PROJECT DESCRIPTION:					
New Shop/Office/Lab					
CLIENT:					
City of Newport					
P/N: 70-20-023					
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Clearing and grubbing	0.69	ACRE	\$12,000	\$8,280
2	Site excavation	14400	CY	\$20	\$288,000
3	Steel shop/lab/office building, 50'X100'	5000	SF	\$250	\$1,250,000
4	Finish office/lab space, 30'X50'	1500	SF	\$300	\$450,000
5	Extend 8" water line to shop	250	LF	\$110	\$27,500
6	Fire hydrant	1	LS	\$8,000	\$8,000
7	Extend sewer line to shop/office/lab	200	LF	\$90	\$18,000
8	Crushed surfacing top course for driveway	620	TONS	\$50	\$31,000
9	Hot mix asphalt for driveway	400	TONS	\$180	\$72,000
10					-
11					-
12					-
13					-
14					-
15					-
16					-
17					-
18					-
19					-
20					-
21					-
22					-
23	Additional Elements (estimated % of above)				-
24	Contractor mobilization / administration			10.0%	\$215,000
25	Yard Piping			0.0%	\$0
26	Site Civil			0.0%	\$0
27	Electrical and instrumentation			0.0%	\$0
28	Bonding			2.5%	\$54,000
29					
SUBTOTAL				\$	2,422,000
Construction Contingency: 30.0%				\$	727,000
AIS/BABAA Escalation: 15.0%				\$	472,000
Sales Tax: 7.7%				\$	279,000
Design / CMS: 25.0%				\$	905,000
Legal and Administrative: 0.2%				\$	7,000
TOTAL PROBABLE COST (2023 DOLLARS)				\$	4,812,000

**Operation and Maintenance Annual Cost Estimate**

City of Newport WWTP

Alternate C: Restore Primary Processes and Implement Repairs and Upgrades

Description	Estimated Weekly Labor Hours	Estimated Annual Labor Hours	Labor Rate	Labor Cost	Equipment Cost	Electrical Cost	Chemical Cost	Other	Total
Clerical/Administration	3	156	\$ 53	\$ 8,268	\$ 1,000				\$ 9,268
Influent Flow Meters	8	416	\$ 53	\$ 22,048	\$ 2,500				\$ 24,548
Receiving Station (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Headworks-Bar Rack	2	104	\$ 53	\$ 5,512	\$ 300				\$ 5,812
Headworks-Mechanical Fine Screen	2	104	\$ 53	\$ 5,512	\$ 12,500				\$ 18,012
Headworks-Vortex Grit Chamber	2	104	\$ 53	\$ 5,512	\$ 6,500				\$ 12,012
NEW Primary Clarifier	8	416	\$ 53	\$ 22,048	\$ 7,000				\$ 29,048
Aeration Basin-Oxidation Ditch	8	416	\$ 53	\$ 22,048	\$ 7,500				\$ 29,548
Secondary Clarifier 1	8	416	\$ 53	\$ 22,048	\$ 7,000				\$ 29,048
Secondary Clarifier 2	8	416	\$ 53	\$ 22,048	\$ 7,000				\$ 29,048
Chlorine Contact Basin, Injection Equipment	2	104	\$ 53	\$ 5,512	\$ 2,000		\$ 2,800		\$ 10,312
Outfall to Pend Oreille River	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
NEW Primary Solids Pumps	8	416	\$ 53	\$ 22,048	\$ 12,000				\$ 34,048
NEW Anaerobic Digester	8	416	\$ 53	\$ 22,048	\$ 15,000				\$ 37,048
Activated Sludge Pump Station 1	8	416	\$ 53	\$ 22,048	\$ 12,000				\$ 34,048
Activated Sludge Pump Station 2, Reclaim Water Pump	10	520	\$ 53	\$ 27,560	\$ 15,000				\$ 42,560
Aerobic Digester (Solids Holding Lagoon)	4	208	\$ 53	\$ 11,024	\$ 10,000				\$ 21,024
Belt Filter Press, Gravity Belt Thickener	8	416	\$ 53	\$ 22,048	\$ 7,000		\$ 6,500		\$ 35,548
Site Maintenance and Upkeep	2	104	\$ 53	\$ 5,512	\$ 1,000				\$ 6,512
Reclaimed Water Distribution System	3	156	\$ 53	\$ 8,268	\$ 3,500				\$ 11,768
Plant Power, Lighting, Heating						\$ 60,000			\$ 60,000
Water Utilities								\$ 20,000	\$ 20,000
Outside Lab Costs								\$ 7,000	\$ 7,000
Sludge Hauling Service								\$ 31,000	\$ 31,000
DOE Permits								\$ 6,500	\$ 6,500
Office and Operating Supplies								\$ 30,000	\$ 30,000
Fuel Consumed								\$ 11,000	\$ 11,000
<b>TOTAL</b>	<b>104</b>	<b>5408</b>		<b>\$ 286,624</b>	<b>\$ 128,800</b>	<b>\$ 60,000</b>	<b>\$ 9,300</b>	<b>\$ 105,500</b>	<b>\$ 590,224</b>

**Newport WWTP**  
**Summary Alternative D Detailed Costs**

<b>Pg. #</b>	<b>Item Description</b>	<b>Construction Cost</b>	<b>Total Cost with Contingency, Taxes, Engineering, Prevailing Wages/AIS, Admin</b>
2	Overall Site Improvements	\$ 3,440,000	\$ 6,835,000
3	Headworks Improvements	\$ 1,739,000	\$ 3,455,000
4	Lab Office Upgrades/Renovation	\$ 1,180,000	\$ 2,345,000
5	Belt Filter Press Upgrades	\$ 964,000	\$ 1,915,000
6	Existing Oxidation Ditch Upgrades	\$ 1,310,000	\$ 2,603,000
7	New Oxidation Ditch	\$ 1,907,000	\$ 3,790,000
8	Clarifier Repairs	\$ 1,344,000	\$ 2,670,000
9	New Clarifier #3	\$ 2,168,000	\$ 4,307,000
10	Pumphouse #1 Upgrades	\$ 1,708,000	\$ 3,393,000
11	Pumphouse #2 Upgrades	\$ 1,656,000	\$ 3,291,000
12	UV Disinfection	\$ 2,062,000	\$ 4,097,000
13	Aerobic Digester	\$ 2,186,000	\$ 4,344,000
	<b>TOTAL</b>	<b>\$ 21,664,000</b>	<b>\$ 43,045,000</b>
14	New Shop/Office (alternate to renovation)	\$ 2,422,000	\$ 4,812,000
	<b>TOTAL with New Shop/Office, no existing upgrades</b>	<b>\$ 22,906,000</b>	<b>\$ 45,512,000</b>

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D					DATE:	3/26/2023
PROJECT DESCRIPTION: Overall Site Improvements						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Clearing & Grubbing	2.50	AC	\$18,000	\$45,000	
2	Retaining Wall Repairs	200	SF	\$40	\$8,000	
3	Chain link fence removal and replacement	2100	LF	\$80	\$168,000	
4	Fence retaining wall	2000	SF	\$100	\$200,000	
5	Sidewalk and steps	61	CY	\$1,500	\$91,667	
6	Onsite Domestic Fire Hydrant	1	LS	\$15,000	\$15,000	
7	Replace fire extinguisher boxes	20	EA	\$250	\$5,000	
8	SCADA system with security cameras	1	LS	\$275,000	\$275,000	
9	Electrical upgrades throughout plant	1	LS	\$500,000	\$500,000	
10	Combine power sources into one	1	LS	\$200,000	\$200,000	
11	Yard valve replacement throughout plant	20	EA	\$5,000	\$100,000	
12	Reclaimed water system replacement and filtration system	1	LS	\$350,000	\$350,000	
13	Backup generator	1	LS	\$400,000	\$400,000	
14	Vactor truck	1	LS	\$600,000	\$600,000	
15	Mothball existing primary clarifier	1	LS	\$100,000	\$100,000	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$306,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			0.0%	\$0	
28	Bonding			2.5%	\$76,000	
29						
SUBTOTAL					\$	3,440,000
Construction Contingency: 30.0%					\$	1,032,000
AIS/BABAA Escalation: 15.0%					\$	671,000
Sales Tax: 7.7%					\$	396,000
Design / CMS: 25.0%					\$	1,286,000
Legal and Administrative: 0.2%					\$	10,000
TOTAL PROBABLE COST (2023 DOLLARS)					\$	6,835,000



ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: Newport Wastewater Treatment Facility				DATE: 3/26/2023		
PROJECT DESCRIPTION: Headworks: Screening, furnace replacement, move MCC room						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Channel repairs					
2	Reshape bar grate channel for composite sampler	1	LS	\$12,000	\$12,000	
3	Replace gates and rails	1	LS	\$20,000	\$20,000	
4	Bypass pumping for channel repairs	1	LS	\$5,000	\$5,000	
5	Fine Screening				-	
6	2 mgd fine screen	1	EA	\$175,000	\$175,000	
7	Installation at 20%	1	EA	\$35,000	\$35,000	
8	Electrical revisions for independent screen operation	1	LS	\$100,000	\$100,000	
9	Replace heating system	1	LS	\$75,000	\$75,000	
10	Relocate MCC Room					
11	Demolish existing MCC room	140	SF	\$750	\$105,000	
12	Construct Rollup Door in current MCC room location	1	LS	\$8,000	\$8,000	
13	Construct MCC Addition	450	SF	\$600	\$270,000	
14	Grit Removal					
15	Replace existing grit pump	1	EA	\$20,000	\$20,000	
16	Installation at 15%	1	EA	\$3,000	\$3,000	
17	Replace/support grit chamber piping	1	LS	\$15,000	\$15,000	
18	Traveling bridge crane 4000 lbs, free standing, with hoist	1	LS	\$175,000	\$175,000	
19	Odor Control					
20	Odor control for venting, carbon filtration, retrofit	1	LS	\$5,700	\$5,700	
21	Cover channels with mats	1	LS	\$5,000	\$5,000	
22	Air gap skid system	1	LS	\$150,000	\$150,000	
23						
24	Additional Elements (estimated % of above)					
25	Contractor mobilization / administration			10.0%	\$118,000	
26	Yard Piping			0.0%	\$0	
27	Site Civil			5.0%	\$59,000	
28	Electrical and instrumentation			30.0%	\$354,000	
29	Bonding			2.5%	\$29,000	
30						
SUBTOTAL				\$	1,739,000	
Construction Contingency: 30.0%				\$	522,000	
AIS/BABAA Escalation: 15.0%				\$	339,000	
Sales Tax: 7.7%				\$	200,000	
Design / CMS: 25.0%				\$	650,000	
Legal and Administrative: 0.2%				\$	5,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	3,455,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D					DATE:	3/26/2023
PROJECT DESCRIPTION: Lab/Office Renovation						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Demolition for office/break room addition	576	SF	\$150	\$86,400	
2	Office/break room addition	576	SF	\$600	\$345,600	
3	Roof replacement over entire structure	1568	SF	\$40	\$62,720	
4	New flooring, countertops, cubboards in lab area	1	LS	\$60,000	\$60,000	
5	Extend bathroom into old chlorine room and add shower/sink	128	SF	\$350	\$44,800	
6	Remove all unused electrical panels, bring up to code	1	LS	\$200,000	\$200,000	
7					-	
8					-	
9					-	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$80,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			5.0%	\$40,000	
27	Electrical and instrumentation			30.0%	\$240,000	
28	Bonding			2.5%	\$20,000	
29						
SUBTOTAL				\$	1,180,000	
Construction Contingency: 30.0%				\$	354,000	
AIS/BABAA Escalation: 15.0%				\$	230,000	
Sales Tax: 7.7%				\$	136,000	
Design / CMS: 25.0%				\$	441,000	
Legal and Administrative: 0.2%				\$	4,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	2,345,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D				DATE: 3/26/2023		
PROJECT DESCRIPTION: Belt filter press building renovations (upgrades to support systems, refurbishing existing)						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Replace heaters	8	EA	\$4,000	\$32,000	
2	Replace lights	11	EA	\$1,000	\$11,000	
3	Traveling bridge crane and hoist	1	LS	\$180,000	\$180,000	
4	1200 gallon pressure tank	1	LS	\$20,000	\$20,000	
5	Rebuild thickener system	1	LS	\$150,000	\$150,000	
6	Fix floor drains	1	LS	\$3,000	\$3,000	
7	Upgrade shower boxes on gravity and press section	1	LS	\$80,000	\$80,000	
8	Domestic water feed line	1	LS	\$20,000	\$20,000	
9	Air gap skid system	1	LS	\$150,000	\$150,000	
10	Repair wall around conveyor system	1	LS	\$6,000	\$6,000	
11	Upgrade lift station with new pumps and full rails	1	LS	\$75,000	\$75,000	
12	Sludge trailer	1	LS	\$130,000	\$130,000	
13					-	
14					-	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$86,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			0.0%	\$0	
28	Bonding			2.5%	\$21,000	
29						
SUBTOTAL				\$	964,000	
Construction Contingency: 30.0%				\$	289,000	
AIS/BABAA Escalation: 15.0%				\$	188,000	
Sales Tax: 7.7%				\$	111,000	
Design / CMS: 25.0%				\$	360,000	
Legal and Administrative: 0.2%				\$	3,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	1,915,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D					DATE:	3/26/2023
PROJECT DESCRIPTION: Oxidation ditch upgrades for existing ditch						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Upgrade drive, gear box, paddle system	1	LS	\$175,000	\$175,000	
2	Replace building over drive system	100	SF	\$250	\$25,000	
3	New control panel with VFD for drive system w/DO control	1	LS	\$125,000	\$125,000	
4	Replace grating on influent distribution box	80	SF	\$120	\$9,600	
5	Repair outflow distribution box	1	LS	\$300,000	\$300,000	
6	Replace sprayer system	1	LS	\$30,000	\$30,000	
7	Divert flow from ditch, drain, clean, inspect, rehabilitation (spot repairs, 6" concrete veneer, coatings at scum line)	1	LS	\$500,000	\$500,000	
8					-	
9					-	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22	Additional Elements (estimated % of above)				-	
23	Contractor mobilization / administration			10.0%	\$116,000	
24	Yard Piping			0.0%	\$0	
25	Site Civil			0.0%	\$0	
26	Electrical and instrumentation			0.0%	\$0	
27	Bonding			2.5%	\$29,000	
28						
SUBTOTAL					\$	1,310,000
Construction Contingency: 30.0%					\$	393,000
AIS/BABAA Escalation: 15.0%					\$	255,000
Sales Tax: 7.7%					\$	151,000
Design / CMS: 25.0%					\$	490,000
Legal and Administrative: 0.2%					\$	4,000
TOTAL PROBABLE COST (2023 DOLLARS)					\$	2,603,000

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D				DATE: 3/26/2023		
PROJECT DESCRIPTION: New oxidation ditch						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Clearing and Grubbing	1	LS	\$25,000	\$25,000	
2	Site excavation	4167	CY	\$40	\$166,667	
3	Temporary shoring along property line	2000	SF	\$75	\$150,000	
4	14" piping distribution box to oxidation ditch inlet	50	LF	\$200	\$10,000	
5	14" pipe fittings	6	EA	\$3,500	\$21,000	
6	12" pipe from ditch outlet to new clarifier	250	LF	\$180	\$45,000	
7	Fittings for 12" pipe to new clarifier	8	EA	\$3,000	\$24,000	
8	Drain piping (4") under ditch	1000	LF	\$30	\$30,000	
9	Drain outlet pipe (6")	50		\$100	\$5,000	
10	Drain rock under ditch	333	CY	\$75	\$25,000	
11	Underdrain Fabric	18000	SF	\$0.25	\$4,500	
12	Backflow prevention valves for 4" drain lines	3	EA	\$1,000	\$3,000	
13	Concrete - vertical walls	200	CY	\$1,200	\$240,000	
14	Concrete - Slab on grade	320	CY	\$800	\$256,000	
15	Concrete - Elevated slab	40	CY	\$2,500	\$100,000	
16	Mixing/aeration system	1	LS	\$150,000	\$150,000	
17	Building over mixing/aeration system	100	SF	\$250	\$25,000	
18	Control panel with VFD for mixing system w/DO control	1	LS	\$125,000	\$125,000	
19	Electrical wiring to new ditch	1	LS	\$250,000	\$250,000	
20	New sprayer system	1	LS	\$40,000	\$40,000	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$170,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			0.0%	\$0	
28	Bonding			2.5%	\$42,000	
29						
SUBTOTAL				\$	1,907,000	
Construction Contingency: 30.0%				\$	572,000	
AIS/BABAA Escalation: 15.0%				\$	372,000	
Sales Tax: 7.7%				\$	220,000	
Design / CMS: 25.0%				\$	713,000	
Legal and Administrative: 0.2%				\$	6,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	3,790,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D					DATE:	3/26/2023
PROJECT DESCRIPTION: Clarifier repairs						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Clarifier #1 equipment replacement	1	LS	\$250,000	\$250,000	
2	Clarifier #1 concrete inspection and repairs	2200	SF	\$75	\$165,000	
3	Clarifier #2 equipment replacement	1	LS	\$250,000	\$250,000	
4	Clarifier #2 concrete inspection and repairs	2500	SF	\$75	\$187,500	
5	Reshape Clarifier #2 trough and level weir	1	LS	\$90,000	\$90,000	
6					-	
7					-	
8					-	
9					-	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$94,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			30.0%	\$283,000	
28	Bonding			2.5%	\$24,000	
29						
SUBTOTAL					\$	1,344,000
Construction Contingency: 30.0%					\$	403,000
AIS/BABAA Escalation: 15.0%					\$	262,000
Sales Tax: 7.7%					\$	155,000
Design / CMS: 25.0%					\$	502,000
Legal and Administrative: 0.2%					\$	4,000
TOTAL PROBABLE COST (2023 DOLLARS)					\$	2,670,000

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D				DATE: 3/26/2023		
PROJECT DESCRIPTION: New Clarifier #3						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Concrete - Vertical Walls	76	CY	\$1,500	\$114,000	
2	Concrete - Slab on Grade	81	CY	\$1,000	\$81,000	
3	Concrete - Weir Channel	15	CY	\$2,200	\$33,000	
4	Appurtenant Mechanical Equipment	1	LS	\$325,000	\$325,000	
5	Hand Rail	130	LF	\$250	\$32,500	
6	Structure Excavation	1680	CY	\$50	\$84,000	
7	Excavation Shoring	3020	SF	\$75	\$226,500	
8	Excavation Dewatering	1	LS	\$75,000	\$75,000	
9	Underdrain with outlet pipe	1	LS	\$50,000	\$50,000	
10	Yard Piping			10.00%	\$102,100	
11	Valving in Pumphouse #2	1	LS	\$450,000	\$450,000	
12	Chlorination upgrades	1	LS	\$150,000	\$150,000	
13	Electrical and Instrumentation			20.00%	\$204,200	
14					-	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23					-	
24	Additional Elements (estimated % of above)				-	
25	Contractor mobilization / administration			10.0%	\$193,000	
26	Yard Piping			0.0%	\$0	
27	Site Civil			0.0%	\$0	
28	Electrical and instrumentation			0.0%	\$0	
29	Bonding			2.5%	\$48,000	
30						
SUBTOTAL					\$ 2,168,000	
Construction Contingency: 30.0%					\$ 650,000	
AIS/BABAA Escalation: 15.0%					\$ 423,000	
Sales Tax: 7.7%					\$ 250,000	
Design / CMS: 25.0%					\$ 810,000	
Legal and Administrative: 0.2%					\$ 6,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 4,307,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D					DATE:	3/26/2023
PROJECT DESCRIPTION: Pumphouse #1 repairs						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Replace piping and valving	1	LS	\$375,000	\$375,000	
2	Ventilation with monitoring for basement area	1	LS	\$125,000	\$125,000	
3	Excavate and seal basement walls with drainage	4500	SF	\$50	\$225,000	
4	New sump pump system (WAS line and flows from PH #2)	1	LS	\$100,000	\$100,000	
5	Replace conduits with water issues	1	LS	\$50,000	\$50,000	
6	Overhead hoist in basement	1	LS	\$175,000	\$175,000	
7	Basement extension for stairway, concrete - vertical walls	23	CY	\$1,500	\$34,500	
8	Basement extension for stairway, concrete - slab on grade	13	CY	\$1,000	\$13,000	
9	Building above basement	176	SF	\$300	\$52,800	
10	Structure excavation	320	CY	\$50	\$16,000	
11	Excavation shoring	1230	SF	\$75	\$92,250	
12	Underdrain with outlet pipe	1	LS	\$75,000	\$75,000	
13	Yard piping (as percentage of extension costs)			30%	\$85,065	
14	Electrical and Instrumentation and HVAC (as %of extension)			35%	\$99,243	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$152,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			0.0%	\$0	
28	Bonding			2.5%	\$38,000	
29						
SUBTOTAL					\$ 1,708,000	
Construction Contingency: 30.0%					\$ 512,000	
AIS/BABAA Escalation: 15.0%					\$ 333,000	
Sales Tax: 7.7%					\$ 197,000	
Design / CMS: 25.0%					\$ 638,000	
Legal and Administrative: 0.2%					\$ 5,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 3,393,000	



ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D				DATE: 3/26/2023		
PROJECT DESCRIPTION: Pumphouse #2 repairs						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Replace 8" valves RAS-AUX-WAS	2	EA	\$7,000	\$14,000	
2	Ventilation for basement area	1	LS	\$135,000	\$135,000	
3	Excavate and seal basement walls with drainage	7500	SF	\$50	\$375,000	
4	Upgrade motor control center	1	LS	\$330,000	\$330,000	
5	Repair damaged bathroom	64	SF	\$200	\$12,800	
6	Overhead hoist in basement	1	LS	\$175,000	\$175,000	
7	Replace sump pump	1	LS	\$12,000	\$12,000	
8	Basement extension for stairway, concrete - vertical walls	23	CY	\$1,500	\$34,500	
9	Basement extension for stairway, concrete - slab on grade	13	CY	\$1,000	\$13,000	
10	Building above basement	176	SF	\$300	\$52,800	
11	Structure excavation	320	CY	\$50	\$16,000	
12	Excavation shoring	1230	SF	\$75	\$92,250	
13	Underdrain with outlet pipe	1	LS	\$45,000	\$45,000	
14	Yard piping (as percentage of extension costs)			30%	\$76,065	
15	Electrical and Instrumentation and HVAC (as %of extension)			35%	\$88,743	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$147,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			0.0%	\$0	
28	Bonding			2.5%	\$37,000	
29						
SUBTOTAL					\$ 1,656,000	
Construction Contingency: 30.0%					\$ 497,000	
AIS/BABAA Escalation: 15.0%					\$ 323,000	
Sales Tax: 7.7%					\$ 191,000	
Design / CMS: 25.0%					\$ 619,000	
Legal and Administrative: 0.2%					\$ 5,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 3,291,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D				DATE: 3/26/2023		
PROJECT DESCRIPTION: New UV Disinfection, 30'X20' inside basement						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Concrete - Vertical Walls Basement	217	CY	\$1,500	\$325,500	
2	Concrete - Slab on Grade Basement	26	CY	\$1,000	\$26,000	
3	Concrete - Top Slab Basement	24	CY	\$2,500	\$60,000	
4	UV Equipment, 1 Channel, 4 Modules	1	LS	\$400,000	\$400,000	
5	Markup on UV Equipment			20.00%	\$80,000	
6	Stairs	90	SF	\$200	\$18,000	
7	Building above basement	704	SF	\$300	\$211,200	
8	Structure Excavation	400	CY	\$50	\$20,000	
9	Excavation Shoring	1180	SF	\$75	\$88,500	
10	Excavation Dewatering	1	LS	\$15,000	\$15,000	
11	Underdrain with outlet pipe	1	LS	\$20,000	\$20,000	
12	Yard Piping			10.00%	\$126,400	
13	Electrical and Instrumentation and HVAC			35.00%	\$442,500	
14					-	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)					
24	Contractor mobilization / administration			10.0%	\$183,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			0.0%	\$0	
28	Bonding			2.5%	\$46,000	
29						
SUBTOTAL					\$ 2,062,000	
Construction Contingency: 30.0%					\$ 619,000	
AIS/BABAA Escalation: 15.0%					\$ 402,000	
Sales Tax: 7.7%					\$ 237,000	
Design / CMS: 25.0%					\$ 771,000	
Legal and Administrative: 0.2%					\$ 6,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 4,097,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D					DATE:	3/26/2023
PROJECT DESCRIPTION: Aerobic digester						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Demolish existing structure	2800	SF	\$60	\$168,000	
2	Construct new building with overhead hoist	2800	SF	\$400	\$1,120,000	
3	Bulding lighting	1	LS	\$100,000	\$100,000	
4	Repair waste line supports in digester	1	LS	\$60,000	\$60,000	
5	Replace decant pipe system	1	LS	\$150,000	\$150,000	
6	Digester lift station upgrade for dual pumps on rails	1	LS	\$120,000	\$120,000	
7	Replace digester center access catwalk	1	LS	\$75,000	\$75,000	
8	Replace perimeter catwalk	1100	SF	\$125	\$137,500	
9	Replace sump pump	1	LS	\$12,000	\$12,000	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$194,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			0.0%	\$0	
28	Bonding			2.5%	\$49,000	
29						
SUBTOTAL					\$	2,186,000
Construction Contingency: 30.0%					\$	656,000
AIS/BABAA Escalation: 15.0%					\$	426,000
Sales Tax: 7.7%					\$	252,000
Design / CMS: 25.0%					\$	817,000
Legal and Administrative: 0.2%					\$	7,000
TOTAL PROBABLE COST (2023 DOLLARS)					\$	4,344,000

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative D				DATE: 3/26/2023		
PROJECT DESCRIPTION: New Shop/Office/Lab						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Clearing and grubbing	0.69	ACRE	\$12,000	\$8,280	
2	Site excavation	14400	CY	\$20	\$288,000	
3	Steel shop/lab/office building, 50'X100'	5000	SF	\$250	\$1,250,000	
4	Finish office/lab space, 30'X50'	1500	SF	\$300	\$450,000	
5	Extend 8" water line to shop	250	LF	\$110	\$27,500	
6	Fire hydrant	1	LS	\$8,000	\$8,000	
7	Extend sewer line to shop/office/lab	200	LF	\$90	\$18,000	
8	Crushed surfacing top course for driveway	620	TONS	\$50	\$31,000	
9	Hot mix asphalt for driveway	400	TONS	\$180	\$72,000	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16					-	
17					-	
18					-	
19					-	
20					-	
21					-	
22					-	
23	Additional Elements (estimated % of above)				-	
24	Contractor mobilization / administration			10.0%	\$215,000	
25	Yard Piping			0.0%	\$0	
26	Site Civil			0.0%	\$0	
27	Electrical and instrumentation			0.0%	\$0	
28	Bonding			2.5%	\$54,000	
29						
SUBTOTAL				\$	2,422,000	
Construction Contingency: 30.0%				\$	727,000	
AIS/BABAA Escalation: 15.0%				\$	472,000	
Sales Tax: 7.7%				\$	279,000	
Design / CMS: 25.0%				\$	905,000	
Legal and Administrative: 0.2%				\$	7,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	4,812,000	

**Operation and Maintenance Annual Cost Estimate**

City of Newport WWTP

Alternate 4: Fully Convert to Secondary Treatment and Implement Extensive Repairs and Upgrades

Description	Estimated Weekly Labor Hours	Estimated Annual Labor Hours	Labor Rate	Labor Cost	Equipment Cost	Electrical Cost	Chemical Cost	Other	Total
Clerical/Administration	3	156	\$ 53	\$ 8,268	\$ 1,000				\$ 9,268
Influent Flow Meters	8	416	\$ 53	\$ 22,048	\$ 2,500				\$ 24,548
Receiving Station (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Headworks-Bar Rack	2	104	\$ 53	\$ 5,512	\$ 300				\$ 5,812
Headworks-Mechanical Fine Screen	2	104	\$ 53	\$ 5,512	\$ 12,500				\$ 18,012
Headworks-Vortex Grit Chamber	2	104	\$ 53	\$ 5,512	\$ 6,500				\$ 12,012
Primary Clarifier (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Aeration Basin-Oxidation Ditch #1	8	416	\$ 53	\$ 22,048	\$ 7,500				\$ 29,548
NEW Aeration Basin-Oxidation Ditch #2	8	416	\$ 53	\$ 22,048	\$ 7,500				\$ 29,548
Secondary Clarifier 1	8	416	\$ 53	\$ 22,048	\$ 7,000				\$ 29,048
Secondary Clarifier 2	8	416	\$ 53	\$ 22,048	\$ 7,000				\$ 29,048
NEW Secondary Clarifier 3	8	416	\$ 53	\$ 22,048	\$ 7,000				\$ 29,048
Chlorine Contact Basin, Injection Equipment	2	104	\$ 53	\$ 5,512	\$ 2,000		\$ 2,800		\$ 10,312
Outfall to Pend Oreille River	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Primary Solids Pumps (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Anaerobic Digester (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Activated Sludge Pump Station 1	8	416	\$ 53	\$ 22,048	\$ 12,000				\$ 34,048
Activated Sludge Pump Station 2, Reclaim Water Pump	10	520	\$ 53	\$ 27,560	\$ 15,000				\$ 42,560
NEW Activated Sludge Pump Station 3	8	416	\$ 53	\$ 22,048	\$ 12,000				\$ 34,048
Aerobic Digester (Solids Holding Lagoon)	4	208	\$ 53	\$ 11,024	\$ 10,000				\$ 21,024
Belt Filter Press, Gravity Belt Thickener	8	416	\$ 53	\$ 22,048	\$ 7,000		\$ 6,500		\$ 35,548
Site Maintenance and Upkeep	2	104	\$ 53	\$ 5,512	\$ 1,000				\$ 6,512
Reclaimed Water Distribution System	3	156	\$ 53	\$ 8,268	\$ 3,500				\$ 11,768
Plant Power, Lighting, Heating						\$ 65,000			\$ 65,000
Water Utilities								\$ 20,000	\$ 20,000
Outside Lab Costs								\$ 7,000	\$ 7,000
Sludge Hauling Service								\$ 31,000	\$ 31,000
DOE Permits								\$ 6,500	\$ 6,500
Office and Operating Supplies								\$ 30,000	\$ 30,000
Fuel Consumed								\$ 11,000	\$ 11,000
<b>TOTAL</b>	107	5564		\$ 294,892	\$ 121,300	\$ 65,000	\$ 9,300	\$ 105,500	\$ 595,992

ENGINEER'S OPINION OF PROBABLE COST					
PROJECT: Newport Wastewater Facility Plan				DATE: 5/26/2023	
PROJECT DESCRIPTION: Alternative E - MBR Package Treatment Plant					
CLIENT: City of Newport Washington					
PROJ. NO 70-20-023					
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QNTY	UNIT	UNIT PRICE	TOTAL COST
1	Package WWTP (shipping included)				
2	M300 Series MEMPAC Plant	1	LS	\$4,251,000	\$4,251,000
3	UV Disinfection	1	LS	\$660,000	\$660,000
4	Sludge Dewatering System	1	LS	\$515,000	\$515,000
5	Shipping	1	LS	\$250,000	\$250,000
6	Installation and Markup (15% of eqpt quotes)	1	LS	15%	\$813,900
7	Mechanical Process Piping (within building, not provided by package system)	1	LS	\$200,000	\$200,000
8	Influent Equalization (15% of ADF by Volume)	35,000	GAL	\$10	\$350,000
9	Mixers	3	EA	\$15,000	\$45,000
10	Flushing System	3	EA	\$75,000	\$225,000
11	Building for Package Treatment Plant				
12	Steel Structure with Reinforced Concrete Slab (8" Thick)	15,000	SF	\$240	\$3,600,000
13	Building Mechanical Plumbing/HVAC	1	LS	10%	\$360,000
14	Partial Bridge Crane for Membrane Removal	1	LS	\$120,000	\$120,000
15	Laboratory/office space	1,200	SF	\$350	\$420,000
16	Site Work				
17	Clearing and Grubbing	1	LS	\$103,000	\$103,000
18	Site Grading	1	LS	\$175,000	\$175,000
19	Erosion and Sediment Control	1	LS	\$50,000	\$50,000
20	Retaining Wall	600	SF	\$100	\$60,000
21	Asphalt Surfacing (4" HMA over 8" CSTC)	1,500	SY	\$75	\$112,500
22	Gravel Surfacing	685	TON	\$50	\$34,250
23	Fencing and Gates	1,000	LF	\$50	\$50,000
24	Domestic Water Connection	1	LS	\$95,000	\$95,000
25	Site Fire Hydrants and Vault	1	LS	\$75,000	\$75,000
26	Sludge Dewatering Pull Through and Conveyor				
27	Clearing and Grubbing	1	LS	\$51,500	\$51,500
28	Grading	1	LS	\$87,500	\$87,500
29	Asphalt Surfacing (4" HMA over 8" CSTC)	1,490	SY	\$75	\$111,750
30	Pull Through Structure/Awning	2,300	SF	\$150	\$345,000
31	Conveyor Assembly	1	LS	\$175,000	\$175,000
32	Intercept Influent Flow				
33	Diversion Manhole	1	EA	\$25,000	\$25,000
34	Gravity Sewer Pipe 24" Diam., resurfacing	60	LF	\$300	\$18,000
35	Lift Station				
36	10' Diam. Wet Well with Triplex Pumps	1	LS	\$750,000	\$750,000
37	Force Main 8" Diam.	240	LF	\$200	\$48,000
38	Treated Effluent Discharge				
39	Gravity Sewer Pipe 15" Diam., manholes, resurfacing	1,000	LF	\$300	\$300,000
40	Tie into existing outfall	1	LS	\$15,000	\$15,000
41	Utility Water Booster Pump Sation	1	LS	\$200,000	\$200,000
42	Backup Generator	1	LS	\$400,000	\$400,000
43	Sludge Haul Trailer	1	LS	\$130,000	\$130,000
44					
45	Additional Elements (estimated % of above)				
46	Contractor mobilization and administration			10.0%	\$1,522,000
47	Misc. Yard Piping				\$300,000
48	Misc. Site Civil				\$300,000
49	Electrical and instrumentation				\$2,000,000
				SUBTOTAL	\$ 19,343,000
Contingency				30%	\$ 5,803,000
AIS/BABAA Escalation				15%	\$ 3,772,000
Sales Tax				7.7%	\$ 2,227,000
Design Engineering and Permitting				8.00%	\$ 2,313,000
Construction Management Engineering				12.00%	\$ 3,470,000
Legal and Administrative				0.2%	\$ 58,000
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 36,986,000

**Operation and Maintenance Annual Cost Estimate**

City of Newport WWTP

Alternate E: New Membrane Biological Reactor Package Treatment Plant

Description	Estimated Weekly Labor Hours	Estimated Annual Labor Hours	Labor Rate	Labor Cost	Equipment Cost	Electrical Cost	Chemical Cost	Other	Total
Clerical/Administration	3	156	\$ 53	\$ 8,268	\$ 500				\$ 8,768
Influent Flow Meters	8	416	\$ 53	\$ 22,048	\$ 1,000				\$ 23,048
Receiving Station (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Headworks-Bar Rack (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Headworks-Mechanical Fine Screen (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Headworks-Vortex Grit Chamber (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Primary Clarifier (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Aeration Basin-Oxidation Ditch (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Secondary Clarifier 1 (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Secondary Clarifier 2 (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Chlorine Contact Basin, Injection Equipment (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100		\$ 100		\$ 2,956
Outfall to Pend Oreille River	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Primary Solids Pumps (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Anaerobic Digester (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Activated Sludge Pump Station 1 (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Activated Sludge Pump Station 2, Reclaim Water Pump (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Aerobic Digester (Solids Holding Lagoon) (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Belt Filter Press, Gravity Belt Thickener (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100		\$ 100		\$ 2,956
NEW Influent Lift Station	2	104	\$ 53	\$ 5,512	\$ 10,000	\$ 8,000			\$ 23,512
NEW Flow Equalization Storage	2	104	\$ 53	\$ 5,512	\$ 5,000				\$ 10,512
NEW MBR-MEMPAC-M250	35	1820	\$ 53	\$ 96,460	\$ 137,750	\$ 102,000	\$ 24,680		\$ 360,890
NEW MBR-Drypac	7	364	\$ 53	\$ 19,292	\$ 8,900	\$ 2,000	\$ 700		\$ 30,892
NEW MBR-Effluent Pump	1	52	\$ 53	\$ 2,756	\$ 1,730	\$ 4,400	\$ -		\$ 8,886
NEW MBR-UV Disinfection	2	104	\$ 53	\$ 5,512	\$ 26,500	\$ 35,000	\$ -		\$ 67,012
Site Maintenance and Upkeep	2	104	\$ 53	\$ 5,512	\$ 500				\$ 6,012
Reclaimed Water Distribution System	3	156	\$ 53	\$ 8,268	\$ 100				\$ 8,368
Existing Plant Power, Lighting, Heating OTHER						\$ 10,000			\$ 10,000
Water Utilities								\$ 20,000	\$ 20,000
Outside Lab Costs								\$ 7,000	\$ 7,000
Sludge Hauling Service								\$ 31,000	\$ 31,000
DOE Permits								\$ 6,500	\$ 6,500
Office and Operating Supplies								\$ 30,000	\$ 30,000
Fuel Consumed								\$ 11,000	\$ 11,000
[other]									\$ -
<b>TOTAL</b>	<b>81</b>	<b>4212</b>		<b>\$ 223,236</b>	<b>\$ 193,080</b>	<b>\$ 161,400</b>	<b>\$ 25,580</b>	<b>\$ 105,500</b>	<b>\$ 708,796</b>

**Newport WWTP**  
**Summary Alternative G Detailed Costs**

<b>Item #</b>	<b>Item Description</b>	<b>Construction Cost</b>	<b>Construction Cost + Contingency +AIS/BABAA/Prevailing Wage + Sales Tax</b>	<b>Total Cost with Contingency, Taxes, Engineering, Prevailing Wages/AIS, Admin</b>
1	Overall Site Improvements	\$ 2,295,000	\$ 3,696,000	\$ 4,561,000
2	Headworks Improvements	\$ 366,000	\$ 589,000	\$ 727,000
3	Lab Office Upgrades/Renovation	\$ 1,180,000	\$ 1,900,000	\$ 2,345,000
4	Belt Filter Press Upgrades	\$ 542,000	\$ 873,000	\$ 1,078,000
5	Aerobic Digester + Building	\$ 1,697,000	\$ 2,732,000	\$ 3,371,000
6	Package Treatment Plant	\$ 9,359,000	\$ 15,069,000	\$ 18,595,000
	<b>TOTAL</b>	<b>\$ 15,439,000</b>	<b>\$ 24,859,000</b>	<b>\$ 30,677,000</b>
7	New Shop/Office (alternate to renovation)	\$ 2,422,000	\$ 3,900,000	\$ 4,812,000
	<b>TOTAL with New Shop/Office, no existing upgrades</b>	<b>\$ 16,681,000</b>	<b>\$ 26,859,000</b>	<b>\$ 33,144,000</b>



ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative G					DATE:	10/19/2023
PROJECT DESCRIPTION: Overall Site Improvements						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Onsite Domestic Fire Hydrant	1	LS	\$15,000	\$15,000	
2	SCADA system with security cameras	1	LS	\$275,000	\$275,000	
3	Combine power sources into one feed	1	LS	\$200,000	\$200,000	
4	Yard valve replacement throughout plant	20	EA	\$5,000	\$100,000	
5	Reclaimed water system replacement and filtration system	1	LS	\$350,000	\$350,000	
6	Backup generator	1	LS	\$500,000	\$500,000	
7	Vactor truck	1	LS	\$600,000	\$600,000	
8					-	
9					-	
10					-	
11					-	
12					-	
13					-	
14					-	
15	Additional Elements (estimated % of above)				-	
16	Contractor mobilization / administration			10.0%	\$204,000	
17	Yard Piping			0.0%	\$0	
18	Site Civil			0.0%	\$0	
19	Electrical and instrumentation			0.0%	\$0	
20	Bonding			2.5%	\$51,000	
SUBTOTAL					\$ 2,295,000	
Construction Contingency: 30.0%					\$ 689,000	
AIS/BABAA Escalation: 15.0%					\$ 448,000	
Sales Tax: 7.7%					\$ 264,000	
Design / CMS: 25.0%					\$ 858,000	
Legal and Administrative: 0.2%					\$ 7,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 4,561,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative G					DATE:	10/19/2023
PROJECT DESCRIPTION: Headworks: Screening, furnace replacement, move MCC room						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
	<u>Fine Screening</u>				-	
1	2 mgd fine screen	1	EA	\$175,000	\$175,000	
2	Installation at 20%	1	EA	\$35,000	\$35,000	
3	Electrical revisions for independent screen operation	1	LS	\$100,000	\$100,000	
4	Replace/support grit chamber piping	1	LS	\$15,000	\$15,000	
5						
6	Additional Elements (estimated % of above)					
7	Contractor mobilization / administration			10.0%	\$33,000	
8	Yard Piping			0.0%	\$0	
9	Site Civil			0.0%	\$0	
10	Electrical and instrumentation			0.0%	\$0	
11	Bonding			2.5%	\$8,000	
				SUBTOTAL	\$ 366,000	
				Construction Contingency: 30.0%	\$ 110,000	
				AIS/BABAA Escalation: 15.0%	\$ 71,000	
				Sales Tax: 7.7%	\$ 42,000	
				Design / CMS: 25.0%	\$ 137,000	
				Legal and Administrative: 0.2%	\$ 1,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 727,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative G					DATE:	10/19/2023
PROJECT DESCRIPTION: Lab/Office Renovation						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Demolition for office/break room addition	576	SF	\$150	\$86,400	
2	Office/break room addition	576	SF	\$600	\$345,600	
3	Roof replacement over entire structure	1568	SF	\$40	\$62,720	
4	New flooring, countertops, cubboards in lab area	1	LS	\$60,000	\$60,000	
5	Extend bathroom into old chlorine room and add shower/sink	128	SF	\$350	\$44,800	
6	Remove all unused electrical panels, bring up to code	1	LS	\$200,000	\$200,000	
7					-	
8					-	
9					-	
10					-	
11	Additional Elements (estimated % of above)				-	
12	Contractor mobilization / administration			10.0%	\$80,000	
13	Yard Piping			0.0%	\$0	
14	Site Civil			5.0%	\$40,000	
15	Electrical and instrumentation			30.0%	\$240,000	
16	Bonding			2.5%	\$20,000	
SUBTOTAL					\$	1,180,000
Construction Contingency: 30.0%					\$	354,000
AIS/BABAA Escalation:15.0%					\$	230,000
Sales Tax: 7.7%					\$	136,000
Design / CMS: 25.0%					\$	441,000
Legal and Administrative: 0.2%					\$	4,000
TOTAL PROBABLE COST (2023 DOLLARS)					\$	2,345,000

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative G					DATE:	10/19/2023
PROJECT DESCRIPTION: Belt filter press building renovations (upgrades to support systems, refurbishing existing)						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Replace heaters	8	EA	\$4,000	\$32,000	
2	1100 gallon pressure tank	1	LS	\$20,000	\$20,000	
3	Upgrade shower boxes on gravity and press section	1	LS	\$80,000	\$80,000	
4	Domestic water feed line	1	LS	\$20,000	\$20,000	
5	Air gap skid system	1	LS	\$150,000	\$150,000	
6	Upgrade lift station with new pumps	1	LS	\$50,000	\$50,000	
7	Sludge trailer	1	LS	\$130,000	\$130,000	
8					-	
9					-	
10					-	
11					-	
12	Additional Elements (estimated % of above)				-	
13	Contractor mobilization / administration			10.0%	\$48,000	
14	Yard Piping			0.0%	\$0	
15	Site Civil			0.0%	\$0	
16	Electrical and instrumentation			0.0%	\$0	
17	Bonding			2.5%	\$12,000	
SUBTOTAL				\$	542,000	
Construction Contingency: 30.0%				\$	163,000	
AIS/BABAA Escalation:15.0%				\$	106,000	
Sales Tax: 7.7%				\$	62,000	
Design / CMS: 25.0%				\$	203,000	
Legal and Administrative: 0.2%				\$	2,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	1,078,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative G					DATE:	10/19/2023
PROJECT DESCRIPTION: Aerobic digester						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Demolish existing structure	2800	SF	\$60	\$168,000	
2	Construct new building with overhead hoist	2800	SF	\$400	\$1,120,000	
3	Building lighting	1	LS	\$100,000	\$100,000	
4	Digester lift station upgrade for dual pumps on rails	1	LS	\$120,000	\$120,000	
5					-	
6					-	
7					-	
8					-	
9					-	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16					-	
17					-	
18	Additional Elements (estimated % of above)				-	
19	Contractor mobilization / administration			10.0%	\$151,000	
20	Yard Piping			0.0%	\$0	
21	Site Civil			0.0%	\$0	
22	Electrical and instrumentation			0.0%	\$0	
23	Bonding			2.5%	\$38,000	
SUBTOTAL				\$	1,697,000	
Construction Contingency: 30.0%				\$	509,000	
AIS/BABAA Escalation:15.0%				\$	331,000	
Sales Tax: 7.7%				\$	195,000	
Design / CMS: 25.0%				\$	634,000	
Legal and Administrative: 0.2%				\$	5,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	3,371,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative G					DATE:	10/19/2023
PROJECT DESCRIPTION: New Shop/Office/Lab						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Clearing and grubbing	0.69	ACRE	\$12,000	\$8,280	
2	Site excavation	14400	CY	\$20	\$288,000	
3	Steel shop/lab/office building, 50'X100'	5000	SF	\$250	\$1,250,000	
4	Finish office/lab space, 30'X50'	1500	SF	\$300	\$450,000	
5	Extend 8" water line to shop	250	LF	\$110	\$27,500	
6	Fire hydrant	1	LS	\$8,000	\$8,000	
7	Extend sewer line to shop/office/lab	200	LF	\$90	\$18,000	
8	Crushed surfacing top course for driveway	620	TONS	\$50	\$31,000	
9	Hot mix asphalt for driveway	400	TONS	\$180	\$72,000	
10					-	
11					-	
12					-	
13					-	
14					-	
15					-	
16	Additional Elements (estimated % of above)				-	
17	Contractor mobilization / administration			10.0%	\$215,000	
18	Yard Piping			0.0%	\$0	
19	Site Civil			0.0%	\$0	
20	Electrical and instrumentation			0.0%	\$0	
21	Bonding			2.5%	\$54,000	
SUBTOTAL					\$ 2,422,000	
Construction Contingency: 30.0%					\$ 727,000	
AIS/BABAA Escalation: 15.0%					\$ 472,000	
Sales Tax: 7.7%					\$ 279,000	
Design / CMS: 25.0%					\$ 905,000	
Legal and Administrative: 0.2%					\$ 7,000	
TOTAL PROBABLE COST (2023 DOLLARS)					\$ 4,812,000	

ENGINEER'S OPINION OF PROBABLE COST						Planning
PROJECT: City of Newport WWTP Alternative G					DATE:	10/19/2023
PROJECT DESCRIPTION: Aero-Mod Package Treatment Plant in location of existing primary anaerobic digester and pumphouse						
CLIENT: City of Newport						
P/N: 70-20-023						
ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES				
		QNTY	UNIT	UNIT PRICE	TOTAL COST	
1	Demolition of existing primary clarifier, digester, pump building, piping, manholes, disposal of digester contents	1	LS	\$250,000	\$250,000	
2	Locate Unknown Utilities	1	LS	\$120,000	\$120,000	
3	Concrete - Tank Walls	628	CY	\$1,500	\$942,000	
4	Concrete - Slab on Grade	544	CY	\$1,000	\$544,000	
5	Grout for Clarifier Bottom	50	CY	\$850	\$42,500	
6	Process Equipment	1	LS	\$1,370,000	\$1,370,000	
7	Installation of Process Equipment	1	LS	\$330,000	\$330,000	
8	Structure Excavation	7,300	CY	\$50	\$365,000	
9	Structure Foundation Rock	1,700	TONS	\$50	\$85,000	
10	Excavation Shoring	5,900	SF	\$120	\$708,000	
11	Excavation Dewatering	1	LS	\$100,000	\$100,000	
12	Underdrain with outlet pipe	1	LS	\$120,000	\$120,000	
13	Yard Piping			10.00%	\$497,700	
14	New Blower and MCC Building, 16'X24'	384	SF	\$400	\$153,600	
15	Solids Lift Station and Force Main	1	LS	\$500,000	\$500,000	
16	Relocate Existing Underground Power	300	LF	\$60	\$18,000	
17	Clearing and Grubbing for Entrance Roadway Relocation	0.30	AC	\$12,000	\$3,600	
18	Subgrade Preparation for Entrance Roadway Relocation	1100	SY	\$3	\$3,300	
19	Erosion and Sediment Control	1.00	LS	\$30,000	\$30,000	
20	Excavation for Entrance Roadway Relocation	100	CY	\$50	\$5,000	
21	Retaining Wall for Entrance Roadway Relocation	5400	SF	\$100	\$540,000	
22	CSTC for Entrance Roadway Relocation	400	TONS	\$50	\$20,000	
23	HMA for Entrance Roadway Relocation	200	TONS	\$200	\$40,000	
24	Site Fencing	450	LF	\$50	\$22,500	
25	Clearing and Grubbing for Access Roadway Around Oxidation Ditch	0.40	AC	\$12,000	\$4,800	
26	Subgrade Preparation for Access Roadway Around Oxidation Ditch	1400	SY	\$3	\$4,200	
27	CSTC for Access Roadway Around Oxidation Ditch	500	TONS	\$50	\$25,000	
28	Chlorination Upgrades	1	LS	\$150,000	\$150,000	
	Pump Station and Force Main for Excess Flow Return from Existing Oxidation	1				
29	Ditch		LS	\$450,000	\$450,000	
30	Electrical and Instrumentation			20.00%	\$874,400	
31					-	
32	Additional Elements (estimated % of above)				-	
33	Contractor mobilization / administration			10.0%	\$832,000	
34	Yard Piping			0.0%	\$0	
35	Site Civil			0.0%	\$0	
36	Electrical and instrumentation			0.0%	\$0	
37	Bonding			2.5%	\$208,000	
SUBTOTAL				\$	9,359,000	
Construction Contingency: 30.0%				\$	2,808,000	
AIS/BABAA Escalation: 15.0%				\$	1,825,000	
Sales Tax: 7.7%				\$	1,077,000	
Design / CMS: 25.0%				\$	3,498,000	
Legal and Administrative: 0.2%				\$	28,000	
TOTAL PROBABLE COST (2023 DOLLARS)				\$	18,595,000	

**Operation and Maintenance Annual Cost Estimate**

City of Newport WWTP

Alternate G: New Package Treatment Plant Option

Description	Estimated Weekly Labor Hours	Estimated Annual Labor Hours	Labor Rate	Labor Cost	Equipment Cost	Electrical Cost	Chemical Cost	Other	Total
Clerical/Administration	3	156	\$ 53	\$ 8,268	\$ 1,000				\$ 9,268
Influent Flow Meters	8	416	\$ 53	\$ 22,048	\$ 2,500				\$ 24,548
Receiving Station (offline)	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Headworks-Bar Rack	2	104	\$ 53	\$ 5,512	\$ 300				\$ 5,812
Headworks-Mechanical Fine Screen	2	104	\$ 53	\$ 5,512	\$ 12,500				\$ 18,012
Headworks-Vortex Grit Chamber	2	104	\$ 53	\$ 5,512	\$ 6,500				\$ 12,012
Primary Clarifier (removed)	0	0	\$ 53	\$ -	\$ -				\$ -
Aeration Basin-Oxidation Ditch (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Secondary Clarifier 1 (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Secondary Clarifier 2 (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Chlorine Contact Basin, Injection Equipment	2	104	\$ 53	\$ 5,512	\$ 2,000		\$ 2,800		\$ 10,312
Outfall to Pend Oreille River	1	52	\$ 53	\$ 2,756	\$ -				\$ 2,756
Primary Solids Pumps (removed)	0	0	\$ 53	\$ -	\$ -				\$ -
Anaerobic Digester (removed)	0	0	\$ 53	\$ -	\$ -				\$ -
Activated Sludge Pump Station 1 (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
Activated Sludge Pump Station 2, Reclaim Water Pump (mothballed)	1	52	\$ 53	\$ 2,756	\$ 100				\$ 2,856
NEW Reclaimed Water Pump Modifications	2	104	\$ 53	\$ 5,512	\$ 7,000				\$ 12,512
Aerobic Digester (Solids Holding Lagoon)	4	208	\$ 53	\$ 11,024	\$ 10,000				\$ 21,024
Belt Filter Press, Gravity Belt Thickener (mothballed)	1	52	\$ 53	\$ 2,756	\$ 7,000		\$ 6,500		\$ 16,256
NEW AeroMod Treatment Plant	32	1664	\$ 53	\$ 88,192	\$ 100,000				\$ 188,192
NEW MCC Blower Building	2	104	\$ 53	\$ 5,512	\$ 5,000				\$ 10,512
NEW Solids Lift Station	4	208	\$ 53	\$ 11,024	\$ 10,000				\$ 21,024
Site Maintenance and Upkeep	2	104	\$ 53	\$ 5,512	\$ 500				\$ 6,012
Reclaimed Water Distribution System	3	156	\$ 53	\$ 8,268	\$ 100				\$ 8,368
Plant Power, Lighting, Heating OTHER						\$ 55,000			\$ 55,000
Water Utilities								\$ 20,000	\$ 20,000
Outside Lab Costs								\$ 7,000	\$ 7,000
Sludge Hauling Service								\$ 31,000	\$ 31,000
DOE Permits								\$ 6,500	\$ 6,500
Office and Operating Supplies								\$ 30,000	\$ 30,000
Fuel Consumed								\$ 11,000	\$ 11,000
[other]									\$ -
<b>TOTAL</b>	<b>76</b>	<b>3952</b>		<b>\$ 209,456</b>	<b>\$ 164,900</b>	<b>\$ 55,000</b>	<b>\$ 9,300</b>	<b>\$ 105,500</b>	<b>\$ 544,156</b>