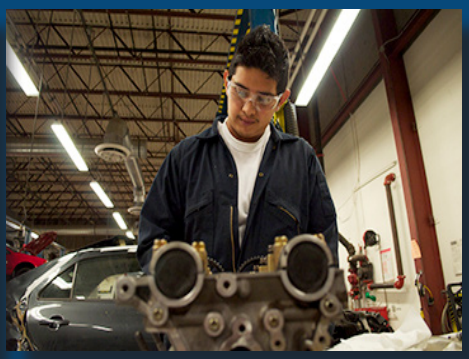
Wenatchee Valley College

Center for Technical Education and Innovation

Capital Project Request Report

2019-2021



WENATCHEE VALLEY COLLEGE

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WENATCHEE VALLEY COLLEGE
PRESIDENT'S OFFICE

12/18/2017

WACTC Capital Budget Committee
c/o Wayne Doty
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PO Box 42495
Olympia, WA 98504-2495

RE: Major Capital Budget Request
Wenatchee Valley College

Dear Committee Members:

I am pleased to submit Wenatchee Valley College's proposal for the Center for Technical Education and Innovation (CTEI) for your consideration. The proposed project will transform one of the oldest campuses in the CTC System by replacing three outdated workforce education buildings and place their programs under one roof in the CTEI facility. By bringing these programs together, WVC looks to foster collaboration amongst our students and faculty.

The current facilities house a multitude of programs from Agriculture and Refrigeration to Engineering Technology and Computer Science. While our service district has seen tremendous growth in these disciplines, almost 60% of our regional employers are finding it difficult to hire qualified applicants according to a recent report by Our Valley, Our Future in 2017. Closing this skills gap is exceedingly challenging in light of the condition of our existing workforce facilities.

Unfortunately, the current structures are obsolete, underpowered, and ineffective in preparing the workforce of tomorrow. In addition, the buildings lack the necessary adaptability, integration and accessibility that are critical features as we look to close equity gaps and provide effective pathways to higher education attainment.

The CTEI building will be a key resource as WVC looks to continue its rich tradition of providing excellent higher education and training opportunities for the residence of Chelan, Douglas, and Okanogan counties as well as directly addressing our mission fulfilment goals.

Regards,

Jim Richardson Ph.D.
President

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1.0 EXECUTIVE SUMMARY

1.1 PROBLEM STATEMENT/TYPE OF PROJECT REQUEST

Wenatchee Valley College (WVC) provides transfer and workforce educational opportunities to the largest service district in the state, spanning over 10,000 square miles. Because the majority of the district is rural and remote, innovative educational delivery is essential to meet the growing demand for skilled and knowledgeable workers throughout the region**. Unfortunately, the condition of WVC's technical education facilities is negatively impacting the College's ability to serve their district. The facilities are unsafe, deficient for modern education, silo the programs, don't offer space for the integration of industry and community, and do not provide program pride. The facilities have lived past their useful life and cannot be cost-effectively renovated or added on to.**

The facilities housing WVC's technical education programs, Batjer Hall, Refrigeration Technology, and Industrial Technology, are running at full capacity. The limited space and crowded conditions hinder program safety, relevancy, growth, and student success. Space is so restricted that when new equipment is purchased, existing equipment must be removed. This is often the only option for instructors, despite still requiring the old equipment for desperately needed hands-on training. This is also true for electrical needs. Equipment must often be unplugged due to lack of available electricity in the labs. In addition to size and infrastructure restraints, the current conditions have created a deficient learning environment. Instructors do not have access to the technology, space, or equipment needed to deliver high-quality instruction.

Rapid advancements in technology and process applications have pushed industry employers to require higher skill competencies. In response, educators must receive ongoing input from industry to ensure relevant curriculum. Solidifying meaningful partnerships with surrounding industry is paramount to students graduating with in-demand skill sets and finding relevant careers post-graduation. There is currently no space available to accomplish this, limiting student success.

The three facilities separate programs from one another and from campus life, preventing students from acquiring the vital skills of teamwork and problem-solving. Additionally, rapidly advancing technology is blurring the lines between disciplines. Graduates need to be equipped with high-tech skill sets in more than one field, as well as strong mathematical, science, and communication skills. There is tremendous synergy to be gained by housing the programs within one facility. A great example is the advancements that are occurring in Automotive Technology. Employers within the growing field of hybrid, electric, and autonomous vehicles require employees with strong skill sets in automotive technology, as well as electronics, refrigeration, and welding.

Unfortunately, the current facilities are unwelcoming and do nothing to showcase the programs or attract potential students. A recent facility master plan survey showed that 62% of transfer and workforce education students think that Batjer, Refrigeration Technology and Industrial Technology need to be replaced. The facilities perpetuate the stigma that technical education is dirty, unrewarding, and for someone else. A new facility is vital for instilling pride, recruiting new students, and for the economic development of WVC's service district and the state.

Type of Request

This proposal is for the replacement of Batjer Hall, Refrigeration Technology, and Industrial Technology. Additionally, the College is requesting 16,284 square feet of growth to overcome spatial deficiencies and allow for anticipated growth.

Moreover, the College requests funding to upsize the chilled water system to maintain service to three other buildings on campus, including Wells Hall, Brown Library, and the Music and Art Center, 43% of the existing campus. The current chilled water system is 16 years into a 30-year life-cycle. When the new facility is placed in service and the other buildings removed, the current chilled water system will be nearing the end of its life-cycle.

1.2 PROPOSED SOLUTION

The proposed solution is to replace the three outdated facilities with a new 69,980 square foot Center for Technical Education and Innovation (CTEI). The modern and agile facility will fully support collaboration and career connectivity through the guided pathways methodology. The new building will have space and infrastructure to effectively serve the rural district through face-to-face, hybrid, and distance learning opportunities. It will provide students with the necessary resources to achieve solid learning outcomes. A focus will be placed on creating modular adaptable labs and learning spaces that allow for hands-on, interdisciplinary, and project-based learning. WVC will be able to focus on strengthening its partnerships with K-12, Tribal education agencies, and higher education throughout the region. These partnerships will allow the College to improve feeder programs and long-term educational pathways. Relevant curriculum and technical skills will be developed that respond directly to the local labor market, advancing student's lifetime career achievements.

Additionally, the facility will overcome traditional separation of programs through transparency, displaying student work, and the integration of industry into the learning process. Space will be available for celebrating program success and showcasing the rewarding careers WVC's technical education programs offer. Moreover, informal learning environments will be strategically placed throughout the facility to maximize ongoing mentoring, advising, and networking. The facility will contain the infrastructure necessary to incorporate future technological advancements and meet the unforeseen higher education needs of tomorrow. The Center for Technical Education and Innovation will provide a progressive learning environment that is unrestrained by lack of resources.

1.3 PROGRAMS ADDRESSED BY PROJECT

The project will house the following current programs:

Agriculture	**Machining**	**Engineering**
Environmental Systems	**Welding**	**BAS - Engineering Technology**
Automotive Technology	**Criminal Justice**	
Drafting	**Electronics**	

Program growth will include the incorporation and development of the following areas of study: **Robotics, Additive Manufacturing, Lean Manufacturing, Project Management, 3D/4D Printing, Geothermal, Light Diesel, Automated Welding, and Hybrid, Electric, Autonomous, and Diesel Cars, Xeriscaping, Landscape Architecture, Restoration Ecology, and Range Science.**

Additionally, the facility will provide space for industry training sessions as well as flexible and adaptable learning areas that encourage active learning through cross-curricular collaboration. The facility will benefit the entire campus community through creating welcoming and inviting space that showcases the programs and encourages interdisciplinary experiential learning opportunities.

1.4 PROBABLE COST SUMMARY AND COMPARISON TO BENCHMARK

Category	Current Cost	Escalated Cost	% Total Budget
Acquisition Consultant Services Construction Equipment Artwork Other Costs	$0.00 $3,536,867 $29,232,618 $2,547,400 $144,897 $280,000	$0.00 $3,858,298 $32,987,995 $2,881,110 $144,897 $309,120	0% 9% 82% 7% <1% <1%
Total	*$35,746,155*	*$40,181,420*	*100%*
Sf Cost	*$510.95*	*$574.18*	

In addition to the building and project costs, the estimated current Total Project Cost for the infrastructure improvements is $1,402,002. The infrastructure project cost estimate is included in Attachment A. Escalated Total Project Costs for the infrastructure improvements are $1,577,330.

The project is cost-effective in comparison to the benchmark for similar types of facilities.

1.5 PROJECT SCHEDULE

Phase	Start	Compete
Predesign	June 2019	December 2019
Design	February 2020	March 2021
Construction	July 2021	April 2023
Move-In/Equipment	April 2023	July 2023
Occupancy	August 2023	

1.6 FUNDING

The College anticipates the project to be funded through the State's capital budget appropriation process over the course of two biennia, with Predesign and Design funds requested for the 2019-21 biennium and Construction funds requested for the 2021-23 biennium.

2.0 PROBLEM STATEMENT, OPPORTUNITY OR PROGRAM REQUIREMENT

2.1 SHORT DESCRIPTION OF THE PROJECT AND ITS BENEFITS

This project proposes to replace three existing, nonfunctional buildings with one modern, state-of-the-art technical education learning facility that attracts students and industry. The facility will be designed to maximize the concept of "shared resources". Emphasis will be on creating a collaborative center that engages and connects students, parents, instructors, and local industry into the learning process.

Additionally, the new facility will open up networking and partnership opportunities. The College will be able to host K-12 career events where students and their parents learn about the high-wage, high-skill, high-demand, rewarding careers these programs offer. Furthermore, the College will be able to connect with industry and provide space for customized training and showcasing career

opportunities. Instructors will be able to provide relevant curriculum that reflects high-demand skill sets. The facility will bring the industrial programs together under one roof, establishing program connectedness and allowing for the development of active interdisciplinary project-based/experiential learning opportunities.

Through creating active interdisciplinary learning opportunities, the emergence of new programs is anticipated. The facility will be designed to be modular, flexible, and able to adapt to the future direction of the programs housed. Modularity will allow for inexpensive reconfiguration of the space to meet the unknown needs of tomorrow. Space will be equipped with interactive technology and audio-visual systems that will provide increased hybrid and distance learning opportunities.

Through creating student-centric space, the new facility will increase program attachment and encourage the formation of student clubs. New opportunities to create special events that showcase and celebrate student success will be a possibility. The center will become an economic hub and resource for manufacturing and agriculture throughout Chelan, Douglas, and Okanogan counties. The facility will bring the following benefits to College:

- Increased project-based learning and innovative learning opportunities
- Increased advising focused on Technical Education
- Increased collaboration with partner educational agencies, regional business, and industry
- Increased hybrid and distance learning opportunities
- Provide an industry training center & student work displays
- Increased efficiency through shared use labs, classrooms, and social spaces
- Deliver proper sequencing of instruction
- Provide code-compliant labs
- Meet NATEF/ASE Certification requirements
- Resolve ADA accommodation issues
- Lean Management - Lean Six Sigma Certification
- Close Equity Gaps

2.2 HOW THIS PROJECT RELATES TO FACILITY MASTER PLAN

Creating a Center for Technical Education and Innovation is WVC's number one facility master plan priority.

Goal 1: Enhance Student Success

The new facility will not only provide the physical space needed for student success, but also educational models that will cater to students with varied needs. The new building will house an advising station, networking areas, an industry training room, specialized labs with relevant equipment, necessary infrastructure, state-of-the-art classrooms, and collaboration areas. The educational models will consist of hands-on approaches such as high-touch advising and guided pathways to encourage degree completion. These methods will especially benefit non-traditional students by working to eliminate barriers that impact attendance or degree completion.

Goal 2: Increase community engagement and expand partnerships for collaboration

The new facility will strengthen community partnerships by creating space for students and instructors to interact with industry professionals in the learning environment and alongside cutting-edge technology. Spaces will be available to host innovative K-12 events. The facility will

showcase careers opportunities and provide the space necessary for industry and the surrounding service district to thrive.

Goal 3: Encourage enrollment by creating a campus that students are proud of
The new space will encourage collaboration between disciplines and instill a sense of pride in students and faculty. The creation of welcoming social spaces that display student work will allow for greater connectivity between students and faculty from across disciplines (campus-wide). The transparency provided through strategically placed glazing will allow for inquiry, excitement, and promotion of the programs.

Goal 4: Integrate and institutionalize diversity and globalism throughout the College
The new facility will help cater to those from diverse cultural backgrounds by providing support services to ensure course success and degree completion. WVC serves a diverse population of students varying in age and ethnic background. Approximately 42% of the student population is Latino and 4.3% are Native American (growing population). It is critically important to ensure all students have the resources and support available to be successful. The faculty section of the new building will house offices that will provide high-touch and guided pathways advising that will offer options for students accustomed to different cultures of education.

Goal 5: Sustain environmentally sound College operations
Sustainability charrettes will start early and occur throughout the design. The charrettes will include participants from several local utilities, community development agencies, students, end users and operations, and maintenance. The College intends to design a facility that is highly flexible, adaptable, and sustainable. The new facility will meet or exceed LEED Silver certification and will feature low-emitting materials, space for green vehicles, energy and water efficiency, and the use of natural daylight. During the design phase, the College will explore alternative and renewable sources of energy such as passive heating and cooling, thermal technologies and solar.

STRATEGIC PLAN
For the complete 2018-2023 strategic Plan, see Appendix C.

Strategic Plan Goals	**Center for Technical Education and Innovation**
1. To support student learning, Wenatchee Valley College will be efficient, transparent, and accountable through deliberate and collaborative alignment of resources.	1. Provide inviting space for the engagement and strengthening of partnerships with the surrounding community. 2. Provide efficiencies through technology and automation. 3. Create a facility that will engage students for a lifetime.
2. Wenatchee Valley College will foster an environment where students reach their educational goals and direct their own futures.	1. Provide a welcoming facility that strategically places and promotes advising services. 2. Provide space that encourages project-based learning and grows mentoring relationships. Increase transfer and four-year degree opportunities.
3. Wenatchee Valley College will be a responsive, cultural and educational hub through proactive outreach and community partnerships.	1. Create spaces and environments that bring industry into the facility and students into the field. 2. Provide space for K-12, higher education and emerging partners to network and advance learning outcomes.

4. To achieve equity, Wenatchee Valley College will become a more inclusive, diverse, and culturally rich institution that establishes a thoughtful and respectful learning environment.	1. Ensure the facility is universally accessible to all individuals. Incorporate technology to offer innovative hybrid and distance learning opportunities. 2. Provide opportunities for collaborative and hands-on learning approaches.
5. Wenatchee Valley College will support students through a holistic approach which effectively admits, registers, advises, mentors, and retains students.	1. Provide strategic advising stations to maximize learning outcomes and career connectivity. 2. Inspire student retention by providing a high-tech facility and a clear pathway from beginning to end. 3. Incorporates methods such as high touch programs and guided pathways advising to increase student engagement and personalized student experience based on individual needs. 4. Provides collaborative spaces that encourage personalized interaction, peer support, and the free exchange of ideas which contribute to student engagement.
6. Wenatchee Valley College will promote a climate of ongoing improvement based on its mission, core themes, and college-wide student learning outcomes.	1. The new facility will serve as a community resource for continual skill upgrades and lifelong learning opportunities.

INSTITUTIONAL GOALS

Institutional Goals	**Center for Technical Education and Innovation**
GOAL 1: *Educational Achievement*	1. Provides sufficient classroom and lab space, collaborative learning spaces, cutting-edge counseling and advising services, and sufficient equipment. 2. Strengthens connections to the local community, providing industry-specific job training, 3. Provides early networking opportunities - opening doors to increased job opportunities post-graduation.
GOAL 2: *Support for Learning*	1. Incorporates Guided Pathways methods for clear academic roadmaps and career advancement. 2. Provides both formal and informal learning spaces, caring for the varying needs of individual student learning styles. 3. Showcases the programs to potential students and parents
GOAL 3: *Responsiveness to Local Needs*	1. Focuses on building connections to the surrounding community by creating opportunities for local industry, K-12, and higher education to interact with students. 2. Industry connections will provide educators and students alike with an understanding of local needs, allowing lessons to be more relevant.
GOAL 4: *Diversity and Cultural Enrichment*	1. Provides educational opportunities to those who are historically underserved by the educational system by providing affordable educational opportunities and facilities that meet the needs of students. 2. Attractive and improved facilities will

	appeal to a diverse range of students in a field that is overwhelmingly male and Caucasian.

2.3 SBCTC SYSTEM DIRECTION GOALS

ECONOMIC DEMAND

Strengthen state and local economies by meeting the demands for a well-educated and skilled workforce

According to a report published by Our Valley, Our Future, almost 60% of regional businesses indicated some difficulty hiring qualified applicants in the last 12 months. Additionally, a recent Economic Modeling Specialists Inc. (EMSI) report (See Appendix F), shows a high regional demand for vocational careers. These results show that while there is significant demand for qualified applicants, a large regional skill gap exists. As the campus stands today, WVC is limited in its ability to respond to the existing skill gap, given the current conditions of the existing facilities. For WVC to remain an effective community resource, facilities must be upgraded. As time goes on, labor demands will continue to evolve alongside advancing technologies. By designing a comprehensive Center for Technical Education and Innovation that is flexible in use, WVC will be able to respond to the needs of local industry and assist the service district in overcoming the skill gap. The new facility will feature an Industry Training Room. Space will create the opportunity for workshops, certifications, and speaker series. Students will be able to network directly with the employers they will one day seek employment from.

STUDENT SUCCESS

Achieve increased educational attainment

The new facility will address goals of increased educational attainment by creating functional spaces and providing strong academic support services. Additionally, it will promote pride and celebrate successes. Students will experience increased attachment and pride in their programs. The existing buildings have numerous deficiencies that inhibit student success; including separated programs, inadequate technological resources, and insufficient equipment to ensure adequate hands-on training time.

These deficiencies will be addressed head-on. The new facility's educational spaces will provide state-of-the-art learning environments with specialized labs for each program with sufficient equipment for all students. Informal and active project-based learning space will encourage students to spend more time on campus. The facility will allow WVC to offer "High-Touch" advising and expand its pedagogy to include modular and stackable credits as well as custom courses and certifications. The facility will allow WVC to expand and grow in new directions while positively impacting student retention and success.

INNOVATION

Use technology, collaboration, and innovation to meet the demands of the economy and improve student success.

The new facility will bring the industrial technologies, agricultural science, automotive, computer technology, and criminal justice programs together under one roof. The convergence of these programs will allow for innovative ideas to emerge. Collaborative Labs and informal learning areas will provide for a sense of community, develop programmatic overlap, create a mix of public and private spaces, and allow for flexibility and customization. Students will be able to interact and share ideas in a way that is not currently possible.

Innovation is a critical aspect of academia looking towards the future. The article, "Teaching, Learning, Doing in Collaborative Spaces," by author David Moos, explains the importance of collaborative spaces and the role that design and technology play in encouraging the growth of original ideas. As time goes on and technology continues to advance, the importance of these types of spaces will grow in relevance. Informal learning spaces will exist next to formal educational areas and will create opportunities for socializing, studying, collaborating, and innovating.

2.4 TABLE SHOWING A SUMMARY OF PROGRAM AND RELATED SPACE

	Space Program	Current Sq. Ft.	Proposed Sq. Ft.	Program Change
D1	Lab & Support Space •Agriculture •Automotive •Computer Science •Criminal Justice •Drafting •Fabrication (Shared) •HVAC/Refrigeration •Machining •Welding •Industry Training Room	25,402	41,010	15,608
A1	General Classrooms	6,007	4,000	-2007
F1	Faculty Offices & Adj. Area, Break Room	3,455	3,572	117
B4	Computer Labs	0	2,000	2,000
M1	Informal Learning/Student Gathering	0	2,070	2,070
H1	Advising/Student Services/Exhibition Space	0	2,308	2,308
E1	Innovation Resource/SIM Lab	0	1,200	1,200
	Total	**34,864**	**56,160**	**21,296**
	Gross Square Footage	**53,596**	**69,980**	**16,384**
	Circulation %	**35%**	**20%**	**(15%)**
	Efficiency	**65%**	**80%**	**15%**

2.5 INCREASED TYPE 1 AND TYPE 2 FULL-TIME EQUIVALENT STUDENTS ACCOMMODATED BY THIS PROJECT

Fall 2026 projections are supported by occupational growth data provided by EMSI (See Appendix F). WVC anticipates an increase of 101 Type 1 FTE and 60 Type 2 FTE by 2026. The College strives to increase innovative hybrid and distance learning opportunities. Hybrid and online learning is the fastest growing type of enrollment but difficult to implement for technical education programs. The table below conservatively forecasts future FTE:

Wenatchee Valley College	Fall 2016 Type 1 FTEs	2026 Type 1 Projections	Fall 2016 Type 2 FTEs	Fall 2026 Type 2 FTEs
Agriculture (7%)	98.72	105.63	2.73	10

Environmental Systems (12%)	52.31	58.59	0	5
Engineering (23%)	13.00	15.99	0	0
Electronics (23%)	42.60	52.40	0	0
Automotive Technology (9%)	39.55	43.11	0	5
Drafting	0.07	20	0	10
Machining (20%)	48.11	57.73	1.80	5
Welding	17.78	40	0.93	5
Criminal Justice (9.6%)	42.22	46.27	0	20
B.A. Applied Engineering	5	20	0	5
Total	**359**	**460**	**5**	**65**

2.6 TABLE OF AFFECTED EXISTED BUILDINGS WITH THEIR UNIQUE FACILITY IDENTIFIERS, DATES BUILT AND SQUARE FOOTAGES

Building	Unique Facility Identifiers	Date Built	Facility Condition Score	Square Footages
Batjer Hall	A04052	1950	430	40,784 sq. ft.
Industrial Technology	A00152	1970	432	8,428 sq. ft.
Refrigeration	A05917	1967	410	4,384 sq. ft.
				53,596 sq. ft.

3.0 DEFINE PROBLEM & ANALYSIS OF ALTERNATIVES

3.1 DEFINE THE CAPITAL PROBLEM IN TERMS OF BUILDING AGE, CONDITION, FUNCTIONALITY, HEALTH, SAFETY, CODE ISSUES, ETC.

All three buildings involved in the project have a combined average age of 54.7 years old. The buildings have been on the College's radar for replacement or renovation since the first Master Plan was published in 2003. In the past, these facilities have served as bus garages and maintenance shops. They were never intended to serve education. Functionally, they are obsolete and cannot be cost-effectively renovated or effectively repurposed. The facilities have the following Seismic/Structural, Life Safety, ADA Access, Energy Code, and Architectural/Educational deficiencies:

SEISMIC/STRUCTURAL:

Batjer Hall: The western two sections of the building (most likely) would not perform very well in a Code Level earthquake or a Code Level wind storm. The raised clerestory does not have an apparent load path for lateral loads. Also, the roof diaphragm of tongue and groove decking has limited lateral load carrying capacity. The exterior load bearing CMU walls are shear walls. If they are unreinforced, they would have limited capacity. In the lab with the steel bar joints and the wood

tongue and groove deck, the roof deck has water damage near the roof drains. In the east section of the building, the metal roof has been leaking. Numerous ceiling tiles are stained with glycol or water leaks, and if this continues, it will cause structural damage.

Industrial Technology: In a Code level earthquake or a Code level windstorm, the building (most likely) would not perform very well. The raised clerestory does not have an apparent load path for lateral loads. Also, the roof diaphragm consisting of tongue and groove decking has limited lateral load carry capacity. The exterior load bearing CMU walls are shear walls. If they are unreinforced, they would have limited capacity.

Refrigeration: The building (most likely) would not perform very well a Code level earthquake or a Code level wind storm. The roof diaphragm consisting of tongue and groove decking has limited lateral load carry capacity. The exterior load bearing CMU walls are shear walls. If they are unreinforced, they would have limited capacity. The CMU walls have signs of water infiltration.

LIFE SAFETY:

Fire Safety:
Industrial Technology and Refrigeration all lack a fire suppression and carbon-monoxide detection system. All buildings have an inadequate fire alarm systems. Additionally, there is no hazardous waste separation or containment. ***Batjer Hall's*** fire alarm system is not networked with other buildings on campus. Portions of Batjer Hall are without fire sprinklers. There is no carbon-monoxide detection system.

Air Quality:
Batjer Hall*:* The air handler is near the end of its useful life. The coils leak and the damper actuator does not consistently function. Hygiene extraction (vehicle exhaust system) leaks and does not remove all carbon-monoxide from the lab. ***Refrigeration:*** Current systems do not adequately remove foreign/hazardous particles from the air.

Asbestos:
Batjer Hall, Industrial Technology, and Refrigeration: In 1992, a partial abatement of ACM occurred Batjer and Industrial Technology. Some asbestos remains.

ADA ACCESS:
Batjer Hall: Building lacks a central corridor. It is necessary to go outside and around the building to access other sections of the building. There is no ADA access to the upper floor. ***Industrial Technology:*** There is no central corridor. ***Refrigeration:*** Building is inaccessible due to cramped equipment in minimal space. The building produced 52 FTE in 2015-16 and only has one bathroom with one stall that has not been upgraded since 1967. The bathroom does not meet ADA requirements.

ENERGY CODE DEFICIENCIES:

ELECTRICAL:
Batjer Hall: The electrical infrastructure is insufficient to operate all the equipment at once. Students must constantly unplug equipment to plug in other equipment. According to findings from the inspection report (See Appendix A), The electrical distribution is inadequate in many areas and is outdated. It would be difficult to modify or update due to the age of the gear and panels. A new electrical distribution system is recommended. ***Industrial Technology:*** The existing lighting

controls do not meet current code. Inadequate power supply for the equipment housed. ***Refrigeration:*** Panels have limited breaker space and are located in the lab area where instructional equipment and tools fill the entire space. The service is not adequate for the required electrical equipment connections needed for instruction. Existing lighting controls do not meet current code. Circuit receptacles require an upgrade to meet the current needs of the space. The classroom and lab are undersized for the space use, and therefore equipment and teaching supplies take up the entire space.

MECHANICAL:

Batjer Hall: The cooling tower on the roof is over 20 years old and is in need of repair. ***Industrial Technology:*** Several classrooms lack a cooling system. One lab lacks any ventilation while another lacks an overhead exhaust system. Two of the three existing exhaust systems are old and need to be replaced. ***Refrigeration:*** Mechanical systems are not adequate to provide air exchange. They are not properly removing foreign/hazardous particles. Low ceilings do not provide for overall mechanical systems. Rooftop exhaust fan appears to be older than the median service life of 20 years.

ARCHITECTURAL & EDUCATIONAL DEFICIENCIES:

The facilities are running at full capacity. There is no room for additional Instructors, FTE growth, or equipment. The separation of the facilities restricts interaction and sharing of resources between the programs. The current configurations do not allow for proper instruction or circulation. Additionally, the equipment is antiquated. Modern equipment requires space, technology, and electrical loads.

Due to the shortage of space, equipment and materials are being stored outside. Refrigeration Technology has a trailer parked outside of the Lab full of equipment that is used for storage and instruction.

Additional program deficiencies include: Lack of high bays space for site lines and equipment clearance, no fume hoods for extraction, no hazardous waste disposal, no oil-water separation, insufficient eyewash stations, insufficient storage for materials, no space for incorporating simulation into the learning environment, no space for clubs and advising, no LCD screens, no video capture technology, no tool room, limited daylighting, no views, limited access to AutoCAD, SolidWorks and other software programs.

3.2 DESCRIBE THE OBVIOUS AND CRITICAL NEEDS THAT ARE DRIVING THE PROJECT

Student Success and Programmatic Spatial Requirement

Limited space is impacting student success. The facilities are overcrowded and unsafe due to poor and inefficient design. Current conditions do not provide adequate educational space for the existing FTE load and programs. A better-designed facility will accommodate existing students and allow for future growth, more efficient use of resources, and expansion of programs.

New Space for Enrollment Demand

According to EMSI, demand for occupations served by these programs is expected to grow by 9.6% between the years of 2017 and 2023. Machining and Maintenance Mechanics will experience a 20% rate of growth.

Between the academic years of 2010-11 and 2016-17 the college has experienced the following growth rates in the programs listed below:

Program	2010-2011 FTEs	2016-2017 FTEs	Growth
Agriculture	58.18	95.72	570.04%
Automotive	22.58	39.55	39.55%
Electronics	18.20	25.69	25.69%
Welding	8.07	17.78	72.98%
Industrial Tech	2.18	24.00	71.67%
Engineering	3.78	13.00	53.09%

To meet this growing and changing demand WVC is expanding available programs to offer skill development in **Robotics, Additive Manufacturing, 3D/4D Printing, Geothermal, Wind Energy, Lean Manufacturing Processes and Project Management, Light Diesel, Automated Welding, and Hybrid, Electric, Autonomous, and Diesel Cars. Additionally, the Agriculture Technology program is expanding and aligning its courses to provide for articulation agreements with WSU and CWU.** Moreover, the facility will be designed to allow for the development of innovative hybrid and distance learning opportunities. WVC conservatively anticipates the project to provide for an additional **161 Type 1 and Type 2 FTE.**

Sources of increased enrollment include the following:

- Regional economic demand growth
- Program development and growth
- Partnering with local K-12 Skill Center to create a feeder program
- Development and growth of the Bachelors of Applied Science Engineering Technology program
- Industry Partnerships and the development of customized training and skill set upgrades
- Hybrid and Distance Learning Outreach

Program Mix Changes

Agriculture Technology is working with both WSU and CWU. Articulation agreements in Tree Fruit and Sustainability are already underway. WVC is a feeder program for WSU's Environmental and Natural Resource Program. Transfer programs are a growing portion of overall FTEs. Areas of program expansion include Xeriscaping, Landscape Architecture, Restoration Ecology, Wetland Habitat for Wildlife, and Range Science. To do so, WVC must have sufficient functional space that serves modern education.

Automotive, Machining, Welding, and Environmental Systems are being impacted by automation, exposure to lean manufacturing practices and advancement in technology. Equipment and space must engage students in troubleshooting exercises. Exposure and development of lean manufacturing processes and techniques will only grow in importance. As work becomes more automated, employers will be looking for employees who have the necessary technical skills to manage machinery and effectively communicate problems and solutions with soft skills. Students need to be well rounded and able to critically think. The current space silos students in archaic labs

and does not provide for the learning outcomes that are crucial to success in these technically advancing fields.

Simplifying Space Relationships

A major benefit of the new facility is combining three outdated facilities into one modern educational facility that encourages interdisciplinary learning and the sharing of resources. Merging the programs into one building allows for collaboration between programs and opportunities for new programs.

The modular design of the new facility will maximize program offerings, flexibility, and minimize future renovation costs. Many trades share skillsets and only vary by a few skills or courses. A modular design will accommodate program overlap, short-term certificates or students returning to the College for skill upgrades. Shared space will include advising, faculty offices, faculty break and workroom, conference room, industry training, computer lab, innovation lab, project-based fabrication lab, display areas, and informal group learning/social space.

Additionally, the facility will create a "one-stop" industry hub. It will create space that will engage and integrate with industry in a way that makes industry integral to the teaching and learning process. By strategically designing space for advising, industry training, and networking, WVC can foster skill-building that promotes innovation and entrepreneurship. Additionally, the College can readily adapt to the needed changes of their service district.

Adjacencies of formal and informal learning spaces will ensure that students will have space available for individual and group study sessions. Faculty offices will be located in a centralized space allowing for faculty collaboration. The industry training room will create opportunities for community involvement from industry professionals, K-12, and the local Colville Tribe. Cross-disciplinary "experiential learning" and industry integration are crucial to the success and growth of Wenatchee's local economy. The facility will celebrate and showcase the high-wage, high-skill, and high-demand career opportunities that these programs can offer.

Accreditation Needs

WVC is currently accredited by the Northwest Commission on Colleges and Universities (NCCU). An essential part of the accreditation is that facilities are accessible, safe, secure, and sufficient in quantity and quality. These credentials must be upheld by WVC in order to ensure continued accreditation. The College's technical education programs are running at full capacity. Equipment is being shuffled to accommodate needed instruction. WVC needs more space to ensure students have enough exposure and hands-on time on all equipment. Failure to meet the needs of their students could jeopardize WVC's standing with the NCCU.

3.3 ALTERNATIVES CONSIDERED

Much thought went into developing a project that would maximize resources, improve the learning environment, and develop the long-term built campus environment. Possible solutions discussed included: 1. Replacement and Addition, 2. Renovation and Replacement 3. Lease off Campus 4. Do Nothing

Replacement and Addition

The preferred alternative is to replace the three facilities currently serving Industrial Technical Education and to add an additional 16,384 square feet to meet the need the current spatial needs of the programs and allow for growth. The College explored the possibility of including Sexton Hall but arrived at the conclusion that Sexton Hall still functioned for Computer Science and that more

square footage was needed to properly serve all the programs. The close adjacency of Sexton Hall and the proposed location of the new facility will allow for increased program interaction and synergy between Technical Education and Computer Science. Replacing the three facilities (Batjer, Industrial Technology, and Refrigeration Technology) will maximize all resources including time, campus real estate, and money. It allows WVC to develop their built environment in accordance with their Facility Master Plan.

Renovation & Replacement
In lieu of replacement, the College has looked at renovating and expanding Batjer Hall. The project would include removing Refrigeration Technology and Industrial Technology and expanding the square footage of Batjer Hall. Several variables make this a non-feasible solution.

- Batjer cannot be expanded to the South or East because of adjacent buildings.
- Batjer cannot be expanded to the North because it is adjacent to a public street.
- Batjer cannot be expanded to the West unless the other two facilities (Environmental Systems and Refrigeration Technology and Industrial) are removed prior to construction, which would mean that the college would have to house these programs of campus during construction. There is no space to house these programs during construction and relocating them would be an additional expense.
- Batjer cannot expand functionally to the West because the Automotive Laboratory is located on the West Side of the Facility and expansion would isolate vehicular access to the Laboratory.
- Batjer is currently non-functional in terms of program needs, accessibility, and special requirements, so a renovation of the facility would not improve the facility.
- A renovation would add an additional two-years to the construction process, require programs to be relocated off campus, and require more funding than replacement**.**

Leasing Space Off-Campus:
Leasing space off campus would require high retrofit costs. Additionally, it would separate the Industrial Technical programs from the campus causing duplication in student services. Estimated rental costs for an industrial facility in Wenatchee is $8.00 per square foot. A 69,980-square foot facility would cost $559,840 annually. Locating the programs off campus will negatively impact student success.

Do Nothing
If no action is taken, the three buildings will continue to degrade, posing a greater safety risk to those who utilize the space. Programs will remain siloed, leading to fewer opportunities for innovation between disciplines. The environmental systems for all the buildings would fail or need replacement. Plumbing and plumbing fixtures throughout all the facilities need replacement. Lab growth will continue to be limited, leading to fewer opportunities for program growth. Mechanical infrastructure (electric, HVAC, fire systems) will become obsolete and expensive to replace. According to the 2015 Facility Condition Survey, the following consequences are imminent:

Batjer Hall: Structural integrity will continue to degrade, such as increased cracking in structural concrete. Plumbing will continue to leak. Limited classroom spaces will continue to limit student success. ***Industrial Technology:*** Cracking in structure will continue to spread, and leaks in the roof will continue to degrade the building. If not replaced, the building will be inoperable. ***Refrigeration:*** The roof is currently at the point where replacement is required. If not replaced, the building will be inoperable. The instructional space is severely inadequate in size and design. Connectivity with

surrounding industry, K-12, higher education and the general community will not improve. The programs will remain limited and not be able to deliver the level of student success that WVC strives for.

COST ESTIMATE FOR EACH ALTERNATIVE

	Escalated Construction Costs	Escalated Total Project Cost
Replacement and Addition (69,980 square feet)	$32,987,995	$40,181,420
Renovate Batjer & Replace Industrial Technology and Refrigeration Technology	$36,090,800 + escalation	$43,764,000 + escalation
Leasing Off-Campus	$2,000,000 Renovation for repurposing (minimum)	$2,000,000 + $559,840 annually - subject to rent escalation
Do Nothing	High deferred maintenance costs	Continued deferred maintenance costs

4.0 PROJECT PLANNING OF PREFERRED ALTERNATIVE

4.1 HISTORY OF BUILDING AND ORIGINAL FUNDING SOURCE

Batjer Hall: Built-in 1950. Various upgrades and renovations have occurred over the years resulting in a maze of nonfunctional space. ***Industrial Technology:*** Built-in 1970 for use as a bus garage, the building was later used as the campus Facilities and Operations Building with a laboratory for welding training. In 2003, the Machining program moved in. ***Refrigeration:*** Built-in 1967 as a bus garage for the city and then bought by the college and converted to serve as the campus maintenance facility. Refrigeration now serves as a lab and classroom facility for Environmental Systems. Little to no upgrades have occurred. All three buildings were originally funded by state capital improvement funds.

4.2 USEFUL LIFE OF PROPOSED FACILITY

The facility will be designed to serve WVC's campus for a minimum of 50 years. The design will allow for flexibility, adaptability, and expandability. It will be able to serve multiple purposes and foster the idea of sharing resources including space and equipment.

4.3 DISCUSSION OF SUSTAINABILITY – LEED

The College believes that designing green and sustainable facilities are a valuable learning opportunity for students, staff, faculty, and the surrounding community. Incorporating sustainability features that can serve multiple purposes is an important design aspect. Construction of a new facility presents the perfect opportunity to incorporate elements such as xeriscaping, geothermal, solar hot water, electrical charging stations, water reduction methodologies, etc. WVC will capitalize on the project being able to act as a sustainable and educational resource. The facility will be designed to achieve a minimum of LEED Silver (See Attachment 5).

Ten of the State's required Best Practices to Reduce Greenhouse Gas Emissions have been identified as achievable for this project (See Attachment 9). Elements include, but are not limited to solar hot water heating, daylighting controls, efficient lighting, building orientation, shading, and high solar reflectance materials.

4.4 HOW THIS PROJECT WILL IMPACT DEFERRED MAINTENANCE AND REPAIR BACKLOG

The current facilities have numerous deficiencies that disproportionately impact the maintenance budget. In the 2013-15 Facility Condition Report, Batjer was identified as needing $59,000 in repairs. In 2015-17, Batjer was identified as needing $301,000 in repairs. Additionally, the current conditions of all the flooring, walls and ceiling tiles in all three buildings need repair. The flooring is worn, the walls are dirty, and the ceiling tiles are missing and have numerous stains. Doors and hardware need to be replaced. Glass block have been painted. Wires are hanging everywhere. Technology has been added as needed and as a result, it is haphazard.

Building a new facility will allow the College to allocate limited resources more effectively and efficiently. WVC will concentrate on improving other spaces on campus rather than maintaining a space that no longer functions for its intended purpose.

4.5 ACQUISITION NEEDS

The replacement project is located on the Wenatchee Valley College campus. There are no acquisition needs required for this project.

4.6 MITIGATION AND NEIGHBORHOOD RELATED ISSUES

There are no anticipated mitigation and neighborhood-related issues. The project will be orientated to contain noise to the west. The noise will be directed towards the ballfields and away from any residential and or future campus housing.

4.7 PARKING EXPANSION DIRECTLY RELATED TO THE PROJECT

Minimal new parking will be required. The project is replacing existing facilities. Once the demolition is completed the land will be returned to green space and provide some additional overflow parking. The Master Plan calls for a future STEM building to be built in close proximity to the site that Batjer Hall now occupies.

4.8 PERMIT ISSUES, VARIANCE REQUIRED

The project will require a City of Wenatchee building permit. No variances are anticipated.

4.9 UTILITY AND OTHER INFRASTRUCTURE

Batjer Hall houses a water-cooled chiller that serves four buildings. Batjer also provides chilled water for Wells Hall, Brown Library, and the Music and Art Center. As part of the Capital Request, WVC would like to increase the size of the chilled water cooling system to provide services to the other three facilities. The mechanical cost of this upgrade is estimated at $375,000 and the electrical cost is estimated at $145,000.

Additionally, a new tunnel will need to be connected to the existing tunnel system (approximately 420 linear feet) at an estimated cost of $550,000.00. The total additional infrastructure costs are estimated at $1,025,000. Current total infrastructure project costs are estimated at 1,402,002.

4.10 STORMWATER AND OTHER ENVIRONMENTAL ISSUES

There are adequate landscape and the permeable surface areas around the perimeter of the proposed building, such that sustainable storm water strategies such as biofiltration, can be implemented. Based on the location and campus history, no environmental issues impeding development are anticipated.

4.11 ROADS AND TRAFFIC SIGNALS

Off-campus road and traffic signals will not be affected by this project.

4.12 DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION AND TRIBAL REVIEWS

The Department of Archaeology and Historic Preservation has been contacted and all EZ forms have been completed and processed. The response letter described no historic findings (see Attachment 4).

4.13 FALL 2016 UTILIZATION OF CLASSROOMS, LABORATORIES AND ALL INSTRUCTIONAL AREAS ON CAMPUS

	Contact Hours	Workstations	Utilization	Capture Efficiency
Classes	22,383.87	1,036	21.61	96%
Labs	12,832.50	751	17.09	91%
Campus	35,216.37	1,787	19.71	94%

This project creates 155 additional Classroom Workstations and 329 additional Lab Workstations. The table below represents future utilization (please see Program Space Table and Project Score Sheet for more information):

	Contact Hours	Workstations	Utilization
Classes	22,922.56	1,091	21.01
Labs	15,565.12	1,030	15.11
Campus	38,487.68	2,121	18.15

4.14 NEW PROGRAMS CHANGING MIX OF PROGRAMS

The College's Industrial Education programs are cutting edge. Instructors make the most of archaic space. What they have been able to accomplish in the limited out-of-date space they have is commendable. A great example is the Refrigeration program producing 52 FTE in 2016-17. Another example is the development of the Bachelor of Applied Science Engineering Technology degree. Instructors were asked for input regarding the creation of a facility with shared fabrication/project-based learning space. They enthusiastically embraced the idea and began discussing the possibilities. Ideas generated included developing new programs to meet needs in the following emerging and growing fields:

- 3D/4D Printing
- Additive Manufacturing
- Ag Science - GPS
- Ag Science - Tree farm technology
- Autonomous, Hybrid, Electric and Diesel Cars
- Automated Welding
- Landscape Architecture
- Xeriscaping
- Lean Manufacturing
- Light Diesel - Agriculture
- Restoration Ecology
- Robotics
- Wind Power

Each of these fields requires curricula and skill sets from more than one industrial technology program. Currently, WVC does not have the space to expose students to interdisciplinary learning opportunities. Additionally, emerging fields are requiring higher competencies. Students need to graduate with a well-rounded education. They must have skills from several different industrial education fields as well as strong mathematical computation and grammar skills. The ability to

problem solve, critically think, and continually learn are essential to remaining competitive in the advancing marketplace.

4.15 NEW SPACE AND WHAT HAPPENS TO VACATED SPACE

The existing buildings will be demolished after the new facility is completed. The new facility will allow for cross-curriculum integration and project-based learning with the incorporation of shared labs, computer labs, and resource centers, all under one roof.

4.16 COMPARISON OF EXISTING AND NEW SPACES TO THE CAPITAL ANALYSIS MODEL

The CAM, dated April 2017, shows 129,556 square feet of space deficiencies. The greatest space shortages occur in Basic Skills and Computer Labs, with a 90% deficiency ratio. There are also significant shortages in Auditorium space (82%), Library Resources (45%) and Faculty offices (63%). Additional shortages occur in Student Services (24%) and Student Center (41%) space.

The project will assist in right-sizing the campus through creating additional Computer Labs, Faculty Offices, and a dedicated Student Service Advising and networking area. The facility will feature an Innovation Lab (Library/LRC area) where students can access resources and engage in active learning opportunities. It is important to note that technical education lab space is not included in the CAM. Space requirements for these programs are based on program need. Obsolete space will be replaced with a new facility with focus on efficiency through creating shared use space. Schematic layouts of the labs are provided in attachment 8 to demonstrate program space requirements.

4.17 NEED AND AVAILABILITY OF SURGE SPACE

The College anticipates keeping the three facilities operable (Batjer Hall, Industrial Technology, and Refrigeration Technology) until the new facility is completed. By the time CTEI is under construction the new Wells Hall will be complete. Limited surge space will be required for this project. Excerpts of WVC's Facility Master Plan are provided in Appendix C to demonstrate the sequence of construction and the overall benefit to the long-term campus environment.

4.18 FLEXIBILITY AND ADAPTABILITY OF PROPOSED SPACE

This project will provide versatile space that is not dedicated to just one use. Collaborative learning environments will be designed to encourage sharing of resources and information. Programs teaching similar and overlapping skills will be located adjacent to one another. This will allow WVC to serve the greatest number of FTEs using the fewest possible resources. For example, a Fabrication Lab will be centrally located and designed to accommodate Welding and Machining. Additional benefits will include the cross-pollination of skills and idea sharing among students, faculty, and surrounding industry. The labs and classrooms will be designed to flex and adapt to multiple teaching methodologies. Collaboration with industry and programs across campus will require the space to be easily converted to multiple uses. Creating a center that is transparent and showcases the programs housed is essential to improving perceptions about technical education and promoting the rewarding careers the programs offer. This project will encourage multi-use shared space. Strategies will include the following: **Modular Design** – Spaces will be laid out on a modular grid allowing for multiple configurations of equipment and space. The grid will also allow for flexible overhead delivery of HVAC systems, power, and process gases. **Adaptability** – By using a modular design, the facility will allow for future expansion and change in use without major renovations or upgrades to systems. **Multiple-Uses** – The shops/labs will provide open space for use by multiple programs and will encourage sharing of resources where appropriate. Programs that

teach similar processes or that have overlap in skills can be clustered to take advantage of shared resources. **Multiple Configurations** - The modular grid design in the labs will allow for different equipment layouts. Moveable furnishings throughout the facility will accommodate different instruction methodologies and multi-use of space.

5.0 PROJECT BUDGET ANALYSIS OF PREFERRED ALTERNATIVE

5.1 PREDICTION OF OVERALL PROJECT COST

The table below breaks down the C100 and provides the estimated project costs for the replacement of Batjer, Industrial Technology, and Refrigeration Technology. The total project cost per square foot is less than 100% of the expected costs for the facility type. The C100 for both the building and the infrastructure is provided in Attachment 1.

	Current Costs	Total Project Escalated Costs	% of Project
Consultant Services	**$3,536,867**	**$3,858,298**	**10%**
Construction Contracts	**$29,232,618**	**$32,987,995**	**79%**
Equipment	**$ 2,547,400**	**$2,881,110**	**7%**
Artwork	**$144,897**	**$144,897**	**<1%**
Other	**$280,000**	**$309,120**	**<1%**
Project Management	**$0**	**$0**	**0%**
Total Project Cost	**$35,741,782**	**$40,181,420**	**100%**

Additional infrastructure costs are estimated at an escalated total construction cost of $1,377,417 and an escalated total project cost of $1,577,330.

5.2 COMPARISON OF $/FTE TO SIMILAR PROJECTS

Professional Technical Education Projects	Building Name	NEW FTEs	$ per New FTEs	Projected Total FTEs	$ per Projected Total FTEs
WVC (proposed) 70,000 GSF Escalated Project Cost $40,181,420	Center for Technical Education and Innovation	*161	$249,574/FTE	**460	$87,351/FTE
BBCC 76,140 GSF Escalated Project Cost $36,294,000	Professional-Technical Education Center	*178	$203,899/FTE	**370	$98,092/FTE
CPTC 62,478 GSF Escalated Project Cost $36,182,000	Center for Advanced Manufacturing Technology	*326	$110,988/FTE	**414	$87,396/FTE

*Projected FTE increase.
**Current FTEs combined with project long-term increase of FTEs.
Project costs and FTE counts are from the Project Request Reports.

5.3 Anticipated Annual Impact on the College's Operating and Maintenance Budget in Both Program 090 FTES and M&O Cost.

WVC anticipates an additional need for .25 - 090 FTES. The table below represents the College's M&O Budget. It utilizes data obtained from the "Whitestone Facility Operations Cost Reference 2009-10" manual for Richland, Washington (a copy is provided in the Appendix). The costs have been increased by 20% to more accurately reflect 2016-17 costs.

	Cost per SF	**Current Facility**	**Proposed SF**
Janitorial Costs	$ 2.1588	$173,194	$168,365
Utility Costs	$ 2.1348	$171,269	$166,493
Technology	$ 0.6324	$50,736	$49,321
Security & Administration	$ 3.69	$29,5749	$287,502
Road/Landscaping	$ 0.02400	$1,925	$1,872
Grounds/Roads/ Refuse/Pest Ctrl	$ 0.6732	$54,009	$52,503
Total	**$ 9.31**	**$746,882**	**$726,056**

5.4 Justification for Desired Method of Construction – Design-Bid-Build, GC/CM, or Design Build

The College is proposing to design the facility through the ***progressive design/build methodology***. This method will allow the College to work with the entire team upfront and be involved throughout the entire design process. The College wants to be involved in all decisions and work directly with the Contractor, Architect, and Engineers to understand the immediate and long-term impacts of decisions. Benefits will include everyone being on the same team, increased efficiency, expert guidance, and total accountability. It will minimize risks, provide increased creativity, and allow WVC to maximize their project.

Attachment 1

Cost Estimates OFM C100

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Wenatchee Valley Community College
Project Name	Center for Technical Education and Innovation
OFM Project Number	

Contact Information	
Name	RGU Architecture & Planning
Phone Number	(509) 758-9894
Email	lauri@rguarchitecture.net

Statistics			
Gross Square Feet	69,980	MACC per Square Foot	$367
Usable Square Feet	56,160	Escalated MACC per Square Foot	$414
Space Efficiency	80.3%	A/E Fee Class	B
Construction Type	Vocational schools	A/E Fee Percentage	6.91%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	Yes
Inflation Rate	2.80%	Higher Ed Institution	Yes
Sales Tax Rate %	8.40%	Location Used for Tax Rate	Wenatchee
Contingency Rate	5%		
Base Month	December-17		
Project Administered By	DES		

Schedule			
Predesign Start	June-19	Predesign End	December-19
Design Start	February-20	Design End	March-21
Construction Start	July-21	Construction End	April-23
Construction Duration	21 Months		

Green cells must be filled in by user

Project Cost Estimate

Total Project	**$35,741,782**	Total Project Escalated	**$40,181,420**
		Rounded Escalated Total	**$40,181,000**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Wenatchee Valley Community College
Project Name	Center for Technical Education and Innovation
OFM Project Number	

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$290,000		
A/E Basic Design Services	$1,285,777		
Extra Services	$1,000,000		
Other Services	$792,668		
Design Services Contingency	$168,422		
Consultant Services Subtotal	**$3,536,867**	**Consultant Services Subtotal Escalated**	**$3,858,298**

Construction			
Construction Contingencies	$1,284,160	Construction Contingencies Escalated	$1,452,385
Maximum Allowable Construction Cost (MACC)	$25,683,200	Maximum Allowable Construction Cost (MACC) Escalated	$28,979,344
Sales Tax	$2,265,258	Sales Tax Escalated	$2,556,266
Construction Subtotal	**$29,232,618**	**Construction Subtotal Escalated**	**$32,987,995**

Equipment			
Equipment	$2,350,000		
Sales Tax	$197,400		
Non-Taxable Items	$0		
Equipment Subtotal	**$2,547,400**	**Equipment Subtotal Escalated**	**$2,881,110**

Artwork			
Artwork Subtotal	**$144,897**	**Artwork Subtotal Escalated**	**$144,897**

Agency Project Administration			
Agency Project Administration Subtotal	$0		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$0**	**Project Administation Subtotal Escalated**	**$0**

Other Costs			
Other Costs Subtotal	**$280,000**	**Other Costs Subtotal Escalated**	**$309,120**

Project Cost Estimate			
Total Project	**$35,741,782**	Total Project Escalated	**$40,181,420**
		Rounded Escalated Total	**$40,181,000**

C-100(2016)

Version B

Quick Start Guide

GENERAL INFORMATION

1) The C-100(2016) tool was created to align with the estimating application in the Capital Budgeting System (CBS). The intended use is to enable project managers to communicate their project cost estimates to budget officers in the standard format required for capital project budget requests/submittals to OFM.

2) This workbook is protected so that the worksheets within it cannot be moved or deleted in the usual manner. This protection is necessary to ensure that the cost estimate details and formulas align with the estimating application in the Capital Budgeting System.

3) The estimating format to develop the maximum allowable construction cost (MACC) is presented in Uniformat II.

4) Form-calculated costs such as A/E Basic Design Service fees and Agency Project Management costs are dependent on other estimated project costs such as Acquisition, MACC, Equipment, etc.

5) Project estimates generated with this tool are not sufficient for budget request submittals to OFM. Use the Capital Budgeting System to submit capital project budget requests.

6) Contact your assigned OFM Capital Budget Analyst for questions regarding the C-100(2016).

OFM Capital Budget Analyst

INSTRUCTIONS

1) Only green cells are available for data entry.

2) Fill in all known cells in the 'Summary' tab prior to moving on to the cost entry tabs A-G.

3) It is recommended, but not required, to fill out cost entry tabs in the following order:
A. Acquisition, C. Construction Contracts, D. Equipment, G. Other Costs, B. Consultant Services, F. Project Management, then E. Artwork.

4) If additional rows are inserted to capture additional project costs, a description must be provided in the Notes column or within Tab H. Additional Notes. Be particularly detailed for additional costs estimated for contingencies and project management.

FORM-CALCULATED COSTS (FEE CALCULATIONS)

1) A/E Basic Design Services: AE Fee % (x) (MACC + Contingency)

2) Design Services Contingency: Contingency % (x) Consultant Services Subtotal

3) Construction Contingency: Contingency % (x) MACC

4) Artwork: 0.5% (x) MACC Escalated

5) Agency Project Management (Greater than $1million): (AE Fee % - 4%) (x) (Acquisition Total + Consultant Services Total + MACC + Construction Contingency + Other Costs)

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

Green cells must be filled in by user

Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis	$25,000			
Environmental Analysis	$25,000			
Predesign Study	$240,000			
Bridging Documents				
Insert Row Here				
Sub TOTAL	**$290,000**	**1.0618**	**$307,922**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$1,285,777			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$1,285,777**	**1.0777**	**$1,385,682**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	$70,000			
Geotechnical Investigation	$24,500			
Commissioning	$140,000			
Site Survey	$26,600			
Testing	$31,500			
LEED Services	$110,000			
Voice/Data Consultant	$28,000			
Value Engineering	$76,300			
Constructability Review	$67,900			
Environmental Mitigation (EIS)				
Landscape Consultant	$50,000			
Acoustical/Cost/Lighting/Interior	$165,200			
Special Systems	$210,000			
Sub TOTAL	**$1,000,000**	**1.0777**	**$1,077,700**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$577,668			31% of A/E Basic Services
HVAC Balancing	$85,000			
Staffing				
Commissioning				
Special Testing	$130,000			
Sub TOTAL	**$792,668**	**1.1310**	**$896,508**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$168,422			
Other				
Insert Row Here				
Sub TOTAL	**$168,422**	**1.1310**	**$190,486**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$3,536,867**		**$3,858,298**	

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Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$179,900			
G20 - Site Improvements	$741,300			
G30 - Site Mechanical Utilities	$647,500			
G40 - Site Electrical Utilities	$507,500			
G60 - Other Site Construction	$80,500			
Other				
Insert Row Here				
Sub TOTAL	**$2,156,700**	**1.1040**	**$2,380,997**	
2) Related Project Costs				
Offsite Improvements	$250,000			
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention	$125,000			
Other				
Insert Row Here				
Sub TOTAL	**$375,000**	**1.1040**	**$414,000**	
3) Facility Construction				
A10 - Foundations	$1,057,700			
A20 - Basement Construction	$0			
B10 - Superstructure	$2,950,500			
B20 - Exterior Closure	$3,290,000			
B30 - Roofing	$1,316,000			
C10 - Interior Construction	$1,070,400			
C20 - Stairs	$161,000			
C30 - Interior Finishes	$1,354,500			
D10 - Conveying	$147,000			
D20 - Plumbing Systems	$1,040,200			
D30 - HVAC Systems	$3,941,000			
D40 - Fire Protection Systems	$256,900			
D50 - Electrical Systems	$2,536,800			
F10 - Special Construction	$406,000			
F20 - Selective Demolition	$1,240,000			
General Conditions	$1,925,000			
E10 Equipment Installed by Contractor	$297,500			
E20 Casework Installed by Contractor	$161,000			
Sub TOTAL	**$23,151,500**	**1.1310**	**$26,184,347**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$25,683,200**		**$28,979,344**	

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7) Construction Contingency				
Allowance for Change Orders	$1,284,160			
Other				
Insert Row Here				
Sub TOTAL	**$1,284,160**	**1.1310**	**$1,452,385**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.1310**	**$0**	
Sales Tax				
Sub TOTAL	**$2,265,258**		**$2,556,266**	
CONSTRUCTION CONTRACTS TOTAL	**$29,232,618**		**$32,987,995**	

Green cells must be filled in by user

Cost Estimate Details

Equipment				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
E10 - Equipment	$1,700,000			
E20 - Furnishings	$650,000			
F10 - Special Construction				
Other				
Insert Row Here				
Sub TOTAL	**$2,350,000**	**1.1310**	**$2,657,850**	
1) Non Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.1310**	**$0**	
Sales Tax				
Sub TOTAL	**$197,400**		**$223,260**	
EQUIPMENT TOTAL	**$2,547,400**		**$2,881,110**	

Green cells must be filled in by user

Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Project Artwork	$0				0.5% of Escalated MACC for new construction
Higher Ed Artwork	$144,897				0.5% of Escalated MACC for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$144,897**		**NA**	**$144,897**	

Green cells must be filled in by user

Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Agency Project Management	$0				
Additional Services					
Other					
Insert Row Here					
PROJECT MANAGEMENT TOTAL	**$0**		**1.1310**	**$0**	

Green cells must be filled in by user

Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal	$280,000				
Historic and Archeological Mitigation					
Other					
Insert Row Here					
OTHER COSTS TOTAL	**$280,000**		**1.1040**	**$309,120**	

Green cells must be filled in by user

C-100(2016)
Additional Notes

Tab A. Acquisition
Insert Row Here

Tab B. Consultant Services
Insert Row Here

Tab C. Construction Contracts
Insert Row Here

Tab D. Equipment
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
Insert Row Here

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Wenatchee Valley Community College
Project Name	Center for Technical Education and Innovation - Chilled Water Infrastruc
OFM Project Number	

Contact Information	
Name	RGU Architecture & Planning
Phone Number	(509) 758-9894
Email	lauri@rguarchitecture.net

Statistics			
Gross Square Feet	77,990	MACC per Square Foot	$14
Usable Square Feet	61,720	Escalated MACC per Square Foot	$16
Space Efficiency	79.1%	A/E Fee Class	B
Construction Type	College classroom facilit	A/E Fee Percentage	10.20%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	Yes
Inflation Rate	2.80%	Higher Ed Institution	Yes
Sales Tax Rate %	8.40%	Location Used for Tax Rate	Wenatchee
Contingency Rate	5%		
Base Month	December-17		
Project Administered By	DES		

Schedule			
Predesign Start	June-19	Predesign End	December-19
Design Start	February-20	Design End	March-21
Construction Start	July-21	Construction End	April-23
Construction Duration	21 Months		

Green cells must be filled in by user

Project Cost Estimate

Total Project	**$1,402,002**	Total Project Escalated	**$1,577,330**
		Rounded Escalated Total	**$1,577,000**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Wenatchee Valley Community College
Project Name	Center for Technical Education and Innovation - Chilled Water Infrastruc
OFM Project Number	

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$25,000		
A/E Basic Design Services	$79,072		
Extra Services	$30,000		
Other Services	$35,525		
Design Services Contingency	$8,480		
Consultant Services Subtotal	**$178,077**	**Consultant Services Subtotal Escalated**	**$193,862**

Construction			
Construction Contingencies	$53,500	Construction Contingencies Escalated	$60,509
Maximum Allowable Construction Cost (MACC)	$1,070,000	Maximum Allowable Construction Cost (MACC) Escalated	$1,210,170
Sales Tax	$94,374	Sales Tax Escalated	$106,738
Construction Subtotal	**$1,217,874**	**Construction Subtotal Escalated**	**$1,377,417**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$6,051**	**Artwork Subtotal Escalated**	**$6,051**

Agency Project Administration			
Agency Project Administration Subtotal	$0		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$0**	**Project Administation Subtotal Escalated**	**$0**

Other Costs			
Other Costs Subtotal	**$0**	**Other Costs Subtotal Escalated**	**$0**

Project Cost Estimate

Total Project	**$1,402,002**	Total Project Escalated	**$1,577,330**
		Rounded Escalated Total	**$1,577,000**

C-100(2016)

Version B

Quick Start Guide

GENERAL INFORMATION

1) The C-100(2016) tool was created to align with the estimating application in the Capital Budgeting System (CBS). The intended use is to enable project managers to communicate their project cost estimates to budget officers in the standard format required for capital project budget requests/submittals to OFM.

2) This workbook is protected so that the worksheets within it cannot be moved or deleted in the usual manner. This protection is necessary to ensure that the cost estimate details and formulas align with the estimating application in the Capital Budgeting System.

3) The estimating format to develop the maximum allowable construction cost (MACC) is presented in Uniformat II.

4) Form-calculated costs such as A/E Basic Design Service fees and Agency Project Management costs are dependent on other estimated project costs such as Acquisition, MACC, Equipment, etc.

5) Project estimates generated with this tool are not sufficient for budget request submittals to OFM. Use the Capital Budgeting System to submit capital project budget requests.

6) Contact your assigned OFM Capital Budget Analyst for questions regarding the C-100(2016).

OFM Capital Budget Analyst

INSTRUCTIONS

1) Only green cells are available for data entry.

2) Fill in all known cells in the 'Summary' tab prior to moving on to the cost entry tabs A-G.

3) It is recommended, but not required, to fill out cost entry tabs in the following order:
A. Acquisition, C. Construction Contracts, D. Equipment, G. Other Costs, B. Consultant Services, F. Project Management, then E. Artwork.

4) If additional rows are inserted to capture additional project costs, a description must be provided in the Notes column or within Tab H. Additional Notes. Be particularly detailed for additional costs estimated for contingencies and project management.

FORM-CALCULATED COSTS (FEE CALCULATIONS)

1) A/E Basic Design Services: AE Fee % (x) (MACC + Contingency)

2) Design Services Contingency: Contingency % (x) Consultant Services Subtotal

3) Construction Contingency: Contingency % (x) MACC

4) Artwork: 0.5% (x) MACC Escalated

5) Agency Project Management (Greater than $1million): (AE Fee % - 4%) (x) (Acquisition Total + Consultant Services Total + MACC + Construction Contingency + Other Costs)

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

Green cells must be filled in by user

Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Campus Study Chilled Water Plan	$25,000			
	$0			
Sub TOTAL	**$25,000**	**1.0618**	**$26,545**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$79,072			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$79,072**	**1.0777**	**$85,216**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	$15,000			
Geotechnical Investigation				
Commissioning	$15,000			
Site Survey				
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Acoustical/Cost/Lighting/Interior				
Special Systems				
Sub TOTAL	**$30,000**	**1.0777**	**$32,331**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$35,525			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Commissioning				
Special Testing				
Sub TOTAL	**$35,525**	**1.1310**	**$40,179**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$8,480			
Other				
Insert Row Here				
Sub TOTAL	**$8,480**	**1.1310**	**$9,591**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$178,077**		**$193,862**	

Green cells must be filled in by user

Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation				
G20 - Site Improvements				
G30 - Site Mechanical Utilities				
G40 - Site Electrical Utilities				
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.1040**	**$0**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.1040**	**$0**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems	$145,000			
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions				
Chilled Water Cooling System	$375,000			
Piping	$550,000			
Sub TOTAL	**$1,070,000**	**1.1310**	**$1,210,170**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$1,070,000**		**$1,210,170**	

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7) Construction Contingency				
Allowance for Change Orders	$53,500			
Other				
Insert Row Here				
Sub TOTAL	**$53,500**	**1.1310**	**$60,509**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.1310**	**$0**	
Sales Tax				
Sub TOTAL	**$94,374**		**$106,738**	
CONSTRUCTION CONTRACTS TOTAL	**$1,217,874**		**$1,377,417**	

Green cells must be filled in by user

Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.1310**	**$0**	
1) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.1310**	**$0**	
Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

Green cells must be filled in by user

Cost Estimate Details

Artwork				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
Project Artwork	$0			0.5% of Escalated MACC for new construction
Higher Ed Artwork	$6,051			0.5% of Escalated MACC for new and renewal construction
Other				
Insert Row Here				
ARTWORK TOTAL	**$6,051**	**NA**	**$6,051**	

Green cells must be filled in by user

Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Agency Project Management	$0				
Additional Services					
Other					
Insert Row Here					
PROJECT MANAGEMENT TOTAL	**$0**		**1.1310**	**$0**	

Green cells must be filled in by user

Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Other					
Insert Row Here					
OTHER COSTS TOTAL	**$0**		**1.1040**	**$0**	

Green cells must be filled in by user

C-100(2016)
Additional Notes

Tab A. Acquisition
Insert Row Here

Tab B. Consultant Services
Insert Row Here

Tab C. Construction Contracts
Insert Row Here

Tab D. Equipment
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
Insert Row Here

Attachment 2

Project Parameters Form

Project Parameters

NEW

Type of Space	Square Footage	Percent
Renovation of Existing	0	
New Space	69,980	
Exterior Circulation of Existing. See Appendix H.	0	
Demolished Area	53,596	
Total Affected Area	**69,980**	
Net Area Change = New – Demo – Circulation	16,384	

Costs	Dollars	Percent
Acquisition	$0	0%
Consultant Services	$3,858,298	9%
Construction Contracts (w/o eligible Infrastructure)	$32,987,995	79%
Eligible Infrastructure Contracts (from C100)	$1,577,330	4%
Equipment	$2,881,110	7%
Artwork	$144,897	0.35%
Other Costs	$309,120	0.74%
Project Management	$0	0%
Total Project Cost (C1)	$41,758,750	100%

Funding	Dollars	Percent
State Appropriation	$41,758,750	100%
Financed – backed by State Appropriation		
Local Funds – Cash (see list of qualifying funds)		
Financed – backed by Local Funds		
Total Project Funding	**$41,758,750**	100%
Matching		
Variance = Cost – Funding	0	0%

Project Weighting	Equivalent Area	Percent
Matching		0%
Infrastructure	2,643	4%
Renovation		0%
Replacement	51,572	74%
New	15,765	23%
Total	69,980	**100%**

Paramters based on My Project inputs.

Parameters

	Square Footage		
S1	-	0%	Renovation of Existing
S2	69,980	100%	New Space
S3	-	0%	Exterior Circulation Allowance (included in New Space above)
S4	53,596	77%	Demolished Area
S5	69,980	100%	Total Affected Area
S6	16,384	23%	Net Area Change = New - Demo - Circulation
	Costs		
Ca	40,181,420		
Cb	1,577,330		
C1	41,758,750	100%	Total Project Cost
	Funding		
	41,758,750	100%	State Appropriation
	-	0%	Financed - backed by State Appropriation
M1	-	0%	Local Funds - Cash
M2	-	0%	Financed - backed by Local Funds
F1	41,758,750	100%	Total Project Funding
	-	0%	Matching
	-	0%	Variance = Cost - Funding
	Project Weighting		
M4	-	0%	Matching = 2* (Local / Appropriated) / Total Project Funding
I4	2,643	4%	Infrastructure = (Infrastructure / Total Project Cost) - Matching
R4	-	0%	Renovation
P4	51,572	74%	Replacement
N4	15,765	23%	New
	69,980	100%	Total

Attachment 3

Minimum and Overarching Criteria Form

2019-21 Minimum and Overarching Criteria Points

Evaluation Criteria	Scoring Standard	
College Response	Affected buildings are at a single site.	**Yes**
College Response	Project does not include improvements to temporary or portable facilities.	**Yes**
College Response	Project is not a gymnasium or recreational facility.	**Yes**
College Response	Project is not an exclusive enterprise function such as a bookstore, dormitory or contract food service.	**Yes**
College Response	Project is not dependent on another project in the current request.	**Yes**
College Response	Project meets LEED Silver Standard requirements.	**Yes**
College Response	College has a Greenhouse Gas Emission Reduction plan.	**Yes**
College Response	The facility is state-owned or a condominium interest is held (state capital funds cannot be spent on leased space).	**Yes**
College Response	Project will take more than one biennium. And, project costs at least $5,000,000 and does not exceed 70,000 gsf without WACTC Capital Budget Committee approval.	**Yes**
College Response	If project includes renovation or replacement, then affected buildings have been owned by the college for 20 years at the time of the request.	**Yes**
College Response	If project includes renovation, then the project extends the useful life of the affected building at least 20 years.	N/A - project does not include renovation
College Response	If project includes renovation, then the cost does not exceed 80% of the current replacement cost.	N/A - project does not include renovation
Effective use of existing facilities See Appendix C for guidelines on determining existing utilization.	Fall 2016 space utilization relative to standards and other proposals. Standards are: Classroom seats used 22 hours per week. Laboratory seats used 16 hours per week.	**Up to 9 points** Classrooms: 21.61 Labs: 17.09
Ability to enhance state and institution's achievement of goals	*Add up points from each category: (Max 14)* Directly tied to facilities master plan Directly tied to objectives in strategic plan Include clear and succinct description of the relationship between the project and its impact on partnerships with K-12, 4 yrs, business, etc. This may be supported by letters from partners describing how the project will benefit the partnership. Project includes at least seven of the best practices identified in Appendix A to reduce greenhouse gas emissions.	 ④ ④ ④ ②
	Overarching Subtotal (O1)	23.00
	Overarching Weighting (O2)	1.00
	Overarching Weighted Subtotal (O3 = O1 x O2)	23.00
	Overarching Portion of Project (O4)	1.00
	Overarching Points (O5 = O3 x O4)	23.00

Attachment 4

DAHP Review

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

November 2, 2017

Mr. Wayne Doty
Director of Capital Budgets
WA State Board for Community and Technical Colleges
MS 42495
Olympia, WA 98504-2495

In future correspondence please refer to:
Project Tracking Code: 2017-09-06986
Property: Wenatchee Valley College--Campus Improvements
Re: NOT Eligible

Dear Mr. Doty:

Recently, the Washington State Historic Preservation Officer (SHPO) and Department of Archaeology and Historic Preservation (DAHP) had been contacted by RGU Architecture regarding the project referenced above. The above referenced property has been reviewed on behalf of the SHPO under provisions of Governor's Executive Order 05-05 (GEO 05-05). Our review is based upon documentation contained in the communication from RGU Architecture.

Research indicates that the properties impacted by the project, as proposed, are not currently listed in the Washington Heritage Register or National Register of Historic Places. This includes the following campus buildings:

Batjer Hall
Environmental and Refrigeration Systems building
Industrial Technology building, and
Sexton Hall.

As a result of our review, we concur with your determination that the referenced property is NOT ELIGIBLE for the National Register of Historic Places under criterion C. Our opinion is based upon documentation provided by RGU Architecture. As a result of our concurrence, further contact with DAHP on this matter is not necessary. However, if new information on the property becomes available and/or if the project scope of work or location changes significantly, please resume consultation as our assessment may be revised. Also, if any archaeological resources are uncovered during construction, please halt work immediately in the area of discovery and contact the appropriate Native American Tribes and DAHP for further consultation.

Thank you for the opportunity to review and comment. Should you have any questions, please feel free to contact me at (360) 586-3533 or russell.holter@dahp.wa.gov

Sincerely,

Russell Holter
Project Compliance Reviewer
Cc: Joyce Snyder (RGU Architecture)

Attachment 5

LEED Checklist

LEED v4 for BD+C: New Construction and Major Renovation

Project Checklist

Project Name:

Date:

Y	?	N			
1			Credit	Integrative Process	1

3	4	1	**Location and Transportation**		16
	1		Credit	LEED for Neighborhood Development Location	16
		1	Credit	Sensitive Land Protection	1
1			Credit	High Priority Site	2
	1		Credit	Surrounding Density and Diverse Uses	5
	1		Credit	Access to Quality Transit	5
	1		Credit	Bicycle Facilities	1
1			Credit	Reduced Parking Footprint	1
1			Credit	Green Vehicles	1

4	1	1	**Sustainable Sites**		10
Y			Prereq	Construction Activity Pollution Prevention	Required
1			Credit	Site Assessment	1
		1	Credit	Site Development - Protect or Restore Habitat	2
	1		Credit	Open Space	1
1			Credit	Rainwater Management	3
1			Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1

6	4	0	**Water Efficiency**		11
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
2			Credit	Outdoor Water Use Reduction	2
4	2		Credit	Indoor Water Use Reduction	6
	1		Credit	Cooling Tower Water Use	2
	1		Credit	Water Metering	1

12	21	0	**Energy and Atmosphere**		33
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
4	2		Credit	Enhanced Commissioning	6
8	10		Credit	Optimize Energy Performance	18
	1		Credit	Advanced Energy Metering	1
	2		Credit	Demand Response	2
	3		Credit	Renewable Energy Production	3
	1		Credit	Enhanced Refrigerant Management	1
	2		Credit	Green Power and Carbon Offsets	2

9	4	0	**Materials and Resources**		13
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
5			Credit	Building Life-Cycle Impact Reduction	5
2			Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
	2		Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
	2		Credit	Building Product Disclosure and Optimization - Material Ingredients	2
2			Credit	Construction and Demolition Waste Management	2

12	4	0	**Indoor Environmental Quality**		16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
2			Credit	Enhanced Indoor Air Quality Strategies	2
3			Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
2			Credit	Indoor Air Quality Assessment	2
1			Credit	Thermal Comfort	1
2			Credit	Interior Lighting	2
	3		Credit	Daylight	3
	1		Credit	Quality Views	1
1			Credit	Acoustic Performance	1

4	2	0	**Innovation**		6
3	2		Credit	Innovation	5
1			Credit	LEED Accredited Professional	1

2	2	0	**Regional Priority**		4
1			Credit	Regional Priority: Specific Credit	1
1			Credit	Regional Priority: Specific Credit	1
	1		Credit	Regional Priority: Specific Credit	1
	1		Credit	Regional Priority: Specific Credit	1

53	42	2	**TOTALS**	Possible Points:	**110**

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

Attachment 6

Estimating Documents

Wenatchee Valley College - Professional Technical
Without Soft Cost

ESTIMATE SUMMARY			Unit of	Unit	Total Estimated
No.	**Description**	**Quantity**	**Measure**	**Cost**	**Cost**
A10	Foundations	69,980	BGSF	$ 15.11	$ 1,057,700
A20	Basement Construction	69,980	BGSF	$ -	$ -
B10	Superstructure	69,980	BGSF	$ 42.16	$ 2,950,500
B20	Exterior Closure	69,980	BGSF	$ 47.01	$ 3,290,000
B30	Roofing	69,980	BGSF	$ 18.81	$ 1,316,000
C10	Interior Construction	69,980	BGSF	$ 15.30	$ 1,070,400
C20	Stairs	69,980	BGSF	$ 2.30	$ 161,000
C30	Interior Finishes	69,980	BGSF	$ 19.36	$ 1,354,500
D10	Conveying Systems	69,980	BGSF	$ 2.10	$ 147,000
D20	Plumbing	69,980	BGSF	$ 14.86	$ 1,040,200
D30	HVAC	69,980	BGSF	$ 56.32	$ 3,941,000
D40	Fire Protection	69,980	BGSF	$ 3.67	$ 256,900
D50	Electrical	69,980	BGSF	$ 36.25	$ 2,536,800
E10	Equipment (Installed by Contractor)	1	297,500	$ -	$ 297,500
E20	Casework and Furnishings (Installed by Contractor)	1	161,000	$ -	$ 161,000
F10	Special Construction	69,980	BGSF	$ 5.80	$ 406,000
F20	Demolition	1	1240000	$ -	$ 1,240,000
Z10	Building General Requirements	69,980	BGSF	$ 27.51	$ 1,925,000
	Building Construction Sub-Total	**69,980**	**BGSF**	**$ 330.83**	**$ 23,151,500**
E30	**Equipment & Furnishings**	**1**	**2350000**	**$ 33.58**	**$ 2,350,000.00**
G10	Site Preparation	**69,980**	BGSF	**$ 2.57**	$ 179,900
G20	Site Improvements	**69,980**	BGSF	**$ 10.59**	$ 741,300
G30	Site Civil/Mechanical Utilities	**69,980**	BGSF	**$ 9.25**	$ 647,500
G40	Site Electrical Utilities	**69,980**	BGSF	**$ 7.25**	$ 507,500
G90	Other Site Construction	**69,980**	BGSF	**$ 1.15**	$ 80,500
Z11	Site work General Requirements	**69,980**	BGSF	**$ 5.36**	$ 375,000
	Site Work	**69,980**	**BGSF**	**$ 36.18**	**$ 2,531,700**
	Sub Total	**69,980**	**BGSF**	**$ 400.59**	**$ 28,033,200**
	Design Contingency			5%	$ 1,401,660
					$ 29,434,860
	Sales Tax			8.4%	**$ 2,472,528**
				$ 455.95	**$ 31,907,388**
	Escalation to Mid-Point (Fall/Winter 2019) 3.00%/YR			6%	$ 1,914,443.29
	Estimated Grand Total	**69,980**	**BGSF**	**$ 483.31**	**$ 33,821,832**

Attachment 7

Site Maps

WENATCHEE VALLEY COLLEGE

C.T.E.I. SITE PLAN

A. WENATCHI HALL
B. ELLER-FOX SCIENCE CENTER
C. WELLS HALL
D. BROWN LIBRARY
E. SMITH GYMNASIUM
F. VAN TASSELL CENTER
G. SEXTON HALL
H. CENTRAL WASHINGTON UNIVERSITY
I. BATJER HALL
J. ENVIRONMENTAL SYSTEMS & REFRIGERATION TECH.
K. INDUSTRIAL TECH.
L. WELLS HOUSE
M. MUSIC AND ART CENTER (M.A.C.)
N. FACILITIES & OPERATIONS SHIPPING & RECEIVING
O. RESIDENCE HALL
P. TECHNOLOGY
Q. FACILITIES STORAGE
R. JACK & EDNA MAGUIRE STUDENT REC. CENTER
S. (OLD) WELLS HALL - WING 5
T. DORMITORIES
U. CENTER FOR TECH. EDUCATION & INNOVATION
V. SPORTS COMPLEX

FACILITY ASSET

PROJECT BOUNDARY

0 50' 125' 250'

N

WENATCHEE VALLEY COLLEGE

CENTER FOR TECH. EDUCATION & INNOVATION

PRE-DEMOLITION PHASE

A. BROWN LIBRARY
B. SMITH GYMNASIUM
C. VAN TASSELL CENTER
D. SEXTON HALL

E. CENTRAL WASHINGTON UNIVERSITY
F. BATJER HALL
G. ENVIRONMENTAL SYSTEMS & REFRIGERATION TECH.
H. INDUSTRIAL TECH.

I. FACILITIES STORAGE
J. JACK & EDNA MAGUIRE STUDENT REC. CENTER
K. CENTER FOR TECH. EDUCATION & INNOVATION
L. SPORTS COMPLEX
M. WENATCHI HALL

FACILITY ASSET
PROJECT BOUNDARY
NEW CONSTRUCTION
DEMOLISH

0 20' 50' 100'

N

WENATCHEE VALLEY COLLEGE

CENTER FOR TECH. EDUCATION & INNOVATION
BUILDING REPLACEMENT

A. BROWN LIBRARY
B. SMITH GYMNASIUM
C. VAN TASSELL CENTER
D. SEXTON HALL
E. CENTRAL WASHINGTON UNIVERSITY
F. BATJER HALL (REMOVED)
G. ENVIRONMENTAL SYSTEMS & REFRIGERATION TECH. (REMOVED)
H. INDUSTRIAL TECH. (REMOVED)
I. FACILITIES STORAGE
J. JACK & EDNA MAGUIRE STUDENT REC. CENTER
K. CENTER FOR TECH. EDUCATION & INNOVATION
L. SPORTS COMPLEX
M. WENATCHI HALL

FACILITY ASSET
PROJECT BOUNDARY
NEW CONSTRUCTION
DEMOLISH

0 20' 50' 100'

N

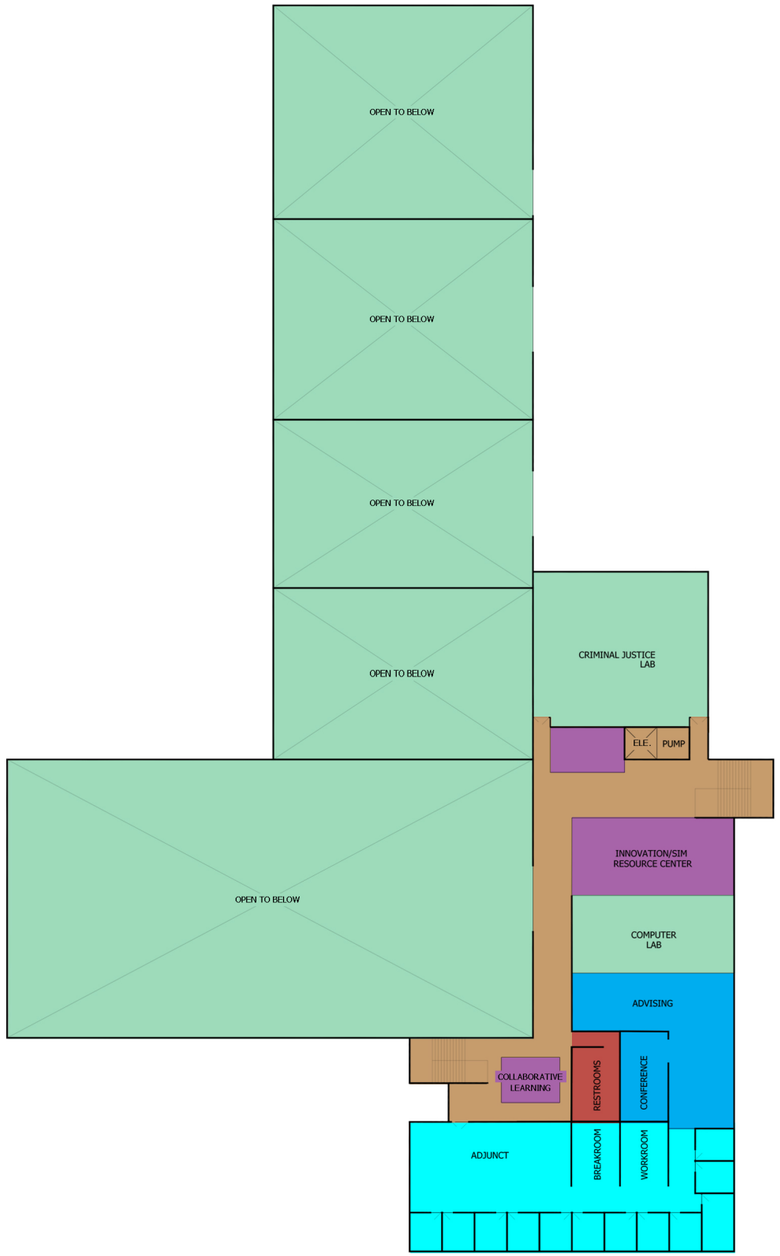
Attachment 8

Preliminary Drawings

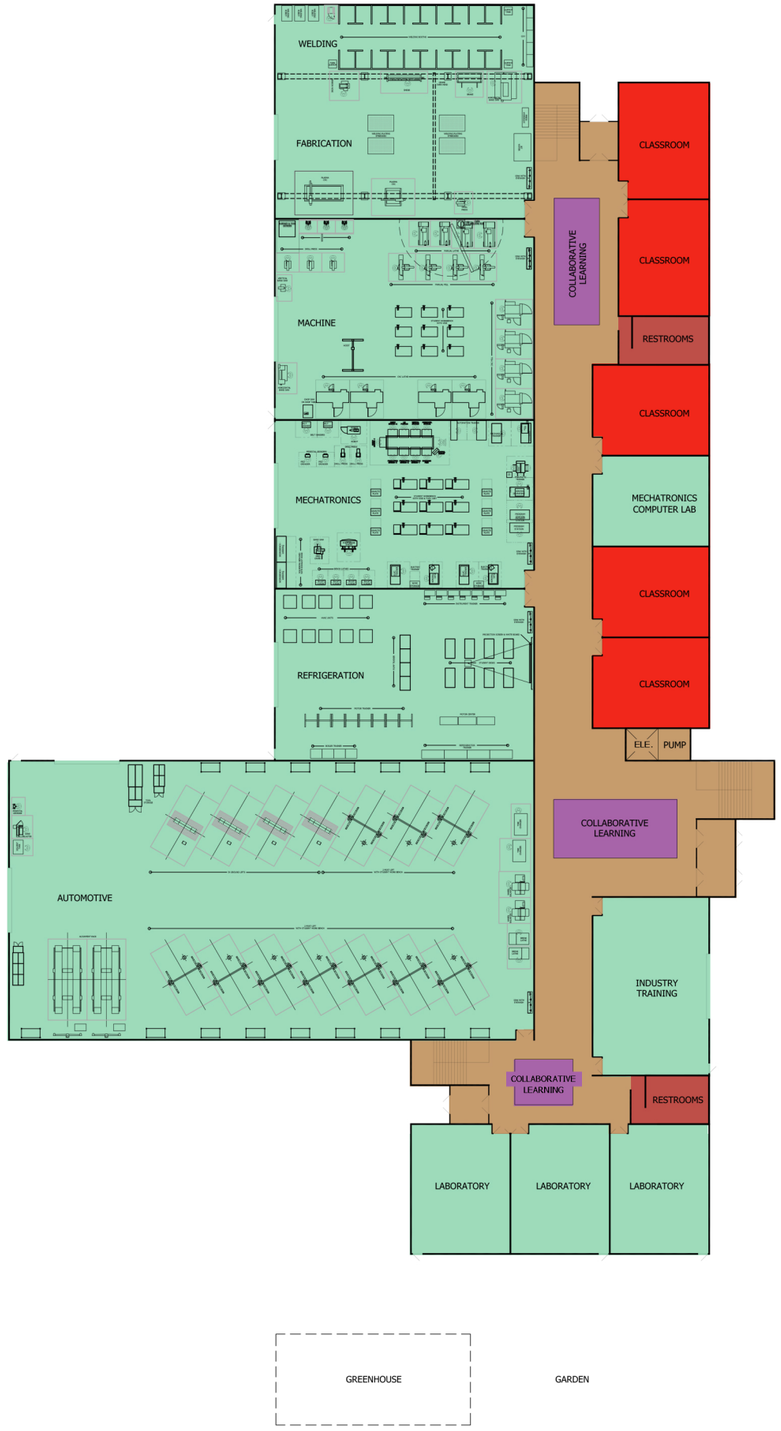
WENATCHEE VALLEY COLLEGE

CENTER FOR TECH. EDUCATION & INNOVATION FLOOR PLAN

SECOND FLOOR



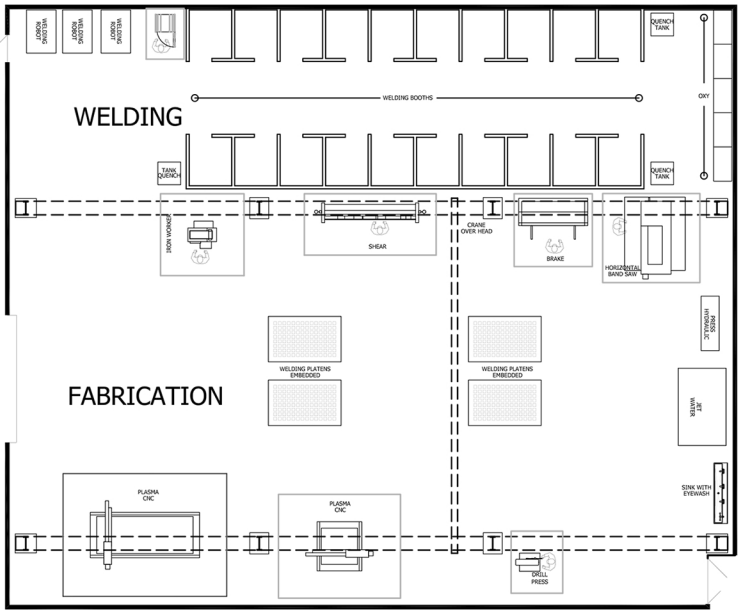
FIRST FLOOR



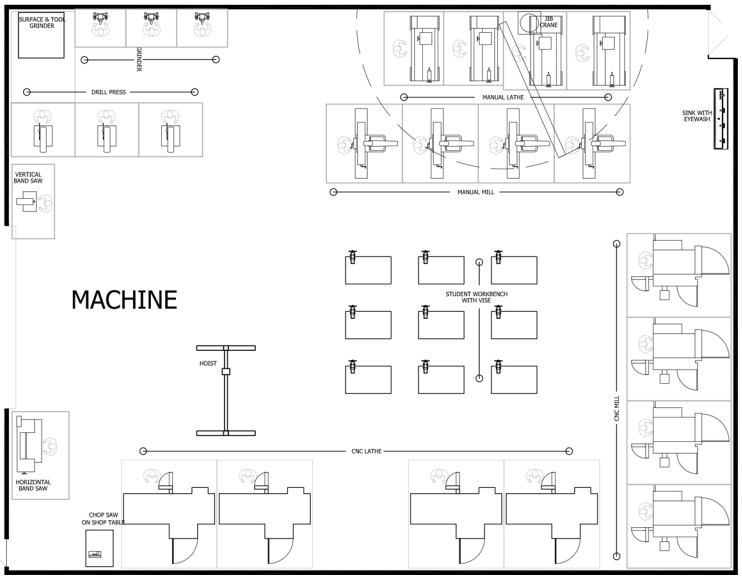
- LAB SPACES
- CLASSROOMS
- COLLABORATIVE LEARNING
- FACULTY
- ADVISING/ STUDENT SERVICES
- CIRCULATION
- SUPPORT SPACES

0 10' 30' 70'

N



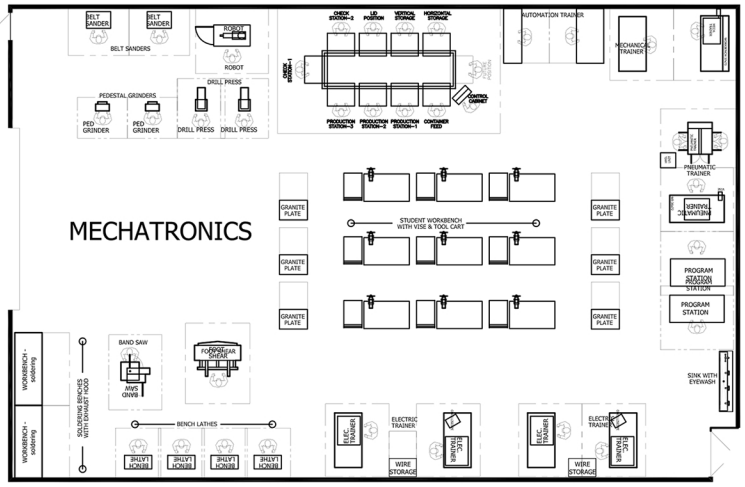
FABRICATION LAB



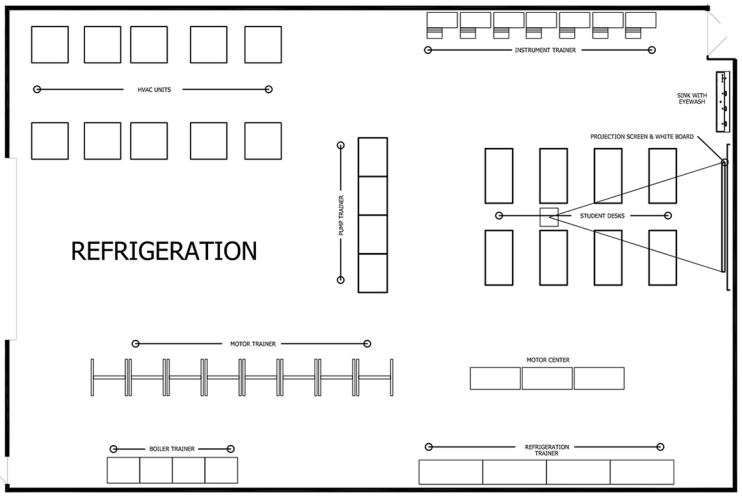
MACHINE LAB

0 10' 30' 70'

N



MECHATRONICS LAB



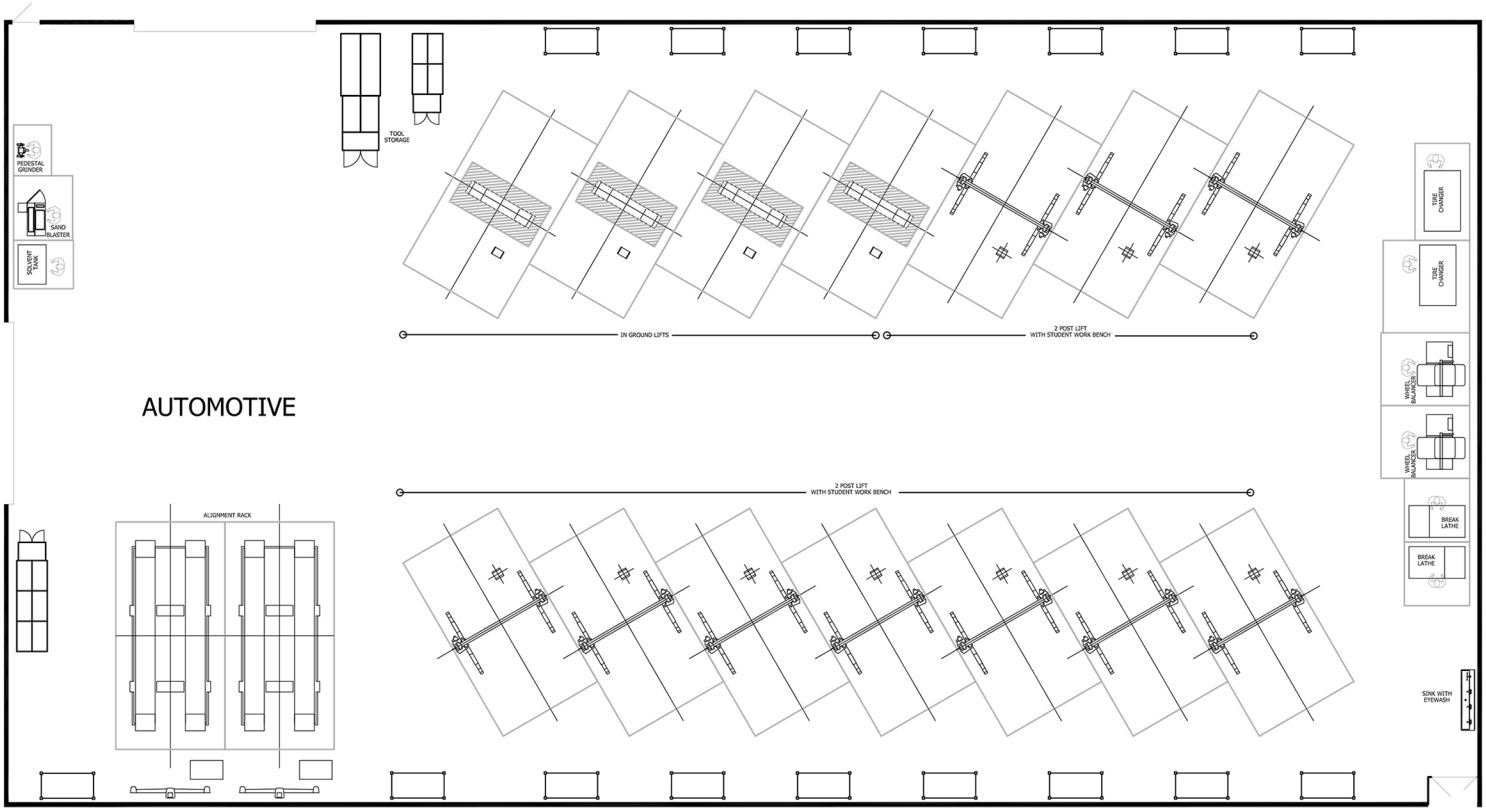
REFRIGERATION LAB

0 10' 30' 70'

N

WENATCHEE VALLEY COLLEGE

LABORATORY LAYOUTS



AUTOMOTIVE LAB

0 10' 30' 70'

N

WENATCHEE VALLEY COLLEGE

CENTER FOR TECH. EDUCATION & INNOVATION

EXTERIOR PERSPECTIVE

Attachment 9

Best Practices to Reduce Greenhouse Gases

BEST PRACTICES TO REDUCE GREENHOUSE GAS EMISSIONS

System / Best Practices	**Included in Project?**
Mechanical	
Solar water heating	Yes – 1
Above code HVAC system efficiency	? – if available
Use natural gas instead of electricity for heating	No
Geothermal heat pump	Yes – 1
Post occupancy commissioning	Yes – 1
Electrical	
Photovoltaic energy systems	No
Time of day and occupancy programming of lighting	Yes – 1
Efficient lighting	Yes – 1
Envelope	
Minimize building surface area for necessary floor area	? – Because of type of use
Roofing materials with high solar reflectance and reliability	Yes – 1
Green roofs to absorb heat and act as insulators for ceilings	No – Climate
Site	
Orient building for natural light and reduced heating and cooling loads	Yes – 1
Trees and vegetation planted to directly shade building	Yes – 1
Paving materials with high solar reflectance, enhanced water evaporation, or otherwise designed to remain cooler ore require less lighting than conventional pavements	Yes – 1
Increase transportation choices – drive, walk, bike, or public transit	Yes – 1
Total number of these best practices included in project: 10	10

Appendix A

Inspection Reports

- Structural
- Mechanical
- Electrical

WENATCHEE VALLEY COLLEGE
FACILITIES STUDY & SURVEY
AUGUST 2017
STRUCTURAL FORTE INC.
STRUCTURAL REPORT

BATJER HALL

DESCRIPTION

Batjer Hall has four different types of construction. At the west end it is a wood roof with CMU load bearing walls. There is a clerestory between the two different roof planes. The next section of the building moving to the east is tongue and groove wood decking spanning between steel bar joists, supported on load bearing CMU walls. The next section moving to the east is a concrete one way joist system supported on concrete walls. At the east end the building, the roof is framed with a steel roof deck on steel bar joists. The joists are supported on CMU load bearing walls at the classrooms and by a steel beam and column system at the large labs. The exterior walls of the labs are concrete.

OBSERVATIONS

1. The exterior exposed CMU walls are in good condition. Some minor hairline cracking in some walls. No signs distress.
2. There is no sign of settling or cracking associated with the slab on grade. In the large labs at the east end there were numerous cracks in the slab.
3. There is no evidence of structural problems.
4. There is no evidence of foundation or soils problems.
5. Limited lateral load capacity in the west two sections of the building.

DISCUSSION

This building is structurally in good condition with no apparent problems. However, the western two sections of the building (most likely) would not preform very well a Code level earthquake or a Code level wind storm. The raised clerestory does not have an apparent load path for lateral loads. Also, the roof diaphragm consisting of tongue and groove decking has limited lateral load carry capacity. The exterior load bearing CMU walls are shear walls. If they are unreinforced, they would have limited capacity. In the lab with the steel bar joists and wood tongue and groove deck the roof deck has water damage near the roof drains. In the east section of the building the metal roofing has been leaking. Numerous ceiling tiles are water stained and if this continues it will cause structural damage.

ENVIRONMENTAL SYSTEMS & REFRIGERATION TECHNOLOGY

DESCRIPTION

Environmental Systems & Refrigeration Technology building is a single story building with a wood roof structure and CMU bearing walls. It was reported the building was built in 1962. The roof is tongue and groove decking with glulam beams. There is a 6' deep utility tunnel under the building.

OBSERVATIONS

1. The exterior exposed CMU walls are in good condition. Some minor hairline cracking in some walls. No signs distress. There are some signs of water getting into the walls.
2. There is no sign of settling or cracking associated with the slab on grade. There were some cracks in the slab.
3. There is no evidence of structural problems.
4. There is no evidence of foundation or soils problems. The utility tunnel was dry.
5. Limited lateral load capacity in the building.

DISCUSSION

This building is structurally in good condition with no apparent problems. However, the building (most likely) would not preform very well a Code level earthquake or a Code level wind storm. The roof diaphragm consisting of tongue and groove decking has limited lateral load carry capacity. The exterior load bearing CMU walls are shear walls. If they are unreinforced, they would have limited capacity. The CMU walls have signs of water infiltration.

INDUSTRIAL TECHNOLOGY

DESCRIPTION

Industrial Technology building is a single story building with a wood roof structure and CMU bearing walls. It was reported the building was built in 1961. The roof framing is 1x6 diagonal sheathing on, 2x (10's ?) roof joist spanning to, large glulams on, CMU walls. The roof is low slope with three different levels. There is a deep (12' +/-) lift pit in the floor with a large hydraulic ram. There is a small (20' x 25') wood canopy on the one corner. The canopy is framed with 2x purlins on metal side plate connected trusses.

OBSERVATIONS

1. The exterior exposed CMU walls are in good condition. Some minor hairline cracking in some walls. No signs distress.
2. There is no sign of settling or cracking associated with the slab on grade. There were some cracks in the slab.
3. There is no evidence of structural problems.
4. There is no evidence of foundation or soils problems. The lift pit was dry.
5. Limited lateral load capacity in the building.

DISCUSSION

This building is structurally in good condition with no apparent problems. However, the building (most likely) would not perform very well a Code level earthquake or a Code level wind storm. The roof diaphragm consisting of 1x6 diagonal sheathing has limited lateral load carry capacity. The exterior load bearing CMU walls are shear walls. If they are unreinforced, they would have limited capacity. The east side of the building is all garage doors with limited shear wall. The metal side plate connected trusses at the small canopy were weathered and appeared to be in bad shape. The metal side plate connections will loosen when exposed to the weather.

Wenatchee Valley College – Building Condition Assessment Narrative
Mechanical

Batjer Hall

The building was constructed in 1950, with miscellaneous additions/modifications completed over time since then. Batjer Hall contains Criminal Justice and Agriculture programs, an Auto Shop, and a Machine Shop.

A water-cooled chiller is located in the mechanical room. The chiller is a screw type manufactured by Trane in 2001, is 400 tons in size, and has R-134A refrigerant. The chiller serves five buildings in conjunction with a second, smaller chiller at Sexton Hall: Batjer, Sexton, Wells, Brown Library, and the Music and Art Center. The chiller is piped in a primary/secondary arrangement with a constant speed 15 hp primary pump and two variable speed secondary pumps. The primary pump is new (added during a recent ESCO project around 2012), the secondary pumps appear to be the same age as the chiller (16 years), and the condenser water pump appears to be older. No issues were reported with the chiller. The chiller is 16 years old; the median service life is 25-30 years.

A cooling tower is located on the roof and is 20+ years old; the median service life for a cooling tower is 20 years. They tower functions well but is in need of repair. The drift eliminators need replacement and there are some issues with the water level controls. The water treatment system, located in the basement, is newer and appears to be adequate and fully functioning.

Hot water is generated by two Weil McLane Series 88, cast iron sectional boilers. The boilers each have an output capacity of 3,000 MBH. The boilers serve two buildings: Batjer Hall and Sexton Hall. The boilers are piped in a primary/secondary arrangement with two constant speed 3 hp primary water pumps two variable speed 15 hp secondary pumps. Some of the pumps have minor leaks. One of the boilers was recently leaking; both are in use. We believe the boilers were manufactured in 1974 (43 years old) and were originally used to make steam. The burners are 21 years old. The median service life for cast iron boilers is 35 years, so the boilers are due for replacement.

The building HVAC system consists of several VAV air handlers with hot water heating coils and chilled water cooling coils. Fan powered VAV terminal units serve each zone. The terminal units are high maintenance items – filters and belts need regular attention and motors and coils need occasional replacement. The terminal units are located above ceilings, so access is difficult. It was also pointed out that many spaces are under ventilated as a result of under sized ductwork. The DDC system is by Siemens. All air handlers, boilers, and chiller are connected to the Siemens DDC system.

The Agricultural department consists of classrooms, offices, and three greenhouses.

Two air handlers are located on a mezzanine in the Auto Shop. One serves the Shop and the other serves offices in the Shop and an adjacent classroom addition. The air handler serving the shop was constructed in 1996 by Pace and as a heating water coil, but no cooling. The second unit is new and has both heating water and chilled water coils. The Auto Shop has a variable speed in-floor vehicle exhaust system. The restrooms in the Shop are small.

The Mail Room is served by a 4-pipe fan coil unit. A makeup air unit, exhaust fan, and condensing unit are on the roof of the Mail Room and no longer used.

The Machine Shop is served by an air handler with a heating water coil, but no cooling. The room has one exhaust hood with an inline centrifugal exhaust fan. The hood and fan appear to be relatively new. There is no exhaust hood over the plasma cutter, so it is not used.

A couple 80 and 119-gallon electric water heaters serve the plumbing fixtures throughout the building. Small pumps circulate water back to the water heaters.

Overall, the general condition of the HVAC equipment is mixture of fair to good. The heating water system needs attention, but the chilled water system is newer. With the exception of BAHU-5, other components (most air handlers and exhaust fans, some pumps) are at or beyond the median service life.

Industrial Technology

The building was constructed in 1970, with a remodel completed in 2003. The building is comprised of three labs, a classroom, a small video classroom, some office and storage spaces, and three single toilet restrooms.

Classroom 7501 and the adjacent offices are served by a packaged heat pump rooftop unit with electric backup heat. Damper controls subdivide the system into four zones. The zone system recently had the controls upgraded and reportedly works adequately. The rooftop heat pump is approximately 8 years old and the median service life is 15 years.

Lab 7506 is heated with three gas-fired unit heaters. There is no cooling or ventilation.

Fabrication Lab 7508 is heated with two gas-fired unit heaters. There is no cooling. There are two tables in the room without any general or overhead exhaust. There are four old welding booths; three are presently used for grinding and one for storage. Booth exhaust consists of a duct stubbed into the ceiling. There is a metal table in the corner with a makeshift hood – basically an overhead cover with a duct stubbed into it. Makeup air is supplied from the adjacent room. This room, including the grinding booths and table areas, are not adequately ventilated.

Welding Lab 7509 contains 18 welding booths plus 1 table with an exhaust snorkel and 12 welding stations (3 tables divided into four sections) with slotted exhaust plenums. The booths have an exhaust duct stubbed into the ceiling (no snorkel). Booths without a snorkel require 2,000 cfm of exhaust. Exhaust snorkels that can be adjusted to remove smoke/fumes close to the source require less exhaust. The exact exhaust rate was not verified, but the system was turned on and the exhaust is substantial.

There are three constant speed exhaust systems, each with a makeup air system interlocked with the exhaust. The makeup air units have gas heat and evaporative cooling. The system was reconfigured and upgraded in 2017 and performs well but the space is crowded. One of the three exhaust systems is new and two are old.

Environmental Systems & Refrigeration Technology

The building was constructed in 1967, Originally constructed for bus storage, later used for a maintenance building and currently the Refrigeration Lab.

The Refrigeration Technology building is served by a rooftop unit with packaged cooling, electric heat, and working economizer. Two electric duct heaters serve each half of the building. A rooftop exhaust fan serves the bathroom. The system is functioning, but appears to be older than the median service life of 20 years. The general condition of the HVAC equipment is fair and its age appears to be beyond the median service life.

WENATCHEE VALLEY COLLEGE

BUILDING CONDITION ASSESSMENT NARRATIVE

BATJER HALL, REFRIDGERATION LAB, & INDUSTRIAL TECHNOLOGY

Overall General Comments

Batjer Hall, The Refrigeration Lab and the Industrial Technology buildings all have fairly outdated electrical distribution systems that where originally installed back in the 1960's & 70's. Electrical outlets and connections are not currently meeting the needs of the instructors and students. In some areas multi pieces of equipment are required to use the same outlet plug. These pieces of equipment are required to be unplugged in order to use the other piece of equipment. Modifications and additions have been made throughout the year, but the systems are still aged and would require major updates/changes to accommodate any major remodeling of the spaces. Currently many of the space in all three of these buildings are not large enough for the required occupancy of the space and therefore equipment and teaching spaces are limited and crowded.

The low voltage data networks have been added to these facilities with what appears to be completed in different stages as needs have arisen. The data system is currently working but would benefit from new data room layouts and star topology distribution system with update fiber and category cable technology. The system does not have much capacity for future expansions and therefore we would recommend a system replacement with new technology and layouts either in a remodel of the spaces or with new construction.

The campus would benefit from combining these different technical trades into a single facility that would utilize a single electrical service for lighting, power and equipment connections. The data system would greatly benefit from a combined facility to enhance the instruction atmosphere and laboratory training utilizing new technology in telecommunications and audio video areas.

WENATCHEE VALLEY COLLEGE

BUILDING CONDITION ASSESSMENT NARRATIVE

BATJER HALL – BUILDING 8000

General Comments

The building was constructed in 1950, with miscellaneous additions/modifications completed some years later.

Power Distribution

The service to the building is fed from a utility pad mount transformer. It serves a NEMA 3R, 2000A, 208Y/120V, 3 phase switchboard installed in the exterior building utility yard. The service transformer also services an 600A 208Y/120V 3 phase service added/replaced in 2012 that feeds added boiler pumps and existing distribution panels in the building. Panels throughout the building have limited spare breaker capacity. Most of the existing electrical distribution boards and panels are older GE technology with some new Square 'D' panels in the addition areas. The electrical distribution is inadequate in many areas and is outdated and would be difficult to modify or update due the age of the gear and panels. We would recommend a new electrical distribution system where major modification or remodeling of the building would occur.

Lighting

Interior lighting consists primarily 2x4 lensed fluorescent troffers & pendant hung open strip fixtures in the shop areas. Lighting fixture are primarily T8 fluorescent lamps and electronic ballasts. The existing power densities in most spaces exceed current code requirements. Lighting distribution in shop areas is acceptable but could be improved with new lighting layouts and LED technology.

Lighting Control

Interior lighting fixture control is primarily manual switches in all areas. Classrooms control consists of the original construction manual switches with limited occupancy sensing technology. The shop lighting fixtures are manual controlled and are only located in a single location. The existing lighting controls do not meet current code.

Receptacles

There are adequate quantity of receptacles and branch circuits presently serving the facility to get by but additional devices & branch circuits would be desirable with today's technology needs. The devices are standard grounded duplex receptacles. GFCI devices are located within 6' of sinks and on the exterior. Many of the circuit are feed using surface mounted conduit and j-boxes.

Systems

The Fire Alarm system is made up of a Simplex 4002 conventional panel and limited detection & notification devices. The system is not networked with other buildings on campus but is monitored via a central reporting station. The building is not sprinkled.

There is a CAT 5 voice/data networking system which provides networking and internet access to the classrooms, offices and shops. There are some wireless access points in place. A fiber distribution rack is installed in the basement boiler room. Fiber inner duct is routed throughout the boiler space and into the building area feeding data racks/cabinets located throughout the facilit . Data racks located throughout the building are in mechanical and storages rooms which are often dirty environments where equipment is susceptible to dirt and debris which shortens the life of the data electronic equipment.

Select classrooms have projectors and AV systems with cabling route either surface on walls or at the ceiling.

There is an existing access control security system installed which includes a key fob reader at exterior entrances. The system is monitored via a central reporting station. There are also a few IP surveillance cameras in use.

Rating

The overall rating for the Batjer Hall electrical systems is **Fair.**

WENATCHEE VALLEY COLLEGE

BUILDING CONDITION ASSESSMENT NARRATIVE

REFRIDGERATION LAB – BUILDING 7000

General Comments

The building was constructed in 1967, Originally constructed for bus storage, later used for a maintenance building and currently the Refrigeration Lab.

Power Distribution

The service to the building is fed from a utility pad mount transformer. It serves a 408Y/277V 3-phase panelboard. A 480V-208Y/120V dry type transformer serves a 208Y/120V, 3 phase panel. The panels have limited breaker space and are located in the lab area where instructional equipment and tools fill the entire space. The service is not adequate for the required electrical equipment connections needed for instruction.

Lighting

Interior lighting consists primarily of open fluorescent troffers Lighting fixture are T8 fluorescent lamps and electronic ballasts. Lighting distribution in the lab and classroom areas is adequate but would improve the teaching environment if replace with new technology.

Lighting Control

Interior lighting fixture control is primarily manual switches in all areas. The existing lighting controls do not meet current code.

Receptacles

There classroom and lab receptacles and branch circuits are either wall mounted or dropped down from the ceiling to serve diffident areas. The devices are standard grounded duplex receptacles. GFCI devices are located within 6’ of sinks and on the exterior. It appears that the receptacles layout requires an upgrade to meet the current needs of the space. The classroom and lab are undersized for the space use and therefore equipment and teaching supplies take up the entire space.

Systems

There is a CAT 5 voice/data networking system which provides networking and internet access to the classrooms and lab. The wall mounted enclosure is located in the classroom portion of the building which is considered a dirty space where dust and debris can degrade electronic equipment. The wall mounted cabinet does not have a front door installed and therefore is exposed to the classroom/lab environment.

There is an existing access control security system installed which includes a key fob reader at exterior entrances. The system is monitored via a central reporting station.

Rating

The overall rating for the Refrigeration Labs electrical systems is **Fair.**

WENATCHEE VALLEY COLLEGE

BUILDING CONDITION ASSESSMENT NARRATIVE

INDUSTRIAL TECHNOLOGY – BUILDING 7500

General Comments

The building was constructed in 1970, with a remodel completed in 2003.

Power Distribution

The service to the building is fed from pole mounted transformers. The welding area is feed with a 240V 3-phase service. Welding booths are feed from a 240V overhead electrical busway system. Panels are located in the classroom, industrial lab and vestibule. These panels service receptacles outlets, lighting, and equipment. Panels are in fair condition with some spare capacity.

Lighting

Interior lighting consists primarily of open fluorescent troffers Lighting fixture are T8 fluorescent lamps and electronic ballasts. New LED lighting has recently been installed in a portion of the welding area.

Lighting Control

Interior lighting fixture control is primarily manual switches in all areas. The existing lighting controls do not meet current code.

Receptacles

The classroom and lab receptacles and branch circuits are provided in each space for their required use. The devices are standard grounded duplex receptacles. GFCI devices are located within 6’ of sinks and on the exterior. Outlets and conduit are generally surface mounted and has been modified to meet the current layout needs.

Systems

The Fire Alarm system is made up of a Simplex 4001U conventional panel and limited detection & notification devices. The system is not networked with other buildings on campus but is monitored via a central reporting station. The building is not sprinkled.

There is a CAT 5 voice/data networking system which provides networking and internet access to the classrooms and lab. Data outlet locations are limited to classroom spaces and wireless access pints.

There is an existing access control security system installed which includes a key fob reader at exterior entrances. The system is monitored via a central reporting station.

Rating

The overall rating for the Industrial Technology electrical systems is **Fair.**

Appendix B

Selected Material from Facility Condition Survey

- 2013 Survey
- 2015 Survey

Building Name	Building Number	Size (SF)	Previous Score	Updated Score
Batjer (150-BTJ)	150BTJ	40,784	430	430
Brown Library (150-BLM)	150BLM	33,756	226	226
Central Washington Univer (150-CWU)	150CWU	7,667	158	159
Eller/Fox (150-EFS)	150EFS	16,200	218	221
Facilities (150-FAC)	150FAC	7,339	178	179
Facilities Office And Shop (150-NSC6)	150NSC6	1,034	268	288
Friendship Hall (150-NFH)	150NFH	7,131	178	217
Gray House (150-HO1)	150HO1	1,658	444	457
Gym (150-GYM)	150GYM	25,901	414	425
Industrial Technology (150-INT)	150INT	8,428	420	432
Music And Art Center (150-MAC)	150MAC	27,656	146	146
New Classroom Building (150-NSC9)	150NSC9	3,194	500	512
North Administration Bldg (150-NAD)	150NAD	5,600	246	246
North Classroom (150-NCL)	150NCL	8,848	202	217
Omak College Foundation Office (150-NSC7)	150NSC7	839	504	518
Refrig (150-RFG)	150RFG	4,384	388	410

BUILDING CONDITION RATING

Batjer (150-BTJ) STATE UFI: A04052 Main Campus (150A)

AREA: 40,784 SF BUILT: 1950 REMODELED: No PREDOMINANT USE: Multi-Use

CONSTRUCTION TYPE: Medium CRV/SF: $316 REPLACEMENT VALUE: $12,887,744

Primary Systems	
COMPONENT: Structure	RATING: 3 x WEIGHT: 8 = SCORE: 24
Some cracking evident but does not likely affect structural integrity; Visible defects apparent but are non-structural	
COMMENTS: Concrete; steel framing; concrete slab	
COMPONENT: Exterior Closure	RATING: 3 x WEIGHT: 8 = SCORE: 24
Sound and weatherproof but with some deterioration evident	
COMMENTS: Concrete; brick	
COMPONENT: Roofing	RATING: 1 x WEIGHT: 10 = SCORE: 10
Flashing and penetrations appear sound and membrane appears water- tight; drainage is positive and there are overflow scuppers	
COMMENTS: Hypalon single-ply/cap sheet; concrete parapet replacement in 08	

Secondary Systems						
COMPONENT:	Floor Finishes	RATING: 5	x	WEIGHT: 6	=	SCORE: 30
Extensive deterioration and unevenness						
COMMENTS:	Vinyl tile; concrete; carpet					
COMPONENT:	Wall Finishes	RATING: 3	x	WEIGHT: 6	=	SCORE: 18
Aging surfaces but sound; some maintenance is required						
COMMENTS:	CMU; gypsum board; ceramic tile; concrete					
COMPONENT:	Ceiling Finishes	RATING: 3	x	WEIGHT: 6	=	SCORE: 18
Some wear and tear; Minor staining or deterioration						
COMMENTS:	Lay-in tile; direct-adhered tile; gypsum board; metal roof deck					
COMPONENT:	Doors & Hardware	RATING: 3	x	WEIGHT: 6	=	SCORE: 18
Functional but dated						
COMMENTS:	Interior wood/HM doors/HM frames; exterior metal frame glazed doors; metal OH doors					

Service Systems						
COMPONENT:	Elevators	RATING: 5	x	WEIGHT: 6	=	SCORE: 30
No elevator access for upper floors						
COMMENTS:	2 stories					
COMPONENT:	Plumbing	RATING: 3	x	WEIGHT: 8	=	SCORE: 24
Fixtures are functional but dated; some leaks; maintenance required						
COMMENTS:	Copper, galvanized and cast iron pipe; mix of old and newer fixtures					
COMPONENT:	HVAC	RATING: 1	x	WEIGHT: 8	=	SCORE: 8
Equipment in good condition; easily controlled; serves all required spaces; All necessary spaces are adequately ventilated; A/C provided						
COMMENTS:	2 hot water boilers-new in 96; new chillers in 01; packaged rooftop unit; AHU					
COMPONENT:	Electrical	RATING: 3	x	WEIGHT: 8	=	SCORE: 24
Service capacity meets current needs but inadequate for future						
COMMENTS:	1000amp 208/120v					
COMPONENT:	Lights/Power	RATING: 3	x	WEIGHT: 8	=	SCORE: 24
Adequate work area illumination; adequate outlets for current use						
COMMENTS:	Ceiling mount and hanging fluorescent lighting					

Safety Systems			
COMPONENT:	Life/Safety	RATING: 3 x WEIGHT: 10 =	SCORE: 30
Generally meets codes for vintage of construction			
COMMENTS:			
COMPONENT:	Fire Safety	RATING: 1 x WEIGHT: 10 =	SCORE: 10
Locally monitored detection; alarm present; sprinklers in high hazard areas			
COMMENTS:	Fire alarm; sprinklers in shop areas		
COMPONENT:	Modifications	RATING: 3 x WEIGHT: 7 =	SCORE: 21
Some modifications lack code compliance; HVAC service not fully considered during renovation			
COMMENTS:	Some space modifications not well thought out		

Quality Standards			
COMPONENT:	Maintenance	RATING: 3 x WEIGHT: 7 =	SCORE: 21
Routine maintenance is required; deferred maintenance is evident; impact is minor to moderate			
COMMENTS:			
COMPONENT:	Remaining Life	RATING: 5 x WEIGHT: 6 =	SCORE: 30
Life expectancy is <5 years; significant system deterioration			
COMMENTS:	Building is not cost-effective to renovate; RUL <10 yrs.		
COMPONENT:	Appearance	RATING: 5 x WEIGHT: 6 =	SCORE: 30
Poor to average construction, but very unattractive exterior and interior spaces			
COMMENTS:			

Heat Loss			
COMPONENT:	Insulation	RATING: 3 x WEIGHT: 6 =	SCORE: 18
Insulation present, but not to current standards (installed prior to 2010)			
COMMENTS:	Inadequate in some areas		
COMPONENT:	Glazing	RATING: 3 x WEIGHT: 6 =	SCORE: 18
Double glazing with aluminum/metal window frames			
COMMENTS:	Glass block in addition to windows		

TOTAL SCORE = 430 PREVIOUS BIENNIUM SCORE = 430

CONDITION: Needs Improvement/Renovation

BUILDING CONDITION RATING

Industrial Technology (150-INT) STATE UFI: A00152 Main Campus (150A)

AREA: 8,428 SF BUILT: 1970 REMODELED: 2003 PREDOMINANT USE: Vocational Arts

CONSTRUCTION TYPE: Medium CRV/SF: $316 REPLACEMENT VALUE: $2,663,248

Primary Systems	
COMPONENT: Structure	RATING: 3 x WEIGHT: 8.3 = SCORE: 25
Some cracking evident but does not likely affect structural integrity; Visible defects apparent but are non-structural	
COMMENTS: CMU; concrete; wood beam; seismic concerns	
COMPONENT: Exterior Closure	RATING: 3 x WEIGHT: 8.3 = SCORE: 25
Sound and weatherproof but with some deterioration evident	
COMMENTS: CMU	
COMPONENT: Roofing	RATING: 3 x WEIGHT: 10.4 = SCORE: 31.3
Some deterioration is evident in membrane and flashings; maintenance or minor repair is needed	
COMMENTS: Mineral surfaced cap sheet-repairs required	

Secondary Systems			
COMPONENT:	Floor Finishes	RATING: 3 x WEIGHT: 6.3 =	SCORE: 18.8
Some wear and minor imperfections are evident; beginning deterioration			
COMMENTS:	Carpet; concrete		
COMPONENT:	Wall Finishes	RATING: 3 x WEIGHT: 6.3 =	SCORE: 18.8
Aging surfaces but sound; some maintenance is required			
COMMENTS:	CMU and Gypsum board		
COMPONENT:	Ceiling Finishes	RATING: 3 x WEIGHT: 6.3 =	SCORE: 18.8
Some wear and tear; Minor staining or deterioration			
COMMENTS:	Lay-in tile; wood roof deck; gypsum board		
COMPONENT:	Doors & Hardware	RATING: 3 x WEIGHT: 6.3 =	SCORE: 18.8
Functional but dated			
COMMENTS:	Interior/exterior HM doors/frames; metal OH doors		

Service Systems			
COMPONENT:	Elevators	RATING: 0 x WEIGHT: 0 =	SCORE: 0
No data			
COMMENTS:			
COMPONENT:	Plumbing	RATING: 3 x WEIGHT: 8.3 =	SCORE: 25
Fixtures are functional but dated; some leaks; maintenance required			
COMMENTS:	Galvanized, cast iron, steel and copper piping; porcelain fixtures		
COMPONENT:	HVAC	RATING: 3 x WEIGHT: 8.3 =	SCORE: 25
System generally adequate; some deterioration; needs balancing; Offices areas have A/C; hazardous areas are ventilated			
COMMENTS:	Rooftop packaged units; unit heaters; welding ventilation		
COMPONENT:	Electrical	RATING: 1 x WEIGHT: 8.3 =	SCORE: 8.3
Adequate service and distribution capacity for current/future needs			
COMMENTS:	1200amp 208/120v		
COMPONENT:	Lights/Power	RATING: 3 x WEIGHT: 8.3 =	SCORE: 25
Adequate work area illumination; adequate outlets for current use			
COMMENTS:	Lay-in, ceiling-mount and hanging fluorescent lighting		

Safety Systems						
COMPONENT:	Life/Safety	RATING: 3	x	WEIGHT: 10.4	=	SCORE: 31.3
Generally meets codes for vintage of construction						
COMMENTS:						
COMPONENT:	Fire Safety	RATING: 3	x	WEIGHT: 10.4	=	SCORE: 31.3
Extinguishers and signed egress; no violations; no alarm or sprinklers						
COMMENTS:						
COMPONENT:	Modifications	RATING: 1	x	WEIGHT: 7.3	=	SCORE: 7.3
Modifications appear to be in compliance with codes and sound construction practices; HVAC/electrical service properly provided						
COMMENTS:	New welding shop remodel has been well done					

Quality Standards						
COMPONENT:	Maintenance	RATING: 3	x	WEIGHT: 7.3	=	SCORE: 21.9
Routine maintenance is required; deferred maintenance is evident; impact is minor to moderate						
COMMENTS:						
COMPONENT:	Remaining Life	RATING: 5	x	WEIGHT: 6.3	=	SCORE: 31.3
Life expectancy is <5 years; significant system deterioration						
COMMENTS:	Building has met life expectancy; should be replaced					
COMPONENT:	Appearance	RATING: 5	x	WEIGHT: 6.3	=	SCORE: 31.3
Poor to average construction, but very unattractive exterior and interior spaces						
COMMENTS:						

Heat Loss						
COMPONENT:	Insulation	RATING: 3	x	WEIGHT: 6.3	=	SCORE: 18.8
Insulation present, but not to current standards (installed prior to 2010)						
COMMENTS:						
COMPONENT:	Glazing	RATING: 3	x	WEIGHT: 6.3	=	SCORE: 18.8
Double glazing with aluminum/metal window frames						
COMMENTS:						

TOTAL SCORE = 432 PREVIOUS BIENNIUM SCORE = 420

CONDITION: Needs Improvement/Renovation

BUILDING CONDITION RATING

Refrig (150-RFG) STATE UFI: A05917 Main Campus (150A)

AREA: 4,384 SF BUILT: 1967 REMODELED: No PREDOMINANT USE: Vocational Arts

CONSTRUCTION TYPE: Medium CRV/SF: $316 REPLACEMENT VALUE: $1,385,344

Primary Systems						
COMPONENT:	Structure	RATING: 3	x	WEIGHT: 8.7	=	SCORE: 26.1
Some cracking evident but does not likely affect structural integrity; Visible defects apparent but are non-structural						
COMMENTS:	CMU; wood beams; seismic concerns					
COMPONENT:	Exterior Closure	RATING: 3	x	WEIGHT: 8.7	=	SCORE: 26.1
Sound and weatherproof but with some deterioration evident						
COMMENTS:	Dryvit panels-larger cracks in several panels					
COMPONENT:	Roofing	RATING: 5	x	WEIGHT: 10.9	=	SCORE: 54.5
Leaking and deterioration is to point where new roof is required						
COMMENTS:	Single-ply membrane-deteriorated; funded for replacement; not done - repairs only					

Secondary Systems			
COMPONENT:	Floor Finishes	RATING: 1 x WEIGHT: 6.5 =	SCORE: 6.5
Nice appearance, smooth transitions, level subfloors, no cracks/separating			
COMMENTS:	Concrete floor throughout		
COMPONENT:	Wall Finishes	RATING: 1 x WEIGHT: 6.5 =	SCORE: 6.5
Maintainable surfaces in good condition			
COMMENTS:	Unfinished CMU walls		
COMPONENT:	Ceiling Finishes	RATING: 1 x WEIGHT: 6.5 =	SCORE: 6.5
Maintainable surfaces in good condition; good alignment and appearance			
COMMENTS:	T&G wood ceiling-underside of roof deck		
COMPONENT:	Doors & Hardware	RATING: 3 x WEIGHT: 6.5 =	SCORE: 19.6
Functional but dated			
COMMENTS:	Exterior/interior HM doors/frames; metal OH door		

Service Systems			
COMPONENT:	Elevators	RATING: 0 x WEIGHT: 0 =	SCORE: 0
No data			
COMMENTS:			
COMPONENT:	Plumbing	RATING: 3 x WEIGHT: 8.7 =	SCORE: 26.1
Fixtures are functional but dated; some leaks; maintenance required			
COMMENTS:	Galvanized, copper and cast iron piping; porcelain fixtures		
COMPONENT:	HVAC	RATING: 1 x WEIGHT: 8.7 =	SCORE: 8.7
Equipment in good condition; easily controlled; serves all required spaces; All necessary spaces are adequately ventilated; A/C provided			
COMMENTS:	Rooftop packaged A/C units		
COMPONENT:	Electrical	RATING: 1 x WEIGHT: 8.7 =	SCORE: 8.7
Adequate service and distribution capacity for current/future needs			
COMMENTS:	400amp 208/120v		
COMPONENT:	Lights/Power	RATING: 3 x WEIGHT: 8.7 =	SCORE: 26.1
Adequate work area illumination; adequate outlets for current use			
COMMENTS:	Ceiling-mount fluorescent fixtures; inadequate lighting in some areas		

Safety Systems						
COMPONENT:	Life/Safety	RATING: 3	x	WEIGHT: 10.9	=	SCORE: 32.7
Generally meets codes for vintage of construction						
COMMENTS:						
COMPONENT:	Fire Safety	RATING: 3	x	WEIGHT: 10.9	=	SCORE: 32.7
Extinguishers and signed egress; no violations; no alarm or sprinklers						
COMMENTS:						
COMPONENT:	Modifications	RATING: 1	x	WEIGHT: 7.6	=	SCORE: 7.6
Modifications appear to be in compliance with codes and sound construction practices; HVAC/electrical service properly provided						
COMMENTS:	None evident					

Quality Standards						
COMPONENT:	Maintenance	RATING: 3	x	WEIGHT: 7.6	=	SCORE: 22.9
Routine maintenance is required; deferred maintenance is evident; impact is minor to moderate						
COMMENTS:						
COMPONENT:	Remaining Life	RATING: 5	x	WEIGHT: 6.5	=	SCORE: 32.7
Life expectancy is <5 years; significant system deterioration						
COMMENTS:	Older building that is inadequate in size and poor design for instructional use					
COMPONENT:	Appearance	RATING: 5	x	WEIGHT: 6.5	=	SCORE: 32.7
Poor to average construction, but very unattractive exterior and interior spaces						
COMMENTS:						

Heat Loss						
COMPONENT:	Insulation	RATING: 5	x	WEIGHT: 6.5	=	SCORE: 32.7
No insulation						
COMMENTS:	None					
COMPONENT:	Glazing	RATING: 0	x	WEIGHT: 0	=	SCORE: 0
No data						
COMMENTS:						

TOTAL SCORE = 410 PREVIOUS BIENNIUM SCORE = 388

CONDITION: Needs Improvement/Renovation

Appendix C

Selected Material from Master Plan & Strategic Plan

Wenatchee Valley College

Facilities Master Plan

Goals/Objectives

Goal 1: EMPOWER STUDENT SUCCESS

Now and moving into the future, student success is at the core of Wenatchee Valley College. By continuing to place value on the success and empowerment of students, WVC will cultivate their most valuable resource.

Objective 1.1: Provide **abundant educational resources** to ensure superior teaching and learning

When both teachers and students have access to all necessary educational resources, educational techniques are able to advance, furthering the progression of education as a whole.

1.1.1: Access to modern technology

Providing access to modern technology that is consistently advancing will provide students with a wider range of career opportunities moving forward.

1.1.2: Preparation for future technologies though **flexible and adaptable spaces**

As WVC plans for the advancement of relevant technological skills, it is important to consider how the use of space may change and adapt over time. By developing flexible and adaptable spaces, WVC can prepare for unforeseen technological development and educational needs.

1.1.3: Inspire learning opportunities outside of the classroom

Opportunities for learning expand beyond that of the traditional classroom setting. Students should be provided with spaces that encourage learning before and after class; spaces that inspire interaction and the sharing of new ideas, increased interactions with professors, and opportunities for mentorship.

Objective 1.2: Ensure **clear pathways to higher education**

Creating spaces that celebrates programs and associated industries provide students with more opportunities to reach higher goals. WVC should specialize in industries and stand as a center for excellence throughout the region.

1.2.1: Expand Bachelor degree programs

Currently, most of WVC's academic programs span over two years. While WVC does have two bachelor degree programs available, providing further opportunities for higher education would benefit students. Additionally, WVC may see higher enrollment with the availability of further four-year programs.

1.2.2. Create and expand spaces for continuing education

Many students, while attending WVC as well as post-graduation, would benefit from certificate programs, speaker series, other forms of continuing education apart from traditional degree programs.

1.2.3: Accreditation

Currently, WVC is accredited by the Northwest Commission on Colleges and Universities. Additionally, WVC has four accredited areas of study. Pursuing program accreditation for

additional programs at WVC will provide greater opportunities for students after graduation, as well as those who wish to transfer to institutions of higher education.

1.2.4: Integration of guided pathways into college infrastructure

Guided pathways ensure students have a clear path towards their goals with help from guidance counselors and professors. This includes specific course sequences, progress milestones, one-stop services, and program learning outcomes.

Objective 1.3: **Eliminate barriers** that impact attendance of 'non-traditional' students

When catering to a group of diverse students with various needs, it is critical to consider what barriers might exist in their pursuit of higher education, and subsequently take action to break down such barriers.

1.3.1: Online/Off-campus services

Providing services both online and off-campus would provide students who may work full-time better access to educational resources to aid in their success.

1.3.2: Expand student support services

Current support services:

- *CAMP program (College Assistance for Migrant Workers)*
- *TRiO (Provides support and services to low-income students with disabilities)*
- *Veteran Office*
- *Counseling services*
- *DREAMers Task Force*
- *Students with disabilities*

Areas to expand to:

- *Student Transition Center*
- *Career coach/advisor*
- *International student center*
- *LBGTQ support services/center*
- *Work-Life Resource center, supporting those with children (see University of Michigan at Ann Arbor's model)*
- *Services for Latino community*
- *Services for the Native American community*

1.3.3: Child care centers for student's children during the day, in the evenings, and on weekends

Finding childcare is often a substantial barrier, keeping students home from class and holding students back from finishing their degrees, especially those attending classes on evenings and weekends. By providing child care options, this issue can be mitigated. Options include both on and off-campus daycare and partnerships with community childcare programs.
For funding- WA State Head Start Grant & Early Childhood Assistance Program (ECEAP)
Possible partnership-WVC & YMCA. See Eastern Washington University's childcare model.
Many schools also maintain an online network of babysitters.

Goal 2: INCREASE COMMUNITY ENGAGEMENT AND EXPAND PARTNERSHIPS

Wenatchee Valley College is a core component of Wenatchee's community. In order to fulfill its mission and to reinforce the partnership between the community within WVC and the community within the college service district, it is critical to strengthen connections, expand partnerships, and create spaces that provide greater opportunities for collaboration.

Objective 2.1: Enhance relationships with K-12 programs

WVC is the only community college serving Chelan and Douglas County, and has the largest service district in Washington state, making it a popular destination for regional students. By enhancing relationships with local K-12 programs, WVC can encourage attendance and the pursuit of higher education for youth and adults throughout the area.

2.1.1: Create activities that draw K-12 to campus (Fair, Tours, Partnership with local schools)

Human development shows that exposure to institutions of higher education at a young age (12-15) is vital to life time education. When children know the option to pursue higher education is available, they will be more likely to follow that path in the future. Holding events like fairs and campus tours could aid in accomplishing this objective.

2.1.2: Early Childhood education program could be involved

Programs like WWU's 'compass 2 campus' is a mentorship program designed to increase access to higher education by providing an opportunity for students from traditionally underrepresented, diverse, and first-generation background to be mentored by college students. WVC's Early Childhood education program could design a similar program which would both enhance community engagement while ensuring students from Chelan County a clearer path towards higher education.

Objective 2.2: Create dedicated spaces for service learning, student research, and experiential learning.

Many sources indicate that the next step in education is experiential learning. Creating dedicated spaces for interactive learning and increasing learning opportunities 'in the field' allows students to experience real-world applications of their lessons.

2.2.1: **Local business/Industry partnerships**

Partnerships with local businesses and industry provide real-world lessons alongside classroom lessons, and may provide students opportunities for employment after graduation.

Objective 2.3: **Become a community resource** in offering educational opportunities at an expert/masters level

Create renowned Centers of Excellence that provide the community with continuing education opportunities in specialized fields. Fields may include Agriculture, Manufacturing, Technology, Hospitality, Liberal Arts, and Healthcare.

2.3.1: Create space for **monthly speaker series** across academic fields

Invite experts in various fields to lead community sessions to advance knowledge in cutting edge science and technology in specialized fields.

Goal 3: ENCOURAGE ENROLLMENT BY CREATING SPACES WHERE STUDENTS WANT TO BE

A well-designed campus is not only a place students can enjoy spending time in, but also a place students can feel proud of and connect to. Additionally, an attractive, comfortable, and safe campus is important for current prospective students visiting WVC, and that can often be a deciding factor in their educational choices.

Objective 3.1: Create a sense of **campus identity**

A strong sense of campus identity allows students to feel that they belong to a strong and united community.

3.1.1: Campus symbol: Fruit tree

Wenatchee is famous for their fruit agriculture, making the fruit tree a clear symbol for the school.

3.1.2: Cohesive campus design

Cohesive campus design creates a 'sense of place' and a feeling of identity on campus.

Objective 3.2: Provide a **safe environment** for all students

Safety should never be a barrier to education. Therefore, it is critical for WVC to create an atmosphere of safety at all time and in all places.

3.2.1: Campus call boxes, intercoms, phones, alarms, and clear signage.

All should be placed strategically throughout campus to ensure all students feel safe.

3.2.2: Sufficient lighting inside and outside, "Eyes on the street"

Design should ensure there are no 'blind corners' or areas where students might feel unsafe. Spaces should have proper lighting for students working late at night and windows to create the feeling of 'eyes on the street' at all times. It is proven that less crime is committed in areas with more windows and lighting. Lighted pedestrian pathways into the parking lot are also critical.

3.2.3: Formal safe zones

Safe zones provide a refuge for community members when their safety is immediately threatened and/or they are experiencing bigotry of any kind.

Objective 3.3: Design an **attractive and welcoming educational space**

Students should feel that their school is a warm and welcoming environment.

3.3.1: Student driven design

Only those who regularly use the space can have a truly comprehensive understanding of deficiencies and needs of a space.

3.3.2: Natural Daylight used whenever possible

Natural daylight is valued by students at WVC. It is important to provide spaces where students can enjoy natural daylight in any season during study sessions, or even in classroom settings.

3.3.3: Adaptable outdoor spaces

WVC's main campus covers 56 acres, making it an ideal place to create adaptable outdoor spaces. Adaptable outdoor spaces might include a space for outdoor theater or concerts, as well as a natural setting for students to explore during study breaks.

Goal 4: INTERGRATE AND INSTITUTIONALIZE DIVERSITY AND GLOBALISM THOUGHOUT THE COLLEGE

WVC hosts a diverse population of students varying in age and ethnic background. Approximately 42% of WVC's student population is Latino and 4.3% are Native American. Additionally, the number of international students attending WVC is on the rise. It is important that students from diverse backgrounds celebrate their ethnic and cultural backgrounds, feeling welcome on WVC's campus. This welcome needs to extend to student's family, friends, and community. Integrating and institutionalizing diversity and globalism will allow students to better prepare for life in a society that will continue to be more diverse and globalized.

Objective 4.1: Sustain relationships with international universities and colleges

To increase the number of international students, it would benefit WVC to strengthen relationships with international universities and colleges.

4.1.1: International exchange programs

A 'sister school' relationship could allow students from a specific school abroad to send their students to WVC on a continual basis, establishing a firm connection between both schools. Both summer exchange programs and exchange programs during the school year are possible.

Objective 4.2: Provide opportunities for celebration of diversity

Due to WVC's large diverse population, it's important to provide opportunities for students to celebrate and share their cultures with the rest of WVC's community. Not only would such events provide fun events for all to enjoy, but would also be an excellent learning opportunity. Examples include cultural festivals or food sharing events. Advertisements for events can be shown on display areas throughout campus.

Objective 4.3: Offering options for students accustomed to different cultures of education

Students from varied cultural backgrounds are often accustomed to teaming and education styles that are not practiced in the U.S.

4.3.1 High Touch programs

High Touch programs consistently check in with students and ensure they are on the right path towards success and provide mentorships when challenges arise.

4.3.2: Student Clubs

Students clubs offer opportunities that foster leadership development, complement the classroom experience, and help to build community.

4.3.3: Student outreach and family inclusion

Outreach to students from diverse backgrounds and their families will help to ensure students who are in unfamiliar cultural situations won't fall behind academically. This includes translation services for non-English speaking families.

Goal 5: SUSTAINABLE COLLEGE MAINTENANCE AND FACILITIES

Looking towards the future, WVC must face the realities of a changing climate and uncertain economy. A sustainable college campus will be vital for the college and student success. Also, as a vital piece of Wenatchee's community, it's critical to take progressive action acting as a role model for the rest of the community. This provides opportunities for students to become involved in technical projects and programs while preparing them for the expanding "Green" job market.

Objective 5.1: Maximize energy efficiency

Energy efficiency not only mean a smaller carbon footprint, but also energy savings. Money that would otherwise be spend on energy costs could instead be redirected to educational services.

5.1.1: Use natural daylight when possible

More natural daylight leads to less use of unnatural lighting with high energy costs. This may also be integrated into the HVAC system.

5.1.2: Sufficient insulation for winter months

Wenatchee becomes very cold during the winter months. It's critical to cut energy costs by ensuring all windows and doors have sufficient insulation.

5.1.3: Alternative energy (solar, wind, etc.)

On average, there are 200 sunny days annually in Wenatchee. This provides an opportunity for solar energy on the roof of WVC. Even on days with little to no sun, solar power remains a viable option.

Many nearby localities use harness the power of wind using wind turbines. This may also be an option for the campus, and could even double as an art installation.

Opportunity for student involvement/project?

Alternative energy projects also help to prepare WVC for power outages by relying on energy sources from their own campus rather than the city's, sometimes unreliable grid.

Objective 5.2: Maximize water efficiency

Wenatchee only receives 9 inches of rainfall and 26 inches of snowfall annually, therefore it is critically important to ensure WVC's campus is doing all we can to use the least amount of water necessary.

5.2.1: Sustainable landscaping

An easy method for using less water on campus is to turn to sustainable landscaping. This may include using plants that are local, naturally requiring less water, as well as avoiding green fields that require significant water.

5.2.2: Water/snow capture system?

While Wenatchee receives little rain annually, the city does receive significant snowfall. It would be to WVC's advantage to tap into this resource in a landscape with very little water to begin with. Captured snowfall and rainwater can be used for landscaping, or other sources that don't require filtration. This also presents an opportunity for student involvement in the creation of the system.

Objective 5.3: Alternative transportation

Providing numerous opportunities for alternative transportation ensures the campus is taking all necessary action to cut carbon emissions from student transportation to and from campus. Additional advantages include less parking worries, inexpensive transportation costs, and increased transportation options for students without a vehicle.

5.3.1: Campus bike path connects community

The Wenatchee Valley College Bike Committee has existed since 2015 as a subcommittee of the sustainability committee. In order to continue improvement upon bicycle infrastructure, WVC should consider creating a through-campus bike path that connects all of campus, as well as clear paths connecting Wenatchee as a whole. Covered bike racks would

5.3.2: Improved bus stops to encourage ridership

Currently, WVC promotes the use of alternative transportation by providing free ridership on Wenatchee's Link Bus. By continuing to support ridership, WVC should provide more inviting bus stops, right for any weather, and reach out to Link Transit to discuss expanding bus routes near campus.

5.3.3: Electric car hook ups

The need for electric car hook-ups may be growing in demand over the next 15 years. Therefore, it is important to provide such hook ups moving into the future.

5.3.4: Improved pedestrian pathways

Promoting walking to campus as a viable form of transportation is only possible with proper pedestrian infrastructure in place. Improving pedestrian pathways through campus would help to encourage students to do so.

ECONOMIC DEVELOPMENT

TOPICS

- Purpose
- Background
- Regional Center
- Downtown
- Entrepreneurial Support
- Quality of Life
- Facilities and Infrastructure
- Goals & Policies

PURPOSE

An Economic Development chapter is not yet a requirement of the Growth Management Act (GMA). However, it does support the City's own goals encouraging economic development. Community based processes have told us to encourage economic development that enhances our area's quality of life and builds on our existing resources and strengths.

BACKGROUND

In the late 1990's, Wenatchee's primary industry, agriculture, went through a major shift. As a result, the City and its partners were forced to take a step back and look at how we were approaching economic development. If the agricultural industry was going to continue to struggle, what were our options? Was the elusive manufacturer out there who would bring us 200 jobs? Did we have the land base and excess power capacity to support such a recruit? How were we supporting those industries already here? What was in store for our future? In 1999, the City hired the Center for the New West to carry out a High Performance Community Strategy. This effort brought together our leaders, gave us focus, and provided us with a road map for our future community and economic development. The analysis resulted in 16 recommendations, which our leaders are still following. Some recommended strategies have already been completed.

Table 9: Wenatchee High Performance Community Strategies

Strategy
Strategy Recommendation #1: Build and sustain work force education and training capacity that teaches and/or updates computer and information technology skills.
Strategy Recommendation #2 Provide access to the growing Hispanic community and others, for whom the "digital divide" is a reality, by equipping a community center in South Wenatchee with advanced telecomputing capabilities.
Strategy Recommendation #3: Create a one-stop business center to improve the delivery of services to the small business community.
Strategy Recommendation #4: Deploy NxLevel Entrepreneur training programs for business start-ups, agriculture/food specialty companies, micro-enterprises, youth entrepreneurs. Spanish versions of these training programs should be made available to Hispanic entrepreneurs.
Strategy Recommendation #5: Pursue the recommendation of the SCORE incubator study team "to further quantify the community's need, expected payoff and degree of community support" for one or more incubators.
Strategy Recommendation #6: Develop an Internet/information technology cluster in the Wenatchee area.
Strategy Recommendation #7: Implement an opportunity assessment initiative to identify upstream, downstream and spin-off business opportunities and other economic activities, e.g. research, that may exist in companies, institutions or organizations already in the community.
Strategy Recommendation #8: Refocus current industrial recruitment efforts on those that build on local networks and relationships

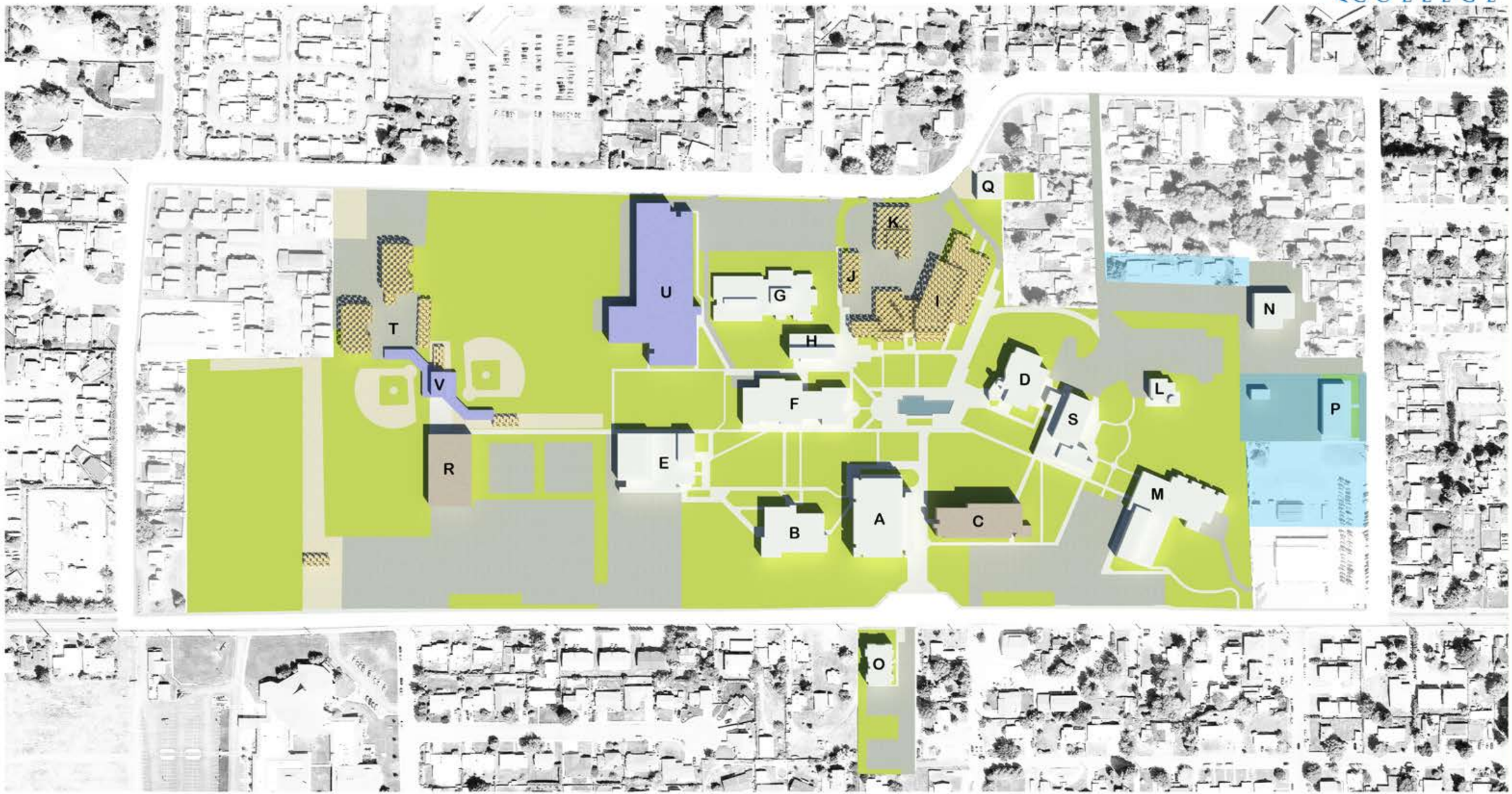
CAPITAL IMPROVEMENT PLAN - 2017

WENATCHEE VALLEY COLLEGE

Projects	2019-2029	2030-2039	2040-2049
Minor	• Improve baseball field • Resurface tennis courts • Demo old dorms and concessions building		• Build outdoor event space
Matching/Community	• New Softball Field • New building to house locker rooms (softball, baseball, soccer), concessions, press box.		
Replacement	• Replace Batjer • Replace Industrial Tech. • Replace Refrigeration	• Replace gym with Rec. Center addition – Wellness Center • Replace Theater • Replace Sexton	
Renovation	N/A	• Renovate Van Tassell • Renovate Library • Pottery addition to M.A.C.	• Renovate Wenatchi Hall (1st and 2nd floors)
Growth	• Purchase portion of armory property • Purchase housing around campus to expand footprint	• Purchase the rest of the armory property • Purchase housing around campus to expand footprint • New S.T.E.M. Building • Move Health Care programs offsite • Build student housing Phase 1	• Purchase housing around campus to expand footprint • Build student housing Phase 2
Other	• Omak Campus master planning/design new facilities	• Omak improvements • Demo Eller-Fox	• Omak improvements

WENATCHEE VALLEY COLLEGE

IMMEDIATE MASTER PLAN
0-10 YEARS



A. WENATCHI HALL
B. ELLER-FOX SCIENCE CENTER
C. WELLS HALL
D. BROWN LIBRARY
E. SMITH GYMNASIUM
F. VAN TASSELL CENTER
G. SEXTON HALL

H. CENTRAL WASHINGTON UNIVERSITY
I. BATJER HALL
J. ENVIRONMENTAL SYSTEMS & REFRIGERATION TECH.
K. INDUSTRIAL TECH.
L. WELLS HOUSE
M. MUSIC AND ART CENTER (M.A.C.)
N. FACILITIES & OPERATIONS SHIPPING & RECEIVING

O. RESIDENCE HALL
P. TECHNOLOGY
Q. FACILITIES STORAGE
R. JACK & EDNA MAGUIRE STUDENT REC. CENTER
S. (OLD) WELLS HALL - WING 5
T. DORMITORIES
U. CENTER FOR TECH. EDUCATION & INNOVATION
V. SPORTS COMPLEX

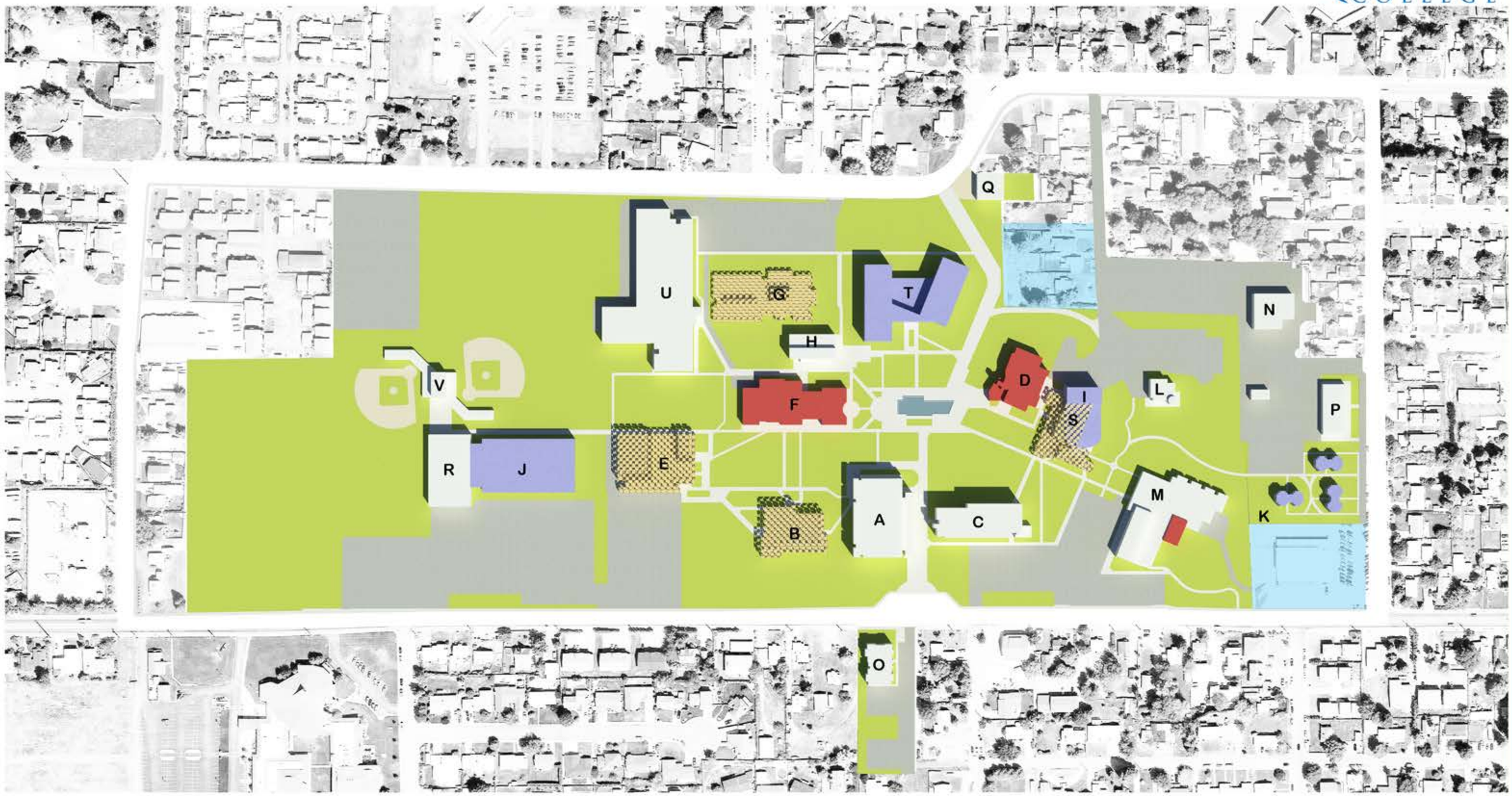
- UNDER CONSTRUCTION
- NEW CONSTRUCTION
- DEMOLISH
- RENOVATION/ ADDITION
- PURCHASE

0 50' 125' 250'

N

WENATCHEE VALLEY COLLEGE

MEDIUM MASTER PLAN
11-20 YEARS



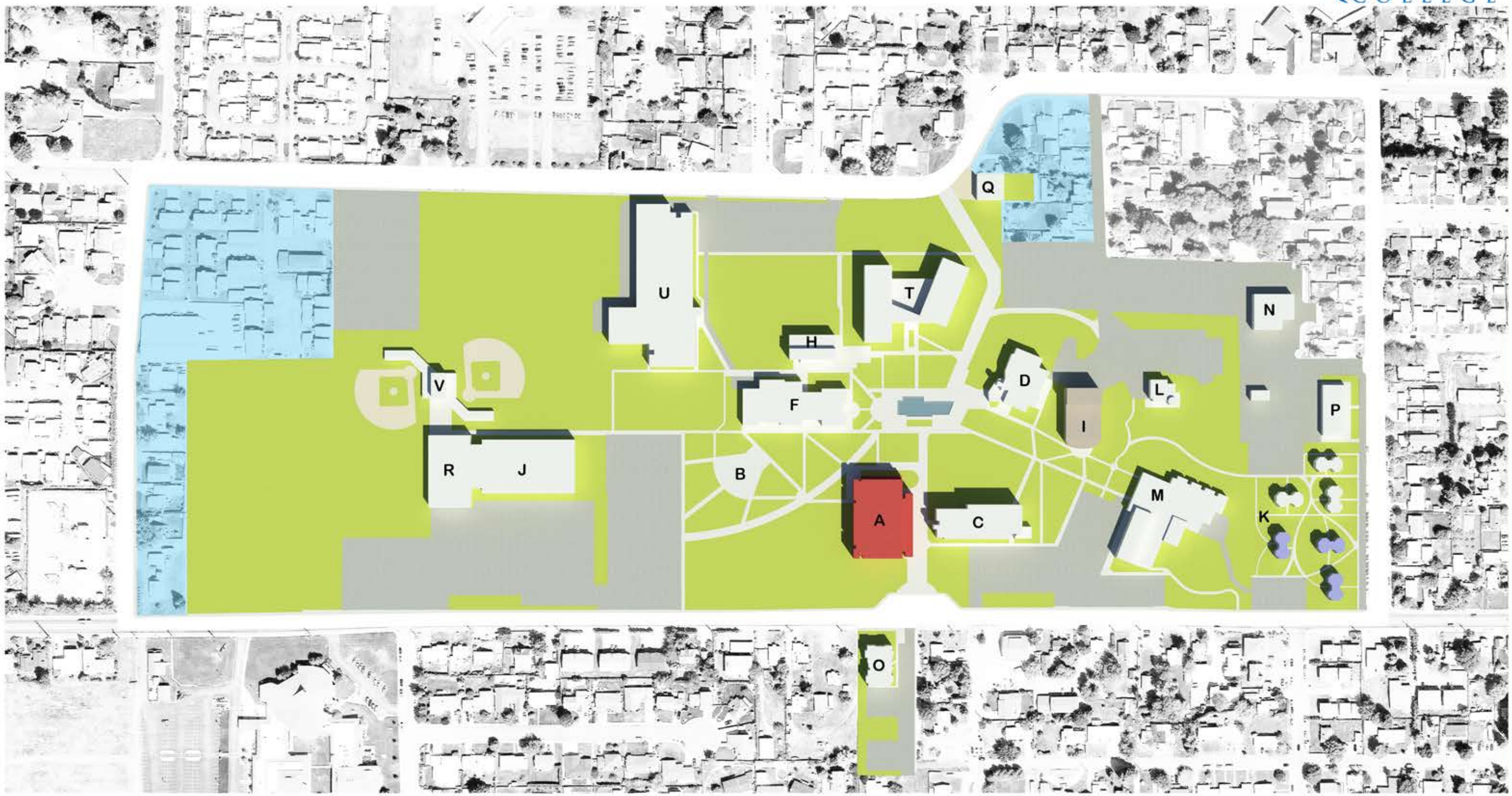
A. WENATCHI HALL
B. ELLER-FOX SCIENCE CENTER
C. WELLS HALL
D. BROWN LIBRARY
E. SMITH GYMNASIUM
F. VAN TASSELL CENTER
G. SEXTON HALL
H. CENTRAL WASHINGTON UNIVERSITY
I. (NEW) WELLS HALL - WING 5 (REPLACEMENT)
J. WELLNESS CENTER
K. STUDENT HOUSING
L. WELLS HOUSE
M. MUSIC AND ART CENTER (M.A.C.)
N. FACILITIES & OPERATIONS SHIPPING & RECEIVING
O. RESIDENCE HALL
P. TECHNOLOGY
Q. FACILITIES STORAGE
R. JACK & EDNA MAGUIRE STUDENT REC. CENTER
S. (OLD) WELLS HALL - WING 5
T. S.T.E.M. BUILDING
U. CENTER FOR TECH. EDUCATION & INNOVATION
V. SPORTS COMPLEX

- UNDER CONSTRUCTION
- NEW CONSTRUCTION
- DEMOLISH
- RENOVATION/ ADDITION
- PURCHASE

0 50' 125' 250'

N

WENATCHEE VALLEY COLLEGE



A. WENATCHI HALL
B. OUTDOOR EVENT SPACE
C. WELLS HALL
D. BROWN LIBRARY
E. SMITH GYMNASIUM (REMOVED)
F. VAN TASSELL CENTER
G. SEXTON HALL (REMOVED)

H. CENTRAL WASHINGTON UNIVERSITY
I. (NEW) WELLS HALL - WING 5 (REPLACEMENT)
J. WELLNESS CENTER
K. STUDENT HOUSING
L. WELLS HOUSE
M. MUSIC AND ART CENTER (M.A.C.)
N. FACILITIES & OPERATIONS SHIPPING & RECEIVING

O. RESIDENCE HALL
P. TECHNOLOGY
Q. FACILITIES STORAGE
R. JACK & EDNA MAGUIRE STUDENT REC. CENTER
S. (OLD) WELLS HALL - WING 5 (REMOVED)
T. S.T.E.M. BUILDING
U. CENTER FOR TECH. EDUCATION & INNOVATION
V. SPORTS COMPLEX

- UNDER CONSTRUCTION
- NEW CONSTRUCTION
- DEMOLISH
- RENOVATION/ ADDITION
- PURCHASE

0 50' 125' 250'

LONG-TERM MASTER PLAN
21 + YEARS

N

2018-2023 Wenatchee Valley College Strategic Plan

Goal: To support student learning, Wenatchee Valley College will be efficient, transparent, and accountable through deliberate and collaborative alignment of resources.

Objective: Fund a grant coordinator position to broaden funding sources and increase institutional capacity.

Objective: Enhance partnership with Wenatchee Valley College Foundation to grow community financial support.

Objective: Develop transparent, stakeholder-built budgets that are informed by data.

Objective: Create efficiencies through application of technology and automation.

Objective: Enhance enterprise technology to meet Wenatchee Valley College's needs first.

Objective: Build, equip, and maintain facilities that are focused on student learning and success.

Goal: Wenatchee Valley College will foster an environment where students reach their educational goals and direct their own futures.

Objective: Increase five-year student program completion and transfer rates.

Objective: Expand student learning community opportunities.

Objective: Provide technology as a foundation for students to succeed in and adapt to a changing world.

Objective: Support current and expand future baccalaureate opportunities at Wenatchee Valley College.

Objective: Integrate "soft skills" for students into college-wide student learning outcomes and across the curriculum.

Objective: Support the development of faculty to become leaders in their fields.

Objective: Create faculty and staff learning communities to support collaboration and improve student outcomes.

Goal: Wenatchee Valley College will be a responsive, cultural and educational hub through proactive outreach and community partnerships.

Objective: Increase online offerings and access options to accommodate time and place restrictions for students.

Objective: Wenatchee Valley College will seek to maintain a level of technology to meet community needs.

Objective: Provide greater internship and job shadowing opportunities for the community.

Objective: Provide responsive curriculum and programs for the community.

Objective: Increase college outreach through traditional and non-traditional sources to reach underserved segments of the community.

Objective: Provide clear evidence throughout the district of the college's presence and role in the community.

Objective: Develop a coherent plan to accurately assess community needs.

Goal: To achieve equity, Wenatchee Valley College will become a more inclusive, diverse, and culturally rich institution that establishes a thoughtful and respectful learning environment.

Objective: Double international enrollment.

Objective: Create a college-wide diversity strategic plan.

Objective: Strive to increase the diversity of our faculty to more closely reflect our diverse students and the community.

Objective: Develop an inclusive working environment to support and retain diverse faculty and staff.

Objective: Use universal design principles to make Wenatchee Valley College fully accessible.

Objective: Increase diversity course offerings and implement a diversity requirement for program completion.

Objective: Improve college relationships among faculty and staff to support open, respectful, and inclusive discussions on diversity.

Goal: Wenatchee Valley College will support students through a holistic approach which effectively admits, registers, advises, mentors, and retains students.

Objective: Increase student-to-student mentoring programs.

Objective: Improve student orientation.

Objective: Develop and require student college success gateway courses for all students.

Objective: Support the full implementation of a one-stop student service experience.

Objective: Increase the quality of faculty advising and educational planning.

Objective: Continued advancement and use of multiple means of assessments for placing students in English and Math courses.

Goal: Wenatchee Valley College will promote a climate of ongoing improvement based on its mission, core themes, and college wide student learning outcomes.

Objective: Use technology to widely distribute data on student success at all levels to college stakeholders.

Objective: Full participation of those in instruction and non-instruction at Wenatchee Valley College in collecting, analyzing, reporting, and formulating improvements centered around college-wide student learning outcomes.

Objective: Effectively communicate Wenatchee Valley College improvement efforts to internal and external stakeholders.

Appendix D

Photos of Existing Facilities

Batjer Hall

Classroom is small and does not accommodate automotive students.

Faculty Office and student work area is crowded and open to the lab area. It is noisy and overexposed.

Storage space is limited, crowding the lab space.

Congested shop space limits circulation causing safety concerns.

Staircase in automotive lab leads to a crowded storage area that is unfunctional.

Congested shop space limits circulation causing safety concerns.

Office spaces are overcrowded and awkwardly sized with no windows

Automotive locker room

Signs stating, ‘Watch your step’ are posted in the stairways leading up to the second floor. Stairs are uneven and chipped in places

Carpeting in the stairway has been partially ripped up. Existing carpeting is stained.

Flooring is taped up

Exterior is unattractive with small windows

Storage closet is extremely cramped with low ceilings and minimal storage

Storage closet is extremely cramped with low ceilings and minimal storage

Computer lab is very small and unfunctional for collaborative uses

Industrial Technology Building

Exterior space is unattractive and lacks any windows

Mechanical areas have minimal circulation leading to safety concerns. Old bus garage doors can be seen in the background.

Building entrance is surrounded by glass blocks and gases are stored to the left of the entrance

Gases are stored on the side of the building

Refrigeration Building

HVAC units are stored outside of building due to lack of storage

The building's interior is extremely overcrowded

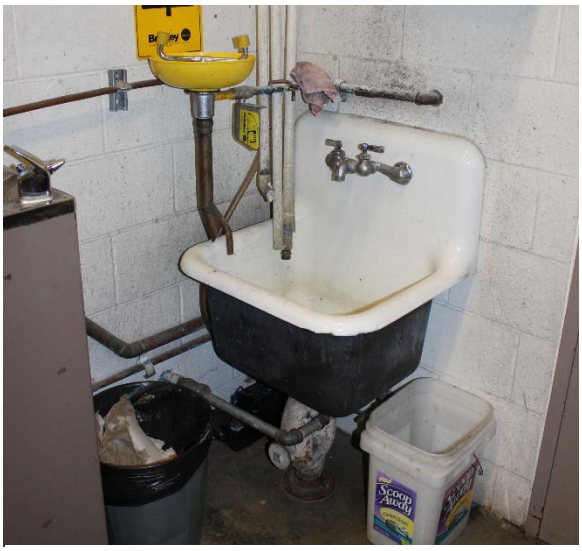
HVAC systems in the buildings were installed by students years ago

Storage is so limited that gases are being stored in old refrigeration units

Doorway into bathroom is not ADA accessible

Classroom space is very limited and crowded for students

Units are packaged to the ceiling due to lack of storage space



Antique sink that services the building

Workspaces lack storage and counter space

The only bathroom in the building, not ADA accessible

HVAC units are stored outside of building due to lack of storage space inside

Cords across the floors cause trip hazards

Cracks up the side of the walls surround the building

HVAC units line the exterior of the facility

Cracks on the building's exterior align with locations of old stumps

Appendix E

Letters of Support

NCW ECONOMIC DEVELOPMENT DISTRICT

December 13, 2017

State Board for Community and Technical Colleges
Attn: Wayne Doty, Capital Budget Director
PO Box 42495
Olympia, WA 98504-2495

Re: WVC Capital Budget Request - Center for Career and Technical Innovation

Dear Mr. Doty:

I write this letter on behalf of the North Central Washington Economic Development District, to express our strong support for the Wenatchee Valley College Capital Budget Request for the new Center for Career and Technical Innovation (CCTI), on the Wenatchee campus. The NCWEDD's mission is to promote the diversification and development of existing and potential economic opportunities that enhance the stability and future of the NCW region. The NCWEDD Board believes that the construction of the CCTI and the subsequent improvements to the nine career education programs, will foster greater opportunity for strategic partnerships between industry, educators, and students in our region. A technologically fluent and adaptable workforce, across multiple sectors, is key to the economic development of North Central Washington.

Our region is undergoing a technology and innovation renaissance that enjoys broad community and industry support. Within the Wenatchee Valley, the Central Washington Technology Innovation Partnership Zone was recently designated by the Washington State Department of Commerce, and a companion effort with a focus on research and development is leading the drive towards the creation of a Research Innovation District, in which WVC is one of the founding educational partners. As these and other efforts continue to grow and build momentum, the program and facility improvements made possible by the creation of the CCTI will create robust opportunities for both formal and informal learning and cross-disciplinary collaboration and iteration.

The current state of the facilities for the nine programs slated to be housed in the CCTI actively hinders their integration into the rapidly growing research, innovation, and entrepreneurial ecosystem in the region. The statewide focus on career-connected learning, and regional concerns about the skill gaps in the regional workforce underscore the need and the urgency of the improvements in workforce training that the CCTI will make.

Finally, as stakeholders within our region begin to increase their outreach to and partnerships with industries, businesses and investors beyond our region (e.g. the Omak Business Industrial Park and foreign direct investment; the addition of a direct flight between Pangborn Memorial Airport and the San Francisco Bay Area; and GWATA's Flywheel conference for venture

PO Box 4107 • Wenatchee, WA 98807 • (509) 682-6907 • e-mail:karen@ncwedd.com

capitalists and angel investors near and far), the CCTI would stand out as evidence that the workforce for 21st century jobs and innovations is being cultivated here.

For these reasons, the NCWEDD Board of Directors strongly supports the Wenatchee Valley College's capital budget request for the Center for Career and Technical Innovation.

Sincerely,

Karen Francis-McWhite
Executive Director

PO Box 4107 • Wenatchee, WA 98807 • (509) 682-6907 • e-mail:karen@ncwedd.com

North Central ESD
430 Olds Station Road
Wenatchee, WA 98807
509.665.2628
Fax: 509.662.9027
www.ncesd.org

December 5, 2017

To Whom It May Concern:

Please accept this letter in support of Wenatchee Valley Community College's capital funding request to develop and build a Center for Techinical Education and Innovation.

The proposed center will replace four excisting outdated buildings and create one space that will facilitate collaboration and connectivity with students, instructors, and local industry partners. Additionally, this new facility will be specifically designed to facilitate customized training opportunities for our community and industry partners that will foster networking and partnership opportunities as new occupations and industries emerge.

In alignment with Governor Inlee's Career Conncected Learning Initiative, Wenatchee Valley Community College will be able to host K-12 career events where students can get first hand exposure to the high-wage, high-skill programs that are in demand in our service area.

The infrastructure is necessary to provide students with the resources and learning space to work outside of the traditional learning silos and to maximize opportunities for the future.

Sincerely,

Michelle Price, Ed. D.
Superintendent

North Central Educational Service District 171
430 Olds Station Rd., Wenatchee, WA 98801
(W) 509.665.2628 * (C) 509.760.1138
www.ncesd.org

port of chelan county
cultivating innovation

COMMISSIONERS:
Donn Etherington, District 1
JC Baldwin, District 2
Rory Turner, District 3

December 1, 2017

President Jim Richardson
Wenatchee Valley College
1300 Fifth St
Wenatchee, WA 98801

Re: Center for Career and Technical Innovation

Dear President Richardson:

I am writing today in strong support of Wenatchee Valley College's request for state capital funding support for a Center for Career and Technical Innovation building. Our region is attracting new industries and employers, notwithstanding its rural location and demographics that present unique challenges in meeting employer demands. To date, Wenatchee Valley College (WVC) has supported new and expanding businesses as well as established sectors facing changing requirements. We anticipate these requests and requirements will increase in frequency and complexity and for significant new demand to emerge in our region for your professional and technical education programs.

Labor demands continue to evolve alongside advancing technologies. Two specific occupations, Machinists and Industrial Machinery Mechanics are predicted to experience over 20% growth over the next five years. Current facilities for Industrial Technical Education are aged, undersized, and with insufficient technology. The facilities need to be replaced to continue to fulfill WVC's mission and provide its service district with the necessary education and training for a skilled and advancing workforce.

The variety and range of industries are growing here; we anticipate further growth as technologies advance along with the skill sets required to be competitive and expand. The collaborative model used by WVC to work with our private companies has been successful and we clearly see the need for enhanced facilities. It is remarkable that WVC has succeeded using 47+ year old buildings, which are too small, poorly designed, and that have long outlived their planned lives.

Wenatchee Valley College (WVC) serves Washington State's largest service district, spanning over 10,000 square miles. The rural communities the college serves rely on WVC to provide transfer and workforce educational opportunities that support the region's

economic needs and development. We need the College to provide competitive industry support and training. It is obvious that we need a modern facility to support these programs. The Port is in strong support of this request. Please let me know what we can do to further communicate or act in support of this community priority.

Sincerely,

Patrick Jones

Executive Director

Port of Chelan County

C: POCC Commission

Port of Douglas County

TRUSTED | RESPONSIVE | READY

December 12,2017

Dr. Jim Richardson, President
Wenatchee Valley College
1300 Fifth St.
Wenatchee, WA 98801

Dear Dr. Richardson,

I am writing to express support of Wenatchee Valley College's proposed Center for Technical Education and Innovation.

The Port od Douglas County works with our local Ag, manufacturing, professional and tech businesses that will benefit tremendously from such a facility. These local businesses employ over 5,000 nonfarm workers and Agriculture makes up over 26% of the total covered employment. Currently the programs at Wenatchee Valley College that train these workers are isolated from one another, scattered across the campus in several different buildings. This proposed project will bring all these programs together in one building, designed to foster collaboration between private business, students and instructors in developing new training opportunities.

This type of training has become essential to our modern businesses. These private businesses need a training partner that can provide a space and the expertise to keep employees up to date on the new technological and process advancements in their industry. The Center for Technical Education and Innovation will provide this space where local businesses can send employees to upgrade their skills. The space will also allow companies to donate specific equipment unique to their training needs so the training can be customized in a way not currently available.

In addition to these local companies, the Port actively works with new businesses considering locating new facilities within the Wenatchee Valley College service district. One of the highest priorities for these businesses is having access to a skilled and trained workforce. The Center for Technical Education and Innovation and its programs will give these businesses the assurance their workforce training needs will be met locally.

The Port of Douglas is excited that Wenatchee Valley College is pursuing this innovative facility to prepare the regions workforce to meet the needs of local business. Please accept this letter of support of your efforts to complete the Center for Technical Education and Innovation.

Sincerely,

Mark Spurgeon	Alan Loebsack	Jim Huffman	Lisa Parks
Commissioner	Commissioner	Commissioner	Executive Director

Chelan County Sheriff's Office

Brian Burnett, Sheriff

Law and Justice Bldg ★ 401 Washington Street #1 ★ Wenatchee, WA 98801
Phone: (509) 667-6851 ★ Fax: (509) 667-6860

Date: December 13, 2017

To: Stacy Luckensmeyer/Business & Industry Liaison

From: Chelan County Sheriff Brian Burnett

Re: Center for Technical Education and Innovation Support

Please accept this letter as documentation of my enthusiastic support for the Wenatchee Valley College capital proposal for a new Center for Technical Education and Innovation. Based on our continuing partnership with Wenatchee Valley College and their Criminal Justice program, it is my belief that the successful funding, building and use of the new facility will be significant in increasing student involvement in the Criminal Justice Program. This would enhance post-secondary degree obtainment throughout the valley, benefitting the community at large, by making local, well-trained and prepared law enforcement candidates available for hire.

The Center for Technical Education and Innovation is intended to house several programs, to include Criminal Justice. Additionally, as well as being specifically designed to facilitate customized training opportunities for community and industry partners, the Center will be able to host career fair events, where students can obtain first-hand exposure to technical, high-skill programs that are in demand in the Wenatchee Valley, to include law enforcement.

It is my belief that the completion of the Center for Technical Education and Innovation at Wenatchee Valley College will positively impact both the students and employers of the area it serves, and will improve the learning environment on the Wenatchee Valley College Campus. Please do not hesitate to contact me should you need additional information concerning my support of this project.

Sincerely,

Brian Burnett, Sheriff

December 5, 2017

Re: Professional/Technical Education Center Support

Please accept this letter as documentation of Wenatchee Valley Tech Centers enthusiastic support for Wenatchee Valley Community College's capital projects proposal for a new Professional/Technical Education Center. Based on many successful years of working together to enhance and further the technical trades, it is our belief that the successful funding, building, and use of the facility will further our joint goals in this area and will be significant in increasing educational capacity in through the Wenatchee Valley and Eastern Washington.

The Professional/Technical Education Center is intended to house several programs many of these programs are transitions into higher education of programs that we offer at WVTSC. Thus, Certifications obtainment could be enhanced through the successful completion of the project. There is a clear and defined need for this project as it will allow students and teachers to move out dated buildings and into space specifically designed for student learning. It is our belief that the intended building will create the type of learning environment that is needed to educate students of the 21st century and assist in developing the best possible trained graduates. In addition, the completion of the project will have a significant and positive impact in updating the look and feel of the entire campus.

Overall, Wenatchee Valley Tech Center has enjoyed the opportunity over many years to actively work with the students, staff, professors, and administration at Wenatchee Valley Community College. The completion of the Professional/Technical Education Center has great potential in improving the learning environment at WVC. In addition, it is clear that the completion of this project will positively impact and motivate the students who choose to attend WVC . Based on years of partnering through various initiatives and the delivery of programs on the Wenatchee Valley Community College campus, we enthusiastically welcome and wholeheartedly support the building of this intended facility. Please do not hesitate to contact me should you need additional information concerning our support!

Peter Jelsing
Director
Wenatchee Valley Tech Center
jelsing.p@wenatcheeschools.org
509.630.5905

Appendix F

EMSI Report

Occupation Overview

Emsi Q3 2017 Data Set

November 2017

Wenatchee Valley College

1300 Fifth Street
Wenatchee, Washington 98801
(509) 682-6800

Parameters

Occupations

12 items selected. See Appendix A for details.

Regions

Code	Description
53007	Chelan County, WA
53017	Douglas County, WA
53047	Okanogan County, WA

Timeframe

2017 - 2023

Datarun

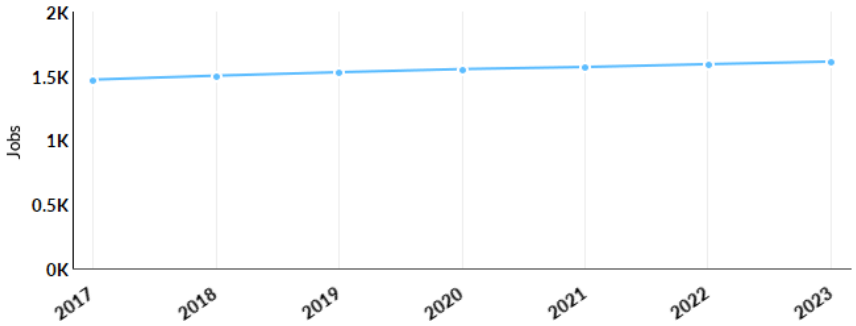
2017.3 – QCEW Employees, Non-QCEW Employees, Self-Employed, and Extended Proprietors

Occupation Summary for 12 Occupations

1,434	9.6%	$20.79/hr
Jobs (2016)	% Change (2017-2023)	Median Hourly Earnings
33% below National average	Nation: 6.9%	Nation: $24.27/hr

Growth

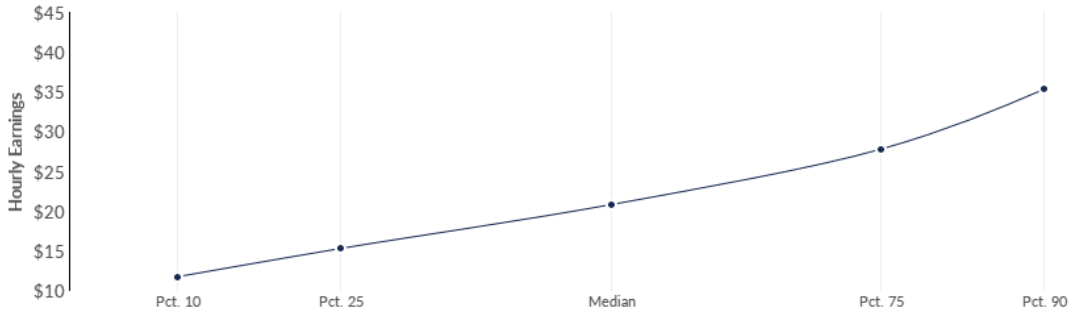
1,470	1,611	141	9.6%
2017 Jobs	2023 Jobs	Change (2017-2023)	% Change (2017-2023)



Occupation	2017 Jobs	2023 Jobs	Change	% Change
Computer Systems Analysts (15-1121)	129	148	19	15%
Computer Programmers (15-1131)	44	48	4	9%
Computer Network Architects (15-1143)	28	32	4	14%
Computer Occupations, All Other (15-1199)	75	80	5	7%
Computer Hardware Engineers (17-2061)	12	13	1	8%
Agricultural and Food Science Technicians (19-4011)	56	60	4	7%
Automotive Service Technicians and Mechanics (49-3023)	422	430	8	2%
Bus and Truck Mechanics and Diesel Engine Specialists (49-3031)	164	179	15	9%
Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)	121	135	14	12%
Industrial Machinery Mechanics (49-9041)	147	181	34	23%
Machinists (51-4041)	87	104	17	20%
Welders, Cutters, Solderers, and Brazers (51-4121)	184	201	17	9%

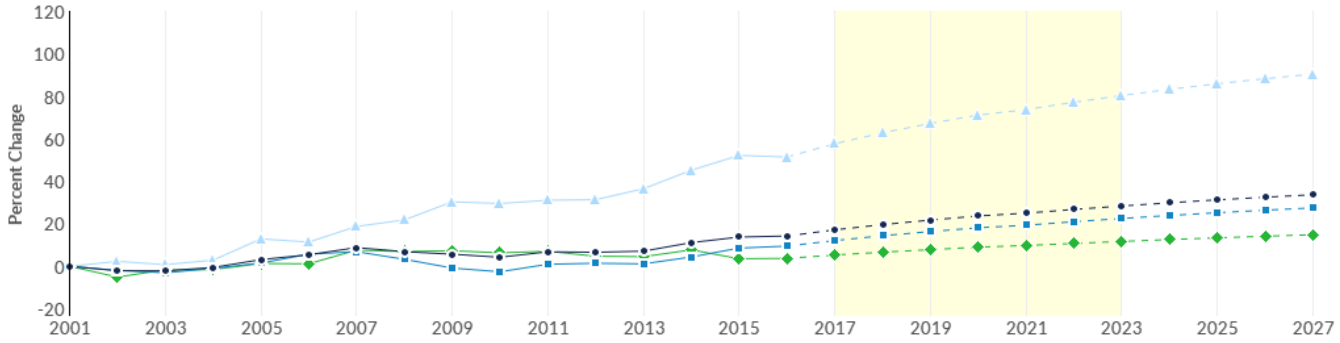
Percentile Earnings

$15.26/hr	$20.79/hr	$27.79/hr
25th Percentile Earnings	Median Earnings	75th Percentile Earnings



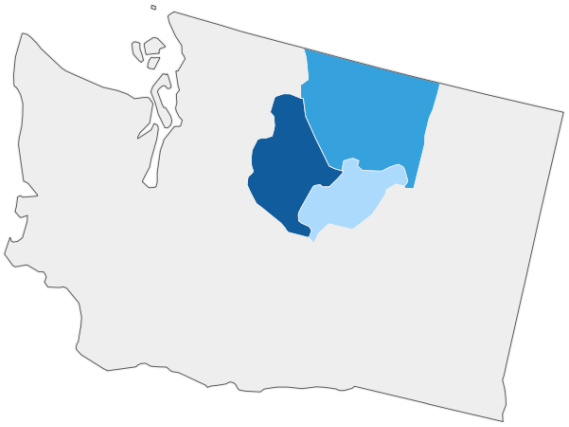
Occupation	25th Percentile Earnings	Median Earnings	75th Percentile Earnings
Computer Systems Analysts (15-1121)	$25.13	$30.05	$34.80
Computer Programmers (15-1131)	$23.50	$28.31	$35.75
Computer Network Architects (15-1143)	$34.15	$40.98	$49.41
Computer Occupations, All Other (15-1199)	$19.03	$24.07	$31.71
Computer Hardware Engineers (17-2061)	$34.36	$44.60	$52.59
Agricultural and Food Science Technicians (19-4011)	$9.95	$11.62	$14.48
Automotive Service Technicians and Mechanics (49-3023)	$11.84	$15.86	$22.19
Bus and Truck Mechanics and Diesel Engine Specialists (49-3031)	$19.79	$23.42	$28.85
Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)	$16.27	$19.92	$27.45
Industrial Machinery Mechanics (49-9041)	$19.99	$25.78	$36.86
Machinists (51-4041)	$16.43	$19.95	$26.00
Welders, Cutters, Solderers, and Brazers (51-4121)	$14.65	$17.86	$21.70

Regional Trends



	Region	2017 Jobs	2023 Jobs	Change	% Change
●	Region	1,470	1,611	141	9.6%
●	Chelan County, WA	864	944	80	9.3%
●	Douglas County, WA	289	331	42	14.5%
●	Okanogan County, WA	317	336	19	6.0%

Regional Breakdown



County	2023 Jobs
Chelan County, WA	944
Okanogan County, WA	336
Douglas County, WA	331

Job Postings Summary

241	5 : 1
Unique Postings (Jan 2017 - Sep 2017)	Posting Intensity (Jan 2017 - Sep 2017)
1,312 Total Postings	Regional Average: 6 : 1

There were 1,312 total job postings for your selection from January 2017 to September 2017, of which 241 were unique. These numbers give us a Posting Intensity of 5-to-1, meaning that for every 5 postings there is 1 unique job posting.This is close to the Posting Intensity for all other occupations and companies in the region (6-to-1), indicating that they are putting average effort toward hiring for this position.

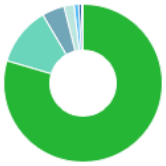
Occupation Gender Breakdown

	Gender	2016 Jobs	2016 Percent
●	Males	1,291	90.0%
●	Females	143	10.0%

Occupation Age Breakdown

	Age	2016 Jobs	2016 Percent
●	14-18	6	0.4%
●	19-24	107	7.4%
●	25-34	293	20.4%
●	35-44	322	22.4%
●	45-54	375	26.1%
●	55-64	266	18.6%
●	65+	66	4.6%

Occupation Race/Ethnicity Breakdown



Race/Ethnicity	2016 Jobs	2016 Percent
White	1,141	79.6%
Hispanic or Latino	172	12.0%
Asian	66	4.6%
Black or African American	29	2.0%
Two or More Races	13	0.9%
American Indian or Alaska Native	9	0.6%
Native Hawaiian or Other Pacific Islander	4	0.3%

Occupational Programs

8	100	165
Programs (2016)	Completions (2016)	Openings (2016)

CIP Code	Program	Completions (2016)
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician	37
11.0901	Computer Systems Networking and Telecommunications	29
47.0604	Automobile/Automotive Mechanics Technology/Technician	25
48.0501	Machine Tool Technology/Machinist	4
48.0508	Welding Technology/Welder	3

Industries Employing 12 Occupations

Industry	Occupation Group Jobs in Industry (2016)	% of Occupation Group in Industry (2016)	% of Total Jobs in Industry (2016)
Crop Production	164	11.5%	1.0%
New Car Dealers	125	8.7%	24.6%
General Automotive Repair	115	8.0%	60.8%
Local Government, Excluding Education and Hospitals	85	5.9%	1.7%
Plumbing, Heating, and Air-Conditioning Contractors	67	4.7%	16.0%

Appendix A - Occupations

Code	Description
51-4121	Welders, Cutters, Solderers, and Brazers
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
49-3023	Automotive Service Technicians and Mechanics
19-4011	Agricultural and Food Science Technicians
49-9041	Industrial Machinery Mechanics
51-4041	Machinists
15-1121	Computer Systems Analysts
15-1199	Computer Occupations, All Other
15-1143	Computer Network Architects
15-1131	Computer Programmers
17-2061	Computer Hardware Engineers
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Appendix B - Data Sources and Calculations

Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

Occupation Data

Emsi occupation employment data are based on final Emsi industry data and final Emsi staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level Emsi earnings by industry.

CareerBuilder/Emsi Job Postings

Job postings are collected from various sources and processed/enriched by Careerbuilder to provide information such as standardized company name, occupation, skills, and geography. Emsi performs additional filtering and processing to improve compatibility with Emsi data.

Completers Data

The completers data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

Institution Data

The institution data in this report is taken directly from the national IPEDS database published by the U.S. Department of Education's National Center for Education Statistics.

State Data Sources

This report uses state data from the following agencies: Washington State Employment Security Department, Labor Market and Economic Analysis Branch

Appendix G

Strategy for Reducing Greenhouse Gas Emissions

Wenatchee Valley College

Strategy for Reducing Greenhouse Gas Emissions

December 2017

1. Background

In 2009, the Legislature and Governor adopted the State Agency Climate Leadership Act (Engrossed Second Substitute Senate Bill 5560 – Chapter 519, Laws of 2009). The Act committed state agencies to lead by example in reducing their greenhouse gas (GHG) emissions to:

- 15 percent below 2005 levels by 2020.
- 36 percent below 2005 by 2035.
- 57.5 percent below 2005 levels (or 70 percent below the expected state government emissions that year, whichever amount is greater.)

The Act, codified in RCW 70.235.050-070 directed agencies to annually measure their greenhouse gas emissions, estimate future emissions, track actions taken to reduce emissions, and develop a strategy to meet the reduction targets. The strategy is required by law in RCW 70.235.50 section (3):

> *By June 30, 2011, each state agency shall submit to the department a strategy to meet the requirements in subsection (1) of this section* [greenhouse gas reduction targets]. *The strategy must address employee travel activities, teleconferencing alternatives, and include existing and proposed actions, a timeline for reductions, and recommendations for budgetary and other incentives to reduce emissions, especially from employee business travel.*

Starting in 2012 and every two years after each state agency is required to report to Ecology the actions taken to meet the emission reduction targets under the strategy for the preceding biennium.

- **In order to reduce the environmental impact and improve the quality of our work environment and to maintain its position as a model for environmental stewardship and as a resource for environmental education, Columbia Basin College (CBC) will, for general maintenance and ground operations and new building and major renovation projects, implement the Sustainability Policy when appropriate and practical. This plan furthers the CBC's goals related to sustainability by quantifying current emissions, identifying emission trends, and setting goals and strategies to reduce its environmental impact.**

2. Greenhouse Gas Emissions from Agency Operations

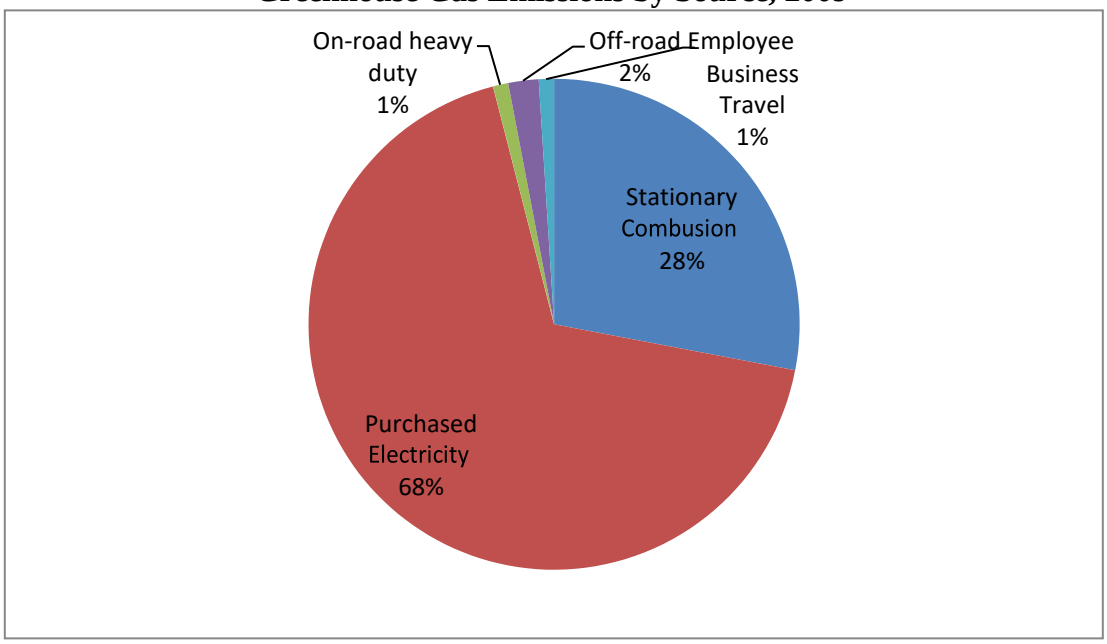
A. Direct sources of GHG emissions from building and fleet energy use

Year	Greenhouse Gas Emissions (metric tons carbon dioxide equivalent, $MTCO_2e$)
2005	4,235
2009 (or most recent year)	6,094
2020 (projected)	6,979
2035 (projected)	8,097

(Note: Figures do not include GHG emissions from buildings owned by General Administration. However, they do include GHG emissions from use of the GA Motor Pool.)

B. Main sources of direct GHG emissions

Greenhouse Gas Emissions by Source, 2009



C. Greenhouse Gas Reduction Targets

Year	GHG Reduction Target ($MTCO_2e$)
2020 (15% below 2005)	3.600
2035 (36% below 2005)	2,711
2050 (57.5% below 2005)	1.800

D. Level of GHG Reduction Needed to Meet Targets

Year	Amount of GHG Reduction Needed to meet Targets ($MTCO_2e$)

2020	3,379
2035	5,386

3. Overarching Strategies (if applicable)

Wenatchee Valley College identified several cross-cutting strategies to help in reducing GHG emissions:

- Adopting green standards for buildings
- Requiring Energy Star certification for products purchased by the university
- Encouraging public transportation
- Purchasing energy from renewable sources
- Supporting climate and sustainability shareholder proposals through their endowment

4. Greenhouse Gas Reduction Strategies for Direct Emission Sources (Building and Fleet Energy Use)

A. Strategies and Actions with Low to No Cost

- Perform Efficient Lighting Retrofits
- Install LED Street or Parking Lights
- Install Energy Efficient Refrigerators
- Educate employees about IT power saving opportunities
- Use power management setting on existing computers

B. Strategies and Actions with Payback up-to Twelve Years (or other time period determined by your agency)

- Install Lighting Occupancy Sensors
- Increase chiller efficiency
- Upgrade HVAC fans

C. Strategies and Actions with High Cost and Long Payback (more than 12 years or other time period determined by your agency)

- Increase boiler efficiency
- Offset energy usage by purchasing 1% green electricity

5. Greenhouse Gas Reduction Strategies for Other Emission Sources (Employee Business Travel and Commuting)

Wenatchee Valley College also quantified greenhouse gas emissions from employee commuting and business travel. GHG emissions from these sources were not included in the 2005 baseline because of insufficient data, and are therefore are not included in the reduction targets. Also, Wenatchee Valley College has less operational control over these sources. Wenatchee Valley College evaluated these sources separately in this strategy and identified reduction strategies for these sources.

Source of GHG Emissions	GHG Emissions, 2009 (or most recent year) ($MTCO_2e$)
Business Travel	N/A
Employee Commuting*	562

Strategies and Actions

- Employee Business Travel: Offset emissions for employee business travel
- Employee Commuting: Increase bus ridership by 10% by issuing free bus passes to students and faculty

6. Additional Sustainability Strategies and Actions (if applicable)

Strategies and Actions	Co-benefits for GHG Reduction	Implementation Date Estimate
Establish/expand recycling programs (assumes 25% reduction in paper waste, based on average estimates of per capita paper consumption issued by the EPA)		2011-2012
Requiring Energy Star certification for future products purchased by the university		

7. Next Steps and Recommendations

- **Wenatchee Valley College is currently working with to upgrade its facilities; most of the aforementioned strategies (lighting upgrades, boiler & HVAC upgrades, etc) are currently underway.**
- **Wenatchee Valley College is currently assessing opportunities to offset and/or reduce business travel.**

8. Active Steps Currently Underway

- **PV Solar Panels installed on several buildings**
- **Electric vehicle charge-up stations**
- **Water heater on roof of CCTE building**
- **Xeriscaping**

Appendix H

CAM Report

Preliminary for 2019-21 Project Requests
CAPITAL ANALYSIS MODEL (CAM) GENERATED SPACE
SBCTC Data Warehouse October 16, 2107
COLLEGE: **Wenatchee Valley**
TYPE: **Community College**

Warning: do not use before ~
College breaks out assignable areas by CAM category for
College verfies assignaable area by CAM category on the

All FTE *	FALL 2016	FALL 2026	Growth	Percent	FTE/Year
Academic	1,725	1,835	110	6%	11
Vocational	550	585	35	6%	3
Basic Skills/Dev Ed	988	1,050	62	6%	6
TOTAL	**3,263**	**3,470**	**207**	**6%**	**21**

Type 1 FTE	FALL 2016	FALL 2026	Growth	Percent	FTE/Year
Academic	1,170	1,244	74	6%	7
Vocational	311	331	20	6%	2
Basic Skills/Dev Ed	538	572	34	6%	3
TOTAL	**2,020**	**2,147**	**127**	**6%**	**13**

Type 2 FTE	FALL 2016	FALL 2026	Growth	Percent	FTE/Year
Academic	1,454	1,547	93	6%	9
Vocational	328	349	21	6%	2
Basic Skills/Dev Ed	579	616	37	6%	4
TOTAL	**2,362**	**2,512**	**150**	**6%**	**15**

* All funding sources, all ages, all intents (excluding community service), all enrollments (excluding DOC)
Type 1 = Day On-Campus (excludes Online)
Type 2 = Day On-Campus + Online

Preliminary for 2019-21 Project Requests
CAPITAL ANALYSIS MODEL (CAM) GENERATED SPACE
SBCTC Data Warehouse October 16, 2107
COLLEGE: **Wenatchee Valley**
TYPE: **Community College**

Warning: do not use before ~
College breaks out assignable areas by CAM category for
College verfies assignaable area by CAM category on the

TYPE OF SPACE	FAE CODING	FTE TYPE	2016 SPACE AVAILABLE	COMMITTED CHANGES 2016-26	2026 SPACE AVAILABLE	2026 CAM ALLOWANCE	2019-21 SPACE DEFICITS SHORTAGE	2019-21 SPACE DEFICITS OVERAGE	SHORTAGE AS % OF 2019-21 CAM ALLOWANCE
GEN. CLASSROOM	A1	1	38,318		38,318	17,908	0	20,410	0%
BASIC SKILLS LABS (open)	A2	2	3,243		3,243	17,002	13,759	0	81%
SCIENCE LABS.	B1	1	14,686		14,686	11,818	0	2,868	0%
COMPUTER LABS. (open)	B2,B4,B5	2	9,452		9,452	14,851	5,399	0	36%
ART	C1	2	14,990		14,990	6,000	0	8,990	0%
MUSIC	C2	2	8,528		8,528	4,000	0	4,528	0%
DRAMA	C3	2	3,869		3,869	5,000	1,131	0	23%
Subtotal Instruction			**93,086**	**0**	**93,086**	**76,579**	**20,289**	**36,796**	**26%**
AUDITORIUM	C4	2	8,181		8,181	9,000	819	0	9%
LIBRARY/LRC	E1	2	21,661		21,661	37,662	16,001	0	42%
PHYS. EDUCATION	H3	2	18,726		18,726	23,470	4,744	0	20%
FACULTY OFFICE	F1	2	19,283		19,283	21,290	2,007	0	9%
Subtotal Instructional Support			**67,851**	**0**	**67,851**	**91,421**	**23,570**	**0**	**26%**
Total Instructional Space			**160,937**	**0**	**160,937**	**168,000**	**43,859**	**36,796**	**26%**
ADMIN./STU.SERV.	G1,G2	2	16,582		16,582	20,452	3,870	0	19%
STU.CTR.& RELATED	H1,H2	2	19,842		19,842	30,278	10,436	0	34%
C.STORES/MAINT.	I1	2	16,692		16,692	14,896	0	1,796	0%
CHILD CARE	H4	2	0		0	8,541	8,541	0	100%
Subtotal Student Service/Other			**53,116**	**0**	**53,116**	**74,167**	**22,847**	**1,796**	**31%**
TOTAL CAM SPACE			**214,053**	**0**	**214,053**	**242,166**	**66,705**	**38,592**	**28%**

TOTAL ASSIGNED	294,204
CAM/TOT. ASSIGN.	73%

Appendix I

Whitestone Facility Operations Cost Reference
2009-2010 - Richland, Washington

3.1 Local Operations Cost Indexes, Selected Areas

Area	Cost per GSFT *	Local Index	230 Area Ranking
Richland, WA			
Custodial	$1.799	74.8	148
Energy	$1.610	57.0	194
Grounds	$.220	87.5	138
M&R	$3.063	98.3	54
Management	$2.458	104.6	41
Pest Control	$.244	96.5	37
Refuse	$.077	105.8	13
Road Clearance	$.020	141.5	98
Security	$.614	121.7	1
Telecom	$.527	101.1	170
Water/Sewer	$.169	45.8	212
Total	$10.800	85.2	120
Richmond, VA			
Custodial	$1.750	72.8	170
Energy	$1.824	64.6	147
Grounds	$.206	81.7	181
M&R	$2.651	85.1	161
Management	$2.219	94.4	134
Pest Control	$.256	101.3	25
Refuse	$.065	90.0	229
Road Clearance	$.012	82.7	126
Security	$.440	87.3	57
Telecom	$.638	122.4	38
Water/Sewer	$.252	68.6	152
Total	$10.312	81.3	167
Riverside, CA			
Custodial	$1.816	75.5	137
Energy	$2.380	84.3	68
Grounds	$.248	98.3	70
M&R	$2.833	90.9	115
Management	$2.376	101.1	75
Pest Control	$.221	87.6	78
Refuse	$.074	101.6	32
Road Clearance	$.004	27.3	185
Security	$.388	76.9	185
Telecom	$.459	88.1	204
Water/Sewer	$.207	56.3	186
Total	$11.005	86.8	106
Roanoke, VA			
Custodial	$1.737	72.2	177
Energy	$1.801	63.8	154
Grounds	$.200	79.5	197
M&R	$2.497	80.1	212
Management	$2.096	89.2	210
Pest Control	$.198	78.6	146
Refuse	$.065	89.4	231
Road Clearance	$.013	94.8	119
Security	$.373	74.0	205
Telecom	$.638	122.4	38
Water/Sewer	$.717	195.0	7
Total	$10.335	81.5	165
Rochester, MN			
Custodial	$2.494	103.7	10
Energy	$1.673	59.3	184
Grounds	$.276	109.6	26
M&R	$2.966	95.2	80
Management	$2.427	103.3	54
Pest Control	$.252	99.6	32
Refuse	$.073	100.0	49
Road Clearance	$.044	311.8	20
Security	$.459	90.9	38
Telecom	$.592	113.6	63
Water/Sewer	$.124	33.7	225
Total	$11.378	89.7	76
Rochester, NY			
Custodial	$1.821	75.7	134
Energy	$3.080	109.1	25
Grounds	$.242	95.9	82
M&R	$2.879	92.4	104
Management	$2.309	98.2	103
Pest Control	$.242	95.7	41
Refuse	$.073	99.6	54
Road Clearance	$.074	525.2	2
Security	$.414	82.1	122
Telecom	$.631	121.2	44
Water/Sewer	$.271	73.7	143
Total	$12.035	94.9	46
Rockford, IL			
Custodial	$1.830	76.1	128
Energy	$1.882	66.7	140
Grounds	$.200	79.4	198
M&R	$3.324	106.7	26
Management	$2.550	108.5	25
Pest Control	$.203	80.4	130
Refuse	$.070	96.5	104
Road Clearance	$.037	265.7	37
Security	$.430	85.2	83
Telecom	$.759	145.8	3
Water/Sewer	$.173	47.0	210
Total	$11.460	90.4	73
Rutland, VT			
Custodial	$2.036	84.7	70
Energy	$2.743	97.2	44
Grounds	$.206	81.6	183
M&R	$2.628	84.3	169
Management	$2.265	96.4	118
Pest Control	$.221	87.6	75
Refuse	$.069	94.8	142
Road Clearance	$.009	61.7	135
Security	$.430	85.1	86
Telecom	$.568	109.0	92
Water/Sewer	$.441	119.9	31
Total	$11.616	91.6	68

*Annual average costs of operating and maintaining the Two-Story Office Building shown in Chapter 2.
Note: Local Indexes are standardized (equal 100) for the Washington D.C. area.

Appendix J

Detailed Program Overview

Center for Technical Education and Innovation

Tech. Labs/Instruction 12/20/2017

Space Name	(ASF)	Quantity	Total ASF	WorkStations	Comments
Automotive Lab	13,932	1	13,932	40	Customized to Program but Modular and Easy to Renovate for Other Program Use
Refrigeration Lab	4,240	1	4,240	25	Customized to Program but Modular and Easy to Renovate for Other Program Use
Mechatronics Lab	4,160	1	4,160	25	Customized to Program but Modular and Easy to Renovate for Other Program Use
Machine Lab	4,960	1	4,960	25	Customized to Program but Modular and Easy to Renovate for Other Program Use
Fabrication Lab	5,280	1	5,280	20	Customized to Program but Modular and Easy to Renovate for Other Program Use
Agriculture Lab	1,226	3	3,678	54	Customized to Program but Modular and Easy to Renovate for Other Program Use
Criminal Justice Lab	2,590	1	2,590	30	Customized to Program but Modular and Easy to Renovate for Other Program Use, Fume Hood
Industry Training	1,990	1	1,990	30	Exterior access, Folding divider wall, Drop Cords, Electrical Outlet Access, Roll up Door for Large Equipment, Easily Cleanable, Mobile Furniture
Mechatronics Computer Lab	980	1	980	25	Close proximity to Mechatronics Lab, Visability to Lab if Possible
Computer Lab	1,200	1	1,200	30	Computers and Printers, Wi-Fi, Adequate oulets
Innovation Resource Center/Sim Lab	1,200	1	1,200	25	Simulation Devices, Wi-Fi, Adequate outlets, Work Tables, Computers, Inviting, Transparent, Access to Resource
		Subtotal NSF	**44,210**	329	

Classroom/Instruction

Space Name	(ASF)	Quantity	Total ASF	Workstations	Comments
Flexible Classroom	800	5	4,000	150	A/V Equipment, Wi-Fi, Adequate outlets, moveable furniture and teaching station
Informal/Collaborative/Social Learning	2,070	1	2,070		Variety of mobile seating and learning tools, Wi-Fi, Adequate outlets, Whiteboards, LCD Screens
		Subtotal NSF	**6,070**	150	

Advising/Student Services

Space Name	(ASF)	Quantity	Total ASF	Workstations	Comments
Advising/Student Services	1,830	1	1,830	0	Centrally located, welcoming, displays career opportunites, and student success
Conference	478	1	478	0	Tables and chairs, Wi-Fi, A/V Equipment, Dry Erase Boards
		subtotal NSF	**2,308**	0	

Faculty/Admin. Support

Space Name	(ASF)	Quantity	Total ASF	Workstations	Comments
Faculty Offices	120	10	1,200	0	Window for each, right sized
Dean's Office	180	1	180	0	Window, right sized
Breakroom	288	1	288	0	Kitchenette, Sink, Frig, Microwave, Tables
Workroom	288	1	288	0	Centralized Copier, Wi-Fi, Adequate outlets
Adjunct. Faculty Space	946	1	1,616	0	Open concept
		Subtotal NSF	**3,572**		

Total NSF		**56,160**
	Circulation /Support	13,820
Total GSF	Efficiency = **20%**	**69,980**

Appendix K

Average Useful Life of Infrastructure

Appendix E – Average Useful Life of Infrastructure

The following average useful lives are used in accounting for depreciating assets. Since this is an average, about half of the infrastructure is expected to last longer. Projects involving infrastructure with different average lives shall use a cost weighted average life for scoring relative to the criteria. If replacing existing infrastructure, the proposal will have both the cost weighted average useful life of the existing and proposed infrastructures.

Infrastructure	**Average Useful Life [1]**	**Estimated Cost**	**Cost Weighted Life**
Electrical Service/Distribution – underground	20		
Electrical Utility Pole	20		
Electrical Transformer – pad mounted	5		
Electrical Transformer – in vault	5		
Electrical Generator – free standing	5		
Potable Water – piping	25		
Potable Water – meters	25		
Sewer lines – concrete	50		
Sewer lines – brick	90		
Sewer lines – metal	40		
Storm drains – plastic	25		
Storm drains – cast iron	30		
Storm drains – metal corrugated	30		
Storm drains – concrete	40		
Storm drains – ditch/trench	100		
Telecommunication – fiber optic conductors	5		
Telecommunication networks between buildings[2]	7.5		
Inter building communication infrastructure[3]	25		
Increased Chiller Capacity for Batjer Hall, Industrial Technology, and Refrigeration	20	$375,000	$7,500,000
Chilled Water– Utility Tunnel	50	$616,201	$30,810,050
Chilled Water Piping	25	$410,801	$10,270,025
Subtotals		A = $1,402,002	B = $48,580,075
Cost Weighted Average Useful Life			**B / A= 34.65**

Notes:

[1] Average Useful Life in years is from Section 30.50.10 of the State Administrative & Accounting Manual Issued by Office of Financial Management unless otherwise noted.

[2] California State University Capital Asset Guide, April 2012.

[3] University of New Mexico Design Guidelines for Information Technology Infrastructure Facilities.

[4] Provide copy or link to Other data used in analysis.