

Project 2020-148
Pierce College, Puyallup STEM Building

Attachment 7:
Project Request Report

2019/2021 PROJECT REQUEST REPORT

PIERCE COLLEGE PUYALLUP

**SCIENCE, TECHNOLOGY, ENGINEERING,
MATHEMATICS (STEM) BUILDING**

DECEMBER 20, 2017

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SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS (STEM) BUILDING PIERCE COLLEGE PUYALLUP

1.0 EXECUTIVE SUMMARY

1.1. Problem Statement

Pierce College Puyallup lacks adequate and ample space to meet the current and growing needs of students and community, particularly in Science, Technology, Engineering, and Math (STEM) programs and support services. In the 27 years since the establishment of Pierce College Puyallup's campus, community needs, student demographics, learning needs, instructional strategies, program offerings, and technologies have continued to evolve and expand.

Rapid population growth in the College's service area has exacerbated our capacity challenges. There are currently 3,500 residences being constructed in Puyallup alone, which is just a fraction of the District. The Puget Sound Regional Council 2009 Report the Growth Management, Environmental, Economic, and Transportation Strategy for the Central Puget Sound Region predicts a population increase in Pierce County of 393,000 people by 2040, and an employment growth of 212,000 jobs. The report identifies Puyallup as a "core city," which means it is "intended to accommodate a significant share of future growth." As a result, we can clearly anticipate significant continued enrollment demand.

The Pierce College District strategically engages in a number of special initiatives aimed at student recruitment and retention throughout its service district and internationally, as well. As a part of its guided pathways work, the District employs an outreach team that partners with K-12 and other community organizations to build relationships and seamless pathways to higher education that fully and equitably serve our diverse communities. Our International Education program actively recruits international students to provide for additional diversity and global perspective on campus. We are focusing new efforts to expand participation at Pierce College Puyallup. Further, our Achieving the Dream efforts are proving to be highly successful with a Fall to Fall student retention increase of 19% over the five years through 2016.

Pierce College Puyallup has had consistent and substantial enrollment growth, due in part, to its significant Running Start enrollment. Running Start FTE at Pierce College Puyallup has increased over 71% in the last five years to a current enrollment of 1,326 (Fall 2016). Our data reveals trends that suggest Running Start enrollments will continue to grow. The Puyallup School District's growth is currently in the elementary and middle school levels. This new wave of students will begin reaching high school in 2020, less than three years from now, leaving Pierce with a very short turnaround to meet the growing needs of the community. This impact will include both traditional and Running Start enrollments in addition to planned growth in International Education enrollments.

A significant part of our enrollment growth has been in STEM programs with Pierce College Puyallup currently serving 1,076 STEM course enrollments, it is important to look at course enrollments in addition to FTE growth because course enrollments drive classroom use, accommodation of student schedules, and overall space utilization needs. This growth in course enrollments requires new and additional classroom space, laboratories, and student support services such as Tutoring, Supplemental Instruction, and Advising. We believe we can be creative with

the design of dynamic learning. Specifically, we want to incorporate learning spaces that serve as both classrooms and laboratories, which inspire new instructional pedagogies and take advantage of efficient building design.

Currently, space and facilities are insufficient to meet current demand, particularly in STEM programs and enrollments, and cannot accommodate projected future growth. Four major facilities problems now face Pierce College Puyallup:

- Condition, configuration and square footage of our current STEM facilities limit our ability to adequately schedule courses to meet demand, to provide a full complement of STEM courses needed in program pathways, and to fully offer educational programs that meet student and industry needs in STEM fields. For example, we have waitlists for many courses and we have no Organic Chemistry laboratory nor a Fabrication Space for Physics, Engineering, and industry.
- There is no space to expand the Engineering and Computer Network Engineering programs to meet current demand. These spaces can be designed in a way that maximizes their utilization for both proprietary programmatic needs and for more general educational uses (lectures, technology labs, tutoring, etc.).
- There is no space to add two identified industry needs (i.e., Additive Manufacturing, Robotics).
- Space is inadequate to meet our institutional goals of closing the student achievement gap and increasing student completion. Student services spaces are inadequate to serve the current population and there is no room for expansion. Areas that need to be expanded include Enrollment Services, Advising, Tutoring, Writing Center, and Supplemental Instruction. For example, each quarter we have a waitlist for students to be served in tutoring, not because of a lack of tutors, but because of a lack of space to serve them. In addition, we currently do not have a Veterans Resource Center to serve the strong military enrollments at Pierce College. Additional space provided by this project will free up space for expansion of these programs.

Type of Project Request

This request is for the addition of a new Science, Technology, Engineering, and Mathematics (STEM) Building at Pierce College Puyallup, framed by burgeoning new enrollments and by success in retaining students, thus leading to increased enrollments in upper-level coursework. The project request is for a fully state-owned facility that includes required infrastructure improvements and also requires additional surface parking to accommodate increased on-campus student engagement as a result of expanded program availability and demand. The project is the only request being submitted for the 2019/2021 biennium and is not dependent on any other current request. The Washington Association of Community and Technical College's Capital Committee has authorized this project to exceed 70,000 gross square feet ([See Appendix 7.4.5](#)).

1.2. Proposed Solution

Pierce College Puyallup is requesting capital funding to construct a new facility suitable to meet current and future needs for our STEM programs. Specifically, the project will provide new specialized spaces for several existing programs, flexible space for support classes, various unscheduled labs that support programs, student study spaces, and will enable the expansion of critical support services in vacated space created by the project. Additionally, the project will enable the development of several new programs and capabilities.

Solutions proposed will:

- Provide appropriately sized and configured flexible learning spaces to include STEM course and program offerings in order to meet student and industry needs.
- Reduce existing wait lists for many course offerings
- Provide a greatly needed and currently non-existent Organic Chemistry Laboratory
- Provide a multi-purpose Fabrication space to ensure a greatly improved and necessary capability in Physics and Engineering
- Expand the Engineering and Computer Network Engineering programs
- Develop new programs in Robotics and Additive Manufacturing/3-D Printing
- Utilize existing space vacated in the Library/Science Building to provide expanded and co-located spaces for Advising, Tutoring, Supplemental Instruction, an expanded Writing Center, and a Veterans Resource Center
- Meet standards for institutional accreditation
- Support improved ADA accessibility
- Further integrate energy efficient building systems into the campus environment
- Provide enhanced surrounding site improvements such as lighting, landscaping, and exterior signage
- Continue an emphasis on maintaining a welcoming environment for all students

1.3. Programs Addressed by Project

The project will address a number of critically important program areas by providing dynamic and flexible learning spaces for a variety of needs:

- Engineering
- Computer Network Engineering
- Biology - General, Microbiology, and Anatomy and Physiology
- Chemistry - Organic and Inorganic
- Physics
- Earth Sciences - Geology, Oceanography, Environmental
- Mathematics
- Robotics and Additive Manufacturing/3D Printing – new technology programs
- Fabrication space – Multi-use

Additionally, new faculty offices will be created with close proximity to learning areas to assure seamless connection between students and faculty. ([See Appendix 7.4.4](#) for preliminary program and area analysis.)

1.4. Probable Cost Summary and Comparison to Benchmark

The escalated Maximum Allowable Construction Cost is \$26,160,767 with an estimated cost per square foot of \$393/sf. The escalated total project cost is \$37,822,521 which is less than the expected cost for this type of facility. ([See Appendix 7.4.6](#)) In addition to the building and project costs noted above, the escalated total project cost for the infrastructure improvements needed to support the project is \$2,305,917. ([See Attachment 6.1](#) for Infrastructure Cost Estimates).

1.5. Project Schedule

Project design will begin in July 2019 and be completed during the 2019-21 biennium. Project bid will occur during spring/summer 2021 with construction occurring through the 2021-23 biennium. Occupancy of the building is expected by January 20

1.6. Funding

The project is intended to be funded through state capital appropriations. Additional parking beyond the approximate 100 vehicle surface lot included in the project will be self-funded by the College.

2.0 PROBLEM STATEMENT, OPPORTUNITY OR PROGRAM REQUIREMENT

2.1. Short Description of the Project and Its Benefits

The project will construct a 66,500 gross square foot building at Pierce College Puyallup. The project will provide instructional and support space for a variety of programs with an emphasis on Science, Technology, Engineering, and Mathematics (STEM). This building will provide new space for STEM-related instructional and instructional support areas as well as science-specific classrooms, general classrooms, computer classrooms, and faculty and staff offices. The project will also enable the college to expand student support services into spaces being vacated by existing STEM programs.

The project is envisioned as a three-story structure and will be designed and constructed to meet LEED Silver Certification. The project will use universal design principles and will ensure ADA compliance. The project will incorporate newer energy efficiency technologies to include heating and ventilation systems, electrical systems, and lighting. The building envelope will be designed and constructed to ensure a useful building structural life of a minimum 50 years. Surrounding site improvements will include landscaping appropriate to the site and a methodically planned exterior lighting and pedestrian access plan in keeping with CPTED (Crime Prevention Through Environmental Design) principles.

The project will dramatically improve instructional capabilities by providing more functional, flexible, up-to-date, and well-equipped classrooms and laboratories necessary to address current and cutting edge instructional methodologies and emerging technologies, meet current and increasing enrollment demand, and meet industry expectation requirements. Wait lists for existing classes will be significantly reduced. Expansion will greatly benefit course scheduling and will ease consistent high current demand for classroom and laboratory space. Pathways for students to pursue and complete their educational goals will be greatly enhanced. New high-technology programs will include Robotics and Additive Manufacturing/3D Printing. A Fabrication/Multi-Use Space will offer facilities which allow students and community members to explore ideas in material form. This may be as complex as milling a large-scale 3D object using an industrial robot, or as traditional as turning on wood or metal lathes, or as simple as printing 2D images on large format printers. The Fabrication Space will encourage experimentation, allow prototyping and the generation and exploration of ideas, as well as the production of finished objects, in order to prepare students to work in industry. The Fabrication Space will support college courses, be open to all students and staff, and be available to outside community members including professionals and businesses.

The college currently has no Organic Chemistry Laboratory, prohibiting students the ability to earn an Associate of Science transfer degree (AS-T), Track 1, with this vital course for Chemistry majors, and this project will provide that much needed asset. Existing programs in Biology, Chemistry, Physics, Earth Sciences, Mathematics, Engineering, Computer Science and Computer Network Engineering will benefit by having new, expanded and much more capable instructional

space in order to meet surging demand in STEM fields.

Support services for students entering STEM-related programs is a critical factor not only in drawing students into these programs but in providing the best opportunities for students to be retained in these programs and to successfully complete the rigorous curriculum demands required. Comprehensive tutoring and supplemental instruction programs, as well as intensive advising services, are an essential component of a strong STEM curriculum. Although not specifically within the scope of the project itself, this project will enable the use of vacated spaces in the Brouillet Library/Science Building for the purposes of significantly expanding these critical support functions. Strategically locating services to include Tutoring, Supplemental Instruction, Writing Center, Advising, and Veterans Resource Center immediately adjacent to the Library and in close proximity to the new STEM Building, will create one contiguous student support services area. As the largest local provider of higher education classes at Joint Base Lewis-McChord (JBLM), Pierce College continues to experience a significant increase in the number of military veterans enrolling in a wide array of college courses and programs. The addition of a resource center will ensure that we can continue to engage these veterans in such a way as to assure the best possible outcome for successful accomplishment of their educational goals.

2.2. How this Project Relates to:

2.2.1. Facilities Master Plan

This project ties directly to the Pierce College Puyallup Campus (Facilities) Master Plan, completed in 2002 and updated in 2015. The Campus Master Plan identifies six major strategic planning goals:

- Establish a dynamic framework for continued growth and decision-making.
- Reinforce Pierce as a “learning-centered community” with quality comprehensive programs focused on student success.
- Create facilities that enhance interaction with other organizations and strengthen community connections.
- Use architecture and design to express and reinforce district values and mission.
- Maximize operational and maintenance efficiencies.
- Value open spaces and strengthen stewardship of the environment.

The plan also outlines four categories for planning and development: Comprehensive Needs, Current Campus Development, Near-Term Development Needs, and Long-Range Development Needs. ([See Appendix 7.3.1](#) – Excerpts from Campus Master Plan).

This project was identified as the next major project in our original campus master plan and continues to be our number one priority for 2019-21 biennium funding. This project will allow us to address four main needs: 1) The College simply does not have adequate space or capability to support the tremendous enrollment growth it has seen over the last decade; 2) create a facility that provides quality programming focused on student learning and success, particularly in STEM fields; 3) enhance our partnerships with local industry and community; 4) maximize space utilization and operational efficiencies through flexible design and LEED principles.

2.2.2. Strategic Plan

This project ties directly to the strategic plan and institutional goals and priorities of Pierce College. Our Institutional Effectiveness Plan and Scorecard is an on-going evaluation of our five core themes and progress toward mission fulfillment that guides the District's planning efforts, budget allocations, and capital projects. Our core themes include: Access; Excellence; Contribution to Community; Equity, Diversity, and Inclusion; Student Learning and Success. Specifically, this project addresses priority areas of continued development of a quality educational environment that increases access, provides current technology to enhance job skills, provides enhanced preparation for those students transferring to four-year institutions, particularly in STEM programs, and creates functional and safe facilities for our student population. ([See Appendix 7.3.2 – Mission, Vision, Values, Core Themes; Institutional Effectiveness Scorecard; Learning and Student Success Strategic Plan](#)). Currently, the College's ability to adequately support our Core Themes is being significantly impacted by a lack of appropriate classroom and laboratory space, as well as by a shortage of committed space for student study, support resources and services.

2.2.3. Institutional Goals

Pierce College's Strategic Plan and Institutional Goals are, essentially, identical as reflected in the documents located in Appendix C of this Report. Overall, the main thrust of the College's Strategic Plan and Institutional Goals is to close the student achievement gap and increase student completion.

2.3. How this Project Relates to the SBCTC System Direction goals for Economic Demand, Student Success, and Innovation

This project ties directly to SBCTC system goals of both increased access and meeting industry and community demands of a well-educated and skilled workforce. Workforce Central's report on The Force of the Future, Summer 2014, indicates that STEM related job openings currently exceed the supply of job candidates. In Washington, 1 of 12 of the 85,424 jobs (i.e. 7,118 jobs) vacant in spring 2013 was a STEM occupation. It is also estimated that 45,000 STEM jobs could go unfilled by the end of 2017. A new STEM-focused building will improve efforts to expand capacity to address the skills gap and shortage of trained workers to fill open positions and to provide capacity to expand educational and employment pathways for incumbent workers and new employees. ([See Appendix 7.4.3 – Workforce Central and Invista Performance Solutions letters of support](#)).

Local K-12 partners have identified STEM pathways as a strong career interest for many of their students and community members. The new STEM building will help Pierce College meet current and future community needs ([See Appendix 7.4.3 – Puyallup School District letter of support](#)).

One of our core mission areas is to prepare students for transfer. The number of Pierce College students transferring to R1 4-year colleges and universities is continuing to grow. Between 2008 and 2013, the number of Pierce students transferring to University of Washington Tacoma (UWT) increased 55%, from 141 to 218. If this annual rate continues over the next 5 years we will see approximately 340 students transferring to the UWT. Moreover, UWT continues to intentionally grow enrollment to handle increasing capacity. UWT has plans to expand STEM programs to include electrical and biomedical engineering. A new STEM building at Pierce Col-

lege Puyallup will help to provide a pathway to these and other STEM programs ([See Appendix 7.4.3](#) – UWT letter of support).

Overall, in 2015 Pierce College sent a record 1,188 transfer students to other 4-year colleges and universities in Washington State, up 11% since 2009.

2.4. Table Showing a Summary of Program and Related Space

Space Type	Net Area-ASF	Gross Area GSF	% of Total
Classrooms/Computer Classrooms	20,200	29,706	45%
Science Labs (physics, chemistry, biology, etc.)	18,060	26,559	40%
Administrative	4,960	7,294	11%
Library	2,000	2,941	4%
Total Areas	45,220	66,500	100%

([See Appendix 7.4.4](#))

Additionally, although not included in the project itself, approximately 10,000 square feet will be made available in space vacated in the Library/Science Building to provide new and expanded areas for student support services as referenced in other sections of the request report.

2.5. Increased Type 1 and Type 2 Full Time Equivalent Students Accommodated by this Project

Program	Current FTE Enrollment	Increased FTEs Accommodated
Biology/Nutrition/Health	106	25.3
Chemistry	145	34.7
Physics	39	9.3
Earth Science	62	14.8
Mathematics	389	92.9
Engineering	21	5
Computer Sc./CNE	49	11.7
Total	811	194

Overall, Fall 2016 Type 1 FTEs in academic, vocational, and Basic Skills/Developmental Education programs totaled 2,510.

The program for the STEM Building will be designed to accommodate 32 workstations per classroom and 23 workstations per lab.

Future Utilization

2,510	Fall 2016 Type 1 FTE
2,703	Fall 2026 Type 1 FTE
193	Net New Type 1 FTE

512	This project net new Classroom workstations
69	This project net new Laboratory workstations
581	Net new workstations in project

Contact Hours	Work-stations	Future Utilization
34,979.99	1,629	21.47
7,476.69	497	15.04
42,456.68	2,126	19.97

Summary of Fall FTEs Used in the 2016 CAM

Pierce Puyallup	Fall 2016 FTEs			Fall 2026 FTE Projections			FTE Growth (Fall)		
	Total	Type 1	Type 2	Total	Type 1	Type 2	Total	Type 1	Type 2
Academic	2,373	1,907	1,907	2,555	2,053	2,053	182	146	146
Vocational	364	240	240	392	259	259	28	19	19
Basic Skills/Dev Ed	516	363	363	556	391	391	40	28	28
<i>Total</i>	3,253	2,510	2,510	3,502	2,703	2,703	250	193	193

2.6. Table of Affected Existing Buildings with their Unique Facility Identifiers, Dates Built and Square Footages

This project will not directly affect any existing buildings. However, the project will result in back-fill of vacated spaces that will be used to expand or develop new programs and services, particularly those associated with student enrollment and support services.

3.0 ANALYSIS OF ALTERNATIVES

3.1. Define the Capital Problem in Terms of Building Age, Condition, Functionality, Health, Safety, Code Issues, etc.

The project request is for new space only and does not include renovation or replacement of any existing buildings.

3.2. Describe the Obvious and Critical Needs that are Driving the Project.

The College simply does not have adequate space or capability to support the tremendous enrollment growth it has seen over the last decade. The need for programs in Science, Technology, Engineering, and Mathematics and associated support services will continue to grow. The availability of general classrooms for all instruction is currently insufficient during peak instructional hours. Engineering, for example, is greatly constrained by the lack of space and this limits the College's ability to expand this program. Computer Network Engineering is also negatively impacted by the lack of appropriate instructional space. Organic chemistry, a key curriculum component of our Associate of Science degree, is not even offered due to lack of space. The development of new technology-driven programs in Robotics and Additive Manufacturing/3D

Printing will not be possible without the development of new space configured to support these unique programs. The project will also enable the College to utilize vacated spaces to expand critically needed support services for students enrolled in STEM courses in order to adequately support and guide students through successful completion of these rigorous academic programs. Ultimately, the College is in dire need of spaces that will support both lecture and application and the College is committed to creating spaces that are not limited to a specific purpose – except when absolutely necessary – through creativity and flexibility in design.

3.2.1. New Space for Enrollment Demand

Currently, a lack of space at the College leads to limitations in offering high demand classes. The continued new student enrollment growth combined with institutional success in student retention has led to a shortage of space and an increase of bottlenecks. The College’s work around guided pathways is building greater efficiency, but it does not fully address space limitations. Indeed, the lack of space creates challenges in offering the courses necessary to meet the learning needs for each student’s pathway. The construction of flexible/dynamic space will create greater availability, as well as provide space for cutting-edge/dynamic instructional pedagogies. Further, we currently have insufficient space to adequately support the expansion of advising to effectively support students as they enter and navigate their guided pathways. In addition, this includes expanding enrollment of our military veterans and space resources necessary to address the specialized needs of this population.

3.2.2. Renovation/Replacement

The project request is for new space only and does not include renovation or replacement of any existing buildings.

3.2.2.1. Program Mix Changes

Not a renovation or replacement request.

3.2.2.2. Simplifying Space Relationships

Not a renovation or replacement request.

3.2.3. Accreditation Needs

Accreditation standards require the college to create effective learning environments with appropriate programs and services to support learning needs and to ensure that capital planning reflects the College’s Mission and Core Themes. By adhering to these accreditation standards, Pierce College demonstrates its commitment to creating a learning environment that effectively meets the current and future learning needs of its students. This project will ensure that these needs continue to be met and that the College’s physical facilities appropriately reflect its Mission and Core Themes in accordance with accreditation standards and guidance.

3.3. Alternatives Considered

Considerations have also included exploring opportunities for acquiring additional space in proximity to the College in lieu of constructing a new facility on campus. There appear to be potential options for acquisition of an existing building located immediately adjacent to the college in a business and technology center. The available building is a two-story structure originally constructed as a semi-conductor manufacturing plant. The current owner has conducted interior

demolition of the original facility and has replaced much of the exterior envelope. Considerable technology infrastructure is in place. The building is structurally sound and is conducive to tenant improvement at reasonable cost. Total square footage comprises approximately 174,335 GSF. Acquisition cost and initial tenant improvement is projected to be comparable to the cost of construction of a new 66,500 GSF building. This facility, if acquired, would provide sufficient space to meet the College’s expansion needs for the next several biennia. Acquisition of this property should be considered a viable and practical alternative should funding become available.

3.3.1. Programmatic and Facility Related

During our master planning process we analyzed potential solutions for addressing the lack of adequate facilities to support our instructional and student support needs both in terms of general academic space but also in needs specific to STEM programs. Within existing facilities, we have no ability to realistically expand STEM offerings. We do not have the appropriate infrastructure in place to support expansion of specialized learning spaces without major renovation and could not do so, in any case, without further reducing the number of classroom spaces desperately needed for other disciplines.

3.3.2. Consequences of Doing Nothing

The consequences of taking no action would leave the college unable to provide sufficient space and coursework, particularly in STEM-related programs to enable successful student program completion at Pierce College, whether for entry into the workforce or for 4-year transfer. Existing facilities are under-sized and insufficiently equipped to support these needs. In some cases, Organic Chemistry for example, we have no existing space whatsoever. The college will simply not be able to continue to provide a comprehensive STEM curriculum to meet the needs of its growing service area and we will be forced to turn away prospective students. Without this project, the college will also be unable to back-fill vacated space in the existing Library/Science Building with expanded and critically needed student support services such as Tutoring and Supplemental Instruction. It would also not be possible to expand the Library in order to support increasing numbers of student users.

3.3.3. Cost Estimate for Each Alternative

The un-escalated MACC of the alternative described above in section 3.3 is \$25,690,000 which includes acquisition cost of the 174,335 GSF building and 66,500 sf of interior tenant improvements. This MACC cost is comparable to the MACC of the proposed project and provides a viable alternate option.

Alternative Cost Summary				
Building Acquisition				\$14,000,000
Site work and infrastructure				\$1,050,000
Interior Tenant Improvement	66,500	sf	\$160	\$10,640,000
Estimated MACC total				\$25,690,000

4.0 PROJECT PLANNING OF PREFERRED ALTERNATIVE

4.1. History of Building and Original Funding Source, if applicable

The project request is for new space only and is anticipated to be fully funded through state capital funding appropriations.

4.2. Useful Life of Proposed Facility

Project design and construction will ensure a useful life of the building and its structural integrity for a minimum of 50 years. Design will also focus on a highly detailed and effective building envelope as a critical building component to assure an extended service life.

4.3. Discussion of Sustainability – LEED Silver Standard Required

The College works closely with representatives of the Department of Enterprise Services on energy conservation measures to be incorporated into building design on all of our projects. This project will be designed to meet LEED Silver Certification standards. ([See Attachment 6.5](#) for LEED Checklist). Additional environmental sustainability features will be added where possible. Design concepts for this project will not only meet, but will exceed current energy conservation standards to include use of natural lighting, strategies to reduce consumption of electrical energy, and use of sustainable and recyclable products.

4.4. How this Project Will Impact Deferred Maintenance and Repair Backlog

This project represents the addition of new space and will not impact deferred maintenance or repair backlog for any existing square footage. New space will be incorporated into an existing aggressive preventive maintenance and repair program to ensure adequate service life of building systems and components.

4.5. Acquisition Needs

The project, as submitted, is contained within property already owned by the college and does not require the acquisition of additional properties. However, if the opportunity should present itself to obtain a building located on adjacent property, as described in the section under Alternatives Considered, acquisition would be required.

4.6. Mitigation and Neighborhood Related Issues

The project site is not immediately adjacent to neighboring properties and will not require mitigation or other efforts to eliminate or reduce impacts to neighboring properties.

4.7. Parking Expansion Directly Related to the Project

Additional parking will be required as a condition of permitting. Existing parking is insufficient to meet current demand and expansion will be necessary to meet anticipated growth as a result of this project. The project request includes the provision of a surface parking lot to accommodate approximately 100 vehicle stalls. This will not be sufficient to meet necessary parking needs and will require the college to self-fund additional parking. A parking structure has been considered as a possible option but the cost of construction is overly prohibitive.

4.8. Permit Issues, Variances Required

No unusual permitting requirements or code variances are anticipated for this project.

4.9. Utility and Other Infrastructure Issues

Requirements for the site include infrastructure improvements which are addressed as a separate Infrastructure Category with accompanying C100 ([See Attachment 6.1](#)). Infrastructure includes utilities located more than five feet outside the building footprint along with earth work and site surface restoration tied to utility installation. Infrastructure included in project specifically serves the new building. Infrastructure total project costs are estimated at \$2,305,917 which represents less than 10% of the total combined project cost of \$37,822,521. Based on the Average Useful Life of Infrastructure worksheet, average life of new infrastructure is 22.85 years. ([See Appendix 7.4.2](#))

Electrical, gas, water, sanitary sewer, and telecom/data connections will have to be extended to reach the project site. However, sufficient infrastructure exists on campus to support this expansion, and as part of the campus master plan, was already planned for. Estimated cost projections for qualifying infrastructure are incorporated into the project as an Infrastructure Category Cost and are noted in both the Project Cost Summary ([See Attachment 6.1](#)) and in the Consolidated Score Sheet ([See Appendix 7.4.6](#)).

4.10. Storm Water and Other Environmental Issues

Storm water management is expected to be the major environmental issue associated with this project. This is a significant point of concern for local permitting authorities and will require mitigation efforts. No other environmental issues or concerns are anticipated. Estimated cost projections for environmental mitigation are incorporated into the project as an Infrastructure Category cost and are noted in both the Project Cost Summary ([See Attachment 6.1](#)) and in the Consolidated Score Sheet ([See Appendix 7.4.6](#)).

4.11. Roads and Traffic Signals

Existing roadways and traffic signals are sufficient to meet the college's present needs and are anticipated to also adequately support the addition of an additional new facility. Primary issues of concern will be for periodic repairs to existing paved surfaces and maintenance of public transit routes.

4.12. Department of Archaeology and Historic Preservation and Tribal Reviews

The project description and supporting documentation were submitted to the Department of Archaeology and Historic Preservation (DAHP) as well as the Governor's Office of Indian Affairs (GOIA) in compliance with Executive Order 05-05 ([See Attachment 6.4](#)). The DAHP expressed no concerns over historical resources but did note the requirement to contact local tribes for consultation. The GOIA directed us to the Nisqually and Puyallup Tribes. We have been in contact with and submitted documents to both tribes and have been asked to conduct a new Cultural Resources Assessment survey at the location of the proposed new structure, if the project is funded and moves forward.

4.13. Provide fall 2016 Utilization of Classrooms, Laboratories, and All Instructional Areas on Campus.

Utilization of Instructional Space/ Effective Use of Existing Space
Fall 2016 Utilization Calculations

	Contact Hours	Workstations		Utilization
Classes	32,267.75	1,117		28.89
Labs	7,111.17	428		16.61
Campus	39,378.92	1,545		25.49

It should also be noted that, according to the SBCTC’s 2016 Enrollment and Facility Inventory Summary, Pierce College Puyallup has the lowest GSF/FTE at 69 of any other community or technical college in the system. ([See Appendix 7.4.8](#)).

The college has been methodical and creative in identifying, assessing, and implementing opportunities for maximum utilization of existing space. Space constraints limit our ability to meet enrollment demand and have inspired us to continue to be innovative in order to achieve effective and complete utilization of space. Examples of these strategies include:

- Stretching the schedule to offer an increased number of classes at less popular times (e.g. 7:00 a.m., late afternoon, late evening/night, etc.), with many of these times now fully scheduled;
- Broadening our hybrid offerings in order for a single classroom to serve multiple classes during the same time block (e.g. at any given hour, a single room may serve from two to five classes instead of one);
- Implementing multi-usage for traditionally specific/proprietary room types such as:
 - Using the open space in a nursing lab as traditional instructional space
 - Swapping a drawing studio mid-day to serve as a traditional classroom
 - Outfitting wider hallways and common areas with desks and chairs to create study and collaboration spaces
 - Scheduling Supplemental Instruction and Tutoring in non-traditional spaces
 - Converting conference rooms to serve as classrooms, tutoring space, and study areas

Each of these approaches have required highly efficient room management, creative scheduling, and broad campus cooperation. We continue to see enrollment increases to a level where there are no “open blocks” of time and only sporadic rooms available throughout the day. The decision was not about where we could offer a class, but if. We have had to reduce anticipated sections, even at less-traditional times, due to a lack of room availability.

4.14. New Programs; Changing Mix of Programs

This project will provide additional growth in STEM-related programs in both new and expanded curriculum offerings. New programs, driven largely by the need to recognize dramatic advances in technology, include Robotics (manufacturing, storage, medical) and Additive Manufacturing/3-D Printing. The project will also include a new Organic Chemistry Laboratory. The lack of an existing Organic Chemistry Lab has prohibited the progression of our students through completion of an Associate of Science degree, necessitating either a commute to another college for

this course or transfer to a university without an A.S. degree. Although not an entirely new program, all students, with few exceptions, are now required to take a college success class (College Success 110). This has required the addition of up several additional class sections, necessitating an expanded schedule of classroom use which places an increasingly difficult burden on use of existing space. The program requires students to work individually with an advisor and this, in turn, has required additional space for academic advisors although expanded space for advising will largely take place as back-fill in vacated space.

Existing programs will be retained and expanded and will be re-sized and relocated based on both enrollment demand and on the need to re-align program adjacencies. Although not included in the project itself, the addition of a new STEM building will enable the college to modify existing space relationships between the Library, Tutoring, and Supplemental Instruction.

4.15. New Space and What Happens to Vacated Space – is it Renovated or Demolished?

This project will enable the college to shift science-oriented programs to new space and to strengthen adjacencies of STEM courses and academic program areas. This will provide significant opportunities to utilize space vacated by these programs to enhance other greatly needed programs and services. Vacated space, primarily in the Library/Science Building, will enable the expansion of the Library, Tutoring, Supplemental Instruction, and the creation of a Veterans Resource Center. By design, the Library has become a focal point of the campus. Our Campus Master Plan calls for the expansion of the Library to include additional study and meeting spaces; private rooms for student study sessions, planning meetings, and for practicing presentations; expanded areas for “conversational” study; and expanded areas for quiet study.

4.16. Comparison of Existing and New Spaces to the Capital Analysis Model

The addition of the STEM Building addresses specific area shortfalls on campus. According to the CAM the college has a shortage of space in Science Labs, Computer Classrooms, Library and Faculty Offices. The combined area of these shortages is 49,263 ASF for 2019-21, the proposed project provides 32,760 ASF distributed over these space types to help off-set some of the projected shortages. ([See Appendix 7.4.4](#) CAM).

4.17. Need and Availability of Surge Space

The College currently has no available surge space during peak demand time periods. This is particularly true in the Fall Quarter but is also problematic during weekday morning hours during Winter and Spring Quarters. This project will certainly reduce but will not entirely eliminate the need for surge space. Overall enrollment demand and the associated need for space will continue to place greater demands on the College than this project will accommodate. Currently, for winter 2018, the college has 154 class sections (68.14% of total non-clustered, day-time sections offered) that are fully enrolled ($\geq 100\%$ capacity) with a waitlist totaling 617 students. Waitlists are held to a maximum of five people so this number does not necessarily reflect the total number of students actually seeking enrollment. There is no current surge space sufficient to absorb this need without impact to class offerings throughout the campus. In the case of STEM-related space, surge capacity will be improved with the addition of much needed classrooms and laboratories. The nature of laboratory space is such that adaptability of use to provide excess surge capacity is more limited than would be the case for general classrooms or open spaces.

However, the adaptability of laboratory space for other uses is addressed in the following section and will be a factor in design.

4.18. Flexibility and Adaptability of Proposed Space

The project will be designed to provide highly flexible and adaptable new space and will also provide opportunities to enable improvements in the use of vacated space. In order to meet current needs for instructional as well as other support and shared spaces and to prepare for future changes in technology and instructional pedagogies, it is essential that we incorporate flexible and adaptable uses of space wherever possible. STEM programs will be located in close proximity in order to share common resources and encourage collaboration between disciplines. This will include shared use of the Fabrication/Multi-Use Space which will require highly flexible open floor space designed to accommodate multiple configurations. Although laboratory spaces are typically associated with specific STEM program areas, space design will enable improved opportunities for reconfiguration as program needs change over time. This will include use of innovative placement of utility pathways both in overhead ceiling areas and along fixed walls. Student study spaces will be distributed throughout the facility and located adjacent to formal instruction spaces including shared open areas and hallways. Common areas, in general, will be designed for both pedestrian circulation and individual and group collaboration and study in order to make best use of assignable space. Faculty office spaces will be grouped in such a way as to allow interdisciplinary collaboration as well as ease of student access to individual faculty members. Workrooms and storage areas will typically be commonly shared between program areas as much as possible.

5.0 Project Budget Analysis of Preferred Alternative

5.1. Prediction of Overall Project Cost

The escalated Maximum Allowable Construction Cost (MACC) for this project is \$26,160,767. The escalated Total Project Cost is estimated at \$37,822,521 In addition to the building and project costs noted above, the escalated total project cost for the infrastructure improvements needed to support the project is \$2,305,917 ([See Attachment 6.1](#) for project cost estimates).

5.2. Comparisons of \$/FTE to Similar Washington Community and Technical College Projects

The total project cost for the STEM building is \$37,822,521. Total FTE annually served by this building will be 1,005 (811 existing + 194 increase) that equates to \$37,634/ FTE. For comparison, other Washington Community and Technical College projects are as follows: Cascadia, Center for Science and Technology: \$50,434/FTE, Spokane Falls, North Clark County: \$53,583/FTE, State Average for growth projects: \$92,230.

The expected total cost for a similar facility type escalated to mid construction is \$37,974,113. The total escalated project cost for this facility is estimated at \$37,822,521 which is less than the expected cost per square foot. ([See Attachment 6.1](#))

5.3. Anticipated Annual Impact on the College’s Operating and Maintenance Budget in both Program 090 FTES and M&O Cost, Including but Not Limited To:

Item#	Category	Cost Basis	Anticipated Annual Impact*
5.3.1.	<u>Janitorial Costs</u>		
	Supplies/Materials/Equip.	\$0.20	\$13,330
	Personnel	\$1.04	\$69,160
5.3.2.	<u>Utility Costs</u>		
	Electricity/Gas/Water	\$2.05	\$136,325
	Property Taxes	\$0.06	\$3,390
	Waste Disposal/Recycling	\$0.12	\$7,980
	Inspection/Svc. Contracts	\$0.18	\$11,970
5.3.3.	<u>Technology</u>		
	Infrastructure/Telecom/Equip.	\$1.06	\$70,490
	Personnel	\$2.13	\$141,645
5.3.4.	<u>Maintenance/Repair/Furn. & Equip. Repl.</u>		
	General Repair	\$0.34	\$22,610
	Furn. & Equip. Replacement	\$0.11	\$7,315
	Personnel	\$0.94	\$62,510
5.3.5.	<u>Roads/Walks/Grounds</u>		
	Supplies/Materials/Equip.	\$0.09	\$5,985
	Personnel	\$0.43	\$28,595
5.3.6.	<u>Security</u>		
	Supplies/Materials/Equip.	\$0.08	\$5,320
	Personnel	\$0.75	\$49,875
5.3.7.	<u>Administration</u>		
	Supplies/Materials	\$0.01	\$665
	Personnel	\$0.00	\$0.00
	Total Anticipated Budget Impacts	\$9.59	\$637,765

*Based on 66,500 sf Building

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

Design-Bid-Build is currently anticipated as the method of construction for this project. This approach should ensure strong owner collaboration and engagement with the architect/engineering team throughout design and construction and should result in a highly capable and energy efficient building with appropriate life cycle cost benefits and overall performance.

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Pierce College - Puyallup	
Project Name	SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS (STEM) BUILDING	
OFM Project Number		

Contact Information		
Name	McGranahan Architects	
Phone Number	253-383-3084	
Email	andy.hartung@mcgranahan.com	

Statistics			
Gross Square Feet	66,500	MACC per Square Foot	\$350
Usable Square Feet	45,220	Escalated MACC per Square Foot	\$393
Space Efficiency	68.0%	A/E Fee Class	B
Construction Type	Science labs (teaching)	A/E Fee Percentage	7.03%
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 %	9.90%	Location Used for Tax Rate	Puyallup
Contingency Rate	5%		
Base Month	December-17		
Project Administered By	DES		

Schedule			
Predesign Start	July-19	Predesign End	December-19
Design Start	January-20	Design End	May-21
Construction Start	July-21	Construction End	January-23
Construction Duration	18 Months		

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Project Cost Estimate			
Total Project	\$33,775,671	Total Project Escalated	\$37,822,521
		Rounded Escalated Total	\$37,823,000

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Pierce College - Puyallup	
Project Name	SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS (STEM) BUILDING	
OFM Project Number		

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	\$0	Acquisition Subtotal Escalated	\$0

Consultant Services			
Pre-design Services	\$230,000		
A/E Basic Design Services	\$1,185,458		
Extra Services	\$1,362,000		
Other Services	\$797,597		
Design Services Contingency	\$178,753		
Consultant Services Subtotal	\$3,753,808	Consultant Services Subtotal Escalated	\$4,092,635

Construction			
Construction Contingencies	\$1,163,758	Construction Contingencies Escalated	\$1,311,788
Maximum Allowable Construction Cost (MACC)	\$23,275,150	Maximum Allowable Construction Cost (MACC) Escalated	\$26,160,767
Sales Tax	\$2,419,452	Sales Tax Escalated	\$2,719,783
Construction Subtotal	\$26,858,359	Construction Subtotal Escalated	\$30,192,338

Equipment			
Equipment	\$2,300,000		
Sales Tax	\$227,700		
Non-Taxable Items	\$0		
Equipment Subtotal	\$2,527,700	Equipment Subtotal Escalated	\$2,849,224

Artwork			
Artwork Subtotal	\$130,804	Artwork Subtotal Escalated	\$130,804

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

Other Costs			
Other Costs Subtotal	\$505,000	Other Costs Subtotal Escalated	\$557,520

Project Cost Estimate			
Total Project	\$33,775,671	Total Project Escalated	\$37,822,521
		Rounded Escalated Total	\$37,823,000

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	

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Cost Estimate Details

Consultant Services					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
1) Pre-Schematic Design Services					
Programming/Site Analysis	\$30,000				
Environmental Analysis					
Predesign Study	\$200,000				
Other					
Insert Row Here					
Sub TOTAL	\$230,000		1.0593	\$243,639	Escalated to Design Start
2) Construction Documents					
A/E Basic Design Services	\$1,185,458				69% of A/E Basic Services
Other					
Insert Row Here					
Sub TOTAL	\$1,185,458		1.0789	\$1,278,991	Escalated to Mid-Design
3) Extra Services					
Civil Design (Above Basic Svcs)	\$85,000				
Geotechnical Investigation	\$50,000				
Commissioning	\$35,000				
Site Survey	\$35,000				
Testing	\$75,000				
LEED Services	\$60,000				
Voice/Data Consultant	\$40,000				
Value Engineering	\$45,000				
Constructability Review	\$45,000				
Environmental Mitigation (EIS)	\$40,000				
Landscape Consultant	\$75,000				
ELCCA	\$50,000				
LCCT	\$75,000				
Reimbursables inc Reprographics prior to bid	\$60,000				
Advertising	\$2,000				
Traffic Analysis	\$30,000				
Equipment /Lab Consultant	\$85,000				
Acoustic Design	\$40,000				
Interior Design	\$50,000				
Security Consultant	\$40,000				
Audio Visual Consultant	\$60,000				
Lighting Consultant	\$35,000				
Value Engineering Participation	\$40,000				
Constructability Review Participation	\$40,000				
Environmental Graphics/Signage	\$40,000				
Cost and Scheduling	\$40,000				
Door Hardware Consultant	\$10,000				
Envelope Consultant	\$50,000				
SEPA/Land Use	\$30,000				
Sub TOTAL	\$1,362,000		1.0789	\$1,469,462	Escalated to Mid-Design
4) Other Services					

Bid/Construction/Closeout	\$532,597			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Commissioning & Training	\$100,000			
LEED Reporting & Monitoring	\$50,000			
Reimbursables/Reprographics for bid and construction	\$40,000			
Construction Materials Testing	\$75,000			
Sub TOTAL	\$797,597	1.1272	\$899,052	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	\$178,753			
Other				
Insert Row Here				
Sub TOTAL	\$178,753	1.1272	\$201,491	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	\$3,753,808		\$4,092,635	

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Cost Estimate Details

Construction Contracts					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
1) Site Work					
G10 - Site Preparation	\$337,500				
G20 - Site Improvements	\$729,150				
G30 - Site Mechanical Utilities	\$756,900				
G40 - Site Electrical Utilities	\$283,500				
G60 - Other Site Construction					
Z10 - Contractors General Requiremens	\$225,000				
Sub TOTAL	\$2,332,050		1.1040	\$2,574,584	
2) Related Project Costs					
Offsite Improvements					
City Utilities Relocation					
Parking Mitigation	\$900,000				
Stormwater Retention/Detention					
Other					
Insert Row Here					
Sub TOTAL	\$900,000		1.1040	\$993,600	
3) Facility Construction					
A10 - Foundations	\$498,750				
A20 - Basement Construction	\$365,750				
B10 - Superstructure	\$2,859,500				
B20 - Exterior Closure	\$3,059,000				
B30 - Roofing	\$638,400				
C10 - Interior Construction	\$1,097,250				
C20 - Stairs	\$166,250				
C30 - Interior Finishes	\$1,529,500				
D10 - Conveying	\$146,300				
D20 - Plumbing Systems	\$957,600				
D30 - HVAC Systems	\$3,458,000				
D40 - Fire Protection Systems	\$997,500				
D50 - Electrical Systems	\$2,394,000				
F10 - Special Construction					
F20 - Selective Demolition					
General Conditions					
E10 Equipment Installed by Contractor	\$133,000				
E20 - Furnishings Installed by Contractor	\$146,300				
Z10 Contractors General Requiremetns	\$1,596,000				
Sub TOTAL	\$20,043,100		1.1272	\$22,592,583	
4) Maximum Allowable Construction Cost					
MACC Sub TOTAL	\$23,275,150			\$26,160,767	

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7) Construction Contingency

Allowance for Change Orders	\$1,163,758		
Other			
Insert Row Here			
Sub TOTAL	\$1,163,758	1.1272	\$1,311,788

8) Non-Taxable Items

Other			
Insert Row Here			
Sub TOTAL	\$0	1.1272	\$0

Sales Tax

Sub TOTAL	\$2,419,452		\$2,719,783
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CONSTRUCTION CONTRACTS TOTAL	\$26,858,359		\$30,192,338
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Cost Estimate Details

Equipment					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
E10 - Equipment	\$800,000				
E20 - Furnishings	\$700,000				
F10 - Special Construction					
A/V Equipment, Telcom/Cabling	\$800,000				
Sub TOTAL	\$2,300,000		1.1272	\$2,592,560	
1) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	\$0		1.1272	\$0	
Sales Tax					
Sub TOTAL	\$227,700			\$256,664	
EQUIPMENT TOTAL					
EQUIPMENT TOTAL	\$2,527,700			\$2,849,224	

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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	\$130,804				0.5% of Escalated MACC for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	\$130,804		NA	\$130,804	

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Cost Estimate Details

Project Management					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Agency Project Management	\$0				
Additional Services					
PC Facilities Management	\$0				
Insert Row Here					
PROJECT MANAGEMENT TOTAL	\$0		1.1272	\$0	

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Cost Estimate Details

Other Costs					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Permit and Plan Review Fees	\$350,000				
LEED Registration/Certification Fee	\$5,000				
Landuse and Development Fee	\$150,000				
OTHER COSTS TOTAL	\$505,000		1.1040	\$557,520	

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STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Pierce College - Puyallup	
Project Name	SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS (STEM) BUILDING - Infrastructure	
OFM Project Number		

Contact Information		
Name	McGranahan Architects	
Phone Number	253-383-3084	
Email	andy.hartung@mcgranahan.com	

Statistics			
Gross Square Feet	66,500	MACC per Square Foot	\$23
Usable Square Feet	45,220	Escalated MACC per Square Foot	\$26
Space Efficiency	68.0%	A/E Fee Class	C
Construction Type	Civil Construction	A/E Fee Percentage	8.43%
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 %	9.90%	Location Used for Tax Rate	Puyallup
Contingency Rate	5%		
Base Month	December-17		
Project Administered By	DES		

Schedule			
Predesign Start	July-19	Predesign End	December-19
Design Start	January-20	Design End	May-21
Construction Start	July-21	Construction End	January-23
Construction Duration	18 Months		

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Project Cost Estimate			
Total Project	\$2,090,123	Total Project Escalated	\$2,305,917
		Rounded Escalated Total	\$2,306,000

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Pierce College - Puyallup	
Project Name	SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS (STEM) BUILDING - Infrastructure	
OFM Project Number		

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	\$0	Acquisition Subtotal Escalated	\$0

Consultant Services			
Pre-design Services	\$0		
A/E Basic Design Services	\$94,954		
Extra Services	\$60,000		
Other Services	\$42,660		
Design Services Contingency	\$9,881		
Consultant Services Subtotal	\$207,495	Consultant Services Subtotal Escalated	\$226,405

Construction			
Construction Contingencies	\$77,735	Construction Contingencies Escalated	\$87,623
Maximum Allowable Construction Cost (MACC)	\$1,554,700	Maximum Allowable Construction Cost (MACC) Escalated	\$1,716,389
Sales Tax	\$161,611	Sales Tax Escalated	\$178,598
Construction Subtotal	\$1,794,046	Construction Subtotal Escalated	\$1,982,610

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

Artwork			
Artwork Subtotal	\$8,582	Artwork Subtotal Escalated	\$8,582

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

Other Costs			
Other Costs Subtotal	\$80,000	Other Costs Subtotal Escalated	\$88,320

Project Cost Estimate			
Total Project	\$2,090,123	Total Project Escalated	\$2,305,917
		Rounded Escalated Total	\$2,306,000

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	

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Staffing				
Sub TOTAL	\$42,660	1.1272	\$48,087	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	\$9,881			
Other				
Insert Row Here				
Sub TOTAL	\$9,881	1.1272	\$11,138	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	\$207,495		\$226,405	

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Cost Estimate Details

Construction Contracts					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
1) Site Work					
G10 - Site Preparation	\$225,000				
G20 - Site Improvements	\$486,100				
G30 - Site Mechanical Utilities	\$504,600				
G40 - Site Electrical Utilities	\$189,000				
G60 - Other Site Construction					
Z10 - Contractors General Requirements	\$150,000				
Sub TOTAL	\$1,554,700		1.1040	\$1,716,389	
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					
F10 - Special Construction					
F20 - Selective Demolition					
General Conditions					
E10 Equipment Installed by Contractor					
E20 - Furnishings Installed by Contractor					
Contractors Overhead and Profit					
Sub TOTAL	\$0		1.1272	\$0	
4) Maximum Allowable Construction Cost					
MACC Sub TOTAL	\$1,554,700			\$1,716,389	

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7) Construction Contingency

Allowance for Change Orders	\$77,735		
Other			
Insert Row Here			
Sub TOTAL	\$77,735	1.1272	\$87,623

8) Non-Taxable Items

Other			
Insert Row Here			
Sub TOTAL	\$0	1.1272	\$0

Sales Tax

Sub TOTAL	\$161,611		\$178,598
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CONSTRUCTION CONTRACTS TOTAL	\$1,794,046		\$1,982,610
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Cost Estimate Details

Equipment				
Item	Base Amount	Escalation Factor	Escalated Cost	Notes
E10 - Equipment				
E20 - Furnishings				
F10 - Special Construction				
Sub TOTAL	\$0	1.1272	\$0	
1) Non Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	\$0	1.1272	\$0	
Sales Tax				
Sub TOTAL	\$0		\$0	
EQUIPMENT TOTAL				
EQUIPMENT TOTAL	\$0		\$0	

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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	\$8,582				0.5% of Escalated MACC for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	\$8,582		NA	\$8,582	

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Cost Estimate Details

Project Management					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Agency Project Management	\$0				
Additional Services					
Insert Row Here					
PROJECT MANAGEMENT TOTAL	\$0		1.1272	\$0	

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Cost Estimate Details

Other Costs					
Item	Base Amount		Escalation Factor	Escalated Cost	Notes
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Infrastructure permits and utility fees	\$80,000				
OTHER COSTS TOTAL	\$80,000		1.1040	\$88,320	

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Pierce College - Puyallup
 Science Building
 PRR
 Benaroya Property Road

NON-QUALIFYING COSTS

1.1) EARTHWORK / EROSION CONTROL / DEMOLITION:

	Quantity	Unit	\$\$\$	Est. Cost
Clearing, grubbing, & demolition.	1.0	Acre	\$18,200	\$18,200.00
Structural fill (import)	900	CY	\$40.00	\$36,000.00
Strippings (3 feet from existing grade)	4,600	CY	\$30.00	\$138,000.00
Onsite finish grading	4,500	SY	\$5.00	\$22,500.00
Temporary erosion & sediment control	1	LS	\$50,000	\$50,000.00

EARTHWORK / EROSION CONTROL / DEMOLITION:

\$264,700.00

1.2) UTILITIES

	Quantity	Unit	\$\$\$	Est. Cost
12" CPEP Storm Pipe	1,500	LF	\$57.00	\$85,500.00
Water Quality Filtertrass	3	EA	\$25,000.00	\$75,000.00
Type 1 Catch Basin	15	EA	\$2,500.00	\$37,500.00
Detention pond	13,000	CF	\$6.00	\$78,000.00
60" Type 2 Catch Basin - Flow Control	3	EA	\$8,000.00	\$24,000.00
Overhead Lighting	5	EA	\$10,000.00	\$50,000.00

UTILITIES:

\$350,000.00

Pierce College - Puyallup
 Science Building
 PRR
 Benaroya Property Road

1.3) SITE SURFACING:

Concrete sidewalk
 Curb and gutter
 Curb ramp
 Asphalt pavement (includes base)
 Road ballast
 Landscaping
 Paint striping
 Paint crosswalk
 Signs and posts

Quantity	Unit	\$\$\$	Est. Cost
700	SY	\$70.00	\$49,000.00
1,600	LF	\$40.00	\$64,000.00
8	EA	\$3,000.00	\$24,000.00
18,000	SF	\$5.00	\$90,000.00
750	CY	\$50.00	\$37,500.00
16,000	SF	\$6.00	\$96,000.00
1,600	LF	\$2.00	\$3,200.00
1,250	SF	\$7.50	\$9,375.00
10	EA	\$300.00	\$3,000.00

SITE SURFACING: **\$376,075.00**

Subtotal \$990,775.00

Mobilization 8% **\$79,262.00**

grand total \$1,040,313.75
 use **\$1,050,000.00**

Assumptions:

1. Excludes City permit, utility fees and taxes.
2. Excludes contingency.
3. Excludes all building utilities and infrastructure.
4. Road length assumed 810 linear feet between eastside of building and Parking Lot B. No further improvements beyond 810 linear feet of road are assumed.
5. Roads section assumes 2 - 11 foot lanes, concrete curb and gutter, and 5 foot sidewalks on both sides of roadway.
6. Does not include property acquisition costs.
7. Assumes wetland mitigation is not necessary.

**PIERCE COLLEGE SCIENCE BUILDING AND PARKING
AT THE PUYALLUP CAMPUS, UPDATED**

GENERAL SCOPE:

This is an update to a budget review previously done of various proposed construction components and options for a new Science Building facility at Pierce College in Puyallup. Included are costs for two building scenarios, corresponding site costs to support either of those two buildings, site costs to provide a separate new 100 stall parking lot, and lastly, and costs to instead construct a new 400 stall multi-level parking garage along with its associated site development costs. The costs of the major components listed are intended to be stand-alone MACC costs, each independent of the other. Totaling all of the components would be inflating the overall project MACC, as some of those costs are either/or scenarios, and would double up scope in some cases.

Three notable scope changes over the previous review done two years ago are that: 1) a basement level is now included under a portion of both new building footprints which makes up a part of their overall 66,500 SF floor plan areas; 2) a different site cost is now figured at each new proposed building concept, as the 2-story building is presumed to entail 10,000 SF more of both footprint and site improvement area than the 3-story building; and 3) 4' of subgrade overexcavation is now figured under new building and garage slab-on-grade footprints. In addition, with two years of cost escalation and a busy commercial construction market that has significantly picked up over the last 10 months, the costs in this update have in most cases increased roughly 10%.

Because this review is intended to be used as a rough-order-of-magnitude cost tool, no blanket contingencies were factored in, which could further distort what is only a preliminary budget rather than a not-to-exceed funding bill. Costs are in current, end-of-the-year 2017 dollars, as it is not yet known when project construction is anticipated to start. Using a 4% compounded annual construction cost escalation rate, a MACC one year from now would be 4% higher, 9% in two years, and 14% in three years. Full construction costs are included, but not sales tax and other soft costs.

INCLUDED:

At total of 66,500 SF of new Science Building, figured in two differing Concepts.
 New onsite development to support either of two new Science Building scenarios.
 Onsite development for a new 100 stall parking lot.
 A scenario instead to construct a 400 stall multi-level parking garage, plus accompanying site development work for it.
 Allowances for site lighting, and various site fixtures & specialties in onsite costs.
 Contractor's general requirements, and overhead & profit.
 Contractor's bond & insurance, and B & O tax.
 Silver LEED administration premiums.

EXCLUDED:

Any new out buildings beyond a new Science Building and parking garage.
 Any hazardous material abatement work--assumed to be not applicable.
 Any offsite work--assumed to be not applicable.
 Any utility company connection and assessment fees, if applicable.
 Any GCCM or special construction phasing premiums--assumed to be N/A.
 A blanket design contingency or premium for construction cost escalation.
 Sales tax, permits, design fees, and owner's administration costs.
 Pre-construction and/or GCCM costs, if applicable.
 Premiums for LEED certification & design beyond a Silver rating.

BUDGETARY COST ESTIMATE

A LISTING OF BUILDINGS & SITE DEVELOPMENTS:						
(Includes Contractor General Requirements, Overhead & Profit, Bond & Insurance, B & O Tax Mark-Ups, but No Sales Tax or Soft Costs.)						
BUILDING / SITE DEVELOPMENT LISTING	Non-Qualified	Qualified	MACC \$\$\$	REMARKS	\$/SF	Type
<u>BUILDINGS:</u>						
1) Concept 1, New 3-Story Building.	\$20,043,100	\$0	\$20,043,100	See Page 2 for Uniformat breakdowns.	\$301.40	A, N
1a) Site Work for 3-Story Science Building.	\$1,230,450	\$820,300	\$2,050,750	See Page 3 for Uniformat breakdowns.	\$29.30	S, N&Q
2) Concept 2, New 2-Story Building.	\$21,599,200	\$0	\$21,599,200	See Page 4 for Uniformat breakdowns.	\$324.80	A, N
2a) Site Work for 2-Story Science Building.	\$1,208,625	\$988,875	\$2,197,500	See Page 5 for Uniformat breakdowns.	\$0.00	S, N&Q
3) Site Work for New Onsite Parking.	\$1,101,600	\$734,400	\$1,836,000	See Page 6 for Uniformat breakdowns.	\$30.60	S, N&Q
4) New Multi-Level Parking Garage.	\$12,765,200	\$0	\$12,765,200	See Page 7 for Uniformat breakdowns.	\$91.18	G, N
4a) Site Work for Multi-Level Parking Garage.	\$655,050	\$535,950	\$1,191,000	See Page 8 for Uniformat breakdowns.	\$19.85	S, N&Q

BUILDING TYPES LISTED IN THE ABOVE RIGHT HAND COLUMN ARE AS FOLLOWS:

A is 'Class 'A' commercial, N is non-qualified, Q is Qualified, S is site development, and G is Garage.

NOTES:

\$/SF costs for buildings in the preceding pages are based on a total building floor area of 66,500 SF. \$/SF costs for the Parking Garage are based on 140,000 SF. The \$/SF site development costs are based on 65,000 SF of site improvements for a new 3-story building, 75,000 SF for a new 2-story building, and 60,000 SF of site improvements each at both new onsite parking and a new parking garage. New onsite parking and a new parking garage are presumed to be an either/or scenario, occurring at the same location. Ditto with new 3-story and 2-story buildings.

COSTS ARE IN END-OF-YEAR 2017 DOLLARS

PIERCE COLLEGE SCIENCE BUILDING AND PARKING
AT THE PUYALLUP CAMPUS, UPDATED

1) CONCEPT #1, NEW 3-STORY BUILDING MACC:

A, CLASS 'A' COMMERCIAL

UNI #	UNIFORMAT COMPONENT	Quantity	Unit	\$\$\$	Est. Cost	REMARKS	% of Total
A1010	Standard Foundations	66,500	SF	\$5.00	\$332,500	Conventional stem walls & footings, and box footings.	1.7%
A1030	Slab on Grade	66,500	SF	\$2.50	\$166,250	One level of 4" slab with gravel base underneath.	0.8%
A2020	Basement Walls	66,500	SF	\$5.50	\$365,750	Allowance, under perhaps 1/3 of building footprint.	1.8%
B1010	Floor Construction	66,500	SF	\$31.00	\$2,061,500	2 levels of post & beam composite steel, with mezzanines.	10.3%
B1020	Roof Construction	66,500	SF	\$12.00	\$798,000	Steel post-and-beam construction w/ curves & overhangs.	4.0%
B2010	Exterior Walls	66,500	SF	\$35.00	\$2,327,500	Gage framing with high-end exterior panels.	11.6%
B2020	Exterior Windows	66,500	SF	\$10.00	\$665,000	High-end commercial aluminum, with curtain walls.	3.3%
B2030	Exterior Doors	66,500	SF	\$1.00	\$66,500	Architectural assemblies to main floor entrances.	0.3%
B3010	Roof Coverings	66,500	SF	\$9.00	\$598,500	Single ply w/ rigid insulation, drainage, flashings & OH's.	3.0%
B3020	Roof Openings	66,500	SF	\$0.60	\$39,900	Primarily for rooftop mechanical equipment.	0.2%
C1010	Partitions	66,500	SF	\$11.00	\$731,500	Interior gage framing, with features, primarily in offices.	3.6%
C1020	Interior Doors	66,500	SF	\$5.50	\$365,750	Mostly solid core wood on HM frames with hardware.	1.8%
C2010	Stair Construction/Finishes	66,500	SF	\$2.50	\$166,250	Mostly steel stair pans, some with special features.	0.8%
C3010	Wall Finishes	66,500	SF	\$8.00	\$532,000	Primarily in office spaces, GWB with special coverings.	2.7%
C3020	Floor Finishes	66,500	SF	\$8.00	\$532,000	Mostly carpet and safety flooring, with some accents.	2.7%
C3030	Ceiling Finishes	66,500	SF	\$7.00	\$465,500	Mostly high-end acoustic ceilings with accents in offices.	2.3%
D1010	Elevator and Lifts	66,500	SF	\$2.20	\$146,300	Assumes one high-end lift to all floors.	0.7%
D2010	Plumbing Fixtures	66,500	SF	\$5.40	\$359,100	Commercial plumbing fixtures, mostly in restrooms & labs.	1.8%
D2020	Water Distribution	66,500	SF	\$5.20	\$345,800	Domestic water piping with a centralized hot water system.	1.7%
D2030	Waste	66,500	SF	\$3.20	\$212,800	Interior sanitary waste lines.	1.1%
D2040	Rain Water Drainage	66,500	SF	\$0.60	\$39,900	Allowance for hard piped roof drains & overflows.	0.2%
D3020	HVAC Equipment Basic	66,500	SF	\$22.00	\$1,463,000	Boilers, chiller(s), VAV boxes, fans and misc.	7.3%
D3040	HVAC Dist, Controls & Special Systems	66,500	SF	\$30.00	\$1,995,000	Hydronics, ducts, DDC controls, testing & commissioning.	10.0%
D4010	Fire Protection Systems	66,500	SF	\$5.00	\$332,500	Full NFPA-13 coverage, plus a fire alarm system & panel.	1.7%
D4030	Specialties (Extinguishers, Cabinets)	66,500	SF	\$10.00	\$665,000	Occupancy specialties and custom lab casework.	3.3%
D5010	Electrical Services & Distribution	66,500	SF	\$13.00	\$864,500	Panels, switchgear, feeders, distribution & connections.	4.3%
D5020	Lighting & Branch Wiring	66,500	SF	\$10.50	\$698,250	High-efficiency fixtures, some custom with accents.	3.5%
D5030	Communications & Security	66,500	SF	\$10.50	\$698,250	Allowance, mid to high end commercial quality.	3.5%
D5090	Emergency Electrical Systems	66,500	SF	\$2.00	\$133,000	Allowance for a back-up generator system, to be sized.	0.7%
E1020	Institutional Equipment	66,500	SF	\$0.90	\$59,850	Allowance in labs & misc.	0.3%
E1030	Commercial Equipment	66,500	SF	\$1.10	\$73,150	Allowance.	0.4%
E1090	Other Equipment	66,500	SF	NA	NA	Not applicable to this building.	N/A
E2010	Fixed Furnishings	66,500	SF	\$2.20	\$146,300	Window treatment, possible appliances, misc.	0.7%
Z1010	Contractor's General Requirements.	66,500	SF	\$24.00	\$1,596,000	Project administration, temporary facilities, B&I, B&O.	8.0%
CONCEPT #1, NEW 3-STORY BUILDING MACC:				\$301.40	\$20,043,100		100.0%

BUILDING SPECIFICS:

A conventional slab-on-grade building foundation with full height falls at partial basement.
 Steel post-and-beam construction above garage levels.
 Premium exterior finishes and glazing.
 General Class "A" interior finishes and systems.
 Includes lab casework, systems and equipment.
 Full fire sprinkler protection and fire alarm systems are included.
 Assumes a high-end hydronic HVAC system with an outside chiller.
 High-in plumbing fixtures and electrical systems.
 An allowance for an emergency back-up generator is included.

GENERAL COMMENTS:

All components include apportioned G.C. mark-ups.
 Total Floor Area: 70,000 SF, with a footprint of perhaps 25,000 SF or so, as the three individual above ground floor levels vary in size, plus a basement level of 10,000 SF or less has been added.
 Mezzanines, not counted in the 70,000 SF total, are also included.
 Costs include provisions for some exterior canopies and sun shades.
 Site work costs are not included.
 Many individual \$/SF costs will be appear light because many do not apply to all floor levels.
 Overhead & profit are not totaled in the last item, Z1010, but are evenly distributed over all Uniformat items listed.

**PIERCE COLLEGE SCIENCE BUILDING AND PARKING
AT THE PUYALLUP CAMPUS, UPDATED**

1a) SITE WORK FOR 3-STORY SCIENCE BUILDING:

S, N&Q, ONSITE DEVELOPMENT

UNI #	UNIFORMAT COMPONENT	Quantity	Unit	\$\$\$	Est. Cost	REMARKS	% of Total
G1010	Site Clearing	65,000	SF	\$1.40	\$91,000	Heavy tree clearing, includes erosion control.	4.4%
G1020	Site Demolition & Relocation	65,000	SF	\$0.60	\$39,000	Relatively minor paving demo and misc.	1.9%
G1030	Site Earthwork	65,000	SF	\$2.50	\$162,500	Compacting & grading with only cuts, fills & over-x.	7.9%
G1040	Hazardous Waste Remediation	65,000	SF	NA	NA	Not applicable to this site.	NA
G2010	Roadways	65,000	SF	\$0.35	\$22,750	Minimal access road paving, curbs & gutters.	1.1%
G2020	Parking Lots	65,000	SF	\$0.50	\$32,500	Onsite asphalt paving & striping, very minimal.	1.6%
G2030	Pedestrian Paving	65,000	SF	\$1.10	\$71,500	Onsite sidewalks & curbing.	3.5%
G2040	Site Development	65,000	SF	\$3.20	\$208,000	Possible steps, rails & walls, plus site fixtures & specialties	10.1%
G2050	Landscaping	65,000	SF	\$2.70	\$175,500	Mostly irrigated planters, some lawn areas, trees & misc.	8.6%
G3010	Water Supply	65,000	SF	\$3.40	\$221,000	New domestic & fire services, fire loop & hydrants.	10.8%
G3020	Sanitary Sewer	65,000	SF	\$1.00	\$65,000	Assumes a simple street edge service to building.	3.2%
G3030	Storm Sewer	65,000	SF	\$6.40	\$416,000	Catch basins, piping & building drainage.	20.3%
G3040	Heating Distribution	65,000	SF	NA	NA	Not applicable to this site.	NA
G3050	Cooling Distribution	65,000	SF	NA	NA	Not applicable to this site.	NA
G3060	Fuel Distribution	65,000	SF	\$0.30	\$19,500	Allowance for gas piping trenching & coordination.	1.0%
G3090	Other Site Mechanical Utilities	65,000	SF	NA	NA	Not applicable to this site.	NA
G4010	Electrical Distribution	65,000	SF	\$1.80	\$117,000	Primary power conduit, secondary services and pick-up.	5.7%
G4020	Site Lighting	65,000	SF	\$0.70	\$45,500	Allowance at new building site.	2.2%
G4030	Site Communications & Security	65,000	SF	\$1.50	\$97,500	Allowances for new service conduits to building.	4.8%
G4040	Other Site Electrical Utilities	65,000	SF	\$1.10	\$71,500	Allowance, assumed to be minor.	3.5%
G9092	Offsite Street Work	65,000	SF	NA	NA	Not applicable to this site.	NA
Z1010	Contractor's General Requirements.	65,000	SF	\$3.00	\$195,000	Project administration, temporary facilities, B&I, B&O.	9.5%
SITE WORK FOR 3-STORY SCIENCE BUILDING MACC:				\$31.55	\$2,050,750		100.0%

ONSITE DEVELOPMENT SPECIFICS:

Existing areas are heavily treed, but assumed to have good native subgrade soils.
 No building demolition or haz-mat abatement is figured.
 The new building footprint covers a large portion of the site, limiting the areas of new paving, plazas and landscaping.
 Earthwork premiums are included to accommodate a building basement level that has been added.
 4' of subgrade overexcavation is figured under new building slab-on-grades.
 Allowances are included for site lighting and onsite electrical services.
 Allowances are included for possible screen walls, steps, rails, ramps, and various other site fixtures and specialties.
 No offsite work is figured, or utility company hook-up costs if applicable.

GENERAL COMMENTS:

All components include apportioned G.C. mark-ups.
 Site \$/SF costs are based on an improvement area of 65,000 SF.
 Site work construction is assumed to not require any special phasing.
 Site work costs include Non-Qualified and Qualified costs. See the estimate cover on Page 1 for their apportioned breakdowns.
 Building costs are not included.
 Onsite parking costs are not included, nor is a new multi-floor parking garage and its associated site costs.
 Overhead & profit are not totaled in the last item, Z1010, but are evenly distributed over all Uniformat items listed.
 Qualified site work costs include outside utility and access road work. Non-Qualified site work costs include everything else.

PIERCE COLLEGE SCIENCE BUILDING AND PARKING
AT THE PUYALLUP CAMPUS, UPDATED

Not part of project

2) CONCEPT #2, NEW 2-STORY BUILDING MACC:

A, CLASS 'A' COMMERCIAL

UNI #	UNIFORMAT COMPONENT	Quantity	Unit	\$\$\$	Est. Cost	REMARKS	% of Total
A1010	Standard Foundations	66,500	SF	\$8.00	\$532,000	Conventional stem walls & footings, and box footings.	2.5%
A1030	Slab on Grade	66,500	SF	\$3.00	\$199,500	One level of 4" slab with gravel base underneath.	0.9%
A2020	Basement Walls	66,500	SF	\$5.50	\$365,750	Allowance, under perhaps 1/3 of building footprint.	1.7%
B1010	Floor Construction	66,500	SF	\$24.00	\$1,596,000	One level of post & beam composite steel with mezzanines	7.4%
B1020	Roof Construction	66,500	SF	\$17.00	\$1,130,500	Steel post-and-beam construction w/ curves & overhangs.	5.2%
B2010	Exterior Walls	66,500	SF	\$45.00	\$2,992,500	Gage framing with high-end exterior panels.	13.9%
B2020	Exterior Windows	66,500	SF	\$10.00	\$665,000	High-end commercial aluminum, with curtain walls.	3.1%
B2030	Exterior Doors	66,500	SF	\$1.50	\$99,750	Architectural assemblies to main floor entrances.	0.5%
B3010	Roof Coverings	66,500	SF	\$12.50	\$831,250	Single ply w/ rigid insulation, drainage, flashings & OH's.	3.8%
B3020	Roof Openings	66,500	SF	\$0.70	\$46,550	Primarily for rooftop mechanical equipment.	0.2%
C1010	Partitions	66,500	SF	\$11.00	\$731,500	Interior gage framing, with features, primarily in offices.	3.4%
C1020	Interior Doors	66,500	SF	\$5.50	\$365,750	Mostly solid core wood on HM frames with hardware.	1.7%
C2010	Stair Construction/Finishes	66,500	SF	\$2.00	\$133,000	Mostly steel stair pans, some with special features.	0.6%
C3010	Wall Finishes	66,500	SF	\$10.00	\$665,000	Primarily in office spaces, GWB with special coverings.	3.1%
C3020	Floor Finishes	66,500	SF	\$8.00	\$532,000	Mostly carpet and safety flooring, with some accents.	2.5%
C3030	Ceiling Finishes	66,500	SF	\$7.00	\$465,500	Mostly high-end acoustic ceilings with accents in offices.	2.2%
D1010	Elevator and Lifts	66,500	SF	\$2.00	\$133,000	Assumes one high-end lift to all floors.	0.6%
D2010	Plumbing Fixtures	66,500	SF	\$5.40	\$359,100	Commercial plumbing fixtures, mostly in restrooms & labs.	1.7%
D2020	Water Distribution	66,500	SF	\$5.20	\$345,800	Domestic water piping with a centralized hot water system.	1.6%
D2030	Waste	66,500	SF	\$3.20	\$212,800	Interior sanitary waste lines.	1.0%
D2040	Rain Water Drainage	66,500	SF	\$0.60	\$39,900	Allowance for hard piped roof drains & overflows.	0.2%
D3020	HVAC Equipment Basic	66,500	SF	\$22.00	\$1,463,000	Boilers, chiller(s), VAV boxes, fans and misc.	6.8%
D3040	HVAC Dist, Controls & Special Systems	66,500	SF	\$30.00	\$1,995,000	Hydronics, ducts, DDC controls, testing & commissioning.	9.2%
D4010	Fire Protection Systems	66,500	SF	\$6.50	\$432,250	Full NFPA-13 coverage, plus a fire alarm system & panel.	2.0%
D4030	Specialties (Extinguishers, Cabinets)	66,500	SF	\$15.00	\$997,500	Occupancy specialties and custom lab casework.	4.6%
D5010	Electrical Services & Distribution	66,500	SF	\$13.00	\$864,500	Panels, switchgear, feeders, distribution & connections.	4.0%
D5020	Lighting & Branch Wiring	66,500	SF	\$10.50	\$698,250	High-efficiency fixtures, some custom with accents.	3.2%
D5030	Communications & Security	66,500	SF	\$10.50	\$698,250	Allowance, mid to high end commercial quality.	3.2%
D5090	Emergency Electrical Systems	66,500	SF	\$2.00	\$133,000	Allowance for a back-up generator system, to be sized.	0.6%
E1020	Institutional Equipment	66,500	SF	\$0.90	\$59,850	Allowance in labs & misc.	0.3%
E1030	Commercial Equipment	66,500	SF	\$1.10	\$73,150	Allowance.	0.3%
E1090	Other Equipment	66,500	SF	NA	NA	Not applicable to this building.	N/A
E2010	Fixed Furnishings	66,500	SF	\$2.20	\$146,300	Window treatment, possible appliances, misc.	0.7%
Z1010	Contractor's General Requirements.	66,500	SF	\$24.00	\$1,596,000	Project administration, temporary facilities, B&I, B&O.	7.4%
CONCEPT #2, NEW 2-STORY BUILDING MACC:				\$324.80	\$21,599,200		100.0%

BUILDING SPECIFICS:

A conventional slab-on-grade building foundation.
 Steel post-and-beam construction above garage levels.
 Premium exterior finishes and glazing.
 General Class "A" interior finishes and systems.
 Includes lab casework, systems and equipment.
 Full fire sprinkler protection and fire alarm systems are included.
 Assumes a high-end hydronic HVAC system with an outside chiller.

GENERAL COMMENTS:

All components include apportioned G.C. mark-ups.
 Total Floor Area: 70,000 SF, with a footprint of perhaps 35,000 SF or so, as the two individual above ground floor levels vary in size, plus a basement level of roughly 10,000 SF has been added.
 Mezzanines, not counted in the 70,000 SF total, are also included.
 Costs include provisions for some exterior canopies and sun shades.
 Site work costs are not included.

High-in plumbing fixtures and electrical systems.
 An allowance for an emergency back-up generator is included.

Many individual \$/SF costs will appear light because many do not apply to all floor levels.
 Overhead & profit are not totaled in the last item, Z1010, but are evenly distributed over all Unifomat items listed.

Not part of project

2a) SITE WORK FOR 2-STORY SCIENCE BUILDING:

S, N&Q, ONSITE DEVELOPMENT

UNI #	UNIFORMAT COMPONENT	Quantity	Unit	\$\$\$	Est. Cost	REMARKS	% of Total
G1010	Site Clearing	75,000	SF	\$1.10	\$82,500	Heavy tree clearing, includes erosion control.	3.8%
G1020	Site Demolition & Relocation	75,000	SF	\$0.50	\$37,500	Relatively minor paving demo and misc.	1.7%
G1030	Site Earthwork	75,000	SF	\$2.20	\$165,000	Compacting & grading with only cuts, fills & over-x.	7.5%
G1040	Hazardous Waste Remediation	75,000	SF	NA	NA	Not applicable to this site.	NA
G2010	Roadways	75,000	SF	\$0.30	\$22,500	Minimal access road paving, curbs & gutters.	1.0%
G2020	Parking Lots	75,000	SF	\$0.40	\$30,000	Onsite asphalt paving & striping, very minimal.	1.4%
G2030	Pedestrian Paving	75,000	SF	\$1.00	\$75,000	Onsite sidewalks & curbing.	3.4%
G2040	Site Development	75,000	SF	\$3.00	\$225,000	Possible steps, rails & walls, plus site fixtures & specialties	10.2%
G2050	Landscaping	75,000	SF	\$2.60	\$195,000	Mostly irrigated planters, some lawn areas, trees & misc.	8.9%
G3010	Water Supply	75,000	SF	\$3.20	\$240,000	New domestic & fire services, fire loop & hydrants.	10.9%
G3020	Sanitary Sewer	75,000	SF	\$0.90	\$67,500	Assumes a simple street edge service to building.	3.1%
G3030	Storm Sewer	75,000	SF	\$6.20	\$465,000	Catch basins, piping & building drainage.	21.2%
G3040	Heating Distribution	75,000	SF	NA	NA	Not applicable to this site.	NA
G3050	Cooling Distribution	75,000	SF	NA	NA	Not applicable to this site.	NA
G3060	Fuel Distribution	75,000	SF	\$0.26	\$19,500	Allowance for gas piping trenching & coordination.	0.9%
G3090	Other Site Mechanical Utilities	75,000	SF	NA	NA	Not applicable to this site.	NA
G4010	Electrical Distribution	75,000	SF	\$1.60	\$120,000	Primary power conduit, secondary services and pick-up.	5.5%
G4020	Site Lighting	75,000	SF	\$0.64	\$48,000	Allowance at new building site.	2.2%
G4030	Site Communications & Security	75,000	SF	\$1.40	\$105,000	Allowances for new service conduits to building.	4.8%
G4040	Other Site Electrical Utilities	75,000	SF	\$1.00	\$75,000	Allowance, assumed to be minor.	3.4%
G9092	Offsite Street Work	75,000	SF	NA	NA	Not applicable to this site.	NA
Z1010	Contractor's General Requirements.	75,000	SF	\$3.00	\$225,000	Project administration, temporary facilities, B&I, B&O.	10.2%
SITE WORK FOR 2-STORY SCIENCE BUILDING MACC:				\$29.30	\$2,197,500		100.0%

ONSITE DEVELOPMENT SPECIFICS:

Existing areas are heavily treed, but assumed to have good native subgrade soils.
 No building demolition or haz-mat abatement is figured.
 The new building footprint covers a large portion of the site, limiting the areas of new paving, plazas and landscaping.
 Earthwork premiums are included to accommodate a building basement level that has been added.
 4' of subgrade overexcavation is figured under new building slab-on-grades.
 Allowances are included for site lighting and onsite electrical services.
 Allowances are included for possible screen walls, steps, rails, ramps, and various other site fixtures and specialties.
 No offsite work is figured, or utility company hook-up costs if applicable.

GENERAL COMMENTS:

All components include apportioned G.C. mark-ups.
 Site \$/SF costs are based on an improvement area of 65,000 SF.
 Site work construction is assumed to not require any special phasing.
 Site work costs include Non-Qualified and Qualified costs. See the estimate cover on Page 1 for their apportioned breakdowns.
 Building costs are not included.
 Onsite parking costs are not included, nor is a new multi-floor parking garage and its associated site costs.
 Overhead & profit are not totaled in the last item, Z1010, but are evenly distributed over all Unifomat items listed.
 Qualified site work costs include outside utility and access road work. Non-Qualified site work costs include everything else.

**PIERCE COLLEGE SCIENCE BUILDING AND PARKING
AT THE PUYALLUP CAMPUS, UPDATED**

4) SITE WORK FOR NEW ONSITE PARKING:

S, N&Q, ONSITE DEVELOPMENT

UNI #	UNIFORMAT COMPONENT	Quantity	Unit	\$\$\$	Est. Cost	REMARKS	% of Total
G1010	Site Clearing	60,000	SF	\$1.20	\$72,000	Some treed clearing, includes erosion control.	3.9%
G1020	Site Demolition & Relocation	60,000	SF	\$0.30	\$18,000	Relatively minor in a mostly heavily treed area.	1.0%
G1030	Site Earthwork	60,000	SF	\$3.00	\$180,000	Compacting & grading, with large cuts, fills & over-x.	9.8%
G1040	Hazardous Waste Remediation	60,000	SF	NA	NA	Not applicable to this site.	NA
G2010	Roadways	60,000	SF	\$0.75	\$45,000	Minimal access road paving, curbs & gutters.	2.5%
G2020	Parking Lots	60,000	SF	\$6.00	\$360,000	Onsite asphalt paving & striping.	19.6%
G2030	Pedestrian Paving	60,000	SF	\$2.00	\$120,000	Perimeter curbing and a small quantity of sidewalks.	6.5%
G2040	Site Development	60,000	SF	\$2.00	\$120,000	Possible steps, rails & walls, plus site fixtures & specialties	6.5%
G2050	Landscaping	60,000	SF	\$1.00	\$60,000	Mostly irrigated planters, new trees & misc.	3.3%
G3010	Water Supply	60,000	SF	\$1.00	\$60,000	New fire loop & hydrants.	3.3%
G3020	Sanitary Sewer	60,000	SF	NA	NA	Not applicable to this site.	NA
G3030	Storm Sewer	60,000	SF	\$8.00	\$480,000	Catch basins, piping & drainage.	26.1%
G3040	Heating Distribution	60,000	SF	NA	NA	Not applicable to this site.	NA
G3050	Cooling Distribution	60,000	SF	NA	NA	Not applicable to this site.	NA
G3060	Fuel Distribution	60,000	SF	NA	NA	Not applicable to this site.	NA
G3090	Other Site Mechanical Utilities	60,000	SF	NA	NA	Not applicable to this site.	NA
G4010	Electrical Distribution	60,000	SF	\$0.75	\$45,000	Primary power conduit, secondary service and pick-up.	2.5%
G4020	Site Lighting	60,000	SF	\$1.40	\$84,000	Allowance at new parking lot site.	4.6%
G4030	Site Communications & Security	60,000	SF	NA	NA	Not applicable to this site.	NA
G4040	Other Site Electrical Utilities	60,000	SF	\$0.20	\$12,000	Allowance, assumed to be minor.	0.7%
G9092	Offsite Street Work	60,000	SF	NA	NA	Not applicable to this site.	N/A
Z1010	Contractor's General Requirements.	60,000	SF	\$3.00	\$180,000	Project administration, temporary facilities, B&I, B&O.	9.8%
SITE WORK FOR NEW ONSITE PARKING:				\$30.60	\$1,836,000		100.0%

ONSITE DEVELOPMENT SPECIFICS:

Existing areas are heavily treed, but assumed to have good native subgrade soils.
 No building demolition or haz-mat abatement is figured.
 Most of the new onsite parking area understandably covers new parking areas.
 See Item #5 on Page 7 for site costs to accommodate a new multi-level parking garage.
 Allowances are included for site lighting and onsite electrical services.
 Allowances are included for possible screen walls, steps, rails, ramps, and various other site fixtures and specialties.
 No offsite work is figured, or utility company hook-up costs if applicable.

GENERAL COMMENTS:

All components include apportioned G.C. mark-ups.
 Site \$/SF costs are based on an improvement area of 60,000 SF.
 Site work construction is assumed to not require any special phasing.
 Site work costs include Non-Qualified and Qualified costs. See the estimate cover page for their apportioned breakdowns.
 Building costs are not included.
 Onsite development costs for the new Science Building are not included either.
 Overhead & profit are not totaled in the last item, Z1010, but are evenly distributed over all Uniformat items listed.
 Qualified site work costs include outside utility and access road work. Non-Qualified site work costs include everything else.

PIERCE COLLEGE SCIENCE BUILDING AND PARKING
AT THE PUYALLUP CAMPUS, UPDATED

Not part of project

5) NEW MULTI LEVEL PARKING GARAGE MACC:

G, PARKING GARAGE

UNI #	UNIFORMAT COMPONENT	Quantity	Unit	\$\$\$	Est. Cost	REMARKS	% of Total
A1010	Standard Foundations	140,000	SF	\$14.00	\$1,960,000	Stem walls on footings, box footings, shear walls & shafts.	15.4%
A1030	Slab on Grade	140,000	SF	\$3.00	\$420,000	At lower level, with ramps & slopes.	3.3%
A2020	Basement Walls	140,000	SF	NA	NA	Not applicable to this building.	NA
B1010	Floor Construction	140,000	SF	\$29.00	\$4,060,000	Elevated concrete slabs at 2nd & 3rd floor & roof levels.	31.8%
B1020	Roof Construction	140,000	SF	\$0.60	\$84,000	At top of penthouse roofs only, totaling roughly 1,000 SF.	0.7%
B2010	Exterior Walls	140,000	SF	\$11.00	\$1,540,000	Mostly partial height architectural spandrel walls.	12.1%
B2020	Exterior Windows	140,000	SF	NA	NA	Not applicable to this building.	NA
B2030	Exterior Doors	140,000	SF	\$0.26	\$36,400	At stairwells & misc.	0.3%
B3010	Roof Coverings	140,000	SF	\$3.50	\$490,000	Waterproofing & striping at top level of parking.	3.8%
B3020	Roof Openings	140,000	SF	\$0.20	\$28,000	A minor allowance for penthouses, ramps and misc.	0.2%
C1010	Partitions	140,000	SF	\$0.50	\$70,000	Very minor with so few enclosed interior spaces.	0.5%
C1020	Interior Doors	140,000	SF	\$0.30	\$42,000	Limited to possible restrooms, booth and stairwell areas.	0.3%
C2010	Stair Construction/Finishes	140,000	SF	\$1.00	\$140,000	Composite stair pans & handrails in two locations.	1.1%
C3010	Wall Finishes	140,000	SF	\$0.80	\$112,000	Minor allowance for graphics & misc. in a parking garage.	0.9%
C3020	Floor Finishes	140,000	SF	\$0.60	\$84,000	A standard clear sealer & striping over concrete slabs.	0.7%
C3030	Ceiling Finishes	140,000	SF	\$0.40	\$56,000	A small quantity of exposed painted structures & misc.	0.4%
D1010	Elevator and Lifts	140,000	SF	\$0.75	\$105,000	Assumes one 4-stop lift.	0.8%
D2010	Plumbing Fixtures	140,000	SF	\$0.30	\$42,000	A possible small restroom, hose bibs & misc.	0.3%
D2020	Water Distribution	140,000	SF	\$0.20	\$28,000	Domestic water piping, a very minor scope.	0.2%
D2030	Waste	140,000	SF	\$0.12	\$16,800	Allowance for possibly a small restroom and misc.	0.1%
D2040	Rain Water Drainage	140,000	SF	\$0.80	\$112,000	Allowance for hard piped deck drains & misc.	0.9%
D3020	HVAC Equipment Basic	140,000	SF	\$0.35	\$49,000	A very minor allowance in enclosed stairwells and misc.	0.4%
D3040	HVAC Dist, Controls & Special Systems	140,000	SF	\$0.35	\$49,000	" " " " " " " " " " " " " " " "	0.4%
D4010	Fire Protection Systems	140,000	SF	\$5.20	\$728,000	Full NFPA-13 coverage, plus a fire alarm system & panel.	5.7%
D4030	Specialties (Extinguishers, Cabinets)	140,000	SF	\$0.25	\$35,000	Occupancy specialties and misc.	0.3%
D5010	Electrical Services & Distribution	140,000	SF	\$4.50	\$630,000	Panels, switchgear, feeders, distribution & connections.	4.9%
D5020	Lighting & Branch Wiring	140,000	SF	\$4.00	\$560,000	Economical but low energy light commercial fixtures.	4.4%
D5030	Communications & Security	140,000	SF	\$1.20	\$168,000	A minor allowance, includes gate entrance & monitoring.	1.3%
D5090	Emergency Electrical Systems	140,000	SF	\$1.00	\$140,000	Allowance for a back-up generator system, to be sized.	1.1%
E1020	Institutional Equipment	140,000	SF	NA	NA	Not applicable to this building.	N/A
E1030	Commercial Equipment	140,000	SF	NA	NA	Not applicable to this building.	N/A
E1090	Other Equipment	140,000	SF	NA	NA	Not applicable to this building.	N/A
E2010	Fixed Furnishings	140,000	SF	NA	NA	Not applicable to this building.	N/A
Z1010	Contractor's General Requirements.	140,000	SF	\$7.00	\$980,000	Project administration, temporary facilities, B&I, B&O.	7.7%
NEW MULTI-LEVEL PARKING GARAGE MACC:				\$91.18	\$12,765,200		100.0%

BUILDING SPECIFICS:

GENERAL COMMENTS:

A conventional slab-on-grade building foundation.
 Concrete floor, wall and roof structures, including at penthouses.
 The top floor parking level, uncovered, acts as a roof, with lid waterproofing included.
 All semi-opened garage space beyond stairwells, elevator and penthouses.
 Full fire sprinkler protection and fire alarm systems are included.
 Plumbing and HVAC scope is very limited.
 Electrical, beyond power & distribution, mainly consists of lighting and limited monitoring.
 An allowance for an emergency back-up generator is included.

All components include apportioned G.C. mark-ups.
 This is a garage space without any offices, but with possible small restrooms, enclosed storages, and two penthouses.
 The building footprint is a simple rectangle of roughly 35,000 SF, with a slab-on-grade and three additional elevated levels.
 Two stairwells and a passenger elevator are included.
 No basement or underground level is figured.
 Site work costs are not included.
 Overhead & profit are not totaled in the last item, Z1010, but are evenly distributed over all Unifomat items listed.

Not part of project

6) SITE WORK FOR PARKING GARAGE:

S, N&Q, ONSITE DEVELOPMENT

UNI #	UNIFORMAT COMPONENT	Quantity	Unit	\$\$\$	Est. Cost	REMARKS	% of Total
G1010	Site Clearing	60,000	SF	\$1.20	\$72,000	Some treed clearing, includes erosion control.	6.0%
G1020	Site Demolition & Relocation	60,000	SF	\$0.30	\$18,000	Relatively minor in a mostly heavily treed area.	1.5%
G1030	Site Earthwork	60,000	SF	\$3.75	\$225,000	Compacting & grading, with large cuts, fills & over-x.	18.9%
G1040	Hazardous Waste Remediation	60,000	SF	NA	NA	Not applicable to this site.	NA
G2010	Roadways	60,000	SF	\$1.20	\$72,000	Minimal access road paving, curbs & gutters.	6.0%
G2020	Parking Lots	60,000	SF	NA	NA	All new parking is in the Item #5 Parking Garage.	NA
G2030	Pedestrian Paving	60,000	SF	\$1.00	\$60,000	Minimal new onsite sidewalks & curbing.	5.0%
G2040	Site Development	60,000	SF	\$1.25	\$75,000	Possible steps, rails & walls, plus site fixtures & specialties	6.3%
G2050	Landscaping	60,000	SF	\$1.00	\$60,000	Mostly irrigated planters, new trees & misc.	5.0%
G3010	Water Supply	60,000	SF	\$1.00	\$60,000	New fire loop & hydrants.	5.0%
G3020	Sanitary Sewer	60,000	SF	NA	NA	Not applicable to this site.	NA
G3030	Storm Sewer	60,000	SF	\$5.00	\$300,000	Allowance, reduced with a parking garage building.	25.2%
G3040	Heating Distribution	60,000	SF	NA	NA	Not applicable to this site.	NA
G3050	Cooling Distribution	60,000	SF	NA	NA	Not applicable to this site.	NA
G3060	Fuel Distribution	60,000	SF	NA	NA	Not applicable to this site.	NA
G3090	Other Site Mechanical Utilities	60,000	SF	NA	NA	Not applicable to this site.	NA
G4010	Electrical Distribution	60,000	SF	\$1.00	\$60,000	Primary power conduit, secondary service and pick-up.	5.0%
G4020	Site Lighting	60,000	SF	\$0.40	\$24,000	Greatly reduced with a parking garage building.	2.0%
G4030	Site Communications & Security	60,000	SF	NA	NA	Not applicable to this site.	NA
G4040	Other Site Electrical Utilities	60,000	SF	\$0.50	\$30,000	Allowance, assumed to be minor.	2.5%
G9092	Offsite Street Work	60,000	SF	NA	NA	Not applicable to this site.	N/A
Z1010	Contractor's General Requirements.	60,000	SF	\$2.25	\$135,000	Project administration, temporary facilities, B&I, B&O.	11.3%
SITE WORK FOR MULTI-LEVEL PARKING GARAGE:				\$19.85	\$1,191,000		100.0%

ONSITE DEVELOPMENT SPECIFICS:

Existing areas are heavily treed, but assumed to have good native subgrade soils.
 No building demolition or haz-mat abatement is figured.
 4' of subgrade overexcavation is figured under new parking garage slab-on-grades.
 With a multi-level parking garage footprint of 35,000 SF, covering just over half the of the 60,000 SF parking site development area, most storm and the bulk of on-ground parking lot and site lighting costs are greatly reduced from what is figured in Items #1a & #2a.
 Allowances are included for possible screen walls, steps, rails, ramps, and various other site fixtures and specialties.
 No offsite work is figured, or utility company hook-up costs if applicable.

GENERAL COMMENTS:

All components include apportioned G.C. mark-ups.
 Site \$/SF costs are based on an improvement area of 60,000 SF.
 Site work construction is assumed to not require any special phasing.
 Site work costs include Non-Qualified and Qualified costs. See the estimate cover page for their apportioned breakdowns.
 Building costs are not included.
 Onsite development costs for the new Science Building are not included either.
 Overhead & profit are not totaled in the last item, Z1010, but are

evenly distributed over all Unifomat items listed.
Qualified site work costs include outside utility and access road work. Non-Qualified site work costs include everything else.

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Project Parameters

Type of Space	Square Footage	Percent
Renovation of Existing	(S1) = 0	0%
New Space	(S2) = 66,500	100%
Exterior Circulation of Existing. See Appendix H.	(S6) = 0	0%
Demolished Area	(S3) = 0	0%
Total Affected Area	66,500	100%
Net Area Change = New – Demo – Circulation	66,500	100%

Costs	Dollars	Percent
Acquisition	0	0%
Consultant Services	4,319,040	10.76%
Construction Contracts (w/o eligible Infrastructure)	30,192,338	75.24%
Eligible Infrastructure Contracts (from C100)	1,982,610	4.94%
Equipment	2,849,224	7.10%
Artwork	139,386	0.35%
Other Costs	645,840	1.61%
Project Management		0%
Total Project Cost (C1)	40,128,438	100%

Funding	Dollars	Percent
State Appropriation	40,128,438	100%
Financed – backed by State Appropriation		
Local Funds – Cash (see list of qualifying funds)		
Financed – backed by Local Funds		
Total Project Funding	40,128,438	100%
Matching		
Variance = Cost – Funding	0	

Project Weighting	Equivalent Area	Percent
Matching		
Infrastructure	3,821	6%
Renovation		
Replacement		
New	62,679	94%
Total	66,500	100%

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2019-21 Minimum and Overarching Criteria Points

Evaluation Criteria	Scoring Standard		Pages	Section
College Response	Affected buildings are at a single site.	Yes	11	4.5
College Response	Project does not include improvements to temporary or portable facilities.	Yes	4	2.1
College Response	Project is not a gymnasium or recreational facility.	Yes	4	2.1
College Response	Project is not an exclusive enterprise function such as a bookstore, dormitory or contract food service.	Yes	4	2.1
College Response	Project is not dependent on another project in the current request.	Yes	2	1.1
College Response	Project meets LEED Silver Standard requirements.	Yes	11	4.3, att. 6.5, app.7.4.1
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	2	1.1
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	2-3	1.1, app.7.4.5 1.4, 1.5,
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.	N/A - No renovation or replacement		
College Response	If project includes renovation, then the project extends the useful life of the affected building at least 20 years.	N/A - No renovation		
College Response	If project includes renovation, then the cost does not exceed 80% of the current replacement cost.	N/A - No 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 are more than 28 hours/week, Labs utilization is more than 16 hours/week.	13	4.13
Ability to enhance state and institution's achievement of goals	<i>Add up points from each category: (Max 14)</i> 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 Yes 4 Yes 4 Yes 2 Yes	5-7	2.1, app. 7.3.1, 2.2.2, app.7.3.2 2.3, app.7.4.3 app.7.4.1
Overarching Subtotal (O1)				
Overarching Weighting (O2)				
Overarching Weighted Subtotal (O3 = O1 x O2)				
Overarching Portion of Project (O4)				
Overarching Points (O5 = O3 x O4)				

2019-21 New Area Points
(use when project has a net increase in area)

Evaluation Criteria		Scoring Standard		
Efficient use of space – future utilization  See Appendix D for guidelines on determining future utilization and Appendix G for guidelines on enrollment projections		If either Lab utilization will be more than 17 or Class utilization will be more than 23.	18	
		If Lab utilization will be at least 15 but less than 17 and Class utilization was at least 21 but less than 23	24 pg 8 sec. 2.5	
		If Lab utilization was at least 12 but less than 15 and Class utilization was at least 19 but less than 21	12	
		If either Lab utilization will be less than 12 or Class utilization will be less than 19.	0	
Program related improvements in the new area portion of the project 	<i>(Assignable Square Feet)</i>	<i>Percentage of total</i>	<i>x score</i>	<i>Total</i>
	Classroom, labs		12	pg 7 sec. 2.4
	Student Services		12	
	Library		12	
	Childcare		9	
	Faculty offices		7	
	Administrative		5	
	Maintenance/Central Stores/Student Center		2	
Comprehensive project planning for new area	<i>Add up points from each category: (Max 24)</i> Space improves program delivery and student support Programs and student support space are identified by usage and square footage Location of project is identified by site Special initiatives beyond participation rates Reasonable cost estimate and building efficiency Expected building life – 50 years or greater		Up to 10 pg 2-5 sec.1.2,1.3, 2.1 Up to 5 app. 7.4.4 2 pg 4 sec. 2.1 2 pg 1 sec. 1.1 3 pg 1 att. 6.1; pg 7 att. 7.4.6 2 pg 11 sec.4.2	
Reasonableness of cost of the new area – efficient utilization of funds for building being proposed See Appendix B for determining expected costs.	<i>Add up points from each category: (Max 17)</i> Total project cost is less than or equal to the expected cost per square foot for the facility type, escalated to the construction mid-point.		17 pg 7 att. 7.4.6	
	Project cost is between 100% and 111% of expected cost.		12	
	Project cost is between 111% and 137% of expected cost.		5	
	Project cost is more than 137% of expected cost.		0	
New Area Subtotal (N1)				
New Area Weighting (N2)				
New Area Weighted Subtotal (N3 = N1 x N2)				
New Area Portion of Project (N4)				
New Area Points (N5 = N3 x N4)				

November 21, 2013

Mr. Jim Taylor
Pierce College
9401 Farwest Drive SW
Lakewood, Washington 98498

Re: Pierce College New Building Project
Log No: 112113-04-OSPI

Dear Mr. Taylor:

Thank you for contacting our department pursuant to Executive Order 05-05. We have reviewed the materials you provided for the proposed Pierce College New Building Project on the Puyallup Campus, Pierce County, Washington.

We concur with the determination of no cultural resource impacts.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of Executive Order 05-05

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the concerned tribes and this department notified.

These comments are based on the information available at the time of this review and on the behalf of the State Historic Preservation Officer. Should additional information become available, our assessment may be revised. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,



Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 586-3080
email: rob.whitlam@dahp.wa.gov





Nisqually Indian Tribe
4820 She-Nah-Num Dr. S.E.
Olympia, WA 98513
(360) 456-5221

January 15, 2014

Mr. Jim Taylor
Pierce College
9401 Farwest Dr. S.W.
Lakewood, WA 98498

Dear Mr. Taylor,

Thank you for the opportunity to comment on:

Pierce College New Building Project Log No.: 112113-04-OSPI

The Nisqually Tribe has concerns because of the close proximity to waterways. The site is near Bradley Lake, a seasonal stream, and two features identified as wetlands. Because of these factors, we would like to see an archaeological survey done prior to any land disturbances.

We also would like in place an inadvertent discovery plan for archaeological resources and human remains.

The Nisqually Indian Tribe wishes to be notified of any cultural resources are found.

Thank you,

Jackie Wall
THPO
(360)456-5221 Ext. 2180
wall.jackie@nisqually-nsn.gov

From: Brandon Reynon
To: [Jim Taylor](#)
Subject: RE: Cultural Resource Assessments - Pierce College
Date: Monday, January 27, 2014 10:24:56 AM
Attachments: [image001.jpg](#)

Mr. Taylor,

Yes, your understanding is correct. While we appreciate the work that NWAA (who is now called SWCA), conducted back in 2005 and 2006, surveys are only considered relevant for 5 years. With that said, those assessments will yield important information moving forward. The new assessments will give us a look into how disturbed the soil is in the location of your new projects, and determine just how much archaeological material potentially is going to be disturbed. The new assessments, from the Puyallup Tribe's perspective, only need to occur in the projects in Puyallup. The renovation project at Fort Steilacoom will only need to be conducted if the optional building addition is put into place and the utilities need to be trenched, etc. If the renovation purely stays within the existing structure, the Puyallup Tribe has no concerns or comments on that renovation.

Thank you,

Brandon Reynon
Tribal Archaeologist/Cultural Regulatory Specialist
Puyallup Tribe of Indians
253.573.7986

Everything I am is because of my Ancestors

From: Jim Taylor [mailto:JTaylor@pierce.ctc.edu]
Sent: Monday, January 27, 2014 10:10 AM
To: Brandon Reynon
Subject: RE: Cultural Resource Assessments - Pierce College

Thank you for the quick response. I would propose to bring Northwest Archaeological Associates in for these assessments. Would it be of any value to review the cultural resource assessments conducted in 2005 and 2006? These would be more relevant to the proposed renovation and new building construction projects. The athletic fields project is in a more removed location. My understanding is that, in any case, the Tribe would want to see an updated assessment conducted at each project location and we will proceed on that basis.

Thanks again and let us know if there is anything else we can do to ensure we are appropriately supporting the interests of the Puyallup Tribe in this matter.

Best regards,

Jim Taylor
Director of Facilities
Pierce College District

(253) 964-6588



From: Brandon Reynon [<mailto:brandon.reynon@puyalluptribe.com>]
Sent: Monday, January 27, 2014 9:50 AM
To: Jim Taylor
Subject: RE: Cultural Resource Assessments - Pierce College

Mr. Taylor,

Thank you for contacting the Puyallup Tribe regarding the Pierce College future projects. We greatly appreciate the opportunity to comment on the proposed projects.

Fort Steilacoom Cascade Renovation: Upon review of the information provided, the Puyallup Tribe has no concerns with the project moving forward as presently planned. If however, the optional expansion that would require ground disturbance is exercised into action, ground disturbance in that area would require an archaeological assessment.

Puyallup Science & Tech and Athletic Field: After reviewing the information provided for these two projects, an archaeological assessment will need to be conducted. The area around the Puyallup campus is an area that has historically been heavily used by the Puyallup Tribe. This area is significant to our Tribal history. The potential for encountering archaeological material is high. Please keep the Puyallup Tribe informed as this project moves forward.

Thank you again for the opportunity to comment on the proposed projects.

Sincerely,

Brandon Reynon
Tribal Archaeologist/Cultural Regulatory Specialist
Puyallup Tribe of Indians
253.573.7986

Everything I am is because of my Ancestors

From: Jim Taylor [<mailto:JTaylor@pierce.ctc.edu>]
Sent: Monday, January 27, 2014 8:24 AM
To: Brandon Reynon
Subject: Cultural Resource Assessments - Pierce College

Brandon,

Pierce College is in the process of developing a series of future capital projects. In compliance with Governor's Executive Order 05-05, we have contacted the Department of Archaeology and Historic Preservation. Attached is the information provided to DAHP on our projects and responses from that office. We have also been in contact with Mystique Hurtado at the Governor's Office of Indian Affairs and have been referred to the Puyallup and Nisqually Tribes for further consultation.

The Pierce College District is part of the state community and technical college system and is comprised of two colleges: Pierce College Puyallup and Pierce College Fort Steilacoom located in the City of Lakewood. We are currently in planning stages for the next phases of capital expansion at each college.

At Pierce College Fort Steilacoom, we are planning a renovation project in one of our major buildings. This may include construction of a small adjacent structure. At Pierce College Puyallup, we have plans for a new academic building and a new athletic fields complex.

We have previously contracted Northwest Archaeological Associates to conduct a cultural resources assessment for specific projects at each of the colleges (2006 for Puyallup and 2005 for Fort Steilacoom). No items of cultural significance were documented during these previous assessments at the specific sites designated for construction.

We look forward to collaborating with the Puyallup Tribe in this matter and please let me know if I can provide any further information or whether correspondence should be directed to anyone else.

Jim Taylor

Director of Facilities

Pierce College District

(253) 964-6588



PROJECT REVIEW SHEET – EZ1

HISTORIC & CULTURAL RESOURCES REVIEW

PROPERTY / CLIENT NAME: Pierce College

FUNDING AGENCY: 699

Project Applicant: Pierce College
Contact Person: Jim Taylor
Address: 9401 Farwest Dr SW
City, State: Lakewood, WA **Zip:** 98498 **County:** Pierce
Phone/ FAX: (253) 964-6588 / (253) 964-7339
E-Mail: jtaylor@pierce.ctc.edu

Funding Agency:
Organization: State Board for Community and Technical Colleges
Address: 1300 Quince St. SE
City, State: Olympia, WA **Zip:** 98504
Phone: (360) 704-9400

PLEASE DESCRIBE THE TYPE OF WORK TO BE COMPLETED

(Be as detailed as possible to avoid having to provide additional information)

Provide a detailed description of the proposed project:

This project is to construct a new major structure on the Pierce College Puyallup campus. The project will represent the fifth major building to be constructed on the site and will consist of an approximate 70,000 square foot science and technology building consisting of two to three floors. The building footprint will cover approximately 25,000-35,000 square feet depending on number of floors constructed. The project site is located immediately adjacent to other previously constructed buildings.

Describe the existing project site conditions:

The project is located on a historically forested site in the Puyallup South Hill area that has been previously logged and consists of second and third generation tree growth. The property contains a small number of wetlands. The site is largely level and sits at an elevation of approximately 550'. The site is not located near stream beds or open bodies of water. The nearest body of water is Bradley Lake located well to the west of the project site.

Describe the proposed ground disturbing activities:

The project will require excavation and export of soil as well as import of new soil necessary to achieve appropriate compaction. Infrastructure requirements will involve trenching for electrical, water, sewer and for storm water management. The soil conditions are typically very wet and under-drainage infrastructure and connection to detention ponds will be somewhat extensive. The building will be constructed as concrete slab on grade. It is anticipated that additional parking will be required in conjunction with this project and will probably be constructed as a parking structure on top of existing paved parking areas.

- Check if building(s) will be altered or demolished. If so please complete a DHP Determination of Eligibility "EZ2 form" using our on-line Historic Property Inventory Database for each building, 45 years or older, effected by the proposed project.**

N/A

PLEASE ATTACH A COPY OF THE RELEVANT PORTION OF A 7.5 SERIES USGS QUAD MAP AND OUTLINE THE PROJECT IMPACT AREA.

USGS Quad maps are available on-line at <http://maptech.mytopo.com/onlinemaps/index.cfm>

Project Location

Township: 19 North

Range: 4 East Section: 3

Address: 1601 39th Ave. SE

City: Payallup County: Pierce



Mail this form to:

Department of Archaeology and Historic Preservation or E-mail to:
1063 S. Capitol Way, Suite 106
P.O. Box 48343
Olympia, WA 98504-8343

Robert Whillam, Ph.D.
State Archaeologist, DAHP
(360) 586-3080
rob.whillam@dahp.wa.gov

(Within 30 days DAHP will mail their opinion back to you.)

Please be aware that this form may only initiate consultation. For some projects, DAHP may require additional information to complete our review such as plans, specifications, and photographs. An historic property inventory form may need to be completed by a qualified preservation professional.

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

Project Checklist

Project Name: Pierce Collge Puyallup - STEM Building

12/8/2017

Y ? N

1			Credit	Integrative Process	1
---	--	--	--------	---------------------	---

10 4 18 Location and Transportation 16

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

4 3 3 Sustainable Sites 10

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

5 2 4 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
2	2	2	Credit	Indoor Water Use Reduction	6
		2	Credit	Cooling Tower Water Use	2
1			Credit	Water Metering	1

7 14 12 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
3	3		Credit	Enhanced Commissioning	6
3	3	12	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

8 3 2 Materials and Resources 13

Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
3		2	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
1	1		Credit	Building Product Disclosure and Optimization - Material Ingredients	2
2			Credit	Construction and Demolition Waste Management	2

12 3 1 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
1	1	1	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

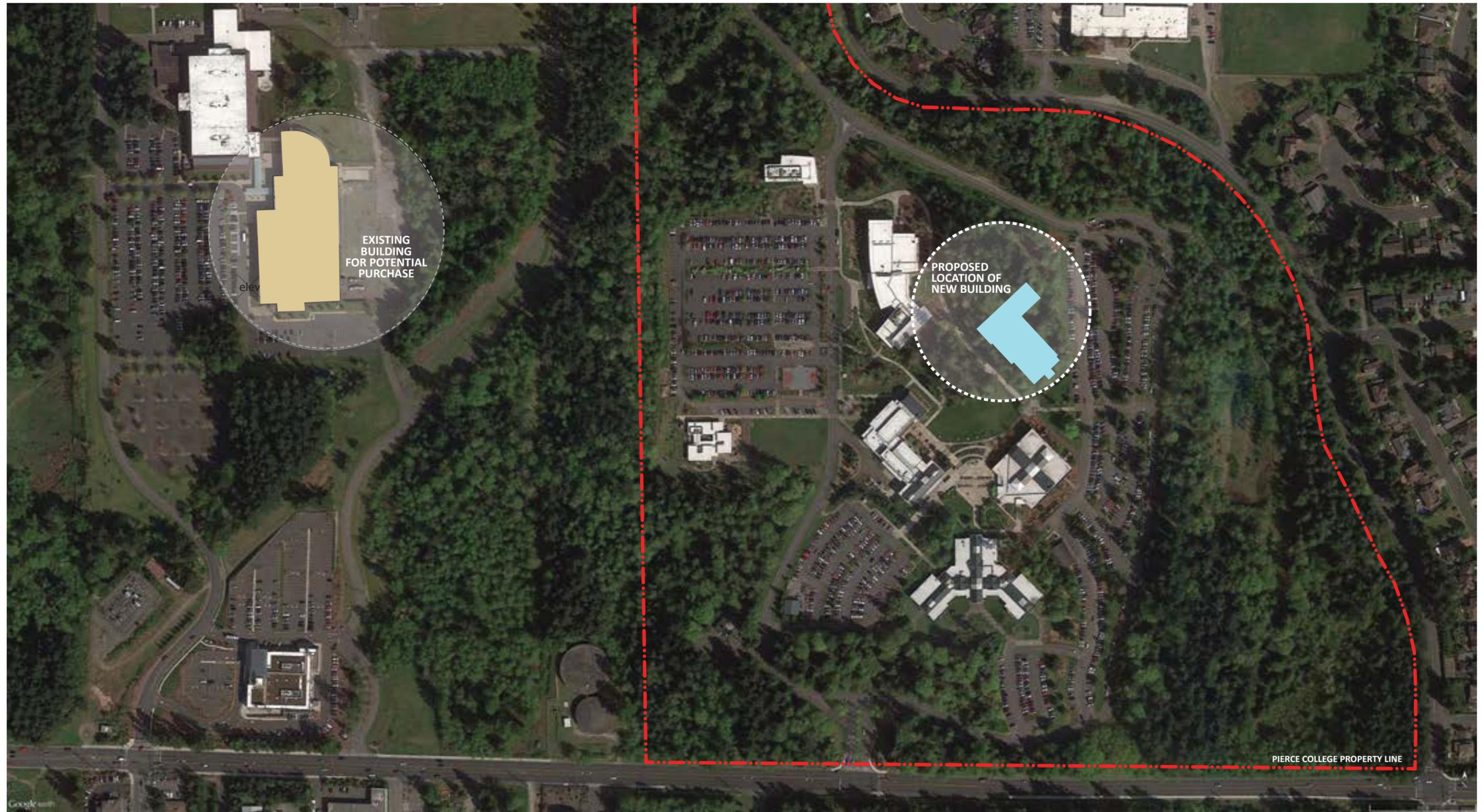
2 0 2 Regional Priority 4

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 31 42 TOTALS Possible Points: 110

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

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EXISTING SITE PHOTO

PROJECT REQUEST REPORT
PIERCE COLLEGE PUYALLUP
20 DECEMBER 2017



exit to 7th Street SE

COLLEGE WAY
NEW 100 STALL PARKING LOT

HEALTH EDUCATION CENTER

ARTS & ALLIED HEALTH

FUTURE BUILDING ZONE

NEW STEM BUILDING
loading
outdoor fabrication
main entry
entry
entry

CHILD DEVELOPMENT CENTER

COLLEGE CENTER

LIBRARY BUILDING

ADMINISTRATION BUILDING

COLLEGE WAY

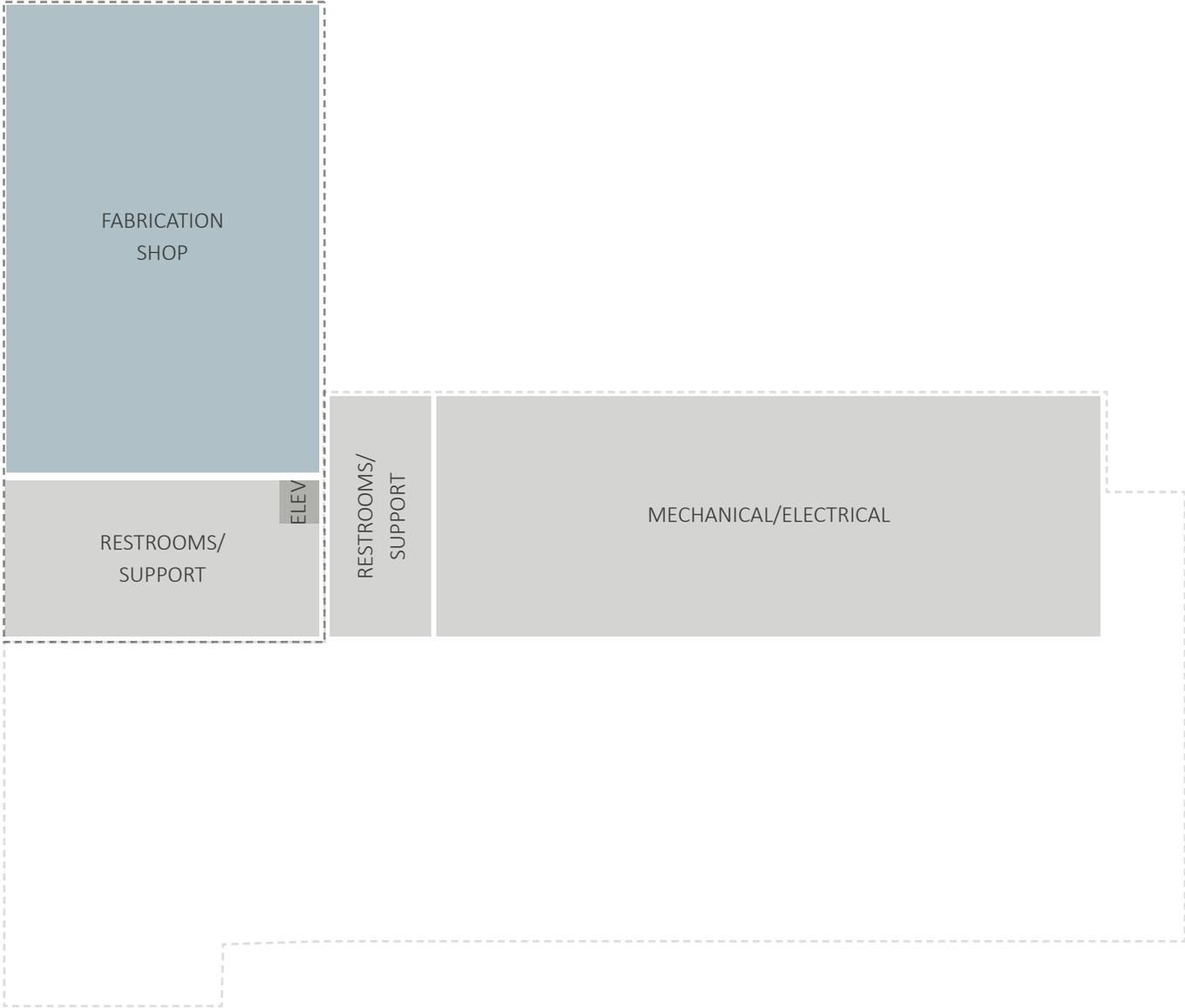
COLLEGE WAY



39TH AVENUE SOUTH EAST

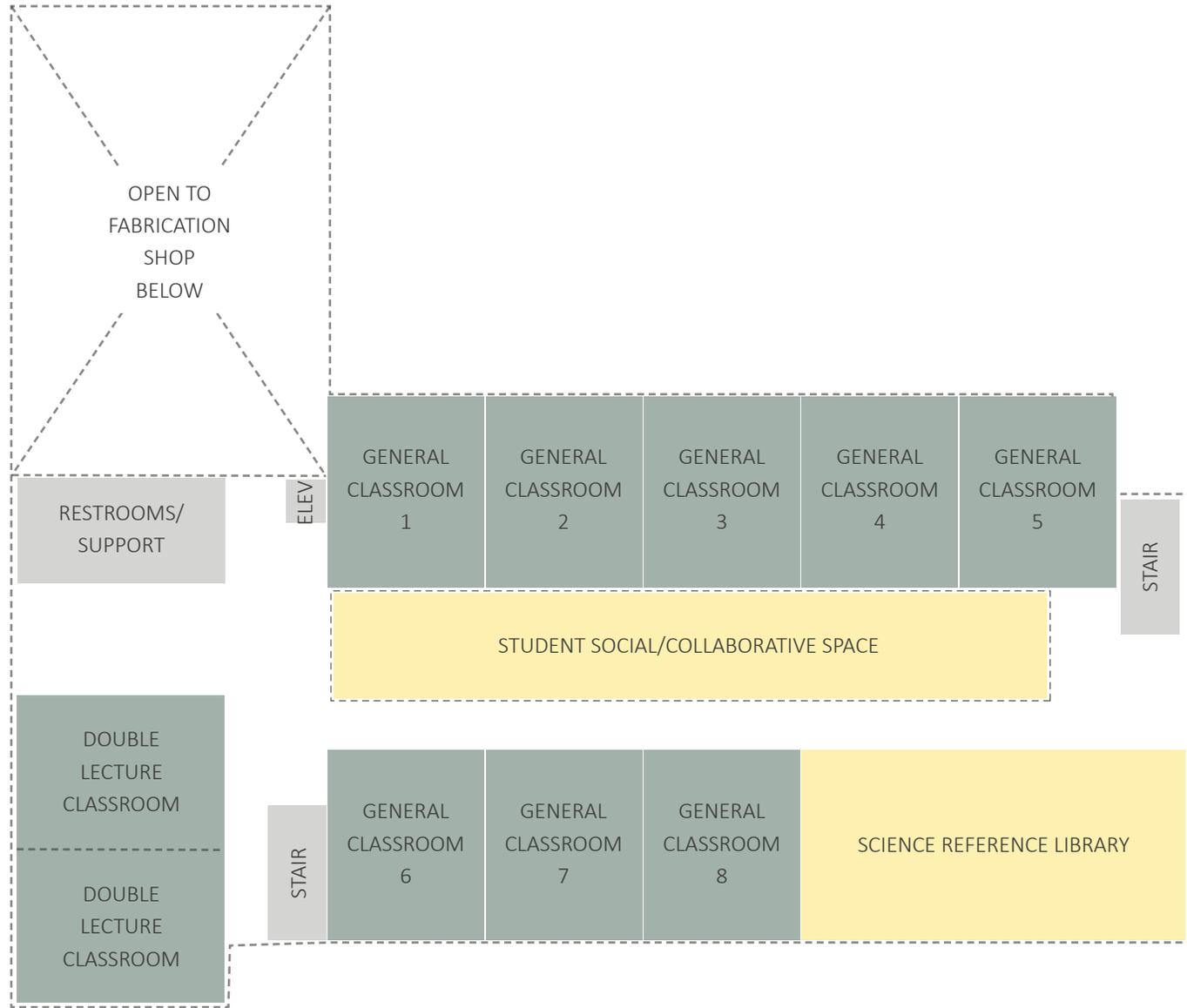
CONCEPT SITE PLAN

PROJECT REQUEST REPORT
PIERCE COLLEGE PUYALLUP
20 DECEMBER 2017



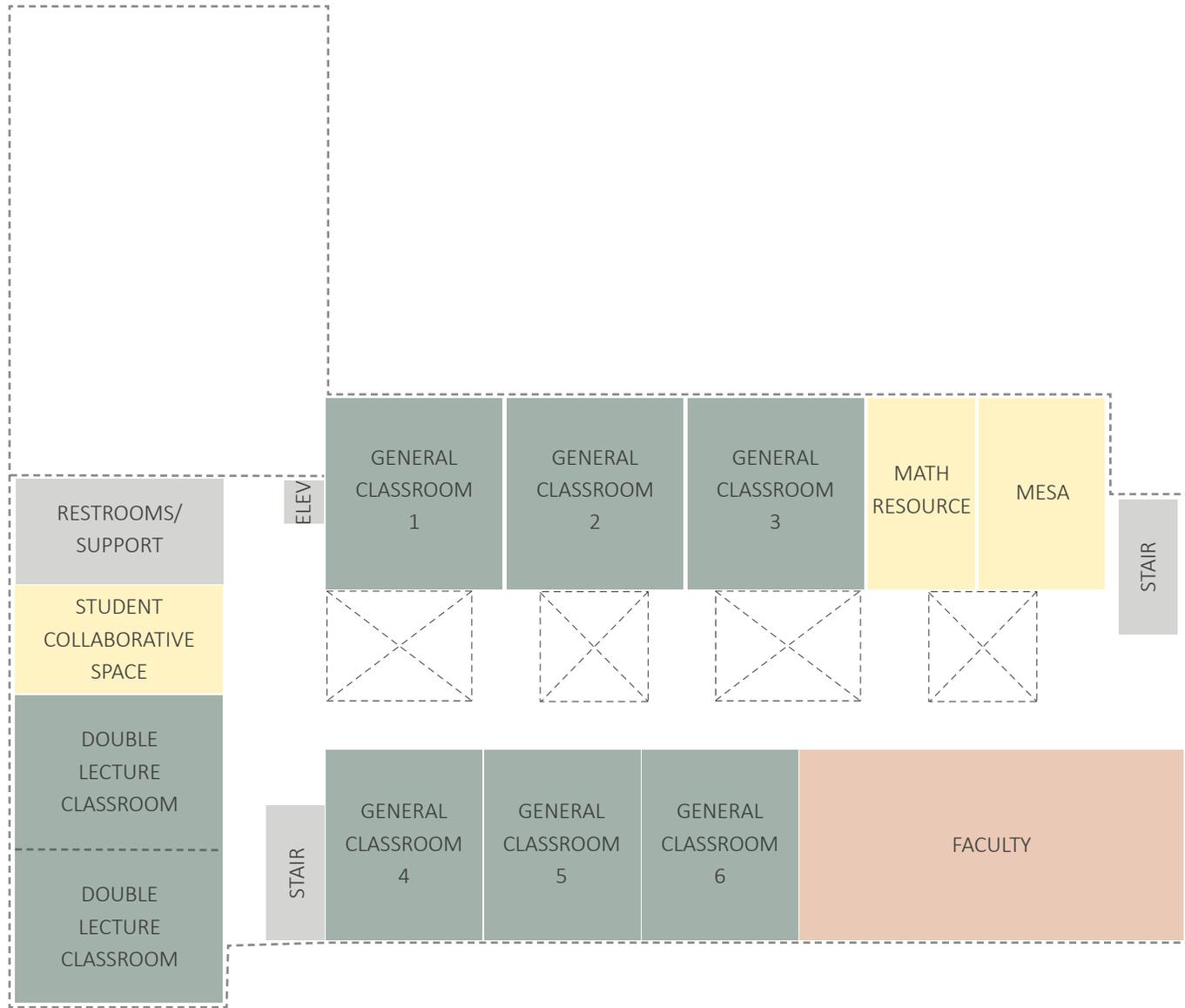
LOWER LEVEL

PROJECT REQUEST REPORT
PIERCE COLLEGE PUYALLUP
20 DECEMBER 2017



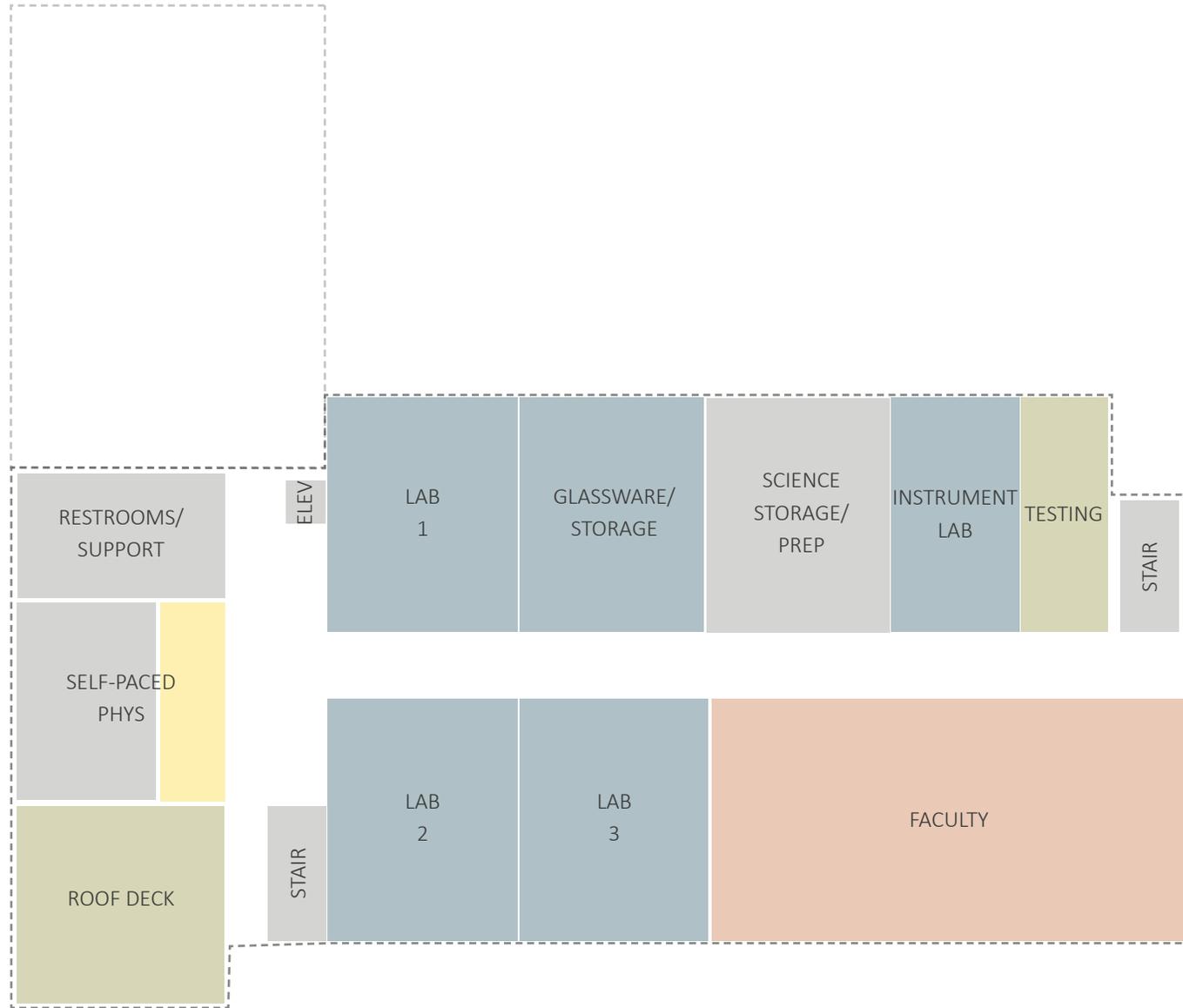
FIRST FLOOR

PROJECT REQUEST REPORT
 PIERCE COLLEGE PUYALLUP
 20 DECEMBER 2017



SECOND FLOOR

PROJECT REQUEST REPORT
 PIERCE COLLEGE PUYALLUP
 20 DECEMBER 2017



THIRD FLOOR

PROJECT REQUEST REPORT
 PIERCE COLLEGE PUYALLUP
 20 DECEMBER 2017

PROJECT MEMO



TO: Andy Hartung, McGranahan Architects
FROM: Adam Braun, PE
Tacoma - (253) 383-2422
DATE: December 8, 2017
PROJECT NO.: 2150793.10
PROJECT NAME: Pierce College, Puyallup
Science Building
SUBJECT: Research

Pierce College is evaluating the feasibility of constructing a new science building and additional parking at its Puyallup campus. The new science building would be two or three stories and be constructed in a tree-vegetated, undeveloped portion of the campus east of the Arts and Allied Health Building, north of the Brouillet Library/Science Building, and west of an existing parking lot. A new 100-stall parking lot would be constructed adjacent to the south edge of College Way northwest of the Health Education Center. The combined project area is approximately 88,000 square feet (2.0 acres). The following notes summarize my research findings:

1. The topography across the science building site drops from the west to the east. Based on the campus mapping, the elevations along the west corners of the building are about 528 feet; the elevations along the east corners of the building are about 522 feet; the building finish floor is estimated to be near elevation 525. The elevation at the parking lot is about 519 feet. The main entrance located to the west of the parking lot should provide distance to accommodate an accessible route between the parking lot and the main building entrance.
2. The addition of a total of 100 parking stalls to the campus will require the inclusion of four accessible parking stalls. In order to meet the intent of the Americans with Disabilities Act, the four accessible parking stalls will be located as close as possible to the buildings. A likely location will be in the parking lot immediately to the east of the new science building.
3. The science building site is served by a parking lot drive aisle east of the site and a walkway designed to serve as a fire lane west of the science building site, between College Way and the east parking lot, providing adequate existing fire department access.
4. An existing water main serving a fire hydrant is located southwest of the science building site, looping around the College Center Building. Another existing water main is located north of the site along the north edge of College Way, which turns north toward Wildwood Park Drive. In order to provide adequate fire hydrant coverage, a 10-inch water main is proposed to connect these two existing water mains running along the south and east edge of the site. This new water loop will also provide water and fire protection to an area of undeveloped land north of the site, identified in campus master planning documents as a future building site. The project proposes to add four new fire hydrants as part of the water main construction to provide adequate coverage.
5. The new science building will be sprinkled. A new fire service, fire department connection, double-detector check valve, and other appurtenances will be required from the water main. Fire flow is anticipated to be adequate.
6. A new domestic water service will be required. The proposed water main will minimize the distance between the water main and the building.
7. An existing 8-inch sanitary sewer main is located in the roadway west of the College Center and Arts & Allied Health Buildings within College Way. The inverts in the nearest upstream and downstream manholes are 522 feet and 510 feet, making connection to this sanitary sewer feasible for a gravity system. A new 8-inch sanitary sewer will be provided between the new science building and the existing sanitary sewer.



8. Poorly draining soils in the area and experience designing previous buildings on this campus indicate that a well-designed foundation drain system is a likely necessity. A 6-inch deep capillary break and 4-inch diameter perforated pipes spaced 15-feet on-center and surrounded by a 16-inch by 12-inch gravel trench are expected under the slabs of both the parking structure and the science building. The Arts and Allied Health Building was constructed in approximately 2009. Excavation of approximately 4-feet of poor native soils beneath the building pad was required for the Arts and Allied Health Building project. Four-feet of excavation is assumed to be required for the Science Building project. In addition, placement of 3-feet of imported structural fill is assumed to be required.
9. Construction of the new science building will trigger stormwater improvements, including flow control. The site contributes minimal, if any, pollution-generating surfaces, so water quality treatment is not expected. A preliminary estimate based on 43,000 square feet of new and replaced impervious surfaces would require a detention volume of 18,000 cubic feet. An open pond will be required and located to the east between the proposed building and the existing parking lot. The detention pond outlet would connect to an existing storm drain pipe located south of the proposed science building and north of the Brouillet Library/Science Building. In addition, Low Impact Development (LID) facilities will be required to the maximum extent feasible. These may include bioretention facilities (rain gardens), green roofs, rainwater harvesting, and permeable pavements. While infiltration is a desirable LID technique, we anticipate that the site soils are glacial till and not conducive to infiltration of stormwater.
10. Construction of the new parking lot will trigger stormwater improvements, including flow control and water quality treatment. A preliminary estimate based on 43,000 square feet of new and replaced impervious surfaces would require a detention volume of 18,000 cubic feet. An open pond will be required and located immediately to the south, on undeveloped land. The detention pond outlet would discharge to an existing wetland located to the west. In addition, Low Impact Development (LID) facilities will be required to the maximum extent feasible. These may include bioretention facilities (rain gardens), rainwater harvesting, and permeable pavements. While infiltration is a desirable LID technique, we anticipate that the site soils are glacial till and not conducive to infiltration of stormwater. Rain gardens, in conjunction with wetland buffer enhancements, may be the most logical choice for LID implementation.
11. An existing gas main is located adjacent to College Way west of the College Center and Arts & Allied Health Buildings. A new gas service will be provided between the new science building and the existing gas line.
12. An existing power and telecommunications duct bank is located adjacent to College Way west of the College Center and Arts & Allied Health Buildings. A new power and telecommunications service will be provided between the new science building and the existing duct bank. The electrical engineer will analyze the proposed loads and data needs to determine if additional improvements are required.

A sketch is attached showing the location of the proposed Infrastructure Improvements.

ACB/lsk

c: William Fierst, Doreen Gavin - AHBL

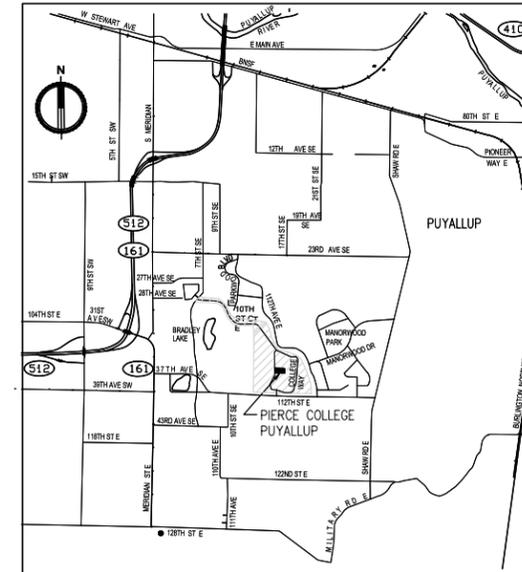
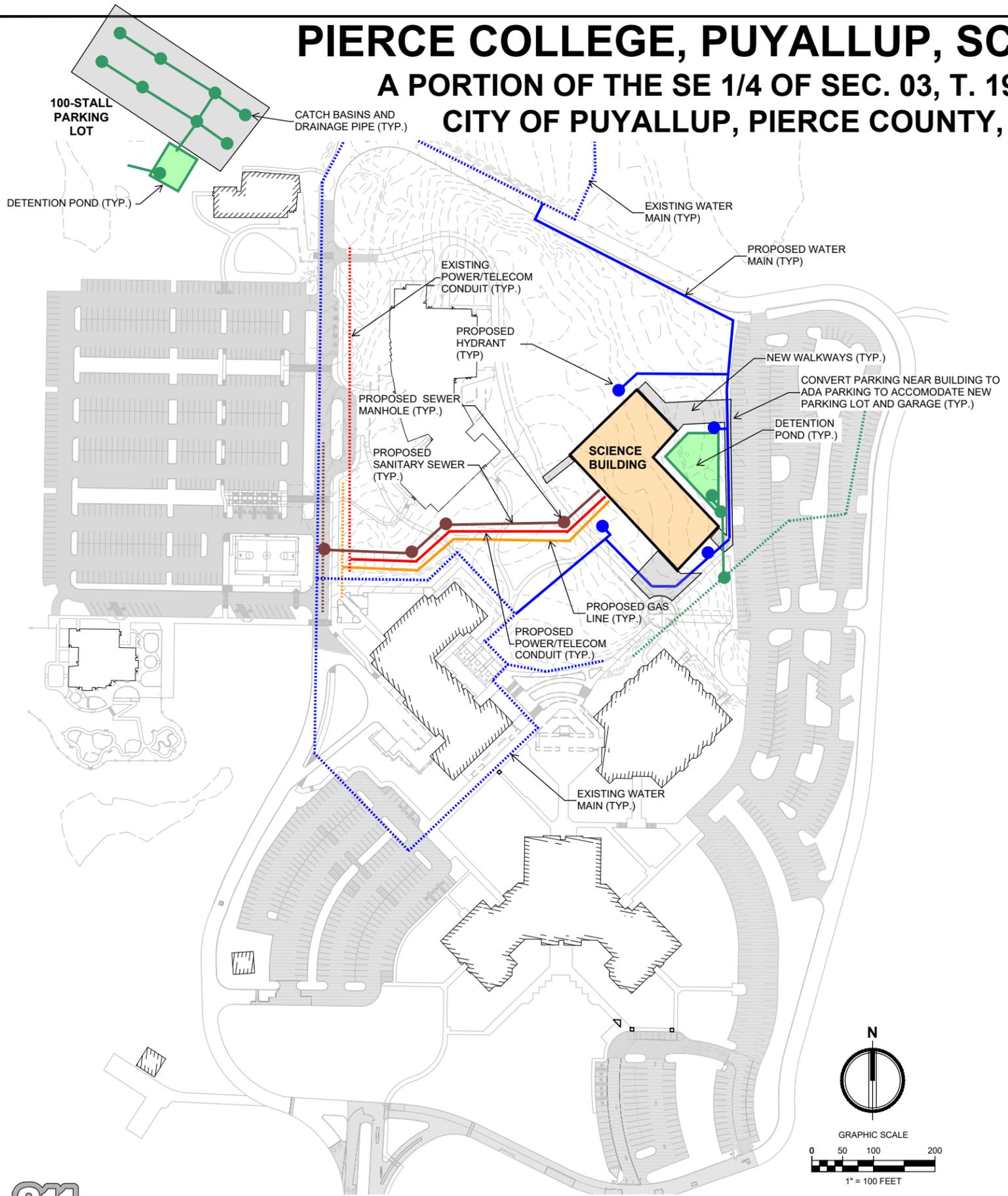
Attachment

Q:\2017\2170269\10_CIV\NON_CAD\REPORTS\20151222 Memo (Research) 2150793.10.docx

PIERCE COLLEGE, PUYALLUP, SCIENCE BUILDING

A PORTION OF THE SE 1/4 OF SEC. 03, T. 19 N. RGE. 4 E., W.M.

CITY OF PUYALLUP, PIERCE COUNTY, WASHINGTON



TACOMA • SEATTLE • SPOKANE • TRI-CITIES

2215 North 30th Street, Suite 300 Tacoma, WA 98403
253.383.2422 TEL 253.383.2572 FAX www.ahbl.com WEB

Project Title:
**PIERCE COLLEGE
PAVEMENT AND
SIDEWALK REPAIRS,
PUYALLUP**

Client:
**McGRNAHAN
ARCHITECTS**

2111 PACIFIC AVENUE, SUITE 100
TACOMA, WA 98402

ANDY HARTUNG

Job No.

Issue Set & Date:

STUDY

DECEMBER 09, 2015

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- △ _____
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 - △ _____
 - △ _____
- Revisions:

Sheet Title:
**COVER SHEET
(BID ALTERNATE #2)**

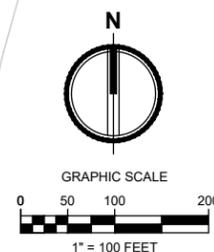
Designed by: E. OTTENBEREIT Drawn by: F. KATONA Checked by: W. FIERST

Sheet No.

C6.0

9 of 11 Sheets

AHBL NO.: 2150793.10



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Pierce College
Puyallup

Master Plan

Updated
November, 2015



msgs architects

Pierce College Puyallup Master Plan 2015 Update

3. Program, Learning, and Student Success Needs: Campus Master Plan Strategic Outcomes

The Campus Master Plan for Pierce College Puyallup establishes the foundation for continuity in physical planning by creating a vision that will allow the College to develop a cohesive campus aesthetic, meet required space needs for future growth, plan for facility upgrades, and improve site conditions in a coherent and unified way. This will ensure that each future project fits appropriately within the larger intended character and limits of the campus. The Campus Master Plan presents a physical expression of the current and future development of the campus, the outcome of which is to ensure that planned growth is consistent with the college's vision, mission, and values.

Current Campus Development

The Pierce College Puyallup campus sits on approximately 123 acres of land located within the city limits of Puyallup. Constructed buildings total 243,792 square feet -- five main buildings accounting for 231,733 gross square feet and three smaller buildings totaling 12,059 square feet.

Gaspard Administration Building

This is the original campus building. It supports instructional classrooms as well as administrative offices and student services functions.

Brouillet Library/Science Building

This building was constructed in 1997 and is the second of the campuses' major buildings. The building is 55,000 square feet in size and houses the college's library as well as science labs and classrooms, general classrooms, and offices for faculty and staff.

College Center Building

This building is the third major facility constructed on the campus and is a hub of student activity. The facility supports a wide array of instructional spaces and services, as well as offices for faculty and staff.

Garnero Child Development Center

This facility provides learning space for toddlers and pre-school children of student parents. There is some capacity for children of employees and community, as well.

Major functions and programs: Learning facilitated through a childcare-like environment

Health Education Center

The facility provides instructional and exercise areas.

Arts and Allied Health Building

This is the newest building at the Puyallup campus and it supports an array of programs.

Maintenance facility

Maintenance and grounds support

Portable building

The college has been utilizing a 2,688 square foot portable building to house staff offices since 1999. This facility is listed as a near-term need for replacement.

City of Puyallup Communication Center

This facility was formerly utilized as the 911 communications center for the City of Puyallup but is no longer used for this purpose. However, the City continues to lease this space. Future disposition of this facility is uncertain although the college has notified the City of Puyallup that it would like the space back as soon as the City finds more suitable space.

Comprehensive Ongoing Needs

General space and program needs and efficiencies

The college faces ongoing needs for space improvements as instructional methodologies, student-learning styles, and service support requirements change. Existing space needs periodic updating and renovation to remain current.

Expected Outcomes:

- General classrooms are sufficient in number and have sufficient technology to support instructional needs
- Computer labs are sufficient in number and are technologically current
- Sufficient office space is provided for full- and part-time faculty and staff (currently inadequate)
- Relocation of faculty offices are undertaken as needed
- Social and informal learning spaces are expanded
- Central “commons” spaces are provided to promote shared participation and responsibility
- Student Life space is expanded
- The Food Services facility is remodeled and upgraded
- Marketing and Communications offices have been relocated and upgraded
- District administrative and support offices are sufficient to support the District’s mission, values and goals and are appropriately located

Technology and equipment

Technology and equipment needs continuously change. The college strives to offer technology and equipment that is representative of the same technology and equipment students will see either in the workplace or at universities upon transfer.

Expected Outcomes:

- All general classrooms are equipped with adequate technology to support current instruction
- Computer labs are equipped with current equipment and software technology
- eLearning has access to and is utilizing sufficient technology to support its mission fully
- Instructional equipment is replaced and upgraded on a scheduled basis

Infrastructure improvements

In conjunction with more recently added capital inventory, we continue to support older facilities. Building infrastructure systems need to be upgraded and replaced at intervals throughout the life-cycles of our campus structures.

Expected Outcomes:

- Roofs and other building envelope systems are sufficient in quality and installation to protect structures from weather related damage
- Building mechanical systems are sufficient to maintain adequate temperatures and environmental conditions to support the learning environment
- Building electrical systems are updated and in good repair
- Parking lots and driveways are in good repair and are maintained on a planned schedule
- Elevators have been upgraded and are fully code compliant

Minor improvements

The college is continually in the process of identifying and responding to the changing needs of the institution. This includes space modifications that better address current programmatic need, the continued development of interior wayfinding signage, and the refinement of design standards for colors, materials, furnishings and equipment.

Expected Outcomes:

- Interior spaces are configured in a way that best meets the needs of the college and its programs and services
- Space improvements are planned strategically and are implemented on a scheduled basis that allows adequate time for completion and within reasonable cost
- Interior signage is improved and standardized
- Wayfinding signage is adequately located and provides sufficient information to adequately direct first-time visitors to their destination
- Standards have been developed for colors and materials used throughout the college environment
- Furnishings in offices, classrooms and common areas are in good repair and are replaced on an as-needed basis
- Carpeting is in good repair and is replaced on a planned schedule
- Interior surfaces are in good repair and painted on a planned schedule

Safety and Security

Pierce College is committed to providing a safe and secure environment for our students, employees, guests, and visitors. Interior and exterior improvements are designed and implemented in such a way as to promote a safe personal and learning environment for each of our students, a comfortable and secure environment for our employees and a welcoming environment for guests and visitors. The physical environment reflects and honors this commitment. Emergency preparedness measures also impact our master planning efforts. Infrastructure improvements that may enable us to better withstand or recover from various emergency situations need to be factored into our master planning. The college may also be placed in the position of providing sheltering or staging for outside groups or agencies during area-wide emergencies and this will have an impact on infrastructure needs.

Expected Outcomes:

- Access control systems for buildings and interior spaces are expanded
- Emergency notification and egress systems are sufficient to ensure the immediate and safe evacuation of personnel from buildings and the campus in the event of an emergency
- Infrastructure systems are capable of supporting continued operations of key facilities for extended periods during and following emergencies
- Emergency communication infrastructure systems and devices, including call boxes (including call boxes for the Deaf and Hard of Hearing community), are improved and expanded

Maintenance efficiencies and sustainability

The management of long-term operational costs of buildings and systems continues to be a major focus of the college's efforts. This includes the development of improved processes and the refinement of design standards for building systems and components to achieve better consistency of maintenance and function. Sustainable systems and practices are included in all design and implementation projects.

Expected Outcomes:

- Energy conservation measures are implemented and existing measures improved to include metering of energy consumption in all buildings
- Design standards have been developed for all building systems and components
- Serviceability of systems and equipment is sufficient to enable ease of servicing, repair and replacement
- Sustainable practices have been implemented and are in use in maintenance, grounds and custodial operations
- Maintenance practices are streamlined and can be supported with existing personnel resources
- Maintenance, grounds and custodial personnel are receiving regular skills development training

Vehicular and pedestrian circulation

There is a need to provide accessibility to all facilities and weave together a clear pathway system that unifies the campus, strengthens the pedestrian environment, and reinforces the campus open spaces. A series of entry points around the perimeter of the campus lead pedestrians both to the central open spaces and to building entries. Paths are organized to create simple and clear access to building entries and through the buildings to connect one building to the next. The term "accessibility" also refers specifically to the development of a physical environment which is conducive to the concept of universal design and in which students, employees and visitors experience no physical barriers to their access to and use of the college's physical environment.

The vehicular plan includes roadways that enable the passage of motorized vehicles through the campus and ready access to parking areas. Parking areas are situated to allow reasonable access to buildings and to campus entry and exit points. The master plan recognizes the need to provide efficient access and circulation for public transit as well as the promotion of alternative means of transportation.

Expected Outcomes:

- Persons with disabilities do not encounter physical barriers that impede access to buildings or services
- The pedestrian environment is sufficiently developed to allow convenient and easy access to and through the campus
- Motor vehicle circulation and access is clear and promotes safe and convenient entry and exits to the campus and its buildings
- Alternative modes of transportation are encouraged and provided for
- Parking is sufficient in quantity to meet demand

Exterior lighting and signage

Closely aligned with creating and maintaining a safe and secure environment, exterior lighting is a critical component of our overall master planning process. A comprehensive lighting plan is essential for the well-being of our campus community and is also a major factor in the overall appearance and appeal of the college to our community. Exterior lighting improvements, in many cases, represent a significant financial expense and must be undertaken over time as funding and opportunities present themselves.

Clear wayfinding and informational signage is critical to the welcoming and supportive environment that Pierce College Puyallup strives to support. To this end, the college has developed an exterior signage master plan in conjunction with two architectural firms, as well as a signage design consultant. This plan is intended to employ a methodical approach to guiding people to and through the campus. The plan is partially implemented and is being progressively developed in phases.

Expected Outcomes:

- Sufficient exterior signage is in place to clearly guide vehicular and pedestrian traffic into and through the campus
- Exterior lighting has been expanded and improved and provides a safe, well-lit environment for parking, driveways and pedestrian pathways

Site management

Jurisdictional requirements for management of storm water runoff are becoming increasingly stringent. Having good management practices in place will be a requirement for the permitting of future campus development. The college will continue to work with the City of Puyallup and other agencies to ensure compliance with current or anticipated ordinances and regulations.

The campus master plan recognizes the need for well-developed strategies for the management of the college's land from border-to-border in order to comply with the college's goal of strong environmental stewardship. This includes a landscaping plan for those areas that are highly maintained on a regular basis and those that are less intensely managed but contribute to the overall campus environment. This also includes preservation of natural habitat and native vegetation.

Expected Outcomes:

- The college has developed a comprehensive landscaping and land management plan that recognizes the desire for an attractive and safe campus and also recognizes our commitment to environmental stewardship
- The College has developed a comprehensive storm water management plan that complies with jurisdictional mandates and supports environmental stewardship
- The College collaborates with the City of Puyallup on land protection and preservation issues

Near-Term Development Needs (5-10 Years)

Through the process already described, the college identifies near-term and long-term development needs. This is augmented by environmental scans, and external and internal community surveys. The projects listed in this section were prioritized based on the following criteria:

- Perceived community/industry need (e.g., addressing a national need for Science, Technology, Engineering, and Mathematics majors on a local level)
- A need identified in the District Learning and Student Success Strategic Plan
- Funding opportunities
- Current enrollment information and future enrollment projections
- Rationale
- Potential for capital funding
- Demonstrated need for the future

Science, Technology, Engineering, Mathematics (STEM) Building

Pierce College Puyallup's existing facilities do not meet current need in emerging engineering and technology fields or in a comprehensive science curriculum. There has been steady growth in the need for such programs over the past several years and this is expected to continue to experience large growth into the future. A new facility would replace older instructional environments with much more robust capabilities, allow the college to expand existing programs, add robotics and additive manufacturing, allow the college to offer the full complement of transfer STEM-related courses, and ensure program viability for the next generation of students.

Brouillet Library/Science Building renovation and expansion

The existing Library is too small and insufficiently configured to meet the needs of the college and to adequately support student learning. Space is required to support teaching and learning methodology (e.g., rooms for students to work together on projects; rooms for students to practice presentations) and to support new technology applications. Associated student support services such as Tutoring, Supplemental Instruction, the Writing Center, a veteran's support center, and Assistive Technology have no space in which to incorporate appropriate adjacencies to the Library proper. Additional general classrooms are also needed to accommodate instructional scheduling demands. Subsequent to construction of

the STEM Building, the Library will be renovated and expanded to provide greatly improved services to students and faculty.

Residence Facility

Demand for residence facilities to, primarily, support International Education has increased exponentially in recent years. Pierce College is committed to ensuring the continued success of its international programs, which are growing, and, in recognizing this demand, is seeking opportunities to develop such facilities.

Parking expansion

Future construction will require additional parking expansion. A parking lot footprint is reflected in the campus plan. The next major expansion phase will occur in conjunction with the construction of the STEM Building and may also be required with additional future building expansion. Ground level parking surfaces will require encroachment outside currently developed areas, recognizing there are limitations due to natural terrain and wetlands. Expansion could include construction of a vertical parking structure. However, construction cost may be prohibitive and difficult to fund. Under the section Alternatives Considered it is noted that an adjacent facility may be an option for building expansion. If this option were to become available, additional parking may be made available, as well.

Athletic field development

The District's current intent is to primarily support athletic field sports at Pierce College Puyallup and to maintain court sports at Pierce College Fort Steilacoom. A feasibility study has been conducted for the development of a multi-sport complex with fields and associated support structures on the campus. However, funding sources have not yet been identified and the project is not eligible for traditional capital funds.

Gaspard Administration Building Remodel

The Administration Building is inadequately configured to support the college's current needs. Over the next several years, the college will be conducting a series of space modifications in this building to better support student services and administrative functions.

Storage facility

The college has insufficient storage space to support both instructional program needs and needs for furnishings and equipment to support college and community events. This is of particular concern in the Arts and Allied Health Building where, as a result of rapidly escalating construction costs being experienced during late design, and project bid and subsequent impact on the project's final scope, approximately 8,000 square feet of storage and related spaces were removed prior to bidding and construction. It was decided to keep the academic programs intact as much as possible. In order to do this, there was a reduction in storage space, maintenance areas, and other non-instructional space.

Maintenance shop expansion

The existing maintenance shop is inadequately sized or configured to support the existing needs of the college for maintenance and grounds services. It may be

possible to expand rather than replace the existing structure but this requires further investigation.

Reconfigure main entrance drive and transit loop

The primary campus entrance does not provide easy access and routing for drop-offs and for public transit. The entrance is also configured in such a way that the campus is largely hidden from the main public right-of-way. Reconfiguration of the entry drive to enable a shorter turn around for transit and to open up the entrance more visually will greatly enhance campus appearance and access. This may also make it easier for Pierce Transit to expand routes as the reconfiguration would be more accessible.

Remove portable

The existing portable housing the Marketing and Communications department has been utilized since 1999. It is awkwardly positioned and is not suitable for future reconfiguration or expanded use. It is also not supported with maintenance and operations funding from the state. The college is seeking near-term opportunities to eliminate the need for this facility and to house programs located there to other space.

Communication Center acquisition

The City of Puyallup no longer utilizes the small structure on campus as the 911 Communications Center as they needed to expand and have relocated into a new facility. Although the City cannot use the old structure for other purposes without the college's permission, they do use the space for an extension of their current Communications Center by housing several servers in the building. In addition, they use the space for storage. The college has met with the City to express an interest in acquiring the facility and converting it for other needed purposes should it become available in the future.

Gender Neutral Restrooms

There has been increasing need for additional gender neutral restrooms on campus. Currently there are two restrooms on campus (i.e., one each in the Arts and Allied Health building and the College Center building), and two restrooms in the Health Education Center that are individual-use restrooms that will have the signage replaced to identify them as gender neutral restroom. If additional gender neutral restrooms are needed, the college will either need to add them when new buildings come on line, or it needs to identify one or more restrooms for a remodel. Facilities is currently exploring the need and the options.

Long-term Development Needs (11-15 Years)

Future Academic Buildings

Our long-range plans include two additional academic buildings. We anticipate that we will continue to identify needs of the college over the next 10 or more years that will require additional building space. We will continue to assess facility needs over the next several years and are leaving options open for the placement of new facilities on the campus to support future program growth.

Health Education Center expansion

The Health Education Center was designed to allow for the future addition of a gymnasium. This expansion remains a longer-term goal. The college will continue to assess the potential need for this addition and this will have to include funding strategies. State capital funds are unlikely to be available for this project. This project may also not be needed if we commit to the athletic fields at Pierce College Puyallup and formally designate Pierce College Puyallup for field sports and Pierce College Fort Steilacoom for court sports.

Garnero Child Development Center expansion

The Child Development Center (CDC) was constructed with the intention of adding a future wing to the structure to increase capacity. If funds are available earlier, there is a desire to move this into a short-term development need.

Parking expansion

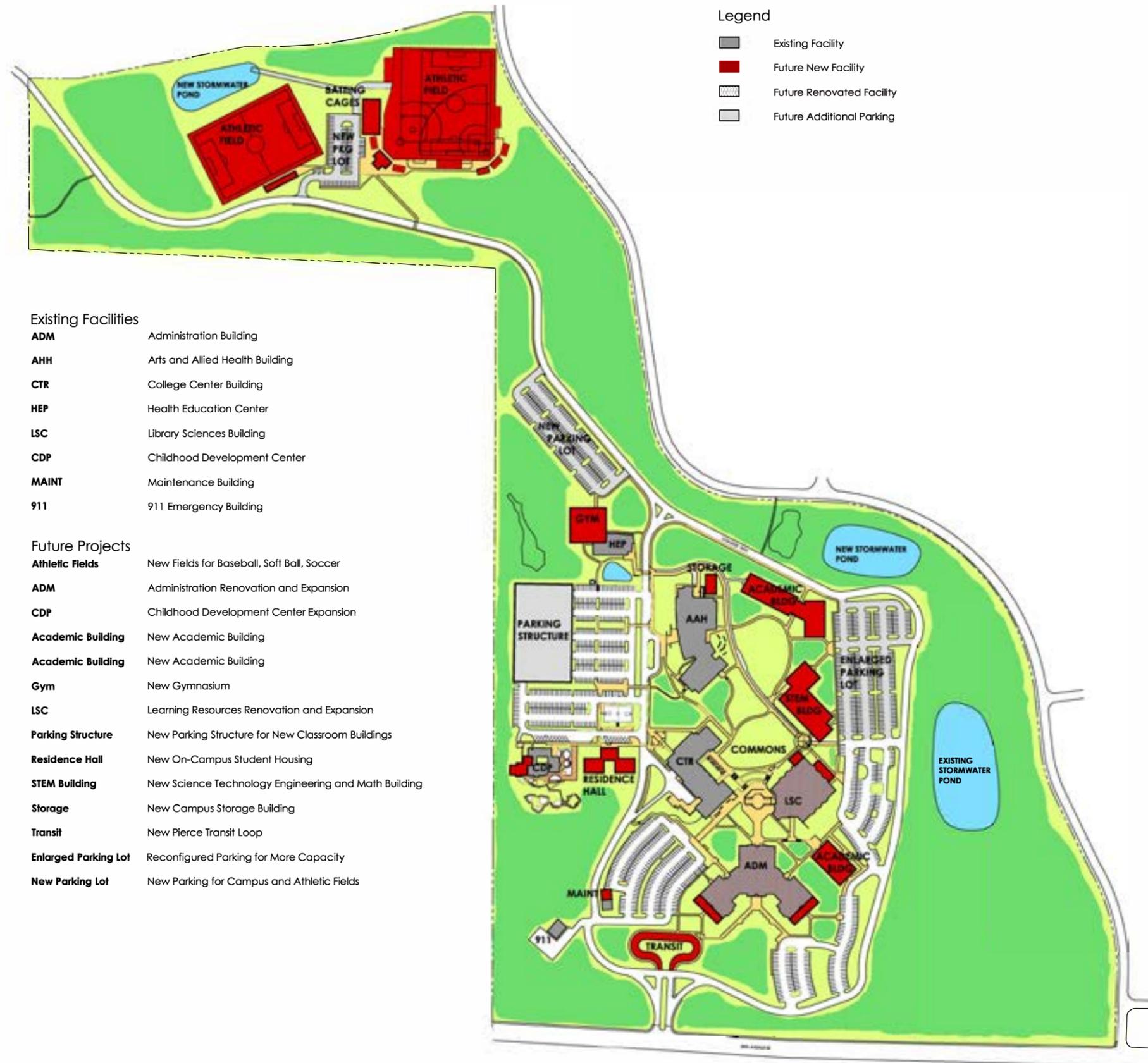
Although parking expansion will be required to meet some of the college's near-term capital goals, additional expansion may be required in the future to meet longer-term goals. This will be determined by future enrollment demand and jurisdictional permitting requirements.

Pierce College Puyallup Campus Master Plan - 2016
Existing Development Plan



- Existing Facilities
- ADM** Administration Building
 - AHH** Arts and Allied Health Building
 - CTR** College Center Building
 - HEP** Health Education Center
 - LSC** Library Sciences Building
 - CDP** Childhood Development Center
 - MAINT** Maintenance Building
 - 911** 911 Emergency Building

Pierce College Puyallup Campus Master Plan - 2016 Development Plan



Legend

- Existing Facility
- Future New Facility
- Future Renovated Facility
- Future Additional Parking

Existing Facilities

- ADM** Administration Building
- AHH** Arts and Allied Health Building
- CTR** College Center Building
- HEP** Health Education Center
- LSC** Library Sciences Building
- CDP** Childhood Development Center
- MAINT** Maintenance Building
- 911** 911 Emergency Building

Future Projects

- Athletic Fields** New Fields for Baseball, Soft Ball, Soccer
- ADM** Administration Renovation and Expansion
- CDP** Childhood Development Center Expansion
- Academic Building** New Academic Building
- Academic Building** New Academic Building
- Gym** New Gymnasium
- LSC** Learning Resources Renovation and Expansion
- Parking Structure** New Parking Structure for New Classroom Buildings
- Residence Hall** New On-Campus Student Housing
- STEM Building** New Science Technology Engineering and Math Building
- Storage** New Campus Storage Building
- Transit** New Pierce Transit Loop
- Enlarged Parking Lot** Reconfigured Parking for More Capacity
- New Parking Lot** New Parking for Campus and Athletic Fields



MISSION

Create quality educational opportunities for a diverse community of learners to thrive in an evolving world.

VISION

Possibilities realized:

Innovative and engaged learners enriching our local and global communities.

CORE THEMES

- Access
- Excellence
- Contribution to Community
- Equity, Diversity, and Inclusion
- Student Learning and Success

PIERCE COLLEGE DISTRICT'S 2016 INSTITUTIONAL EFFECTIVENESS SCORECARD

MISSION

Create quality educational opportunities for a diverse community of learners to thrive in an evolving world.

CORE THEMES	OBJECTIVES	OVERALL OBJECTIVE RATING	INDICATORS OF ACHIEVEMENT				
ACCESS	Learning Opportunities	Low Attention Area	Educational Goals	Business and Industry			
	Support Services	Low Attention Area	Student Feedback				
	Enrollment	Standards Met	Student and Service Area Demographics				
EXCELLENCE	Department and Program Outcomes	Standards Met	Non-Instructional Departments	Grade Distribution	Instructional Programs		
	Professional Development	Attention Area	Professional Development Plans	Employee Feedback			
	Institutional Viability	Standards Met	Fiscal Health	Planning	NWCCU		
CONTRIBUTION TO COMMUNITY	Partnerships	Low Attention Area	Educational Pathways	Contracts	Advisory Committees		
	Visibility	Standards Met	External Feedback				
	Economic Impact	Low Attention Area	Basic Skills Education Impact	Workforce Education	Transfer Education Impact		
POSITIVE AND DIVERSE COLLEGE ENVIRONMENT	Facilities and Safety	Standards Met	Buildings and Grounds	Classroom Technology	Campus Safety		
	Decision Making	Attention Area	Decision-Making				
	Climate and Commitment	Attention Area	Climate	Commitment	Employee Diversity		
STUDENT LEARNING AND SUCCESS	Retention and Persistence	Low Attention Area	Student Achievement Initiative	Retention and Persistence	Course Completion	Graduation Rates	
	Learning Outcomes	Low Attention Area	Student Feedback	Core Abilities	Outcomes for Academic Transfer/FAKS	Outcomes For Transitional Education	Outcomes for ABE and ESL
	Transfer and Work Readiness	Low Attention Area	Transfer Rates and Success	Professional/Technical Completers Employed			

Multiple metrics inform the indicators of achievement measuring Access, Excellence, Contribution to Community, Positive and Diverse College Environment, and Student Learning and Success.

MISSION FULFILLMENT RATING KEY:

Meets or exceeds standards	Area of attention	Immediate action needed

The Pierce College Board of Trustees' Policy on Mission Fulfillment establishes that mission is achieved by satisfying a minimum of 70% of the performance indicators across all of the core themes measures.



STRATEGIC PLAN

2017-2024



MISSION, VISION, AND VALUES

MISSION

Pierce College creates quality educational opportunities for a diverse community of learners to thrive in an evolving world.

VISION

Possibilities realized: Innovative and engaged learners enriching our local and global communities.

VALUES

- Learning
- Integrity
- Respect
- Accountability
- Sustainability



CORE THEMES AND OBJECTIVES

Access

The community Pierce College serves will have access to comprehensive educational offerings and support services.

1. Learning opportunities will align with students' educational and career goals, and will be consistent with workforce needs.
2. Students will have timely access to the support services they need to accomplish their educational and career goals.
3. We will engage with, and equitably serve, our diverse communities.

Excellence

Pierce College will assure quality and continuous improvement in all endeavors.

1. Departments and programs will meet or exceed their stated outcomes.
2. We will meet the requirements for accreditations, fiscal viability, compliance measures, and other elements necessary to sustain our work.
3. We will provide, and employees will engage in, learning and development opportunities that contribute to mission fulfillment.

Contribution to Community

Pierce College will be a recognized leader in building and sustaining academic, industry, and broad-based community partnerships to advance educational opportunities and align with economic development.

1. We will initiate, lead, and sustain mission-driven partnerships and collaborations within our community.
2. Our community will recognize Pierce College's value and impact.
3. We will foster economic equity and development within our community.

Equity, Diversity, and Inclusion

Pierce College will promote an equitable, diverse environment for teaching, learning, and working, with collaborative decision-making and mutual respect.

1. Our infrastructure will foster positive teaching, learning, and working opportunities.
2. Employees and students will be engaged in, and support, shared governance.
3. We will engage students, employees, and community members in ways that respect human dignity and lead to equitable, inclusive experiences.

Student Learning and Success

Students will experience quality, relevant learning that maximizes their potential for success.

1. Students will make timely progress toward their educational and career goals.
2. Students will achieve institutional and programmatic learning outcomes.
3. Students will be successful when they transfer for further education or move directly into the workforce.

Pierce College 2015-2020 Learning & Student Success Strategic Plan

Executive Summary

(Plan update scheduled Summer 2018)

Overview

The Pierce College Education Plan is a set of institutional goals and actions that have been identified in order to guide the educational direction of the institution both intentionally and strategically in its mission of **providing quality educational opportunities for a diverse community of learners to thrive in an evolving world**. At its core, the Plan exists to advance the educational goals of our community as students transition into, move through, and follow their pathway beyond Pierce College. The Plan includes **goals**, the specific **strategic actions** that support those goals, and the **measures** by which we can determine the effectiveness of each action. In addition, primary **accountabilities** and **timelines** are assigned to assure continuous progress, assessment, and refinement.

Development

The Education Plan has been realized through an iterative and collaborative process of data collection, information analysis, and concept application. Goals and strategic actions were developed under the umbrella of the institution's Core Themes: **Access, Contribution to Community, Excellence, Positive & Diverse College Environment, and Student Learning & Success**. Thus, the Plan maps back to the Institutional Effectiveness Report and Scorecard, thus linking the Plan directly to fulfillment of the institutional mission.

The plan represents the work and input of faculty, staff, and students over a two-year period, culminating in an intentional set of strategic actions that attempt to respond to the needs of current and future students, engaged and reflective faculty, and an expanding and diversifying community.

Goals

Four core goals have been identified within the Education Plan. These include:

- 1. Develop and Advance Program Pathways and Learning Strategies to Support Enrollment, Success, and Completion**
This goal serves multiple needs in moving the institution toward full realization of its mission, particularly around issues of student access and persistence. For instance, the ability of the institution to meet the enrollment target is multi-dimensional, requiring programmatic balance, effective outreach, diverse learning opportunities, and successful retention of students, and results in funding through which resources are allocated to support all other goals and initiatives of the college.
- 2. Increase Retention & Completion Rates and Eliminate Achievement Gaps by 2020 (Year Five)**
This goal focuses on foundational interventions to eliminate equity gaps in: **cohort retention** (fall-winter; fall-fall); **pre-college course completion**; **gateway course completion**; **college-level course completion**; and **certificate/degree completion**. Each of these areas has been identified as a *sub-goal* with both unique and complimentary/cross-goal strategic actions. Specific, compounding *targets* have been identified for each sub-goal over the five-year timeframe for this goal.
- 3. Increase College Readiness and Transition (Year Three)**
This goal focuses on student transition or re-entry to college by providing intentional support to assure appropriate placement, saving students time and financial resources, as well as increasing self-efficacy. Targets focus on high school prep, prep courses for the 25-34 age demographic, and growth in enrollment, retention, and transition in the new HS21/ESL model. Achievement gaps in four-year transfer are also addressed.

4. *Eliminate Racism and Advance Equity in the Learning Environment (Ongoing)*

While essential to full realization of Goal #2 above, this goal focuses specifically on core strategies to improve cultural competence, build understanding around impacts of language, actions, and policies, and build a supportive, safe, and reflective learning environment.

Implementation

The supporting documents for the Plan identify each of the strategic actions and details for each goal and action, including metrics, timelines, and accountabilities. Within each goal are three to six essential strategic actions that will be implemented and evaluated using both formative and summative assessments. Progress will be reviewed according to the individual timelines with a holistic report presented in January of 2018.

Primary responsibility for implementation of the Plan rests with the vice presidents of learning & student success, though it also requires engagement and support from all areas of the college, particularly faculty, deans, Institutional Research, the executive team, and the council governance structure.

Pierce College Learning & Student Success Strategic Plan 2015-2020: Core Goals & Strategic Actions

1. Advance Program Pathways and Learning Strategies to Support Enrollment, Success, and Completion

Strategic Actions

- Expand program access
 - Expand engineering program
 - Add robotics/3D printing/additive manufacturing programs
 - Add Makers Space component
 - Increase underrepresented populations in STEM
 - Pilot project in 2015-16
 - Apply for NSF Grant
 - Expand Online Degrees
 - Business DTA
 - Implement CBE degree
 - Business DTA implementation Winter 2016
 - Expand use and promotion of Open Educational Resources
 - Individual courses increase adoption to 50%
 - Expand adoption of Pierce Open Pathway (POP) to campus based faculty and students
 - Develop and implement Music DTA
 - Develop and implement BAS degrees as community needs arise
 - Dental Hygiene Summer 2016
 - HSEM statewide online Fall 2016
 - Early Childhood Education and K3 certification, Fall 2016
- Develop clear program pathways and support advisor and student use of pathways
 - Increase articulated pathways with targeted programs
 - Develop specific program pathways for military personnel
 - Work with countywide WIOA implementation to develop and implement short training programs that lead to pathways with age and skill progression
 - Expand and publish transfer degree articulation agreements
- Foster Global/Cultural Learning Opportunities
 - Expand opportunities for international students at Pierce
 - Build opportunities to “globalize the curriculum” by connecting domestic and international students in diverse learning opportunities
 - Expand opportunities for domestic students abroad
 - Establish international business partnership

- Working with MarCom, develop and implement marketing plan for each new and enhanced program, as well as targeted growth areas/programs
- Provide training in Joint Service Transcript (JST), American Council on Education (ACE), and Prior Learning Assessment (PLA) to faculty and staff
- Foster entrepreneurial spirit among faculty and staff
 - Garner external grants for new program development
 - Improve public-private partnerships
 - Grow international student and training opportunities

2. Eliminate Achievement Gaps by 2020 (Year Five)

Sub-Goal

Increase fall to winter cohort retention rates by 5%

From Fall to Winter 2014/15 = 85% to Fall to Winter 2019/20 = 90%

- Fall 2015 to Winter 2016 = 86%
- Fall 2016 to Winter 2017 = 87%
- Fall 2017 to Winter 2018 = 88%
- Fall 2018 to Winter 2019 = 89%
- Fall 2019 to Winter 2020 = 90%

Sub-Goal

Increase fall to fall cohort retention rates by 10%

From Fall 2013 to Fall 2014 = 59% to Fall 2019 to Fall 2020 = 69%

- Fall 2015 to Fall 2016 = 61%
- Fall 2016 to Fall 2017 = 63%
- Fall 2017 to Fall 2018 = 65%
- Fall 2018 to Fall 2019 = 67%
- Fall 2019 to Fall 2020 = 69%

Sub-Goal

Increase college-level course completion rates by 5%

From 2013/14 = 79% to 2019/20 to 84%

- Fall 2015 to Fall 2016 = 80%
- Fall 2016 to Fall 2017 = 81%
- Fall 2017 to Fall 2018 = 82%
- Fall 2018 to Fall 2019 = 83%
- Fall 2019 to Fall 2020 = 84%

Strategic Actions

- Require all new students who are seeking a certificate or degree to attend an NSO, w/ exceptions (reference policy for details)(completed)
- Require College 110 for all students in first or second quarter
- Encourage starting immediately and continuing without breaks until completion
- Implement Enrollment Pipeline Outreach & Engagement Plan

- Increase participation and completion of students in guided pathways
 - FCA support and guidance for AA GS students
 - Pilot navigator support model for 2015-2016
- Implementation of mandatory Early Alert System
- Invest in professional development around cultural competency that fosters an inclusive and affirming student experience
- Create additional student study spaces
- Strengthen advisor-student relationships
- Increase use of evidence/reflection/improvement at the individual level in Professional Growth & Development Plan (PDGP), Tenure process, and Post-Tenure Review (PTR)
- Increase use of evidence/reflection/improvement at department/program level through program assessment process
- Implement 2015-18 assessment plan
- Engage full and part-time faculty in professional development focused on student engagement
- Consistently use engagement/success strategies such as attendance, early alert, etc.
- Increase online course completion rates by 5%
From 2013/14 = 73.86% to 2019/20 = 82.86%
 - Develop online courses that meet Quality Matters (QM) standards,
 - Establish baseline and develop process in 2015-16
 - 20% percent reviewed annually 2016-2017 through 2020-2021
 - Consistent use of online engagement/success strategies such as regular video messages, response time, active learning, student phone calls, etc.,
 - Increase utilization of Canvas Analytics to identify key areas for student/faculty engagement
- Develop syllabi templates that model best practices and language
- Strengthen student connection to learning structures beyond the classroom – library, tutoring, Writing Center, computer labs, etc.

Sub-Goal

Increase course completion rates in pre-college English by 10%

From 2013/14 = 69% to 2019/20 = 79%

- Fall 2015 to Fall 2016 = 71%
- Fall 2016 to Fall 2017 = 73%
- Fall 2017 to Fall 2018 = 75%
- Fall 2018 to Fall 2019 = 77%
- Fall 2019 to Fall 2020 = 79%

Sub-Goal

Increase course completion rates in pre-college Mathematics by 10% From 2013/14 = 64% to 2019/20 = 74%

- Fall 2015 to Fall 2016 = 66%
- Fall 2016 to Fall 2017 = 68%
- Fall 2017 to Fall 2018 = 70%
- Fall 2018 to Fall 2019 = 72%
- Fall 2019 to Fall 2020 = 74%

Strategic Actions

- Complete alignment of basic skills math with dev ed math
- Fully implement developmental math labs (Aleks)
- Re-design and fully implement Math 096 curriculum
- Fully implement I-Trans
- Increase math tutoring
- Increase number of sections utilizing supplemental instruction

Sub-Goal

Increase three-year cohort graduation rates by 20%

From Fall 2011-Spring 2014 = 24.6% to Fall 2017-Spring 2020 = 44.6%

- Fall 2012 to Spring to 2015 = 25.6%
- Fall 2013 to Spring to 2016 = 27.6%
- Fall 2014 to Spring to 2017 = 30.6%
- Fall 2015 to Spring to 2018 = 34.6%
- Fall 2012 to Spring to 2016 = 39.6%

Strategic Actions

- Implement highly integrated data analytics and responsive advising networks to drive instruction and service innovations.
- Develop program pathways that are clear to all students/advisors in all programs/disciplines.
- Improve early alert and related intervention for students
- Develop auto-awarding of certificates and degrees
- Adjust programs to meet future demand
 - Encourage innovations in pedagogy such as increased hybrid/flipped classes, OER, service learning
 - Launch enhanced advising communication tools and a revamped degree audit linked to pathways
 - Develop and implement curriculum and student services that can be delivered on mobile devices

2. Increase College Readiness and Transition (Year Three)

Sub-Goal

- Increase transition to college-level by 10% from 12% in 2013/2014 to 22% in 2019-2020
- Increase transfer/enrollment in baccalaureate programs by 10%
 - American Honors
 - BAS Pathways, internal and external
- Increase enrollment in 25-34 age demographic by 10% from 2368 students in 2014 to 2605 students in fall 2020.

Strategic Actions

- Use multiple placement indicators to place students more effectively
 - Transcript Placement
 - Smarter Balanced
 - Exploration of placement exams
 - Prior Learning Assessment
- Provide coordinated outreach to high schools to assure accurate placement and support options for those placing below college level
- Implement pre-test support for students
- Train personnel to appropriately advise regarding placement
- Identify locations to promote pre-placement practice exams and tutorials.
- Implement new HS21 curriculum with support for ESL/ABE transition

4. Eliminate Racism and Advance Equity in the Learning Environment (Ongoing)

Strategic Actions

- In concert with the college-wide initiative, provide ongoing professional development around issues of race, equity, and cultural competence of faculty related to curriculum, classroom environment, and language
- Increase cultural competency and responsiveness of “front line” student services teams, instructional support, and other staff through integrated professional development
- Provide ongoing professional development for deans and administrative teams to aid in facilitating open and responsive dialogue
- Increase faculty diversity through intentional and supported recruitment, hiring, and retention practices

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**Appendix – Best Practices to Reduce Greenhouse Gas Emissions
Pierce College Puyallup
Science, Technology, Engineering, Mathematics (STEM) Building**

System / Best Practices	Included in Project?
Mechanical	
Solar water heating	
Above code HVAC system efficiency	Yes
Use natural gas instead of electricity for heating	Yes
Geothermal heat pump	
Post occupancy commissioning	Yes
Interconnectivity of room scheduling in 25Live and HVAC controls	Yes
Electrical	
Photovoltaic energy systems	
Time of day and occupancy programming of lighting	Yes
Efficient lighting	Yes
Envelope	
Minimize building surface area for necessary floor area	Yes
Roofing materials with high solar reflectance and reliability	Yes
Green roofs to absorb heat and act as insulators for ceilings	
Site	
Orient building for natural light and reduced heating and cooling loads	Yes
Trees and vegetation planted to directly shade building	Yes
Paving materials with high solar reflectance, enhanced water evaporation, or otherwise designed to remain cooler or require less lighting than conventional pavements	Yes
Increase transportation choices – drive, walk, bike, or public transit	Yes
Total number of these best practices included in project:	12



Pierce College District

Strategy for Reducing Greenhouse Gas Emissions

February 19, 2014

1. Background and Intent

The Pierce College District encompasses Pierce College Fort Steilacoom and Pierce College Puyallup and represents two of the thirty-four community and technical colleges in the State of Washington. Pierce District has developed preliminary estimates of the targets for greenhouse gas reductions required by legislation under the State Agency Climate Leadership Act. We understand that we are required to incrementally reduce emissions based on 2005 levels. We have experienced very significant capital expansion since 2005. In order to meet the 2005 baseline requirement, we would be required to achieve a 60% reduction from the reported 2009 emissions summary by 2020, 70% by 2035 and 80% by 2050. This is a far different scenario than the 15%, 36.5% and 57.5% reduction requirements referenced in the legislation.

We do not see that we can realistically achieve a 60% reduction level by 2020 and certainly not without significant expense. We propose to undertake a methodical approach to emissions reductions that can be realistically undertaken and that will result in measurably improved reduction levels over time.

Emissions reduction efforts will need to be a broad-based organizational undertaking. Strategies noted in this report are based on an extensive energy audit undertaken in 2013. We have been methodical in development of reduction strategies and have focused on strategies that appear to be reasonably achievable. In the event that specific strategies will not result in meaningful energy reduction outcomes, we will continue to refine them over the next several years.

We will not be able to engage in a full range of strategies without cost and, probably, substantial cost in many cases. We may well have to retrofit even relatively newer buildings over the next several years with improved technologies to include mechanical and mechanical controls systems. The probability that funds to support these strategies will be available, to any great degree, is uncertain.

Realistically, the strategies we should be developing would focus on means by which we can reduce long-term building operating costs whether that be through emissions reductions, technological improvements, improvements in maintenance and care, retrofitting of older building systems, use of longer lasting and more cost efficient components, improvements in design that contribute to better protected building envelopes and development of improved and more efficient business practices.

In summary, we are committed to implementing emissions reduction strategies in alignment with legislative intent to the greatest degree possible and to undertake efforts representing goals that we believe can most realistically be achieved.

1a. Sustainability Policy

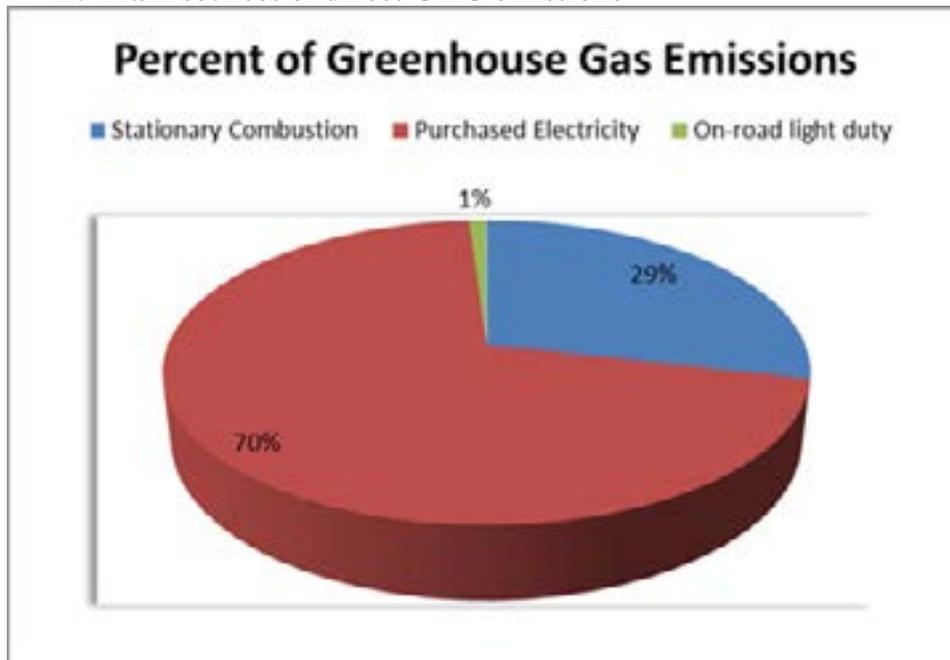
Pierce College has an established Sustainability Committee. The mission of this group is to provide leadership for the transition of the District into an environmentally sustainable college community by encouraging and coordinating sustainability initiatives, assisting with the development of the initiatives when needed and keeping the community informed about the district's progress towards sustainability. This committee will frame a district emphasis on sustainability to include but not be excluded to: existing curriculum; current institutional and student practices; new courses or programs; and the need to engage and communicate what is happening. Greenhouse gas reduction strategies that have been developed support the stated goals of the Sustainability Committee. This committee will play a strong role in communicating the value of reduction strategies to the college community and to help foster changes in culture and practice that will ensure the long-term success of these strategies.

2. Greenhouse Gas Emissions from District Operations

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

Year	Greenhouse Gas Emissions (metric tons carbon dioxide equivalent, MTCO₂e)
2005	4,474.40
2009 (or most recent year)	6103.60
2020 (projected)	6969.30
2035 (projected)	8085.70

B. Main sources of direct GHG emissions



C. Greenhouse Gas Reduction Targets

Year	GHG Reduction Target (MTCO₂e)
2020 (15% below 2005)	3,803.24
2035 (36% below 2005)	2,863.62
2050 (57.5% below 2005)	1,901.62

D. Level of GHG Reduction Needed to Meet Targets

Year	Amount of GHG Reduction Needed to meet Targets (MTCO₂e)
2020	3166.06
2035	5222.08

3. Overarching Strategies

The Pierce College District identified several broadly based strategies to help in reducing GHG emissions:

- Develop improved tracking methods and capabilities for monitoring GHG emissions.
- Conduct an investment grade energy audit.
- Establish a process for periodic measurement and verification of strategies implemented.
- Expand monitoring and controls systems for managing energy consumption.
- Develop an action plan that ensures strategies are viable over the long-term.
- Inform and engage the college community regarding reduction strategies and results.
- Work with District leadership in implementing sustainable organizational practices.
- Review and revise strategies, as necessary.

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

A. Strategies and Actions with Low to No Cost

Strategies and Actions	GHG Reduction Estimate Annual (MTCO_{2e})	Upfront Cost Estimate (\$)	Payback Period Estimate (Years)	Date to Implement Estimate
Building Energy Use				
Implement policies for lighting conservation. Program lighting based on ambient light conditions and space occupancy without jeopardizing public safety.	undetermined	undetermined	undetermined	2014
Set building temperature parameters to conserve energy and maintain reasonable comfort levels.	undetermined	undetermined	undetermined	2014
Set building control systems to minimize operation of mechanical systems during non-occupancy periods.	undetermined	undetermined	undetermined	2013
Consolidate activities into fewer buildings where possible, particularly during evenings and weekends	undetermined	undetermined	undetermined	2014
Conduct a public information campaign to support reduction of energy use	undetermined	undetermined	undetermined	2014
Fleet Energy Use				
TOTALS:			N/A	N/A

B. Strategies and Actions with Payback within 7-10 years.

Strategies and Actions	GHG Reduction Estimate (MTCO _{2e})	Upfront Cost Estimate (\$)	Payback Period Estimate (Years)	Date to Implement Estimate
Building Energy Use				
<u>District Wide Selected Buildings</u> - Controls Upgrade (Expansion): This measure will upgrade and expand the DDC energy management system for optimized HVAC control including: - Demand Controlled Ventilation using CO ₂ monitoring to regulate outside air in areas of sporadic occupancy - Occupancy sensing to setback and turn off HVAC equipment when the space is unoccupied - Incorporate Schedules for zones. - Convert all remaining pneumatic controls to DDC. - Full commissioning of HVAC systems to optimize performance.	1084.971	\$1,027,525	7.61	2013-14
<u>District Wide Remaining Buildings</u> - Controls Upgrade (Expansion): This measure will upgrade and expand the DDC energy management system for optimized HVAC control including: - Demand Controlled Ventilation using CO ₂ monitoring to regulate outside air in areas of sporadic occupancy - Occupancy sensing to setback and turn off HVAC equipment when the space is unoccupied	Undetermined	Undetermined	Undetermined	Undetermined
<u>District Wide Remaining Buildings</u> - Retro Commissioning: This measure will retro-commission the functioning mechanical systems by calibrating sensors, optimizing control sequences, confirming mechanical systems are optimized to meet the current needs and verifying that outside airflows meet current codes.	Undetermined	Undetermined	Undetermined	Undetermined

<u>District Wide</u> - PC power management: This measure will install PC power management software to turn off computers when not in use.	125.063	\$43,302	1.38	Undetermined
<u>Fort Steilacoom Campus</u> - Fixture Retrofit: This measure will install water conservation devices (.5 GPM aerators on lavs, 1.5 GPM aerators on remaining sinks, new 1.28 GPF water closets, new 1 pint urinals) to save water and energy for water heating. See plumbing spreadsheets for details.	17.841	\$66,807	2.78	undetermined
<u>Fort Steilacoom Olympic South Building</u> - Water Heater: use heat exchanger and hot supply water from boiler to heat domestic hot water. Use electric heating element as backup.	12.326	\$5,250	7.5	2014
<u>Fort Steilacoom Health Education Center</u> - Retro Commissioning: This measure will retro-commission the functioning mechanical systems by calibrating sensors, optimizing control sequences, confirming mechanical systems are optimized to meet the current needs and verifying that outside airflows meet current codes.	49.556	\$17,010	2.66	2014
<u>Puyallup Campus</u> - Fixture Retrofit: This measure will install water conservation devices (.5 GPM aerators on lavs, 1.5 GPM aerators on remaining sinks, new 1.28 GPF water closets, new 1 pint urinals) to save water and energy for water heating.	3.23	\$133,653	8.7	Undetermined
Fleet Energy Use				
TOTALS:	1,292.99	\$1,293,547.00		
			N/A	N/A

C. Strategies and Actions with High Cost and Payback of more than 12 years.

Strategies and Actions	GHG Reduction Estimate (MTCO_{2e})	Upfront Cost Estimate (\$)	Payback Period Estimate (Years)	Date to Implement Estimate
Building Energy Use				
<u>District Wide</u> - Submetering: This measure will install district wide (18 bldgs) sub metering for Gas, Electricity, and Water by building.	Undetermined	\$189,000	Undetermined	2014
<u>District Wide</u> - Lighting Retrofit (interior): This measure will retrofit or replace interior lighting. <ul style="list-style-type: none"> - Retrofit/replace incandescent and fluorescent exit signs with LED technology - Daylighting sensor(s) - Occupancy/Unoccupancy sensor(s) with programmed start ballast fixtures 	Undetermined	Undetermined	Undetermined	Undetermined
<u>Fort Steilacoom Campus</u> - Lighting Retrofit (exterior and parking): This measure will retrofit or replace exterior HID fixtures with LED This also includes adding 14 additional LED parking lot poles.	42.466	\$304,424	58.93	2013-14
<u>Fort Steilacoom Campus</u> – Remaining Exterior Lighting: Lighting Retrofit (exterior and parking): This measure will retrofit or replace exterior and parking HID lighting with LED per lighting spreadsheet. <ul style="list-style-type: none"> - Separate exterior lighting circuits with additional relays and within Metasys to allow customizable Scheduling. Convert to NEX Light controls. 	110.623	\$413,119	23.71	Undetermined
<u>Fort Steilacoom Health Education Center and Rainier Building</u> - Disaggregate radiant heating and fan coil heating. This will allow condensing boilers to operate at lower return water temperature and achieve higher efficiency for radiant floor heating.	4.044	\$15,750	32.35	2014
<u>Fort Steilacoom Olympic South Building</u> - Zone Dampers: Install zone isolation dampers on H-1, H-2, F-1.	Undetermined	Undetermined	Undetermined	2014
<u>Fort Steilacoom Health Education Center</u> - Add return air for gym tunnel. This will allow optimized morning warm-up, and allow night setback. Revise control sequencing.	Undetermined	Undetermined	Undetermined	Undetermined

<u>Fort Steilacoom Cascade and Rainier Buildings</u> - Boiler Sequencing: optimize boiler sequencing for energy efficiency	Undetermined	Undetermined	Undetermined	2014
<u>Fort Steilacoom Rainier Building</u> - Boiler to condensing model: This measure will replace the existing cast iron condensing boilers with new stainless steel high efficiency condensing models.	Undetermined	Undetermined	Undetermined	Undetermined
<u>Fort Steilacoom Cascade Building</u> - Boiler to condensing model: This measure will replace the existing boilers with new high efficiency condensing models. Includes boiler sequencing controls and hot water temperature reset.	69.601	\$519,000	49.76	2014
<u>Fort Steilacoom Cascade Building</u> - Bookstore Electric Heater to Heat Pumps: This measure will replace the existing unit with heat pump technology.	1.967	\$63,000	147.38	Undetermined
<u>Fort Steilacoom Olympic North Building</u> - Lab dedicated heat pump: install dedicated heat pump in lab to allow better HVAC system optimization.	Undetermined	Undetermined	Undetermined	Undetermined
<u>Fort Steilacoom Cascade Building</u> - Pump Centralization (Chilled Water): Replace multiple small pumps with one larger pump with variable speed control. Reconfigure chiller piping to allow one dedicated pump.	Undetermined	Undetermined	Undetermined	Undetermined
<u>Fort Steilacoom Olympic South Building</u> - Water heater to condensing model: This measure will replace the existing water heater with a new high efficiency condensing model.	Undetermined	Undetermined	Undetermined	Undetermined
<u>Fort Steilacoom Rainier Building</u> - Install ADA door openers to avoid the need to prop open doors all winter. This will improve air balancing.	Undetermined	\$18,375	Undetermined	2013-14
<u>Fort Steilacoom Olympic South Building</u> - Controls: replace H-1 and H-2 3-way valves with 2-way valves (F-unit). Install dedicated boiler pump for Olympic South.	3.847	\$8,400	24.35	2014
<u>Fort Steilacoom Rainier Building</u> - Water side economizing: This measure will install a heat exchanger in the mechanical room to allow waterside economizing when chiller operation is not required.	Undetermined	Undetermined	Undetermined	Undetermined
<u>Puyallup College Center Building</u> - Chiller - replace with heat pump chiller: This measure will replace the chiller with a new	Undetermined	Undetermined	Undetermined	Undetermined

heat pump chiller capable of providing heating and cooling.				
<u>Puyallup Library/Science Building</u> - Boiler to condensing model: This measure will replace the existing boilers with new high efficiency condensing models. Utilize condensing boiler for DHW via heat exchanger. Remove excess boiler circulation pumps.	23.805	\$286,650	85.46	Undetermined
<u>Puyallup Administration Building</u> - Water heater to condensing model: This measure will replace the existing water heater with a new high efficiency condensing model. Investigate on-demand DHW.	Undetermined	Undetermined	Undetermined	Undetermined
<u>Puyallup Library/Science Building</u> - Water heater to condensing model: This measure will replace the existing water heater with a new high efficiency condensing model or combined heat and power.	4.581	\$26,250	35.96	Undetermined
<u>Puyallup Arts & Allied Health Building</u> – Water side economizing. This measure will install a heat exchanger in the mechanical room to allow waterside economizing when chiller operation is not required.				
<u>Puyallup College Center Building</u> - Boiler to condensing model: This measure will replace the existing boilers with new high efficiency condensing models. Remove extra boiler circulation pumps.	4.327	\$135,000	229.03	Undetermined
Fleet Energy Use				
TOTALS:	265.26	\$1,978,968	N/A	N/A

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

The College has data on greenhouse gas emissions from employee commuting and business travel from 2009 and is still in the process of developing a stronger program for tracking these emissions. In compliance with Washington’s Commute Trip Reduction Law (RCW 70.94.521-551), Pierce College is committed to commute trip reduction, with a program to identify and establish commute alternatives and policies that will reduce single occupant vehicle use, and vehicle miles traveled to and from work.

Source of GHG Emissions	GHG Emissions, 2009 (or most recent year) (MTCO₂e)
Business Travel	110.7
Employee Commuting	3322.0

Strategies and Actions	GHG Reduction Estimate (MTCO₂e)	Upfront Cost Estimate (\$)	Payback Period Estimate (Years)	Date to Implement Estimate
Employee Business Travel				
In process				
Employee Commuting				
Continued support of Commute Trip Reduction program				2008
Development of bicycle shelters				2014-16
TOTALS:			N/A	N/A

6. Additional Sustainability Strategies and Actions (if applicable)

Strategies and Actions	Co-benefits for GHG Reduction	Implementation Date Estimate
<u>District Wide</u> - Hand Dryers: Convert world dryers and paper towel systems to Xlerator Air dryer with low decibel nozzle. This includes 75 new hand dryers.	Reduction in paper towel use	Undetermined
<u>District Wide</u> - Green Cleaning practices implemented at both campuses	Reduction in chemical use. Use of environmentally friendly products.	2010
<u>District Wide</u> - Recycling Compactors: compactor currently installed at Fort Steilacoom. Installation at Puyallup dependent on funding availability	Reduction in waste stream	2011 Fort Steilacoom. TDB Puyallup
<u>Fort Steilacoom Campus</u> - Irrigation Control System: This measure will commission or add an automated irrigation control system to optimize water usage.	Reduction in water use	Undetermined

7. Next Steps and Recommendations

Next Steps:

Pierce College will continue to develop and revise specific strategies, as necessary. This will include working with an energy services firm, in this case Ameresco, to implement energy conservation measures. We successfully applied for an energy grant through the Department of Commerce in 2013 and will look for further grant opportunities in the future. Additionally, we are incorporating, wherever possible, energy conservation measures into repair and minor improvement projects. This allows us to repair or replace older mechanical, lighting and controls systems with newer more energy efficient devices.

The college continues to promote commuter reduction strategies and collaborates with Pierce Transit to promote use of mass transit. This includes the use of incentives to include trips and prizes.

We have implemented a very detailed method of tracking consumption of resources. This enables us to monitor progress in energy reduction strategies and to more accurately forecast future projected operational and energy costs. This also supports the development of data for reporting to Portfolio Manager.

Recommendations:

Continued regional support for the use of mass transit such as the ORCA card program and for the SAFE-Ride program would further encourage commuter trip reduction.

Programs that would enable public transit to extend operational hours to support agencies such as ours that conduct extensive evening programs would encourage further use of alternative transportation means.

Provide financial or other incentives to local municipalities to plan for and implement strategies that promote safer bike friendly routes into and through their communities.

Greater financial incentives for agencies to provide infrastructure to support alternatively fueled vehicles such as electric charging stations.

Contact Information:

Jim Taylor
District Director of Facilities
(253) 964-6588
jtaylor@pierce.ctc.edu

Debby Aleckson
Budget Manager
(253) 964-6565
daleckson@pierce.ctc.edu

Commute Trip Reduction Program
Cheryl Batschi
(253) 964-6533
cbatschi@pierce.ctc.edu

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Attachment B – 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	100,000	2,000,000
Electrical Utility Pole	20	0	0
Electrical Transformer – pad mounted	5	25,000	125,000
Electrical Transformer – in vault	5	0	0
Electrical Generator – free standing	5	140,000	700,000
Potable Water – piping	25	20,000	500,000
Potable Water – meters	25	10,000	250,000
Sewer lines – concrete	50	0	0
Sewer lines – brick	90	0	0
Sewer lines – metal	40	0	0
Storm drains – plastic	25	200,000	5,000,000
Storm drains – cast iron	30	0	0
Storm drains – metal corrugated	30	0	0
Storm drains – concrete	40	0	0
Storm drains – ditch/trench	100	50,000	5,000,000
Telecommunication – fiber optic conductors	5	40,000	200,000
Telecommunication networks between buildings ²	7.5	30,000	225,000
Inter building communication infrastructure ³	25	25,000	625,000
Other ⁴		0	0
Subtotals		A = sum of Estimated Costs 640,000	B = sum of Cost Weighted Lives 14,625,000
Cost Weighted Average Useful Life			B / A 22.85

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.

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December 18, 2016

SBCTC Capital Scoring Committee
PO Box 42495
Olympia, WA 98504

Dear Scoring Committee:

Invista Performance Solutions is a partnership of the Pierce College District, Tacoma Community College, and Clover Park Technical College, whose mission is to provide customized learning and development programs to support the needs of Washington State organizations. On behalf of our organization, I'm writing to express our unreserved support of the Pierce College proposal for a new STEM building in Pierce County.

As a provider of technical corporate training programs for both job seekers and incumbent workers at corporations across our county, we can testify to the urgent need for additional resources to expand educational and employment pathways for incumbent workers and new employees.

In our close work with area tech businesses, we regularly hear about their need to upgrade the existing skills of their workforce and also fill the vacancies for trained workers when they expand. This new STEM building will provide the specialized technical resources for Invista and Pierce College to expand our educational programs to them, thereby strengthening this industry sector and the local economy.

In closing, we sincerely thank you for your support and consideration of their proposal.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Sosnowski", written in a cursive style.

Don Sosnowski
Executive Director, Invista Performance Solutions

December 18, 2016

SBCTC Capital Scoring Committee
PO Box 42495
Olympia, WA 98504

Dear Scoring Committee:

On behalf of WorkForce Central, which is the Workforce Development Board for Pierce County, I am writing to enthusiastically endorse Pierce College Puyallup's proposal for a new Science, Engineering, Technology and Math (STEM) building. Pierce College and Workforce Central have partnered for many years to serve unemployed, underemployed, dislocated workers, disengaged young adults and economically disadvantaged adults. We have worked closely together to provide workforce training programs, employment services and wrap around support that are much needed to prepare and position our local residents to fill available family wage jobs.

We continue to experience a skills gap that has contributed to our high unemployment rate and continues to hinder our local economic growth. This fact is supported by data collected from our business community leaders. A new STEM building will forward our effort by expanding capacity to address this skills gap and shortage of trained workers to fill the many STEM positions available in Pierce County. Thank you for your support and consideration.

Sincerely,



Linda Nguyen
CEO, WorkForce Central



Pierce County Skills Center

16117 Canyon Road East

Puyallup WA 98375

(253) 683-5950

(253) 683-5998

www.pcskllscenter.org

December 18, 2015

SBCTC Capital Scoring Committee
PO Box 42495
Olympia, WA 98504

Dear Scoring Committee:

On behalf of the Pierce County Skills Center and the Bethel School District please accept this letter of support for Pierce College Puyallup's proposal for a new Science, Engineering, Technology and Math (STEM) building.

Pierce College, the Pierce County Skills Center and the Bethel School District have partnered for many years to build strong programs of study and pathways for students. Our relationship has created opportunities beginning with exploratory STEM courses in middle and high schools and continuing with preparatory courses at PCSC. Students have a multitude of STEM opportunities throughout all pathways and are planning their coursework and post-secondary plans around careers that prepare students for high wage, high demand careers.

Our employment data indicates that we will continue to have a shortage of trained workers to fill the many STEM positions available in Pierce County; therefore, the continued collaboration between K-12 and post-secondary colleges is critical. This new building will help Pierce College expand its capacity to offer STEM programs, enabling many of our future workers to obtain the necessary training and skills needed to compete in this strong industry sector.

Pierce College is fully invested in our community, and has not only been a committed partner but also an advocate for developing strong STEM programs K-12. Members of their staff serve on several CTE advisory boards and have been instrumental in assisting us with program development and implementation. The new building will only bolster current efforts and enhance educational opportunities that prepare students for highly skilled careers in Pierce County.

Thank you for your time and consideration.

Sincerely,

Michelle Ledbetter
Director, Pierce County Skills Center



December 21, 2015

SBCTC Capital Scoring Committee
PO Box 42495
Olympia, WA 98504

Dear Scoring Committee:

As Superintendent of the Puyallup School District, I wanted to take just a minute to express my thanks for your consideration of the students and families of the Puyallup community.

I am writing this letter in support of Pierce College Puyallup's proposal for a new Science, Engineering, Technology and Math (STEM) building. The Puyallup School District partners with Pierce College through Running Start and Tech Prep, both of which can lead to associate degrees and two-year certificates. In a recent survey to community members, we found there was a strong interest in increasing the availability of STEM experiences/classes. Pierce College helps fill in those gaps. All of this leads to more STEM majors entering local universities and more work-ready graduates. The new STEM building will help Pierce College meet current and future community need.

The Puyallup School District and Pierce College have a long history in working in partnership to serve one of the fastest growing communities in the state of Washington. Our shared mission is to provide the education and the experiences necessary to support a vibrant and economically-diverse community.

Thank you again for your time and consideration.

Sincerely,

Dr. Timothy Yeomans
Superintendent



December 31, 2015

Community and Technical College Capital Budget Committee
State Board for Community and Technical College Education
P.O. Box 42495
Olympia, WA 98504-2495

Attention: Capital Budget Committee

This letter is intended to support the new STEM building for the Pierce College Puyallup as a part of the internal capital budget prioritization process for community colleges in the state of Washington. It is not intended to be used to support the overall legislative budgeting process for the state of Washington.

As the University of Washington Tacoma continues to add new STEM programs such as biomedical sciences and disciplines of engineering, programs that build the pipeline of students into these fields is extremely important. I understand that Pierce Puyallup's STEM classrooms are bursting at the seams and new space is required for expansion. UW Tacoma would benefit from that expansion, as would the economy of Pierce County and the state as more STEM graduates enter the workforce.

Pierce College and their sister colleges in our region send a large number of transfer students to UW Tacoma every year. Like UW Tacoma, Pierce Puyallup is experiencing rapid growth in demand for STEM degrees. In early 2016, we will begin the refurbishment of the last historical warehouse building that will expand labs and facilities for biomedical sciences and engineering. The Institute of Technology continues rapid growth in enrollments in computer science, software development, computer engineering and IT degree programs and currently graduates more than 250 students a year with bachelor's and master's degrees in these fields. Environmental Science is also one of our highly enrolled programs. To continue the growth in existing programs while adding new degrees in engineering and other STEM fields, we depend upon the pipeline of students interested in pursuing these STEM fields of study.

UW Tacoma is helping to build a college-going culture through our partnerships with the Puyallup School District and the Pierce College District, as well as with other districts and community and technical colleges in the region. We are also working to enhance the pathway from higher education directly into employment. Expanding access to high-quality STEM programs in Pierce County not only helps improve our local workforce, but helps feed the demand for employees in STEM-related fields across the state.

An expansion of Pierce Puyallup's capacity to offer STEM programs would be a welcome addition of state support for our joint efforts to increase educational attainment in our region, particularly in the STEM-related fields.

Sincerely,

Mark Pagano
Chancellor

Preliminary for 2019-21 Project Requests

CAPITAL ANALYSIS MODEL (CAM) GENERATED SPACE

From State Board Data Warehouse 8Dec17 unless noted otherwise on Facility Inventory tab

Warning: do not use before ~

COLLEGE: **Pierce Puyallup**
 TYPE: **Community College**

College breaks out assignable areas by CAM category for
 College verifies assignable area by CAM category on the

All FTE *	FALL 2016	FALL 2026	Growth	Percent	FTE/Year
Academic	2,373	2,555	182	8%	18
Vocational	516	556	40	8%	4
Basic Skills/Dev Ed	364	392	28	8%	3
TOTAL	3,253	3,503	250	8%	25

Type 1 FTE	FALL 2016	FALL 2026	Growth	Percent	FTE/Year
Academic	1,907	2,053	146	8%	15
Vocational	363	391	28	8%	3
Basic Skills/Dev Ed	240	259	19	8%	2
TOTAL	2,510	2,703	193	8%	19

Type 2 FTE	FALL 2016	FALL 2026	Growth	Percent	FTE/Year
Academic	1,907	2,053	146	8%	15
Vocational	363	391	28	8%	3
Basic Skills/Dev Ed	240	259	19	8%	2
TOTAL	2,510	2,703	193	8%	19

* 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

From State Board Data Warehouse 8Dec17 unless noted otherwise on Facility Inventory tab

Warning: do not use before ~

COLLEGE: **Pierce Puyallup**
 TYPE: **Community College**

College breaks out assignable areas by CAM category for
 College verifies assignable 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 AS % OF 2019-21 CAM ALLOWANCE
							SHORTAGE	OVERAGE	
GEN. CLASSROOM	A1	1	31,500		31,500	28,390	0	3,110	0%
BASIC SKILLS LABS (open)	A2	2	915		915	7,148	6,233	0	87%
SCIENCE LABS.	B1	1	8,658		8,658	19,504	10,846	0	56%
COMPUTER LABS. (open)	B2,B4,B5	2	13,493		13,493	19,709	6,216	0	32%
ART	C1	2	2,488		2,488	6,000	3,512	0	59%
MUSIC	C2	2	2,216		2,216	4,000	1,784	0	45%
DRAMA	C3	2	7,300		7,300	5,000	0	2,300	0%
Subtotal Instruction			66,570	0	66,570	89,750	28,591	5,410	32%
AUDITORIUM	C4	2	6,502		6,502	9,000	2,498	0	28%
LIBRARY/LRC	E1	2	16,871		16,871	36,671	19,800	0	54%
PHYS. EDUCATION	H3	2	9,299		9,299	28,530	19,231	0	67%
FACULTY OFFICE	F1	2	10,549		10,549	22,950	12,401	0	54%
Subtotal Instructional Support			43,221	0	43,221	97,151	53,930	0	56%
Total Instructional Space			109,791	0	109,791	186,901	82,520	5,410	44%
ADMIN./STU.SERV.	G1,G2	2	17,417		17,417	20,219	2,802	0	14%
STU.CTR.& RELATED	H1,H2	2	19,421		19,421	30,156	10,735	0	36%
C.STORES/MAINT.	I1	2	3,798		3,798	14,589	10,791	0	74%
CHILD CARE	H4	2	5,930		5,930	9,190	3,260	0	35%
Subtotal Student Service/Other			46,566	0	46,566	74,154	27,588	0	37%
TOTAL CAM SPACE			156,357	0	156,357	261,055	110,108	5,410	42%

TOTAL ASSIGNED
 CAM/TOT. ASSIGN.

195,060
80%

To: WACTC Capital Budget Committee

From: Pierce College District

Re: Authorization for submission of PRR requesting a project greater than 70,000 square feet

Date: October 5, 2017

L
SEP

The SBCTC Capital Budget Request process includes several maximum and minimum parameters for each of the types of projects requested in a Project Request Report. One of those parameters is that a district must seek approval from the WACTC Capital Budget Committee if the district wishes to submit a request for a project that includes more than 70,000 of gross square footage.

L
SEP

The chief reason for this regulation is to limit initial costs of a project to a reasonable amount so that the system-wide budget request can achieve certain budgetary limitations while still allowing the maximum number of projects within the overall SBCTC request. Pierce College has a unique opportunity to add a facility to the Pierce College Puyallup Campus that would be approximately 175,000 square feet, but whose overall project cost would be similar to a standard 70,000 square foot project. In short, the project would **cost approximately half** the per square foot cost of the typical STEM facility.

L
SEP

Pierce College is currently working on a 2019-21 project request that primarily focuses on STEM, Student Services, and Supplemental Instruction needs. Due to intense growth of the college, upcoming changes to the strategic and demographic program mix of the college, and changes to the overall end-to-end delivery model for STEM education, the College wishes to develop a PRR for a facility of greater than 70,000 gross square feet.

L
SEP

A major consideration for this request is that the College currently has the chance to develop a project in a pre-existing building directly adjacent to its campus. Due to the nature of site conditions on the existing campus, the

analysis of added parking sites, and the overall cost structure of construction on the campus, it is likely that the College would be able to develop a greater than 70,000 square foot project at a cost similar to current 70,000 square foot STEM projects. This is a very unique opportunity, made possible only by the fact that the building being targeted is already built up to modern codes and standards, and would bring with it additional parking and site amenities. The College would submit the project assuming that the system scoring would treat the reasonableness of cost the same as a 70,000 square foot project.

L
SEP

The City of Puyallup is amenable to working with the College and the current land owner to ensure that all possible avenues for zoning and code amendments are utilized and engaged to the best benefit of the City, the College, and the current Landowner. The College has attached a letter from the City of Puyallup that reiterates this support.

L
SEP

In conclusion, this is one of the few opportunities that arise for a "win-win" situation. The College can receive the additional space it needs to satisfy current and future growth, and it can be done at a reasonable cost that is not out of line with current approved STEM building projects so that it preserves the System-wide integrity of the SBCTC 2019-21 Capital Budget Request. Pierce College Puyallup hopes for your support in its request for authorization to submit a project larger than 70,000 square feet.

Wayne Doty

From: Murray, Eric <emurray@cascadia.edu>
Sent: Friday, November 20, 2015 1:32 PM
To: Wayne Doty
Cc: Warren Brown; jean.hernandez@email.edcc.edu; Cheryl Roberts; Terry Leas; CHalladay@pierce.ctc.edu; Steven VanAusdle
Subject: Pierce Exemption Request

Wayne,

Could you please pass this message onto the parties involved in Pierce's exemption request as well as the scoring committee? Thank you.

To whom it may concern:

The WACTC Capital Budget committee approved for Pierce Puyallup an exemption to the 70,000 GSF limit for proposals in the major project scoring criteria for 2017-19.

The exemption was based on the attached information provided by the college and committee deliberation at their October 1, 2015 meeting.

The college may submit a project affecting up to 175,000 GSF as requested.

The exemption was approved with the condition that 70,000 GSF would be used for the calculation of cost per square foot used in the Reasonableness of Cost criteria.

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My Project

Gross Square Footage

-	0% Renovation of Existing
66,500	100% New Space
-	0% Exterior Circulation Allowance (included in New Space above)
-	0% Demolished Area
66,500	100% Total Affected Area
66,500	100% Net Area Change = New - Demo - Circulation

Escalated Building Costs

-	0% Acquisition
4,092,635	11% Consultant Services
30,192,338	80% Construction Contracts
2,849,224	8% Equipment
130,804	0% Artwork
557,520	1% Other Costs
-	0% Project Management
37,822,521	100% Total Building Cost

Escalated Infrastructure Costs

-	0% Acquisition
226,405	1% Consultant Services
1,982,610	5% Construction Contracts
-	0% Equipment
8,582	0% Artwork
88,320	0% Other Costs
-	0% Project Management
2,305,917	6% Total Infrastructure Cost

Project Funding

40,128,438	100% State Appropriation
-	0% Financed - backed by State Appropriation
-	0% Local Funds - Cash
-	0% Financed - backed by Local Funds
40,128,438	100% Total Project Funding
-	0% Matching = Local / Appropriated
-	0% Variance = Cost - Funding

Project Weighting

-	0% Matching = 2* (Local / Appropriated) / Total Project Funding
3,821	6% Infrastructure = (Infrastructure / Total Project Cost) - Matching
-	0% Renovation
-	0% Replacement
62,678.68	94% New
66,500	100% Total

My Project

Fall 2016 Utilization - used in Overarching Criteria for all projects. See Appendix C.

Contact Hours	Work-stations	Fall 2016 Utilization
32,267.75	1,117	28.89
7,111.17	428	16.61
39,378.92	1,545	25.49

My Project

Future Utilization - use for projects with net **New Area**. See Appendix D.

State Board enrollment projections are available here -

<http://www.sbctc.edu/colleges-staff/programs-services/capital-budget/capital-budget-development.aspx>

2,510 Fall 2016 Type 1 FTE

2,703 Fall 2026 Type 1 FTE

193 Net New Type 1 FTE

512 This project net new Classroom workstations

69 This project net new Laboratory workstations

581 Net new workstations in project

Contact Hours	Work-stations	Future Utilization
34,979.99	1,629	21.47
7,476.69	497	15.04
42,456.68	2,126	19.97

Expected Cost Calculations

Construction Mid-point: 4/1/2022 **7/1/2021** End (SC) 1/1/2023
 Expected Cost Multiplier: 1.39 from Appendix B
 Project GSF: 66,500 S4 from Project Parameters

Facility Type	Expected Cost / GSF in 2008\$	Expected Cost / GSF	GSF by Type	Expected Cost	Point Thresholds	My Project
Classrooms	\$420	\$582	29,706	\$ 17,292,457		
Communications buildings	\$378	\$524	-	\$ -		
Science labs (teaching)	\$437	\$606	26,559	\$ 16,086,308		
Research facilities	\$623	\$863	-	\$ -		
Administrative buildings	\$309	\$428	7,294	\$ 3,123,831		
Day care facilities	\$283	\$392	-	\$ -		
CTC Libraries	\$361	\$500	2,941	\$ 1,471,518		
			66,500	\$ 37,974,113	100%	\$ 37,822,521
			-	\$ 42,151,266	111%	
				\$ 52,024,535	137%	
					<137%	

The following data is based on the December 2016 Global Insight forecast for state and local government spending and is to be used for adjusting the expected costs from July 1, 2008, to the mid-construction date for comparison to project estimates.

Mid-construction Date	Expected Cost Multiplier
7/1/2008	1.000
5/16/2016	1.184
8/15/2016	1.187
11/15/2016	1.195
2/14/2017	1.204
5/16/2017	1.214
8/15/2017	1.224
11/15/2017	1.233
2/14/2018	1.242
5/16/2018	1.251
8/15/2018	1.260
11/15/2018	1.269
2/14/2019	1.278
5/16/2019	1.287
8/15/2019	1.297
11/15/2019	1.306
2/15/2020	1.315
5/16/2020	1.324
8/15/2020	1.332
11/15/2020	1.341
2/14/2021	1.350
5/16/2021	1.359
8/15/2021	1.368
11/15/2021	1.377
2/14/2022	1.386
5/16/2022	1.395

Consolidated Score Sheet

Category	Criteria	Standard	Possible	Yes/No	Points
Overarching	Goals	Max 23			
		Effective use of existing facilities based on current utilization	9	variable	9
		Directly tied to facilities master plan	4	Yes	4
		Directly tied to objectives in strategic plan	4	Yes	4
		Includes partnerships with K-12, 4yrs, business, etc.	4	Yes	4
		Project includes at least 7 of the best practices identified to reduce gre	2	Yes	2
		Overarching Subtotal	23		out of 23 possible.
		Category Weighting	1.00		
		Category Weighted Subtotal	23.00		out of 23 possible.
		Project Weighting	1.00		
		Overarching Category Total	23.00		

Consolidated Score Sheet

Category	Criteria	Standard	Possible	Yes/No	Points
Matching	Student Benefits	Max 12			
		Increases program access	3		0
		Increases efficiency	3		0
		Improves service to students	3		0
		Simplifies space relationships	3		0
Matching	Need	Select One			
		Serves a critical need	20		0
		Enhances program delivery	10		0
		Improves space	3		0
		Not address	0		0
Matching	Cost	Calculated based on Project and Expected Costs			
		Total project cost is less than or equal to the expected cost per square foot for the facility type, escalated to the construction mid-point.	7	No	0
		Project cost is between 100% and 137% of expected cost.	3	No	0
		Project cost is more than 137% of expected cost.	0	No	0
Matching	Timeline	Select one based on the project schedule			
		All matching funds available at time proposal is submitted.	10		0
		All matching funds will be raised before construction is completed.	3		0
		Matching funds will continue to be raised after construction is completed.	0		0
Matching	Schedule	Select One			
		Project and funding milestones are clearly identified	10		0
		Project schedule w/o a funding schedule	3		0
		Schedule is uncertain or not evident	0		0
Matching	Feasibility	Max 18			
		Assessment of the likelihood of success and good local participation	18	variable	

Matching Category Subtotal	0	out of 77 possible.
Category Weighting	1.00	
Category Weighted Subtotal	0.00	out of 77 possible.
Project Weighting	0.00	
Matching Category Total	0.00	out of . possible.

Consolidated Score Sheet

Category	Criteria	Standard	Possible	Yes/No	Points
Infrastructure	Program Need	Infrastructure serves new building area constructed in this proposal. Or, serves 100% of the existing college.	20	Yes	20
		Serves 80% or more, and less than 100% of the existing college.	15		0
		Serves between 40% and 80% of college of the existing college.	10		0
		Serves 40% or less of the existing college.	0		0
Infrastructure	Reasonableness of Cost	Infrastructure costs less than 5% of the total project. Or, infrastructure cost divided by previous average annual costs is twenty, or less.	30	No	0
		Infrastructure costs 5%, or more, and less than 10% of the total project. Or, infrastructure cost divided by previous average annual costs is greater than twenty and less than fifty.	15	Yes	15
		Infrastructure costs 10%, or more, and less than 15% of the total project. Or, infrastructure cost divided by previous average annual costs is fifty, or more, and less than one hundred.	5		0
		Infrastructure costs 15% or more of the total project. Or, infrastructure cost divided by previous average annual costs is one hundred, or more.	0		0
Infrastructure	Risk Mitigation	Infrastructure serves new area building constructed in this proposal. Or, infrastructure age is at least 200% of the average life.	12	Yes	12
		Infrastructure is 100% to 200% of average life.	6		0
		Infrastructure is less than 100% of average life.	0		0
Infrastructure	Suitability for Long Term Financing	Average life of new infrastructure is more than 30 years.	15		0
		Average life of new infrastructure is more than 25 years and less than 30 years.	10		0
		Average life or new infrastructure is 20 through 25 years.	5	Yes	5
		Average life of new infrastructure is less than 20 years.	0		0

Infrastructure Category Subtotal

Infrastructure Category Subtotal	52	out of 77 possible.
Category Weighting	1.00	
Category Weighted Subtotal	52.00	out of 77 possible.
Project Weighting	0.06	
Infrastructure Category Total	2.99	out of 4.42 possible.

Consolidated Score Sheet

Category	Criteria	Standard	Possible	Yes/No	Points	
Renovation	Building Age	Calculated from My Project Renovation elements				
		Over 50	16	No	0	
		41 - 50	13	No	0	
		36 - 40	11	No	0	
		31 - 35	8	No	0	
		26 - 30	5	No	0	
		20 - 25	2	No	0	
< Less than 20 years	0	Yes	0			
Renovation	Building Condition	Calculated from My Project Renovation elements				
		Greater than 600	2	No	0	
		526 - 600	11	No	0	
		476 - 525	16	No	0	
		451 - 475	11	No	0	
		351 - 450	2	No	0	
		276 - 350	0	No	0	
0 - 275	-5	Yes	-5			
Renovation	Cost	Calculated based on Project and Expected Costs				
		Total project cost is less than or equal to the expected cost per square foot for the facility type, escalated to the construction mid-point.	10	Yes	10	
		Project cost is between 100% and 111% of expected cost.	8	No	0	
		Project cost is between 111% and 137% of expected cost.	2	No	0	
Project cost is more than 137% of expected cost.	0	No	0			
Renovation	Improvements	Max 13 based on facility programming				
			ASF		Percent of total ASF	
		Classroom, labs	-	13	0%	0.00
		Student Services	-	13	0%	0.00
		Library	-	13	0%	0.00
		Childcare	-	11	0%	0.00
		Faculty offices	-	8	0%	0.00
		Administration	-	5	0%	0.00
Maintenance/Central Stores/Student Center	-	2	0%	0.00		
Renovation	Issues Addressed	Max 8				
		Seismic issues (documentation by a Structural Engineer is required)	2		0	
		Life safety	2		0	
		ADA access (provide recent compliance review)	2		0	
Energy code issues	2		0			
Renovation	Building Life Extension	Select one based on facility design and intent				
		31 + years	8		0	
		26 - 30 years	5		0	
20 - 25 years	2		0			
Renovation	Fitness for Use	To what extent does the proposed renovation address the existing deficiencies and project objectives?	6	Variable		

Renovation Category Subtotal

Renovation Category Subtotal	5	out of 77 possible.
Category Weighting	1.00	
Category Weighted Subtotal	5.00	out of 77 possible.
Project Weighting	0.00	
Renovation Category Total	0.00	out of . possible.

Consolidated Score Sheet

Category	Criteria	Standard	Possible	Yes/No	Points	
Replacement	Building Age	Calculated from My Project Replacement elements				
		Over 50	14	No	0	
		41 - 50	12	No	0	
		36 - 40	9	No	0	
		31 - 35	7	No	0	
		26 - 30	5	No	0	
		20 - 25	2	No	0	
		< Less than 20 years	0	Yes	0	
Replacement	Building Condition	Calculated from My Project Replacement elements				
		681 - 730	14	No	0	
		601 - 680	12	No	0	
		526 - 600	9	No	0	
		476 - 525	7	No	0	
		451 - 475	5	No	0	
		351 - 450	2	No	0	
		276 - 350	0	No	0	
0 - 275	-5	Yes	-5			
Replacement	Cost	Calculated based on Project and Expected Costs				
		Total project cost is less than or equal to the expected cost per square foot for the facility type, escalated to the construction mid-point.	16	Yes	16	
		Project cost is between 100% and 111% of expected cost.	12	No	0	
		Project cost is between 111% and 137% of expected cost.	5	No	0	
		Project cost is more than 137% of expected cost.	0	No	0	
Replacement	Improvements	Max 12 based on facility programming				
			ASF		Percent of total ASF	
		Classroom, labs	-	12	0%	0.00
		Student Services	-	12	0%	0.00
		Library	-	12	0%	0.00
		Childcare	-	9	0%	0.00
		Faculty offices	-	7	0%	0.00
		Administration	-	5	0%	0.00
Maintenance/Central Stores/Student Center	-	2	0%	0.00		
Replacement	Issues	Max 14				
		Seismic (documentation required)	5		0	
		Life safety	5		0	
		ADA access	2		0	
		Energy code	2		0	
Replacement	Fitness for Use	Max 7				
	To what extent does the proposed renovation address the existing deficiencies and project objectives?	7	Variable			

Replacement Category Subtotal	Replacement Category Subtotal	11	out of 77 possible.
	Category Weighting	1.00	
	Category Weighted Subtotal	11.00	out of 77 possible.
	Project Weighting	0.00	
	Replacement Category Total	0.00	out of . possible.

Consolidated Score Sheet

Category	Criteria	Standard	Possible	Yes/No	Points	
New	Calculated based on Project data					
	Efficient use of space – future utilization					
		If either Lab utilization will be more than 17 or Class utilization will be more than 23	18	No	0	
		If Lab utilization will be at least 15 but less than 17 and Class utilization was at least 21 but less than 23	24	Yes	24	
		If Lab utilization was at least 12 but less than 15 and Class utilization was at least 19 but less than 21	12	No	0	
		If either Lab utilization will be less than 12 or Class utilization will be less than 19	0	No	0	
New	Improvements	Max 12 based on facility programming		Percent of total ASF		
		ASF				
		Classroom, labs	38,260	12	85%	10.15
		Student Services	-	12	0%	0.00
		Library	2,000	12	4%	0.53
		Childcare	-	9	0%	0.00
		Faculty offices	4,960	7	11%	0.77
		Administration	-	5	0%	0.00
		Maintenance/Central Stores/Student Center	-	2	0%	0.00
New	Planning	Max 24				
		Space improves program delivery and student support	10	Variable	10	
		Programs and student support space are identified by usage and square footage	5	Variable	5	
		Location of project is identified by site	2	Yes	2	
		Special initiatives beyond participation rates	2	Yes	2	
		Reasonable cost estimate and building efficiency	3	Yes	3	
		Expected building life - 50 years or greater	2	Yes	2	
New	Cost	Max 17				
		Total project cost is less than or equal to the expected cost per square foot for the facility type, escalated to the construction mid-point.	17	Yes	17	
		Project cost is between 100% and 111% of expected cost.	12	No	0	
		Project cost is between 111% and 137% of expected cost.	5	No	0	
		Project cost is more than 137% of expected cost.	0	No	0	

New Category Subtotal

New Category Subtotal	76	out of 77 possible.
Category Weighting	1.00	
Category Weighted Subtotal	76.45	out of 77 possible.
Project Weighting	0.94	
New Category Total	72.06	out of 72.58 possible.

Category Score Subtotal:	75.05
Overarching Score Subtotal:	23.00
Project Score:	98.05

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The Benaroya Company

South Hill Business & Technology Center– South Building



AVAILABLE - GREATER SEATTLE LOCATION

Strategically located south of Seattle and Sea-Tac Airport, the South Hill Business & Technology Center provides immediate availability of state-of-the-art Class “A” facilities and infrastructure for both business and technology users. Situated on secured 86 acres, the park-like campus includes three buildings and ample room for growth and expansion.



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LOCATION:

Greater Seattle Area
1015 39th Ave. SE, Puyallup, WA

PROPERTY FEATURES:

- 174,335 square feet available
- Floor layouts provide maximum flexibility and efficiency
- All suites designed to spec and new construction from shell
- Exceptional reliability and power, substation on site
- Multiple Fiber/Telecom providers
- Plentiful free parking (4/1000sf). Additional parking available if needed
- New energy efficient HVAC systems, new building entries and walkways, new lobbies with fireplaces
- Ability to expand to meet current or future needs
- Secure bike storage, shower rooms

The Benaroya Company

South Hill Business & Technology Center– South Building

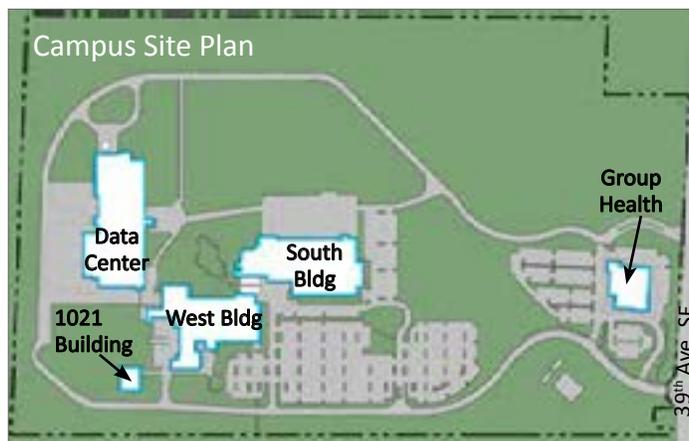


LOCATION:

Greater Seattle Area
1015 39th Ave. SE, Puyallup, WA

PROPERTY FEATURES:

- On site access to Pierce College, walking trails and Bradley Lake Park
- Abundant retail, education, recreation, and healthcare amenities nearby
- Easy arterial and freeway access, Sound Transit commuter train and Pierce County Transit system, easy access to Sea-Tac International Airport



Rendering of Proposed Light Well

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Enrollment and Facility Inventory Summary for Project Identification Exercise

COLLEGE	Fall 2016 and 2026 Enrollment			2016 Owned GSF			Net New GSF in Pipeline	(2016 GSF + Pipeline) / 2026 FTE
	2016	2026	Increase	Community	Technical	Total		
Bates	3,017	3,209	6%		695,936	695,936	5,141	218
Bellevue	11,291	12,034	7%	1,143,656		1,143,656		95
Bellingham	2,249	2,416	7%		342,332	342,332		142
Big Bend	2,050	2,379	16%	482,329		482,329	24,591	213
Cascadia	2,985	3,240	9%	165,506		165,506	66,100	71
Centralia	2,279	2,379	4%	337,798		337,798	23,568	152
Clark	7,918	8,468	7%	862,683		862,683	69,000	110
Clover Park	3,458	3,647	5%		659,982	659,982		181
Columbia Basin	5,476	6,554	20%	728,830		728,830	51,335	119
Edmonds	6,440	7,023	9%	675,537		675,537	69,910	106
Everett	6,531	7,120	9%	820,215		820,215	69,630	125
Grays Harbor	1,746	1,775	2%	366,983		366,983	34,905	226
Green River	8,041	8,572	7%	817,818		817,818		95
Highline	7,303	7,802	7%	551,173		551,173	7,029	72
Lake Washington	3,116	3,331	7%		491,794	491,794		148
Lower Columbia	2,898	2,937	1%	503,058		503,058		171
Olympic	5,273	5,522	5%	522,491		522,491	50,498	104
Peninsula	1,766	1,811	3%	296,186		296,186	1,485	164
Pierce Fort Steilacoom	4,661	4,929	6%	476,083		476,083	18,474	100
Pierce Puyallup	3,253	3,502	8%	243,356		243,356		69
Renton	3,671	3,903	6%		445,549	445,549	17,598	119
Seattle Central w/ SVI	6,374	6,785	6%	1,154,812		1,154,812	12,732	172
Seattle North	4,597	4,914	7%	655,288		655,288		133
Seattle South	5,150	5,492	7%	501,877		501,877	47,542	100
Shoreline	4,787	5,120	7%	547,344		547,344	4,982	108
Skagit Valley	3,982	4,250	7%	594,796		594,796		140
South Puget Sound	4,150	4,593	11%	592,917		592,917		129
Spokane	8,326	8,786	6%	1,139,309		1,139,309	6,969	130
Spokane Falls	4,805	4,981	4%	752,714		752,714	22,419	156
Tacoma	5,526	5,778	5%	561,721		561,721		97
Walla Walla	2,949	3,087	5%	604,337		604,337		196
Wenatchee Valley	3,263	3,470	6%	405,769		405,769	41,831	129
Whatcom	3,933	4,247	8%	325,676		325,676	64,747	92
Yakima Valley	4,235	4,646	10%	899,842		899,842		194
System	157,501	168,704	7%	17,730,104	2,635,593	20,365,697	710,486	125

System Averages		Community	Technical	Total
2016 GSF/FTE		125	170	129
(2016 GSF + Pipeline) / 2026 FTE		121	161	125

Enrollment includes all fund sources but exclude DOC and Community Service.

Enrollment projection by SBCTC is based on 2016 participation rates and OFM population projections.

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