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SAVEC New Facility

Architectural Predesign, Feasibility Study, and
Business Plan

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and Telos Architectural Consulting LLC



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Architectural Predesign

I. Introduction

Intent

An analysis of SAVEC’s vision would not be complete without thorough study of its architectural needs – the site and facilities that support the business plan and mission - and the associated costs. Through a series of workshops with SAVEC leadership (which always included stating the SAVEC mission statement), the class offerings and administrative needs were discussed, prioritized, and compared to similar architectural precedent. The following is the result of that analysis graphically depicted on a hypothetical site as one has not yet been selected.

All design work shown here reflects the Opinion of Probable Construction Cost (OPC) values, but it should be noted that, as with any design effort, there are many ways to address the needs of the project. This is simply one possible solution among innumerable solutions. Its value is in graphically summarizing and depicting all the data while testing assumptions and expectations between the predesign team and the end users.



Figure 1: A bird’s eye view of the completed SAVEC campus on a hypothetical site.

II. Site Considerations

Assumptions

A final site has not yet been selected for SAVEC's new facility. The initial procurement costs are not included in this study; however, site development (civil) costs were extrapolated from regionally specific data collected with the last six quarters. Considering the region and programming needs, the site is assumed to be flat. Water is assumed to be from a local well while other utilities are available public services.

Overall Site Plan

SAVEC's new facility, inclusive of all three proposed construction phases, would require a minimum of three (3) developable acres, ideally with a near-square aspect. Reducing redundancy between and among the phases was a cost-saving consideration. A single utility corridor is proposed in phase 1 to serve the completed facility. Parking and service access points for material deliveries, refuse removal, and utility service maintenance have been consolidated and simplified.



Figure 2: A bird's eye view of the completed SAVEC campus on a hypothetical site.



Figure 3: Overall Site Plan for SAVEC Facility.

Note the shop and education spaces are separated from the residential (dorm) and administrative spaces. This satisfies required health and safety concerns while addressing the very different uses, hazards, and accessibility. The gated shop yard includes covered material storage which is central and highly visible for security and oversight needs. All overhead doors open to the shop yard to allow for larger projects and additional layout space. This includes work on +30-foot-long gillnetter fishing boats. These would be trucked in on a trailer; the delivery logistics shaped the straight-shot from the public-right-of-way as well as the loop circuit within the parking area.

Construction Phasing

Phasing Plan Intent

As illustrated in the preceding business plan, residential dorm facilities are a critical component from the first day. Most students of SAVEC cannot attend training if they do not have anywhere to stay. Local offerings are limited and often booked for tourism. Thus, dorm facilities are the primary component to phase 1. They bring with them the culinary arts program which can serve students via a shared commons. Administrative spaces have more similar architectural, health, and safety needs to the dorms than the shop spaces so they are also proposed for phase 1. Again, the effort to break the overall program into three near-equally sized phases was a strong design driver.

Cost Escalation Due to Phasing

Please refer to the Opinion of Probable Cost (OPC) for a detailed analysis of all construction costs. Note that phasing the project does bring down the initial cost, but with a delayed expense. A 7% annual cost escalation is an appropriate value to factor into later phases. With this model, more time between phases ultimately means more cost. It was decided to use a 4-year span between phases for this study.



Figure 4: A view of the completed SAVEC shop yard with covered material storage.

Phasing Plan



Figure 5: New Facility Phasing Summary.

Early construction cost analysis clearly showed that building the entire facility at one time would be unlikely due to available funds. Various options were considered and the final decision – backed by the feasibility study – was made to break the physical facility into three (3) phases of nearly equal size. The main aim was to reduce the initial cost, however cost escalation due to delayed construction was a known trade off. See OPC for further discussion.

III. Phase 1

Phase 1 Architectural Program

Space Type	Space Name	Area (SF)	Quantity	Area (SF) Subtotal
Culinary Arts	Cold Storage	80	1	80
Culinary Arts	Dry Storage	80	1	80
Culinary Arts	Frozen Storage	80	1	80
Culinary Arts	Teaching Kitchen & Served	800	1	800
Dormitory	Instructor Housing – 1 bed/room	112	2	224
Dormitory	Student Housing – 2 beds/room	170	6	1,020
Dormitory	Commons/ Dining Hall	705	1	705
Administration	Lobby & Waiting	400	1	400
Administration	Staff Office	120	5	600
Administration	Reception Office	100	1	100
Support	Mechanical, Electrical, Comm.	400	1	400
Support	Restrooms, Toilets, Showers, JC	800	1	800
Subtotal (SF)				5,289
Tare	Walls, Circulation, Vestibule, etc.			846
Total (SF)				6,135

Table 1: Phase 1 Architectural Program.

Phase 1 Overall

As illustrated in the accompanying business plan, residential dorm facilities are a critical component from the first day. Most students of SAVEC cannot attend training if they do not have anywhere to stay. Local offerings are limited and often booked for tourism. Thus, dorm facilities are the primary component to phase 1. They bring with them the culinary arts program which can serve students via a shared commons. Administrative spaces have more similar architectural, health, and safety needs to the dorms than the shop spaces so they are also proposed for phase 1. Again, the effort to break the overall program into 3 near-equally sized phases was a strong design driver.



Figure 6: Approaching the main entry of the completed SAVEC Phase 1.



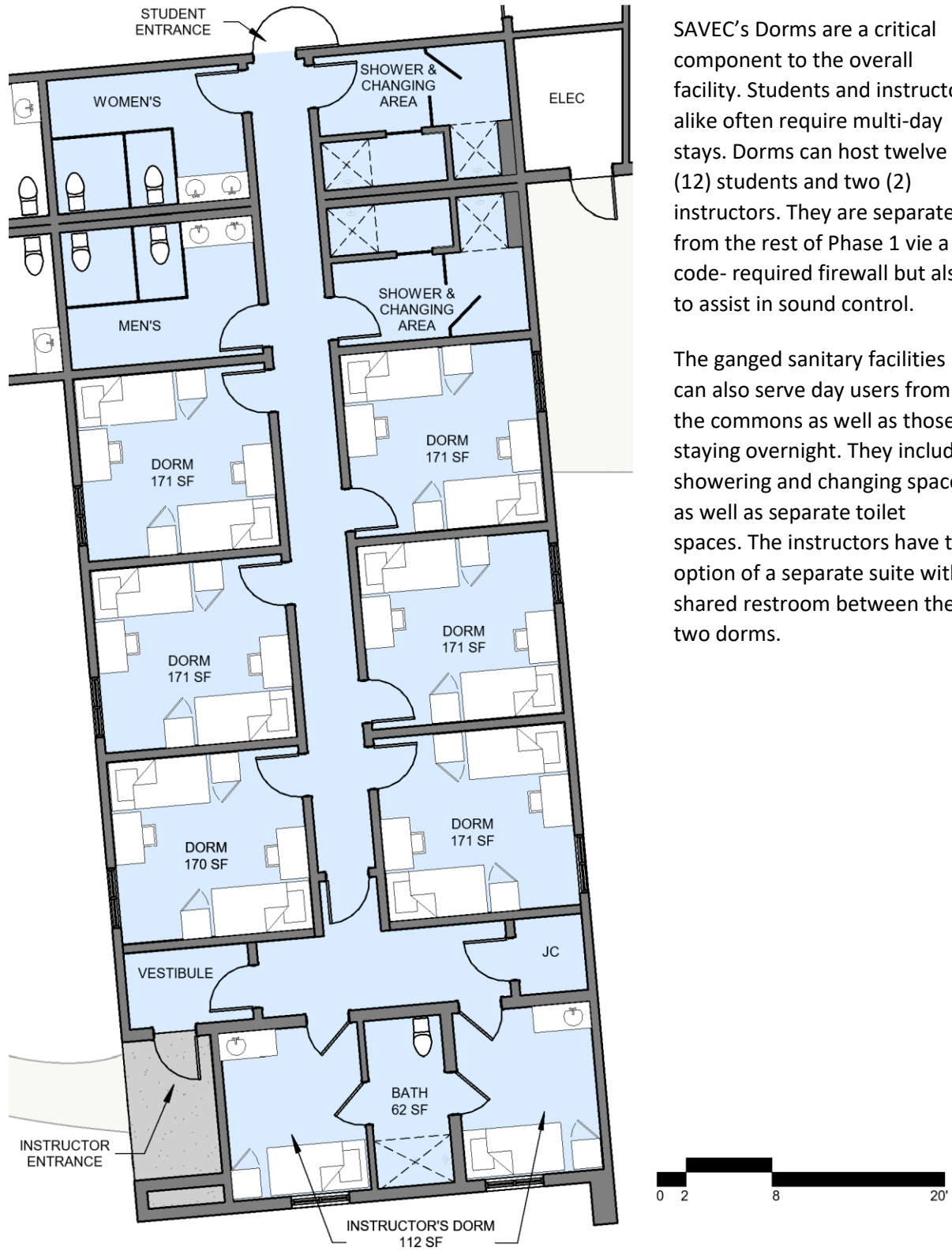
Figure 7: Approaching the instructor's dorm entry of the completed SAVEC Phase 1.

SAVEC Phase 1 is a stand-alone building with separate mechanical and electrical service spaces. The main entry is plan-south. Refuse removal and material deliveries come from plan-north. The dorm spaces are as remote as possible from the noise and activities of the shop spaces. Administration is front-and-center for any user: current student, prospective student, guest, employee or instructor. Their visual oversight is a critical security and management concern. A proposed culinary arts program can work together with the dorm's spaces. This satisfies both practical and educational needs for SAVEC.



Figure 8: Phase 1 Overhead View.

Dormitory



SAVEC's Dorms are a critical component to the overall facility. Students and instructors alike often require multi-day stays. Dorms can host twelve (12) students and two (2) instructors. They are separated from the rest of Phase 1 via a code- required firewall but also to assist in sound control.

The ganged sanitary facilities can also serve day users from the commons as well as those staying overnight. They include showering and changing spaces as well as separate toilet spaces. The instructors have the option of a separate suite with shared restroom between the two dorms.

Figure 9: Dorms (Rotated Clockwise).

Administration



Figure 10: Administration.

SAVEC's Administration functions as a gatekeeper for any user: current student, prospective student, guest, employee or instructor. Their visual oversight is a critical security and management concern. Typical offices house one member of staff while the director's office can serve as a small conference space. Larger gatherings would take place in the commons or a classroom in phase 2. The administrative suite can be closed and locked off from the rest of the facility, still allowing for community and student access to the commons.

Culinary Arts

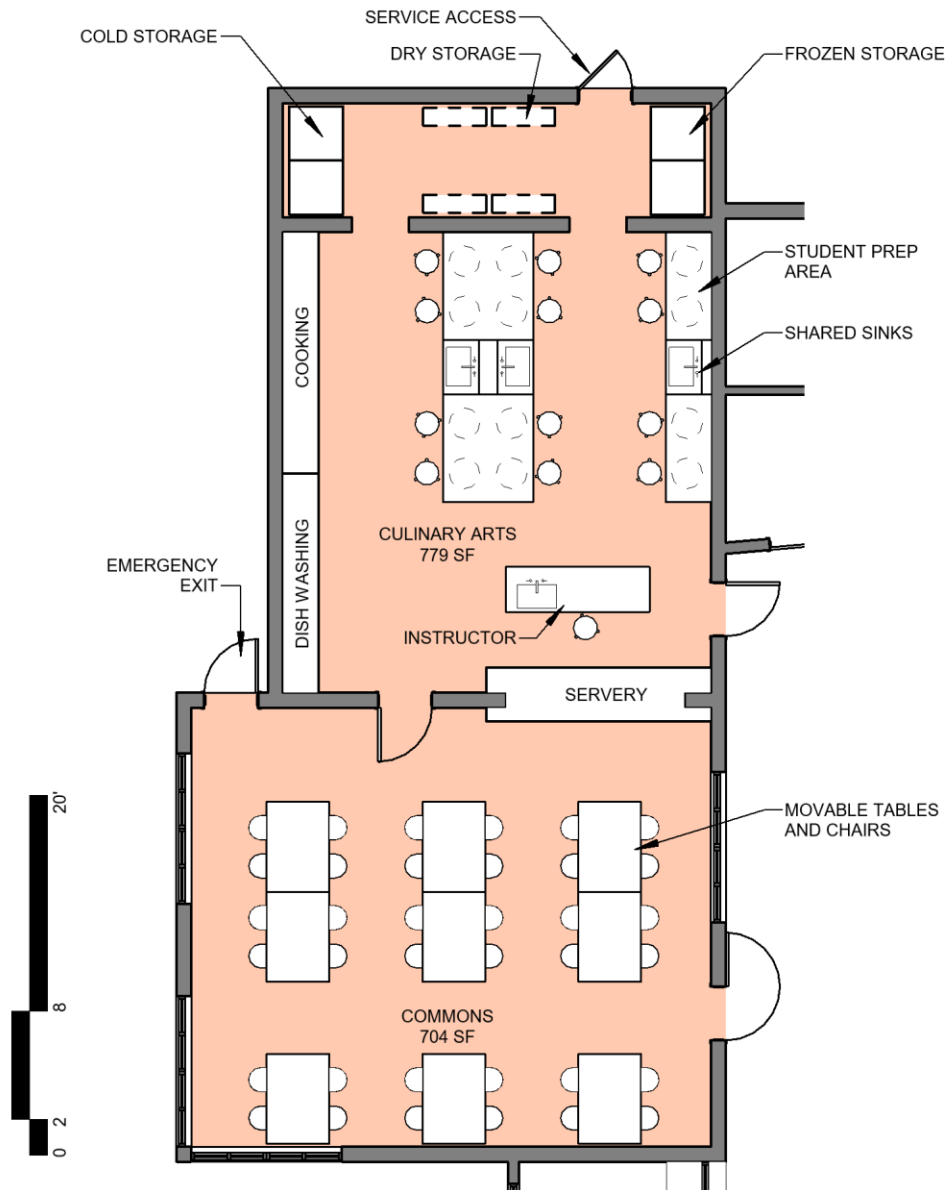


Figure 11: Culinary Arts.

SAVEC’s proposed culinary arts program is both educational and practical as it can serve those students hosted in the adjacent dorms. Its presence allows for fund raising opportunities such as steak, spaghetti, or pancake feeds. The classroom includes ganged student workspaces with shared sinks and access to all supporting functions: storage, cooking, and cleaning. The servery marries the kitchen to the commons and facilitates cleanliness and efficiency. Incoming materials and food are supplied via a service access at plan-north. Likewise, all refuse is assumed to be removed from plan-north. The 700 sf commons can host a number of gatherings – professional or private – and could also become a separate income-generating asset for SAVEC as such spaces are limited in Naknek and King Salmon.

IV. Phase 2

Phase 2 Architectural Program

Space Type	Space Name	Area (SF)	Quantity	Area (SF) Subtotal
Multipurpose Shop	Multipurpose Shop – Open Space	1,282	1	1,282
Multipurpose Shop	Toyostove – Tools/Storage	200	1	200
Multipurpose Shop	Toyo Water Heater – Tools/Storage	200	1	200
Welding Lab	Welding Technology – Booths	380	1	380
Welding Lab	Welding Technology – PPE/Locker	155	1	155
Welding Lab	Welding Technology – Shop	2052	1	2052
Welding Lab	Tools/Gas/Storage	280	1	280
Classroom	Classroom – Small	630	1	630
Classroom	Classroom – Large	120	5	600
Support	Mechanical, Electrical, Comm.	400	1	400
Support	Restrooms, Toilets, Showers, JC	300	1	300
Subtotal (SF)				6,679
Tare	Walls, Circulation, Vestibule, etc.			1,169
Total (SF)				7,848

Table 2: Phase 2 Architectural Program.

Phase 2 Overall

SAVEC's phase 2 includes shop and classrooms. It is a stand-alone facility built to expand plan-west for phase 3. Due to equipment limitations and efficiencies, the mechanical and electrical spaces are intended to only serve phase 2. It would be impractical – perhaps impossible – to assume future loads of phase 3 while only serving loads from phase 2 for years. To plan-south: the gated shop yard includes covered material storage which is central and highly visible for security and oversight needs. All overhead doors open to the shop yard to allow for larger projects and additional layout space. This includes work on +30-foot-long gillnetter fishing boats. These would be trucked in on a trailer; the delivery logistics shaped the straight-shot from the public-right-of-way as well as the loop circuit within the parking area.



Figure 12: Phase 2 Overhead View.

Welding Lab

SAVEC’s proposed welding lab would be the heart of phase 2. It houses 8 welding booths and the required equipment to build and repair fishing vessels and trailers. To enter the welding lab, any user (student, instructor, or guest) would be required to pass through the Personal Protective Equipment (PPE)/ Locker area. The architecture emphasizes health and safety with this entry sequence for all shop spaces. The large equipment noted in the main shop is movable, when possible, while smaller tools are housed in a lockable tool room along with the required welding gases. Ventilation, overhead clearances and durability are paramount considerations factored into the OPC. Larger projects can spill into the multipurpose shop space described later. Still more project space can be found in the shop yard at plan-south. The largest overhead door being 20 feet high by 20 feet wide will allow for the largest of skiffs to pass.

Welding Lab Equipment

Power	Gas	Exhaust	Tool	Quantity
x		x	Shielded 8" Bench Grinders	3
x	x	x	Acetylene Track Torches	3
x	x	x	Plasma Cutting Table, 4'x8'	1
x			Welding Rod Oven 8" Dia. - Portable	2
x			Electric Bend Tester - Bench Mounted	1
x			Small Drill Press - Bench Mounted	1
x			Large Drill Press - Bench Mounted	1
x			14" Cold Saw (w/ material clearance)	1
x			14" Chop Saw (w/ material clearance)	1
x			72" Hydraulic Shear Machine	1
x	x	x	Welding Curtain Enclosure - 6'x6' - Portable	3
			Sheet Metal Storage Enclosure	1
x	x	x	47" Welding Booth Table & 5'x6' Enclosure	8
x		x	Exhaust Fume Arm - Portable Mobiflex	1

Table 3: Welding Lab Equipment.

Cost of Welding Lab Equipment

Cost of Equipment:	\$173,000
Cost of Shipping:	\$130,000
Total:	\$303,000

Table 4: Cost of Welding Lab Equipment.

Welding equipment costs were provided by Airgas of Anchorage. Most pieces would be shipped direct from the manufacturer. An additional 75% will be assumed for shipping in this study.

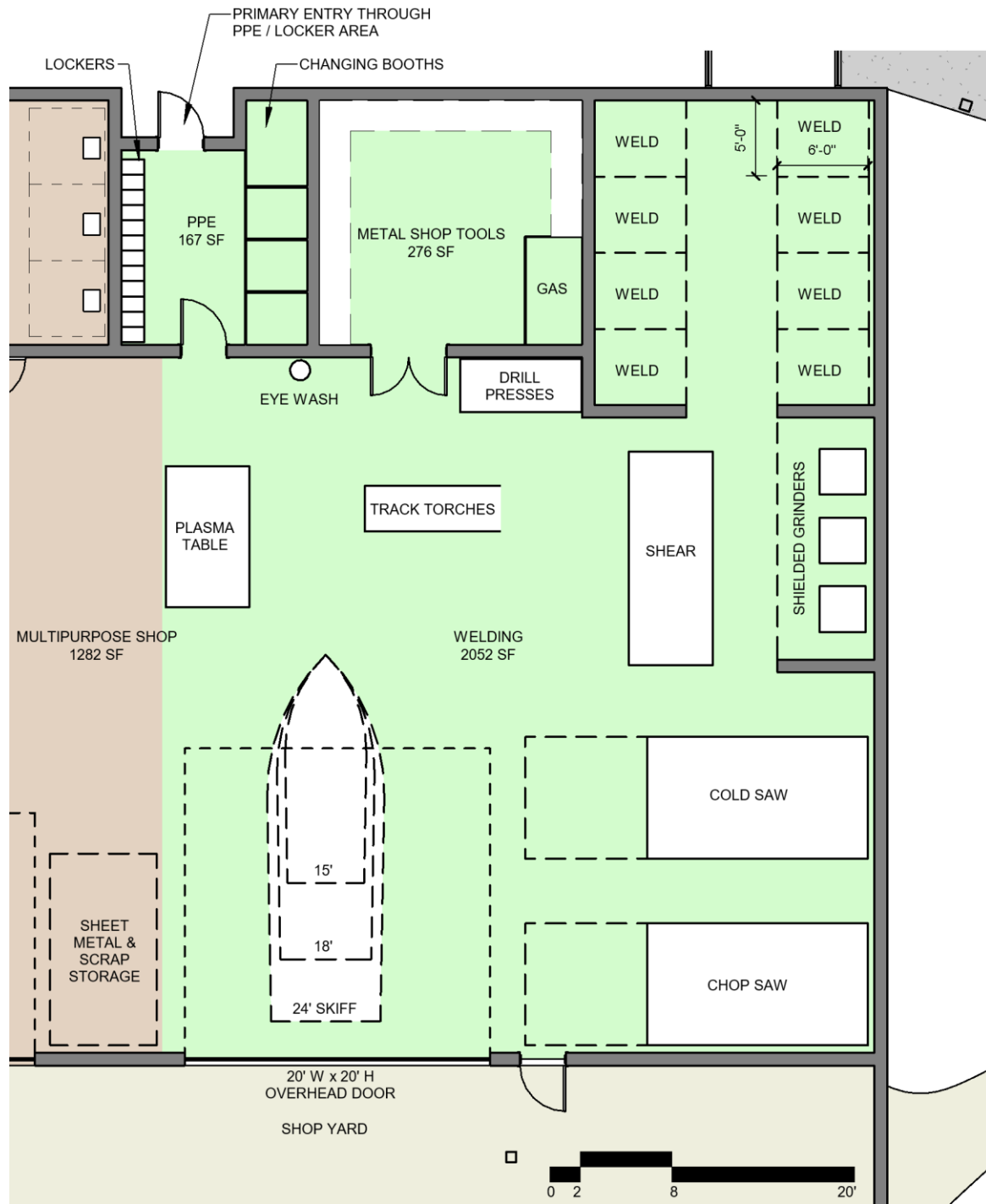


Figure 13: Welding Lab.

Multipurpose Shop

SAVEC's multipurpose shop space came about in response to its many and varied technical offerings. Examples include water heater repair, stove repair, skiff building, gill net repair, and outboard motor repair. Movable work benches and equipment in this multipurpose shop will allow for greater efficiency of use. Common classes with larger equipment storage needs are given smaller spaces to house the trainers and tools, however these can be moved out into the larger shop space depending on the needs and size of the class. Note that all users must pass through the Personal Protective Equipment (PPE)/Locker area to enter the shop space. More project space can be found in the shop yard at plan-south accessed via man-doors and overhead doors.

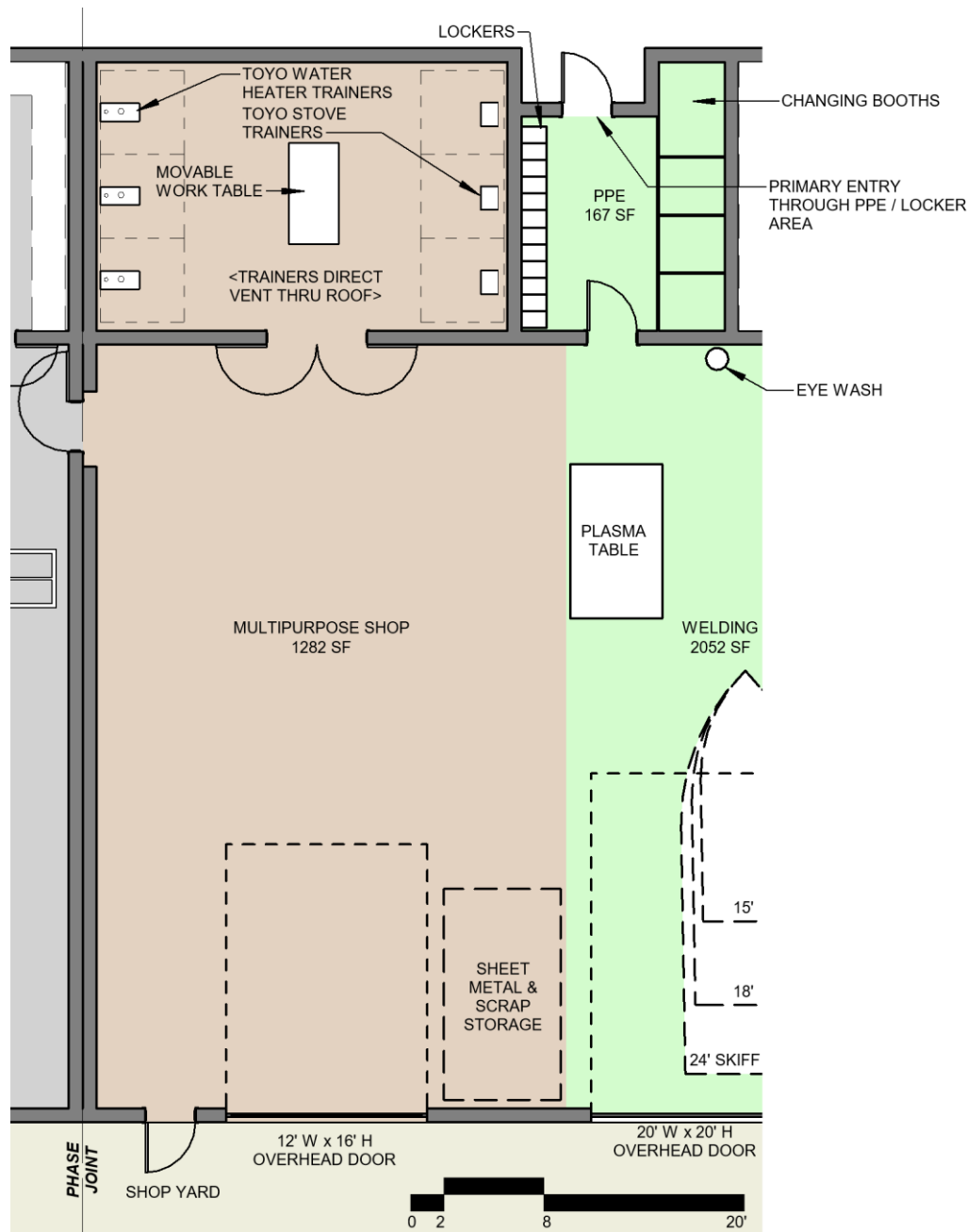


Figure 14: Multipurpose Shop.

Classrooms

As in the shop spaces, classrooms require flexibility. They must support individual work, group study, instructor demonstrations, lectures, digital presentations, and other assemblies. Phase 2 includes 1,445 sf of class space divisible into a larger class (809 sf) and a smaller class (636 sf). With the right movable modular furniture, configurations are numerous; only two are depicted here.

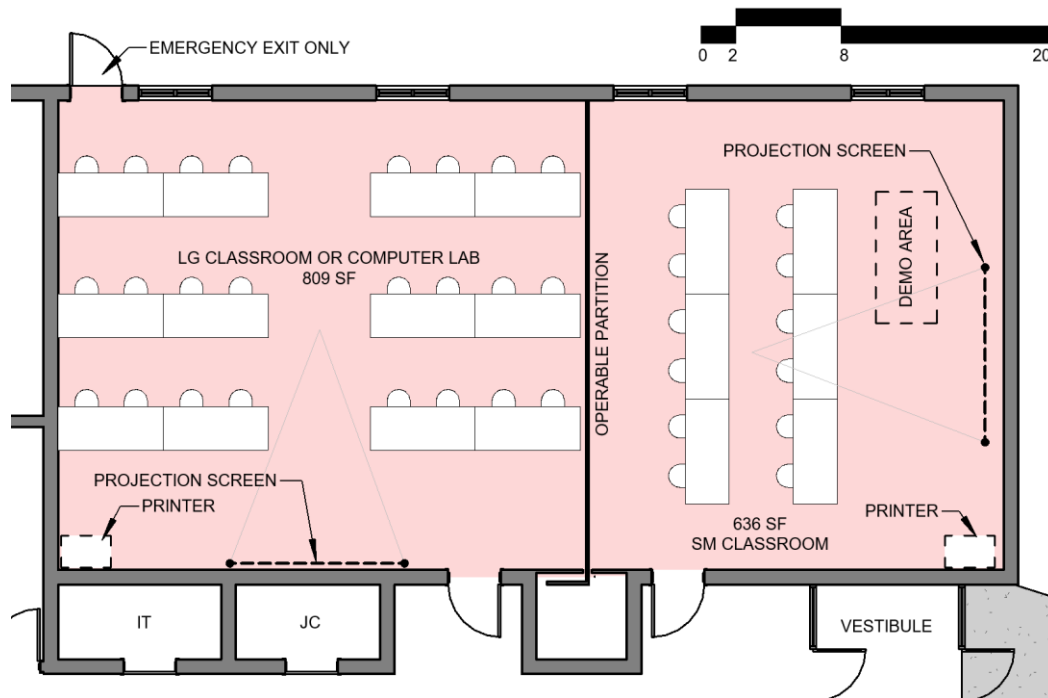


Figure 15: Classrooms with Partition Closed.

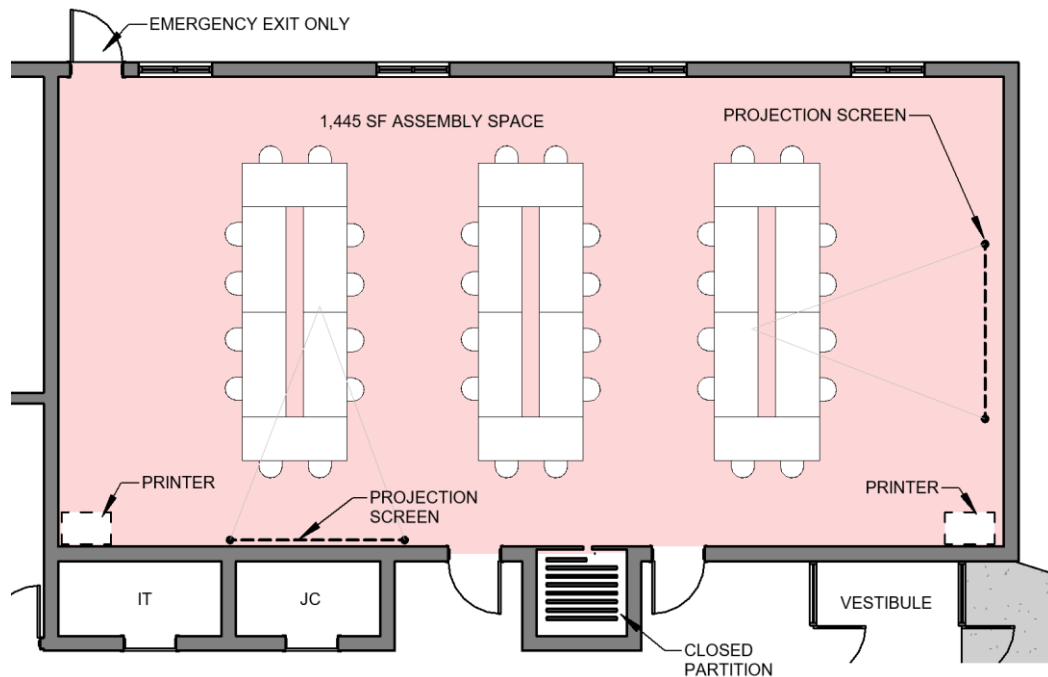


Figure 16: Classrooms with Partition Open.

V. Phase 3

Phase 3 Architectural Program

Space Type	Space Name	Area (SF)	Quantity	Area (SF) Subtotal
Auto Shop	Auto/Multipurpose Shop	1,200	1	1,200
Auto Shop	Auto/Multipurpose Shop	222	1	222
Wood Shop	PPE/Locker	240	1	240
Wood Shop	Carpentry/Construction Tech Shop	1400	1	1400
Wood Shop	Carpentry – Tools/Storage	380	1	380
Multipurpose	Outboard Motor Repair Shop – Tools/Storage	180	1	180
Classroom	Classroom – Large	900	1	900
Classroom	Classroom – Storage	150	1	150
Support	Mechanical, Electrical, Comm.	400	1	400
Support	Restrooms, Toilets, Showers, JC	300	1	300
Subtotal (SF)				5,372
Tare	Walls, Circulation, Vestibule, etc.			1,058
Total (SF)				6,430

Table 5: Phase 3 Architectural Program.

Phase 3 Overall

Phase 3 is the final step in completing SAVEC’s proposed campus. These spaces are not the least important but were required to move into the last phase merely out pragmatic consideration of cost and feasibility. As with the first two phases, phase 3 is essentially a stand-alone building regarding structural and mechanical concerns.

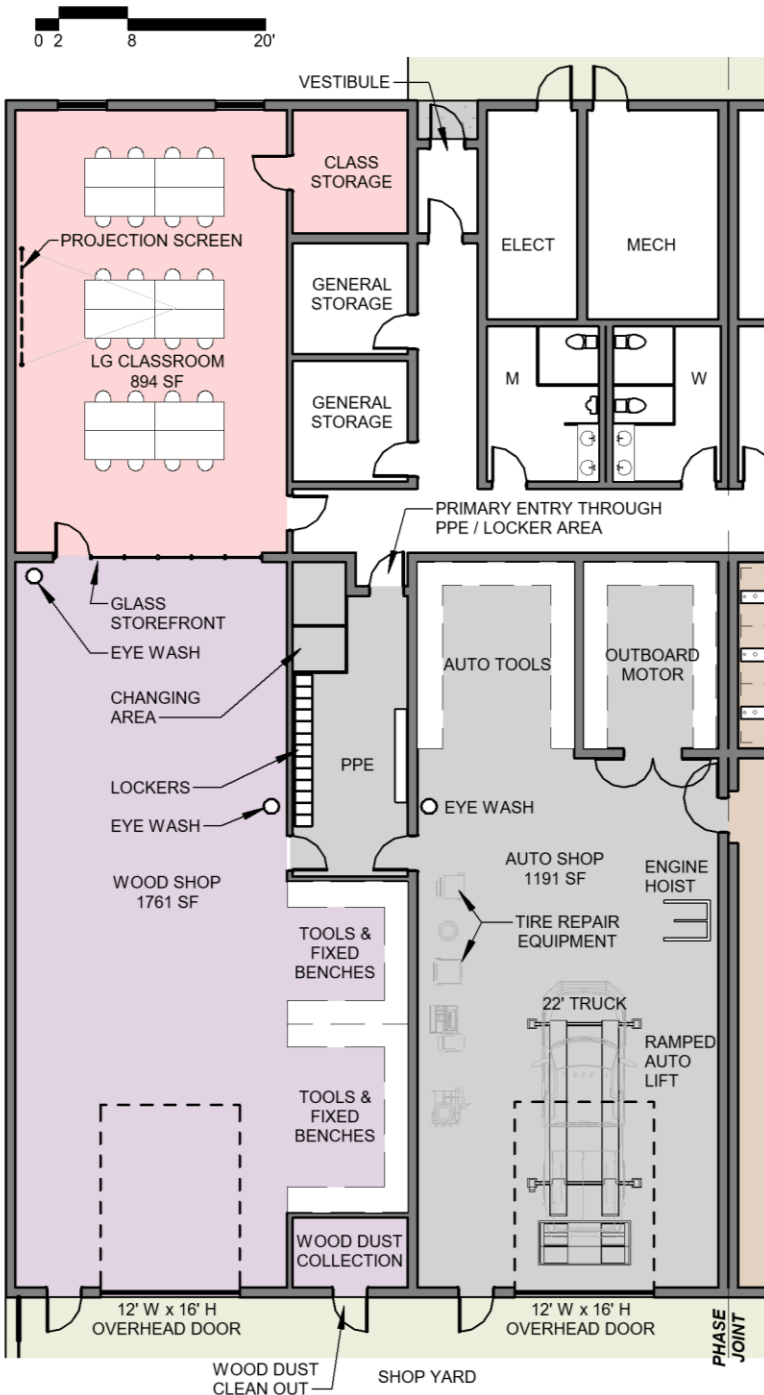


Figure 17: Phase 3 Overhead View.

Very little modification would be required to existing Phase 2 to accommodate Phase 3. Unlike the class spaces in Phase 2, this class is immediately accessible to the shop space though access through the PPE area must be a managerial requirement. The access is primarily for visual purposes; note the glazed partition.

These shops are meant to specialize in woodworking/carpentry and automotive maintenance/repair. They each have fixed tool areas and large flexible shop space. If practical, any equipment should be considered movable when outfitting these spaces.

VI. Opinion of Probable Cost (OPC)

Assumptions

Initial cost estimating for a multi-use, multi-phase project in a remote region can be a challenging but essential process. The OPC serves as an early indicator of the required budget and feasibility of the project, which is important for stakeholders to make informed decisions. We've looked at recent regional projects as a precedent to inform our initial estimates. These estimates have been refined as we moved through the predesign process and generated a more detailed list of needs and wants.

It's important to keep in mind that the initial cost estimates are just that: estimates. By working collaboratively, we can ensure that we're creating a facility that meets SAVEC's needs while also being cost-effective and efficient. Moreover, the end goal of this phase is essentially to create a proof-of-concept and the generation of an RFP for further design services. Once that future design team is in place, continued refinement will undoubtedly be part of any standard services.

There are several wild cards to consider regarding construction in rural Alaska, not least of which is the number of bidders. Some projects only receive a single bid, which is clearly not ideal. Given the size of this project it is hoped that there will be enough interest from contractors to solicit multiple bids.

Definition of Terms found in the OPC

TARE refers to all support spaces required for each program piece. This includes wall thickness, circulation, mechanical space, janitor's closets, restrooms, etc. At the early phases it is assumed to be about 30%. The final iteration of the SAVEC facility in the OPC defines TARE areas more granularly.

Enclosure considers the cost of the shell or envelope of the building. In this case, the structure as well, which we assume will leverage pre-engineered assemblies when possible. Enclosure is the part that keeps the inside in and the outside out. Managing water is its most important role and it is often the largest expense in the hard cost.

General conditions typically refer to the contractor's costs associated with managing and overseeing a construction project. This includes things like project management, site supervision, safety measures, permits and inspections, and other administrative tasks.

Contingency refers to a reserve fund set aside by the contractor to cover unexpected expenses that may arise during construction. These expenses can include changes to the project scope, unforeseen site conditions, and other unexpected costs.

OH&P stands for overhead and profit, which refers to the additional costs associated with managing a construction project and making a profit. This includes things like office expenses, equipment and supplies, insurance, and other indirect costs. Together, general conditions, contingency, and OH&P are typically included as a percentage of the overall construction cost and are intended to cover the contractor's costs of managing and overseeing the project, as well as providing a profit.

Civil work (sometime referred to as site work) is essential to prepare the site for the building construction and ensure the site is safe and accessible for workers and visitors. It is typically one of the

first stages of a construction project and can take a significant amount of time and resources. Civil work on a construction project typically includes the construction and installation of the following:

- Site clearing and grading
- Excavation and earthwork
- Utility infrastructure (water, sewer, gas, electric)
- Stormwater management systems (drainage, retention/detention ponds)
- Roadways and parking lots
- Sidewalks and pedestrian paths
- Landscaping and hardscaping (retaining walls, irrigation systems)
- Site amenities (benches, bike racks)

Escalation of cost: we can assume annual cost escalation to range from 6.0 - 9.5% for labor and goods. The wild card is the price of oil (transportation) which is a high-cost factor in Alaska. If oil goes above \$100 a barrel it would lump another 1.5% to a project. Commodity prices (steel, copper and wood products) can also push the cost up quickly as we saw in 2021 at 9.5%. So, for planning purposes, assume:

- low escalation = 6%
- mid-range = 7.5%
- high escalation = 9.5%

In a phased project like this one, cost escalation should be carefully considered in decision making.

Hard Costs refer to the site and building proper. It's the complete project one might imagine entering in a few years.

Soft Costs are everything else: design fees, contractor's OH&P, contingency, etc.

Opinion of Probable Construction Cost Breakdown

	Phase 1	Phase 2	Phase 3	
Total - Area (SF)	6,135	7,848	6,430	
Interior + Enclosure Cost/SF	450	550	500	
Hard Cost	Sub Total - Building Cost	\$ 2,760,750	\$ 4,316,400	\$ 3,215,000
	Site Cost	\$ 1,500,000	\$ 700,000	\$ 600,000
	Sub Total - Building & Site Cost	\$ 4,260,750	\$ 5,016,400	\$ 3,815,000
Phasing	Annual Cost Escalation/Year	7%	7%	7%
	Years to build	0	4	8
	Project Cost w/ Escalation	\$ 4,260,750	\$ 6,575,477	\$ 6,554,880
Soft Cost	10% Design	\$ 426,075	\$ 657,548	\$ 655,488
	13% General Conditions	\$ 553,898	\$ 854,812	\$ 852,134
	20% Contingency	\$ 852,150	\$ 1,315,095	\$ 1,310,976
	12% Contractor's OH&P	\$ 511,290	\$ 789,057	\$ 786,586
	5% Furnishings	\$ 213,038	\$ 328,774	\$ 327,744
	Welding Equipment	\$ 303,000		
Total Phase Cost	\$ 7,120,200	\$ 10,520,763	\$ 10,487,808	
Cost/SF (w/ escalation)	\$ 1,161	\$ 1,341	\$ 1,631	
Cost/SF (w/o escalation)	\$ 1,161	\$ 1,086	\$ 1,016	

Table 6: Opinion of Probable Construction Cost Breakdown.

Notes: Site acquisition cost is not included in this study. Total of all phases is \$28,128,772.

VII. Architecture and Site Renderings



Figure 18: A View towards the entry of the completed SAVEC campus.



Figure 19: A View towards plan-North of the completed SAVEC campus. The shop yard and covered materials storage are in the foreground.

Feasibility Study

I. Executive Summary

The Southwest Alaska Vocational and Education Center (SAVEC) is a vocational education provider serving the Bristol Bay region of Alaska. Founded in 2002, SAVEC provides career-oriented training that leads to high-paying jobs for local residents. Until 2019, SAVEC operated in a large facility owned by the U.S. Air Force but otherwise unused. However, when this space became unavailable, SAVEC moved into rental space that has proven inadequate to meet the needs of the organization. The SAVEC Board of Directors and Executive Director are seeking to raise funds to build a new facility to allow the organization to expand and better serve the Bristol Bay economy and workforce.

This feasibility study was performed by the University of Alaska Center for Economic Development (UA CED) at the request of SAVEC. Its primary purpose is to identify the operating costs of the new facility under a range of different scenarios, including different levels of student enrollment and the phasing of construction. Across all scenarios, the study identifies the cost structure of SAVEC’s future operations, which exhibits high variable costs (increasing with student enrollment) and moderate fixed costs (facility costs that change little with enrollments).

New Facility

SAVEC engaged the services of Telos Architectural Consulting to produce a preliminary design for the new facility. Telos’ design calls a 20,413 square foot facility to include a commercial kitchen, dormitory space for 14 individuals, five offices, three classrooms, and welding, multi-purpose, auto, and wood shops with high ceilings and overhead doors. The features of the facility reflect SAVEC’s current and expected training needs. While the full facility could be built all at once, a more financially viable path is a three-phased approach. Over eight years, Telos estimates the full development cost at \$28.1 million.

	Cost
Phase 1	\$ 7,120,200
Phase 2	10,520,763
Phase 3	10,487,808
Total	28,128,771

Table 7: Phase and Total Cost.
Source: Telos Architectural Consulting.

Cost Scenarios

The three primary operating cost scenarios assume that construction will occur in three phases, beginning with dorms, administrative offices, and a commercial kitchen (Phase 1) and proceeding to shop and classroom space (Phase 2) and finally additional shop and classroom (Phase 3). The impact on operational expenses of constructing all three phases at once is addressed in Appendix A. The three primary scenarios are:

- **Scenario 1:** This scenario assumes that the new facility serves 250 students per year (similar to SAVEC’s recent history) and that enrollments remain flat for the 10-year projection period,

through all construction phases. Annual operating costs start at \$757,630 in Year 1 and scale to \$1,066,778 in Year 10.

- **Scenario 2:** Under this scenario, enrollments stay fixed at about 750 students throughout the 10-year projection period. This enrollment level is aspirational for SAVEC and although unlikely to be achieved immediately, the scenario shows the impact of high instructional (variable) costs. Annual operating costs run from \$1,256,508 in Year 1 to \$1,745,952 in Year 10.
- **Scenario 3:** This is the “Growth” scenario, where enrollments start at 250 students and increase to 750 over 15 years, reaching 580 by Year 10. This scenario is more realistic than the others in the sense that it shows a gradual expansion of enrollment over time which is enabled by the new facility. This means that variable costs increase more gradually. Operating costs start at \$769,591 in Year 1 and grow to \$1,486,457 in Year 10.

The number of students and classes is the main driver of cost differences between the scenarios, as facility and administrative (fixed) costs are similar for each. For instance, operating costs in Scenario 1 with 244 students are almost \$500,000 lower than Scenario 2 with 746 students. However, per student costs are nearly reduced by half with the higher student numbers in Scenario 2. Since Scenario 3 assumes enrollment growth, the fall in per student costs is evident from Year 1 to Year 10.

Year 1 Scenario Comparison

Scenario	Students	Classes	Operating Costs	Cost per Student ¹
Scenario 1	244	14	\$ 757,630	\$ 3,105
Scenario 2	746	37	\$ 1,256,508	\$ 1,684
Scenario 3	244	14	\$ 769,591	\$ 3,154

Table 8: Year 1 Scenario Comparison.

Year 10 Scenario Comparison

Scenario	Students	Classes	Operating Costs	Cost per Student
Scenario 1	248	15	\$ 1,066,778	\$ 3,441
Scenario 2	752	38	\$ 1,745,952	\$ 1,859
Scenario 3	580	31	\$ 1,486,457	\$ 2,052

Table 9: Year 10 Scenario Comparison.

For all scenarios, facility costs increase as each new phase is completed, leading to cost jumps in Years 4 and 8 as Phases 2 and 3 are complete and utility, insurance, and maintenance costs increase with the expanded facility. This is why the per-student cost grows between Year 1 and Year 10 even if enrollment is flat, as in Scenarios 1 and 2.

Revenues

SAVEC has a strong fiscal base from which to expand its operations, receiving about \$740,000 annually from board member contributors, a state grant intended to provide ongoing support, and a substantial contribution from the regional economic development agency. In addition to this, the organization

¹ While operating costs assume an annual rate of inflation, this is removed from per-student costs to enable meaningful comparison between years.

leverages shorter-duration grants, and earned revenue for trainings sponsored by tribes or large employers.

Increasing revenues to meet the growing costs of a new facility will require a multi-pronged approach. Since the new facility will have unused space at various times, the dorms, kitchen, and classrooms can be leased out, potentially producing nearly \$200,000 per year. Taken together with expanding sponsored trainings, modest tuition charges for some classes, and additional grant funding, the organization could realistically attain \$1.5 million in revenues.

Year 10 Revenue Projection

Source	Projected Amount
TVEP	\$ 400,000
BBEDC	250,000
Board Entity Contributions	180,000
Dorm Rental	140,000
Kitchen Rental	12,500
Classroom Rental	6,250
Shop Rental	20,000
Other Grants	155,133
Tribal or Employer Funded Trainings ²	287,501
Tuition	62,935
Total	1,514,319

Table 10: Year 10 Revenue Projection.

² Includes in-kind contributions that offset SAVEC's costs such as funding for airfare or instructors.

II. Project Overview

SAVEC is a rapid response training facility based out of Naknek, Alaska. The center primarily serves the Bristol Bay region, including communities in the Dillingham Census Area, Bristol Bay Borough, and Lake and Peninsula Borough. However, students from other parts of Southwest Alaska and across the state have also participated in SAVEC trainings.

SAVEC was founded in 2002 as a 501(c)3 and is one of 11 regional training centers across Alaska. The center coordinates trainings according to the needs expressed by regional employers and residents, focusing primarily on vocational and technical skills development.

Until 2019 the organization utilized remodeled facilities at the former King Salmon Air Force Station. Following the Air Force terminating SAVEC lease of the facility, the organization has been leasing office space, a workshop, and utilizing community facilities as needed.

Currently, and in the past, SAVEC's has operated as a:

- Training Coordinator: coordinating instructor services, often in response to a direct need from a partner. SAVEC conducts student recruitment and manages logistics.
- Training Facility Rental (historically): In the past, SAVEC rented its training facility out to other organizations to conduct trainings. However, with reduced space, this service no longer functions as part of SAVEC's business model. With an expanded facility operated by SAVEC these activities could resume.

SAVEC's historic course catalogue has included classes focused around:

- Marine trades: welding, refrigeration technicians;
- Hazardous waste certifications;
- Commercial Drivers Licensing and heavy machinery operation;
- Construction trades;
- Emergency services (CPR/First aid/wilderness rescue/confined quarters rescue);
- Traditional crafts.

In addition, SAVEC has partnered with UAF Bristol Bay Campus to provide test proctoring services, hosted computer skills trainings, and facilitates classes around cultural crafts.

To expand SAVEC's curriculum and service offerings, the center requires a dedicated space. Preexisting facilities meeting the size and technical requirements of SAVEC are limited in Naknek and King Salmon—the adjacent community. This brings forward the need to construct a new facility to serve the training needs of the region.

This document explores the logistics and needs of constructing a new training facility for SAVEC, including the cost of operations and revenue streams, a demand assessment, and review of potential regulatory requirements pertaining to the construction and operation of the facility.

III. Statement of Needs

SAVEC’s current class roster includes a mix of technical and classroom style classes, requiring mixed workshop and classroom spaces. Generally, SAVEC’s facility needs fall into four categories which are discussed in more detail below.



Figure 20: Overall site plan for SAVEC facility.
Source: Telos Architectural Consulting.

Dormitory and Dining/Kitchen

Short term housing is limited in Naknek and King Salmon and SAVEC often hosts students from across the region attending trainings, making housing a priority for the organization’s needs. This is accompanied by a commercial kitchen and dining area, both to accommodate students and host trainings.

This facility is proposed as a separate building from the core classroom and training spaces. The dormitory space includes six 2-bed dorms and two 1-bed instructor dorms, accommodating 14 people in total. This space also includes bathroom and bathing facilities.

The dining and kitchen facility would be designed to service the needs of the dormitory residents and provide a teaching facility for food service-related trainings. The facility would include:

- Cold storage, freezer space, and dry storage,
- Instructor demonstration area,
- Student food prep, cooking, and dishwashing area.
- Servery,
- Commons/dining area to accommodate 36 people,
- Common storage area.

Administrative Office Space

The administrative space needs of SAVEC includes five individual offices and a lobby and reception area. SAVEC is currently meeting these space needs through other avenues within the community. The current development plans include developing this space in conjunction with the dormitory/kitchen facilities.

Classrooms

The classroom spaces of the proposed facility need to be flexible to accommodate a wide range of instruction, from traditional gaspeq and fur mitten sewing to computer skills. The proposed facility includes three dedicated classroom spaces:

- Large classroom: 900 square feet designed to accommodate HAZWOPER, Marine refrigeration sea water, and CPR/AED trainings or serve as a computer lab;
- Large classroom: 800 square feet designed to accommodate HAZWOPER, CDL, heavy equipment operation, wilderness first aid, etc.;
- Small classroom: 630 square feet designed to accommodate traditional crafts classes.

Technical Training/Workshop Space

In addition to classroom spaces, SAVEC requires workshop space to facilitate hands-on technical training. This space needs to be versatile enough to accommodate some of the more general, one-off type trainings which may be requested, but also host facilities capable of hosting some of the more specific trainings more relevant for Bristol Bay's workforce, such as welding, Toyostove repair, and boat building.

The proposed space could include:

- A dedicated woodshop with a 12 by 16-foot overhead door.
- Welding shop with a plasma table, cold saw, chop saw, shield grinders, track torches, shear, tool storage, and eight welding bays. The shop also includes space for storing up to a 24 ft skiff including a 20 by 20 ft overhead door.
- Multipurpose shop with a 12 by 16-foot overhead door.
- An auto shop with an engine hoist, outboard motor repair/storage area and tool storage, including a 12 by 16-foot overhead door.

Feasibility Study

- Toyo water heaters and stove training space with alcoves for three water heaters and three stoves.

Land

As of the date of this document SAVEC has not yet identified a lot in King Salmon or Naknek to host its new facility. From preliminary design work, the lot which eventually hosts SAVEC's new facility with need to be at least 3 acres. The site will require utility access, including; water, sewer, and power. Included with development plans are space for parking and storage off of the workshop/classroom facility.

IV. Overview of Development Strategy

Construction of the proposed facility will require a large capital investment. It will likely be easier to finance construction of the facility in phases, which brings the question of prioritization of needs to the forefront. Which components of the facility would support SAVEC’s mission and finances, and which components would meet the immediate needs of the organization?

Two approaches to construction are discussed here. Each has impacts on the type of course offerings SAVEC will be able to conduct and, therefore, the operational costs and revenues of the organization.

The phased construction approach examines construction of the dormitories in the first phase, followed by classroom and workshop construction in the following two phases. While focusing on dormitory construction does not prevent SAVEC from conducting its current course roster, it will require SAVEC to continue leasing its current administrative, classroom, and workshop spaces, and renting space as needed. Additionally, there are courses that SAVEC would like to add to its course offerings but will only be able to so once the later phases of the project are completed. The financial impact of this is discussed later in this document.

Study A – “All-In-One”

This construction option includes the construction of the dormitory, kitchen/dining facility, classrooms, workshops, and administrative space as part of a single package. While the dormitory/kitchen/administrative space and classroom/workshop facilities would remain separate buildings, they would be constructed at the same time.

While the “all-in-one” approach enables SAVEC to transfer operations and course offerings entirely to the new facility immediately, it will require a more capital-intensive investment. This development plan was examined primarily as a point of comparison for the other development approaches.

	All-In-One	Phased Construction
Phase 1	\$ 6,814,068	\$ 7,120,200
Phase 2	8,026,240	10,520,763
Phase 3	6,104,000	10,487,808
Total	21,250,440	28,128,771

*Table 11: All-In-One vs. Phased Construction Cost Comparison.
Source: Telos Architectural Consulting.*

Study B – Phased Construction

A phased construction approach allows SAVEC to spread the investment required for a new facility across three construction packages. While this allows the center to break the investment required for each phase into more reasonable pieces, the phased approach does result in approximately \$7 million in additional capital costs derived from construction cost escalation.

SAVEC would be able to conduct its normal courses at the rented facility it currently operates in while construction of Phase 1 and 2 is underway. After Phase 2 is complete in 2030, SAVEC will be able to move out of their leased space, which will offset substantially the new costs of maintaining the newly

completed facilities. The courses discussed in the table below represent only the courses that would be able to be hosted at the new facility.

Phased Construction Description

Phase	Facilities Constructed	Course Offering Capabilities
Phase 1 Complete 2026	Dormitory, kitchen/dining facility, and administrative space (6,135 square feet)	Cooking and culinary arts
Phase 2 Complete 2030	Two classrooms, multipurpose shop, welding shop, and Toyo repair shop (7,848 square feet)	CPR/AED/First Aid, HAZWOPER 40, HAZWOPER Refresher, Traditional Crafts, CDL, Marine Refrigeration Sea Water, MS Office, QuickBooks, Welding Technology, Wilderness First Aid, Heavy Equipment Operation, Mariner’s Captain Training, Outboard Motor/Repair
Phase 3 Complete 2034	Wood shop, auto shop, outboard motor shop, and one classroom (6,430 square feet)	Carpentry, automotive and outboard motor repair.

Table 12: Phased Construction Description.

V. Legal, Regulatory, and Permitting Needs

Throughout the construction and operation phases of the facility SAVEC will need to adhere to a handful of legal, regulatory, and permitting structures at the local, state, and federal level. Some of the regulatory requirements are not new to SAVEC, having operated as an educational facility for more than two decades. Therefore, this section discusses those requirements which may be new to SAVEC through the construction and operation phases of the proposed facility.

Construction

Occupational Safety and Health Administration Design

Occupational health and safety regulations overseen by the Occupational Safety and Health Administration (OSHA) will impact both the design and operation of SAVEC’s proposed facility. Factors which will regulate design of the facility include ventilation, environmental controls, access standards, etc. Broadly, the sections of code which will impact facility design includes:

Relevant Codes Overview

Code	Relevant Components
1910: General Industry	Applies to employments performed in a workplace in a State, the District of Columbia, and U.S. territories
1915: Occupational Health and Safety Standards for Shipyard Employment	Applies to all ship repairing, shipbuilding and shipbreaking employments and related employments
1926: Health and Safety Regulations for Construction	Applies to the work conditions of contractors or subcontractors employed at a site for construction, alteration, or repair.

Table 13: Relevant Codes Overview.

Building Permitting

The Bristol Bay Borough administers the building and construction code in Naknek and King Salmon. Construction and development of the SAVEC facility will require a site development permit. The permit requires a project description, detailed site overview, utility approvals, and an acknowledgment of applicable State and Federal permits.

In addition, depending on site selection and design factors, construction of the facility may require other permits, such as:

- Sewer Connection Permit;
- Alaska Department of Transportation – Highway Right of Way for Driveways and Approach Roads;
- Conditional Use Application;
- Rezoning Permit Application.

Environmental Review

If SAVEC chooses to pursue federal funding to support the construction of a new facility, it will likely need to conduct an environmental review of the proposed site and assess the impacts of facility operations. The U.S. Economic Development Agency (EDA) is one such entity, providing funding for capital intensive projects which have the potential to grow jobs or provide public benefit. The requirements for the EDA environmental narrative are discussed below and are an example of the variables which SAVEC will need to consider in its environmental review.

Project Description: Including a description of the project beneficiaries, location, proposed construction methods, and schedule.

Historic/Archeological Resources: A review of any known historic/archeological resources within the project site(s) or area of potential effect that are either listed on the National Register of Historic Places or considered to be of local or State significance and perhaps eligible for listing on the National Register.

Affected Environment: A description of the project area, including an analysis of coastal zones; wetlands; floodplains; endangered species; land use and zoning; solid waste management; hazardous or toxic substances; water resources; water supply and distribution systems; wastewater collection and treatment facilities; environmental justice factors; transportation (streets, traffic, and parking); air quality; noise; permits; public notification/controversy; and cumulative project effects.

Mitigation: List of all mitigation measures that would be implemented to minimize impacts to environmental resources from project implementation.

Facility Operations

Occupational Safety and Health Administration Regulations

The same OSHA codes which influence facility design will also have operational impacts for the training facility. Occupational safety standards set out in 29 CFR 1910, 1915, and 1926 all have applicable components influencing hazard mitigation procedures, use of personal protective equipment, tool handling, fire protection, and more.

NCCER Accreditation

The National Center for Construction Education and Research (NCCER) is a national nonprofit organization dedicated to workforce development in the construction industry. NCCER sets standards for credentials and certifications to ensure quality training standards are met. The organization provides training materials, curricula, assessment tools, and other resources for workforce development organizations like SAVEC. NCCER also provides accreditation to training and assessment providers. SAVEC ultimately aspires to obtain Accredited Training Program Status to enhance the value of its offerings.

Accreditation requirements are set forth in NCCER's Accreditation Standards for Training publication. Requirements for accreditation include:

- Use of NCCER curricula, including module tests;
- Instructors meet minimum qualifications and are NCCER certified;

- An NCCER-trained Curriculum Performance Evaluator is designated within the organization to maintain accreditation requirements;
- Maintenance of secure testing facilities;
- An academic honesty (anti-cheating) policy;
- Being subject to an on-site audit process;
- Retention of academic records.

To some extent, NCCER requirements will influence the design of the new facility. Facilities must include:

- A check-in area to check identification and collect personal items during testing;
- Sufficient space for testing devices, such as laptop computers;
- Space for walking between rows of seats in testing space;
- Adequate space and layout for training equipment.

Adequate space for many of the NCCER courses will necessitate a shop space, which is included in the designs for Phase 2. For example, the Construction Technology course requires students to learn wall framing, wiring, and piping for electrical and plumbing systems.

State of Alaska Department of Environmental Conservation Requirements

Management of the proposed kitchen/dining room/dorm facility represents one new line of operations for SAVEC. The State of Alaska Department of Environmental Conservation (DEC) administers statewide requirements in Alaska around food service which SAVEC will likely need to adhere to for kitchen operations.

- Food Establishment Application: Depending on the operational structure of SAVEC's kitchen facility, either a Food Establishment Application or a Temporary Food Service Application will need to be submitted to DEC. This application requires submission of a menu, applicable fees, a Hazard Critical Control Point plan, plans around drinking water, wastewater, solid waste, and other zoning and code requirements. If SAVEC's kitchen operates at the same location no more than two days in any week and over the course of 120 days or less, then a Temporary Food Service permit may be applicable.
- Alaska Food Workers Card: Any staff working with unpackaged food, potentially hazardous food, or food-contact surfaces is considered a food worker and needs a food worker card or be a Certified Food Protection Manager. An establishment is required to employ a certified food protection manager if it serves or prepares unwrapped or unpackaged foods.

VI. Demand Assessment

Assessing demand for SAVEC’s services is slightly different from traditional educational models due to its “on-demand” service model. This allows SAVEC to be more flexible in responding to the workforce needs of the region. However, this also makes the organization sensitive to the larger workforce trends of the region—employers entering or exiting, population decline, changes to job requirements, etc.

Demand for trainings can be grouped into two overarching questions: (1) what types of trainings are needed in the region and (2) how many students need the trainings?

SAVEC has a number of data points to draw from to determine the types of trainings needed in the region. Historical enrollment for SAVEC’s training shows a strong need for its current classes to continue. After the closure of the facility that SAVEC leased and during COVID, enrollment and course offering significantly declined—concurrent with COVID closures. However, the organization saw a sharp increase in enrollment in 2023 across all categories of class type. Of the years with recent enrollment data, 2015 and 2017 saw some of the highest enrollment numbers – serving roughly 330 students. In 2023, the most recent full year for classes, SAVEC had 242 students complete a class.

Total Enrollment in SAVEC Classes, 2017 to 2023

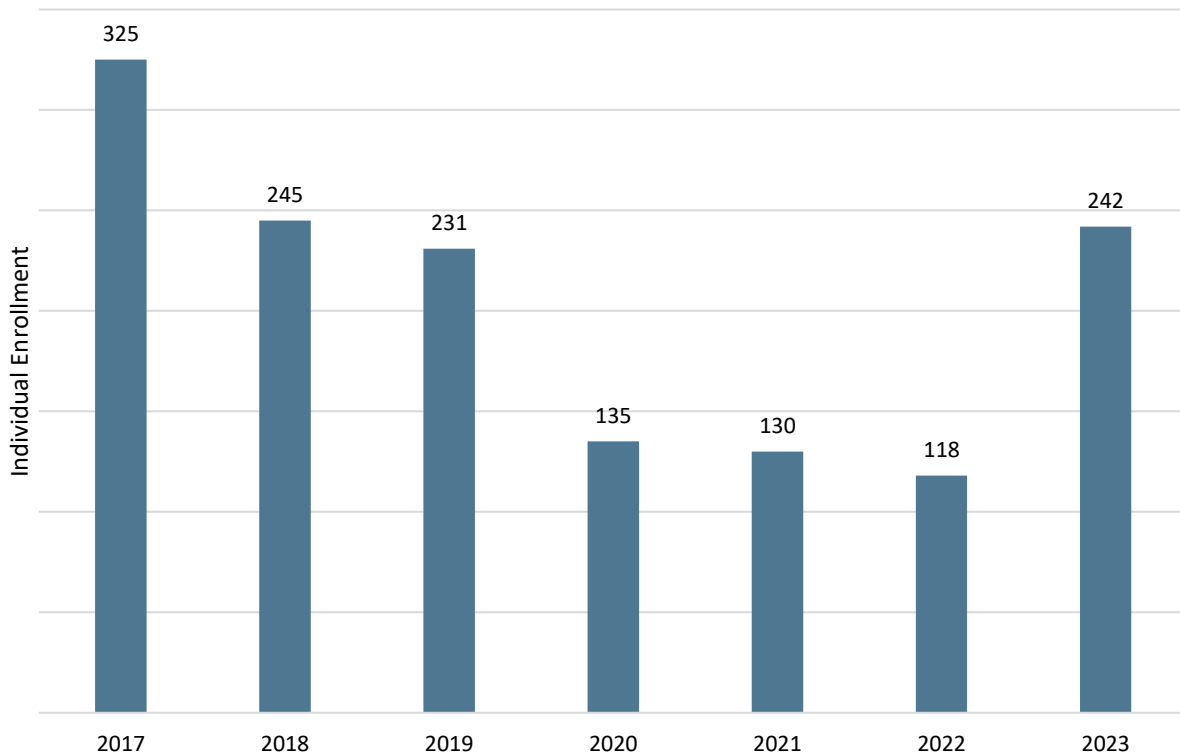


Figure 21: Total Enrollment in SAVEC Classes, 2017 to 2023.
Source: SAVEC.

The types of courses offered by SAVEC tend to vary from year to year. For example, the chart below shows that in 2021 SAVEC did not host any maintenance or construction skills classes, despite those

often being a curriculum priority. Similarly, marine skills courses have decreased in recent years. Some of this is related to the type of space SAVEC currently has access to.

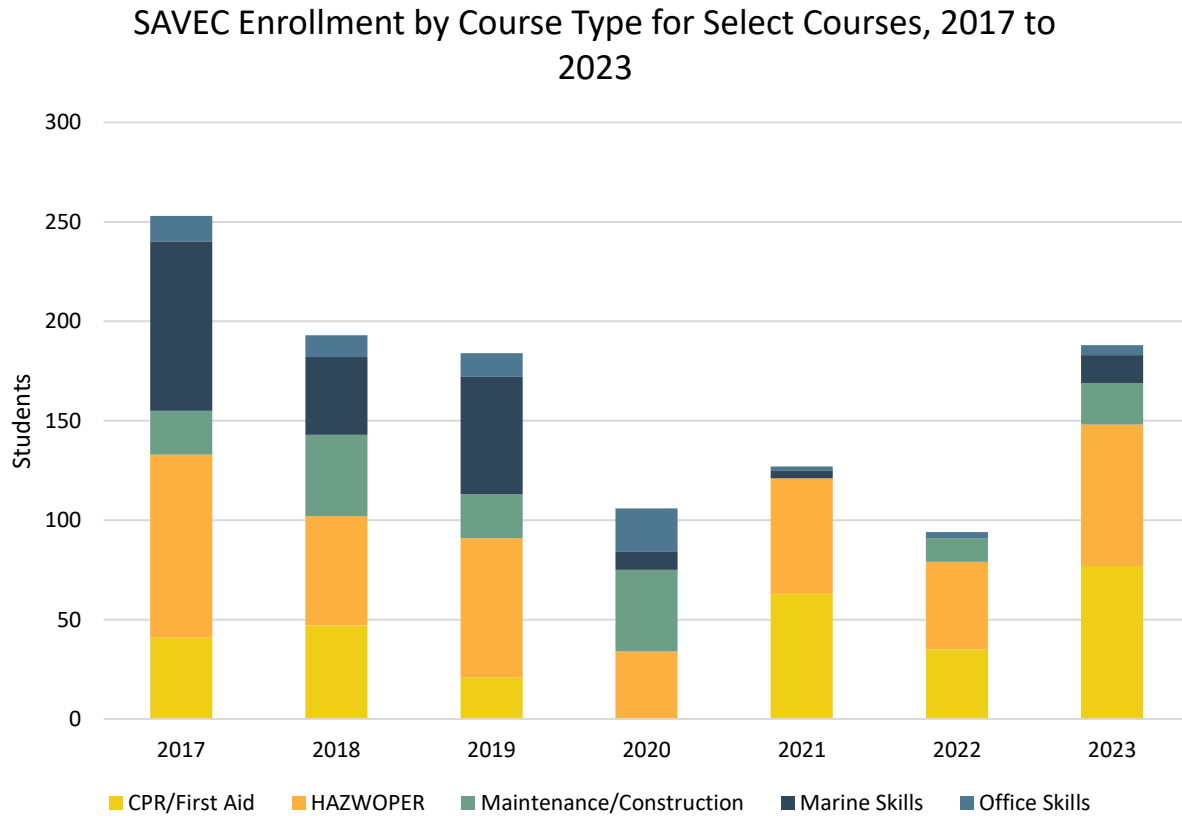


Figure 22: SAVEC Enrollment by Course Type for Select Courses, 2017 to 2023.
Source: SAVEC.

The types of classes that SAVEC facilitates closely correlates to the skills needs of the region outlined in recent workforce analysis conducted by Bristol Bay Native Corporation. Core office skills are in consistent demand as are safety and technical trainings, commercial driving, and marine skills.

Industries	In Demand/Hard to Fill Positions	Skill Sets Needed in Region	Skill Sets Well Represented in Region
Education	<ul style="list-style-type: none"> • Bus Drivers • Business managers • Certified staff • Classified staff • Food service workers • IT professionals • Paraprofessionals • Teachers 	<ul style="list-style-type: none"> • Basic computer/software • Paraprofessional qualifications and certifications • Soft skills (attendance and verbal communication) 	<ul style="list-style-type: none"> • Cultural knowledge, subsistence lifestyle, cooperation, valuing elder knowledge • Trade skills, commercial fishing, construction, work ethic
Industrial Services	<ul style="list-style-type: none"> • Accountants • Apprentice linemen • Customer service representatives • Fuel delivery drivers • School bus drivers 	<ul style="list-style-type: none"> • Basic computer software • Customer service skill sets • Project management 	<ul style="list-style-type: none"> • Administration • Customer service
Municipal Government	<ul style="list-style-type: none"> • Emergency services (ETT, EMT, II/II, Fire) • Certified utility operators • Local police officers • School bus drivers • Skilled trades • Water treatment 	<ul style="list-style-type: none"> • Ability to work independently • Equipment operation skills/certifications • Soft skills/experience with office work 	<ul style="list-style-type: none"> • Labor/trade skills • Office skills
Tribal Government	<ul style="list-style-type: none"> • Accountants • Assistant grant writers • Executive leadership • Grant management • Skilled trades • Social service/ICWA workers • Transportation coordinators 	<ul style="list-style-type: none"> • Basic computer and software • Experience/familiarity with tribal communities 	<ul style="list-style-type: none"> • Carpentry • Commercial fishing skills • Office Skills
Healthcare	<ul style="list-style-type: none"> • Accountants • IT professionals • Nurses • Physicians 	<ul style="list-style-type: none"> • Ability to work independently. • General office skills • Writing 	<ul style="list-style-type: none"> • Customer Service
Tourism & Hospitality	<ul style="list-style-type: none"> • Accountants • Boat operators • Guides • Housekeepers • Pilots • Sous chefs 	<ul style="list-style-type: none"> • Ability to work independently • Area knowledge/guide experience • Customer services skills 	<ul style="list-style-type: none"> • Boating • Mechanical skills
Seafood	<ul style="list-style-type: none"> • Electricians • Refrigeration technicians 	<ul style="list-style-type: none"> • Engineering • Mechanics 	<ul style="list-style-type: none"> • Subsistence skills

Table 14: Employer Perspectives on Bristol Bay Region Workforce Needs.
Source: Information Insights, 2022.

In the same analysis of the region’s workforce challenges, 60% of employers surveyed cited challenges accessing training. The three common challenges to accessing trainings include:

- Industry specific trainings unavailable;
- Out-of-region trainings are too expensive;
- Location of trainings are inconvenient.

This analysis shows a clear role for SAVEC in the workforce development landscape of Bristol Bay, with local, flexible, industry-relevant training services. SAVEC’s model of hosting trainings in partnership with local employers, providing trainings on-site in communities across the region, and being headquartered in Naknek serve to directly address these challenges.

The comparison of skill sets needed versus skill sets well represented in Table 14 shows overlaps, where many skills already exist in the Bristol Bay region while also being in high demand. This indicates that the region is experiencing a workforce supply challenge, with too few people to fill many of the jobs. A trend which will likely continue over the next decade and beyond with projected population declines in the region.

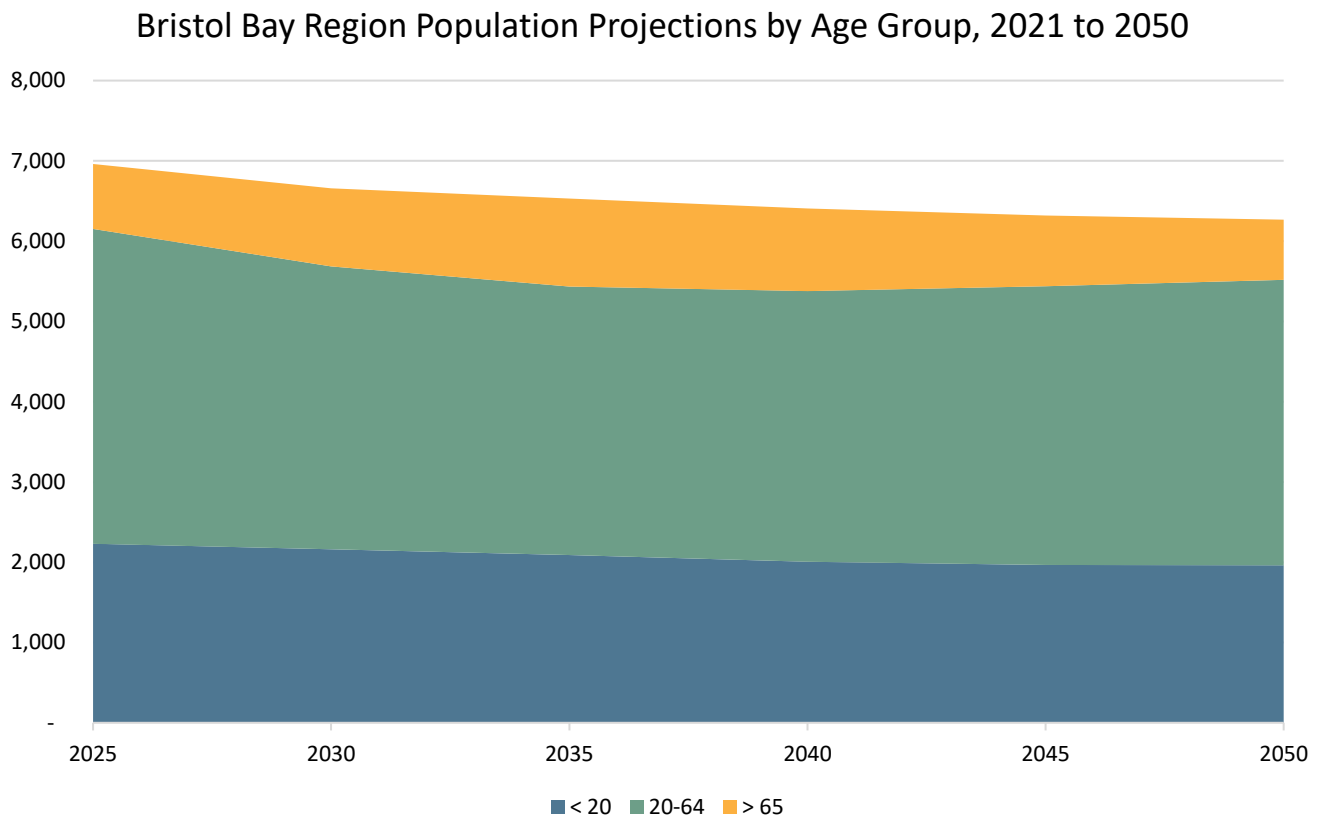


Figure 23: Bristol Bay Region Population Projections by Age Group, 2021 to 2050
Source: Alaska Department of Labor and Workforce Development.

This projected population decline is part of a longer-term trend of net outmigration in the region SAVEC serves.

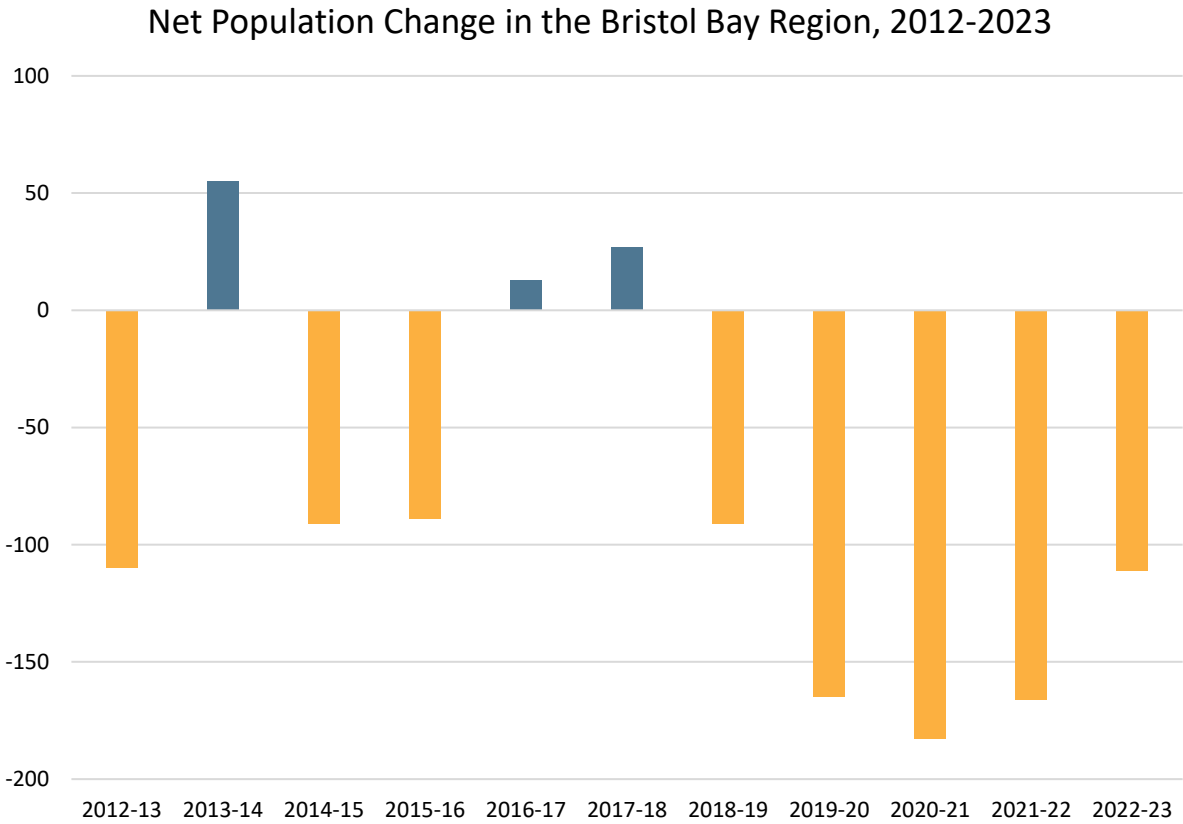


Figure 24: Net Population Change in the Bristol Bay Region, 2012-2023
 Source: Alaska Department of Labor and Workforce Development.

These population trends indicate that, while demand for SAVEC’s classes is likely to remain high due to their flexibility to align trainings with current workforce needs of the region, the population the center serves is expected to continue slowly shrinking.

This should not be viewed as a detractor to the development of SAVEC’s resources, however. In-region training opportunities often serve to stem the tide of outmigration, offering residents more accessible opportunities to receive the training they need to work in jobs in their communities. In contrast to residents leaving the region to pursue employment opportunities or training and potentially not returning.

VII. Financial Analysis

To evaluate the financial impacts of a range of scenarios, UA CED constructed a financial model for SAVEC to project the costs of developing and operating a new facility with expanded course offerings.

Assumptions

Utilities

Fuel Oil

The largest utility by expense is fuel oil for heating the facility. To estimate the costs, we utilized climate data from the National Weather Service for King Salmon/Naknek to determine the number of heating degree-days throughout a typical year. Data from the 2018 Commercial Building Energy Survey, a large national dataset, was used to estimate the number of gallons of fuel needed per 1,000 heating degree-days per 1,000 square feet. Assuming an average of \$5 per gallon of fuel, this yields a baseline cost of \$42,636 in Year 1.

Electricity

Utilizing the Commercial Building Energy Survey, facilities comparable to SAVEC use 16 kWh per square foot in electricity annually. At an estimate \$.58 per kWh in Naknek, this yields a baseline cost of \$23,252 in Year 1.

Water

Water is assumed to cost \$500 per month during Phase 1, increasing by \$150 in Phase 2 and another \$150 in Phase 3. The new facility is likely to use a private well which will be installed during Phase 1 construction. The recurring cost, therefore, is for the electricity to run the well pump and not an actual bill from a water utility.

Internet

According to figures provided by SAVEC, internet costs \$500 per month, or \$6,000 per year.

Snow Removal

Information on the cost of snow removal is limited but is assumed that SAVEC will hire someone to plow their parking lot and access roads during the winter. The cost is projected to be \$25,000.

Other Costs

Janitorial

Janitorial services are assumed to be provided in-house. For a full-time custodian making \$25 per hour with a 30% fringe, this will cost \$65,000 for Year 1.

Insurance

Based on a review of commercial insurance costs and SAVEC's recent expenses, general liability insurance is assumed to cost \$30,000 in Year 1 and will increase by \$2,000 per \$1 million in building value as phased expansion occurs.

Space Rental

SAVEC currently pays \$5,500 dollars per month for its current facility. The organization will need to continue paying rent for classroom and training facilities until Phase 2 begins operations in Year 5. At this point, classrooms and shop space will be available at the new facility and SAVEC can move out of the rented space.

Rented Space Upkeep

For as long as SAVEC rents space for classrooms, it is assumed the organization will pay \$1,000 per month for cleaning, upkeep, and miscellaneous other expenses in the rented space.

Instructional Costs

Food

SAVEC provided an estimate of \$70 per day per student for the cost of food.

Lodging

Although SAVEC plans to build dorms for lodging students traveling to take classes, there will be times when the dorms will be full and other lodging arrangements will need to be made. From past experience, SAVEC pays an average of \$262 per night for lodging in the Naknek/King Salmon area.

Airfare

For students traveling from nearby communities for training, we assumed airfare of \$500 per attendee.

Ground Transportation

Costs for taxis or shuttles, primarily for airport transportation for students traveling from nearby villages, are estimated at \$250 per student regardless of the class duration. In the event that a student can stay in the SAVEC dorms, the cost of their ground transportation will be reduced. These students were estimated to require only \$125 for their ground transportation services.

Instructor Fees

Instructors for classes are typically paid on a per-class basis, with a fee that varies depending on the course. These fees range from \$660 for the HAZWOPER Refresher (virtual) class to as much as \$21,900 for Fiber Optics. On average, the instructor fee is about \$3,660 per course. These estimates were provided by SAVEC. When no information regarding an instructor's fee is available, instructional costs were assumed to be approximately \$1,000 per day for the duration of the course.

Equipment Rentals

Periodically, SAVEC will need heavy equipment or vehicles for training purposes, such as for CDL courses. Although equipment is often loaned to SAVEC free of charge for training purposes, a cost of \$500 per applicable course offering was used.

Other Assumptions

Inflation

The financial model assumes an annual inflation rate of 2.5% across all expense categories. This figure falls between the historical average trend and the numbers seen in recent years.

Phased Construction

The financial model assumes that Phase 1 finished construction and is in operation in Year 0, Phase 2 in Year 4, and Phase 3 in Year 8.

Janitorial and Maintenance Service

It is assumed that SAVEC will hire a facility manager when Phase 1 of the new facility is constructed at an hourly rate of \$25. The number of hours worked by this person depends on the year and the scenario.

Local Attendance Rates

As previously pointed out, not all students who attend SAVEC's courses are from Naknek/King Salmon area. However, those who are local are assumed to need less accommodation and no airfare to attend the course. The rate of local attendance varies depending on scenario.

Primary Scenarios

Scenario 1 – 250 Students

Overview

This scenario can be considered the “business-as-usual” operational situation. The primary variable examined in this scenario is the student count, set at approximately 250 annually. This student headcount assumption is roughly on-par with the number of students served on average by SAVEC in past years. Additionally, this scenario assumes that SAVEC will construct its facility using the phased approach.

Parameters

	Year 1	Year 10
Electric Load Factor	20%	20%
Janitor/Maintenance Hours per Week	24	24
Dorm Use Rate	100%	100%
Percent Local Attendance	50%	50%

Table 15: Scenario 1 Parameters.

Financial Impacts

In this scenario, it is estimated that expenses for SAVEC will start at \$758,000 annually, with administration and instructional costs making up the majority of the expenses. As the phases are completed it is anticipated that SAVEC’s annual expenses will increase concurrent with the addition of the new square footage. This increase is expected to come primarily from additional utilities costs associated with operating the new facility.

In this scenario the cost per student ranges from \$3,105/student in Year 1 of operation to \$3,444/student in Year 10. The per class costs range from \$54,116/class in Year 1 to \$56,947/class in Year 10. This cost escalation can mostly be attributed to added utilities costs throughout the phased construction and inflation.

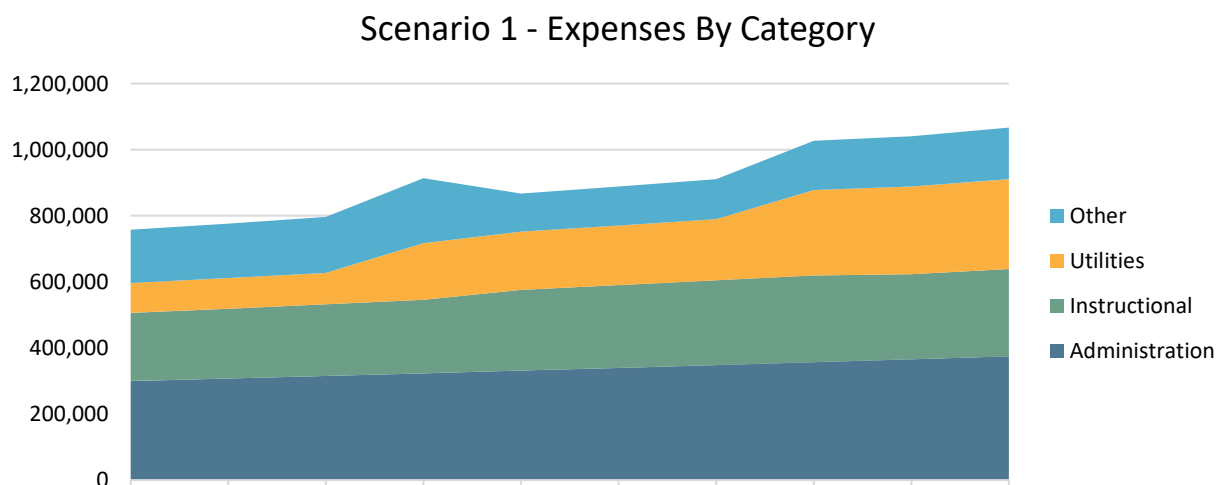


Figure 25: Scenario 1 - Expenses by Category.

Detailed Expense Forecast

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Utilities										
Fuel Oil	\$ 41,758	\$ 42,802	\$ 43,872	\$ 102,494	\$ 105,057	\$ 107,683	\$ 110,375	\$ 165,159	\$ 169,288	\$ 173,520
Electric	11,387	11,671	11,963	27,948	28,647	29,363	30,097	45,035	46,161	47,315
Water	6,000	6,150	6,304	8,400	8,610	8,825	9,046	11,411	11,697	11,989
Internet	6,000	6,150	6,304	6,461	6,623	6,788	6,958	7,132	7,310	7,493
Snow Removal	25,000	25,625	26,266	26,922	27,595	28,285	28,992	29,717	30,460	31,222
Total Utilities	90,145	92,398	94,708	172,226	176,531	180,945	185,468	258,455	264,916	271,539
Other										
Janitorial and Maintenance	39,000	39,975	40,974	41,999	43,049	44,125	45,228	46,359	47,518	48,706
Insurance	44,240	45,346	46,480	70,301	72,059	73,861	75,707	102,533	105,096	107,724
Space Rental	66,000	67,650	69,341	71,075	0	0	0	0	0	0
Rented Space Upkeep	12,000	12,300	12,608	12,923	0	0	0	0	0	0
Total Other	161,240	165,271	169,403	196,298	115,108	117,985	120,935	148,892	152,614	156,430
Instructional										
Student Costs										
Food Costs	76,440	76,440	76,440	76,440	83,160	83,160	83,160	83,160	79,520	79,520
Lodging Costs	0	0	0	0	0	0	0	0	0	0
Airfare Costs	66,000	66,000	66,000	66,000	69,000	69,000	69,000	69,000	67,000	67,000
Ground Transp. Costs	0	0	0	0	0	0	0	0	0	0
Total Student Costs	157,690	161,632	165,673	169,815	185,617	190,258	195,014	199,889	197,406	202,341
Instructor Fees	47,555	48,744	49,962	51,212	57,563	59,002	60,477	61,989	59,084	60,561
Equipment Rentals	1,000	1,025	1,051	1,077	1,104	1,131	1,160	1,189	1,218	1,249
Total Instructional	206,245	211,401	216,686	222,103	244,284	250,391	256,651	263,067	257,708	264,151
Administration	300,000	307,500	315,188	323,067	331,144	339,422	347,908	356,606	365,521	374,659
Total	757,630	776,571	795,985	913,694	867,067	888,743	910,962	1,027,019	1,040,759	1,066,778

Table 16: Scenario 1 Detailed Expense Forecast.

Expense Metrics Summary

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cost Per Student (excl. inflation)	\$ 3,105	\$ 3,105	\$ 3,105	\$ 3,477	\$ 3,068	\$ 3,068	\$ 3,068	\$ 3,375	\$ 3,444	\$ 3,444
Cost per Class (excl. inflation)	\$ 54,116	\$ 54,116	\$ 54,116	\$ 60,604	\$ 52,368	\$ 52,368	\$ 52,368	\$ 57,600	\$ 56,947	\$ 56,947
Students Reached	244	244	244	244	256	256	256	256	248	248
Classes Offered	14	14	14	14	15	15	15	15	15	15

Table 17: Scenario 1 Expense Metrics Summary.

Scenario 2 – 750 Students

Overview

One benefit of the new facility is that SAVEC will have the capacity to expand its program offerings and, therefore, serve more students. This scenario was developed with that expansion in mind, modeling the impact to expenses from expanding its course offerings.

In comparison to Scenario 1 – 250 Students, the additional students and instructional hours translates to higher occupancy at the facility. This means both greater utility usage and more janitorial and maintenance requirements in addition to greater instructional costs.

Parameters

	Year 1	Year 10
Electric Load Factor	40%	40%
Janitor/Maintenance Hours per Week	40	40
Dorm Use Rate	95%	95%
Percent Local Attendance	40%	40%

Table 18: Scenario 2 Parameters.

Financial Impacts

The addition of 500 students annually to SAVEC’s roster nearly doubles its anticipated annual expenses, ranging from \$1.27 million in Year 1 to \$1.75 million in Year 10. Those additional expenses are almost entirely derived from added instructional expenses to serve more students.

Because SAVEC has fixed costs which it is expected to incur independent of how many students it serves, when more students attend classes at the training center the cost per student is driven down. Under the 750-student scenario the estimated cost per student ranges between \$1,684/student in Year 1 and \$1,849/student in Year 10. Similarly, hosting more students ultimately drives down the cost per class—ranging from \$33,960/class in Year 1 to \$36,790/class in Year 10.

Scenario 2 - Expenses By Category

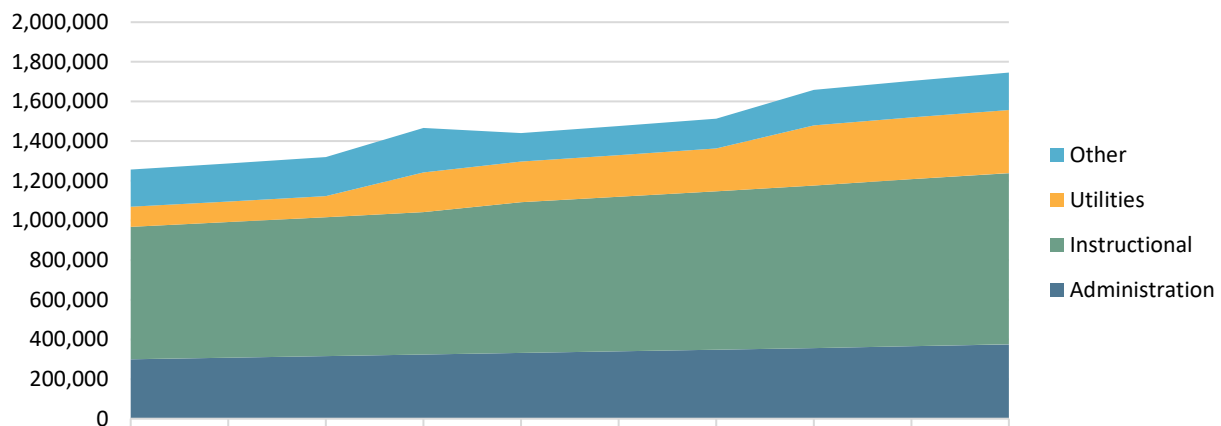


Figure 26: Scenario 2 - Expenses by Category.

Detailed Expense Forecast

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Utilities										
Fuel Oil	\$ 41,758	\$ 42,802	\$ 43,872	\$ 102,494	\$ 105,057	\$ 107,683	\$ 110,375	\$ 165,159	\$ 169,288	\$ 173,520
Electric	22,773	23,342	23,926	55,896	57,293	58,726	60,194	90,070	92,322	94,630
Water	6,000	6,150	6,304	8,400	8,610	8,825	9,046	11,411	11,697	11,989
Internet	6,000	6,150	6,304	6,461	6,623	6,788	6,958	7,132	7,310	7,493
Snow Removal	25,000	25,625	26,266	26,922	27,595	28,285	28,992	29,717	30,460	31,222
Total Utilities	101,531	104,070	106,671	200,174	205,178	210,307	215,565	303,490	311,077	318,854
Other										
Janitorial and Maintenance	65,000	66,625	68,291	69,998	71,748	73,542	75,380	77,265	79,196	81,176
Insurance	44,240	45,346	46,480	70,301	72,059	73,861	75,707	102,533	105,096	107,724
Space Rental	66,000	67,650	69,341	71,075	0	0	0	0	0	0
Rented Space Upkeep	12,000	12,300	12,608	12,923	0	0	0	0	0	0
Total Other	187,240	191,921	196,719	224,297	143,807	147,402	151,087	179,798	184,293	188,900
Instructional										
Student Costs										
Food Costs	224,280	229,887	235,634	241,525	259,308	265,790	272,435	279,246	288,786	296,006
Lodging Costs	25,183	25,813	26,458	27,120	29,117	29,844	30,591	31,355	32,427	33,237
Airfare Costs	235,800	241,695	247,737	253,931	261,604	268,144	274,847	281,719	289,493	296,730
Ground Transp. Costs	58,748	60,216	61,722	63,265	65,194	66,824	68,494	70,207	72,154	73,958
Total Student Costs	544,011	557,611	571,551	585,840	615,222	630,602	646,367	662,527	682,859	699,930
Instructor Fees	122,225	125,281	128,413	131,623	143,676	147,267	150,949	154,723	157,790	161,735
Equipment Rentals	1,500	1,538	1,576	1,615	1,656	1,697	1,740	1,783	1,828	1,873
Total Instructional	667,736	684,429	701,540	719,079	760,553	779,567	799,056	819,033	842,477	863,539
Administration	300,000	307,500	315,188	323,067	331,144	339,422	347,908	356,606	365,521	374,659
Total	1,256,508	1,287,920	1,320,118	1,466,616	1,440,682	1,476,699	1,513,616	1,658,926	1,703,367	1,745,952

Table 19: Scenario 2 Detailed Expense Forecast.

Expense Metrics Summary

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cost Per Student (excl. inflation)	\$ 1,684	\$ 1,684	\$ 1,684	\$ 1,826	\$ 1,740	\$ 1,740	\$ 1,740	\$ 1,861	\$ 1,859	\$ 1,859
Cost per Class (excl. inflation)	\$ 33,960	\$ 33,960	\$ 33,960	\$ 36,808	\$ 34,347	\$ 34,347	\$ 34,347	\$ 36,726	\$ 36,790	\$ 36,790
Students Reached	746	746	746	746	750	750	750	750	752	752
Classes Offered	37	37	37	37	38	38	38	38	38	38

Table 20: Scenario 2 Expense Metrics Summary.

Scenario 3 – Growth

Overview

This scenario was developed to model slow, progressive growth in the number of students SAVEC serves over a ten-year period. Under this scenario it is assumed that SAVEC will serve 244 students in the first year of completing construction of Phase 1, growing by 36 students per year to a total of 580 students in Year 10. This slow scale up translates to a correlated slow growth in utility usage and janitorial/maintenance needs.

Parameters

	Year 1	Year 10
Electric Load Factor	20%	33%
Janitor/Maintenance Hours per Week	26	35
Dorm Use Rate	95%	95%
Percent Local Attendance	50%	50%

Table 21: Scenario 3 Parameters.

Financial Impacts

The growth scenario estimated expenses for operating SAVEC start at roughly \$770,000 in Year 1 and grow to \$1.49 million in Year 10. With instructional costs being one of the primary variable costs associated with operating SAVEC, most of the growth in expenses are correlated to the growth in students and classes, with smaller spikes in costs associated with the added expense of the new facilities coming online in Phases 2 and 3.

The growth in students gradually spreads SAVEC’s fixed costs over a greater number of students and classes, resulting in a lower cost per student over time. It is estimated that SAVEC’s cost per student will be \$3,154/student in Year 1, shrinking to \$2,052/student in Year 10. The cost per class would similarly reduce over time, starting at \$54,971/class in Year 1 and decreasing to \$38,395/class in Year 10.

Scenario 3 - Expenses By Category

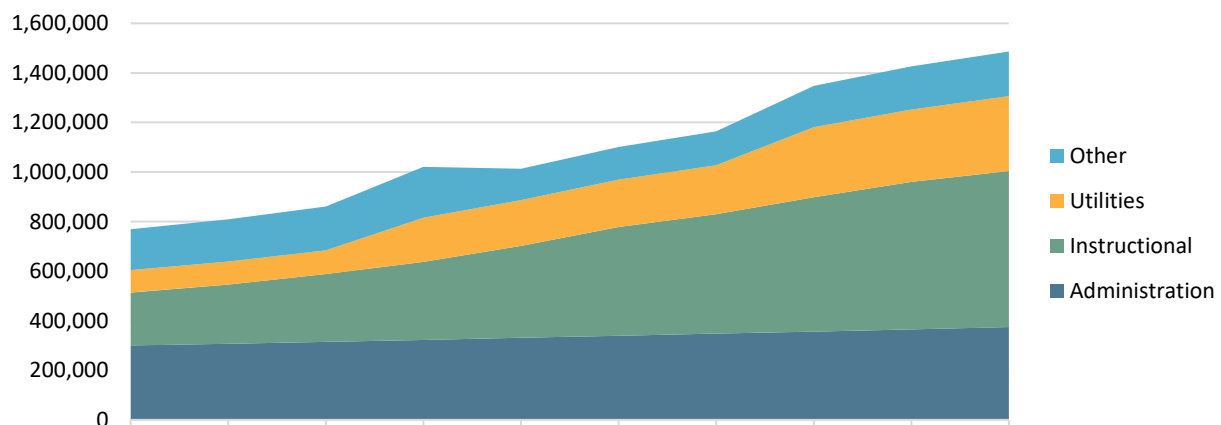


Figure 27: Scenario 3 - Expenses by Category.

Detailed Expense Forecast

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Utilities										
Fuel Oil	\$ 41,758	\$ 42,802	\$ 43,872	\$ 102,494	\$ 105,057	\$ 107,683	\$ 110,375	\$ 165,159	\$ 169,288	\$ 173,520
Electric	11,387	12,406	13,564	33,780	37,105	39,767	42,657	68,439	73,785	78,610
Water	6,000	6,150	6,304	8,400	8,610	8,825	9,046	11,411	11,697	11,989
Internet	6,000	6,150	6,304	6,461	6,623	6,788	6,958	7,132	7,310	7,493
Snow Removal	25,000	25,625	26,266	26,922	27,595	28,285	28,992	29,717	30,460	31,222
Total Utilities	90,145	93,134	96,310	178,057	184,990	191,349	198,028	281,859	292,540	302,834
Other										
Janitorial and Maintenance	43,045	45,539	48,312	51,288	54,670	57,503	60,545	64,730	68,454	71,893
Insurance	44,240	45,346	46,480	70,301	72,059	73,861	75,707	102,533	105,096	107,724
Space Rental	66,000	67,650	69,341	71,075	0	0	0	0	0	0
Rented Space Upkeep	12,000	12,300	12,608	12,923	0	0	0	0	0	0
Total Other	165,286	170,835	176,741	205,587	126,729	131,364	136,252	167,263	173,551	179,617
Instructional										
Student Costs										
Food Costs	76,440	82,943	92,959	103,123	135,217	162,357	179,080	207,521	226,355	235,860
Lodging Costs	7,153	7,761	8,698	9,649	12,652	15,192	16,757	19,418	21,180	22,070
Airfare Costs	66,000	75,850	87,202	99,612	114,245	131,243	143,802	162,850	179,105	193,574
Ground Transp. Costs	16,013	18,565	21,512	24,735	28,540	31,481	34,704	39,628	43,817	47,535
Total Student Costs	165,605	185,119	210,371	237,120	290,655	340,274	374,342	429,417	470,457	499,039
Instructor Fees	47,555	52,075	61,414	75,328	78,916	96,785	105,924	111,187	122,062	128,436
Equipment Rentals	1,000	1,025	1,051	1,615	1,104	1,697	1,740	1,783	1,828	1,873
Total Instructional	214,160	238,220	272,836	314,063	370,674	438,756	482,006	542,387	594,347	629,348
Administration	300,000	307,500	315,188	323,067	331,144	339,422	347,908	356,606	365,521	374,659
Total	769,591	809,689	861,074	1,020,775	1,013,537	1,100,891	1,164,194	1,348,114	1,425,958	1,486,457

Table 22: Scenario 3 Detailed Expense Forecast.

Expense Metrics Summary

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cost Per Student (excl. inflation)	\$ 3,154	\$ 2,862	\$ 2,627	\$ 2,708	\$ 2,330	\$ 2,295	\$ 2,201	\$ 2,233	\$ 2,136	\$ 2,052
Cost per Class (excl. inflation)	\$ 54,971	\$ 49,371	\$ 43,136	\$ 41,213	\$ 41,737	\$ 40,543	\$ 38,611	\$ 43,620	\$ 40,357	\$ 38,395
Students Reached	244	276	312	350	394	424	456	508	548	580
Classes Offered	14	16	19	23	22	24	26	26	29	31

Table 23: Scenario 3 Expense Metrics Summary.

Scenario Comparison and Findings

Overall, six scenarios were reviewed. Each representing a different operational variable. While some of these scenarios—such as ‘Scenario 6-Hibernation’ mostly serve as a comparison point, each shows the impacts to SAVEC of different construction and operational choices.

The scenarios assessed include:

- Scenario 1 – 250 Students: phased construction with 250 students served annually.
- Scenario 2 – 750 Students: phased construction with 750 students served annually.
- Scenario 3 – Growth: phased construction with growth of 36 students annually, from around 250 students in Year 1 to around 750 students in Year 15.
- Scenario 4 – Construct All: construction of the entire facility at once with student headcount matching Scenario 3.
- Scenario 5 – No Dorms: construction of only the classroom, workshop, and administrative facilities, no dormitories.
- Scenario 6 – Hibernation: facility is constructed in phases but not used.

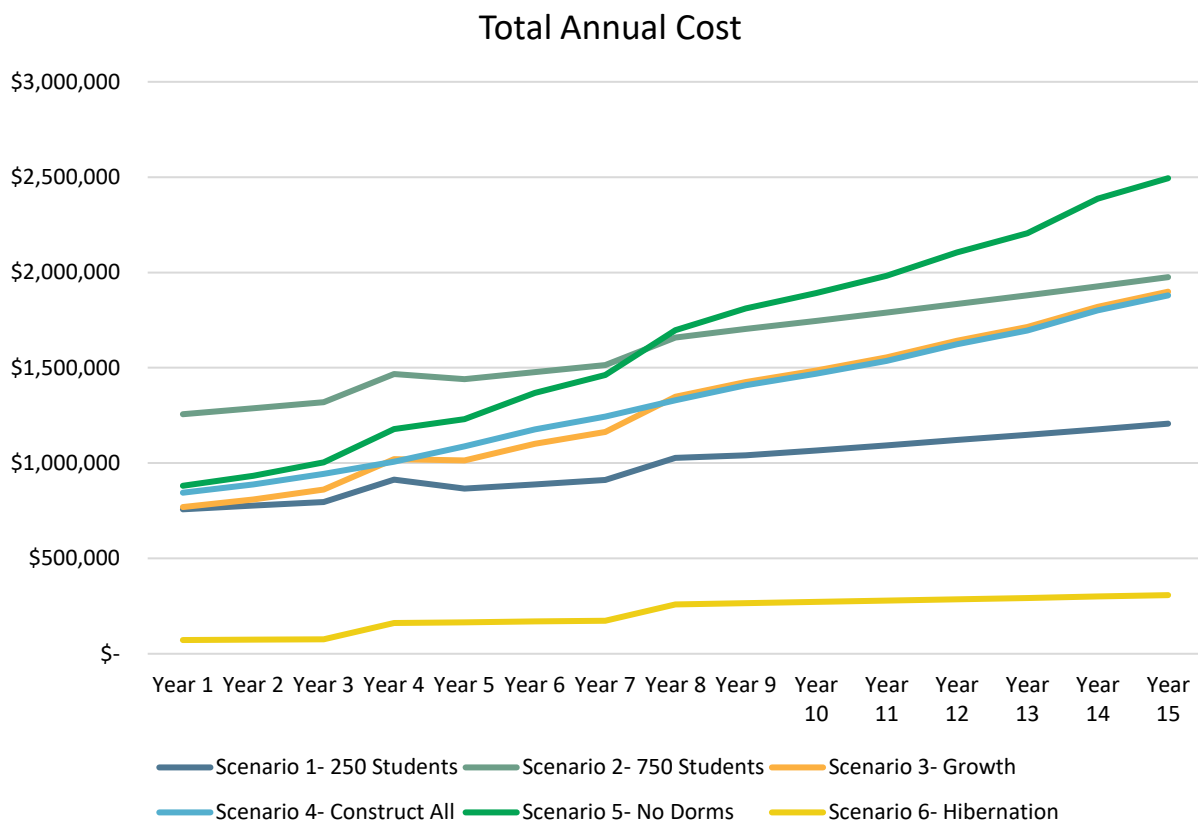


Figure 28: Total Annual Cost - Scenario Comparison.

The most likely operational scenario is ‘Scenario 3 – Growth’ with SAVEC slowly scaling up operations as the new facility is completed. While this does result in expenses slowly increasing annually, the cost per student decreases (without factoring inflation). Outside of ‘Scenario 2 – 750 Students’, the growth

scenario results in the lowest costs per student annually for SAVEC. Gradual growth would also allow SAVEC to marginally scale up revenue streams to meet the slow growth in expenses.

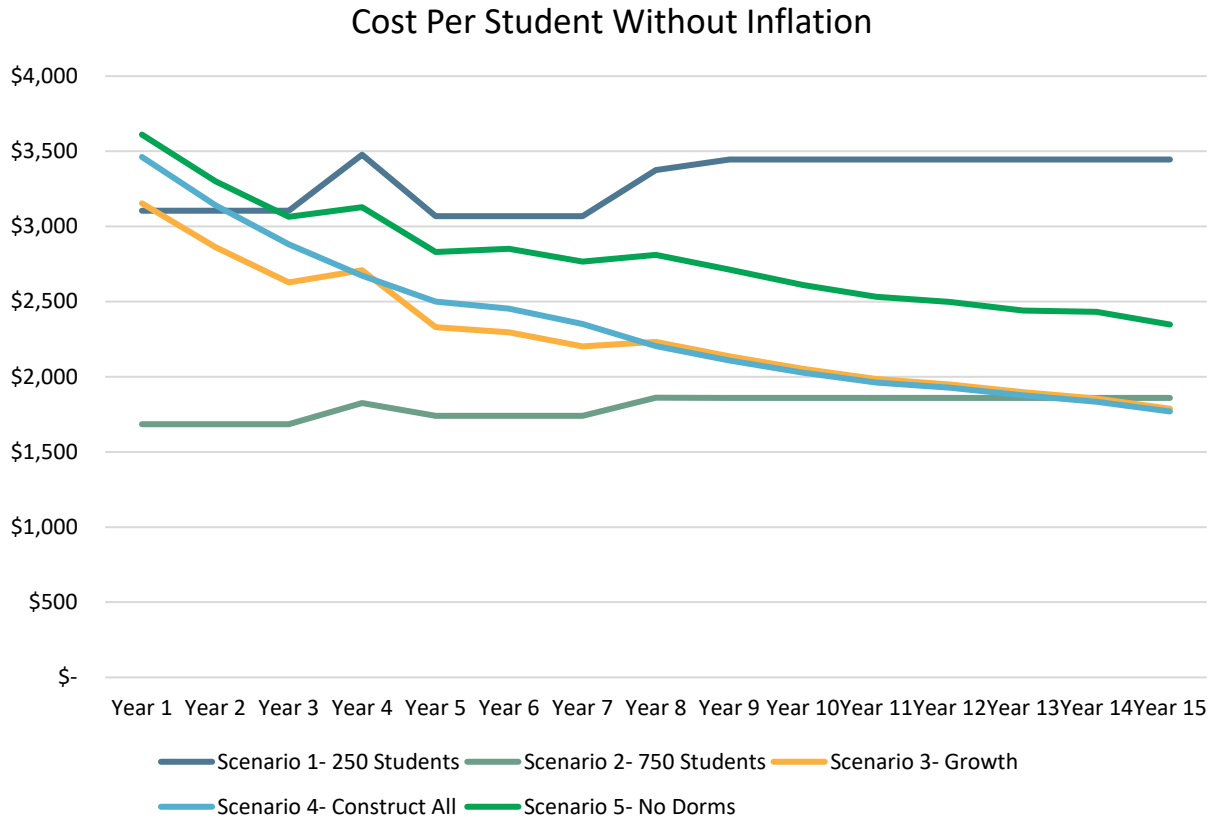


Figure 29: Cost Per Student Without Inflation - Scenario Comparison.

Revenue Considerations

SAVEC's operational funding has historically come from grants and contributions from partner organizations. The organization also receives some tuition and fees for service, but these are limited as many of the students come from low-income families living in rural villages. SAVEC's core purpose is to provide greater opportunities for these individuals, who often have little ability to pay for tuition and other expenses.

As the prior cost analysis shows, a new facility and expanded enrollment will increase the cost of operations. Depending on the scenario, expenses could range between \$1 million and \$1.7 million by Year 10 and require commensurate revenues to sustain the organization. Fortunately, there are several plausible pathways to growing revenues. This section will discuss the major revenue streams, and which ones have potential for growth.

Grants

The largest source of ongoing support for SAVEC is the Alaska Technical Vocational Education Program (TVEP). This is a state program that provides non-competitive grants to support a statewide vocational training system, of which SAVEC is a part. At present, TVEP provides about \$400,000 annually to SAVEC to support the organization's primary functions. Other grants are also available, but less consistent and predictable. These include State Training and Employment Program (STEP) grants, Alaska Construction Academy grants, and the Denali Training Fund. These grants could also contribute hundreds of thousands of dollars annually but require an uncertain competitive process.

Partner Entity Contributions

The eight entities that came together to form SAVEC in 2002 and that retain board seats in the organization also contribute financially. Bristol Bay Economic Development Corporation (BBEDC) contributes \$250,000 annually to SAVEC. Other entities pay between \$10,000 and \$40,000 each year, adding another \$90,000 annually. If partner contributions (other than BBEDC) doubled over several years in support of SAVEC's expansion plan, this could produce \$180,000.

Sponsored Trainings

Large employers such as the National Park Service often pay SAVEC to provide training to their employees. Village councils, which manage federal workforce funds, can also contract with SAVEC to provide training for tribal members. These types of sponsored trainings can bring in \$240,000 in revenue annually in an aggressive growth scenario.

Rental Revenue

SAVEC currently earns some revenues from space rentals and for proctoring exams for the UAF Bristol Bay Campus. With the development of the dormitory, commercial kitchen, and classroom space in the new facility, additional revenue streams become a possibility. Without disrupting training activities, SAVEC could conceivably build up to earning almost \$200,000 per year, primarily from dorm rentals as overnight lodging.

“Growth” Revenue Scenario

Below is a potential revenue scenario illustrating a path to around \$1.5 million in operating revenues by Year 10. This corresponds to the expense levels of the “Growth” cost scenario, which assumes that student enrollments gradually expand to 580 in Year 10, and 750 in Year 15. Under this scenario, we assume that TVEP and BBEDC funds remain flat despite inflation to maintain a conservative outlook, and Phase 3 construction is fully complete. Dorm rentals become an important driver of revenue, bringing in \$140,000 per year. Other grants bring in \$155,133, which is not high by historical standards for SAVEC, but many of these are one-off awards rather than recurring. Tribal and employer funded trainings grow to almost \$290,000, absorbing the high variable costs of expanding enrollments.

Revenue Projection

	Year 10 Revenues	% of Total
Base Funding		
TVEP	\$ 400,000	26%
BBEDC	250,000	17%
Board Entity Contributions	180,000	12%
Total Base Funding	830,000	55%
Rental Revenue		
Dorm Rental	140,000	9%
Kitchen Rental	12,500	1%
Classroom Rental	6,250	0%
Shop Rental	20,000	1%
Total Rental Revenue	178,750	12%
Other Revenue		
Other Grants	155,133	10%
Number of Tribal or Employer Funded Trainings	6	
Tribal or Employer Funded Trainings*	287,501	19%
Tuition	62,935	4%
Total Other Revenue	505,569	33%
Total Revenue	1,514,319	100%

Table 24: Revenue Projection.

Naturally, this is only an exercise to demonstrate one pathway for SAVEC to meet its operating expense needs. Fortunately, the organization has a relatively stable funding base from which to meet the fixed costs of a new facility. Costs increase as student enrollment expands, but the silver lining for SAVEC is that lower-than-expected enrollment also means lower operating costs. For this reason, sponsored trainings by employers or tribal entities are the most fiscally viable path for expansion, since the enrollments are tied to funding that covers the instructional costs.

Business Plan

I. Executive Summary

The Southwest Alaska Vocational and Education Center (SAVEC) provides vocational training and educational opportunities to the residents of Southwest Alaska. As a pivotal institution for workforce development in the region, SAVEC aims to address the economic and workforce challenges faced in the Bristol Bay area by offering comprehensive training programs that allow residents to remain in the region with high-paying jobs. The centerpiece of this business plan is the construction of a new, state-of-the-art training facility, which will be developed over three phases to significantly enhance SAVEC's capacity and impact.

Facility Development Plan

Phase 1 (Completion by 2026)

The first phase will focus on constructing a dormitory, commercial kitchen, and administrative spaces totaling 6,135 square feet. This phase is critical for addressing the current limitations in lodging, which have been a significant bottleneck in expanding SAVEC's enrollment. The new dormitory will accommodate 12 students and provide living quarters for instructors, while the commercial kitchen will support culinary arts training and meal preparation for students. This phase will cost approximately \$7.1 million.

Phase 2 (Completion by 2030)

The second phase will add two classrooms, a multipurpose shop, a welding shop, and a Toyo repair shop, totaling about 7,848 square feet. This phase will enable SAVEC to offer a broader range of courses, including CPR, HAZWOPER certifications, CDL training, welding technology, and more. The estimated cost for this phase is \$10.5 million.

Phase 3 (Completion by 2034)

The final phase will expand the facility by 6,430 square feet, incorporating a wood shop, auto shop, outboard motor repair area, and an additional classroom. This will allow SAVEC to further diversify its training programs into construction and mechanical trades. The projected cost for this phase is \$10.5 million.

Financial Projections

The financial strategy for SAVEC involves a detailed 10-year projection of operating revenues and expenses, alongside a robust capital funding strategy. SAVEC's financial plan is designed to ensure sustainability and support the extensive facility development.

Operating Revenues

SAVEC's revenue streams are projected to grow from its current base funding of \$740,000 annually, which includes substantial contributions from the Alaska Technical Vocational Education Program (TVEP) and the Bristol Bay Economic Development Corporation (BBEDC). Over the 10-year period, additional revenue will be generated through dorm, kitchen, classroom, and shop rentals, as well as increased

grants and tribal or employer-funded trainings. By Year 10, total revenues are expected to reach approximately \$1.5 million annually.

Operating Expenses

Expenses are projected to increase from \$769,591 in Year 1 to \$1.49 million by Year 10. These costs include utilities, janitorial and maintenance services, insurance, instructional costs, and administrative expenses. The phased expansion will lead to step increases in costs as new facilities are brought online, but economies of scale will help manage these increases effectively.

Capital Funding Strategy

The total cost of the new facility is estimated at \$28.1 million, to be raised over several years. SAVEC plans to leverage multiple funding sources, including grants from the US Economic Development Administration (EDA) and the Denali Commission, which can offer matching funds for federal awards. Additional funding will be sought through congressional appropriations, philanthropic support, and local contributions.

II. Statement of Purpose

The Southwest Alaska Vocational and Education Center (SAVEC) is dedicated to promoting, coordinating, and providing high-quality vocational training and educational opportunities to the residents of Southwest Alaska. Founded in 2002, SAVEC operates as a 501(c)(3) nonprofit organization with a mission to foster a healthy, educated, and employed local workforce in the Bristol Bay region and beyond. SAVEC is one of 11 regional training centers across Alaska.

Mission

To promote, coordinate and provide high-quality training and education to residents of Southwest Alaska.

Vision

Committed to building a healthy, educated and employed local regional workforce.

Purpose of SAVEC as an Organization

SAVEC serves as a vital resource for the community by addressing significant economic and educational challenges prevalent in the region. The Bristol Bay region, despite its cultural and natural richness, faces barriers to economic development. These include a shortage of residents trained in high-need, high-paying occupations. Residents often need to travel long distances, incurring substantial financial burdens to access the necessary training for advancing their careers. SAVEC bridges this gap by offering comprehensive vocational training locally, thus retaining talent and financial resources within the community and contributing to the region's economic resilience and growth.

Current Effort: Building a New Facility

SAVEC is embarking on an ambitious project to construct a new state-of-the-art training facility to enhance its capacity to serve the community effectively. For years, SAVEC operated within a 25,000 square foot building at the former King Salmon Air Force Station but had to move when the Air Force slated the building for demolition. SAVEC currently operates in a rented facility that is inadequate for all its training needs.

The new facility will feature administrative spaces, dormitories, classrooms, and workshop space, developed in three phases. It will enable SAVEC to host more classes and serve a greater number of students. The new SAVEC facility is envisioned as a hub for vocational education, offering both hands-on training and distance learning programs tailored to the specific needs of the region's residents. The training programs will focus on key career clusters such as welding, construction, culinary arts, mechanical repair, and numerous other areas, aligning with the workforce needs of local employers. Additionally, the facility will provide space for industry-required recertifications and other essential training programs.

Importance of the New Facility

The new facility will include a dormitory, commercial kitchen, offices, classrooms, and shop space. It will enable SAVEC to overcome the bottleneck of lodging availability and allow for expansion in the

construction, mechanical, and marine trades. Presently, SAVEC faces facility limitations which prevent the organization from having a greater positive impact on the economy of the Bristol Bay region.

The establishment of the new training facility is critical for several reasons:

- **Job Creation:** It will create jobs by producing skilled workers who can contribute to local businesses and keep more jobs local.
- **Economic Development:** By retaining talent and resources within the region, the new facility will foster economic diversification and resilience.
- **Career Advancement:** It will empower individuals within the community to pursue fulfilling careers and achieve economic self-sufficiency, thereby improving the quality of life for residents and reducing poverty.

Support and Partnerships

The project has garnered significant support from regional organizations and stakeholders, including the Bristol Bay Economic Development Corporation, which contributes annual funding to support workforce development initiatives. At the state level, SAVEC receives funding from the Alaska Department of Labor and Workforce Development via the Technical Vocational Education Program (TVEP). Additionally, this business plan and associated feasibility study and architectural design are funded through support from the U.S. Economic Development Administration (EDA).

Economic Distress in the Bristol Bay Region

SAVEC serves the Bristol Bay region of Southwest Alaska, made up of the Bristol Bay Borough, Dillingham Census Area, and Lake and Peninsula Borough. The region is home to the world’s most productive wild salmon fishery as well as an emerging tourism industry. However, Bristol Bay also suffers from economic distress in the form of outmigration, high poverty rates, and low incomes (see table below). Residents often leave in search of job opportunities even as many positions with specific training requirements go unfilled.

Selected social and economic indicators for the Bristol Bay Region.

	Bristol Bay Borough	Dillingham Census Area	Lake and Pen Borough	Alaska
Population (2023)	809	4,565	1,344	736,812
2013-2023 Population Change	-12%	-10%	-20%	-0.1%
Median Household Income (2022)	\$94,167	\$69,412	\$61,607	\$86,370
Poverty Rate (2022)	7.9%	15.9%	15.2%	10.5%
In Labor Force (2022)	63.6%	62.0%	74.3%	66.7%
Unemployment Rate (April 2024)	4.6%	7.2%	7.4%	4.5%
Alaska Native %	41%	81%	78%	21%

Table 25: Selected Social and Economic Indicators For The Bristol Bay Region.

Sources: ACS 5-Year Estimates, 2022, and Alaska Department of Labor and Workforce Development.

It might be tempting to assume that outmigration and low incomes are the result of limited job opportunities but the picture is more complicated. Each year, thousands of nonresidents temporarily

relocate to the Bristol Bay Region for seasonal employment, resulting in total employment being higher than the year-round population. While many of these jobs are relatively low-paying jobs in seafood processing, there are also lucrative employment possibilities in marine services, construction trades, operation of commercial vehicles, and entrepreneurship—most of which some level of specific training or credentialing. This is precisely the gap that SAVEC is designed to fill through its offerings.

SAVEC Service Area Population and Employment

Borough/Census Area	Population	July Employment
Bristol Bay Borough	809	3,683
Dillingham Census Area	4,565	2,858
Lake and Peninsula Borough	1,334	1,275
Total	6,708	7,816

Table 26: SAVEC Service Area Population and Employment in 2023.
 Source: Alaska Department of Labor and Workforce Development.

III. Ownership and Organizational Structure

Organizational Structure

SAVEC was founded in 2002 as a 501(c)3. The organization employs a lean staffing model with two employees: Executive Director Annette Caruso and Administrative Assistant/Custodian Peter Apokedak. Ms. Caruso manages the organization from day-to-day, overseeing staff contractors. She receives oversight from an eight-member Board of Directors made up of representatives from all the major local and regional organizations in Bristol Bay. These include:

- David R. Lax, Bristol Bay Borough
- Robert Clark, Bristol Bay Area Health Corporation
- Rachel Tilden, Bristol Bay Economic Development Corporation
- Patty Heyano, Bristol Bay Native Association
- Christina Salmon, Lake & Peninsula Borough
- Emil Larson, Bristol Bay Housing Authority
- Wanda Wahl, University of Alaska Fairbanks - Bristol Bay Campus
- Kimberly Johnson, Bristol Bay Native Corporation

SAVEC does not employ individual instructors, but instead contracts with qualified instructors to lead trainings. The organization operates using an “on-demand” service model, providing space and coordinating instructors for students to participate in trainings and classes. This enables the organization to minimize costs while remaining responsive to regional training needs.

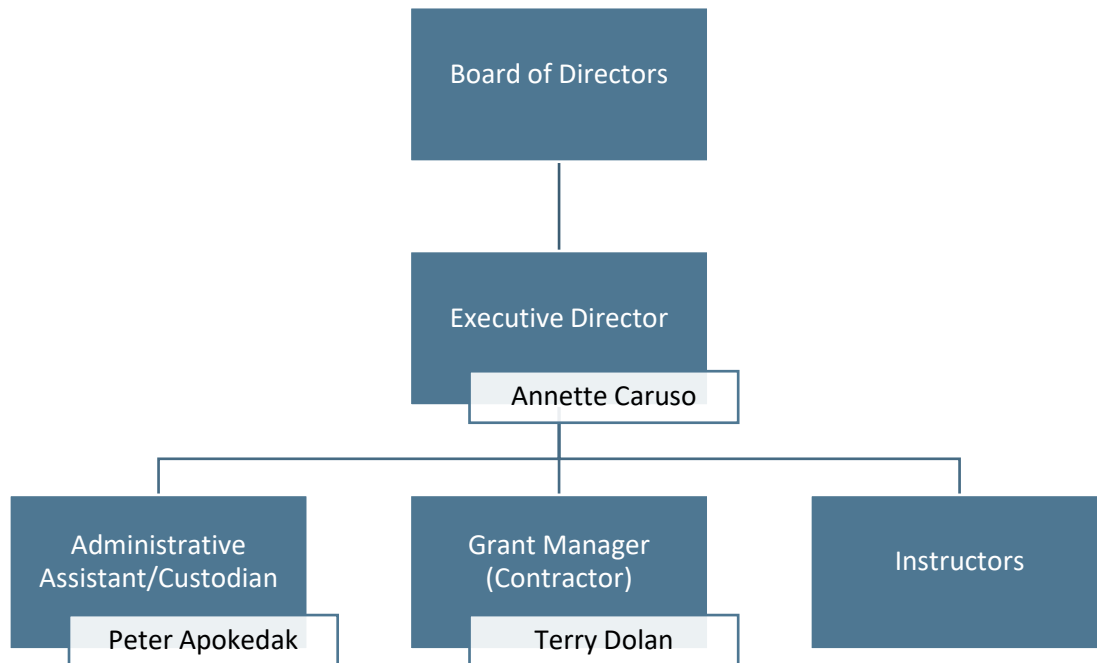


Figure 30: SAVEC Organizational Chart.

Key Personnel

At present, SAVEC only directly employs two people: the Executive Director and Administrative Assistant/Custodian. The key individuals for SAVEC's new facility development are Executive Director Annette Caruso and Grant Manager Terry Dolan. A sketch of their biographies and experience is included below.

Executive Director Annette Caruso

Ms. Caruso holds a Bachelor's degree in Education from the University of Alaska Fairbanks. Annette began her teaching career in Pilot Point and joined SAVEC in 2007, where she has since worked in various capacities, ultimately becoming Co-Executive Director/Director of Instructional Services, and then sole Executive Director.

Ms. Caruso brings a wealth of certifications to her role, including Medic First Aid-authorized Instructor, NCCER Basic Communication Skills Instructor, NCCER Basic Employability Skills Instructor, National Safe Boating Council Instructor, US Coast Guard approved On-Board Drill Instructor, and Alaska Marine Safety Instructor, among others. She also serves as Adjunct Faculty at the University of Alaska Fairbanks, where she teaches courses on sewing fur hats and mittens.

Born in Kakanak and raised in Igiugig, Ms. Caruso has deep roots in the local community. Her upbringing was rich in traditional subsistence activities, such as berry picking, subsistence fishing, and commercial drift fishing, which she continues today alongside her husband. She is passionate about preserving the subsistence way of life, a value deeply ingrained by her Aleut ancestors.

Grant Manager Terry Dolan

Mr. Dolan serves as the Grant Manager (on contract) for SAVEC, where he leverages his extensive expertise in municipal services and project management to secure vital funding for the organization and its expansion plans. He is the Owner and Senior Consultant of Dolan Municipal, LLC, a firm that provides professional services to municipal governments, tribal entities, and non-profit organizations. As a consultant, Mr. Dolan provides wide range of services, including project development and oversight, funding strategy development, permit compliance assistance, infrastructure development, facilities oversight and maintenance, and capital improvement planning.

Before founding Dolan Municipal, Mr. Dolan held the position of Director of Public Works for the Matanuska-Susitna Borough from 2013 to 2022. In this role, he managed significant public infrastructure projects and municipal services, enhancing the Borough's operational efficiency and effectiveness. Prior to his tenure in public works, Terry served as an officer in the United States Army, retiring with the rank of Colonel. His military career endowed him with leadership skills and strategic planning experience, which he has successfully translated into his civilian roles.

Terry holds a Master's degree in Business and Management from Central Michigan University and a Bachelor's degree in Chemistry from Saint John's University. His educational background, combined with his extensive professional experience, positions him as a key asset to SAVEC, driving the center's mission to provide high-quality vocational training and educational opportunities to the residents of Southwest Alaska.

Future Staff Needs

The new facility will dramatically increase the facility footprint for which SAVEC is responsible. This will require the creation of a new Facilities Manager position, to handle the needs of a much larger facility. This individual will need to be on payroll once the new building opens. Their main responsibilities will include:

- Schedule and perform preventive maintenance tasks to prolong the life of building systems and equipment.
- Clean and sanitize restrooms, classrooms, offices, and common areas.
- Ensure all building entrances are secure and that alarm systems are operational.
- Conduct regular safety inspections and report any hazards or necessary repairs.
- Maintain the exterior grounds, including mowing lawns, trimming shrubs, and clearing walkways of snow and debris.
- Assist with the setup and teardown of furniture and equipment for events and training sessions.
- Coordinate with external contractors and vendors for specialized repairs and services as needed.

Facility

Since its founding, SAVEC has operated in borrowed or rented space, and has not owned its own facility. With the advent of the new proposed SAVEC training facility, the organization's largest asset will be the facility itself, with its offices, dorms, classrooms, workshop, and commercial kitchen. The roughly 20,000 square-foot facility would represent a significant asset to the organization in terms of revenue capacity, but also in enabling the organization to grow its capacity to serve the region.

Under the present plans, the facility will be built in three phases (each described later in this business plan) through grants and other funds raised. This arrangement will require SAVEC to secure and manage millions of dollars in capital funds and become the full owner of the building when it is complete.

Partner Organizations

The eight entities represented on SAVEC's Board of Directors represent critical long-term partnerships that reach throughout the region, across the public, private, and tribal sectors. These organizations were instrumental in founding SAVEC, and continue to remain heavily invested in the success of the organization and its mission to increase workforce readiness and promote high-paying local employment. In addition to their governance role, these organizations assist SAVEC by providing or locating sources of funding or identifying training needs. Each of these entities are described below.

Bristol Bay Borough

The Bristol Bay Borough is the county-equivalent local government jurisdiction that encompasses the communities of King Salmon, Naknek, and South Naknek.

Bristol Bay Area Health Corporation

The Bristol Bay Area Health Corporation (BBAHC) offers comprehensive health care services to the Bristol Bay region through its hospital and network of clinics, focusing on the health and well-being of its predominantly Alaska Native population.

Bristol Bay Economic Development Corporation

The Bristol Bay Economic Development Corporation (BBEDC) is a Community Development Quota (CDQ) entity that exists to improve the economic livelihoods of Bristol Bay residents through strategic investments.

Bristol Bay Native Association

The Bristol Bay Native Association (BBNA) is a non-profit tribal entity that provides a wide range of social, economic, and cultural services to the Native communities of Bristol Bay.

Lake and Peninsula Borough

The Lake and Peninsula Borough encompasses a vast area of southwest Alaska, delivering essential public services across its many remote communities.

Bristol Bay Housing Authority

The Bristol Bay Housing Authority builds, manages, and improves housing in the region, with the aim of providing affordable, energy-efficient housing for all residents.

University of Alaska Fairbanks - Bristol Bay Campus

Based in Dillingham, the Bristol Bay Campus offers higher education and vocational training programs tailored to the needs of the local community, fostering academic and professional development.

Bristol Bay Native Corporation

The Bristol Bay Native Corporation (BBNC) is a regional corporation established under the Alaska Native Claims Settlement Act, focused on enhancing the economic and cultural well-being of its shareholders through diverse business ventures and investments.

IV. Services and Offerings

With the construction of the new training facility, SAVEC is exploring a phased approach, constructing the dormitory and administrative spaces first, then the classroom and workshop facilities in the second and third phase. This means that while until the second phase of construction is completed SAVEC will need to continue operations at its current leased facility, allowing it to continue to offer its current roster of trainings. Once the new training spaces are constructed, trainings will shift to the new facility and be able to increase in quantity and types of offerings.

This section outlines SAVEC's current offerings and prioritizes scaling up courses as new facilities become operational. As part of the planning process around designing the phased construction process SAVEC reviewed current and past course offerings and prioritized future offerings. This review is representative of the results of that process.

Current Offerings

Currently, and in the past SAVEC's has operated as a:

- **Training Coordinator:** coordinating instructor services, often in response to a direct need from a partner. SAVEC conducts student recruitment and manages logistics.
- **Training Facility Rental (historically):** In the past, SAVEC rented its training facility out to other organizations to conduct trainings. However, without a dedicated space, this service no longer functions as part of SAVEC's business model. With a dedicated training space operated by SAVEC these activities could resume.
- **Test Proctor:** The UAF Bristol Bay Campus regularly partners with SAVEC to provide test proctoring services.

SAVEC's historic course catalogue has included classes focused around:

- Marine trades such as welding, refrigeration technicians;
- Hazardous waste certifications;
- Commercial Drivers Licensing and heavy machinery operation;
- Construction trades;
- General maintenance and repair;
- Emergency services (CPR/First aid/wilderness rescue/confined quarters rescue);
- Traditional crafts.

In Fiscal Year 2023 SAVEC conducted 31 individual trainings. These classes included:

Class Type	Student Count
Fiber Optics	23
Office Skills	5
Toyostove Maintenance	6
ATV Maintenance	15
HAZWOPER 40 and Refresher	71
First Aid, Wilderness First Aid, CPR	77
Traditional Crafts	19
Commercial Driving Licensing	12
Confined Space Entry and Rescue	14

Table 27: FY23 SAVEC Class Offerings.
Source: SAVEC.

Future Offering Timeline

As previously discussed, the phased construction plan of SAVEC’s facility means that the organizations will only be able to host classes at the new facility following the completion of each phase. Until the completion of Phase 2 SAVEC will need to continue leasing its current space, meaning it will still be able to host trainings in the community. The table below shows the prioritized trainings that SAVEC will be able to host with the completion of each construction phase.

Class	Phase 1	Phase 2	Phase 3
Culinary Arts	Space not capable	Space capable	Space capable
CPR/AED/First Aid	Space not capable	Space capable	Space capable
HAZWOPER 40	Space not capable	Space capable	Space capable
HAZWOPER Refresher	Space not capable	Space capable	Space capable
Traditional Crafts	Space not capable	Space capable	Space capable
CDL	Space not capable	Space capable	Space capable
Marine Refrigeration Sea Water	Space not capable	Space capable	Space capable
Microsoft Office	Space not capable	Space capable	Space capable
QuickBooks	Space not capable	Space capable	Space capable
Welding Technology	Space not capable	Space capable	Space capable
Wilderness First Aid	Space not capable	Space capable	Space capable
Heavy Equipment Operation	Space not capable	Space capable	Space capable
Mariner’s Captain Training	Space not capable	Space capable	Space capable
Outboard Motor Repair	Space not capable	Space capable	Space capable
Construction Technology	Space not capable	Space capable	Space capable

Legend: Space not capable - Space capable

Table 28: Space Capability at New SAVEC Facility by Development Phase.

It should be noted that with the flexible “on-demand” model that SAVEC uses to schedule and host its trainings, the organization will likely host additional trainings outside of the initial list of priorities. In the past, these classes have included:

- ATV Repair;
- Confined Space Entry and Rescue;
- Fiber Optics Installation;
- Toyostove and Water Heater Repair;
- Hazard Analysis Critical Control Point.

V. Market Analysis

SAVEC serves a critical role in addressing the educational and workforce development needs of the Bristol Bay region. This market analysis section delves into the demand for SAVEC's services, and evaluates the competitive landscape, highlighting SAVEC's unique advantages in providing tailored, high-quality training programs that meet the specific requirements of local industries and residents. The accompanying Feasibility Study completed by CED provides additional detail on past course offerings and population dynamics. By understanding these market dynamics, SAVEC can strategically position itself to better serve the community and support regional economic growth.

Demand for Services

The Bristol Bay region faces the paradox of outmigration coexisting with a large seasonal nonresident workforce. Although economically vibrant in many respects, poverty and unemployment are high in much of the region. Gaps in skill and training are part of the reason for this apparent contradiction that SAVEC works to resolve. In 2022, Bristol Bay Native Corporation commissioned a study by consultancy Information Insights to identify the most in-demand and difficult to fill positions in the region, and the skills needed to perform them.³ The results are summarized in the table below. Notably, several of the listed jobs require skill sets covered by SAVEC's offerings.

In the table below, occupations and skill sets addressed by SAVEC's offerings are highlighted in gold.

Industries	In Demand/Hard to Fill Positions	Skill Sets Needed in Region	Skill Sets Well Represented in Region
Education	<ul style="list-style-type: none"> • Bus Drivers • Business managers • Certified staff • Classified staff • Food service workers • IT professionals • Paraprofessionals • Teachers 	<ul style="list-style-type: none"> • Basic computer/software • Paraprofessional qualifications and certifications • Soft skills (attendance and verbal communication) 	<ul style="list-style-type: none"> • Cultural knowledge, subsistence lifestyle, cooperation, valuing elder knowledge • Trade skills, commercial fishing, construction, work ethic
Industrial Services	<ul style="list-style-type: none"> • Accountants • Apprentice linemen • Customer service representatives • Fuel delivery drivers • School bus drivers 	<ul style="list-style-type: none"> • Basic computer software • Customer service skill sets • Project management 	<ul style="list-style-type: none"> • Administration • Customer service

³ [Bristol Bay Workforce Snapshot, Information Insights, 2022.](#)

Industries	In Demand/Hard to Fill Positions	Skill Sets Needed in Region	Skill Sets Well Represented in Region
Municipal Government	<ul style="list-style-type: none"> • Emergency services (ETT, EMT, II/II, Fire) • Certified utility operators • Local police officers • School bus drivers • Skilled trades • Water treatment 	<ul style="list-style-type: none"> • Ability to work independently • Equipment operation skills/certifications • Soft skills/experience with office work 	<ul style="list-style-type: none"> • Labor/trade skills • Office skills
Tribal Government	<ul style="list-style-type: none"> • Accountants • Assistant grant writers • Executive leadership • Grant management • Skilled trades • Social service/ICWA workers • Transportation coordinators 	<ul style="list-style-type: none"> • Basic computer and software • Experience/familiarity with tribal communities 	<ul style="list-style-type: none"> • Carpentry • Commercial fishing skills • Office Skills
Healthcare	<ul style="list-style-type: none"> • Accountants • IT professionals • Nurses • Physicians 	<ul style="list-style-type: none"> • Ability to work independently • General office skills • Writing 	<ul style="list-style-type: none"> • Customer Service
Tourism & Hospitality	<ul style="list-style-type: none"> • Accountants • Boat operators • Guides • Housekeepers • Pilots • Sous chefs 	<ul style="list-style-type: none"> • Ability to work independently • Area knowledge/guide experience • Customer services skills 	<ul style="list-style-type: none"> • Boating • Mechanical skills
Seafood	<ul style="list-style-type: none"> • Electricians • Refrigeration technicians 	<ul style="list-style-type: none"> • Engineering • Mechanics 	<ul style="list-style-type: none"> • Subsistence skills

Table 29: Employer Perspectives on Bristol Bay Region Workforce Needs.
 Source: Information Insights, 2022.

Other Training Providers

SAVEC provides in-demand trainings that would not otherwise be available in the Bristol Bay region. There are other education and training providers, however, both in the region and statewide. These entities have either a different programmatic focus or serve a different geography, and sometimes partner with SAVEC.

In-Region Training Providers

School Districts

The Bristol Bay region is served by four separate school districts. These are the Bristol Bay Borough School District, Dillingham City School District, Lake and Peninsula School District, and Southwest Region School District. The State of Alaska’s Career and Technical Education Plan calls for “an educational model

that aligns secondary and postsecondary education to labor market demand...”⁴ As a joint effort by Alaska Department of Education and Early Development, Department of Labor and Workforce Development, and the University of Alaska, the plan calls for offering significant vocational training at the high school level. While the regional school districts offer classes such as welding and automotive repair, none duplicate the classes SAVEC offers like HAZWOPPER or CDL training.

UAF Bristol Bay Campus

Located in Dillingham, the Bristol Bay Campus provides a mix of academic programs that be completed locally, as well as an opportunity to take prerequisite coursework to transfer to one of the larger University of Alaska campuses. Academic programs offered at the Bristol Bay Campus include:

- Alaska Adult Education Program, allowing students to complete their High School Equivalency (GED)
- Rural Waste Management and Spill Response Occupational Endorsement
- Sustainable Energy Occupational Endorsement
- Nursing Program: prerequisite courses for the AAS in Nursing at the University of Alaska Anchorage
- Access to other courses which are periodically offered in-person, as well as classes and degree programs that can be completed remotely

SAVEC frequently partners with the Bristol Bay Campus to provide test proctoring services or to share instructional resources. The two entities coordinate their offerings so as to avoid duplication.

Statewide Providers

Alaska Vocational and Technical Education Center (AVTEC)

operated by the State of Alaska's Department of Labor and Workforce Development, AVTEC is a vocational training center located in Seward, Alaska. AVTEC offers intensive, hands-on training programs that equip Alaskans with essential employability and technical skills within 90 to 180 days. AVTEC operates on a clock-hour basis, immersing students in up to eight hours of daily practical training. Programs include:

- Business and Office Technology
- Construction Technology
- Culinary Arts
- Diesel/Heavy Equipment Technologies
- Industrial Electricity
- Industrial Machine and Maintenance
- Industrial Welding
- Information Technology
- Plumbing and Heating
- Refrigeration

⁴ <https://www.alaskacteplan.com/>

While AVTEC’s programs may appear to overlap with SAVEC’s offerings, the two are distinct. AVTEC’s programs are more comprehensive and take months to complete. SAVEC on the other hand focuses on classes that take days or weeks at most, for more targeted skill development.

University of Alaska Career and Technical Education

The University of Alaska system, with major academic units in Anchorage, Fairbanks, and Juneau and nearly 20 satellite campuses, is the largest postsecondary education provider in the state. Each of the major academic units has its own career/technical college that provides vocational training, including associate degrees and certificates, with more than 200 academic programs. These span mechanical fields, aviation, computers, medical occupations, construction management, and many others. Since these programs lead to degrees or certificates, they may take two or more years to complete.

Provider	Offerings	Relation to SAVEC
School Districts	General coursework leading to high school diploma, various voc-tech classes like welding	School districts provide more career exploration for students in the K-12 system. SAVEC serves people of all ages (primarily adults) for shorter duration classes.
UAF Bristol Bay Campus	GED, occupational endorsements, pre-requisite coursework	Offerings of both entities are coordinated to avoid duplication. SAVEC does not focus on degrees or certificates, but shorter trainings or credentials needed in certain fields.
AVTEC	10 different programs offering immersive training	AVTEC provides comprehensive training in its academic programs lasting for months. SAVEC focuses on specific high-demand offerings that can be completed in days or weeks by people with or without jobs.
University of Alaska Career and Technical Education	Numerous associate degree and certificate programs	Focuses on degrees and certificates that take years to complete. SAVEC’s offerings are more targeted at immediate employer needs and less time intensive.

Table 30: Other Training Providers.

VI. Facility Development Plan

Presently, SAVEC’s ability to grow its economic impact in the Bristol Bay region is limited by its current leased facility. The organization served its greatest numbers of students when it operated out of the King Salmon Air Force Station prior to 2019, sometimes serving more than 300 students per year. Following the move to the rented facility and the disruptions of the COVID-19 Pandemic, enrollments were lower in 2020, 2021, and 2022 before increasing to about 240 in 2023. While SAVEC and its partners wish to serve an even larger share of the workforce to grow the regional economy, they have essentially reached the capacity of the current facility.

One major limitation concerns lodging. Since many students travel from surrounding communities to attend trainings, they require lodging, which is often covered by SAVEC funds or by the students’ employers. During the summer fishing season, however, lodging in King Salmon and Naknek is prohibitively expensive, or simply unavailable. For this reason, SAVEC is prioritizing construction of a dormitory for the new facility.

Additionally, SAVEC seeks to become accredited by the National Center for Construction Education and Research (NCCER) to be able to offer greater coursework in construction trades, expected to be a major source of employment growth. This would require more indoor shop space for students to learn welding, sheet metal working, and carpentry.

Development Timeline and Milestones

SAVEC’s facility expansion plan calls for three phases of development. The multi-phased approach allows for the most pressing space needs (like dormitory lodging) to be met before all funding resources have been secured. SAVEC engaged Telos Architectural Consulting to produce preliminary designs for the new facility. Telos’ designs call for Phase 1 to include a dormitory, commercial kitchen, and offices. Phase 2 will include two classrooms, a multi-purpose shop, and a welding shop. Phase 3 will consist of a wood shop, auto shop, outboard motor repair area, and an additional classroom. When completed, the facility will be 20,413 square feet.

Phase	Facilities Constructed	Course Offering Capabilities
Phase 1 Complete 2026	Dormitory, kitchen/dining facility, and administrative space (6,135 square feet)	Cooking and culinary arts
Phase 2 Complete 2030	Two classrooms, multipurpose shop, welding shop, and Toyostove repair shop (7,848 square feet)	CPR/AED/First Aid, HAZWOPER 40, HAZWOPER Refresher, Traditional Crafts, CDL, Marine Refrigeration Sea Water, MS Office, QuickBooks, Welding Technology, Wilderness First Aid, Heavy Equipment Operation, Mariner’s Captain Training, Outboard Motor/Repair
Phase 3 Complete 2034	Wood shop, auto shop, outboard motor shop, and one classroom (6,430 square feet)	Carpentry, automotive and outboard motor repair.

Table 31: Development Timeline and Facility Capabilities.

Phase 1

As previously mentioned, SAVEC leadership has identified lodging as the greatest limiting factor to expanding enrollment. Additionally, the organization would like to begin offering culinary arts courses and other offerings that require a commercial kitchen space. The kitchen could also be utilized to prepare meals for students. The phase will also include four offices for administrative staff, as well as for visiting instructors. While the commercial kitchen will be used for instruction, Phase 2 does not include traditional classrooms or a workshop. SAVEC will need to continue renting space for most courses, though not for administrative offices.

At 6,100 square feet, the largest share of the building will be dedicated to the dormitory. Six dorm rooms will each host two beds for students, for a maximum capacity of 12 students. Two single-bed dorm rooms will be available for instructors, who typically are non-residents traveling to deliver a class. A drawing of Phase 1 is shown below.

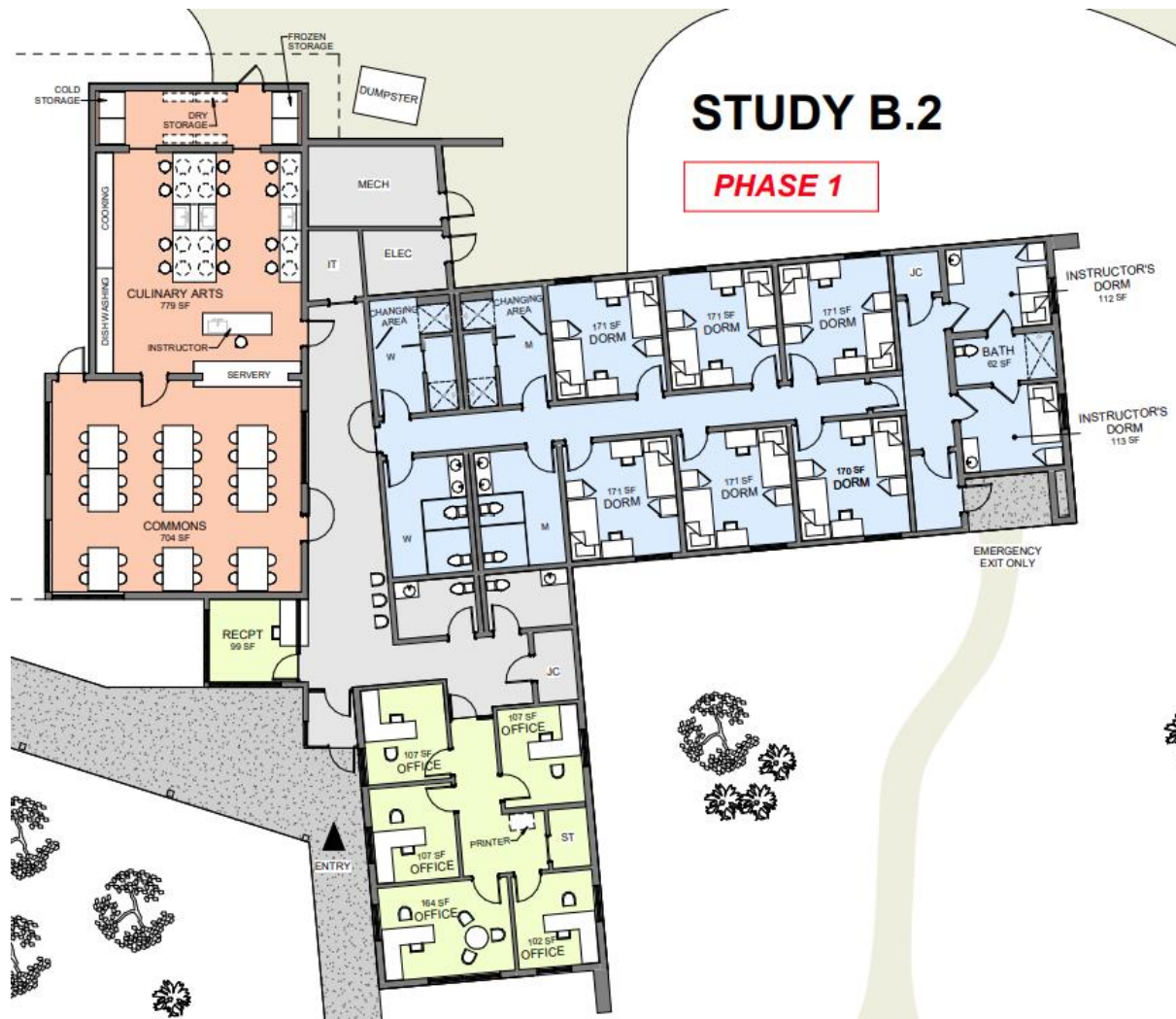


Figure 31: Phase 1 Overhead View.
Source: Telos Architectural Consulting.

Phase 2

With the development of Phase 2—a separate building from Phase 1 connected by a walkway—SAVEC will gain significant shop space and two classrooms. At about 7,800 square feet, this will be the largest phase in terms of both building size and cost. A majority of the space will be shop space, consisting of a multipurpose shop and welding area with dedicated bays, tool storage, and a Toyostove area. Two overhead doors (20'x20' and 12'x16') will allow large equipment and training materials to be moved into the shop space, like vehicles and boats.

A small classroom of 635 square feet will be separated from a large classroom/computer lab of 809 square feet by a removable partition. This creates a flexible space that can be used separately or together as needed, and the two classrooms together can serve a wide variety of course needs.

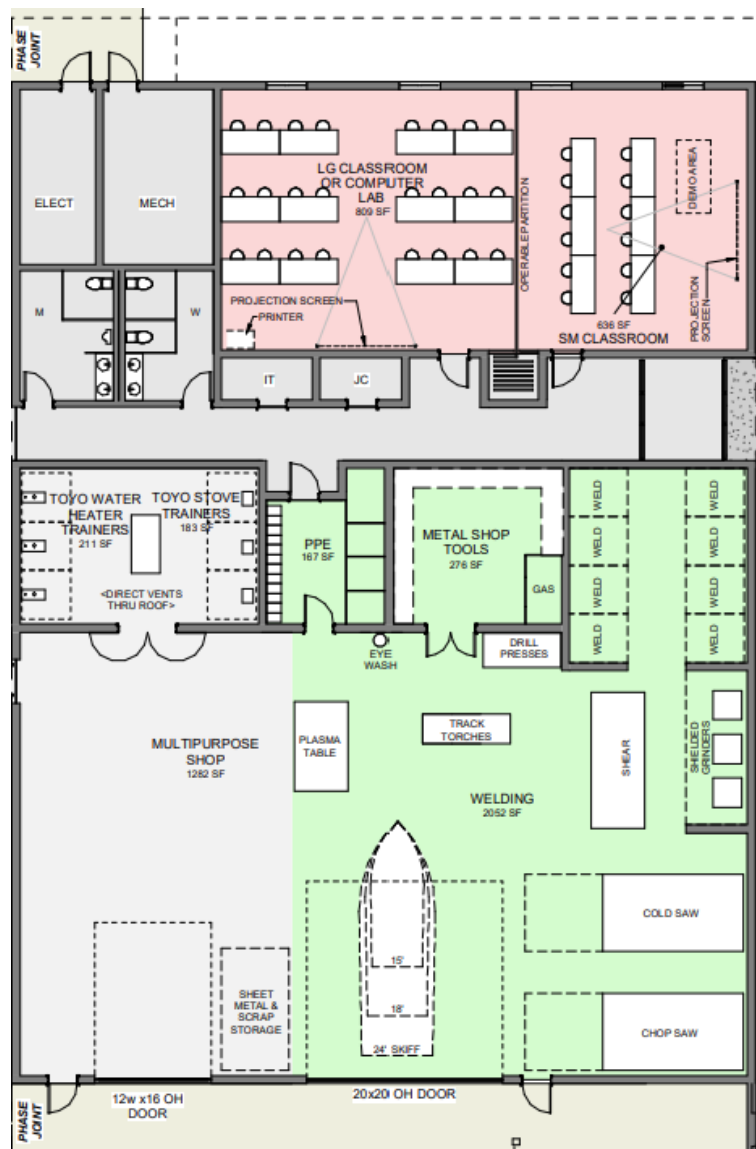


Figure 32: Phase 2 Overhead View.
Source: Telos Architectural Consulting.

Phase 3

Between Phase 1 and 2, SAVEC will have dorms, offices, a kitchen, classrooms, and shop space. The organization will still lack a wood shop for carpentry, and appropriate shop space for automotive and outboard motor repair. Phase 3 will be an addition to Phase 2, extending the structure by about 6,400 square feet. It will add a 1,781 square foot wood shop, an 1,191 square foot auto shop, an 894 square foot classroom, and areas for personal protective equipment, automotive tools, and outboard motors. Two 12'x16' overhead doors will connect the shop space to the outside.

Phase 3 will allow for significant program expansion into the mechanical and construction trades, and make more classroom space available to offer more concurrent classes.

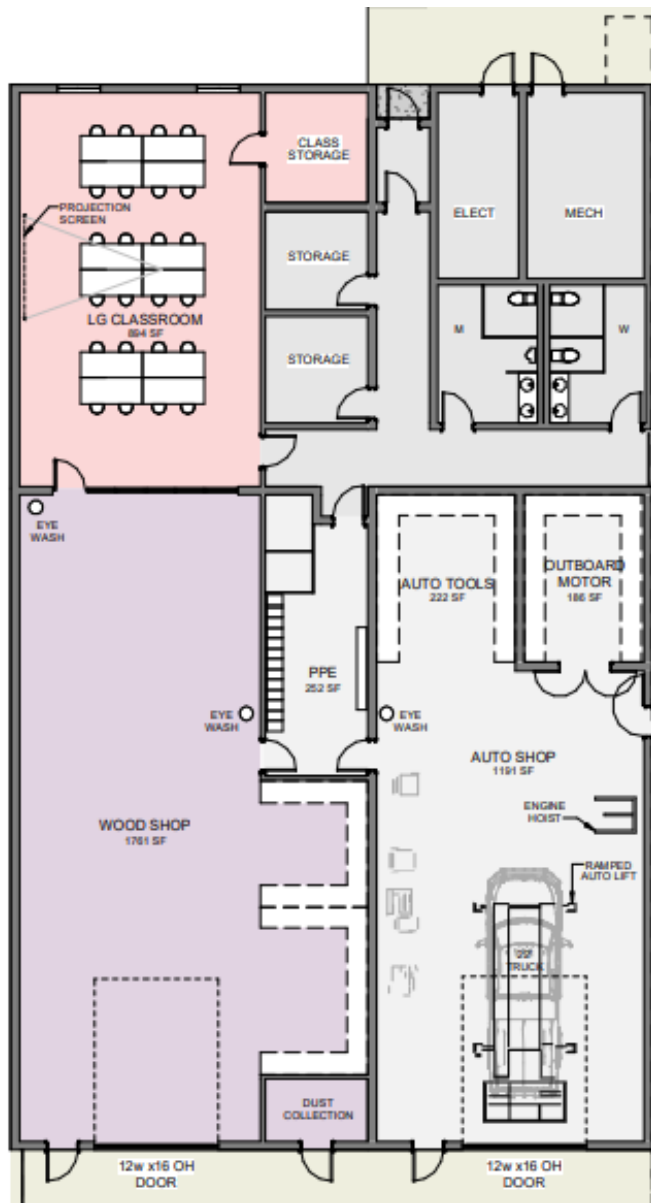


Figure 33: Phase 3 Overhead View.
Source: Telos Architectural Consulting.

VII. Financials

Building and operating a new facility which will ultimately total more than 20,000 square feet is a large undertaking from a financial perspective. This section details SAVEC's 10-year financial projections, including anticipated operating revenues and expenses, as well as capital expenses associated with the development of the new training facility. It also outlines a capital funding strategy aimed at securing the necessary financial resources through diverse revenue streams such as grants, donations, tuition, and partnerships. By implementing sound financial strategies, SAVEC aims to achieve long-term sustainability and ensure the successful realization of its mission to enhance vocational training and educational opportunities for the residents of Southwest Alaska.

Capital Costs

Telos Architectural Consulting provided SAVEC with an opinion of probable construction cost along with the preliminary design for the facility. By their estimates, the total cost of all three phases is \$28,128,772, spread out over eight years. This includes 7% annual cost escalations for phases 2 and 3 to account for future inflation.

Phase	Year	Cost	Cost per Square Foot
1	0	\$7,120,200	\$1,161
2	4	\$10,520,763	\$1,341
3	8	\$10,487,808	\$1,631

Table 32: Phased Costs for The New SAVEC Facility.

Source: Telos Architectural Consulting.

Although phased construction raises overall costs, fundraising for the construction will be easier without the burden of raising more than \$28 million prior to breaking ground. A key assumption of this analysis is that grants and other contributions will be used to finance the construction without the need to take on loans, which would be difficult to repay with the level (and type) of operational funding SAVEC receives.

Operating Revenues and Costs

CED developed an extensive financial model to estimate the operating revenues and costs for SAVEC beginning with the completion of Phase 1 and proceeding through the development of Phase 2 (Year 4) and Phase 3 (Year 8). With each new phase, expenses increase. The model incorporates a detailed understanding of facility and operating costs derived from third-party data and SAVEC's documentation of costs and revenues. For more detail about the assumptions and data used to construct the financial model, see the accompanying feasibility study which explores alternative scenarios.

Revenues

At present, SAVEC has a stable and healthy foundation for operating revenues from an annual TVEP grant (\$400,000), a large contribution from BBEDC (\$250,000), and other board member entities (\$90,000). These three sources total \$740,000 and can be considered "base funding," as foundational revenue sources from which to scale up. SAVEC receives other grants as well, but these are more variable from year to year.

Over the 10-year projection period, SAVEC will need to increase its revenues to meet expenses that grow to over \$1.4 million per year. The revenue table below shows how SAVEC can grow its revenue streams to this level. It makes the conservative assumption that TVEP and BBEDC funds will not increase. Other grants increase slowly up to \$155,000. Space rental for dorms, kitchen, classrooms, and shop space will be a new revenue stream SAVEC can utilize, eventually reaching almost \$180,000 per year.

Tribal and employer-sponsored trainings will become an especially important source of revenue growth, scaling up to almost \$240,000 in Year 10. These trainings are an ideal way to raise revenue since the student enrollments are directly tied to a source of funds to pay for student and instructional costs.

Expenses

SAVEC's cost structure can be broken down broadly into fixed and variable costs. Fixed costs include utilities, maintenance, and administration, which change little regardless of the number of students. They do see notable step increases in Years 4 and 8 as phases 2 and 3 increase the size of the building, however. Variable costs change with student enrollment and include student and instructional costs. As student enrollments increase, the cost of serving each student falls as the fixed costs are spread over a large number of students. This makes growing enrollments cheaper to serve once revenues are sufficient to meet the fixed costs.

Over the 10-year projection period, total operating expenses increase from \$769,591 to \$1,486,457 as the facility is fully built out and enrollments increase from 244 to 580 per year (also assuming annual inflation of 2.5%). This means that although enrollments increase by almost 140%, expenses grow by less than 100%.

10-Year Projection of Operating Revenues

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue										
Base Funding										
TVEP	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
BBEDC	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000	250,000
Board Entity Contributions	90,000	90,000	90,000	90,000	90,000	90,000	90,000	180,000	180,000	180,000
Total Base Funding	740,000	740,000	740,000	740,000	740,000	740,000	740,000	830,000	830,000	830,000
Rental Revenue										
Dorm Rental	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000
Kitchen Rental	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500
Classroom Rental	0	0	0	6,250	6,250	6,250	6,250	6,250	6,250	6,250
Shop Rental	0	0	0	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Total Rental Revenue	152,500	152,500	152,500	178,750	178,750	178,750	178,750	178,750	178,750	178,750
Other Revenue										
Other Grants	100,000	105,000	110,250	115,763	121,551	127,628	134,010	140,710	147,746	155,133
Number of Tribal or Employer Funded Trainings	0	0	0	0	0	1	2	3	5	6
Tribal or Employer Funded Trainings ⁵	0	0	0	0	0	45,870	89,553	155,552	245,855	287,701
Tuition	21,416	23,822	27,284	31,406	37,067	43,876	48,201	54,239	59,435	62,935
Total Other Revenue	121,416	128,822	137,534	147,169	158,618	217,374	271,764	350,500	453,035	505,769
Total Revenue	1,013,916	1,021,322	1,030,034	1,065,919	1,077,368	1,136,124	1,190,514	1,359,250	1,461,785	1,514,519

Figure 34: 10-Year Projection of Operating Revenues.

⁵ Includes in-kind contributions that offset SAVEC's costs such as funding for airfare or instructors.

10-Year Projection of Operating Expenses

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Expenses										
Utilities										
Fuel Oil	\$ 41,758	\$ 42,802	\$ 43,872	\$ 102,494	\$ 105,057	\$ 107,683	\$ 110,375	\$ 165,159	\$ 169,288	\$ 173,520
Electric	11,387	12,406	13,564	33,780	37,105	39,767	42,657	68,439	73,785	78,610
Water	6,000	6,150	6,304	8,400	8,610	8,825	9,046	11,411	11,697	11,989
Internet	6,000	6,150	6,304	6,461	6,623	6,788	6,958	7,132	7,310	7,493
Snow Removal	25,000	25,625	26,266	26,922	27,595	28,285	28,992	29,717	30,460	31,222
Total Utilities	90,145	93,134	96,310	178,057	184,990	191,349	198,028	281,859	292,540	302,834
Other										
Janitorial and Maintenance	43,045	45,539	48,312	51,288	54,670	57,503	60,545	64,730	68,454	71,893
Insurance	44,240	45,346	46,480	70,301	72,059	73,861	75,707	102,533	105,096	107,724
Space Rental	66,000	67,650	69,341	71,075	0	0	0	0	0	0
Rented Space Upkeep	12,000	12,300	12,608	12,923	0	0	0	0	0	0
Total Other	165,286	170,835	176,741	205,587	126,729	131,364	136,252	167,263	173,551	179,617
Instructional										
Student Costs										
Food Costs	76,440	82,943	92,959	103,123	135,217	162,357	179,080	207,521	226,355	235,860
Lodging Costs	7,153	7,761	8,698	9,649	12,652	15,192	16,757	19,418	21,180	22,070
Airfare Costs	66,000	75,850	87,202	99,612	114,245	131,243	143,802	162,850	179,105	193,574
Ground Transp. Costs	16,013	18,565	21,512	24,735	28,540	31,481	34,704	39,628	43,817	47,535
Total Student Costs	165,605	185,119	210,371	237,120	290,655	340,274	374,342	429,417	470,457	499,039
Instructor Fees	47,555	52,075	61,414	75,328	78,916	96,785	105,924	111,187	122,062	128,436
Equipment Rentals	1,000	1,025	1,051	1,615	1,104	1,697	1,740	1,783	1,828	1,873
Total Instructional	214,160	238,220	272,836	314,063	370,674	438,756	482,006	542,387	594,347	629,348
Administration	300,000	307,500	315,188	323,067	331,144	339,422	347,908	356,606	365,521	374,659
Total	769,591	809,689	861,074	1,020,775	1,013,537	1,100,891	1,164,194	1,348,114	1,425,958	1,486,457
Funding Surplus (Gap)	244,325	211,633	168,960	45,144	63,831	35,233	26,319	11,136	35,827	28,062

Figure 35: 10-Year Projection of Operating Expenses.

Capital Funding Strategy

Raising over \$28,000,000 to build all three phases will require significant effort on the part of SAVEC, its board of directors, and partner organizations throughout the Bristol Bay Region. Fortunately, the phased approach gives the organization time to raise smaller amounts over several years, starting with an estimated \$7,120,200 for Phase 1. Most likely, the organization will need to leverage multiple different funding sources to secure enough funding for the facility expansion. Below are potential funding sources SAVEC will consider pursuing.

US Economic Development Administration

The US Economic Development Administration (EDA) is a federal grantmaking agency under the US Department of Commerce dedicated to spurring private investment in distressed areas. The agency provides planning, technical assistance, and capital grants to eligible entities that meet their criteria and can demonstrate that the project will attract private investment and create jobs. SAVEC has successfully attracted EDA grants in the past, including the funding to develop the present business plan.

EDA funds capital projects through its Public Works program, which can offer awards between \$100,000 and \$30 million. In practice, awards under \$5 million are more typical. Public Works grants require a match set by the degree of economic distress in the local area. Economic conditions in Rural Alaska typically allow for the lowest matching rate of 20%.

Denali Commission

The Denali Commission is an independent federal agency focused on developing infrastructure and economic support in Rural Alaska. The agency has historically funded utility, transportation, energy, economic development, resilience, and other projects. Due to its unique legal structure, Denali Commission funds can be used as non-federal match on federal awards. This means SAVEC could potentially use Denali Commission funds to match an EDA award.

Congressional Appropriation

Beginning in federal fiscal year 2022, the US Congress initiated a process for Senators and Representatives to request funds for projects in their districts through a process called Congressionally Directed Spending (CDS). In Alaska, Senator Murkowski's office launched a web portal allowing entities around the state to request funds. Recent successful CDS projects have included critical infrastructure, military, housing, childcare, energy, public safety, and tribal programs. Amounts usually range between \$500,000 and \$5 million, with availability being determined by budget availability and the vagaries of congressional politics.

Philanthropic Support

The Rasmuson Foundation and Alaska Community Foundation are the two largest private philanthropies in Alaska. Rasmuson focuses its efforts on health care and social support, arts and culture, education, and economic empowerment. Alaska Community Foundation manages a large and varied pool of separate funds, each with their own goals and priorities. In most cases, these private philanthropies prefer to invest their funds in projects that have other sources of funding committed but still have a funding gap to fill.

Appendices

VIII. Appendix A: Feasibility Study Alternate Scenarios

Scenario 4 – Construct All Three Phases at Once

This scenario models the impact to SAVEC’s operational expenses of constructing the entire new facility at once. The primary difference in this scenario compared to others is that SAVEC would not bear the duplicative expense of leasing workshop and administrative space while Phase 2 is under construction, and that facility costs would start high rather than increasing in phased steps.

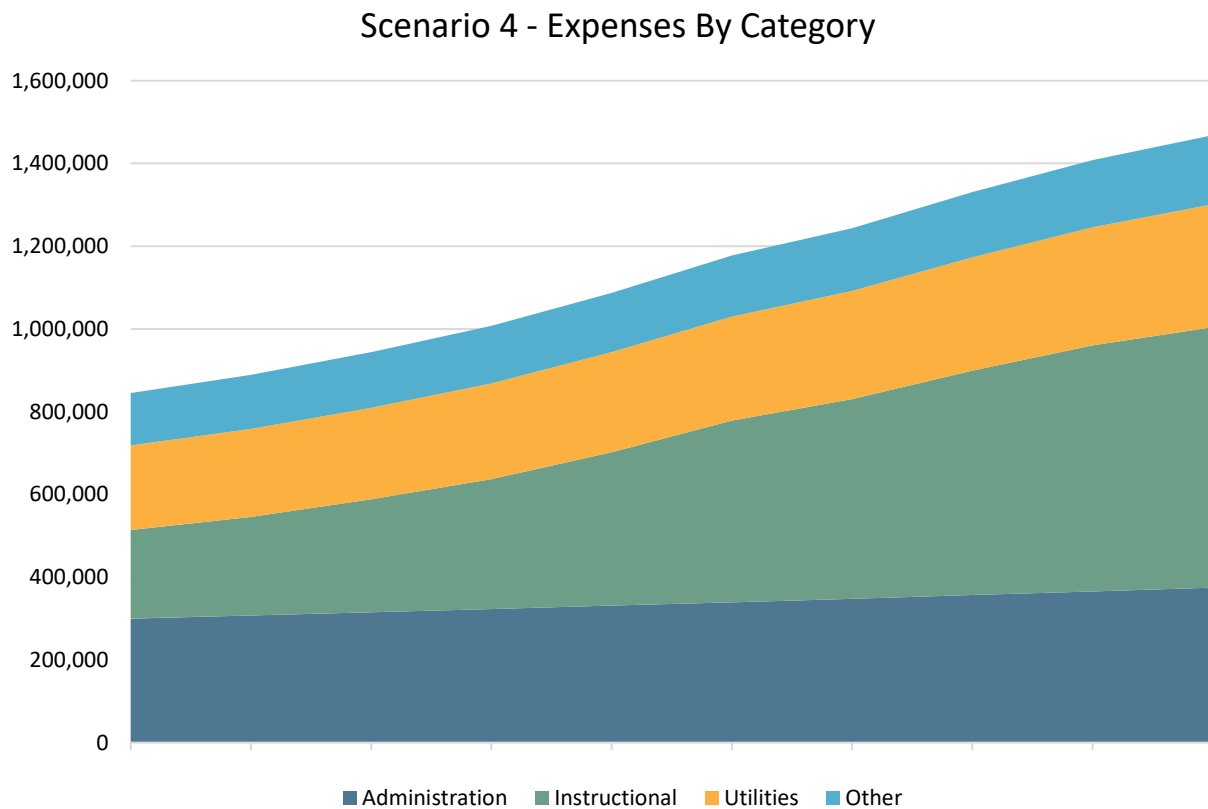


Figure 36: Scenario 4 - Expenses by Category.

Detailed Expense Forecast

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Utilities										
Fuel Oil	\$ 138,942	\$ 142,416	\$ 145,976	\$ 149,626	\$ 153,366	\$ 157,201	\$ 161,131	\$ 165,159	\$ 169,288	\$ 173,520
Electric	24,586	28,506	33,029	37,978	43,822	48,337	53,285	60,845	67,277	72,986
Water	9,600	9,840	10,086	10,338	10,597	10,862	11,133	11,411	11,697	11,989
Internet	6,000	6,150	6,304	6,461	6,623	6,788	6,958	7,132	7,310	7,493
Snow Removal	25,000	25,625	26,266	26,922	27,595	28,285	28,992	29,717	30,460	31,222
Total Utilities	204,128	212,537	221,661	231,326	242,003	251,473	261,499	274,265	286,032	297,210
Other										
Janitorial and Maintenance	54,023	56,082	58,301	60,643	63,209	65,522	67,962	70,997	73,825	76,534
Insurance	72,501	74,313	76,171	78,076	80,027	82,028	84,079	86,181	88,335	90,544
Space Rental	0	0	0	0	0	0	0	0	0	0
Rented Space Upkeep	0	0	0	0	0	0	0	0	0	0
Total Other	126,523	130,395	134,473	138,719	143,236	147,550	152,041	157,178	162,160	167,078
Instructional										
Student Costs										
Food Costs	76,440	82,943	92,959	103,123	135,217	162,357	179,080	207,521	226,355	235,860
Lodging Costs	7,153	7,761	8,698	9,649	12,652	15,192	16,757	19,418	21,180	22,070
Airfare Costs	66,000	75,850	87,202	99,612	114,245	131,243	143,802	162,850	179,105	193,574
Ground Transp. Costs	16,013	18,565	21,512	24,735	28,540	31,481	34,704	39,628	43,817	47,535
Total Student Costs	165,605	185,119	210,371	237,120	290,655	340,274	374,342	429,417	470,457	499,039
Instructor Fees	47,555	52,075	61,414	75,328	78,916	96,785	105,924	111,187	122,062	128,436
Equipment Rentals	1,000	1,025	1,051	1,615	1,104	1,697	1,740	1,783	1,828	1,873
Total Instructional	214,160	238,220	272,836	314,063	370,674	438,756	482,006	542,387	594,347	629,348
Administration	300,000	307,500	315,188	323,067	331,144	339,422	347,908	356,606	365,521	374,659
Total	844,812	888,651	944,157	1,007,175	1,087,057	1,177,202	1,243,454	1,330,435	1,408,061	1,468,294

Table 33: Scenario 4 Detailed Expense Forecast.

Expense Metrics Summary

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cost Per Student (excl. inflation)	\$ 3,462	\$ 3,141	\$ 2,880	\$ 2,672	\$ 2,500	\$ 2,454	\$ 2,351	\$ 2,203	\$ 2,109	\$ 2,027
Cost per Class (excl. inflation)	\$ 60,344	\$ 54,186	\$ 47,298	\$ 40,664	\$ 44,765	\$ 43,353	\$ 41,239	\$ 43,048	\$ 39,850	\$ 37,926
Students Reached	244	276	312	350	394	424	456	508	548	580
Classes Offered	14	16	19	23	22	24	26	26	29	31

Table 34: Scenario 4 Expense Metrics Summary.

Scenario 5 – No Dorms

Dorms were identified as an early primary space need for SAVEC; however, the operational burden of maintaining them will add new expenses to SAVEC’s income statement. On the other hand, having the dorms prevents spending on external lodging for students and allows for greater enrollment growth. This scenario models what those operating expenses would look like without the addition of the dormitory facility.

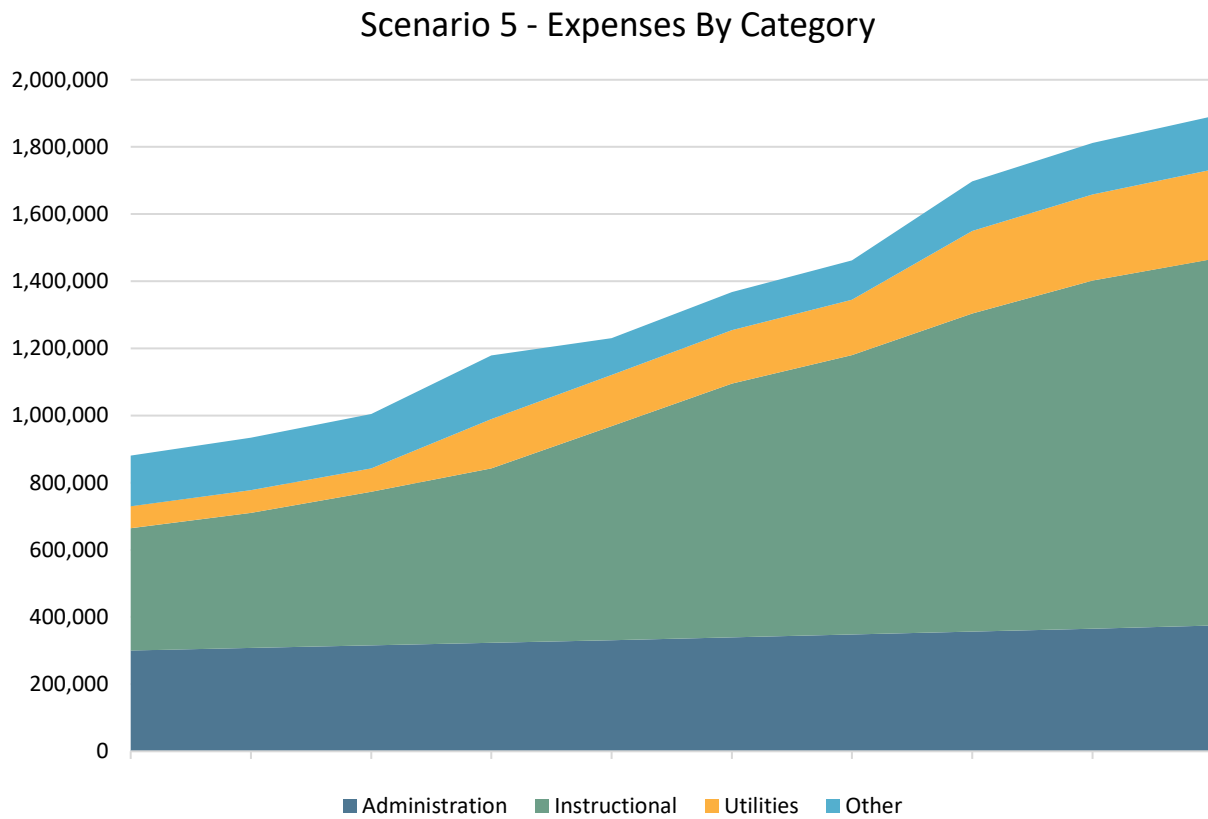


Figure 37: Scenario 5 - Expenses by Category.

Detailed Expense Forecast

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Utilities										
Fuel Oil	\$ 26,444	\$ 27,105	\$ 27,782	\$ 86,002	\$ 88,152	\$ 90,356	\$ 92,615	\$ 146,954	\$ 150,628	\$ 154,394
Electric	4,679	5,425	6,286	21,829	25,188	27,783	30,627	54,139	59,862	64,941
Water	3,000	3,075	3,152	5,169	5,298	5,431	5,567	7,845	8,041	8,242
Internet	6,000	6,150	6,304	6,461	6,623	6,788	6,958	7,132	7,310	7,493
Snow Removal	25,000	25,625	26,266	26,922	27,595	28,285	28,992	29,717	30,460	31,222
Total Utilities	65,123	67,380	69,790	146,384	152,856	158,644	164,759	245,788	256,302	266,293
Other										
Janitorial and Maintenance	34,436	36,431	38,650	41,031	43,736	46,003	48,436	51,784	54,763	57,514
Insurance	39,018	39,993	40,993	64,677	66,294	67,952	69,650	96,325	98,733	101,201
Space Rental	66,000	67,650	69,341	71,075	0	0	0	0	0	0
Rented Space Upkeep	12,000	12,300	12,608	12,923	0	0	0	0	0	0
Total Other	151,454	156,374	161,591	189,705	110,030	113,954	118,086	148,109	153,496	158,716
Instructional										
Student Costs										
Food Costs	76,440	82,943	92,959	103,123	135,217	162,357	179,080	207,521	226,355	235,860
Lodging Costs	143,052	155,222	173,967	192,987	253,049	303,840	335,135	388,360	423,607	441,396
Airfare Costs	66,000	75,850	87,202	99,612	114,245	131,243	143,802	162,850	179,105	193,574
Ground Transp. Costs	30,500	35,363	40,974	47,114	54,363	59,965	66,103	75,482	83,461	90,543
Total Student Costs	315,992	349,377	395,102	442,837	556,874	657,405	724,120	834,213	912,528	961,372
Instructor Fees	47,555	52,075	61,414	75,328	78,916	96,785	105,924	111,187	122,062	128,436
Equipment Rentals	1,000	1,025	1,051	1,615	1,104	1,697	1,740	1,783	1,828	1,873
Total Instructional	364,547	402,478	457,567	519,781	636,893	755,887	831,783	947,183	1,036,417	1,091,681
Administration	300,000	307,500	315,188	323,067	331,144	339,422	347,908	356,606	365,521	374,659
Total	881,124	933,732	1,004,136	1,178,937	1,230,924	1,367,907	1,462,536	1,697,685	1,811,737	1,891,348

Table 35: Scenario 5 Detailed Expense Forecast.

Expense Metrics Summary

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cost Per Student (excl. inflation)	\$ 3,611	\$ 3,301	\$ 3,063	\$ 3,128	\$ 2,830	\$ 2,851	\$ 2,766	\$ 2,811	\$ 2,713	\$ 2,611
Cost per Class (excl. inflation)	\$ 62,937	\$ 56,935	\$ 50,303	\$ 47,598	\$ 50,689	\$ 50,376	\$ 48,505	\$ 54,931	\$ 51,275	\$ 48,853
Students Reached	244	276	312	350	394	424	456	508	548	580
Classes Offered	14	16	19	23	22	24	26	26	29	31

Table 36: Scenario 5 Expense Metrics Summary.

Scenario 6 – Hibernation

While an unlikely scenario, the hibernation scenario models the expenses borne by SAVEC if they do not host any trainings. The purpose of the hibernation scenario is to show the “barebones” costs of maintaining the facility, separate from any administrative or programmatic expenses. Facilities costs will be incurred regardless of the number of students and courses.

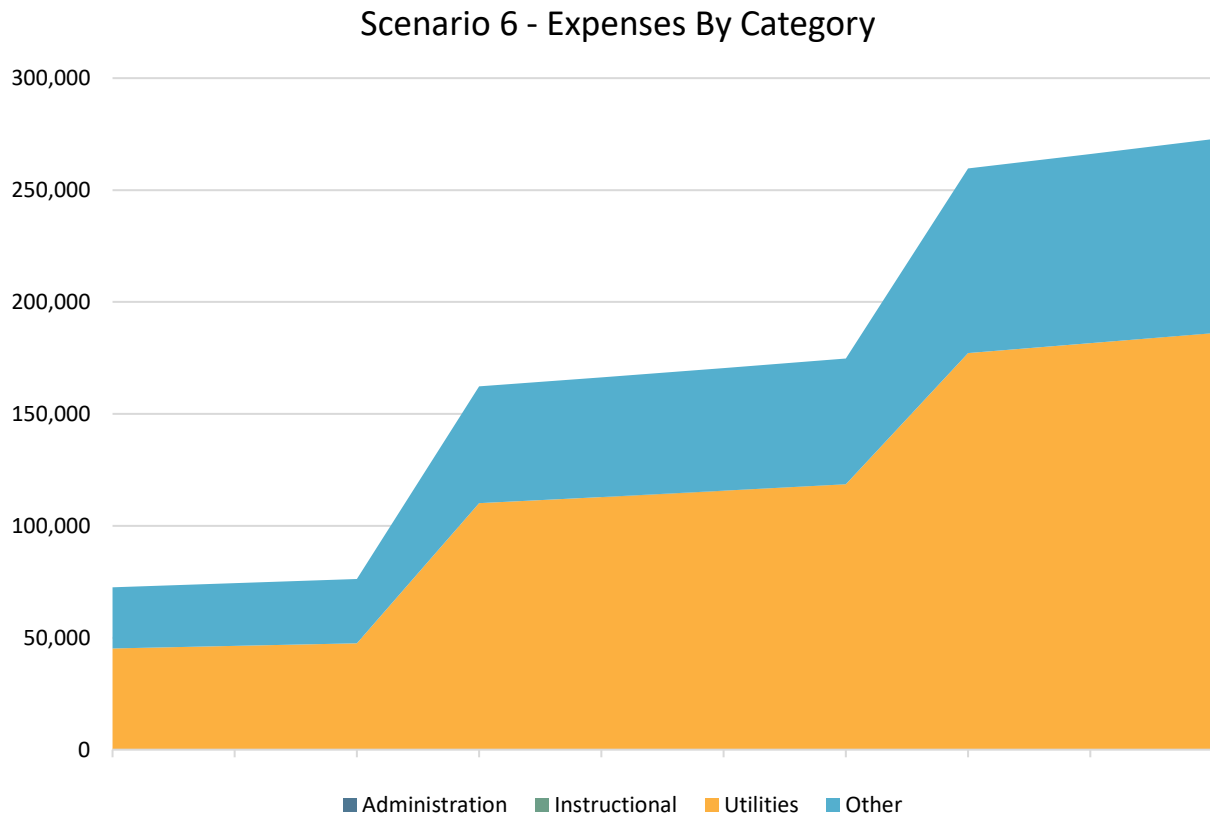


Figure 38: Scenario 6 - Expenses by Category.

Detailed Expense Forecast

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Utilities										
Fuel Oil	\$ 41,758	\$ 42,802	\$ 43,872	\$ 102,494	\$ 105,057	\$ 107,683	\$ 110,375	\$ 165,159	\$ 169,288	\$ 173,520
Electric	2,847	2,918	2,991	6,987	7,162	7,341	7,524	11,259	11,540	11,829
Water	600	615	630	646	662	679	696	713	731	749
Internet	0	0	0	0	0	0	0	0	0	0
Snow Removal	0	0	0	0	0	0	0	0	0	0
Total Utilities	45,205	46,335	47,493	110,128	112,881	115,703	118,595	177,131	181,559	186,098
Other										
Janitorial and Maintenance	8,125	8,328	8,536	8,750	8,968	9,193	9,423	9,658	9,900	10,147
Insurance	19,240	19,721	20,214	43,379	44,464	45,575	46,715	72,816	74,636	76,502
Space Rental	0	0	0	0	0	0	0	0	0	0
Rented Space Upkeep	0	0	0	0	0	0	0	0	0	0
Total Other	27,365	28,050	28,751	52,129	53,432	54,768	56,137	82,474	84,536	86,649
Instructional										
Student Costs										
Food Costs	0	0	0	0	0	0	0	0	0	0
Lodging Costs	0	0	0	0	0	0	0	0	0	0
Airfare Costs	0	0	0	0	0	0	0	0	0	0
Ground Transp. Costs	0	0	0	0	0	0	0	0	0	0
Total Student Costs	0	0	0	0	0	0	0	0	0	0
Instructor Fees	0	0	0	0	0	0	0	0	0	0
Equipment Rentals	0	0	0	0	0	0	0	0	0	0
Total Instructional	0	0	0	0	0	0	0	0	0	0
Administration	0	0	0	0	0	0	0	0	0	0
Total	72,570	74,385	76,244	162,256	166,313	170,471	174,732	259,605	266,095	272,747

Table 37: Scenario 6 Detailed Expense Forecast.

Expense Metrics Summary

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Cost Per Student (excl. inflation)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cost per Class (excl. inflation)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Students Reached	0	0	0	0	0	0	0	0	0	0
Classes Offered	0	0	0	0	0	0	0	0	0	0

Table 38: Scenario 6 Expense Metrics Summary.

IX. Appendix B: Feasibility Study Dorm Analysis

To evaluate the prudence of building the dormitory facility, an analysis of the cost per night each bed is in use was performed. The cost per square foot to build the dorms was assumed to be the same as the cost per square foot for the rest of Phase 1. Based on this assumption, the cost associated with solely the dorm facility is approximately \$2.5 million.

Phase 1 Cost	\$ 7,120,200.00
Total Sq. Ft.	6,135
Estimated Dorm Sq. Ft.	2,250
Projected cost of Dorms Alone	\$ 2,611,320.29

Table 39: Dorm Building Cost Estimate.

The rate of dorm usage and annual attendance are taken from Year 10 of the Scenario 3 to show the effect of the dorms once all phases of the facility construction are completed and SAVEC has grown their operations accordingly. The three-night stay estimate is based on SAVEC’s historical operations and information provided regarding past courses.

Average Attendance Count	611
Rate of Dorm Usage	48%
Average Nights of Stay	3
Total Annual Attendance Nights	871

Table 40: Dorm Usage Estimate.

Capital cost estimates are used here despite the intention of SAVEC to pursue grant funding for the construction of the facility. This is intended to quantify the opportunity cost of using money for dorms as opposed to other parts of the facility. The operations cost figure is derived from Year 10 of Scenario 3.

Discount Rate	5%
Payoff Period (Years)	30
Annual Capital Cost	\$ 169,870.13
Annual Operations Cost	\$ 46,526.47
Average Cost per Attendance Night	\$ 248.54

Table 41: Dorm Cost Detail.

The cost of \$248.54 per person per night produced by the above scenario is comparable to the average cost of securing offsite lodging for students. But importantly, offsite lodging is extremely limited in quantity. Lacking a dorm facility would be a major barrier to SAVEC’s ability to scale up their operations once the new facility is constructed.

The average cost of offsite lodging averages \$262 dollars per person per night according to information provided by SAVEC. In the absence of rental revenue, and considering the calculated capital cost above, the dorm facility offers a lower average cost per person per night than offsite lodging when it is in use for 825 nights per year or more. This represents 16% of the total capacity of the facility. As modeled, this corresponds to 579 individuals (including instructors) attending SAVEC courses each year. However, if grant funding is secured to construct the dorm facility, the fixed cost associated with operating the

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dorms will be extremely low. In this eventuality, usage of only 101 nights per year is required to reach a breakeven point with offsite lodging.

A two-variable analysis considering the breakeven period and the number of nights per year the facility is used was also performed to help understand the sensitivity of the model to these two figures. Because the average cost of offsite lodging is \$262, a number lower than that in the table indicated that the facility breaks even at the corresponding level of usage over the specified time period. This does not take into account the aforementioned rental revenue or grant funding.

		Number of Years to Break Even									
		5	10	15	20	25	30	35	40	45	50
Annual Nights in Use	100	\$ 6,497	\$ 3,847	\$ 2,981	\$ 2,561	\$ 2,318	\$ 2,164	\$ 2,060	\$ 1,987	\$ 1,934	\$ 1,896
	150	4,331	2,565	1,987	1,707	1,545	1,443	1,373	1,325	1,290	1,264
	200	3,248	1,924	1,491	1,280	1,159	1,082	1,030	994	967	948
	250	2,599	1,539	1,192	1,024	927	866	824	795	774	758
	300	2,166	1,282	994	854	773	721	687	662	645	632
	350	1,856	1,099	852	732	662	618	589	568	553	542
	400	1,624	962	745	640	580	541	515	497	484	474
	450	1,444	855	662	569	515	481	458	442	430	421
	500	1,299	769	596	512	464	433	412	397	387	379
	550	1,181	699	542	466	421	393	375	361	352	345
	600	1,083	641	497	427	386	361	343	331	322	316
	650	1,000	592	459	394	357	333	317	306	298	292
	700	928	550	426	366	331	309	294	284	276	271
	750	866	513	397	341	309	289	275	265	258	253
	800	812	481	373	320	290	270	258	248	242	237
	850	764	453	351	301	273	255	242	234	228	223
	900	722	427	331	285	258	240	229	221	215	211
	950	684	405	314	270	244	228	217	209	204	200
	1000	650	385	298	256	232	216	206	199	193	190
	1050	619	366	284	244	221	206	196	189	184	181
1100	591	350	271	233	211	197	187	181	176	172	
1150	565	335	259	223	202	188	179	173	168	165	
1200	541	321	248	213	193	180	172	166	161	158	
1250	520	308	238	205	185	173	165	159	155	152	
1300	500	296	229	197	178	166	158	153	149	146	
1350	481	285	221	190	172	160	153	147	143	140	
1400	464	275	213	183	166	155	147	142	138	135	
1450	448	265	206	177	160	149	142	137	133	131	
1500	433	256	199	171	155	144	137	132	129	126	

Table 42: Two-Variable Dorm Cost Analysis.

X. Appendix C: Feasibility Study Student Headcount Impact Analysis

Using Year 10 of Scenario 3 as a starting point, the number of courses and students was varied from a low of 244 to a high of 752. These correspond to the smallest and largest numbers of students used in the three primary scenarios. This table allows the reader to see how the annual number of students impacts the total operational expenses for SAVEC at the new facility once all three phases are fully implemented.

Students Reached Annually	Food Costs	Lodging Costs	Airfare Costs	Ground Transportation Costs	Total Student Costs	Instructor Fees	Equipment Rentals	Total Instructional Expenses	Total Operational Expenses
244	\$ 95,463	\$ 8,933	\$ 82,425	\$ 19,997	\$206,818	\$ 59,390	\$ 1,249	\$ 267,457	\$ 1,075,136
276	101,058	9,456	92,416	22,620	225,550	63,448	1,249	290,247	1,102,634
312	110,499	10,340	103,656	25,570	250,065	73,002	1,249	324,316	1,141,999
350	119,591	11,190	115,520	28,685	274,986	87,358	1,873	364,217	1,187,491
394	152,986	14,315	129,257	32,291	328,849	89,286	1,249	419,384	1,249,130
424	179,212	16,769	144,868	34,750	375,599	106,833	1,873	484,305	1,318,464
456	192,849	18,045	154,859	37,372	403,126	114,069	1,873	519,068	1,357,935
508	218,026	20,401	171,094	41,634	451,156	116,816	1,873	569,845	1,416,362
548	232,014	21,710	183,583	44,912	482,219	125,114	1,873	609,206	1,461,607
580	235,860	22,070	193,574	47,535	499,039	128,436	1,873	629,348	1,486,457
612	241,805	22,626	203,565	50,157	518,153	134,997	1,873	655,023	1,516,840
642	253,170	23,689	212,931	52,616	542,406	152,100	1,873	696,380	1,562,610
672	261,037	24,426	222,298	55,075	562,835	156,428	1,873	721,136	1,591,780
712	290,760	27,207	234,786	58,353	611,106	159,350	1,873	772,330	1,648,858
752	296,006	27,698	247,275	61,631	632,609	161,735	1,873	796,218	1,678,631

Table 43: Student Headcount Impact Analysis.