

# Major Capital Projects Development Process

## (Projects < \$5 Million)



PROCESS STEP	DESCRIPTION	ACTION/CONSULTATION
<b>PRELIMINARY PLANNING / NEEDS IDENTIFICATION</b>	<ul style="list-style-type: none"> <li>Needs identification</li> <li>Options assessment</li> <li>Estimate of magnitude of building or renovation</li> <li>Set approximate timelines</li> <li>Identify preliminary academic, provincial and campus contextual issues.</li> <li>Early potential funding discussions to establish viability of vision.</li> </ul>	<ul style="list-style-type: none"> <li>Project Client</li> <li>Provost's/Sponsoring VP's Office</li> <li>Infrastructure Development</li> <li>UBCO: Okanagan Leadership Council</li> </ul>
<b>SPACE ALLOCATION + PROJECT COMPLIANCE</b>	<ul style="list-style-type: none"> <li>Review current and proposed space inventory allocation versus BC University Space Standards.</li> <li>Confirm project alignment with UBC Strategic Plan, Academic Plan, Campus Plan, Capital Priorities and Provincial Priorities.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>Provost's Office</li> <li>C&amp;CP/CP*</li> </ul>
<b>EXECUTIVE 1 APPROVAL</b>	<b>Concept and rationale.</b>	<b>Presented by Project Initiator and Infrastructure Development</b>
<b>CAMPUS INPUT</b>	<ul style="list-style-type: none"> <li>Consultation to develop project parameters and impacts, funding, etc. with C&amp;CP/CP*, Treasury, UBC Properties Trust or Project Services (Infrastructure Development), BO &amp; EWS/CORM** and other campus constituent groups as required.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>Project Client</li> </ul>
<b>SITE ASSESSMENT</b>	<ul style="list-style-type: none"> <li>Site review and recommendation by New Building Site Selection Committee, as per Campus Plan requirements.</li> <li>Review to include land use, utilities, transportation, sustainability, environmental assessment and neighbour impact.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>C&amp;CP/CP</li> <li>New Building Site Selection Committee</li> </ul>
<b>SUSTAINABILITY OPPORTUNITIES</b>	<ul style="list-style-type: none"> <li>Identify project sustainability objectives and opportunities, including Living Lab opportunities. Undertaken with representatives from C&amp;CP/CP (Sustainability), Building Operations/CORM, Infrastructure Development, VP Research &amp; Innovation, UBCPT.</li> </ul>	<ul style="list-style-type: none"> <li>C&amp;CP/CP</li> <li>Infrastructure Development</li> </ul>
<b>MASTER PROGRAM</b>	<ul style="list-style-type: none"> <li>Assign UBC Facilities Planning planner and, when required, retain external planning/programming consultant with UBC Facilities Planning oversight.</li> <li>Prepare master program in consultation with Project Client</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>Project Client</li> </ul>
<b>INITIAL COST ESTIMATE</b>	<ul style="list-style-type: none"> <li>ID will assign UBCPT or Project Services (ID) to prepare initial capital cost estimate based on master program.</li> <li>Adjust program as required to address budget constraints in consultation with project client.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>UBCPT / Project Services (ID)</li> </ul>
<b>FUNDING &amp; FINANCING ASSESSMENT</b>	<ul style="list-style-type: none"> <li>Consult with a high level strategic team to begin development of a viable funding and financing plan. This process is being formalized but may include representatives from the Provost's Office, Infrastructure Development, External Relations, Development and Treasury. The Cttee will remain involved as the project evolves to confirm funding viability.</li> </ul>	<ul style="list-style-type: none"> <li>Project Client</li> <li>Provost's Office</li> <li>Infrastructure Development</li> </ul>
<b>EXECUTIVE 2 APPROVAL</b>	<b>Site, master program, initial cost estimate, funding sources, financing requirements, planned schedule, space allocation.</b>	<b>Presented by Project Initiator and Infrastructure Development</b>
<b>CAMPUS INPUT</b>	<ul style="list-style-type: none"> <li>Present project to Property &amp; Planning Advisory Committee (PPAC) and Senate Academic Building Needs Committee (SABNC) to obtain input and support.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>Project Client</li> </ul>

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<b>FUNCTIONAL PROGRAM</b>	<ul style="list-style-type: none"> <li>Retain external consultant to prepare functional program with oversight from UBC Facilities Planning.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>Project Client</li> </ul>
<b>URBAN DESIGN CONTEXT + SITE SERVICING PLAN</b>	<ul style="list-style-type: none"> <li>Consult with C&amp;CP/CP to review public realm integration.</li> <li>Consult with C&amp;CP/CP, Building Operations (Utilities), Energy &amp; Water Services (EWS), CORM and UBCPT to prepare concept utilities servicing plan.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>C&amp;CP/CP</li> <li>New Building Site Selection Committee</li> </ul>
<b>BUDGET &amp; SCHEDULE</b>	<ul style="list-style-type: none"> <li>Preliminary capital budget and project schedule prepared by UBCPT or Project Services (ID), based on functional program.</li> <li>Consult with Building Operations on life-cycle operating and capital renewal costs.</li> </ul>	<ul style="list-style-type: none"> <li>UBCPT / Project Services (ID)</li> <li>Infrastructure Development</li> </ul>
<b>FUNDING &amp; FINANCING PLAN</b>	<ul style="list-style-type: none"> <li>Continued engagement with funding strategy committee to confirm funding viability, including confirmation of known funding sources.</li> <li>Prepare fundraising assessment.</li> <li>Confirm financing terms and availability if required.</li> </ul>	<ul style="list-style-type: none"> <li>Project Client</li> <li>Development Office</li> <li>Treasury</li> <li>Infrastructure Development</li> </ul>
<b>INITIAL RISK ASSESSMENT</b>	<ul style="list-style-type: none"> <li>Identify potential project risks with input from UBCPT (or Project Services for renewal/reno projects)</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>UBCPT / Project Services (ID)</li> </ul>
<b>EXECUTIVE 3 APPROVAL</b>	<b>Functional program, urban design context, preliminary capital and operating budgets, funding sources, financing requirements, preliminary schedule.</b>	<b>Presented by Project Initiator and Infrastructure Development</b>
<b>ASSIGN PROJECT MANAGER</b>	<ul style="list-style-type: none"> <li>Assign project manager: Typically UBCPT for new building projects and UBC Project Services for renewal/reno projects but there are exceptions.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>Project Client</li> </ul>
<b>DESIGN BRIEF</b>	<ul style="list-style-type: none"> <li>Prepare Project Design Brief which will inform the Architect Selection process. Process is led by C&amp;CP/CP, with input from Infrastructure Development, the project client, Building Operations, EWS, CORM and other project stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>C&amp;CP/CP</li> <li>Infrastructure Development</li> </ul>
<b>OWNER'S PROJECT REQUIREMENTS</b>	<ul style="list-style-type: none"> <li>Initiate development of the Owners Project Requirements document in conjunction with the Design Brief and with input from C&amp;CP/CP, Building Operations, EWS, CORM and other project stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>UBCPT/Project Services (ID)</li> </ul>
<b>RISK REGISTER</b>	<ul style="list-style-type: none"> <li>Prepare project risk register with input from Project Steering Committee.</li> <li>Update at the appropriate times to include input from design and construction teams.</li> </ul>	<ul style="list-style-type: none"> <li>UBCPT / Project Services (ID)</li> <li>Infrastructure Development</li> </ul>
<b>ARCHITECT SELECTION</b>	<ul style="list-style-type: none"> <li>Initiate architect selection process in accordance with UBC Policy FM11 Capital Projects, Capital Purchases and Internal Loans.</li> <li>Award of consultant contract may proceed following Board 1 approval.</li> </ul>	<ul style="list-style-type: none"> <li>UBCPT / Project Services (ID)</li> <li>Infrastructure Development</li> <li>UBC Architect (C&amp;CP)</li> <li>Project Client</li> </ul>
<b>PROJECT STEERING COMMITTEE</b>	<ul style="list-style-type: none"> <li>Formation of Project Steering Committee composed of senior reps from key project stakeholders e.g. Project Client, Provost's Office or applicable VP's Office, C&amp;CP/CP, Treasury. Cttee makes decisions as required on issues affecting scope, budget, schedule, funding &amp; financing that are brought forward by the project manager.</li> <li>Infrastructure Development chairs this Committee. Project Manager prepares monthly project status report.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> <li>UBCPT / Project Services (ID)</li> </ul>

PROCESS STEP	DESCRIPTION	ACTION/CONSULTATION
<b>PROJECT WORKING COMMITTEE</b>	<ul style="list-style-type: none"> <li>Formation of a Project Working Committee composed of reps of the key groups involved in the design, construction and operation of the development, e.g. multiple Project Client reps, Facilities Planning, Learning Space Planner, Building Operations, EWS, UBCIT/AV, CORM, C&amp;CP/CP, and others as required. This Committee guides design of the project.</li> <li>The Project Manager chairs this Committee which is also attended by the architect and other consultants as required.</li> </ul>	<ul style="list-style-type: none"> <li>UBCPT / Project Services (ID)</li> <li>Project Client Representatives</li> <li>Infrastructure Development</li> </ul>
<b>BOARD 1 APPROVAL</b>	<b>Project in principle, site, preliminary capital and operating budgets, preliminary funding sources and financing, preliminary program, preliminary schedule, proceed to schematic design, funding release for next stage.</b>	<b>Presented by Infrastructure Development</b>
<b>SCHEMATIC DESIGN</b>	<ul style="list-style-type: none"> <li>Select project architect from short list. Engage other design consultants and construction manager as required.</li> <li>Schematic design with input from Project Working Committee and in accordance with the functional program, UBC Campus Design Guidelines, UBC Technical Guidelines, UBC and project-specific sustainability objectives, budget and schedule.</li> <li>Refinement of the Owners Project Requirements document.</li> <li>Schematic design reviews by Campus operational groups; costing review.</li> </ul>	<ul style="list-style-type: none"> <li>UBCPT / Project Services (ID)</li> </ul>
<b>DESIGN DEVELOPMENT</b>	<ul style="list-style-type: none"> <li>Continuation of design and program refinement in accordance with the project goals.</li> <li>Design development reviews by Campus operational groups.</li> <li>Design development costing review.</li> <li>Develop potential value engineering strategies with Project Working Committee.</li> </ul>	<ul style="list-style-type: none"> <li>UBCPT / Project Services (ID)</li> </ul>
<b>DEVELOPMENT PERMIT PROCESS</b>	<ul style="list-style-type: none"> <li>Present to Development Review Committee and Advisory Urban Design Panel.</li> <li>Hold Public Open House.</li> <li>C&amp;CP/CP review for compliance with Land Use Plan, Campus Plan and Design Guidelines.</li> </ul>	<ul style="list-style-type: none"> <li>UBCPT / Project Services (ID)</li> <li>C&amp;CP</li> </ul>
<b>BUSINESS CASE (If Provincial funding contribution is involved)</b>	<ul style="list-style-type: none"> <li>As per BC "Capital Asset Management Framework": description of need; funding request; options analysis; implementation strategy (management and governance structure; schedule; monitoring and control systems, risk management strategy; procurement); Class C budget estimate.</li> <li>Prepared by Infrastructure Development with input from Project Client, Treasury, External Relations, UBCPT/PS, and others as required.</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructure Development</li> </ul>
<b>BOARD 2 APPROVAL</b>	<b>Capital and operating budgets, program, schedule, sustainability, authorization to issue Development Permit, proceed to working drawings and tender, funding release for next stage.</b>	<b>Presented by Infrastructure Development</b>
<b>WORKING DRAWINGS &amp; CONSTRUCTION DOCUMENTS</b>	<ul style="list-style-type: none"> <li>Prepared in accordance with UBC Technical Guidelines and with continued input and review by Project Working Committee and campus stakeholders (Building Operations, Sustainability Office, UBC IT/AV, EWS, Parking &amp; Access, Safety &amp; Risk Services, etc.) and the Construction Manager if applicable.</li> </ul>	<ul style="list-style-type: none"> <li>UBCPT / Project Services (ID)</li> </ul>

PROCESS STEP	DESCRIPTION	ACTION/CONSULTATION
<b>TENDER PROCESS</b>	<ul style="list-style-type: none"> <li>• Pre-qualify bidders if applicable; Issue tenders; Receive and evaluate tenders.</li> <li>• If required, implement value engineering strategies with Working Committee and operational stakeholders agreement. Prepare award recommendation.</li> <li>• Board 3 conditional approval is often received in advance of completion of tender process. The approval is conditional on at least 80% of tenders being received at or below budget.</li> </ul>	<ul style="list-style-type: none"> <li>• UBCPT / Project Services (ID)</li> </ul>
<b>BUILDING PERMIT</b>	<ul style="list-style-type: none"> <li>• Coordinate submission of drawings and Letters of Assurance for Building Permit.</li> </ul>	<ul style="list-style-type: none"> <li>• UBCPT / Project Services (ID)</li> </ul>
<b>BOARD 3 APPROVAL</b>	<b>Final capital and operating budgets, final funding sources and financing, program, schedule, award of contract(s) for construction, final funding release</b>	<b>Presented by Infrastructure Development</b>
<b>CONSTRUCTION</b>	<ul style="list-style-type: none"> <li>• Award contracts, obtain building permit and undertake construction.</li> <li>• Prepare on-going status updates and cashflow reports for the Project Steering Committee.</li> <li>• Manage change order requests.</li> <li>• Communicate and evaluate any proposed changes to Project Working Committee and operational stakeholders.</li> <li>• Coordinate with Building Operations transition team and facility manager. Coordinate regulatory and quality assurance inspections.</li> </ul>	<ul style="list-style-type: none"> <li>• UBCPT / Project Services (ID)</li> <li>• Building Operations</li> </ul>
<b>SUBSTANTIAL COMPLETION</b>	<ul style="list-style-type: none"> <li>• Coordinate final regulatory and deficiency inspections.</li> <li>• Obtain Letters of Assurance.</li> <li>• Initiate handover to Building Operations transition team following standard checklist.</li> </ul>	<ul style="list-style-type: none"> <li>• UBCPT / Project Services (ID)</li> <li>• Building Operations</li> </ul>
<b>POST CONSTRUCTION</b>	<ul style="list-style-type: none"> <li>• Demonstrate systems operation.</li> <li>• Obtain necessary operating permits and occupancy permit.</li> <li>• Deliver records drawings and maintenance manuals.</li> <li>• Address queries or complaints from building users.</li> <li>• Complete operational handover.</li> </ul>	<ul style="list-style-type: none"> <li>• UBCPT / Project Services (ID)</li> <li>• Building Operations</li> </ul>
<b>OCCUPANCY</b>	<ul style="list-style-type: none"> <li>• Coordinate user move-in.</li> <li>• Install specialty equipment.</li> <li>• Clear outstanding deficiencies and warranty items.</li> <li>• Begin closure of capital account.</li> <li>• Prepare project completion report.</li> </ul>	<ul style="list-style-type: none"> <li>• UBCPT / Project Services (ID)</li> </ul>
<b>POST OCCUPANCY EVALUATION</b>	<ul style="list-style-type: none"> <li>• Stakeholder meeting to review final project design, development process, cost, operating costs, user satisfaction, material durability, compliance with sustainability / energy targets and lessons learned.</li> <li>• Liens, litigation if necessary.</li> </ul>	<ul style="list-style-type: none"> <li>• Infrastructure Development</li> </ul>
<b>BOARD 4 INFORMATION</b>	<b>Project Completion Report (post occupancy evaluation)</b>	<b>Presented by Infrastructure Development</b>

C&CP/CP: Campus & Community Planning at UBC Vancouver / Campus Planning at UBC Okanagan

BO&EWS/CORM: Building Operations & Energy & Water Services at UBC Vancouver / Campus Operations & Risk Management at UBC Okanagan

ID: Infrastructure Development

UBCPT: UBC Properties Trust