

Capital Program Overview

The Campus Planning & Real Estate Office plans, develops and supports the capital planning process for the University of Washington Tacoma campus. Capital Planning is the process of integrating the mission and vision of the physical campus facilities and spaces for a campus that is safe, functional, and meets the needs of the campus and community. These processes are guided by the Campus Master and Strategic Plan that are both approved by the Chancellor and University.

As part of the planning process, the campus master plan has been developed and implemented as a guide accommodate for growth and future development. Both the master planning process and the plan itself reflect the commitment and careful consideration to develop a campus through collaboration and partnerships. These plans serve as the core foundation to creating facilities and spaces that build and enhance a quality learning environment for knowledge and discovery.

There are a variety of funding sources that are utilized when investing and reinvesting in capital projects, including both state and non-state resources. State resources are almost always directed toward academic (instruction and research) facilities, including infrastructure and utilities. Non-state resources (auxiliary services, gifts, sponsored funds, facility and administrative cost recovery, and interest income) often help support academic facility needs, but also assist with parking, auxiliaries, administrative, and supplemental academic facility needs. While capital projects can be proposed at any time, it is expected that a majority of facility needs will be identified during the biennial capital request when updates are made to the university-wide ten year capital plan.

To inform the capital program process, units across campus are invited to discuss and submit their short and long-range programmatic needs/goals. These discussions lead to identifying and discussing facility and space opportunities that may be evaluated for inclusion in the university's biennial capital budget submission. This process is initiated in the winter and spring quarters on even numbered fiscal years (ex. 2016 for the 2017-19 biennium). Once project plans are identified and fully developed, a university state capital request will be presented for the review and approval by the University Board of Regents. Once approved internally, requests are submitted to the Office of Financial Management for further consideration and funding. A visual overview diagram of the Capital Program Planning Timeline can be found in Appendix A.

Major Capital Planning

The [State Capital Budget Request](#) is developed each biennium to request State and University appropriated funding for capital projects. As a Washington State agency, the University is required to submit a plan of proposed capital spending for a ten year period, along with a prioritized list of capital projects requested for funding in the ensuing biennium.

Capital Projects are identified and developed to respond to campus enrollment and programmatic growth that is consistent with the Strategic Plan. These needs are identified, and prioritized then coordinated with available resources to ensure that the campus mission can be progressively met without interruption. That Master Planning document, as amended for revisions to campus program and growth strategies, forms the basis for Major Capital Planning on the Tacoma campus. For the purposes of this document, Major Capital Projects are defined as those projects that are A) funded specifically by the State Legislature as a direct appropriation or B) exceed a Total Project Cost of \$2 million dollars.

The [Capital Planning and Real Estate](#) office at the Tacoma campus has the responsibility of developing and executing the capital plan. The Ten Year Capital Plan organizes proposed capital needs, aggregate minor capital needs, and key planning initiatives in the current biennium and the next ten years. Projects are summarized in three categories (1) Major Capital Projects, (2) Minor Capital Repair – Preservation and (3) Minor Capital Repair – Program Renewal. The

Capital Budget Request is the result of several physical planning efforts carefully integrated with the key strategies to meet the great challenges of the future. The process is mission-driven, requires an objective search for needs that support key strategies, focuses heavily on efficient utilization of existing resources, and proposes accelerated care for those facilities and infrastructures in need of the most attention. The projects identified in the University of Washington Biennial State Capital Budget Request, and in the 10 Year Capital Plan, are necessary to sustain the mission of the University of Washington Tacoma campus.

Each major capital project request should be made exclusively within one of these seven categories. The project categories are based on the following [Office of Financial Management](#) definitions.

Predesign Request. Projects that define the scope of a discrete set of problems and needs, and that identify and assess the relative value of alternative capital budget solutions likely to cost \$10 million or more to implement, should be requested in the Predesign category.

Growth. Projects whose primary purpose is to accommodate enrollment growth increases should be requested in this category. Growth projects should provide significant additional student capacity. Proposed projects must demonstrate that they are based on solid enrollment demand projections; provide enrollment access more cost-effectively than alternatives, and make cost-effective use of existing and proposed new space. Land acquisition associated with a specific growth request should be included as an element of the project request in this category.

Renovation. Projects that renovate facilities to restore building life and upgrade space to meet current program requirements should be requested in this category. Renovation projects should represent a complete renovation of a total facility or an isolated wing of a facility. A reasonable renovation project should cost between 60 to 80 percent of current replacement value and restore the renovated area to at least 25 years of useful life. New space may be programmed for the same or a different use than the space being renovated, and may include additions to improve access and enhance the relationship of program or support space.

Replacement. Facilities that cannot be economically renovated are considered replacement projects. New space may be programmed for the same or a different use than the space being replaced, and may include additions to improve access and enhance the relationship of program or support space.

Research. Projects whose primary purpose is to promote research should be proposed in this category, even if the project involves renovation or replacement of an existing facility. The acquisition and installation of specialized equipment is also authorized under this category.

Infrastructure. This category is intended for major stand-alone campus infrastructure projects that exceed the minor works threshold limit of \$2 million. These projects may be inside or outside of a building. Examples of infrastructure projects include the replacement of an electrical system, a steam tunnel or a renovation project that does not extend the useful life of the area by 25 years. These projects generally would be funded for predesign through construction in one biennium.

Acquisition. This category is intended for the acquisition or clean-up of land for which no specific facility project is being proposed at this time. This category also includes acquisition of facilities and/or land with built improvements. Land acquisition needed for a specific facility should be included in the category most closely associated with the facility.

Minor Capital Planning

Minor capital repair projects are for the preservation and improvement of facilities, infrastructure and campus spaces. Projects generally will address the following broad areas:

Minor Capital Repair – Preservation

- 1) Building Repair and Renewal,
- 2) Mechanical and Electrical Systems,
- 3) Utilities and Site Work,
- 4) Roads and Pathways
- 5) Fire and Life Safety Improvements,
- 6) Data and Communications Infrastructure
- 7) Classroom Improvements

Minor Capital Repair – Program Renewal

- 1) Office Improvements,
- 2) Campus Space Expansion,
- 3) Energy Conservation Measures,
- 4) Sustainability Improvements,
- 5) Utility Improvements,
- 6) Reconfigurations - Facilities and Spaces,
- 7) Major Equipment Replacement

Minor Capital Repair – Preservation work generally fall within Facilities Services which is responsible for general maintenance, and repair for all campus facilities including building interiors, exteriors, and grounds. Preservation projects aim to preserve and extend the life of existing campus facilities and their supporting infrastructure systems. Projects estimated cost are generally between \$25,000 and \$500,000, but may go up to \$2 million and are prioritized as the most urgent of the University’s minor capital needs.

Minor Capital Repair – Program Renewal work serves as the catalyst toward the campus growth projects which develop effective utilization of space by repurposing existing spaces and minor facility renovations to meet the needs of increasing enrollment and programs. Projects do not have cost limitations, but are requested to align with the mission to “educate a diverse student body to become responsible global citizens and future leaders through a challenging learning environment informed by cutting-edge scholarship.”

As described above, on a biennial basis, campus units may identify and present their overall facility and infrastructure project requests, including minor capital project work needs for academic, research, and instructional facilities and spaces. These submissions are intended to inform the Capital Program planning process for new construction, but they will also be used to develop a plan for facility reinvestment including capital improvements in existing facilities. It will be the responsibility of the Office of Capital Planning and Real Estate and Facilities Services to evaluate all minor capital needs submitted by the campus along with the develop of the overall campus capital program.

Any minor capital plans should address project needs by taking into account potential risks, overall conditions of facilities, life safety issues, code changes, strategic priorities, and short/long-range campus needs. All individual project requests should be prepared with the [UW Tacoma Project Plan form](#) and submitted for review and approval to the Capital Budget and Planning Manager for Campus Planning and Real Estate. Projects identified with a project cost exceeding \$90,000 will require additional Capital Projects Office review and approval. Depending on the project scope, additional project related materials may be expected.

Project Forms and Processes

Project Request

The following steps are required to initiate both a minor and major capital projects. A visual overview of the Capital Project Delivery Flow process can be found on the [Campus Planning and Real Estate](#) website.

1. The project sponsor identifies a facility or space request (e.g., new academic space, renovation, site feature, etc.) and works with its internal constituencies (faculty, Director, department head, Dean, Vice Chancellor) to develop the project description and goals. A *Project Plan Request Form* may be filled out and submitted for review to the Capital Budget and Planning Manager in [Campus Planning and Real Estate](#). The campus Space Manager (minor works projects) or Director for Planning and Sustainability (major works projects) may work with the requesting area to further formulate and clarify the objectives and goals for the project plan. The *Project Plan Request Form* will be evaluated on its potential to improve the function, performance, and utilization of space to support teaching, research and learning outcomes. This may include the creation of flexible, shared, and/or collaborative spaces that promote interdisciplinary activities and more efficient use of space.

Project Plan Request Form Core Elements:

- Project Manager – person responsible for complete management of the project
 - Project Owner – person who will be responsible for project after completion
 - Project Sponsor – person who provides the funding or authorization in support of the project
 - Description of needs/requirements
 - Anticipated timeline
 - Relationship to the campus mission and vision
 - Project cost and source of funds/budget number (if applicable/available)
2. The design elements for projects are led and developed by Campus Planning and Real Estate or the Office of the University Architect. Depending on the project and scope, design elements may include;
 - i. Preliminary Design: conditions, requirements, cost, risk, value, etc.
 - ii. Design Development Submission: code, life-cycle, cost, risk, value, etc.
 - iii. Construction Documents: detail plan and specification, final review, etc.
 3. Proposed Project Plans under \$90,000 and performed by campus staffing may be reviewed by Facilities Services to ensure the schedules and proper personnel and time can be devoted to project requests. A review or estimate of the work designed may also be provided by Facilities Services. The level of service can be tailored to meet specific project needs and budgets. Depending on the project services required, there are many different types of estimating services at various phases to meet project and client needs. All budget estimates using minor capital allocated resources are reviewed and approved by Campus Planning and Real Estate.

Concept/Development – Project Identified/Approved

1. Campus Planning and Real Estate will conduct a preliminary review of the request to determine if the request includes all required project elements; scope, schedule, estimate, project cost, and funding plan. Additional consideration will be provided to ensure consistency with the campus master plan and campus strategic plan, and project sustainability. Upon review and approval, a submission will be advanced as an identified potential



project. Depending on the project scope, identified projects may be forwarded to the Vice Chancellor for Finance and Administration for additional review and consideration.

- a. If private gifts are part of the funding plan for a capital project, the fund raising plan must be reviewed and approved by the [Office of Advancement](#). The Vice Chancellor for Advancement will provide a feasibility evaluation toward raising the targeted funds desired if they are not already secured. For projects to be funded with self-supporting revenues, a business plan may be required and submitted to the Vice Chancellor for Finance and Administration for review and approval.
 - b. If debt services is requested or an internal loan is required as part of the projects funding plan, the Vice Chancellor will work with the University [Treasury Services Office](#) to determine the most appropriate steps moving forward.
2. After project development is complete and approved as a viable project for prioritization, each request will be included in the 10 year campus plan for biennial construction and funding. Projects approved may be considered for inclusion in either the immediate biennial capital request, mid- or long-term timeframe execution. All immediate biennium capital projects identified are routed to Seattle for consideration on the University's Capital Project request list. The Seattle campus and the Board of Regents review and prioritize the University capital projects to determine which items will be added to the state biennial capital request.

Biennial Project Deployment/Execution

1. At this stage, final academic/architectural program elements are finalized and completed. Design development detailing room size, relationship to other spaces, specific features and the necessary infrastructure within each room including utilities, landscape, and demolition, etc. will be analyzed.
2. Each project is assigned a Project Manager (PM) who will be a member of the project committee and the primary contact for the duration of the project. PM's are responsible for;
 - i. Project team
 - ii. Project plan and phase understanding/execution
 - Identification
 - Concept
 - Design
 - Hand-off
 - Funding/submittal - procurement plan
 - Project execution
 - iii. Project communication/marketing
 - Change Orders
 - Project/Budget updates
 - Proper coordination
 - Impact to students, faculty, staff, community and businesses
 - Accessibility acknowledgements
 - iv. Project closeout
 - Final punch list
 - Client feedback
 - Financial close-out
 - Contractor feedback

- Project debrief – lesson learned summary
3. Project Managers may prepare a [Project Task Matrix & Checklist form](#) for minor or major projects depending on the size and scope of the project.
 4. Project Managers are responsible for ensuring a Cost Management Plan is in place. All projects that have a total project cost budget fluctuation of +/- 10% or more require an updated project plan (scope) and additional sponsor and owner signature for approval of proposed changes.
 - a. Cost Management Plans should incorporate the following:
 - i. **Estimate Specifications**
 1. Total Project Costs > \$50,000 require itemized budget
 2. Estimating Type - Analogous, Parametric or Three-point (PERT)
 - ii. **Specification of Accuracy Range in Estimates**
 1. Rough Order of Magnitude = +/- 50%
 2. Budget Estimate = +/- 10% to 15%
 3. Definitive Estimate = +/- 10%
 - iii. **Cost Performance Measures**
 1. Baseline for Monitoring and Controlling
 - a. Planned Costs
 - b. Actual Costs
 - c. Earned Value
 - iv. **Lifecycle Costing**
 1. Lifecycle Costs = Project Costs + Maintenance and Operations Costs
 2. Consideration for Replacement Cost
 - v. **Value Analysis/Engineering**
 1. How to decrease costs while providing approved scope
 2. How to get the lowest costs without loss of performance

Benefits of seeking a detailed estimate;

- Access to university contract prices
- Market trend monitoring for more accurate information
- Specialized knowledge of educational facility and space standards
- Navigation of the intricate University processes
- Consistency in preparation and estimate format
- Collaboration with project management/controls personnel

Project Closeout

Snapshot of Key Tasks

- Complete all punch-list items
- Complete all end-user training
- Obtain closeout documentation
- Complete evaluations of all selected vendors, including design consultants, contracts, and suppliers.
- Coordinate and hold a 10-month warranty walkthrough with key team-members.

The goal for all capital construction projects at the University of Washington-Tacoma is to complete all contractual, financial, administrative close-out within sixty (60) days from Final Completion.

Once final completion is achieved, the following will be completed within sixty (60) days:

1. Final Release of Liens

All final releases, of any form required on the project, will be received from contractors and vendors involved with the project.

2. Operations and Maintenance Manuals, As-Builts, Warranties

All Operations and Maintenance Manuals, As-Built documents (including any BIM models), and Warranties will be received and approved after processing as a formal submittal.

3. End-user Training

All contractors and vendors will provide the specified training for all equipment and systems in the format required by the contract documents. Project Managers are responsible to ensure approval from the end-user that training has been sufficiently completed.

4. Record Retention

All project files, design documents, operation and maintenance manuals, as-built documentation, and warranties have been stored and retained electronically in the proper areas.

5. 10-Month Walkthrough

As part of the Closeout process, but not required within the sixty (60) day window, the Project Manager and team will schedule, coordinate and document a 10-month Walkthrough with the planning team and Facilities Services to review the performance and integrity of the completed project and identify concerns and warranty issues that have developed. Attendees at this walkthrough will include:

- Planning and Facilities Project/Construction Manager
- The Client or Key Stakeholder(s)
- External Project Team/Capital Projects Office

Facilities Services Project and Construction Project Managers will be responsible to ensure all corrective work is completed by the responsible entity within one month of the formal notification issued.

6. Project Assessment

Project Managers are responsible for completing a project performance review as part of the closeout process. The following may be included as a distributed assessment:

- Lessons Learned
- Project Performance
- Schedule Review
- Scope Reflection
- Consideration for Enterprise or Organizational Factors
- Cost and Schedule Variance Analysis

