

State of Washington

ProArts General Office Building

Prepared for:

State of Washington
OFFICE OF FINANCIAL MANAGEMENT

By:

State of Washington
GENERAL ADMINISTRATION

In association with:

ZGF Architects, LLP

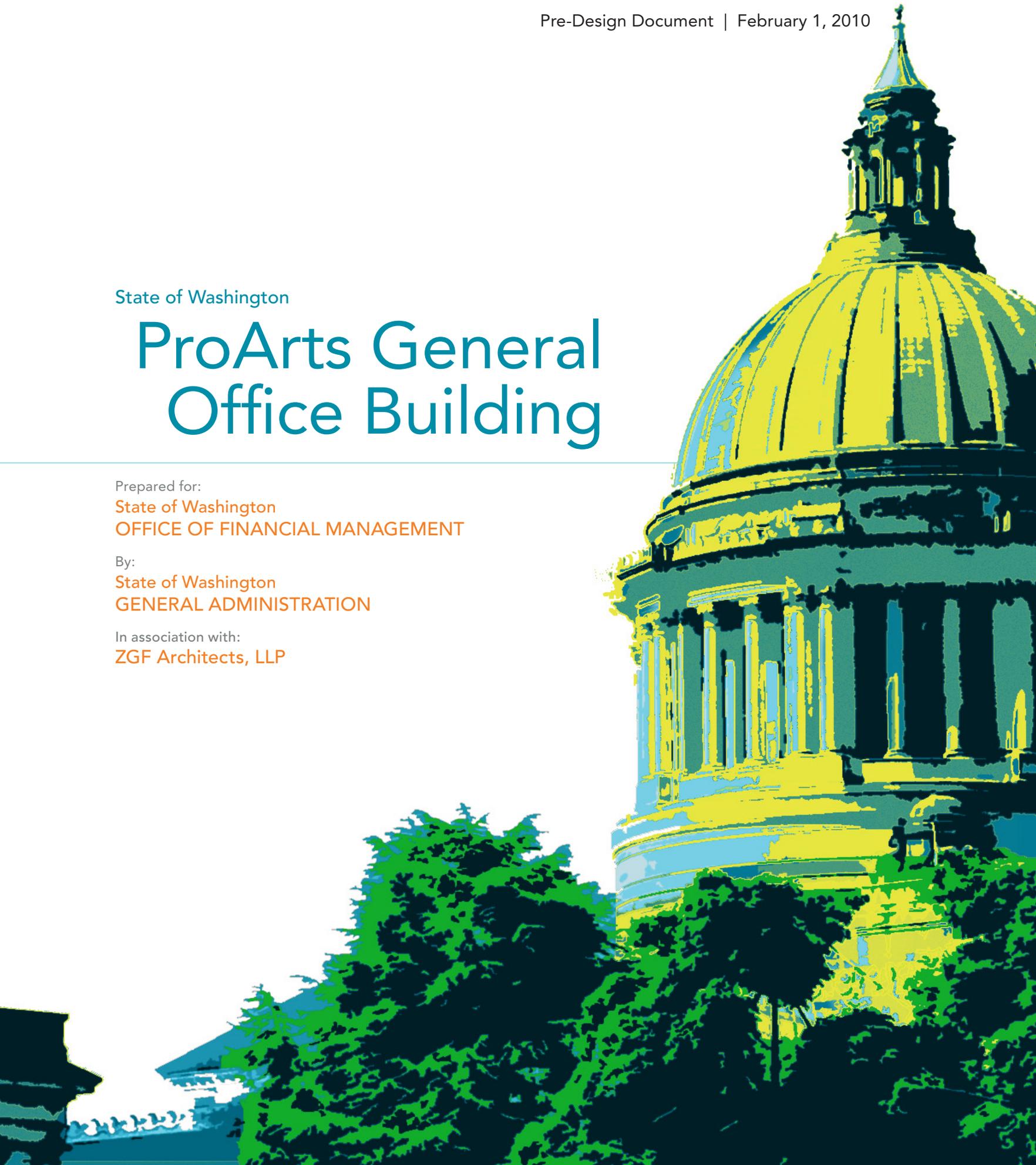


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1.0 EXECUTIVE SUMMARY

1.0 Executive Summary

1.0 Introduction

In 2009 the Legislature authorized General Administration (GA) to prepare a Pre-Design Study for a new general office building that optimizes the ProArts site located in the City of Olympia on the southern two-thirds of the block between Union and 11th Avenues SE and Washington and Franklin Streets SE, across from the Department of Natural Resources Building and East Campus. Centennial Park is located on the northern one third of the site, making the site wholly-owned by the State.

The Legislative proviso stipulates that many of the current tenants of the GA Building may be considered for tenancies in the new building, clearing the way for either the demolition of the GA Building for construction of a new Executive Office Building and/or Heritage Center, or vacation the GA Building for necessary major building systems/infrastructure replacement.

2.0 Project Analysis

“The design and placement of State facilities are based on sound and unchanging values; a vision in which design excellence means innovation in responding to the functional requirements of public programs, and a sensitivity to the context of the communities in which they are a vital part; a vision that honors statehood and public service with dignity and quality, and a durability that represents sound investment of public funds.”

From: The Master Plan for the Capitol of the State of Washington

The mission established for the ProArts project is to provide a new general office building that incorporates high performance workspace for State employees that encompasses the following goals:

- Provide flexible, efficient, functional and high performance workspace for multiple State agencies for current and future requirements
- Provide durable, operationally efficient and easily maintainable facilities
- Reflect the environmental and sustainable goals set by the Governor and State leadership within a reasonable budget
- Be sensitive to the surrounding diverse neighborhood and community
- Reflect the enduring State values of dignity, quality and responsible stewardship of public funds
- Provide a timeless design with an appropriate sense of presence as outlined in the Capitol Campus Master Plan

The primary drivers for proceeding with the ProArts Building at this time are numerous, highlighting both the realities and challenges presented by the current economic conditions, and the opportunities to establish a new paradigm for high-performance workplaces

for State functions, aligning work patterns with the work environment to enable peak performance and reduced costs. These overall drivers align around the common purposes of cost-effectiveness, facility efficiencies and value. And while timing alone should not be the sole reason to proceed, timing most certainly provides added opportunity to add value to the endeavor.

Project Rationale:

- Capitalize on the opportunity to develop significant general office space adjacent to East Campus that can accommodate the collocation of governmental services in close proximity to the Capitol, increasing the ability to improve customer service.
- Develop new facilities that demonstrate a commitment to high-performance workspace, incorporating the principles of functionality, efficiency, flexibility, health, sustainability, cost effectiveness, and durability targeted towards establishing new direction for delivery of State buildings and services.
- Establish a values-based approach to planning and designing the facility through an integrated design process to address operational costs and total cost of ownership by increasing productivity, reducing absenteeism and churn rate, and realizing savings through energy reductions.
- Incorporate new metrics for State-owned facilities that focus on the concept of space-per-person in lieu of space-per-workstation, emphasizing a cultural shift towards collaboration, interaction, technologically rich environments and changing workforce demographics.
- Capitalize on the opportunities presented by the current economic environment to realize the potential for an exceptional value-based return on the State's investment in the ProArts project.
- Develop a demonstration project that will become a respected landmark project.

Additionally, there are secondary drivers that may influence the decision to proceed with the ProArts Building at this time. The current GA building is in urgent need of a major modification and modernization effort; indeed the existing infrastructure has functioned well beyond its effective life expectancy, exposing the state and its tenants to a probable failure of critical building systems in the near-term. Because of the system design, a modernization of current systems would necessitate vacating the entire building and its tenants for a prolonged and significant period of time—likely several years.

The ProArts site offers the singularly optimal location for general governmental service agencies by providing proximity to other State agencies and complying with the intent of the Capitol Campus Master Plan for location of such agencies. It provides maximum flexibility to the State as it considers options for relocation of vital State functions during development

and construction of other planned projects, whether they include new construction on the General Administration Building site or implementation of major systems replacement and renovations to the current building.

Alternatives. The Project Team studied a number of alternatives including the development of an optimal solution exploiting the full potential of the site; development of a somewhat smaller solution intended to reduce initial project costs; development on an alternative site that considered the potential for other non state-owned sites; and a no-action alternative.

The scope of the Preferred Alternative includes construction of a general office building on the ProArts site. The gross square footage of the building is approximately 184,000 gross square feet, including one below-grade level for parking, services and support systems. Above-grade gross square footage is approximately 150,000 gross square feet, with a net rentable area of approximately 140,000 square feet, or an anticipated efficiency of approximately 90%. The building is planned to accommodate a general office program that complies with State Efficiency Standards of 215 rentable square feet per employee (see Program Analysis), resulting in an anticipated occupancy of approximately 650 employees in an office configuration that assumes a mix of 90% open offices and 10% closed offices. The building has been planned to meet an occupancy that will accommodate multiple tenants of varying sizes, with an additional assumption that a major anchor tenant will also provide infrastructure for a variety of smaller tenants.

One below-grade level of approximately 34,000 gross square feet accommodates the sloping topography of the site and provides space for building accessible parking for approximately fifty cars, loading, building services and support systems. Parking for occupants is not provided within the building, and is anticipated to be accommodated in existing campus parking facilities or via developing transportation management approaches.

3.0 Program Analysis

The ProArts project is being planned along a two-pronged approach. A joint GA and OFM Facilities Planning group is assembling alternatives for potential tenants in compliance with the 2009-2015 six-year plan and the budget proviso language. At the time of this publication the initial tenancies for the facility have not been finalized, but detailed programming can be conducted during the schematic design phase of the project—after approval of the Pre-Design. The basis of design for the ProArts general office building assumes total compliance with State Efficiency Standards of 215 rentable square feet per employee with an open/closed office ratio of 90%:10%.

Meeting the State Efficiency Standards with specific programmatic targets, however, is only a partial solution to meeting the project goals for a high performance workplace. Numbers alone do not encourage collaboration and interaction, or suggest an organizational model that can foster cultural changes in departmental and interdepartmental resource sharing that

are essential components of these goals. The Project Team incorporated an integrated design process that approaches facility design through a process of synthesis and vision:

- Designing from the inside out with considerations for appropriateness to program and flexibility, along with amenities that contribute to increased productivity;
- Designing from the outside in with considerations for context, climate and image;
- Designing for the long term with considerations for durability, adaptability and operational costs.

Both the State of Washington GA and the Federal Government General Services Administration (GSA) have acknowledged the fundamental changes taking place in the workplace. Each has completed studies confirming the opportunities and benefits of incorporating high performance workplace initiatives.

“Forward thinking organizations of all sizes across all industries have come to recognize that innovative workplaces can enhance employee and business performance—resulting in long-term costs savings and/or improved organizational performance. Definitive industry studies prove that implementing innovative workplace strategies produces significant savings through leveraging investments in human capital—to improve employee productivity, reduce absenteeism, increase retention rates; and enhancing portfolio value through reduced churn costs, energy consumption and office space requirements.”

From: GSA Innovative Workplaces; Benefits and Best Practices

4.0 Site Analysis

This Pre-Design study addresses the ProArts site authorized in 2009 in the context of the entire block as previously described. The Legislative proviso stipulates that the site should be *optimized* for development; that potential parking and mitigation requirements be reviewed; and that construction costs and schedule be studied. The Project Team has identified a number of goals and objectives for the site that explore the question of *optimization* in terms of efficient site utilization, value-based expenditure of State resources, context-appropriate height/bulk/scale within the site boundaries and neighborhood, prominence and identity to signal the importance of the institution and function housed within the building, open space preservation and enhancement of Centennial Park as an integral part of the project. The Project Team considers the site to include the entire city block as described herein.

The overall scale, height and placement of the proposed structure, as well as its intended use as general office, is in total compliance with the City of Olympia Comprehensive Plan and Land Use Ordinance for the site.

The Capitol Campus Design Advisory Committee (CCDAC) has reviewed the initial site analysis and has prepared a Design Opportunities Report for the project. The recommendations from CCDAC are consistent with the direction established by the Project Team in its recommended development alternative.

5.0 Project Budget Analysis

The total project budget request for the ProArts project (in Rounded Grand Total Escalated Costs) is estimated at \$92,228,000.

Assuming this project is financed using General Obligation bond (GOB) financing, the repayment of the bonds pledges the full faith and credit of the State, and is payable from funds constituting “general State revenues”. However, it is unlikely given the current economic climate that GOB authority will be available. Therefore, an alternative strategy is recommended. ProArts Building revenues originating from fully serviced space leases for State agency tenancies will be used to repay the Certificates of Participation (COP).

The Project Team recommends that the design, administrative and regulatory costs, and parking garage be financed using General Obligation Bonds. It also recommends that the remainder of the project including core and shell, tenant improvements and finishes, interior construction and FF&E be financed with a COP to be repaid by tenant rents.

6.0 Master Plan and Policy Coordination

The ProArts project is being planned to be in conformance with the *Master Plan for the Capitol of the State of Washington*. In its introduction it stipulates that the Master Plan:

“...offers a framework for housing the considerable volume of contemporary State government activity in a way that demonstrates excellence for the benefit of citizens, effective State services, and the Capitol community. It articulates a set of values that will positively shape the presence of State government in Thurston County in the new century.”

It goes further to elaborate that the overall facility values for State government buildings are **function, context** and **durability**. This framework, along with guidance from the CCDAC, will ensure that the ProArts Building integrates into the context of the Capitol Campus and maintains the State government values of function and durability.

7.0 Facility Operations and Maintenance Impacts

The ProArts Building will be a part of the Capitol Campus and as such shall incorporate existing Campus standards (building control, security and access systems) into its design in order to function with buildings and grounds maintenance personnel; and apply State Facilities Efficiency Standards for all planning and tenancies.

Operating costs will be minimized through a life-cycle cost analysis throughout the design phases, and energy-efficient mechanical, electrical and other systems will exceed code requirements and target LEED Silver rating as a minimum standard.

8.0 Project Description

The concept that emerges from this integrated design approach is an “intelligent building” whose design response is informed by internal and external pressures; shaped to accommodate specific conditions or requirements; and executed in a manner that demonstrates the intentions for functionality, efficiency, cost-effectiveness, sustainability, context, durability and appropriateness for the State functions housed within. The building’s placement on the site establishes a strong urban response to the Capitol Campus and the community. It exploits the proximate relationship with Centennial Park in a manner that enhances the Park as an asset to the campus, the community and the building occupants. Facades will respond to specific site and orientation conditions to address practical considerations for daylight and energy management. Materials will reinforce the dual nature of the building, both as an integral part of the Capitol Campus and as an important building in the neighborhood.

Getting to the proposed solution has not been a random process. It is a product of a deliberate and focused effort that has examined project aspirations and intentions to provide maximum planning flexibility, adaptability and high-performance workspace for current and future requirements; to provide durable, operationally efficient and easily maintained facilities; to reflect the environmental and sustainable goals set by the Governor and State leadership – within a reasonable budget; to be sensitive to the diverse surrounding neighborhood and community; to reflect the enduring State values of dignity, quality and responsible stewardship of public funds; to provide timeless design with an appropriate sense of presence as outlined in the Capitol Campus Master Plan.

2.0 PROJECT ANALYSIS

2.0 Project Analysis



Project Description

Agency Name: General Administration
Agency Code: 150
Project Number: 2009-267 CBS # 91000002

Project Title: ProArts General Office Building Replacement
Agency contact: Penny Koal, Project Manager
General Administration Building
Room 405C
360.902.7259
penny.koal@ga.wa.gov

In the 2009 legislative session, General Administration (GA) received authorization to prepare a pre-design study for a new general office building that optimizes the current ProArts site. This site is located on the southern two thirds of the block between Union and 11th Avenues and Washington and Franklin Streets across from the Natural Resources Building. Centennial Park is located on the northern third of the block. With the purchase of this site in 2008, the State now enjoys ownership of the entire block. The legislative proviso language stipulates that some of the current tenants of the GA building may be considered for tenancies in the new building and that GA would work closely with the Office of Financial Management and the Capitol Campus Design Advisory Committee in the development of the project.

Section 1081. For the Department of General Administration ProArts Building (91000002)

The appropriation for this section is subject to the following conditions and limitations: Pre-Design and design funds are provided solely to develop a new office building. Up to \$225,000 may be used to develop the Pre-Design for the ProArts site to include a new office building that may house tenants from the General Administration Building, including the Office of Financial Management, The Puget Sound Partnership, the Office of the State Treasurer, and other small commissions and agencies. The Pre-Design shall be developed with representatives from the Capitol Campus Design Advisory Committee, the Department of General Administration, and the Office of Financial Management. The Pre-Design shall be used to develop the optimum use of the space for the ProArts site, identify any required mitigation, parking requirements, schedule of construction, and cost of construction. The Pre-Design shall be provided to the appropriate fiscal committees of the Legislature and the Office of Financial Management by February 1, 2010. The allotment for design funds will be made after the Pre-Design is approved by the Office of Financial Management and the appropriate fiscal committees of the Legislature.

Mission and Goals

The mission established for the ProArts building is to provide a high performance workplace for State employees that encompasses the following goals:

- Provide flexible, efficient, functional and high-performance workspace for multiple State agencies that can adapt to current and anticipated requirements as well as accommodate changes over time.
- Provide durable, operationally efficient and easily maintained facilities.
- Provide a building that reflects the environmental and sustainable goals set by the Governor and State leadership within a reasonable project budget.
- Be sensitive to and inclusive of the diverse community and surrounding neighborhood in which the site is located.
- Provide a building that embodies the enduring State values of dignity, quality, and responsible stewardship of public funds.
- Provide a timeless design with an appropriate sense of presence as outlined in the Capitol Campus Master Plan.

Stakeholders

- The State Legislature as the enabling body that sets the intent for the project
- Oversight bodies such as Capitol Campus Advisory Committee (CCDAC), the State Capitol Committee (SCC) and the Office of Financial Management (OFM) who provide guidance and direction
- General Administration (GA) as stewards and caretakers of the building for its long term operations and maintenance
- Tenant agencies as building users who will learn to share in the responsibility of building operations
- The City of Olympia as the regulatory authority having jurisdiction over development of the site and building
- The design and construction team who will design and construct a building for the State of Washington incorporating the mission and goals as stipulated above

Legislative Intent

- It is the intent of the Legislature that this new building be planned and implemented in a manner that it provide facilities that are:
 - Flexible and efficient
 - Cost effective
 - Sustainable and highly performing
 - Provide for the highest and best use of the site (optimum development)

Project Rationale

The primary drivers for proceeding with the ProArts Building at this time are numerous, highlighting both the realities and challenges presented by the current economic conditions, and the opportunities to establish a new paradigm for high-performance workplaces for State functions, aligning work patterns with the work environment to enable peak performance and reduced costs. These two overall drivers align around the common purposes of cost-effectiveness, facility efficiencies and value; and while timing alone should not be the sole reason to proceed, timing most certainly provides added opportunity to add value to the endeavor.

Primary drivers include:

- Capitalize on the opportunity to develop significant general office space adjacent to East Campus that can accommodate the collocation of governmental services in close proximity to the Capitol, increasing the ability to improve customer service.

- Develop new facilities that demonstrate a commitment to high-performance workspace, incorporating the principles of functionality, efficiency, flexibility, health, sustainability, cost effectiveness, and durability targeted towards establishing new direction for delivery of State buildings and services.
- Establish a values-based approach to planning and designing the facility through an integrated design process to address operational costs and total cost of ownership by increasing productivity, reducing absenteeism and churn rate, and realizing savings through energy reductions.
- Incorporate new metrics for State-owned facilities that focus on the concept of space-per-person in lieu of space-per-workstation, emphasizing a cultural shift towards collaboration, interaction, technologically rich environments and changing workforce demographics.
- Capitalize on the opportunities presented by the current economic environment to realize the potential for an exceptional value-based return on the State's investment in the ProArts project.
- Develop a demonstration project that will become a respected landmark project.

Additionally, there are secondary drivers that may influence the decision to proceed with the ProArts Building at this time. The current GA building is in urgent need of a major modification and modernization effort; indeed the existing infrastructure has functioned well beyond its effective life expectancy, exposing the state and its tenants to a probable failure of critical building systems in the near-term. Because of the system design a modernization of current systems would necessitate vacating the entire building and its tenants for a prolonged and significant period of time—likely several years. Most of the tenants in the building are general governmental support agencies, and according to the Capitol Campus Master Plan, would ideally be located on or near the East Campus. The ProArts site and new general office building would be a good candidate to absorb these crucial State agencies. Recognizing the substantial risk associated with the probability for major systems failure, modest repairs to the GA Building could likely extend the useful life of the systems until the ProArts project is completed in 2013-2014. A report titled “GA Building Prioritization of Necessary Repairs / Revisions” is provided in the Appendix.

Prior Planning and History

Existing Facilities

The State purchased the ProArts properties in 2008 with a 15 year COP valued at \$2,425,000. Two buildings currently exist on the site. The largest, the Professional Arts Building (ProArts), was constructed in 1959 and is comprised of 11,012 square feet on two levels. The second building known as the State Farm building is a small, vacant, 1,500 square foot building on one floor. The Natural Health Clinic is the only current tenant in the ProArts building and their lease expires at the end of January 2012. Both buildings are listed in the Facilities Inventory Management System.

At the time of purchase, it was intended that this prime location be re-developed for a future State office building. In the decision paper written to justify the purchase of the property the following issues were addressed:

- The purchase enables the State to assume ownership of a full city block
- The property is adjacent to the East Campus
- The development potential allows greater agency co-location
- Development of the site allows agencies to move from leased space to State-owned space
- The site enables the State to later construct a large office building for use by State agencies

Our title search on the property revealed two minor issues. The ProArts purchase included three parcels, #55508900400 (the parking lot), #55508900601 (the building), and #55508900300. A portion of a vacated alley east of parcel 601 was not recorded in the deed acquired in 2008. An action of quiet title has been initiated to correct that oversight. The City of Olympia retains a utility easement on this same vacated alley. We are seeking to obtain a release from the City of Olympia to release their rights to that easement. The State Farm parcel, #55508900700, has no encumbrances.

Since purchasing the property, only minor repairs have been undertaken on the existing structures. Those repairs have uncovered asbestos, and more is anticipated in other areas of the building including the exterior cladding of the ProArts building. These areas will require abatement prior to demolition.

The Capitol Campus Master Plan describes the park as a diamond in the rough, recognizing the potential and acknowledging the need for action. This project offers opportunities to incorporate Centennial Park into the planning and design, and celebrate the park as an important Campus and community asset as well as engaging the park as an element to enhance and enliven the building. Centennial Park is situated immediately north of the

property on the same block. The most notable feature of the park is a majestic sequoia tree that bears the name of former Governor Dan Evans. There are numerous alder and other naturally grown shrubs and undergrowth within its boundaries. The Dan Evans tree will remain the centerpiece of the park while a few of the alder trees may need to be removed. Formerly there were residences on the site and some foundation remnants remain, presenting hazards for the use and development of the park. Centennial Park has great unrealized potential but is in serious need of attention, particularly with respect to protection and care of the Dan Evans Tree.

Recent Developments in the Neighborhood

The ProArts site is situated across 11th Avenue SE from the Dept. of Natural Resources Building and the East Capitol Campus complex. It is also surrounded by generally underdeveloped properties within the General Commercial District as identified in the City of Olympia Comprehensive Plan, and the Downtown Business Zone as noted in the Official City of Olympia Zoning Map. As such, it is clear that intent for the surrounding neighborhood is to experience change—change that will include increased development and density. That pressure will come from private sector development extending the Downtown south towards the Capitol Campus, as well as within Capitol Campus development intended to consolidate State agency facilities into State-owned properties while preserving the historic fabric and natural amenities of the West Campus.

Some of this change is underway with the recent completion of the WSECU Building located across Union Avenue SE, northeast of the site, and other private and public projects recently completed or under way. This activity includes the current planning and design of the Heritage Center and the Executive Office Buildings being considered for several optional sites within West Campus.

These changes provide several insights relative to the significance of the opportunities presented by the ProArts site. The first is the realization that Campus development options for general governmental service agencies will undergo increasing pressure as private development pushes southward to the capitol campus. Indeed, the City of Olympia Comprehensive Plan calls for such development. Furthermore, development of strategic sites along important streets such as Capitol Way and Union Avenues will come under increasing pressure to accommodate mixed use development in order to integrate with the City of Olympia's vision for Downtown. While mixed-use development is a vital component for enriching the pedestrian and overall experience within a district or neighborhood, the mandate to include non-office functions within projects does not provide the optimal programmatic mix or efficiencies for State-owned facilities. The ProArts site currently is not encumbered by these requirements and may be developed in a manner to accommodate the program functions.

Secondly, the ProArts site is relatively unencumbered by requirements for acquisition, relocation or replacement of existing facilities or parking. The State has the opportunity to develop a building of significant size to accommodate a variety of tenants – both large and small, while establishing a new and appropriate direction for design and development of adjacent properties along this seam between “community and institution”. The ProArts site can at once set new standards for design, efficiency and sustainability for State facilities, while furthering the mandate for the consolidation of State functions into State-owned facilities. At the same time the development of the ProArts site can engage the community in a manner that reinforces the crucial relationship between the institution of State government, the City of Olympia and the surrounding community. The City of Olympia Comprehensive Plan anticipates expansion and development as a by-product of this relationship and acknowledges one of the imbalances associated with existing conditions:

“With its proximity to the Capitol Campus, Olympia’s Downtown has a strong presence of governmental and other forms of institutional uses. Most of this presence is masked as general office space. Thousands of State employees occupy hundreds of thousands of square feet of leased office space Downtown, in buildings with no clear identification with State government.”

From: The City of Olympia Comprehensive Plan

Goals for the sub area in which the ProArts site is located include mandatory residential and mixed-use development with strong pedestrian connections to intense office development to the east, adjacent to the Capitol Campus. The ProArts site is particularly well suited to house State functions due to its proximity to the East Campus, its access to West Campus, its access to Downtown amenities, its appropriate zoning for intense office development, and its near shovel-ready availability.

Finally, the ProArts site offers the singularly optimal location for general governmental service agencies to provide proximity to other agencies while complying with the intent of the Campus Master Plan for location of such agencies. It provides maximum flexibility to the State as it considers options for relocation of vital State functions during development and construction of other planned projects whether they include new construction on the General Administration Building site or implementation of major systems renovations of the current building.

Operational Needs

Operational Objectives for the ProArts General Office Building

General Administration has the responsibility to house state services in efficient, cost effective, and highly performing facilities¹. General Administration provides property management services in state-owned real estate that is located on and off the Capitol Campus in Olympia, and in privately leased space throughout the state. Staff provided input to the ProArts Pre-Design with a view to maintainability and operational efficiency and on planning assumptions for consistency with a space efficiency target of 215 rentable square feet per employee. General Administration is reviewing its statewide facility efficiency standards last updated in 2000. The Project Team is working closely with the team responsible for the Facility Efficiency Standards update to ensure this new building serves the needs of a wide variety of possible tenants. The Project Team will optimize site utilization while incorporating green building principles that yield energy savings and optimize employee productivity.

As a result, General Administration is committed to integrating life-cycle cost considerations, universal access for persons with disabilities, maintainability and environmental sustainability into facility management and investment decision-making. Over time, agencies change and become fragmented and are often housed in disparate facilities in a manner which greatly decreases an agency's ability to provide effective services, increasing overall state operating costs. Together, with the assistance of OFM's division of State Facilities Planning and Management, General Administration is working to consolidate and co-locate State services in efficient, modern, high performance, workplaces. This project will provide cost efficient and flexible space to accommodate a wide variety of agency needs over the life of the building.

The Changing Workplace

Throughout the world, the workplace is in transition. Technology is more powerful, portable and integrated, allowing greater flexibility in work productivity and location. Increasingly, the workplace is no longer seen as a central office or building but rather as a set of spaces and tools which empower and enable the worker and enhance the work process. The new workplace needs to accommodate teams as well as individuals and support employees who are increasingly mobile, require flexibility and use portable technology.

Work environments that have been developed over the last fifty years have become increasingly ill-suited for emerging patterns of collaboration and interaction. Forward-thinking organizations and institutions of all sizes and across all private and public sectors have come to recognize that innovative workplace environments can enhance employee and organizational performance—resulting in long-term cost savings, and overall improvements

¹ RCW 43.82.010 (10) The director of general administration may construct new buildings on, or improve existing facilities, and furnish and equip, all real estate under his or her management. Prior to the construction of new buildings or major improvements to existing facilities or acquisition of facilities using a lease purchase contract, the director of general administration shall conduct an evaluation of the facility design and budget using life-cycle cost analysis, value-engineering, and other techniques to maximize the long-term effectiveness and efficiency of the facility or improvement.

to the effectiveness and efficiency of the organization. Definitive industry studies have proven that implementing innovative workplace strategies produces significant savings through improved employee productivity, reduced absenteeism, increased retention rates, and enhanced recruitment rates. Additionally, employing these strategies can influence a reduction in operational costs associated with space requirements, churn rates, and energy consumption.

“A key principle in the innovative workplace is to create workplaces that are not only healthy and productive, but which also lift the human spirit. The premise is a simple one: healthy, happy people will be more productive and more engaged with their work and their organization.” **Dr. Judith Heerwagen**

Briefly described, innovative workplaces are work environments that support the organizational evolution toward collaborative work styles, incorporate integrated and sustainable approaches, and improve employee performance—increasing productivity and reducing costs. Characteristics of innovative workplaces include the concepts of:

- **Spatial equity**, giving all employees access to important elements such as abundant natural light, views to the exterior and the natural environment, and space that accommodates both privacy and interaction.
- **Clean and healthy environments** with opportunities for views, abundant ventilation and fresh air, the absence of toxins from construction materials, and isolation of toxins and allergens from copy room and other support areas within buildings.
- **Flexibility**, creating easily adaptable workplaces that support varied tenant sizes, work strategies and configurations, as well as mobile technology systems.
- **Comfort**, with occupant control of lighting, temperature, ventilation, and furniture/equipment configurations.
- **Connectivity**, providing infrastructure and systems to support current and anticipated technologies, and encourage collaboration and interaction among current and new generations of occupants and employees.
- **Reliability**, with state-of-the-art infrastructure to provide reliable service, minimal disruptions and operational economies.
- **Sense of Place**, providing the workplace with unique and appropriate image and identity to support the mission of the organization while supporting the individual needs of the employee.
- **Sustainability**, accommodating environmental considerations that improve health and performance, maximize human capital, support efficiency and effectiveness, and provide responsible stewardship of natural resources.

The changing workplace is also a product of the generational transformation that is underway throughout the private and public sector workplace, a transformation in which the experience of “place” is equally if not more important than the previous drivers of identity, status and location—which are being increasingly outdated as the metrics of the new office environment. Collaboration, interaction, mobility and technology are major drivers in defining attractive environments for current and future generations of the workforce. In order to attract, develop and retain highly qualified members of the new workforce, corporations and institutions should recognize the organizational and cultural changes that are playing an increasingly critical role in the changing dynamics of today’s workplace.

As a result of the robust increase in the use of and reliance on technology in this transformation, organizations are becoming more open to concepts such as decentralization, space sharing, hotelling, and work-link organizational models. Keeping pace with these fundamental changes in the workplace, organizations are recognizing that the concept of telework is a major contributor in lowering operational overhead as it enhances workplace productivity and operational efficiencies. It is an integral component of improving utilization rates, reduction of commuting times, traffic congestion and air pollution. It provides an opportunity to expand the labor pool both geographically and socially, leading to enhanced employment opportunities. While telework may not be prevalent within the workplace currently utilized by State agencies, reconfiguring the workplace for its eventual acceptance is critical to future effectiveness.

Alternatives

A number of alternatives have been considered to address the requirements as stipulated in the 2009 Legislative proviso. They include the development of the ProArts site in a manner that provides *optimal* use of the site; development of a somewhat smaller building to reduce overall initial project costs; consideration of development on an alternative site; and a no-action alternative. A brief description of each alternative follows.

Optimal Site Development Alternative

This alternative addresses the Legislative proviso for a development solution that provides optimal use of the site. The Project Team has defined optimal as a direction that balances the solution among the economic and functional drivers as well as considering the physical and visual impacts on the site, Centennial Park and the surrounding neighborhood. This alternative would maximize the building area within the allowable building envelope as defined by the City of Olympia's Land Use Code. It would provide approximately 150,000 gross square feet and 140,000 rentable square feet of program space in a five story configuration that will accommodate multiple State tenants of varying sizes within the State Efficiency Standards of 215 rentable square feet per employee—accommodating approximately 650 employees.

This optimized development scenario will allow basic site, infrastructure, below-grade/ foundations, and structural costs to be spread across the largest area allowable within existing regulatory constraints—netting the lowest cost per employee alternative under consideration. Importantly, this direction would capitalize on the opportunity to both enhance Centennial Park as a State and community asset as well as incorporating the park as an integral amenity to the building and its occupants.

Smaller Building Alternative

This alternative follows the general intent of the Legislative proviso, but does so with a building of reduced area. For the purposes of this study, the anticipated building area would provide approximately 118,000 gross square feet and 106,000 rentable square feet of program space in a four story configuration. In a similar manner to the Optimal Site Development Alternative but with a somewhat lower efficiency, it would accommodate multiple State tenants of varying sizes within the State Efficiency Standards of 215 rentable square feet per employee—accommodating approximately 485 employees.

However, this smaller alternative will allocate basic site, infrastructure, below-grade/ foundations, and structural costs across a smaller building area, netting a higher building cost per square foot and a significantly higher cost per employee than the previous alternative. This direction would also capitalize on the opportunity to both enhance Centennial Park as a State and community asset as well as incorporating the park as an integral amenity to the building and its occupants.

Alternative Site (not fully studied)

The Legislative proviso stipulates that the Pre-Design is intended to study the development of a new office building on the ProArts site. However, the Project Team has briefly considered the impacts of developing a similar building on alternative sites meeting criteria of proximity, ownership/availability, opportunity and timing relative to occupancy. No other sites match up to the ProArts site for each of the criteria. The ProArts site is located near East Campus, appropriately situated for general governmental services tenants in accordance with the Capitol Master Plan. Additionally, other sites that might have closer proximity to major Downtown avenues (such as Capitol Way and Union) are designated as sites that would incorporate mixed-use development, not necessarily appropriate for State-owned facilities. Finally, no other site brings the opportunity afforded by Centennial Park to incorporate and enhance this valuable State asset.

No Action Alternative

The existing property was purchased for the purpose of redevelopment in the future. If this project does not go forward, the existing buildings will remain suitable only for a few smaller agencies or function for swing space for small to medium sized programs. Costly renovations will be needed to provide adequate functionality for potential tenants and to obtain the most basic resemblance to conformance with the State Efficiency Standards or design and construction standards. It will be difficult to meet basic facilities standards in the existing buildings adding to the expense of churn and creating a continuum of tenant improvement expenses. Eventually, many of the tenants that could be situated in these facilities will look outside the campus to leased space for better conditions. However, these two buildings could be used for overflow or temporary backfill spaces.

This is not the highest and best use of the property and does not further the values and goals for State facilities management.

Preferred Alternative

After consideration of the noted alternatives, and in accordance with the Legislative proviso, the Project Team strongly recommends the **Optimal Site Development Alternative** for continued study and consideration. This alternative fully utilizes the site that was acquired in 2008 and meets the full intent of the decision paper to capitalize on the long-term advantages associated with the acquisition, noted previously. Additionally, this alternative provides the highest potential value for the investment in terms of costs per employee, efficiency and flexibility for multiple tenant occupancy, time to occupancy, proximity/location for general governmental service agencies, and ability to maximize potential of Centennial Park in a concurrent design and construction process.

Scope of Preferred Alternative (Building)

The scope of the Preferred Alternative includes construction of a general office building on the ProArts site. The gross square footage of the building is approximately 184,000 gross square feet, including one below-grade level for parking, services and support systems. Above-grade gross square footage is approximately 150,000, with a net rentable area of approximately 140,000 square feet, or an anticipated efficiency of approximately 90%. The building is planned to accommodate a general office program that complies with State Efficiency Standards of 215 rentable square feet per employee (see Program Analysis), resulting in an anticipated occupancy of approximately 650 employees in an office configuration that assumes a mix of 90% open offices and 10% closed offices. The building has been planned to meet an occupancy that will accommodate multiple tenants of varying sizes, with an additional assumption that a major anchor tenant will also provide infrastructure for a variety of smaller tenants.

One below-grade level of approximately 34,000 gross square feet accommodates the sloping topography of the site and provides space for building accessible parking for approximately fifty cars, loading, building services and support systems. Parking for occupants is not provided within the building, and is anticipated to be accommodated in existing campus parking facilities or via developing transportation management approaches.

Issues and Risk Identification

As previously noted, there are a number of drivers for proceeding with the ProArts project at this time that are aligned around common purposes for high-performance workplace, productivity, cost-effectiveness, facility efficiencies, sustainability and value. The current economic environment presents a number of challenges and opportunities that are discussed in detail in the Project Rationale section of this Pre-Design report. This section is intended to elaborate on the specific issues related to the economic environment and how they might shape the decision process for the ProArts project.

The design and construction industries are experiencing a decline of historic proportions, and while instinct might suggest deferring this project for future consideration, there are other factors that would suggest this is an optimal time to proceed with planning and design of the project. One factor addresses the opportunity that exists to capitalize on a construction market condition that indicates a very high probability for an exceptional value-based return on the State's investment for the ProArts project, and concurrently infuse job opportunities into a depressed industry. The other set of factors addresses the need to accommodate a significant transformation in the workplace that is being driven by changes in technology and information systems; by an increasing awareness of the impacts of the workplace on productivity and efficiency; and by the need to address the changing demographics of the workforce.

Local and national indices show that currently there are fewer development/construction projects under way in either the design or construction phases than at any time in recent history. Additionally, there is a current and likely temporary excess capacity in the skilled labor and building resource markets that has resulted in very low competitive construction bids for projects—representing current savings opportunities of 20-25% below budget estimates. This trend, while potentially beneficial to projects that anticipate a commencement within the next twelve to eighteen months, suggests the probability of future stress on the industry due to reduced capacity for management, labor and resources. Without clarity on where the economy is going, most industry indicators suggest that proceeding with projects sooner is better than later in order to reduce risk.

The *Economic and Revenue Forecast Council's November 2009* report states that:

“Construction has experienced the most severe employment decline of any industry in Washington during this recession...We expect non-residential construction employment to decline through the second quarter of 2011. The decline in non-residential construction would have been even more severe without the stimulus funding for infrastructure investment. The forecast expects overall construction employment to decline through the third quarter of 2010, a thirteen-quarter peak-to-trough drop of 59,500 or 28.3%. An initially modest recovery is expected to pick up steam during 2011 as both housing and non-residential construction eventually revives.”

From: The Economic and Revenue Forecast Council, November 2009

“Real non-residential construction dropped an incredible 44% in the first quarter of this year (2009). Since then the sector has continued to decline and we don’t expect a return to growth until the end of 2011. This will continue to hamper small and mid-size banks across the country and limit their ability to lend, creating a drag on the economy.”

From: The Economic and Revenue Forecast Council, November 2009

Other indicators show that both public and private organizations are considering the total costs of ownership as they address current and future requirements. They have recognized innovation in the workplace not only reduces total operating costs through increased performance and productivity, but also through reduced capital costs for energy consumption and space requirements. Information systems and technology are driving infrastructure and capacity changes in facilities. The generational shifts in the demographics of the workforce are forcing cultural changes in the manner in which work is accomplished with increasing trends toward healthfulness, collaboration and interaction, shared facilities, telework, and spatial equity. Environmental awareness is causing increasing focus on reduced energy consumption and systems for natural ventilation and lighting. Economic conditions that are stressing all organizations are focusing awareness on the need for adaptability and flexibility in meeting current and future facility requirements. Given recent interest in the importance of reductions in carbon emissions, particularly in building operations, and the leadership of the State of Washington in this issue through its ambitious energy code and associated sustainable programs, the Project Team believes the ProArts project presents a great opportunity to craft a demonstration building that addresses the programmatic and budget objectives and achieves energy efficiencies that meet the 2030 Challenge (a 60% reduction in energy use intensity compared to a typical building). ProArts can become a visible and tangible symbol of the of the State’s commitment to efficiency, functionality and quality.

Why This Project; Why Now?

The ProArts project is being planned and designed from the inside out and from the outside in, incorporating the principles of integrated design of the workplace with sustainable practices for construction and operations—resulting in a facility that accomplishes the stated goals for high performance, efficiency, flexibility, sustainability and cost-effectiveness. This single project, being planned for the next fifty years and beyond, can set a new standard for State-owned facilities in addressing the transformations that are taking place in the workforce, consolidating agency tenancies to accommodate current and future space requirements, and taking full advantage of the window of opportunity presented by the current downturn in the construction industry.

The site is located on an entire city block that is fully owned by the State, entitled for general office use, and in a proximate location to the capitol Campus that is consistent with the intent of the Campus Master Plan. Existing structures on the site are underutilized, in need

of investment in order to remain functional, and are inappropriate for State tenancies. Centennial Park, while perhaps not currently designated as a high priority capital project, will be transformed into a significant asset to the Campus and community as an integral component of this project. Furthermore, the development of the ProArts site can be the catalyst for future development within the Union Avenue sub-district, enhancing the stature and presence of State government within the downtown.

While future economic trends cannot be predicted with certainty, it is a widely held belief that either an upward or downward trend in the design and construction industry will cause and increase in cost of opportunity for new projects. An upward trend in construction will likely drive increased costs in order to meet demand for both materials and labor. A downward trend in construction will also likely drive increased costs due to an accelerated attrition rate of qualified contractors and suppliers, limiting access to labor and materials for projects that do proceed. Those projects that do proceed within the next twelve to eighteen months will capitalize on historically low development costs, and realize the potential for equally historic returns on investment.

The opportunities presented by the ProArts project are targeted specifically at the goals of the *Master Plan for the Capitol of the State of Washington*, the mission and goals noted for the project, and the legislative intent for new facilities.

“The design and placement of State facilities are based on sound and unchanging values; a vision in which design excellence means innovation in responding to the functional requirements of public programs, and a sensitivity to the context of the communities in which they are a vital part; a vision that honors statehood and public service with dignity and quality, and a durability that represents sound investment of public funds.”

From: The Master Plan for the Capitol of the State of Washington

Implementation Approach

There are alternative delivery methods available for public work projects in addition to the traditional Design/Bid/Build method (DBB) where the project is submitted for construction bidding at the completion of all phases of design and documentation. They include the General Contractor/Construction Manager (GC/CM) approach where a general contractor is retained early in the design phases to participate as a member of the Project Team and assist in the development, costing and construction of the project—having provided guaranteed construction costs during the design development phase; and the Design Build (DB) approach where the contracting entity is responsible for developing complete design and construction for the project and guaranteeing the cost up front. The Department of General Administration has extensive experience in managing each of these methods and is authorized by Campus Project Advisory Review Board's (CPARB) Project Review Committee to choose the most appropriate method for the delivery of public works projects.

In the State of Washington all public works projects can utilize the design-bid-build methodology for design and construction of State facilities. However, a project must meet specific criteria to be eligible to utilize either the GC/CM or design-build project delivery process.

As required in RCW 39.10.340, in order for a public works project to be eligible for a GC/CM procedure, it must meet at least one of the following criteria:

- Implementation of the project involves complex scheduling, phasing, or coordination;
- The project involves construction at an occupied facility which must continue to operate during construction;
- The involvement of the general contractor/construction manager during the design stage is critical to the success of the project;
- The project encompasses a complex or technical work environment;
- The project requires specialized work on a building that has historical significance.

As required in RCW 39.10.300, in order for a public works project to be eligible for the design-build delivery method, it must have a construction budget of over \$10 million, and meet the following criteria:

- The design and construction activities, technologies, or schedule to be used are highly specialized and a design-build approach is critical in developing the construction methodology or implementing the proposed technology; or
- The project design is repetitive in nature and is an incidental part of the installation or construction; or
- Regular interaction with and feedback from facilities users and operators during design is not critical to an effective facility design.

The ProArts project meets the criteria for development and construction under any of the methodologies (DB, DBB, or GC/CM). However, the Project Team believes that the benefits and risks associated are not equally shared among each. The following matrix provides a comparison for the various methodologies.

| Category | DBB | DB | GC/CM |
|--------------------------------------|---|---|---|
| Relationships | Well understood by involved parties. Tends to create an adversarial tension between designer and constructor. | Owner creates prescriptive project description for DB team. Relinquishes much control during design/ construction | More collaborative owner, designer and constructor-oriented delivery |
| Qualification Based Selection | no | yes | Prime – yes Subs* - no |
| Cost Control | Lump sum bid to lowest responsive responsible bidder | Guaranteed Maximum Price (GMP) set prior to design | Overhead and Profit bid prior to design; final Maximum Allowable Construction Cost established near end of design |
| Quality | Depends on quality of bid documents and quality of low bidder | Yes – but only when upfront project documents are complete and properly prepared | GC/CM participates and provides input to the design team with regard to value analysis and constructability during design |
| Contract Complexity | standard | yes | moderate |
| Owner Control | yes | no | yes |
| Construction Complexity | yes and no | no | yes |
| Schedule | linear | Can fast track, owner has little control once schedule is set | Can fast track; schedule adjustments are collaborative |
| Budget Impacts | None initially. May have higher Change Order rate | Larger first cost premium. Change Orders limited to changes outside of prescribe initial scope. | Moderate first cost premium. Change Orders limited to owner scope changes. |

*Major subcontractors may be prequalified per RCW 39.10 to provide fully qualified bidding pool

After analyzing the scope, schedule and budget, the Project Team recommends the ProArts project be procured utilizing either the General Contractor/Construction Manager (GC/CM) or the Design/Bid/Build (DBB) procurement methodology. Further, we recommend *against* utilizing the Design/Build (DB) methodology.

There are a number of factors that influence a recommendation by the Project Team for the General Contractor/Construction Manager approach. Today, with fewer projects under way either in design or construction, there is an excess capacity in the resource and construction industries, resulting in very low competitive bids for projects—with some recent projects experiencing savings of 20-25% below budget estimates. Projects are currently bidding at historically low levels with firms sacrificing profit margins and overhead in order maintain some level of activity. As of the close of the 3rd quarter of 2009, trends indicate that we may be entering into a period of risk due to increased failures among construction companies as a result of these market pressures and below cost bids. There may be a window of opportunity to capitalize on current the market, a window for which the duration may not be easily predicted. The ProArts project could be ready for bid in the spring of 2011. Given recent history in the construction market, it is reasonable to anticipate that a combination of fixed price (GC/CM) and competitive bid (subcontract packages) may yield a better value for the project.

We are recommending that the project utilize a GC/CM construction procurement methodology for the following reasons:

- On a project of this size, having the construction manager on board during design can mitigate a significant amount of risk due to identification of conflict during the design phases between various building components. A process of consistent and continuous constructability review and value analysis is implemented from schematic design through preparation of construction documents and bidding. Collaboration with the design team to incorporate construction efficiencies and alternate methods that control costs are instrumental in the decision to recommend GC/CM.
- For the next 18 to 24 months in the construction industry, the recovery from the recession is predicted to be volatile and dependant on a balance between supply and demand in the global marketplace. By having the GC/CM on the team, the project can better gauge and control the timing of the bidding process to circumvent as much turbulence as possible. Subcontractor bid packages can be timed and sequenced in a manner that capitalizes on market opportunities.
- Managing the risks of escalation or wild fluctuations in the construction market can be better accomplished through the GC/CM process where the CG/CM is closer to the market and more able to alert and help the project respond quickly to changing market conditions. Traditional responses to these new challenges

are likely to prove inadequate. Erratic commodity prices and inflating costs of manufactured goods need to be immediately recognized as risks to be managed in the planning process.

- A fixed price procurement method (design/build) will find it necessary to build larger contingencies into their price to accommodate a volatile market and to protect a bid price that is established very early in the process. Firms competing for a competitive bid project (Design/Bid/Build) may initially risk their overhead and profit margins to survive with the hope that some of that can be made up later with change orders. The selection of a GC/CM is based on both qualifications and on price, mitigating both of the above conditions. The GC/CM process allows for prequalification of major subcontractors prior to bidding which can preclude weaker firms from bidding while still participating in the competitive market.
- In a Design/Bid/Build project, responsibility criteria are developed for the prime contractor and some major subcontractors. In a GC/CM project, where 70% of the work is competitively bid, the GC/CM and owner can develop responsibility criteria for each bid package providing greater assurance that the project subcontractors are able to provide quality work.
- Due to the location and visibility of this project and its proximity to the hub of government activity, the ProArts project will be subjected to not only constant public and political judgments, but also to unusually rigorous examinations by the various agencies responsible for policy and regulations. A GC/CM entity who participates as a Project Team member from the early phases of the project can be in tune with sensitive issues and, as an agent for the project, be proactive in preventing them from escalating.

Management Organization

General Administration will provide day to day management of the process from the early phases of design through to closeout. The project will be lead by an experienced facilities team and a project manager from Engineering and Architectural Services (E&AS), working in tandem with a building manager from Buildings and Grounds (B&G) and an asset manager from Facilities Management. GA's Engineering and Architectural Services manages the design and construction of Capital projects statewide. The division of Facilities, which includes Buildings and Grounds and Facilities Management, is responsible for Capitol Campus facilities in both the day to day activities as well as long term facilities management. Overall project oversight will be provided by the GA Capital Projects management team and OFM with executive level oversight by GA's executive management. Status updates will be delivered to the Capital Projects management team at their regularly scheduled monthly meetings throughout design and construction. Any unusual or unresolved concerns or issues will be brought before the executive management for review and resolution.

A project manager from E&AS will be assigned to this project and will be the first point of contact for the project. E&AS project managers are professional architects, engineers and construction managers with extensive experience in working on large and difficult projects. They are current in new and emerging trends and practices in both design and construction. E&AS will negotiate and hold the contracts for design and construction.

A representative from Buildings and Grounds will be building manager for the facility. They will be responsible for the day to day operations and maintenance for the building when it is completed as well as being the first point of contact for tenant concerns. Having many years of experience with Capitol Campus buildings, the building manager will be instrumental in reviewing drawings and providing input into developing a smoothly operating and maintainable facility as well as helping to coordinate a broad range B&G involvement in the project.

A property management asset manager will also be a part of the core management team for this project with ultimate responsibility for the long term financial and physical viability of the facility. In addition to providing input and review of the project documents, the asset manager will work closely with the selected tenant agencies during the design, construction and move-in process.

The Project Team members listed above comprise the day-to-day project team leads. In addition to the team leads, another 25 to 30 GA professionals have been identified to participate and provide valuable insight and input to the project. These areas of expertise are from throughout the agency and range from green building, energy, building maintenance, landscaping, operations, infrastructure, electrical and mechanical systems, IT, planning, budget and finance. During construction GA will provide a full time site representative on the site to monitor and record construction activity.

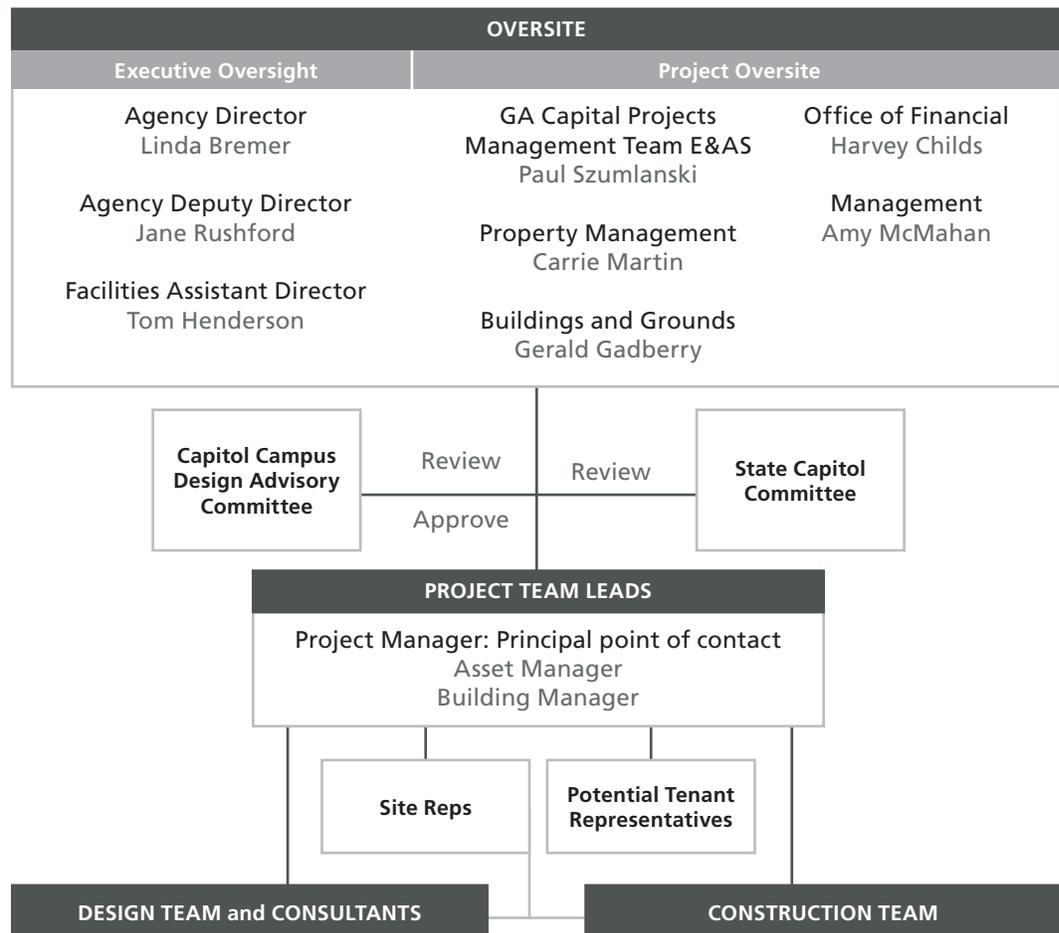
The costs for funding GA management of this project through construction and closeout are included in the budget analysis section of this report.

Augmenting GA's management and oversight will be the Capitol Campus Design Advisory Committee (CCDAC) and State Capitol Committee (SCC). Each committee meets quarterly on alternate months. CCDAC will review the project as it develops and provide recommendations and advice on the project design and how the project relates to the overall campus aesthetic. They will make a recommendation to the Director of GA and the SCC to approve the project design.

The Office of Financial Management (OFM) will review the project budget and provide guidance where financial issues are concerned. They will monitor project scope to ensure legislative intent is met. OFM will also play a role in determining tenancies for the building.

Rounding out the State management structure for the project, will be representatives from the tenant agencies or commissions who will be the initial occupants of the building. This tenant group will provide the necessary information for functional programming. They will also work with the asset manager and building manager in organizing and setting up post occupancy operating parameters.

ProArts General Office Building Project Management Matrix

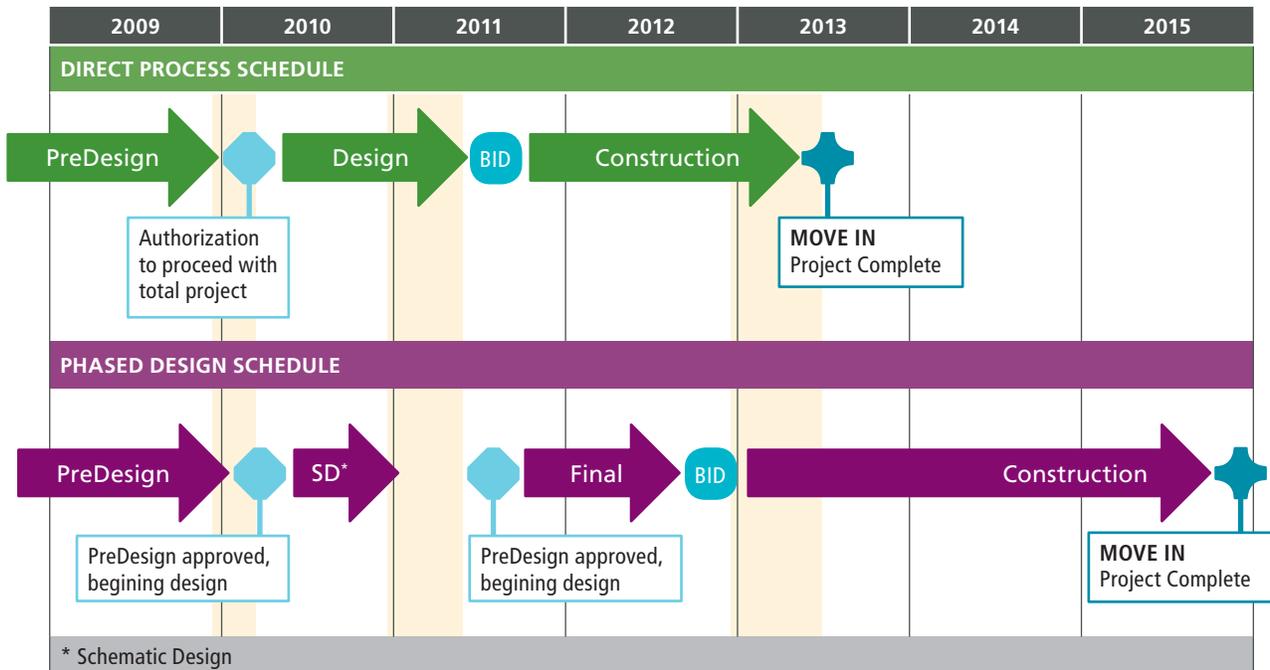


Schedule

The overall schedule for the ProArts Building is fairly straightforward. The most challenging component of scheduling the project is the detailed coordination of campus activities and continual operations during the construction period.

In the optimal scenario in order to capitalize on the construction costs opportunities and to maintain project continuity, the Legislature would authorize the project to proceed into design and then continue in a straight-forward manner into the procurement and construction phases. The 2009 budget proviso provided money to allow design to begin immediately upon approval of the Pre-Design. The 2009 Legislature would need to appropriate enough funds to finish the design and documentation phases. We would also need authorization to proceed and sell a COP for construction prior to the end of the current biennium. Construction could begin in the spring of 2011 anticipating completion in the summer 2013.

Alternatively, and perhaps more realistically with sufficient funds already in hand for design, and upon approval of the Pre-Design by the fiscal committees and OFM, design can proceed through the schematic design phase and partially into the design development phase, where specific tenant programming, further building and site design, and detailed cost estimating would result in a much clearer description of the project's scope and budget. The Project Team would hold the project at the end of schematic design until the 2011-13 biennium session. At that time when additional funds could become available, and upon receiving authorization to proceed, the Project Team would complete design development without loss of work product. There would be a gap of approximately 10 to 12 months between the end of schematic design and when funds would be available to move forward. Under this scenario, we could have a construction contract in place and be ready to sell the COP in late 2012. The ProArts building would be ready for occupancy in the later part of 2014.



3.0 PROGRAM ANALYSIS

3.0 Program Analysis

Existing Facilities

The ProArts site was purchased in 2008 with the plan to demolish the existing Professional Arts building and the small State Farm Buildings and fully redevelop the site in the future. The existing facilities are listed in the Facilities Inventory System. While some minor electrical work has been undertaken on the existing buildings since purchasing the property, very minimal renovation has occurred that would make the buildings suitable for State tenancies.



Space Needs Assessment and Requirements

General Administration Real Estate Services has completed a white paper outlining the needs of State Office workers both now and in the future. An excerpt from this report is included in the Appendix. In summary the report discusses the relationship between space standards and facility efficiencies with the recognition that a fundamental and powerful change is taking place in the ways in which office space is used and managed—driven in large part by the emergence of technology-enabled organizations. It also acknowledges that collaborative work teams and a greater variety in the types of work settings are indicators of the robust nature of this transformation. The traditional concept of space per person being the same as space per workstation is changing dramatically—marked by a dramatic increase in the concept of shared workspace, and resulting in the opportunity to significantly reduce redundancies and spatial requirements.

The report also discusses the benefits of increased investment in improving the office environment and the move towards “*high-performance building standards*”, as well as the incorporation of sustainability and the “*green building*” movement. It concludes that a holistic view of the office which encompasses necessities for support of employees, business functions and processes provides a better approach for understanding and responding to dynamic issues in the workplace. Since this will be a State-owned facility for the long-term, it is crucial that planning, programming and design approaches address current functional needs, respond to emerging workplace trends in order to accommodate future workforce demographics and culture, and realize cost and functional efficiencies in order to address economic conditions.

The US General Services Administration (GSA) has also recently conducted studies of the impact of the workplace on the cost and effectiveness in federal facilities. Their conclusions are published in *Innovative Workplaces: Benefits and Best Practices* excerpts of which are also included in the Appendix. In its summary document, the report concludes that:

“Most Federal office space suffers from poor workplace design and does not adequately support the increasingly collaborative work style of today’s information-based workforce. The result: **less productive and satisfied workers and higher costs due to inefficient space use.**”

Forward-thinking organizations of all sizes across all industries have come to recognize that innovative workplaces can enhance employee and business performance – resulting in long-term cost savings and/or improved organizational performance. Definitive industry studies prove that implementing innovative workplace strategies produces significant savings through **leveraging investments in human capital** – to improve employee productivity, reduce absenteeism, and increase retention rates; and **enhancing portfolio value** through reduced churn costs, energy consumption and office space requirements.”

From: Innovative Workplaces: Benefits and Best Practices

Assumptions

This project is intended to provide highly efficient, cost effective, functional and flexible office space generating high performance workspace that will effectively accommodate current and future work patterns for State functions for the next fifty years. The tenancies and the budget assumptions established for this facility are based on tenants with general office functions and normal access and security needs. In an optimally sized building for the site, the facility will accommodate 600-650 full time equivalent employees at the state standard of 215 rentable square feet per person with a 10% maximum cap on private offices. There will most likely be a large anchor tenant that might also accommodate several small agencies, boards, or commissions as co-occupants. The larger agency could provide technical support services which would be cost prohibitive for a small agency to provide in a stand-alone building. There will be common support spaces such as conference rooms and meeting rooms that can be shared between all building tenants.

Integrated Design Approach

Analyses reveal that an organization’s greatest expenses are directly related to employee costs in terms of their salaries, benefits, training, and loss of productivity and revenue due to absenteeism. Efforts to address this dynamic can have profoundly positive impacts on organizational efficiency, productivity, and customer service, and suggest an integrated design approach to facility design is essential in planning for future facilities in order to incorporate these considerations.

Program requirements establish a key body of design criteria used by the Project Team as a basis of design in the process of developing an integrated design solution. The integrated design process approaches facility design through a process of synthesis and vision:

- designing from the inside-out with considerations for appropriateness to program functions and flexibility, along with amenities that contribute to increased productivity;
- designing from the outside-in with considerations for context, orientation and image; and

- designing for the long-term with considerations for durability, adaptability and operational costs.

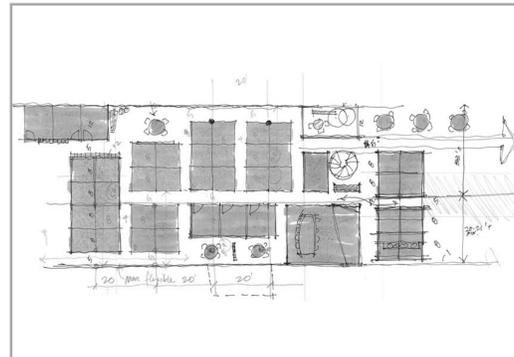
Additionally, the integrated design process draws from and assesses relevant bench-marking sources including current and emerging space allocation standards, environmental and sustainable design drivers, current State-owned office building precedents, and a review of emerging workplace typologies—all to establish broad and relevant context informing the process and leveraging knowledge towards optimal solutions.

Concept Approach

The concept that emerges from this integrated design approach is an “intelligent building” whose design response is informed by the internal and external pressures described above, shaped to accommodate specific conditions or requirements, and executed in a manner that demonstrates the intentions for functionality, efficiency, cost-effectiveness, sustainability, context, durability and appropriateness for State functions housed within. The building’s placement on the site establishes a strong urban response to the Capitol campus and the community. It exploits the proximate relationship with Centennial Park in a manner that enhances the park as an asset to the Campus, the community and the building occupants. Facades will respond to specific site and orientation conditions to address practical considerations for daylight and energy management. Materials will reinforce the dual nature of the building, both as an integral part of the Capitol Campus and as an important building in the neighborhood.

As noted above, the concept has been planned and programmed to house multiple tenants of varying sizes and accommodate current and future work patterns for State functions for the next fifty years. Floorplates have been configured to provide maximum planning flexibility and adaptability; to consolidate core functions in a logical manner for wayfinding and efficiency; to provide column-free and adequate floor areas to accommodate multiple tenant size and configurations; to consolidate common functions in order to capitalize on opportunities for resource sharing—reducing redundancies among multiple tenants; to encourage interaction and collaboration by providing strategically placed common open work zones; to accommodate technologies and services for connectivity and to adapt now and over time to change; and to establish a sense of place with an appropriate image and identity, instills a sense of purpose for the individual and workplace community.

Getting there is not a random process. It requires a deliberate and focused effort that examines project aspirations and intentions, and provides specific responses to each. The following outlines some of the process employed by the Project Team to define the internal requirements and develop an informed solution.



Programming Approach

This project is being developed along a two-pronged approach. The joint GA and OFM Facilities Planning group is assembling alternatives for potential tenants based on the 2009-2015 six year plans and the budget proviso language. At the time of publication of this document, the initial tenancies for the facility have not been finalized. Detailed functional programming will be included in the schematic design phase of the project after the pre-design is approved.

State Program Guidelines

The basis of design for the ProArts General Office Building assumes the State Efficiency Standards of 215 rentable square feet per employee, with an open/closed office ratio of 90%-10% as a baseline requirement.

State of Washington Space Allocation Standards. The base assumption for this effort utilizes the distribution of the State Program standard 8'x8' open office workstation (90%) and the 10'x12' private office (10%) as defined in the draft program matrix. In reality, specific agency programming and space planning may generate alternative workstation and office distribution, and consequently alter the rentable space per employee ratios. However, the base assumptions for efficiencies and allocations confirm that the building, and thus the project performance, can meet the criteria established by the Space Allocations Standards.

Prototype Target Space Program Analysis. In order to insure compliance with these standards and design a building shell that will efficiently accommodate them, the Project Team developed a prototype program matrix and numeric space program that provides a target distribution of functional spaces including offices, conference areas, common spaces, and support spaces. It also establishes targets for building core areas, and support spaces, as well as grossing factors for departmental and general building areas. This matrix assigns specific sizes, numbers, and metrics for each functional space as benchmarked against national corporate and institutional best practices for high performance workplace design.

General Office 140KSF DRAFT PROGRAM MATRIX (TARGET ANALYSIS)

Pro Arts Draft Building Program Rev. 10 0104

| SPACE | SIZE | NOM. DIM. | QUANTITY | USABLE SF | METRIC | COMMENTS |
|--|-------|-----------|------------|----------------|---|---|
| WORKSPACE | | | | | | |
| WORKSPACE | | | | | | |
| Workstations | 64 | 8 x 8 | 585 | 37,440 | 90% of desks | |
| | 120 | 10 x 12 | 65 | 7,800 | UP TO 10% of desks | |
| TOTAL WORKSTATION WORKSPACE | | | 650 | 45,240 | | APPROX. TARGET NUMBER OF DESKS: 140,000/215 = 650 QTY. ASSUME |
| HUB | | | | | | |
| WORK LOUNGE | 600 | | 5 | 3,000 | 1/50K @ 450 SF (800 SF HUB TOTAL) | COLLABORATION SPACE AND COMMON AREA |
| Dept. CONFERENCE RMS | | | | | | DECENTRALIZED 4-5 PEOPLE PER ROOM |
| SMALL FOCUS | 120 | | 10 | 1,200 | 1/50K (50% OF FLRS=2 RMS EA.) | |
| | 100 | | 10 | 1,000 | 1/50K @ 100 SF | |
| TOUCHDOWN / HOTEL | 200 | | 5 | 1,000 | 1/50K @ 200 SF | LOCATION MAY VARY |
| OTHER OPEN MTG AREA | | | | 3,160 | TOTAL COLLAB. - DEFINED COLLAB. | TO BE DETERMINED BY TENANTS. COULD INCLUDE: STUDIOS, PROJECT RMS, SITUATION RMS, ADD. TCHDN, ETC |
| TOTAL COLLABORATION WORKSPACE | | | | 9,360 | | 25% OF 8X8 workstations floor area (line 8)= RULE OF THUMB COLLABORATION SPACE ALLOWANCE |
| COMMON AREAS | | | | | | |
| LOBBY | 1,000 | | 1 | 1,000 | | VERIFY PER DESIGN. INCLUDES: RECEPTION, WAITING, UNISEX TOILET |
| ESPRESSO | 800 | | 1 | 800 | | |
| COMMON AREA, CIRCULATION | 7,500 | | 1 | 7,500 | | ALLOWANCE FOR INTERACTION, CIRCULATION, LIMITED FOODSERVICE, VERIFY PER DESIGN. |
| LIBRARY | 500 | | 1 | 500 | | |
| Building CONFERENCE RMS | | | | | | |
| EXTRA LARGE | 561 | 17x33 | 1 | 561 | STP - 1/100K (50% OF FLRS) | 30 PEOPLE MIN WITH NO LESS THAN 20-22 AT A TABLE |
| LARGE | 378 | 14x27 | 6 | 2,268 | STP - 2/50K | 16-22 PEOPLE PER ROOM |
| MEDIUM | 322 | 14x23 | 12 | 3,864 | STP - 4/50K | 10-14 PEOPLE PER ROOM |
| HUB | | | | | | HUB DIVIDED BETWEEN COLLABORATION SPACE AND COMMON AREA QUANTITY AUGMENTED FROM GIVEN METRIC TO ALLOW 2 HUBS PER FLR, AND PER PRECEDENT QUANTITY AUGMENTED FROM GIVEN METRIC TO ALLOW 2 HUBS PER FLR, AND PER PRECEDENT |
| KITCHEN / LUNCH COPY/SUPPLY | 200 | 9x24 | 5 | 1,000 | STP - 1/50K @ 200 SF (800 SF HUB TOTAL) | |
| | 150 | | 5 | 750 | STP - 1/50K @ 150 SF (800 SF HUB TOTAL) | |
| LOUNGE | 200 | | 5 | 1,000 | | 2/50K |
| AUXILIARY COPY | 120 | | 5 | 600 | NO MORE THAN 125' TRAVEL DISTANCE | WILL VARY BASED ON FLOOR / WING LAYOUT |
| WORKLINK | 1,500 | | 0 | 0 | 1500-2000 SF AVERAGE | deleted 09 1102 |
| TOTAL COMMON AREAS | | | | 19,843 | | |
| PROGRAM SUPPORT | | | | | | |
| LABS | | | | 0 | 0% OF GFA | NOT INCLUDED PER GA |
| MAIL ROOM | 400 | | 0 | 0 | 1 PER BUILDING | deleted per Owner input |
| BEVERAGE/GENERAL STORAGE | 650 | | 1 | 650 | 1 SF PER PERSON | |
| LOCKER RMS | 400 | | 2 | 800 | 1 PAIR PER BUILDING | |
| NEW MOTHERS / WELLNESS ROOM | 150 | | 1 | 150 | 1 PER WOMENS LOCKER ROOM | |
| ELECTRICAL ROOM | 300 | | 5 | 1,500 | 1 PER FLR | VERIFY SIZE AND REQUIREMENTS WITH ELECTRICAL ENGINEER |
| CABLE ROOM: IDF | 300 | | 5 | 1,500 | 300' MAX DISTANCE | VERIFY SIZE AND REQUIREMENTS |
| SECURITY / COMMAND CENTER | 450 | | 1 | 450 | | |
| CSER | 0 | | 0 | 0 | | NA |
| COMMUNICATIONS | 200 | | 1 | 200 | | VERIFY SIZE AND REQUIREMENT |
| SECURITY | 200 | | 1 | 200 | | VERIFY SIZE AND REQUIREMENT |
| TOTAL PROGRAM SUPPORT | | | | 6,450 | | |
| TOTAL PROGRAM SF | | | | 79,893 | | INCLUDES WORKSPACE, COLLABORATION SPACE, COMMON AREAS, AND PROGRAM SUPPORT |
| DGF - 60% OF TOTAL PROGRAM SF | | | | 47,936 | | DEPARTMENTAL GROSSING FACTOR - INCLUDES CIRCULATION AND INTERIOR PARTITIONS, BASED ON PERCENTAGES FOUND IN SAMPLE TESTS |
| BUILDING SUPPORT | | | | | | |
| ELEVATORS | 343 | | 4 | 1,372 | | NOT INCLUDED IN SF, WILL VARY BASED ON FLOOR / WING LAYOUT |
| STAIRS | 300 | | 15 | 4,500 | 3 SETS SERVING 5 FLRS | NOT INCLUDED IN SF, WILL VARY BASED ON FLOOR / WING LAYOUT |
| TOILET RMS | 300 | | 10 | 3,000 | ~8 FIXTURES PER FLR | PER CODE OR 1 FIXTURE PER 6,500, WILL VARY BASED ON FLOOR / WING LAYOUT |
| JANITORS CLOSET | 48 | 6 x 8 | 10 | 480 | 1 PER PAIR OF TOILET ROOMS | WILL VARY BASED ON FLOOR / WING LAYOUT |
| MAIN ELECTRICAL RM | 400 | | 1 | 400 | 1 PER BUILDING | VERIFY SIZE AND REQUIREMENTS WITH ELECTRICAL ENGINEER, ASSUME NOT IN GFA; LOCATE IN BELOW GRADE SPACE |
| MAIN DISTRIBUTION FRAME ROOM: MDF | 400 | | 1 | 400 | | |
| ELEVATOR EQUIPMENT RM. | 200 | | 1 | 200 | | VERIFY SIZE AND REQUIREMENT |
| ELEVATOR MRL CONTROL RM | 200 | | 1 | 200 | | VERIFY SIZE AND REQUIREMENT |
| RECYCLING CENTER | 500 | | 1 | 500 | | |
| TOTAL BUILDING SUPPORT SF | | | | 6,180 | | EXCLUDES STAIRS AND ELEVATORS |
| TOTAL BUILDING SUPPORT SF | | | | 6,180 | DOES NOT INCLUDE STAIRS AND ELEVATORS | |
| BGF - 60% OF TOTAL BLDG. SUPP. SF | | | | 6,631 | INCLUDES STAIRS AND ELEVATORS | BUILDING GROSSING FACTOR - INCLUDES CIRCULATION AND INTERIOR PARTITIONS (FOR STAIRS AND ELEVATORS AS WELL), REDUCED FROM DGF TO ACCOUNT FOR CENTRALIZED PROGRAM. |
| OFFICE COMPONENT SUBTOTAL SF | | | | 139,640 | 215 SF/MOD | SF EXCLUDES STAIRS, ELEVATORS, SHAFTS, MECHANICAL SPACE, PARKING SPACE AND EXTERIOR WALLS BEFORE CAFÉ AND MULTI PURPOSE ROOMS FIGURED IN, BEFORE MOD SIZE FLEX PREMIUM ADDED IN. |

High Performance Workplace

Meeting the State Efficiency Standards with specific programmatic targets, however, is only a partial solution to meeting the project goals for a high performance workplace. Numbers alone do not encourage collaboration and interaction, or suggest an organizational model that can foster cultural changes in departmental and interdepartmental resource sharing which are essential components of these goals.

Workplace Typologies Survey. The design of workplace environments is undergoing major transitions in a movement toward the objective of high performance by employees. This transition is occurring in the private and public sectors on a national and international scale. In the process of developing a programmatic approach to the ProArts project, the Project Team conducted a “virtual tour” of a collection of projects representing this broad spectrum, including national and international office case studies as well as a number of State-owned facilities completed over the last two decades.

This virtual tour confirmed previous findings relative to the impacts and advantages of incorporating measures for maximizing day lighting, views, environmental control, flexibility and collaboration within the workplace, and reinforced the direction of this programming approach.

Workplace typology studies also reinforced a direction to incorporate variety and versatility into the planning in order to better accommodate various departmental sizes and configurations likely to occupy this building over its useful life. Specifically, the Project Team determined that one size might not fit all, and recommended consideration for some variation in wing widths within the dimensional parameters noted below.

Encourage Collaboration with Space Distribution. In applying the target program analysis to alternative building configurations, the ProArts Project Team explored options for location and consolidation of potentially shared functions such as large and medium conference rooms, centralized hubs, work-link (shared transient office space), lounge and kitchenette areas to both encourage interdepartmental sharing, and increase overall program efficiencies. These are situated along prominent connecting elements (corridors, bridges and stairs) to express the idea of community and connection.

Address Silo Effect. “Magnet spaces” consolidate core functions in a logical manner for wayfinding and efficiency. Common functions have been centralized to capitalize on opportunities for resource sharing—reducing redundancies among multiple tenants. Consolidating conference and meeting areas into shared resource zones for the entire building population results in a higher utilization rate for the resources—reducing dramatically the dark periods that occur when a department “owns” the resource, and reducing the total amount of building area devoted to them. Sharing of these areas can alter the culture of organizations and reduce the “silo” effect that permeates institutions when departmental boundaries are tightly delineated. Importantly, this effort can have a qualitative impact on how the occupants experience the space and the building.

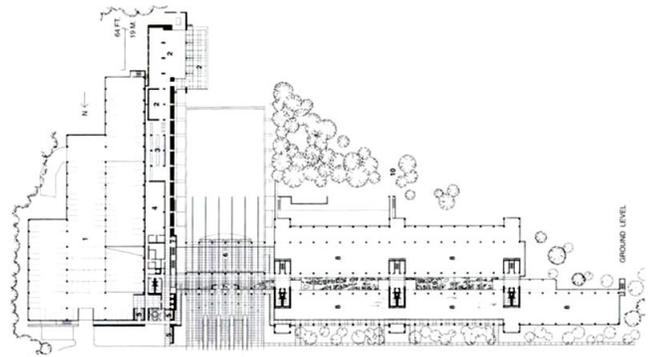
Genzyme Headquarters, Cambridge MA. Dynamic central atrium provides daylight and open visual connection throughout the office, and encourages communication and interaction, creating an energetic and unified workplace. (Behnisch, Behnisch and Partners, 2003)



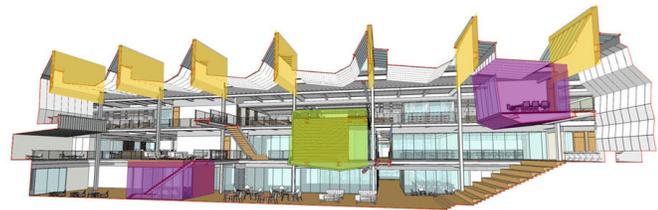
EPA Building, Denver. Narrow floorplates for daylighting surround a bright central atrium and common/conference core zones to improve access and utilization of common elements. (ZGF Architects, 2000)



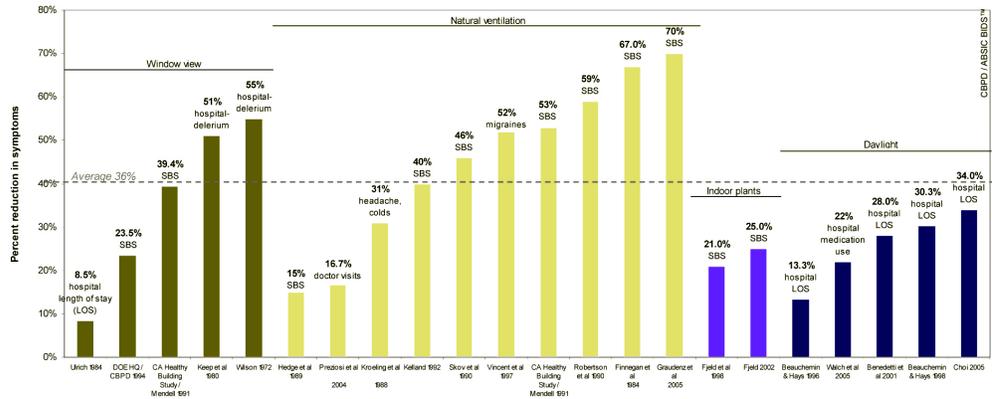
Washington State Department of Ecology, Lacey. Workspace floorplates of two different depths are aligned along a toplit atrium to bring in natural light. Common activities are located in the remote other building opposite the entry, rather than centrally to the workspace. (Richard Keating, architect, 1994)



Port of Portland Headquarters, (HQP2), Portland, OR. Narrow daylit office floorplates are arranged along linear toplit atria; interaction zones and common support program elements are designed as "magnet" spaces to encourage communication and collaboration. (ZGF Architects, 2010)



Health Gains from Access to the Natural Environment (22 Case Studies)



Center for Building Performance and Diagnostics, a NSF / IUCRC, and ABSIC at Carnegie Mellon

True Cost of Least-cost Buildings: Absenteeism Baseline Employee Salary and Benefits

| | Annual absenteeism rate | Equivalent hours lost work | Annual cost to employer |
|---------------------------------|-------------------------|----------------------------|-------------------------|
| Private sector employees | 1.7% | 35 | \$ 765 |
| Public sector employees | 2.2% | 42 | \$ 1,100 |

Bureau of Labor Statistics, U.S. Department of Labor (2003)

Center for Building Performance and Diagnostics, a NSF / IUCRC, and ABSIC at Carnegie Mellon

The benefits of re-thinking such space allocation and distribution manifest themselves in many ways, both in terms of cost of ownership of the facility as well as the quality and productivity associated with the occupant experience.

Wayfinding Clarity. Consolidation of common spaces can serve to establish public zones within a multi-tenant building that both define and provide amenity spaces for the entire population, resulting in clearer wayfinding and a more intuitive understanding of the building's organization. One test of workplace success is whether the space reveals a logical and understandable organization, providing occupants and visitors with a clear and appropriate system for wayfinding. Ideally, this "system" is embedded in the internal circulation patterns, the planning and placement of building and tenant functions, and in the visual "access" provided throughout. Importantly, it is not reliant on signage alone. The Project Team tested alternative program organizational models to identify major and minor circulation patterns, organized common functions in visual and physical proximity along those patterns, and provided specific building responses to accommodate them.

Daylight and Environmental Amenity. Employee access to daylight, views, and environmental amenities has been shown to improve human health and performance. Building planning was driven by the goal of maximizing daylight and views in all workspaces, consistent with the principal priorities drawn from the Workplace Typology survey.

Data confirm the link between such workplace qualities and the bottom line: improved health, attitude and performance correlates to reduced absenteeism, in both private and public sector studies.

Sense of Place / Collective Identity. The design of high-performance workplace should establish a sense of place with an appropriate image and identity, leveraging the environmental amenities mentioned above and capitalizing on the unique environmental attributes of the site (Centennial Park in particular). In addition to bringing in daylight and providing internal view connections, the atrium strategy creates an opportunity for a large-scale unifying space at the scale of the whole building. The space can support large-group gatherings; Microsoft, for example has moved to this building type in order to facilitate wayfinding, encourage interaction and to house their "all-hands" meetings. This approach can also help unite various tenant groups or departments and instill a sense of common purpose for the individual and entire workplace community.



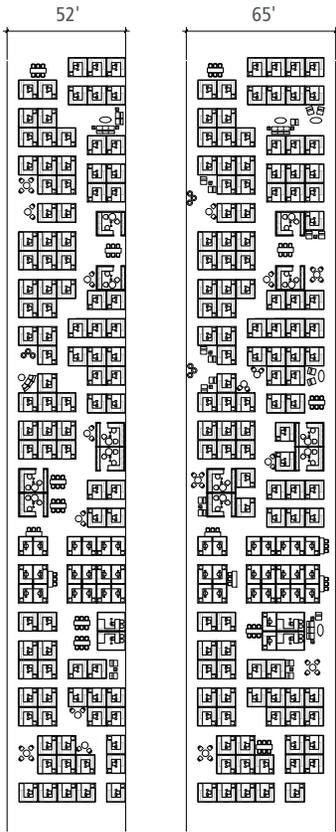
Wing Width Alternatives

Establishing wing width dimensions with which to proceed to design the building configurations is a crucial step in the determination of the comparative performance of the facility relative to the quantitative and qualitative criteria noted previously. The efficiency of an office layout can be dramatically impacted by the structural spacing of columns within a floor plate—either seamlessly accommodating multiple office mod configurations, or forcing less efficient arrangements due to misplaced columns. The dimensional distance between an occupant space and an exterior wall will impact the quality of daylight that reaches the office mod—changing the quality of light within the mod and impacting the amount of energy required to meet basic lighting standards.

Daylight and Solar Orientation. Considerable analyses have shown that daylight can penetrate a space approximately 30' before the effectiveness is diminished dramatically; suggesting that a maximum distance between exterior window walls should be approximately 60'. Indeed, many examples of modern workplace design bears this out to the degree that many European countries establish this distance as a maximum allowable dimension for new office building floorplates.

Floorplate Dimensions Optimized for State Modules. The Project Team combined these quantitative and qualitative standards to establish several wing width dimensions for optimal response to them, and provide guidelines for the eventual design of the floorplates. The team established a dimensional range of between 52' and 65' with which to explore alternative building configurations. State standards for workstation dimension (most commonly 8'x8' open plan) were assumed in order to optimize dimensions for efficiency, while still allowing tenant layout flexibility. These wing dimensions provide rational and efficient options for structural solutions, while also providing for a significant number of alternative workstation layouts and arrangements.

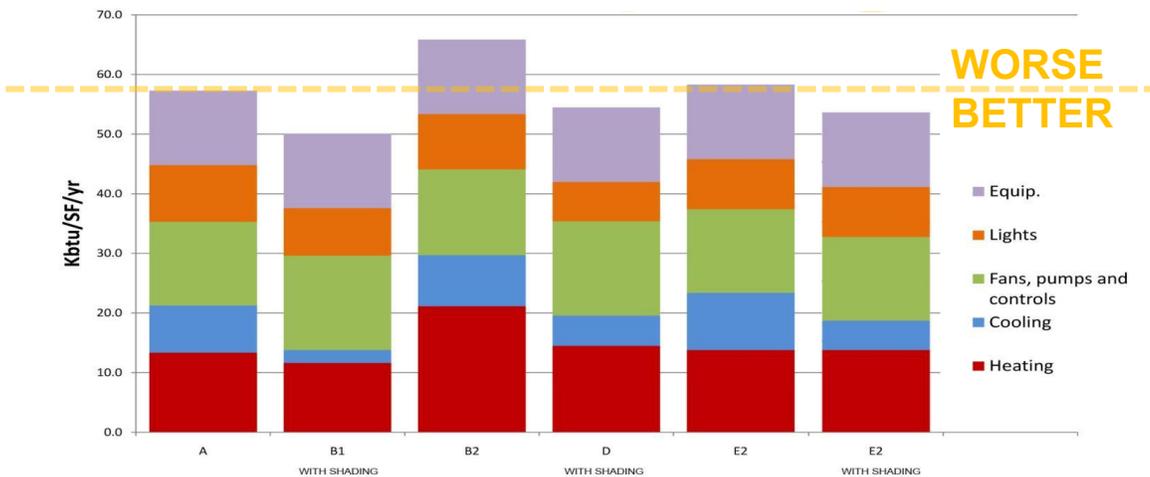
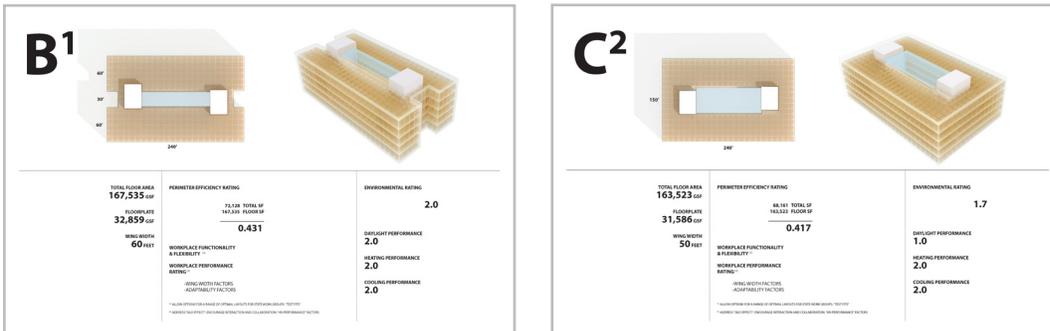
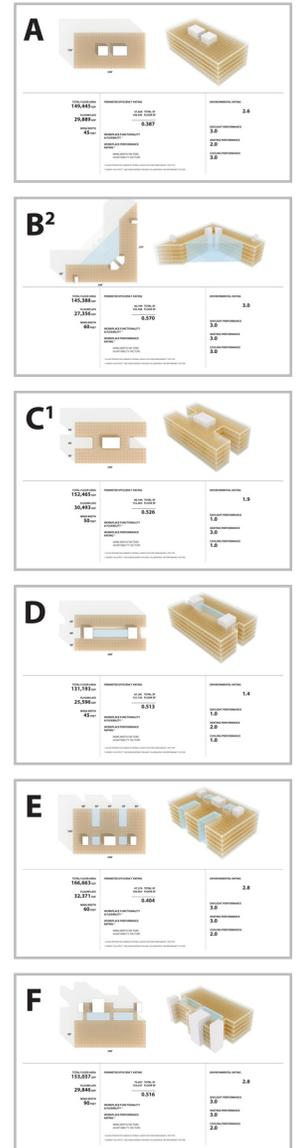
Flexibility and Efficiency. The Project Team applied the target program allocation to a number of building wing alternatives in order to study a range of “idealized” structural and spatial grids. A key element of this study was the effort to insure the maximum number of workspace configuration possibilities to provide flexibility for initial and subsequent occupancies. In order to afford this flexibility in space utilization over time, the design team sized floor plates to efficiently accommodate a range of layout options based on State module standards. Floorplates have been configured to provide maximum planning flexibility and adaptability with minimal fixed elements in column-free efficient work areas at low square footage per person, balanced by common open workspaces and shared conference and support facilities, all in order to adapt now and over time to change.



Optimizing Value

Dimensional Test Fit Studies. Once established, the functional and numeric program becomes the gauge for studies of alternative building configurations, as they are tested for performance against quantitative and qualitative benchmarks. Following the premise that, at least from a programmatic point of view, the building is being designed from the inside-out, the Project Team set about to test dimensional and functional adjacencies in order to establish fundamental baselines for floor plate areas, wing widths, orientation appropriateness and distribution of services. These baseline determinations are crucial in confirming that the building will ultimately be responsive to the drivers for high-performance workspace, incorporating standards for abundant day-lighting, access to views, flexibility/adaptability, environmental control, collaboration/interaction, and equitable distribution of and access to services and amenities.

Configuration and Orientation Metrics. The Project Team made an assessment of alternative building configuration options, looking at projected energy efficiency as well as workplace performance suitability. These studies were conducted on simple hypothetical building forms, and were focused on projected energy consumption related to form and orientation. This was done concurrent with program and site studies in order to inform the decision on preferred plan configuration.



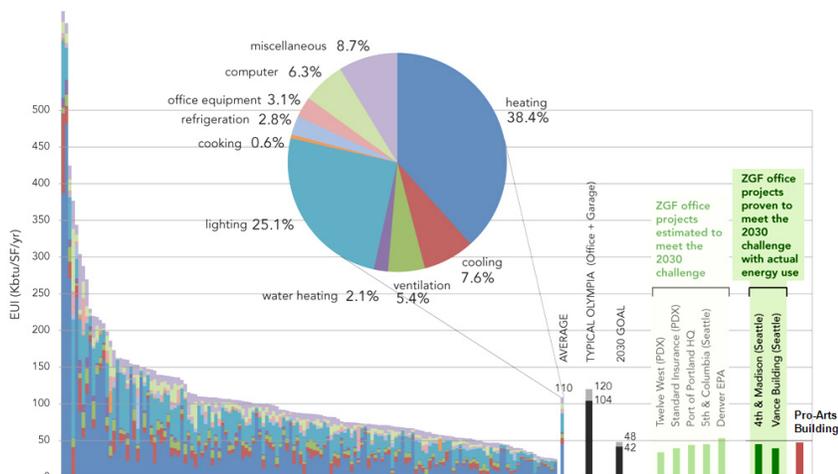
Envelope Efficiency Analysis. Along with analysis of projected energy performance and qualitative assessment of workplace criteria, the configuration options were compared in terms of envelope efficiency, a measure influencing both heat gain/loss and capital cost. Preferred alternatives B1 and C2 were identified in which workplace potential and envelope efficiency were both highly rated.

| | FLOOR AREA | | | | ENVELOPE AREA | | | Envelope Efficiency Factor |
|-----------|----------------------------|---------------------|----------------------|-----------------------|-------------------------|--------------------------|---------------------|----------------------------|
| | Floorplate Gross Area (SF) | Total 5 Levels (SF) | Enclosed Courts (SF) | Total Gross Area (SF) | Vertical Enclosure (SF) | Courtyard Enclosure (SF) | Total Envelope (SF) | |
| A | 29,889 | 149,445 | - | 149,445 | 57,828 | - | 57,828 | 0.387 |
| B1 | 32,859 | 164,295 | 3,240 | 167,535 | 68,888 | 3,240 | 72,128 | 0.431 |
| B2 | 27,356 | 136,780 | 8,608 | 145,388 | 59,886 | 22,913 | 82,799 | 0.570 |
| C1 | 30,493 | 152,465 | - | 152,465 | 80,184 | - | 80,184 | 0.526 |
| C2 | 31,586 | 157,930 | 5,593 | 163,523 | 62,568 | 5,593 | 68,161 | 0.417 |
| D | 25,596 | 127,980 | 3,213 | 131,193 | 64,148 | 3,213 | 67,361 | 0.513 |
| E | 32,371 | 161,855 | 4,808 | 166,663 | 58,302 | 9,074 | 67,376 | 0.404 |
| F | 29,846 | 149,230 | 3,807 | 153,037 | 75,200 | 3,807 | 79,007 | 0.516 |

Floor Area Tenant Subdivision Options. Floorplates are sized and configured to allow for diverse tenant types and sizes, with plan zones available to house multiple tenants of varying sizes. The configuration was selected in light of its ability to accommodate current and future work patterns for State functions for the next fifty years, with the idea of being able to subdivide the floor areas in various ways (including the ability to separate more private or secure tenant spaces if needed, while preserving the open daylight qualities of the workplace as a whole. Floorplates have been configured to provide maximum planning flexibility and adaptability.

High Performance Green Building

Design for sustainability and efficient energy utilization has been integrated into the programming and design process, at a minimum meeting the LEED Silver target as well as establishing strategies to craft a demonstration building that meets the programmatic objectives within budget while still achieving energy efficiencies that qualify the project to meet the 2030 Challenge (a 60% reduction in energy use intensity compared to typical buildings). These measures will reduce operating costs associated with energy, but also establish the ProArts Building as a visible and tangible symbol of Washington State’s environmental values.

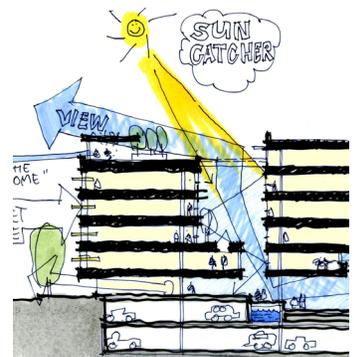


| This sheet weights ranking by energy use of baseline model in three key energy areas: | | | | | |
|---|----------------|--|--|--|--|
| Baseline: | 31.18078 | 7.226459 | 13.85867 | 10.09565 | |
| | Weighted score | Cooling | Heating | Daylighting | |
| A | 2.6 | 3 Peak loads on east and west are an issue | 2 Compact envelope | 3 Deeper floor plate | |
| B1 | 2.0 | 2 Good orientations, low peak loads, atrium may facilitate stack vent, floor plate may be too thick for nat vent (depends on interior config) | 2 Heat loss to atrium may be concern, depending type and placement of glazing | 2 Good daylight thru atrium, still relatively thick floor plate | |
| B2 | 3.0 | 3 Peak loads on east and west are an issue | 3 High ratio of perimeter to area, puts premium on envelope performance | 3 High perimeter area, but orientations not great | |
| C1 | 1.9 | 1 Good orientations, more suitable to cross ventilation | 3 High ratio of perimeter to area, puts premium on envelope performance | 1 Great perimeter area, floor depth | |
| C2 | 1.7 | 2 Good orientations, though stack vent may not be able to serve entire bldg | 2 Relatively compact, atrium is wild card | 1 Bringing light into atrium is critical | |
| D | 1.4 | 1 Good orientations, low peak loads, floor depth will permit cross/stack vent | 2 Heat loss to atrium may be concern, depending type and placement of glazing | 1 Thin floor plates, good orientation | |
| E | 2.2 | 3 Peak loads on east and west, areas may be too thick or blocked for cross ventilation | 2 High ratio of perimeter to area, mitigated by atria between wings | 2 Relatively thick floor plate, interior corners, but light from many sides | |
| F | 2.8 | 2 Good orientation limits peaks, too thick for cross ventilation | 3 Envelope loss in bridges to core services a concern | 3 Too thick to daylight thru floor plate, services block some light | |

Orientation and Narrow Wing Widths. The basic plan of the building seeks to optimize energy use and indoor environmental quality. By presenting the longest facades to the north and south, and minimizing exposures to the east and west, excessive solar heat gain during the summer is reduced, while the opportunity to harvest indirect daylight is increased. In addition, the office wings are oriented around an atrium, bringing light into the center of the building, and allowing the narrow wings (52' and 65') to have daylight on both sides. Energy studies, considering heating, cooling, and lighting energy, were used to evaluate basic options, and the optimal performance option was chosen and further refined to address programmatic requirements.



Daylighting. Daylighting is the employment of indirect light (sunlight diffused from cloud cover or the clear sky, and direct sunlight reflected off shading elements) to reduce the use of artificial electrical lighting while minimizing workplace glare. As such, proper daylighting reduces overall energy use by not only reducing energy for lighting but also by reducing the cooling energy associated with heat gain from the lighting and direct sun. Daylight will be brought in from two sides, the external facade and the central atrium.



High Efficiency Lighting Fixtures. High efficiency fluorescent fixtures (T5 or T8), with dimming ballasts, will adjust electrical output according to available daylight. Electric lighting zones will run in parallel rows from the edge of the building. Occupancy controls will further achieve savings when in places and at times when lights are typically not needed. Highly efficient LED lighting may be used where appropriate and cost effective (most likely outdoors, accent lights, and exits signs, etc.). Optimization of facades: Orientation-specific and optimized facade strategies will be studied in the design phase to maximize use of daylight and also block glare. External shading devices and high-performance low-E insulating glazing can eliminate direct solar gain during peak hours and provide sufficient overall insulating value. Incorporation of light shelves as a component of the exterior cladding block glare and contribute to a more even distribution of daylight throughout the workspace. The facade will be designed, and tested, to limit unwanted infiltration of outside air.



External Shading. A system of fixed and operable components, optimized for each facade, is envisioned for the building. East and west facades, where the sun is often low and in the sky and sweeps around to the south, will be studied for potential operable external louvers and fixed vertical components. The south facade, subjected to the most extreme solar exposures will be studied for use of horizontal fixed components. The north side, less critical for sun protection, will utilize vertical fins with wide spacing to provide some solar protection during the longest days of summer. The atrium will utilize shading components to diffuse direct sunlight, while still bringing in indirect light from the sky's zenith.

Views and Connection to Outdoors. The prioritization of daylighting provides an additional benefit with the provision of views for virtually all occupants—much of which will focus on Centennial Park. An open floor plan and narrow wings optimizes the opportunity for every employee to have a view directly to the outdoors and/or into the atrium as well.

Optimized Building HVAC Systems. At least two complete building level ventilation and conditioning strategies will be considered during the early design phases of the ProArts Building, representing industry standard practice and typical best practice (under-floor air distribution with ground source heat pump and heat recovery on ventilation) at a minimum. Other technologies that may be considered include mixed mode natural ventilation, indirect evaporative cooling, condensing boilers, variable refrigerant flow or four pipe fan coil units, radiant conditioned where necessary.



Under-floor Air Distribution Systems. In order to maximize indoor air quality, flexibility, and energy savings benefits, under-floor air ventilation is envisioned to be the typical ventilation and base conditioning strategy for major portions of the building. Additional spot conditioning with chilled beams, radiant panels, fan coil units, etc. in areas requiring specific requirements may be integrated as necessary.

Atrium Stack Ventilation. The central atrium will function not only as a daylighting aperture, but also as a central air exhaust for each floor of offices. Heat recovery ventilators will capture exhaust air thermal energy (most critically during coldest times) and exchange and distribute the heat to areas of the building that are in heating mode.

Energy Management. Energy use in the building will be metered and monitored as an integral function of the building systems, providing feedback to the building operators and users. Sub-metering of electrical systems will provide the capability to conduct measurement and verification (M&V) analysis of the building to be compared to design predictions. The management and reduction of unnecessary energy use at individual workstations is an important component of achieving energy goals. Computer energy management programs will be augmented with individual occupancy sensors for specific non-critical plug loads (desk lamps, etc). An overall energy management analysis and display program (to be available at individual stations, a central kiosk in the atrium, and possibly the internet) will also be considered.

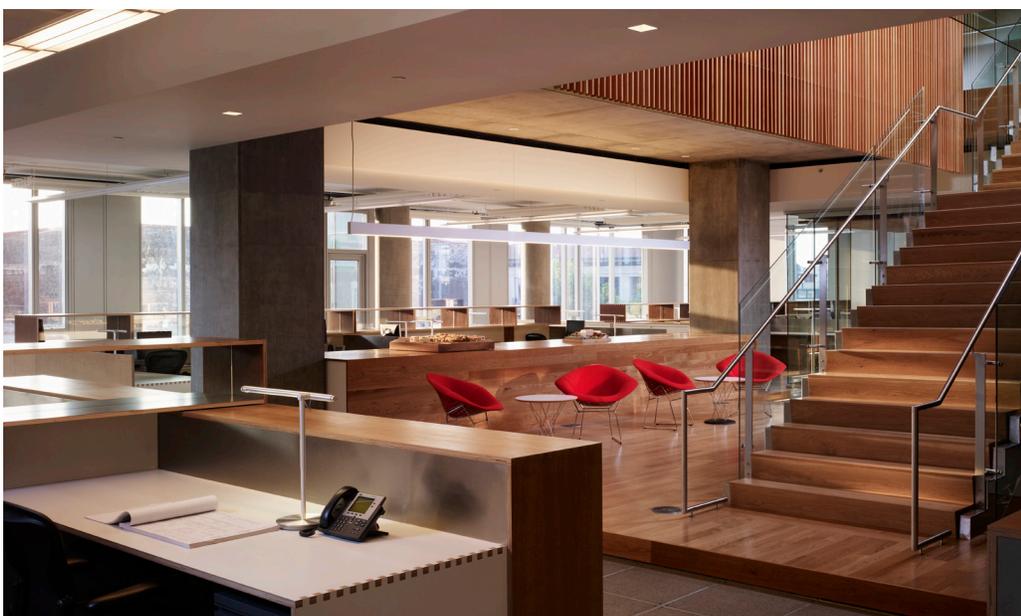
Renewable Energy Systems. While the first priority will be to reduce energy use, renewable energy systems will be investigated in order to achieve overall life-cycle cost effectiveness and to incorporate all financing and rebate incentives. Preliminary analysis suggests that a system for solar hot water generation will be most economically viable, followed by the potential use of photovoltaic panel arrays.

Green Roof. A green roof is envisioned for the northern wing of the office building. This system has many functions and is designed to manage the storm-water surge from the entire building and reduce the heat island effect. A green/living roof will provide habitat and serve as a visual, demonstrable symbol of the State’s commitment to sustainability while providing a tool for educational purposes.

Bioswales and Landscaping. Beyond providing areas for human congregation, natural habitat, and views, landscaping systems will be designed to handle all typical storm-water events on site.

Blackwater / Toilet Waste. One of the most cost-effective and sustainable solutions that can be considered for the ProArts Building is the consideration for sending waste water to the LOTT Wastewater facility where it can be treated to meet Class A Reclaimed Water standards—suitable for all uses except drinking water. The Project Team will make efforts to re-use such water for irrigation and/or toilet flushing, when a return connection for reclaimed water is established. Other alternatives include a living machine in the building atrium to clean and recycle blackwater (toilet waste), or grey water (sink waste) gardens outside the building. The team will also incorporate additional strategies to reduce overall impact including best technology low-flow toilet fixtures, faucet sensors and timers.

Materials / Finishes. Interior and exterior materials will be sourced and selected to be effective and durable, utilizing materials that are as sustainable as possible, considering their life cycle, local origin, recycled content, recyclability and embodied energy.



LEED NC v 2009 Checklist

| 66 | 22 | 18 | 4 |
|----|----|----|---|
| Y | ?Y | ?N | N |
| 22 | 1 | 3 | 0 |
| Y | | | |
| 1 | | | |
| 5 | | | |
| | | 1 | |
| 6 | | | |
| 1 | | | |
| 3 | | | |
| | | 2 | |
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| 1 | | | |
| 1 | | | |
| 1 | | | |
| 1 | | | |
| 1 | | | |
| | 1 | | |

Total Project Points

Sustainable Sites

- c** Prereq 1 Construction Activity Pollution Prevention
- d** Credit 1 Site Selection
- d** Credit 2 Development Density & Community Connectivity (5 points)
- d** Credit 3 Brownfield Redevelopment
- d** Credit 4.1 Alternative Transportation: Public Transportation Access (6 points)
- d** Credit 4.2 Alternative Transportation: Bicycle Storage & Changing Rooms
- d** Credit 4.3 Alternative Transportation: Low-Emitting and Fuel-Efficient Vehicles (3 points)
- d** Credit 4.4 Alternative Transportation: Parking Capacity (2 points)
- c** Credit 5.1 Site Development: Protect or Restore Habitat
- d** Credit 5.2 Site Development: Maximize Open Space
- d** Credit 6.1 Stormwater Design: Quantity Control
- d** Credit 6.2 Stormwater Design: Quality Control
- c** Credit 7.1 Heat Island Effect: Non-Roof
- d** Credit 7.2 Heat Island Effect: Roof
- d** Credit 8 Light Pollution Reduction

| 4 | 2 | 4 | 0 |
|---|---|---|---|
| Y | | | |
| 2 | | | |
| | | 2 | |
| | | 2 | |
| 2 | | | |
| | 1 | | |
| | 1 | | |

Water Efficiency

- d** Prereq 1 Water Use Reduction: 20% Reduction
- d** Credit 1.1 Water Efficient Landscaping: Reduce by 50% (2 points)
- d** Credit 1.2 Water Efficient Landscaping: No Potable Water Use or No Irrigation (2 points)
- d** Credit 2 Innovative Wastewater Technology (2 points)
- d** Credit 3.1 Water Use Reduction: 30% Reduction (2 points)
- d** Credit 3.2 Water Use Reduction: 35% Reduction (1 point)
- d** Credit 3.2 Water Use Reduction: 40% Reduction (1 point)

| 12 | 13 | 10 | 0 |
|----|----|----|---|
| Y | | | |
| Y | | | |
| Y | | | |
| 2 | | | |
| 2 | | | |
| 2 | | | |
| 2 | | | |
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Energy & Atmosphere

- c** Prereq 1 Fundamental Commissioning of the Building Energy Systems
- d** Prereq 2 Minimum Energy Performance
- d** Prereq 3 Fundamental Refrigerant Management
- d** Credit 1.1 Optimize Energy Performance: 14% new or 10% Existing (2 points)
- d** Credit 1.2 Optimize Energy Performance: 18% new or 14% Existing (2 points)
- d** Credit 1.3 Optimize Energy Performance: 22% new or 18% Existing (2 points)
- d** Credit 1.4 Optimize Energy Performance: 26% new or 22% Existing (2 points)
- d** Credit 1.5 Optimize Energy Performance: 30% new or 26% Existing (2 points)
- d** Credit 1.6 Optimize Energy Performance: 34% new or 30% Existing (2 points)
- d** Credit 1.7 Optimize Energy Performance: 38% new or 34% Existing (2 points)
- d** Credit 1.8 Optimize Energy Performance: 42% new or 38% Existing (2 points)
- d** Credit 1.9 Optimize Energy Performance: 46% new or 42% Existing (2 points)
- d** Credit 1.10 Optimize Energy Performance: 48% new or 32% Existing (1 point)
- d** Credit 2.1 On-Site Renewable Energy: 1%
- d** Credit 2.2 On-Site Renewable Energy: 3%
- d** Credit 2.3 On-Site Renewable Energy: 5%
- d** Credit 2.4 On-Site Renewable Energy: 7%
- d** Credit 2.5 On-Site Renewable Energy: 9%
- d** Credit 2.6 On-Site Renewable Energy: 11%
- d** Credit 2.7 On-Site Renewable Energy: 13%
- c** Credit 3 Enhanced Commissioning (2 points)
- d** Credit 4 Enhanced Refrigerant Management (2 points)
- c** Credit 5 Measurement & Verification (3 points)
- c** Credit 6 Green Power (2 points)

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Materials & Resources

- d Prereq 1 Storage and Collection of Recyclables
- d Credit 1.11 Building Reuse: Maintain 55% of Existing Walls, Floors, & Roof
- d Credit 1.12 Building Reuse: Maintain 75% of Existing Walls, Floors, & Roof
- d Credit 1.13 Building Reuse: Maintain 95% of Existing Walls, Floors, & Roof
- d Credit 1.2 Building Reuse: Maintain 50% of Interior Non-Structural Elements
- c Credit 2.1 Construction Waste Management: Divert 50% from Disposal
- c Credit 2.2 Construction Waste Management: Divert 75% from Disposal
- c Credit 3.1 Material Reuse: 5%
- c Credit 3.2 Material Reuse: 10%
- c Credit 4.1 Recycled Content: 10% (post-consumer + 1/2 pre-consumer)
- c Credit 4.2 Recycled Content: 20% (post-consumer + 1/2 pre-consumer)
- c Credit 5.1 Regional Materials: 10% Extracted, Processed, and Mfg Regionally
- c Credit 5.2 Regional Materials: 20% Extracted, Processed, and Mfg Regionally
- c Credit 6 Rapidly Renewable Materials
- c Credit 7 Certified Wood

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Indoor Environmental Quality

- d Prereq 1 Minimum IAQ Performance
- d Prereq 2 Environmental Tobacco Smoke (ETS) Control
- d Credit 1 Outdoor Air Delivery Monitoring
- d Credit 2 Increased Ventilation
- c Credit 3.1 Construction IAQ Management Plan: During Construction
- c Credit 3.2 Construction IAQ Management Plan: Before Occupancy
- c Credit 4.1 Low-Emitting Materials: Adhesives & Sealants
- c Credit 4.2 Low-Emitting Materials: Paints & Coatings
- c Credit 4.3 Low-Emitting Materials: Flooring Systems
- c Credit 4.4 Low-Emitting Materials: Composite Wood & Agrifiber Products
- d Credit 5 Indoor Chemical and Pollutant Source Control
- d Credit 6.1 Controllability of Systems: Lighting
- d Credit 6.2 Controllability of Systems: Thermal Comfort
- d Credit 7.1 Thermal Comfort: Design
- d Credit 7.2 Thermal Comfort: Verification
- d Credit 8.1 Daylight and Views: Daylight 75% of Spaces
- d Credit 8.2 Daylight and Views: Views for 90% of Spaces

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Innovation in Design

- d Credit 1.1 Innovation or Exemplary Performance: (95% construction waste or other)
- d Credit 1.2 Innovation or Exemplary Performance (Green housekeeping or other)
- d Credit 1.3 Innovation or Exemplary Performance (Green education or other)
- d Credit 1.4 Innovation in Design: (Integrated Design Process or other)
- d Credit 1.4 Innovation in Design: Integrated Pest Mngt
- d Credit 2 LEED Accredited Professional

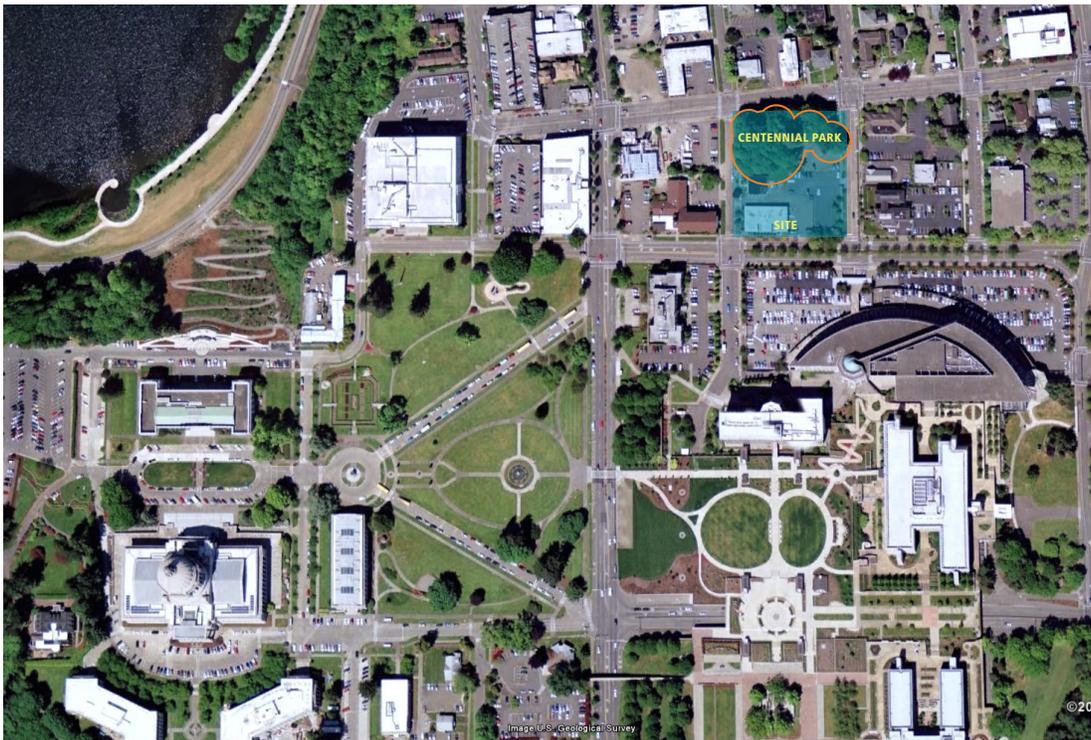
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Regional Priority

- d Credit 1.1 Regionally Defined Credit (SSc1, SSc5.1, SSc6.1, MRc7)
 - d Credit 1.2 Regionally Defined Credit (SS5.1)
 - d Credit 1.3 Regionally Defined Credit (SSc6.1)
 - d Credit 1.4 Regionally Defined Credit (MRc7)
- Other regional priorities: EAc1(48%/44%), EAc2(13%)

4.0 SITE ANALYSIS

4.0 Site Analysis



Site Description

This Pre-Design Report focuses on the ProArts site authorized in the 2009 Legislative Session, in the context of the entire block as described herein. The site is located on the southern portion of the block bounded by Union and 11th Avenues, and Washington and Franklin Streets. Centennial Park is located on the northern portion of the block. The site is adjacent to the East Capitol Campus, immediately across Washington Street from the Natural Resources Building, and is located within the Downtown Business Zone as identified in the City of Olympia Land Use and Comprehensive Plan. The City of Olympia Zoning Code allows a building height of 75 feet above average grade, with an allowance of an additional 18 feet for mechanical penthouses. This would allow an office building of five stories.

Existing Conditions

There are two existing structures on the site that would be demolished under this development scenario. The two-story ProArts building, and the one-story State Farm Building. Additionally, there are surface parking lots that provide approximately 70 spaces to serve the existing building occupants.

Centennial Park is immediately adjacent to the project site along its northern boundary. The park offers a natural setting in contrast to the development that has and continues to occur in the immediate vicinity and while somewhat underdeveloped and maintained it has the potential to become a central open/





natural gem in the midst of this Downtown Business district. Currently there are numerous alder and maple trees along with other naturally occurring shrubs and undergrowth within the park boundaries. The most notable feature of the park is the majestic sequoia tree that bears the name of former Governor Dan Evans, which is centrally located within the park on an elevated knoll. Care must be taken to prevent encroachment into the root system of this tree in order to preserve its vitality. The foundations of several residential structures remain within the park, posing current hazards to users of the park as well as to the health of the tree.

The site is surrounded on three sides by a series of somewhat underdeveloped commercial properties, containing a variety of scales among a very eclectic mix of architectural expressions. The City of Olympia Comprehensive Plan, which designates this area as the Union Avenue District, notes that the predominant land uses within the 52 acre sub-area are professional services and office space. The State of Washington leases and/or owns 160,000 square feet of office space within this sub-area with the largest concentration located within the Evergreen Plaza Building and the 9th and Columbia Building. Numerous statewide organizations also have headquarters building located here, including the Washington Grange, the Washington State Association of Counties, and the Association of Washington Cities.

The City of Olympia's Comprehensive Plan established a set of goals for the Union Avenue sub-area that acknowledge the important relationship between the State Capitol Campus and the Downtown. It recommends strengthening the links between the West and East Campus and Union Avenue with development of high intensity office, retail and service uses that incorporate pedestrian-oriented landscaping, and further reinforce the visual and physical linkages to the Capitol campus. The Comprehensive Plan also establishes four themes intended to express both the heritage of the Downtown and chart a course for future development. They intend to identify:

- Downtown as the urban hub of the region
- Downtown's connection with the waterfront
- Downtown's connection with the State Capitol Campus
- Downtown's as an historic resource

The ProArts project presents the opportunity to strengthen the identity of Olympia as an important regional hub and the center of government for the State.

Site Programming

The Legislative Proviso stipulates that the site should be *optimized* for development; that potential parking and mitigation requirements be reviewed; and construction costs and schedule be analyzed. Within this stipulation and in compliance with the goals stated in the

Comprehensive Plan, the Project Team has identified a number of goals and objectives for the site that explore the question of *optimization* in terms of:

- Efficient site utilization for development
- Value-based expenditure of State resources
- Context-appropriate height/bulk/scale within the site boundaries and neighborhood
- Prominence and identity to signal the importance of the institution and function housed within the building
- Open space preservation and enhancement of Centennial Park as an integral part of the project

For the purposes of this Pre-Design report, the Project Team considers the “site” to include the entire city block as described above.

Topography

The full site is comprised of an entire city block (including Centennial Park) containing an area of 75,676.51 square feet, or 1.74 acres. The proposed building site is approximately 39,667 square feet, or .91 acres. The site slopes from a high point at the corner of Washington Street SE and 11th Avenue SE of approximately elevation 78', to a low point at the corner of Franklin Street SE and Union Avenue SE of approximately 56'. There is an elevation drop of approximately 10' to the east along 11th Avenue SE, and to the north along Washington Street SE. The site slopes generally from the high point at the southwest corner to the low point at the northeast corner, but is interrupted by the prominence of a knoll centrally located within the Centennial Park boundaries where the 85' tall sequoia is located. This is the Dan Evans Tree noted previously, which forms both the topographic and landscape focal point of Centennial Park.

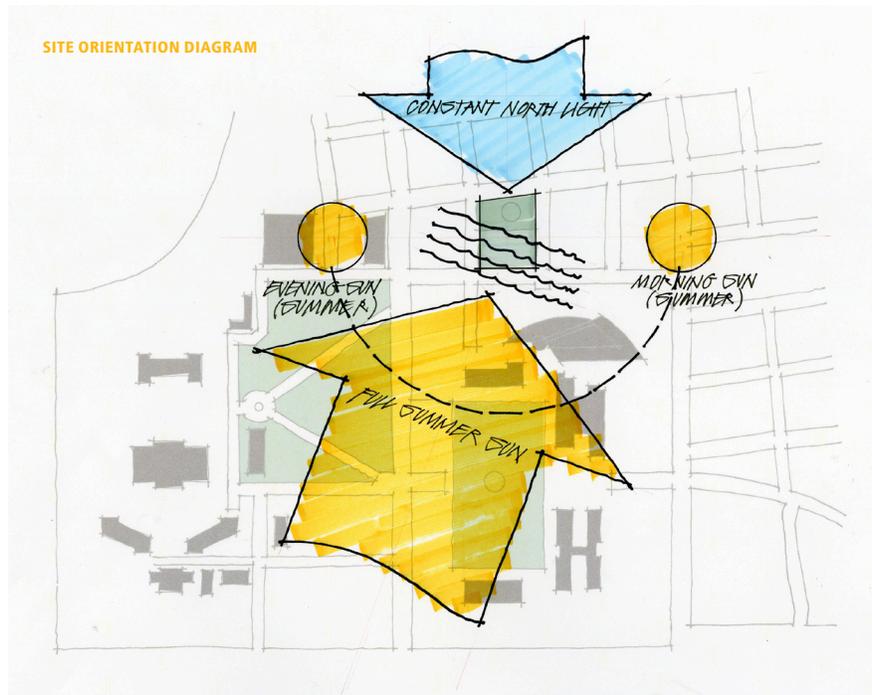
The site topography presents several opportunities for the development of the ProArts building in terms of potential locations for the building's street presence, formal entrance, vehicle and service entrance, and relationship to the park and in particular the Dan Evans Tree. It suggests that the optimal elevation for the first occupied floor would be roughly aligned with the high point at the southwest corner, creating relative access to significant portions of the park, and creating the opportunity for below-grade access for vehicles along Franklin Avenue SE. It suggests that building could have a strong street presence along Washington and Franklin Streets as well as 11th Avenue—an opportunity that is more fully reinforced in urban design considerations.

It is anticipated that excavation for the site will be limited to the area defined within the building footprint to accommodate the one level parking and service level. It is also anticipated that development of the site will present the opportunity to re-contour the site

at the northeast corner, both protecting the root system of the sequoia as well as eliminating the hazards presented by the foundation remnants from previous structures in that portion of the site.

Orientation

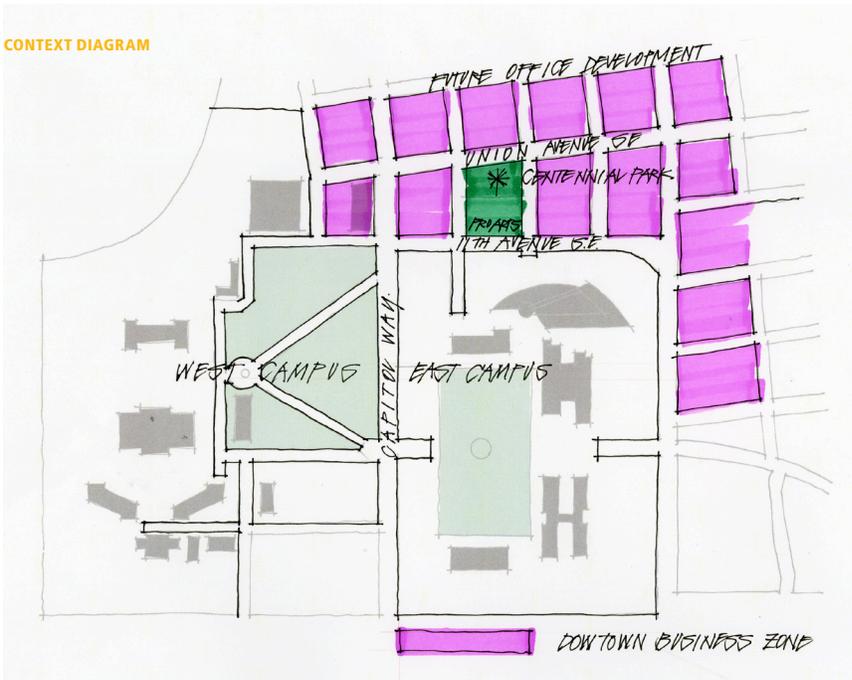
Located on the southern half of the block with its 250' exposure along 11th Avenue SE, the ProArts site has ideal solar exposure providing maximum daylighting potential along three elevations of the proposed building during all seasons of the year. Some shading measures will be employed to control solar heat gain along these elevations. The north elevation presents a number of opportunities for the proposed building design. The first is the constant quality of light presented by the northern exposure—allowing maximum facade transparency and integration of the interior spaces with the exterior. The second is the opportunity to generate space for building occupants and the public that has some degree of protection from the intensity of direct sunlight. With the relatively low scale and bulk of the proposed building, there exists the opportunity to create a combined building/campus/public amenity that enhances the daily experience for all.



Importantly, the Project Team identified a number of orientation-specific responses for the various facades of the building that address various opportunities for energy performance, interior lighting and environmental control, occupant comfort, and expression of sustainable intent. They address the need for shading control and heating/cooling measures in a manner that directly relates to specific time, season and orientation conditions overlaid on hours of operations and, ultimately system design.

Context

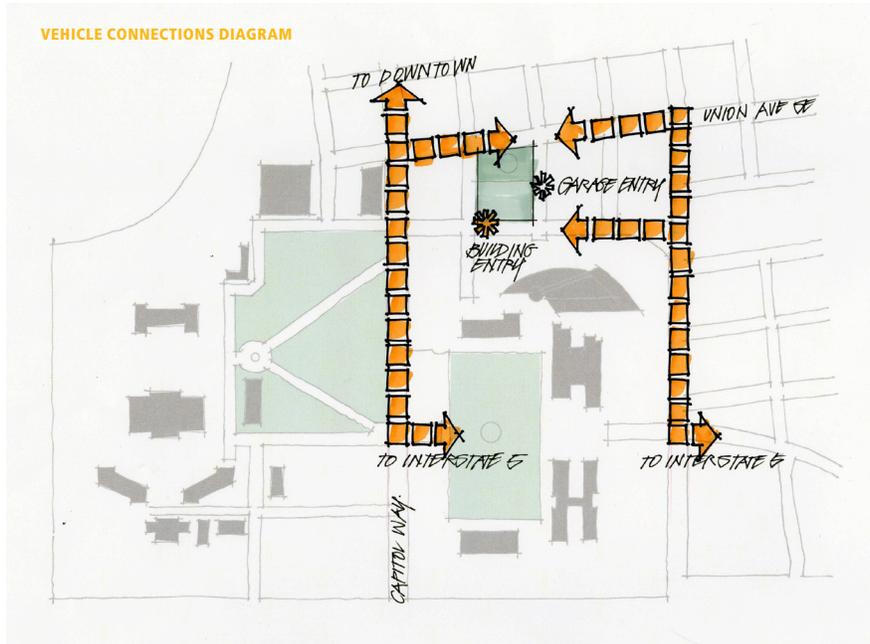
The site is located immediately north of East Campus, across 11th Avenue SE from the Department of Natural Resources Building and its structured parking complex. It is also located within the designated Downtown Office District that is defined by a regular pattern of pedestrian scaled blocks and an increasing number of street-fronting office building developments and potential mixed-use projects. Currently, development on these adjacent blocks is of a moderate and mixed scale (other than that of the Natural Resources Building) with an eclectic mix of architectural expressions. With its proximity to other State buildings and the grounds of East and West Campus, the site offers the opportunity to reinforce the public streetscape and the prominence of 11th Avenue SE as a major pedestrian boulevard connecting the Capitol Campus. It also provides the opportunity to establish a clear and welcoming point of entry at the southwest corner while activating the ground floor with State functions appropriate for both a street and park presence.



The site also provides the opportunity to strengthen the urban neighborhood and establish and reinforce street-fronting development in the Union Avenue sub-area that creates an appropriate scale and tenor that is consistent with the Master Plan intentions for the Capitol campus and the Comprehensive Plan for the City of Olympia.

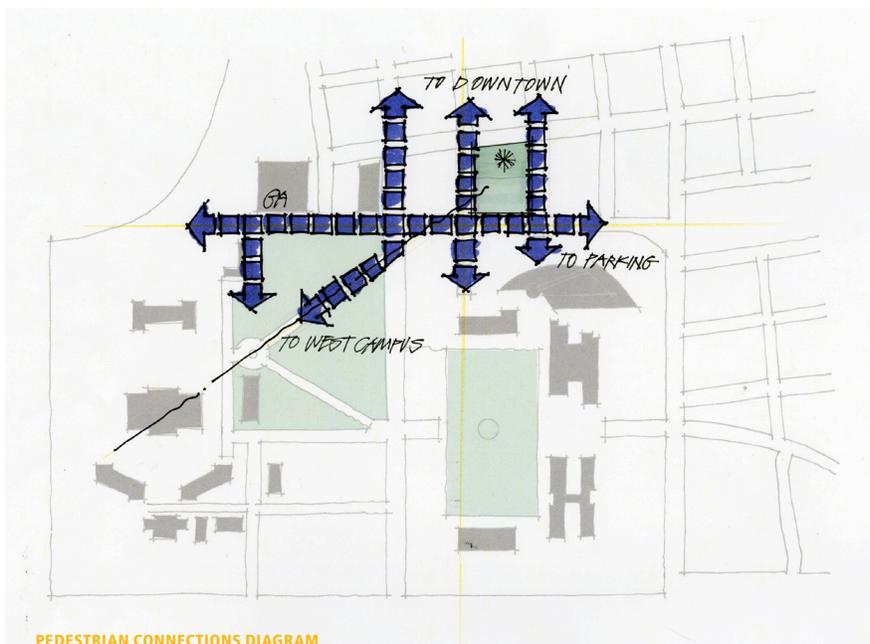
Circulation / Access

The site is ideally situated to optimize access for both vehicles and pedestrians. Vehicles arriving at the site from Interstate 5 are likely to approach from Jefferson Street SE or Capitol Way. In either scenario, Union Avenue SE is the logical access point to the site providing access to parking from Franklin Street SE, or access to drop-off along 11th Avenue SE. Departing the ProArts site to Interstate 5 would again be via Jefferson Street SE or Capitol Way, each directly accessible from Union Avenue Se and 11th Avenue SE.



Vehicular access to and from Downtown would likely be via any number of north/south streets between Jefferson Street SE and Capitol Way, ultimately having easy access to the same points of arrival noted above. In all scenarios, vehicle access as described is consistent with topographic opportunities for building and garage entrances.

As previously noted, locating the formal building entrance at the southwest corner of the site gives it both prominence as a State facility and proximity to other State agencies on both the East and West Campus. 11th Avenue SE and Capitol Way form a strategic pedestrian linkage connecting both current and planned State facilities with each other as well as connecting the Campus with the heart of Downtown. Future development along these linkages will reinforce a pedestrian corridor and will form a safe and logical system that will enhance overall experience as well as the physical character of the Capitol Campus.

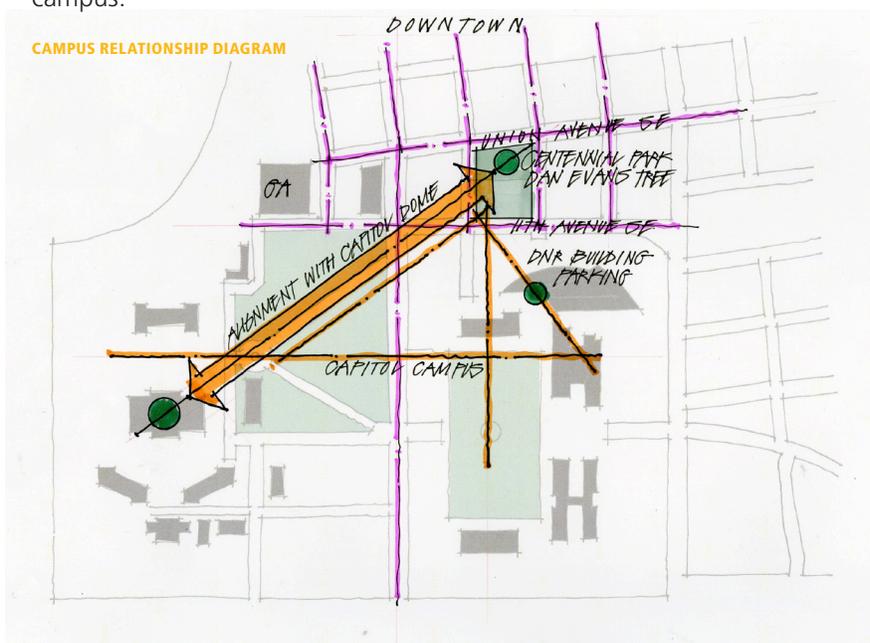


PEDESTRIAN CONNECTIONS DIAGRAM

Pedestrian connections across 11th Avenue SE will occur primarily at the street corners in an orthogonal relationship that provides logical connection points to buildings on East Campus as well as major existing parking facilities. Ultimately, the development of the ProArts site will provide new and enhanced connections to Centennial Park for the public and members of the community, as well as for the building’s occupants and guests.

Site / Campus Relationships

In much the same way that the Capitol Dome is the icon for the Wilder and White Historical Capitol Campus group, the Dan Evans Tree can be the iconic feature of the ProArts site. While there is limited visual connectivity between the two at the pedestrian level, there is an opportunity to celebrate the “spiritual” connection between them. The axis defined by the North and South Diagonals on West Campus precisely defines this connection, suggesting its incorporation within key elements of the proposed building. The relationship between the open space offered by Centennial Park and the system of open spaces defined within the Capitol Campus provides an additional opportunity to link the ProArts site to the greater campus.



CAMPUS RELATIONSHIP DIAGRAM

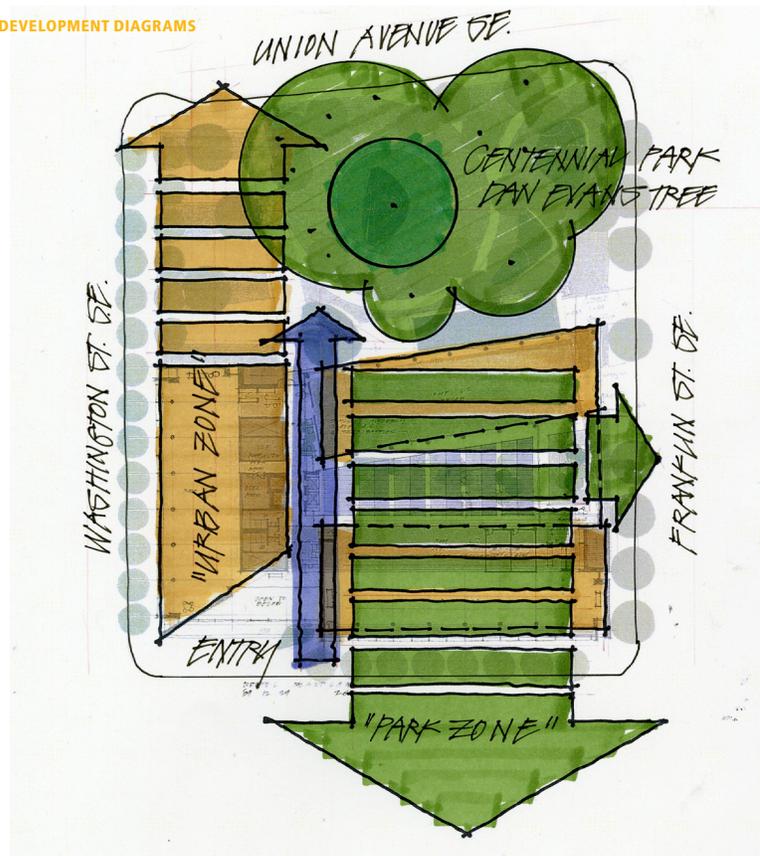
In perhaps a more subtle manner, the set of axial relationships that exist between and among other campus buildings offer an opportunity to bring the ProArts project into the family of buildings that form the Capitol Campus.

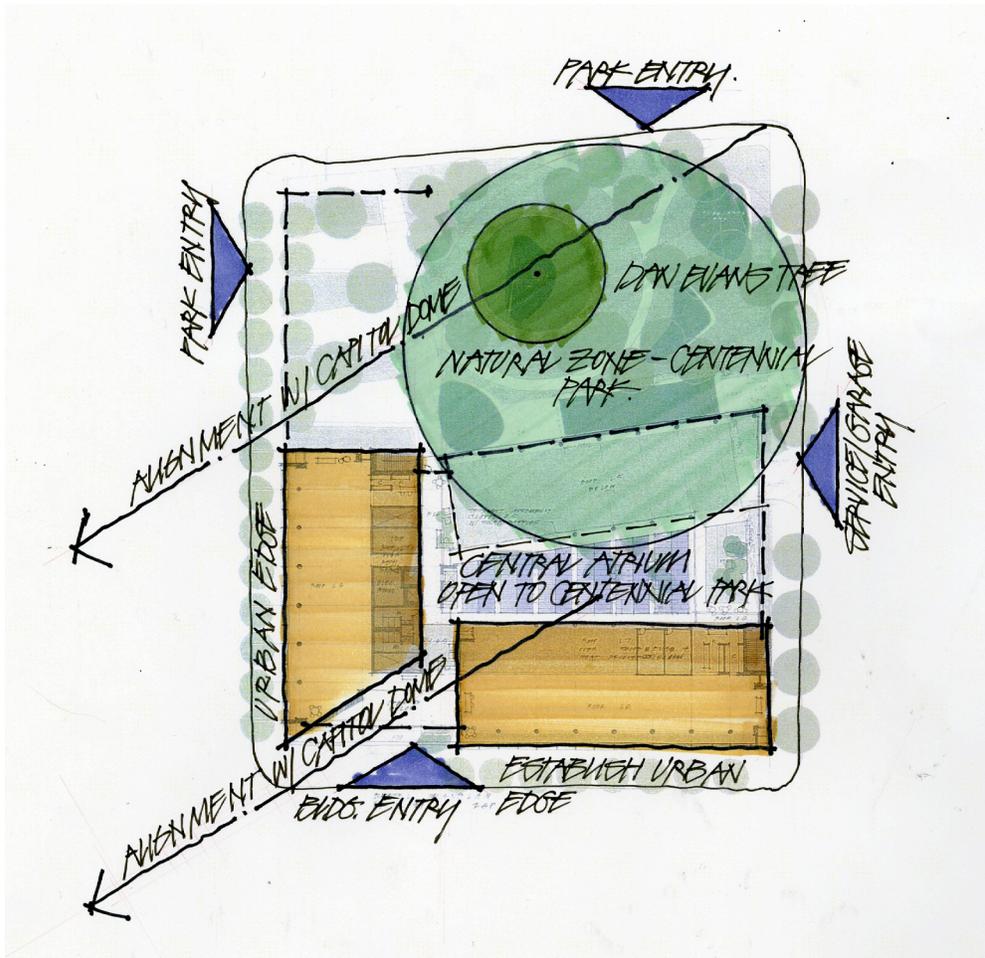
Recommended Site Development Option

The Project Team studied a number of site alternatives—a number of which are included in the Appendix of this report. Each of the alternatives incorporated a response to the conditions, challenges and opportunities noted above, especially in relationship to the obvious building entrance location, vehicular/service entrance, building presence along 11th Avenue SE, integration with Centennial Park and overall bulk and scale of the building on the site. Incorporating the internal considerations for high performance workplace with their dimensional and functional constraints, as well as the sustainable and energy considerations for location and orientation within the site, led the team to strongly recommend an optimal alternative.

The recommended site development alternative addresses several key opportunities uniquely suited to the ProArts site: a strong urban response to office/institutional character along 11th Avenue SE that gives the building a scale and presence appropriate for the functions housed within; an integrated response to and relationship with Centennial Park that enhances the park as an asset for the Capitol Campus and the community as well as for the building occupants; and a visual linkage with the State Capitol Building and other Campus buildings that reinforces the building's participation in the overall campus.

SITE DEVELOPMENT DIAGRAMS





This alternative integrates the urban character along 11th Avenue SE and Washington Street SE with the natural landscaped and open space character of Centennial Park, forming a response that brings the park into the central spaces within the building, and extending some of the rationality of the building into portions of the park. Associated developments of the park will rectify the old foundation and grade conditions that present significant risks to the health of the tree as well as users of the park. This interconnected relationship strengthens the park as an asset while celebrating the Dan Evans Tree as the notable feature for the entire site.

This alternative also locates the building entrance at the southwest corner of the site, roughly on grade with the western half of the site and the Dan Evans Tree, further establishing the opportunity to develop strong linkages among the elements of the Centennial Park, 11th Avenue SE and the Capitol Campus. It locates the vehicle/service entrance along Franklin Street SE at an elevation that provides access to the below-grade parking in a manner that minimizes the “back door” impact often prevalent at such entrances.

Organizing the building as an assemblage of roughly 60' wings with an open central core provides the opportunity to bring the park into the building, as well as respond to the challenge of providing maximum daylighting to the internal workplace environment. It also suggests that the building design incorporate a facade strategy that responds to specific

orientation conditions to address daylighting, solar gain and shading, natural ventilation, and views. The benefits that accrue as a result of this approach are both quantitative and qualitative—enhancing the building’s energy response and lowering operating costs while providing amenities for employee comfort and productivity.

The proposed building configuration provided in Project Drawings, Section 8, incorporates this recommended site alternative. The Project Team believes this alternative best addresses the project goals and drivers while responding directly to the Design Opportunities Report submitted by CCDAC.

CCDAC Summary Recommendations

The Capitol Campus Design Advisory Committee (CCDAC) has provided a “*Design Opportunities Recommendation*” for the ProArts site which is provided in full in the Appendix of this Pre-Design Report. The following are some CCDAC recommendations related to this site.

CCDAC recommends that the design of the ProArts site consider the context of the project within the campus and surrounding community, exploring how the facility will contribute to the context and how the context will shape the facility. The assessment should include campus organizing tools such as view corridors, axes, edges, buffers, transitional zones and topography. It should also include zoning structure, pedestrian and vehicular circulation, design character, form and style.

CCDAC also recommends that, while the ProArts site is not a contiguous part of the Capitol Campus, it is important that it be developed as an extension of the campus utilizing critical organizing elements of axial alignments, views, and boulevards, etc. Specifically, CCDAC identified a number of issues to be considered, including:

- Respect for the spirit of the site by responding to Centennial Park, the neighborhood, and the Capitol Building
- Exploration of opportunities presented by orientation, pedestrian movement, open space and views
- Minimizing the impact of vehicular access and parking
- Response to the important corner of Washington Street SE and 11th Avenue SE and the pedestrian connection to the Capitol
- Evaluation of the approach sequences to the site from the Campus and the City via all modes of travel
- Evaluation of all sides of the site as public, avoiding the development of a “back”
- Evaluation of the urban design continuity of the site in its surroundings

- Evaluation of the development capability and capacity of the site in the context of the issues noted above

CCDAC addressed issues of program and use within the ProArts building and requested study of concepts that considered:

- Opportunities for open spaces that maximize sun and view potential—not just at the ground level
- Opportunities for public activity at the ground level to activate the street and Centennial Park
- Evaluation of the site to support parking
- Evaluation of the transportation needs of the program on the site, adjoining campus and transportation systems
- Evaluation of security issues as they might influence design

CCDAC also provided a number of design drivers to be considered in the concept design, including:

- Provision of welcoming, open and logical building entrance and lobby
- Incorporation of spaces that encourage collaboration and interaction
- Incorporation of Centennial Park within the general spatial concepts
- Consideration of appropriate scale, massing and spatial response to address civic function and campus/city relationships
- Consideration of a visual connection from the site back to the Capitol Campus
- Evaluation of the project as a functioning model of sustainability—meeting or exceeding LEED Silver rating

5.0 PROJECT BUDGET ANALYSIS

5.0 Budget Analysis

General Project Description

The proposed ProArts Building has a total gross enclosed area of approximately 184,000 square feet on six levels, including one below-grade parking/service and support level of approximately 34,000 square feet. The gross floor areas designated as general office is approximately 150,000 square feet, with a net useable area of approximately 140,000 feet netting an efficiency of 90%. Utilizing State efficiency Standards of 215 rentable square feet per employees in a 90% open office configuration, the building is anticipated to house approximately 650 employees.

Project costs include demolition of existing structures on the site, site preparation and excavation for a building with an overall footprint of approximately 36,000 square feet, construction of a five story building, and site improvements to the entire block including improvements to Centennial Park. Specific requirements for foundation systems will be determined upon review of sub-soils conditions to be undertaken during the schematic design phase of the project. Based upon information from similar projects in the vicinity, some measures may need to be employed to address ground water conditions.

The proposed superstructure of the building is anticipated to be cast-in-place concrete, with some elements of the enclosure framed in structural steel. Current concept configurations anticipate long span, column-free floor plates to accommodate flexible office configurations. The exterior enclosure will contain a combination of materials composed to ensure an energy efficient, orientation-specific cladding system and architectural expression. The material palette is anticipated to include integral color pre-cast concrete, glazed Curtainwall systems, and shading devices to provide environmental control within the occupied spaces. A skylight provides daylight to a central open atrium to provide daylight to interior office zones, reducing energy costs for lighting and providing natural amenities for what is designed to be a high performance work environment.

Assuming a construction start of mid-year 2011 and completion in mid-year 2013, the construction and site improvement costs for the preferred alternative are estimated to total \$61,170,086, with a **Rounded Grand Total Escalated Project Cost** estimated to be **\$89,724,000**.

Deferring the construction start to 2012 with an anticipated completion in 2014 would likely result in an increase in construction and site improvement costs for the preferred alternative estimated to total \$62,967,216 with a **Rounded Total Escalated Project Cost** estimated to be **\$92,228,000**.

There is an existing COP of approximately \$2,500,000 for the property acquisition, which is not included in any of the projected total project costs. Conversations regarding the existing COP are in process with the office of the State Treasurer.

The 2009 Legislature appropriated \$2,000,000 for Pre-Design and design for the ProArts project—\$225,000 for Pre-Design, and the remaining \$1,750,000 for design.

Financing alternatives and revenue sources are discussed further in this section.

A detailed cost report summary, and Budget Estimate are included in the Appendix of this Pre-Design Report.

| | GCCM Preferred | DBB | Smaller GCCM | Smaller DBB |
|--|----------------|--------------|--------------|--------------|
| Consultant Services | \$5,525,441 | \$6,339,691 | \$5,576,592 | \$5,673,019 |
| Construction Contractors | 77,836,583 | 77,535,522 | 64,883,952 | 64,054,916 |
| Equipment | 2,468,009 | 2,468,009 | 2,054,605 | 2,057,652 |
| Art Work | 289,641 | 307,589 | 238,728 | 251,168 |
| Other Costs | 997,477 | 428,956 | 627,153 | 627,153 |
| Project Management | 2,606,523 | 2,367,000 | 2,163,500 | 2,162,500 |
| Total Project | \$89,723,674 | \$89,447,000 | \$75,544,530 | \$74,826,408 |
| Total Cost per FTE | \$138,036 | \$137,610 | \$155,762 | \$154,281 |
| Premium to Complete in 2014 | \$2,504,000 | \$3,647,000 | \$2,548,000 | \$2,549,000 |
| Total Project Completed in 2014 | \$92,227,674 | \$93,094,000 | \$78,092,530 | \$77,375,408 |

Financing Alternatives

Article VIII, of the state Constitution defines State debt and its limitations. In addition to having the power to issue debt, under RCW 39.94, the State has the power to enter into financing contracts. For projects such as the ProArts Building project the financing contract includes financing leases and lease-purchase contracts for the use and purchase of real and personal property. Payments for these financing contracts are made from appropriated funds. Financing contracts are special limited obligations that are payable solely from certain identified sources and are subject to limitations such as non-appropriation clauses. Typical financing contract vehicles include Certificates of Participation (COP) and IRS rule 63-20 Financings (63-20). This section will investigate the impact of three alternate modes of financing for this project—General Obligation (GO) Bonds, COP and 63-20 contracts.

Revenue Sources

If we assume this project is financed using GO Bond financing, the repayment of the bonds pledges the full faith and credit of the State and is payable from funds constituting “general state revenues.” As such, the revenue sources are not subject to the same rigor as is the case with COP or 63-20 financing. In the case of COP and 63-20 financings the revenue flow over the bond repayment period must be equal or greater than the amount that needs to be repaid.

The entirety of the ProArts Building’s revenues will originate from space leases. The tenants will commit to a starting fully serviced (all costs including operating, maintenance, capital and furniture) rate of \$43.00 [Base rate \$31.00 + 12.00 fully serviced campus rate] per square foot or less in 2013 dollars. The beginning lease rate can increase by 6.5% every biennium. The total net revenue (that can be applied to debt repayment) that this source will generate over the 25-year bond period, is \$142.1 million (for 140,000 rentable square feet) and \$101.5 million (for 100,000 rentable square feet).

The Project Team recommends that design, administrative and regulatory costs, and the parking garage be financed using General Obligation Bonds and the remainder of the project costs which are mainly tenant obligations—core and shell, the tenant improvements and finishes, interior construction, and furniture and equipment, be financed with a COP to be repaid by tenant rents. A contract for construction has to be in place prior to the sale of the COP. This means that before contracts can be awarded, the design process must be at least 90% complete in GCCM procurement or 100% done and bidding completed and in Design/Bid/Build.

| ProArts Building Project (at 140,000 rentable Square Feet) | | | |
|---|-------------------|------------------------------|-------------------|
| REVENUE SOURCES | | | |
| General Obligation Bonds | \$\$ | Certificate Of Participation | \$\$ |
| Design* | 3,796,000 | Tenant Improvement | 6,555,000 |
| Site Work | 6,100,000 | Interior Construction | 6,413,000 |
| Parking | 4,436,825 | Furniture and Equipment | 2,464,355 |
| Administrative | 2,624,000 | Core and Shell | 56,400,000 |
| Regulatory | 992,000 | | |
| TOTAL | 17,978,825 | | 71,832,355 |
| *This design amount does not include the remainder of the design money (\$1.75 million) appropriated in the 2009 legislature | | | |

Bond Capacity Estimate

Using the revenue estimates of \$43.00 per square foot (Base rate \$31.00 + 12.00 fully serviced campus rate), the estimated Certificate of Participation bonding capacity given interest rate, financing cost assumptions and operating costs (as outlined in the Maintenance and Operations section of this report) is as follows:

| ProArts Building Project | | |
|---|--------------------------------------|--------------------------------------|
| Certificate of Participation Financing Capacity | | |
| Rentable Square Feet | Bond Capacity at 4.75% Interest Rate | Bond Capacity at 5.25% Interest Rate |
| 100,000 | \$51,900,000 | 48,700,000 |
| 140,000 | \$72,700,000 | 68,000,000 |

As noted these represent the bond proceeds available assuming Certificate of Participation financing. At the preferred, optimally sized facility, using the funding source strategy above, the project amount to be financed via COP is slightly under financing capacity at 4.75% interest, and slightly over at a rate of 5.25%. This means rents could be slightly lower if the interest rates at the time of sale are lower. The Project Team is confident that the level of deficit at the higher rate can be overcome through project modifications during the design process.

The alternative of utilizing 63-20 financing was not studied in detail, however past studies have indicated that 63-20 financing interest rates are about 14 basis points higher than Certificate of Participation rates. In addition, there is an annual operating fee of about 1/2% of the annual repayment cost that accrues to the not-for-profit entity. Finally, the cost of placing the 63-20 financing has proven to be higher than COP financing. The net impact of these additional costs will reduce the bond proceeds as noted above by approximately 2% overall. Thus, assuming 63-20 financing the ProArts Building Bond Proceeds available (given a 150,000 gross square foot building constructed in 2013) will be 68.2 million.

6.0 MASTER PLAN AND POLICY COORDINATION

6.0 Master Plan and Policy Coordination

The Masterplan for the Capitol of the State of Washington was approved by the State Capitol Committee on June 15, 2006. The Masterplan provides a set of principles and policies that guide the decision-making process for major development or redevelopment of State Capitol properties such as those proposed by this Predesign.

2006 Masterplan Influences

The introduction to the 2006 Masterplan states that *“This, the first Masterplan for the Capitol of the State of Washington for the 21st century, offers a framework for strategically housing the considerable volume of contemporary state government activity in a way that demonstrates excellence, for the benefit of citizens, effective state services, and the capital community. It articulates a set of values that will positively shape the presence of state government in Thurston County in this new century.”* It goes on to further elaborate that the overall facility values for government buildings are function, context, and durability. New state office buildings are [to be] designed in a way that represents the best architectural and technical examples of the era in which they are created. This is the framework, along with the guidance from the Capitol Campus Design Advisory Committee that will ensure this new building integrates into the context of the campus and maintains the values of government function and durability.

East Campus

East Capitol Campus is defined as “Those grounds described in RCW 79.24.500 which includes the campus area north of Maple Park (16th Avenue) and south of 11th Avenue, east of Capitol Way and west of Interstate 5 and the Interstate 5 entrance to the state capital.” The ProArts location is just to the north of 11th and is technically ‘off campus’ and not yet officially designated as ‘East Campus’. For the purpose of this project, this proposal will treat the project as a part of East Campus. Since its purchase in 2008, this site has been designated to be labeled as Opportunity site #12.

Masterplan Policy

While all 7 principles and all 24 policies of the Masterplan will have some level of influence on the Predesign, there are some that will have significant influence. These include:

- Principle 1, Policy 1.4 Accessibility for All
- Principle 2, Policy 2.1 Location of State Government Functions
- Principle 3, Policy 3.2 Transportation Demand Management
- Principle 3, Policy 3.3 Environmental Stewardship
- Principle 4, Policy 4.1 Preservation of State Capitol Buildings, Grounds and Collections
- Principle 5, Policy 5.1 Capitol Campus Open Space
- Principle 5, Policy 5.2 Design at the Capitol Campus

- Principle 5, Policy 5.4 Universal Access
- Principle 5, Policy 5.5 Commemoratives and Artwork on State Capitol Grounds
- Principle 6, Policy 6.1 High Performance Buildings
- Principle 7, Policy 7.1 Financing Strategies

With regard to Policies 1.4 and 5.4: All aspects of this project are expected to meet national standards for accessibility and to the extent practicable, are expected to comply with the goals of universal access.

With regard to Policy 2.1: The proposed occupants of the new buildings will be carefully measured against four criteria, one of which is the criteria established in this policy. The policy states that *“Those functions less closely affiliated with the legislative process, ceremonial functions of statewide elected officials or public ceremonial functions, as well as respective, less critical support functions and storage space, are housed on or off campus according to their level of affiliation”*

With regard to Policy 3.2: This Predesign report contains a Transportation Alternative section that provides for alternatives to building parking facilities. The Transportation Alternatives section outlines strategies to reduce the number of cars traveling to the Capitol Campus during the legislative session (the time when the demand for parking is greatest). In addition, these projects, on their own, accommodate and encourage alternative modes of transportation by providing bus loading and unloading zones, by setting aside portions of the parking areas to vanpool and carpool vehicles, by providing secured areas for bicycles, and by providing easy pedestrian pathways from transit stops.

With regard to Policy 3.3: The facility constructed under this project will meet or exceed the highest standards of environmental protection, both during and after construction.

With regard to Policy 4.1: The existing ProArts building has been deemed eligible for inclusion on the National Register by the Department of Archeology and Historic Preservation. The existing buildings will be documented in accordance with guidelines provided by the Secretary of the Interior’s Standards for the Treatment of Historic Properties prior to demolition.

With regard to Policy 5.1: One of the primary design goals for the East Capitol Campus is to bring it more into the fabric of the West Campus. The open spaces between and around the proposed new structure will be designed to blend the character of East and West Campus. The organizing axes used by Wilder and White and the Olmsted Brothers to create the basic layout of West Campus will be respected to and used to control the placement and orientation of the new structure. Existing view corridors will be carefully examined and protected and view opportunities created by the new structure will be maximized.

With regard to Policy 5.2: This policy stresses the importance of aesthetic quality and architectural character of buildings located on the Campus. It provides guidelines on

materials, color, scale, and design which will be carefully followed. It also establishes the goal for new state office buildings to be “the best architectural and technical examples of the era in which they are created”. Those guidelines call for following a contemporary architectural character, light sandstone coloration, building heights no greater than existing buildings and quality contemporary materials.

With regard to Policy 5.5: The new buildings proposed by this Predesign will include opportunities for major public art.

With regard to Policy 6.1: The highest standards will be employed to ensure energy efficiency, healthy indoor environment, security of workers in the buildings as well as visitors to the buildings, and the latest technology in communication systems. Sustainable and green building standards will be incorporated. A LEED rating of “silver” will be the minimum standard to be achieved for these buildings and a rating of “gold” will be the goal wherever possible.

With regard to Policy 7.1: How the construction of these new buildings is financed will be critical to both the prospect of acquiring the necessary funds as well as to achieving the quality envisioned.

Centennial Park

The Masterplan defines Centennial Park as a diamond in the rough. Its main attribute is the 100 year-old sequoia that was named after former Governor Dan Evans in 1987. The project will include park enhancements to the extent the budget will permit. The Masterplan guidance states:

“Looking ahead, plans for the park should remain in line with the original intent of the founders: a natural setting that provides respite and recreation with minimal development. Removal of the old foundation walls that are constraining root development is needed. In addition, control of the English ivy and the thinning of overgrown shrubs and trees will contribute to a healthier and more usable park.”

2000 State Facilities Efficiency Standards

Even though the initial tenants for the ProArts building have not been finalized, those tenancies will be subject to the requirements of the State Facilities Space Allocation Standards. These standards define certain workplace efficiencies that are to be consistent across all state agencies. The standards have set a maximum space allowance of 215 square feet per person and require an open office environment of no more than 10% private offices to 90% open space work stations. The standards are updated biannually to make sure that the most current thinking in how to create and maintain efficient, productive and cost effective workers. This project will be following closely current process improvements and incorporate into the project changes that may have occurred at the time we start design.

Capitol Campus Design Guidelines

General Administration, Division of Facilities, Engineering and Architecture has publishes and implements the General Administration Facilities Design Guidelines and Construction Standards. These standards apply to design and construction, including all new and renovations, of all facilities on capitol campus. As stated in the serviceability section, “Every building on the campus is intended to serve its purpose over a long period. The initial design and construction is a very small fraction of the facility’s life cycle cost” The implication is that the construction of buildings in accordance with the guidelines will result in a higher first cost but will result in a building that has relatively longer service life.

Sustainability Guidelines

Building “green” is rapidly becoming industry standard. Not only have designers and constructors integrated sustainable practices into their everyday work, manufacturers have bought into the concept and many, many products and materials are readily available in the marketplace today. Washington State is a leader in promoting and requiring green building practices in State facilities. Contained within RCW39.04 are a number of sections requiring the recycling of materials and the use of recycled materials and encouragement in using FSC wood products. Energy life cycle cost analysis became required on major projects in 2001, followed in 2005 by a LEED Silver minimum standard for all new State facilities over 25,000 square feet. In 2009, the State of Washington became the first state in the nation to embrace and codify the 2030 Challenge requiring mandatory reductions in building carbon emissions.

Other Significant State Policies

Capitol Campus Design Advisory Committee (CCDAC): CCDAC is an advisory committee to the director of General Administration and to the State Capitol Committee. They are charged with reviewing and providing guidance to capitol campus projects with regard to design and overall adherence to the capitol campus aesthetic. In order to guide the project in its early stages, the committee provided the project team with design opportunity recommendations (DOR). These recommendations will continue to guide the team as design progresses. Following is an excerpt from the DOR, the entire text can be found in the Appendix.

Design Opportunity Recommendations:

Pro Arts Office Building, October 12, 2009

Introduction:

The purpose of the following Design Opportunity Recommendations (DOR) is to provide guidance to the design consultants and project staff, as well as provide a point of reference for future design review of project development by CCDAC. The DOR identifies relevant campus design considerations regarding context, programming, historic features, building design and landscaping that should be addressed, as well as major opportunities that

exist for design of the project. The DOR also discusses special requirements and expectations. The goal of the DOR is to encourage design excellence in campus development to ensure intelligent functioning and produce the highest overall design quality. CCDAC considers the Pro Arts Office Building to be an extremely important and significant addition to the Capital Campus.

The following includes categories of Context, Program and Concept Development. The DOR recommends the concurrent development of the context analysis and preliminary programming work. The resulting study with prioritized issues, objectives, criteria and program requirements will be used as the basis for concept development and evaluation.

As with the development of any significant campus area and its associated buildings, there is the impulse to expand the scope of the study beyond the primary objectives of the study. This DOR acknowledges that the scope of the study does not include a campus wide transportation or parking evaluation to evaluate the project's parking program component. These are major encompassing studies on their own and if it is felt they are needed, they should be undertaken separately. However, evaluation of existing data and development of new may be critical to ensure that parking and transportation issues are properly addressed.

Revised Code of Washington

There are numerous RCW's that will govern activities of the project including, but not limited to, RCW sections 39.04 pertaining to public work projects and portions of sections RCW 43.01, RCW 43.19, RCW 43.34, and RCW 43.82 relating to General Administration's responsibilities for planning and providing for capitol campus facilities.

Transportation Demand Management

The 2006 Capitol Campus master plan policy 3.2 discusses the importance of overall campus and regional transportation, parking, and commute trip reduction strategies. While this part of the Predesign review is not directly related to the project parking issues, it is included as a response to a request by the Capitol Campus Design Advisory Committee to continue the discussion regarding issues and recommendations raised in the recently published¹ "Capital Community Moving Forward" report from the Thurston Regional Planning Council. The Department of General Administration is developing a comprehensive plan to address Capitol Campus transportation. This section takes a look at possibilities that could be implemented at a big picture level and is not intended to address all the relevant issues. While some mitigation measures noted in this section might well benefit the ProArts Project, they are in response to broader transportation issues and responses.

¹ June 2009

As the Washington State Capitol City, Olympia houses most of the headquarters offices for state government. State employment, according to the Thurston Regional Planning Council, in Olympia is approximately 12,210 with approximately 6,050 on the Capitol Campus². Some headquarters offices are located in Tumwater and Lacey.

In June 2009 the Thurston Regional Planning Council completed a draft report entitled “Capital Community Moving Forward (CCMF).” This report “provides a broad view of how visitors and state employees travel to, around, and between state facilities in Thurston County. The report includes over forty recommendations to encourage Commute Trip Reductions and to help meet new Climate Change goals. This segment does not dwell on all the recommendations in that report, but its focus is on concrete suggestions that meet certain cost and benefit principles.

According to CCMF during the Legislative Session there is an increase in parking demand on Campus. During the session, there are over 15,000 visitors per month to the Capitol Campus. During session there are an additional 600 employees on campus. This puts a strain on the available campus parking during that time. But, during the remainder of the year the overall supply of parking on Campus exceeds overall demand. Furthermore, even during session, there is plenty of parking available during the day between 5 PM and 8 AM³.

Following are some potential strategies to meet the “during session demand” for parking within the existing supply. The construction of 100 fewer parking stalls, via alternate transportation strategies, will save the state \$6.3 million. Managing parking demand and single occupant vehicle travel to Campus during the session might well provide a more cost-effective way to meet commuter’s needs. Many of the CCMF recommendations ought to be considered to help address the during session supply-demand imbalance. Those recommendations with special merit as well as additional recommendations (not included in the CCMF Report) might also provide parking relief during the Legislative Session. The list of recommendations will include rough order of magnitude cost estimates (with an eye toward finding solutions that have a life cycle cost less than the parking garages but that have a greater overall environmental benefit).

Alternate Strategies

Alternate Strategies are developed and evaluated some principles should be kept in mind. Among the principles to be considered are:

- Existing infrastructure and services should be adequately maintained, preserved, and optimized before new infrastructure is added.
- Multiple traveling consumer choices should be encouraged rather than limiting choice.

² According to the Washington State Capitol Campus Parking Study (April 2009) there are 5,658 employees during non-session time and 6,234 during the session (an increase of 576).

³ According to the Washington State Capitol Campus Parking Study (April 2009)

- Alternative investments should be directly linked with measurable benefits.
- Alternate strategies should demonstrate cost effective life cycle costs in addressing identified problems.

The most effective strategy for reducing vehicle trip demand is by increasing employee parking costs during session months to a level at which employees will reduce demand. This may be accompanied by a lower rate during the rest of the year. Thus, if the per employee charge is currently \$25 per month, this alternative might implement a charge of \$20 per month during non-session months (nine months a year) but \$75 per month during the session months (three months a year). Under such a scenario those giving up their parking during session months would retain their parking priorities during non-session months.

An alternate to the forgoing strategy is a “parking cash out” program during the Legislative Session. During the session, those employees who give up their employee parking stalls not only don’t have to pay the \$25 per month fee, they receive an additional \$150 subsidy (this would have to be accompanied by strict enforcement of parking limits in the South Capitol Neighborhood).

Another variation on this strategy is through price differentiation to encourage “all day” parkers to locate at periphery areas beyond campus during sessions. To facilitate this, frequent shuttles (every five minutes or less) between major gathering centers on campus and the peripheral parking areas would be required between 7 AM and 9 AM and between 4 PM and 6 PM. The periphery parking should be surface lots close enough to enable shuttle trips of less than five minutes. One might also consider moving all but daily use agency vehicles out of Campus lots during session. This will require surface periphery lots outside the campus zone. It will also require some form of on-demand shuttle service to those lots.

Another mode is to set differential rates that encourage short-term parking and discourage long-term parking. Such a plan might have a charge of \$0.50 per hour for the first hour, \$1.50 per hour for the second and third hour and a total charge of \$20 for daily parking beyond three hours. This could even be more effective if the rates are also linked to locations closer to the heart of capitol campus.

Some current uses⁴ in existing parking structures might be better located in less costly facilities. For instance, the proposal to construct an additional 560 car garage will cost \$35.4 million—or \$188 per gross square foot. If the cost of replacement leased covered storage is \$9 per gross square foot per year, it is cost effective to move that storage, freeing up the parking spaces for actual parking rather than storage.

Strategies For Making It Convenient, Comfortable, and Cost-effective to Travel Without an Automobile

Current parking arrangements are all self-parking of vehicles. Valet parking has the ability to increase capacity. It is operationally expensive, requires cultural adjustment and does not work optimally during peak loading times. Valet parking has been shown to increase vehicle capacity by between 30% and 40%. Thus, assuming the Mansion Parking⁵ lot was transferred to a valet lot during sessions, the parking capacity might be increased by about 100 from the current 316 stalls. Valet services operations during the hours of 6 AM through 8 PM during weekdays during the session would add about \$100,000 in employee cost or could be contracted to a private enterprise. Valet parking services that charged \$2 per hour would generate about \$200,000 in revenue offsetting staff and insurance costs.

In order to facilitate the rapid transition from outlying sites some form of rapid transit (e.g., light rail) should be analyzed⁶. If the total project cost of constructing underground parking is about \$60,000 per stall it may make sense to study alternatives that will forego the need to build the additional parking. While the cost of a rapid transit linkage will exceed the cost of the parking, the additional benefits of constructing rapid transit such as relieving roadway congestion, obtaining possible federal matching dollars, and possible connections to other rapid transit systems, could well outweigh the additional costs. It is recommended that this option be studied as a part of a Comprehensive Transportation Alternatives study for the Capitol.

⁴ For materials storage, for State Motor Pool and for maintenance and operations functions.

⁵ Assuming valet parking services were expanded beyond the Mansion Lot to the Pritchard Lot, the North Diagonal, the South Diagonal, and the GA Garage (still relatively close for longer term valet parking) an additional 150+ parking places might be generated.

⁶ See link at: <http://wvminute.wvu.edu/WinMedia/?type=large&id=6>

7.0 FACILITY OPERATIONS AND MAINTENANCE REQUIREMENTS

7.0 Facility Operations and Maintenance Budget Impacts

Assumptions

These new facilities are a part of the Capitol Campus and as such:

- Shall incorporate existing campus standards (building controls, security, and building access) into design and work with buildings and grounds maintenance personnel to ensure a maintainable building.
- Apply State Facilities Efficiency Standards across all tenancies.

There are two ways to look at operating costs—actual expenses and what is actually paid for service. Actual expenses represent the amount of operating costs that will be added to state costs for the facility. These costs represent staff, materials and contracts that what will need to be added to the budget to operate and maintain the facility. What is actually paid for operating an individual building on the Capitol Campus is different than the actual expense for that building. On the Capitol Campus the rates charged (and that the agencies pay) for all the buildings on campus are calculated based on the total costs of all buildings divided by the total square feet on campus. Each individual building is then charged based on the average rate times the square feet in that specific building. Thus, these new buildings might well have a lower actual operating cost than other buildings on campus, but their rate per square foot will be the same as the other buildings on campus. This building is currently considered off campus, but will become a part of the campus when the new campus boundaries are defined.

Actual Added Staffing and Operating Costs

Based on the square feet to be added, the functionality and efficiency of the buildings and the proposed building's proposed materials and systems, the following is the proposed staffing to operate and maintain the new ProArts General Office Building once it is opened. Based on historical needs in similar buildings, the building would need 1/3 of a General Construction and Maintenance Supervisor, an Electrician, Carpenter, HVAC Technician, Maintenance Mechanic and Custodian level 2. The building would also need approximately 20% of a Facilities Senior Planner, 15% of a Ground and Nursery Specialist 3 and approximately 6.4 Custodian level 1. This model may change between now and the time the building is occupied. Changes would be to decrease and consolidate the number of positions needed to maintain the building. Since we do not know what these changes will be, we have used the historical model as a worst case scenario.

Individual operating starting operating cost rates (2009 base) are based on recent experience with our GA costs (rates charged by our providers), the units used at the recently completed Edna Goodrich Building in Tumwater and recent figures developed by the Office of Financial Management using the Whitestone Buildings Operations Experience.

Note that the Edna Lucille Goodrich building is financed using 63-20 financing. The negotiations for that form of financing included an annual fee to be paid to the not-for-profit entity. That fee as of July 2009 represented \$0.20 per RSF. Taking that amount out of the

operating cost would leave an estimate of \$8.56 for a Certificate of Participation financing project. For the OFM Comparable Facility Operations Cost Reference Report estimates (as provided by the Office of Financial Management) do not include insurance costs. For comparison purposes, adding \$0.50 per RSF for insurance will increase the OFM Comparable number to \$8.46 per RSF.

Individual starting operating cost rates (2009 base) are based on recent experience with our GA costs (rates charged by our providers), the units used at the recently completed Edna Goodrich Building in Tumwater and recent figures developed by the Office of Financial Management using the Whitestone Buildings Operations Experience.

Note that the Edna Lucille Goodrich building is financed using 63-20 financing. The negotiations for that form of financing included an annual fee to be paid to the not-for-profit entity. That fee as of July 2009 represented \$0.20 per RSF. Taking that amount out of the operating cost would leave an estimate of \$8.56 for a Certificate of Participation financing project. For the Whitestone Facilities Operations Cost Reference Report estimates (as provided by the Office of Financial Management) do not include insurance costs. For comparison purposes, adding \$0.50 per RSF for insurance will increase the Whitestone number to \$8.46 per RSF.

| Edna Lucille Goodrich Building | | Whitestone Facilities Operations |
|------------------------------------|--|-----------------------------------|
| Operating Costs (Per RSF Per Year) | | Cost Reference (Per RSF Per Year) |
| Expense Category | Cost Per Rentable SF (as of July, 2009) | 90-11 Biennium |
| Utilities | \$1.91 | \$1.98 |
| Custodial Services | 1.51 | 1.90 |
| Repair and Maintenance | 2.00 | 2.94 |
| Contracts (Incl. Security) | 0.75 | 0.45 |
| Building Administration | 1.98 | 0.52 |
| Parking Maintenance | 0.10 | 0.17 |
| Insurance | 0.50 | |
| Total | \$8.76 | \$7.96 |

For the purposes of the C-3 calculations the 2009 base operations and maintenance cost will be estimated at \$8.50 per RSF adjusted for inflation.

Facilities and Services Rates

The following is the 09-11 Biennial Facilities and Service Rates for the Capitol Campus (excluding the Capital Project Surcharge). These rates represent what will need to be paid per rentable square foot for occupied space. Once again a 60% adjustment to custodial and utilities costs for library and archives storage space will be made.

| 09-11 Facilities and Services Rates | | | |
|--|--------------------|---------------------|---------------------|
| Updated to 11-13 and 11-15 Biennium's (Using OFM's Whitestone Inflation Indices) | | | |
| Category | 09-11 Rate per RSF | 11-13 Inflated Rate | 13-15 Inflated Rate |
| Custodial/Refuse and Recycle | \$2.65 | \$2.77 | \$2.91 |
| Utilities | 2.40 | 2.50 | 2.63 |
| Construction and Maintenance | 1.31 | 1.36 | 1.42 |
| Cash Recovery Revenues | 0.80 | 0.84 | 0.88 |
| Contracts (Incl. Security) | 0.75 | 0.78 | 0.82 |
| Building Access/Steam Plant | 0.66 | 0.69 | 0.73 |
| Bldg Systems Support | 0.55 | 0.57 | 0.60 |
| Parking Management | 0.52 | 0.54 | 0.57 |
| Indirect Charges | 0.39 | 0.41 | 0.43 |
| Other Direct | 0.30 | 0.31 | 0.33 |
| Sign Shop | 0.19 | 0.20 | 0.21 |
| Paint Shop | 0.11 | 0.11 | 0.12 |
| Total | \$10.63 | \$11.09 | \$11.63 |
| For the purposes of calculating the balances available from the revenue stream that can be applied to COP payoff, the Facilities and Services Rates (adjusted for inflation) will be used. | | | |

Inflation Assumptions

Inflation assumptions are based on the Whitestone Facilities Operations Cost Reference Report figures currently used by the Office of Financial Management. The following are the figures for the upcoming two biennia:

| Whitestone Building Operations | | |
|--|-----------------------------|-----------------------------|
| Inflation Estimates | | |
| Category | Inflation to 11-13 Biennium | Inflation to 13-15 Biennium |
| Utilities | 4.1% | 5.1% |
| Custodial Services | 4.5 | 5.1 |
| Repair and Maintenance | 4.1 | 4.0 |
| Contracts (Incl. Security) | 4.1 | 5.1 |
| Building Administration | 4.5 | 5.1 |
| Parking Maintenance | 4.5 | 5.1 |
| For calculation purposes beyond these two biennia it is assumed that operations and maintenance inflation will be 2.5% per year (5.06% per biennia). | | |

8.0 PROJECT DRAWINGS AND DIAGRAMS

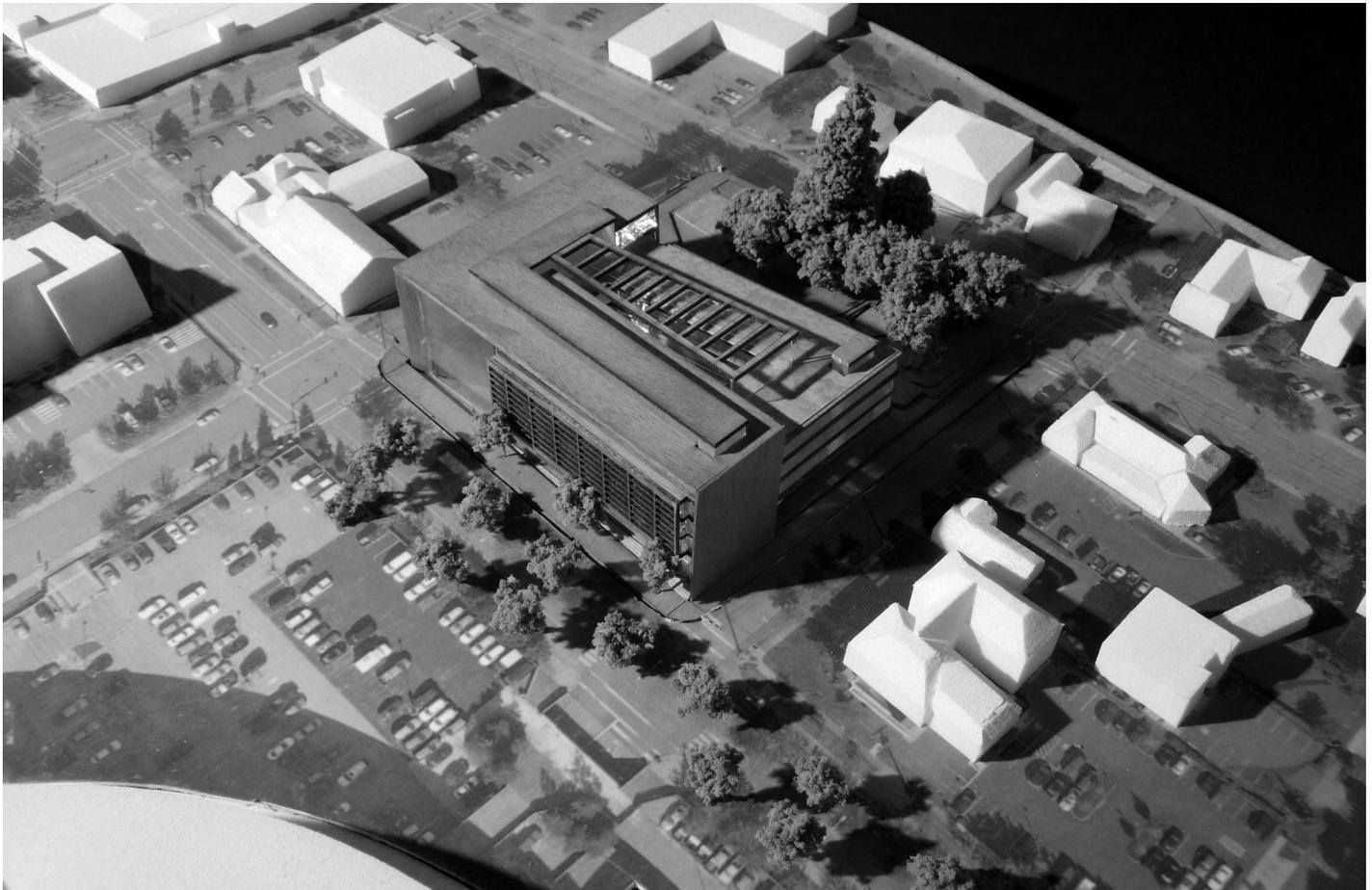
8.0 Project Drawings and Diagrams

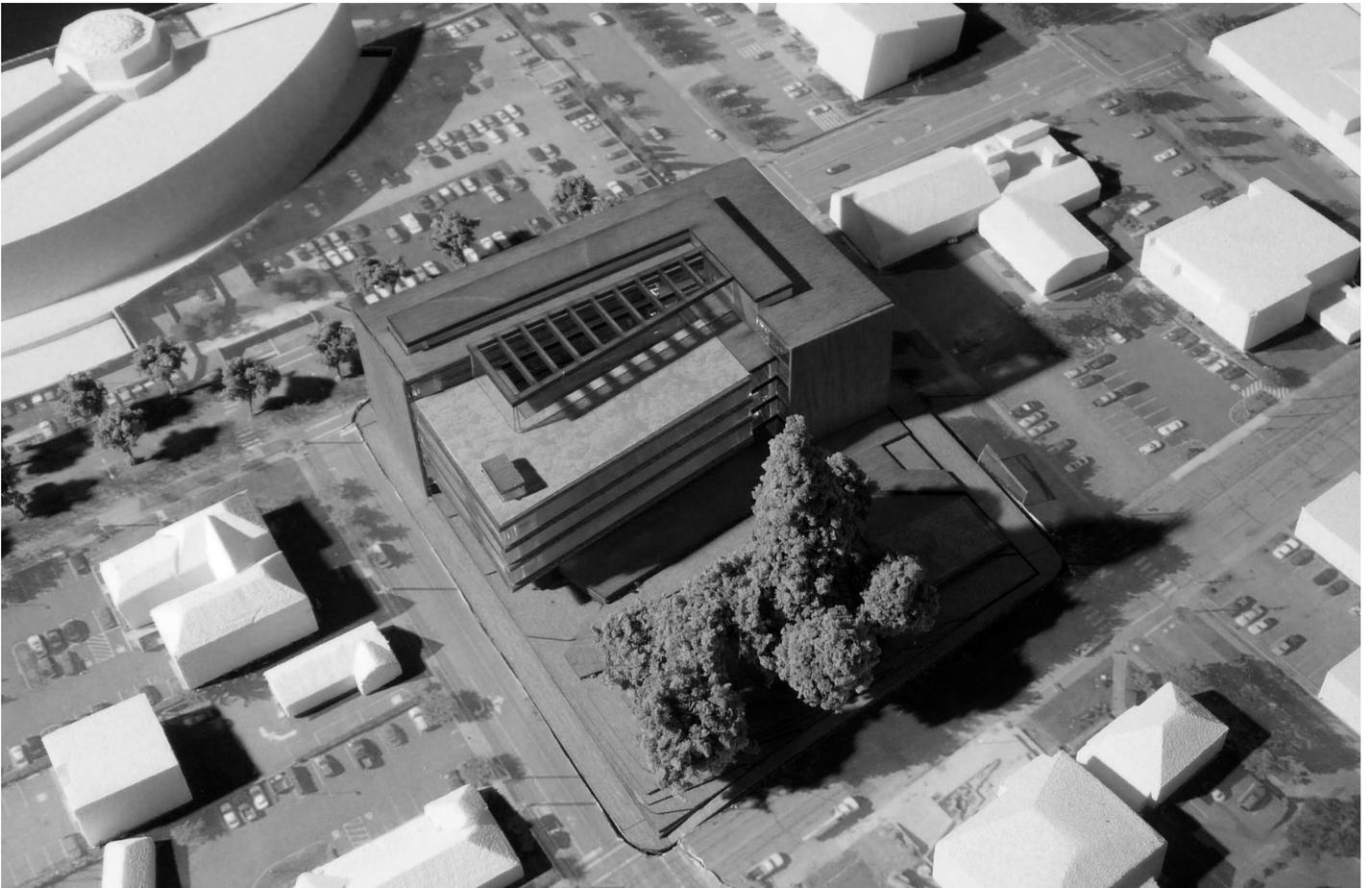
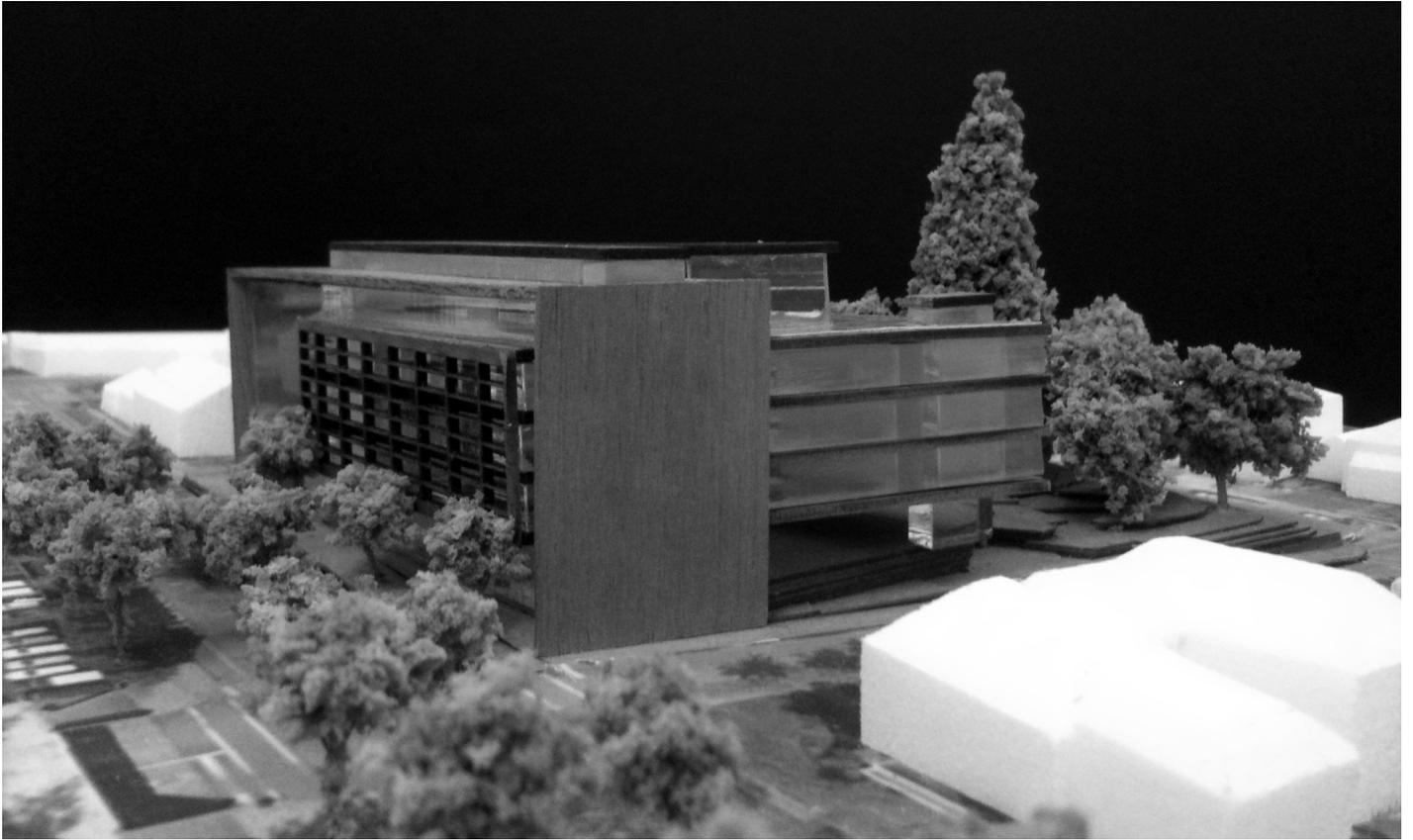
The following concept diagrams illustrate a number of the options explored during the pre-design process, focusing primarily on the Preferred Alternative for optimal development of the ProArts site. The illustrations represent diagrammatic arrangements and suggested functional relationships of the proposed general office building program and related site development. As such, they should not be considered fully developed or understood as schematic design-level plans.

As described in **Section 2.0 Project Analysis**, the scope of the proposed alternative includes construction of a general office building on the ProArts site, including upgrades and improvements to Centennial Park. The gross square footage of the building is approximately 184,000 square feet, including one below-grade level of approximately 34,000 square feet for parking and building services and support systems. The above-grade gross square footage is approximately 150,000 square feet with a net rentable area of approximately 140,000 square feet distributed over five levels.

The building has been planned and programmed to accommodate multiple tenants of varying sizes with an additional assumption that a major anchor tenant will also provide infrastructure and services for a variety of very small tenants. To the maximum degree possible, the Project Team recommends that programmatic functions that include shared resources for the building tenants (meeting rooms, library, café/espresso, etc.) and other potentially public functions be located on the first floor of the building. This arrangement will facilitate engagement of the building with its site and the immediate neighborhood, as well as provide an opportunity to inform the design response for both interior and exterior spaces—further reinforcing the interrelationship of the building site and Centennial Park.

The recommended alternative targets a full optimization of the site's development potential and addresses several key opportunities uniquely suited to the ProArts site. It establishes a strong urban response to the office/institutional character of 11th Avenue SE that gives the building a presence that is appropriate for the State functions to be housed within. It also exploits the proximate relationship with Centennial Park in a manner that enhances the park as an asset to the Capitol Campus and the community as well as to the building's occupants. Finally, it establishes a spiritual linkage with the State Capitol Building and other Campus buildings that reinforces its participation in the overall Campus—all of which is consistent with the stipulations noted previously in the Master Plan for the Capitol of the State of Washington, the CCDAC Design Opportunities Report, the City of Olympia Comprehensive Plan, and the Legislative Proviso.





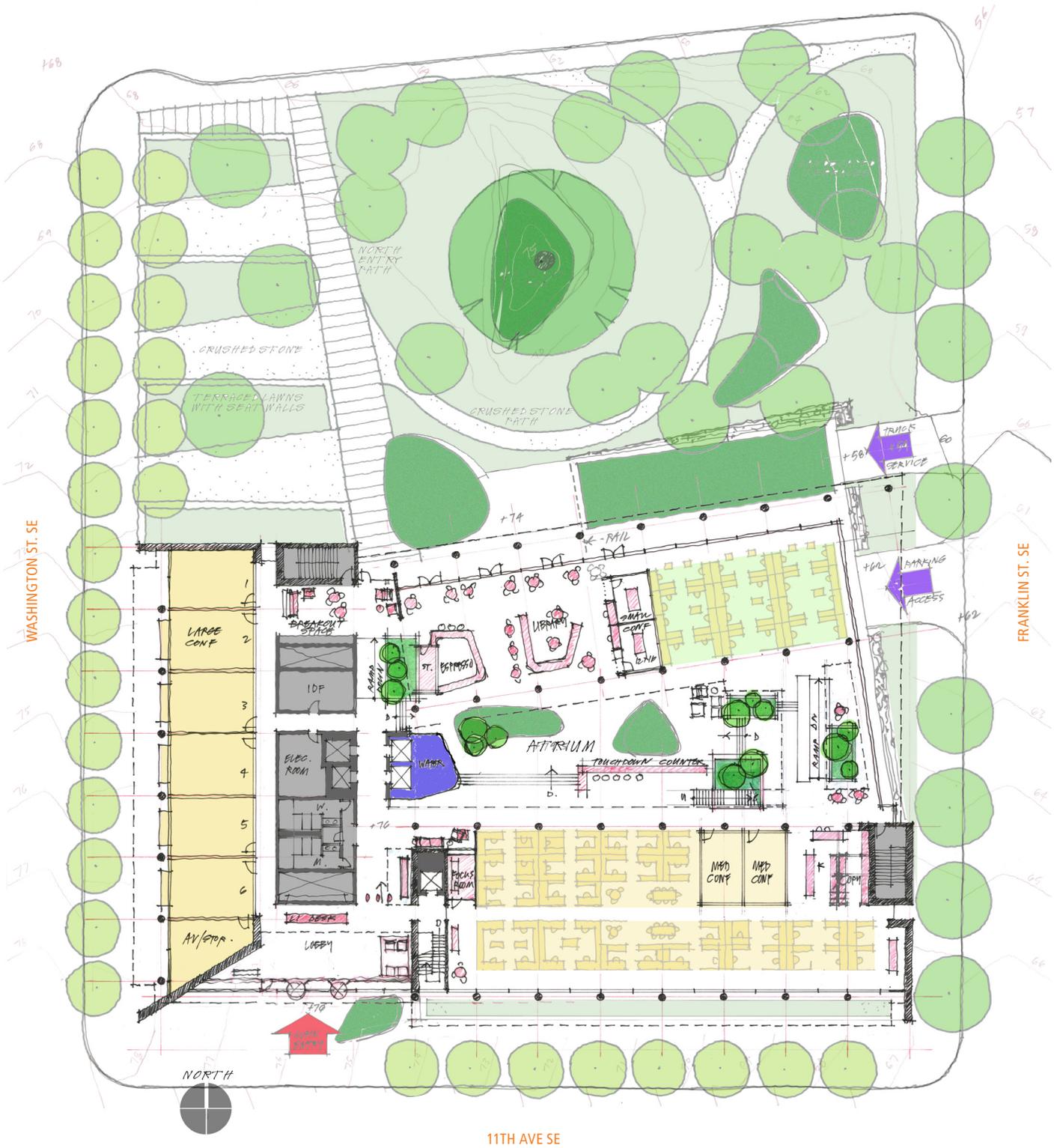
Site Plan

The Pro Arts – Centennial Park site offers a unique opportunity to design a new, high-performance office building that can respond to both the monumental Capitol Campus and the natural open space of the park.

The main entry and full-height lobby inflect toward the Legislative Building dome, while the north wing tilts toward the Dan Evans tree in the park, which remains as the centerpiece.

Space and landscape flow from the front door through the ground floor, uniting the entry, central atrium and open space. As part of the project, Centennial Park's landscape will be enhanced and made safer, with the removal of old foundations, grading improvements and new trees and pathways.

Parking and service entries are one level below the first floor, down the natural slope of the site from the entry at the southeast corner.



Floor Plans

Basement Plan

One level of parking has been included, per GSA direction, offering approximately 50 spaces. Security control may be accommodated as required in design phases. Visitor access to the building lobby above may be provided as required, either via the main building elevators or with a dedicated visitor core.

Off street loading, covered by a deck above, provides service access from Franklin Street.

Mechanical and electrical space has been allowed for, along with support space for the building operations as well as employee use (locker rooms, bike storage).





Level 1

The building is designed to create a daylight atrium at its heart. The floor level may drop a few steps from the entry level to maximize the visual connection to the park on the north.

While all building wings are designed for optimal daylighting and open plan efficiency, the north wing is also narrower; it is intended that an open feeling be achieved in the north section of level 1 to visually unite the atrium space and the park.

Level one includes a zone of large conference rooms, centrally located in a group near both public access and building elevators.



Level 2

Level 2 is typical of the new building's floor plans, with flexible work spaces around the toplit atrium space. The fixed core elements (toilets, elevators, and support spaces) are centrally located along the entry axis near the front door; they also define a smaller segment of the floor plate (west of the gray core) that allows for tenant subdivision options should an agency or department need special access control. The other floor plate segments are open to the atrium space.

Note that tenant layouts are only a suggestion of potential approaches and do not reflect actual tenant programming or final design solutions.

Level 3

The main building core (gray) include 4 elevators, two of which are intended to be open glass cabs with view of the atrium. At the other end of the building a series of stairs and bridges join the north and south workspace wings, providing spaces for interaction and collaboration.

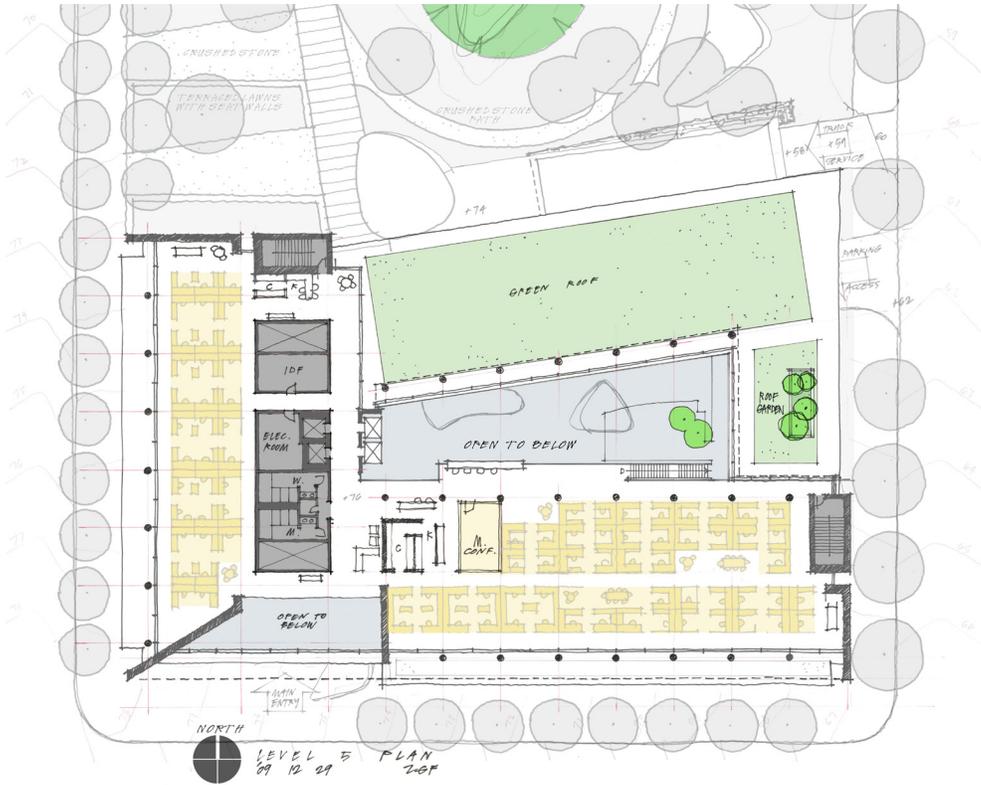
Level 3 is designed to allow for a major centrally-located conference room, dramatically suspended within the space of the atrium, with adjoining breakout spaces.



Level 4

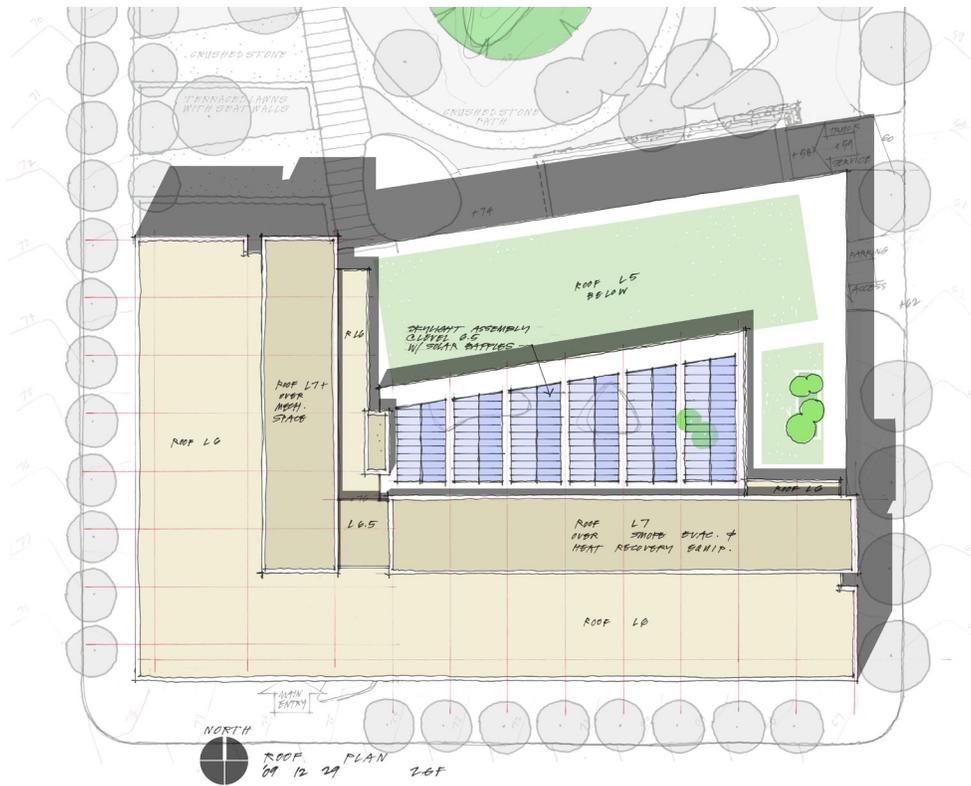
Level 4 could allow for the creation of a central work-lounge in the atrium, occupying the space of the L3 conference room.





Level 5

Level 5 is comprised of only the “L” shaped portion of the plan, as the tilted north wing stops at the 4th level and could have a green roof above.

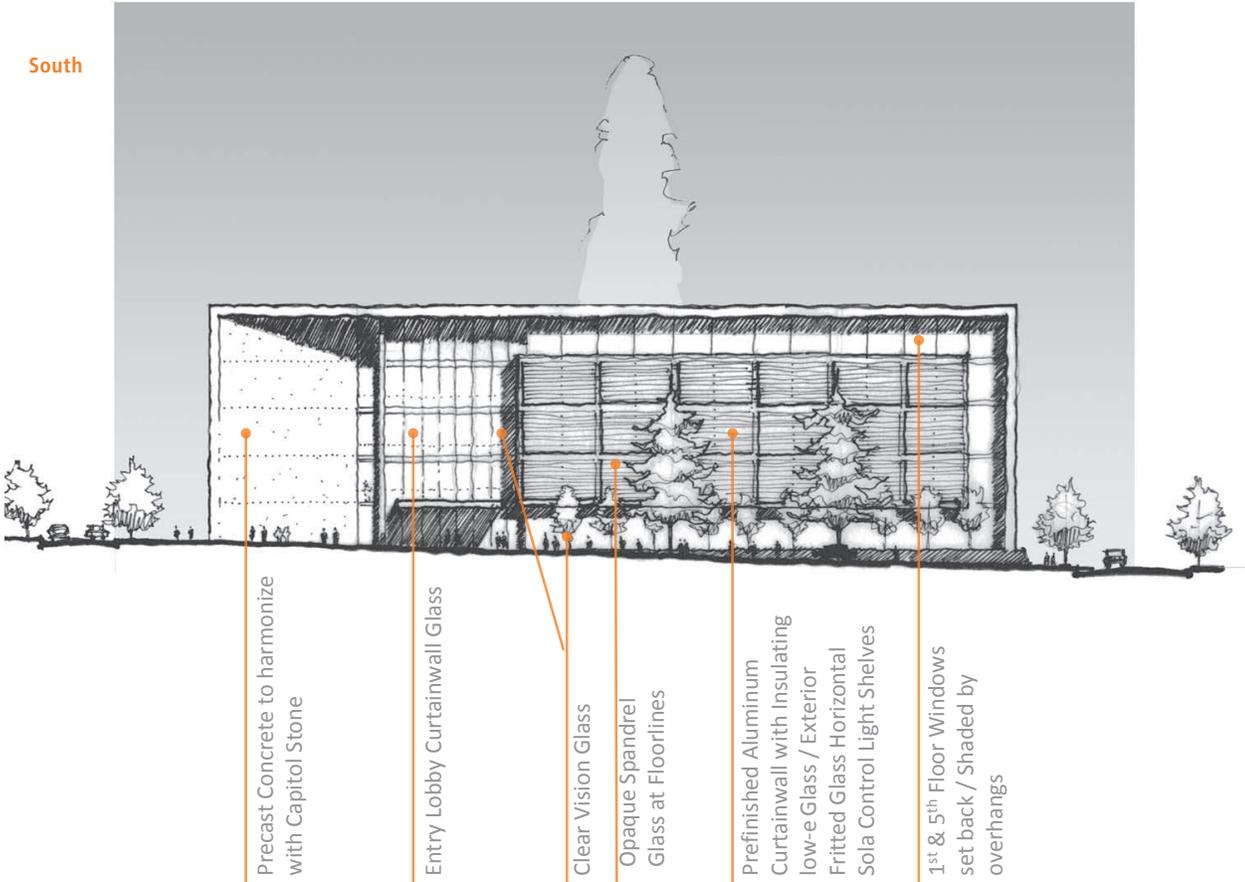


Roof Plan

The roof will be designed to include skylights over the main atrium space; it will likely include some enclosure for HVAC, heat-recovery, and smoke evacuation equipment, to be determined in design phases. Otherwise the roof will be flat.

Elevations

South



Precast Concrete to harmonize with Capitol Stone

Entry Lobby Curtainwall Glass

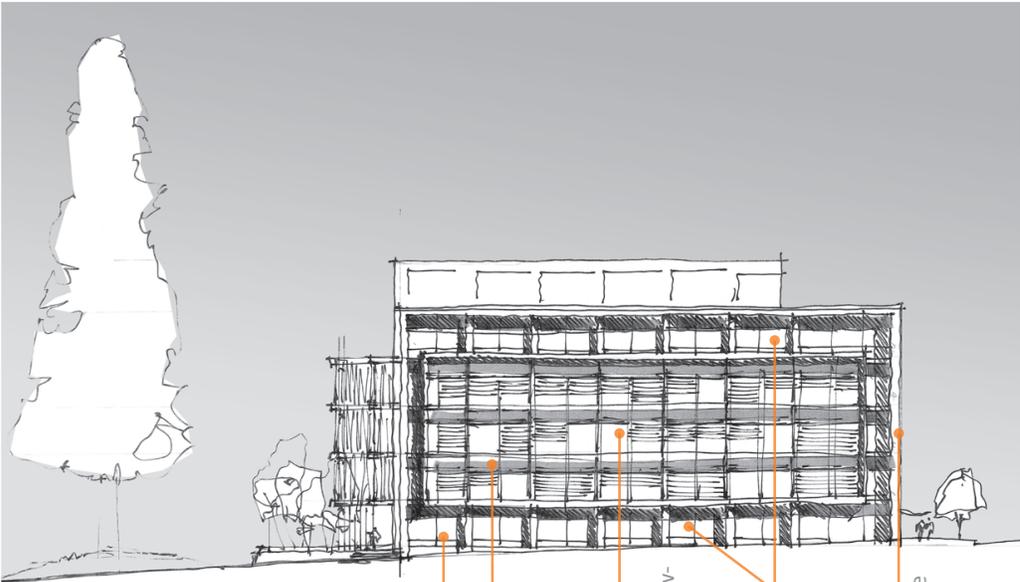
Clear Vision Glass

Opaque Spandrel Glass at Floorlines

Prefinished Aluminum Curtainwall with Insulating low-e Glass / Exterior Fritted Glass Horizontal Sola Control Light Shelves

1st & 5th Floor Windows set back / Shaded by overhangs

West



Clear Vision Glass

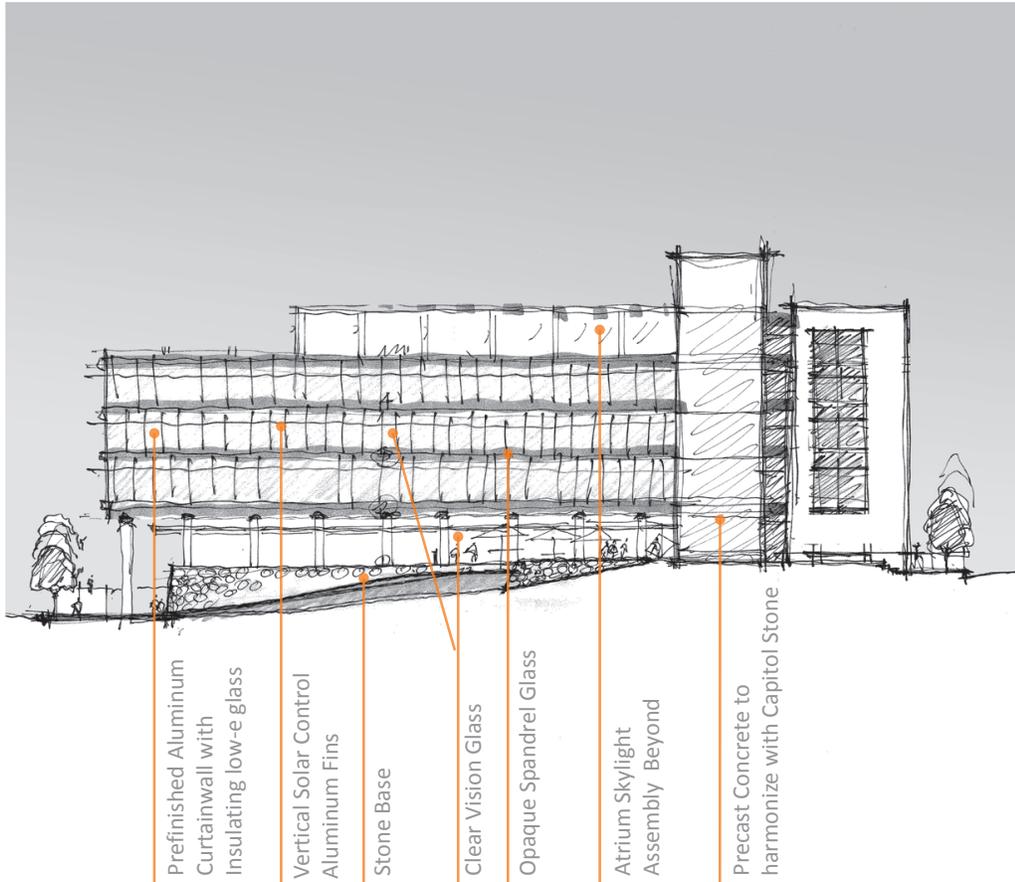
Opaque Spandrel Glass at Floorlines

Prefinished Aluminum Curtainwall with Insulating low-e Glass / Exterior Retractable Solar Control Blinds

1st & 5th Floor Windows set back / Shaded by overhangs

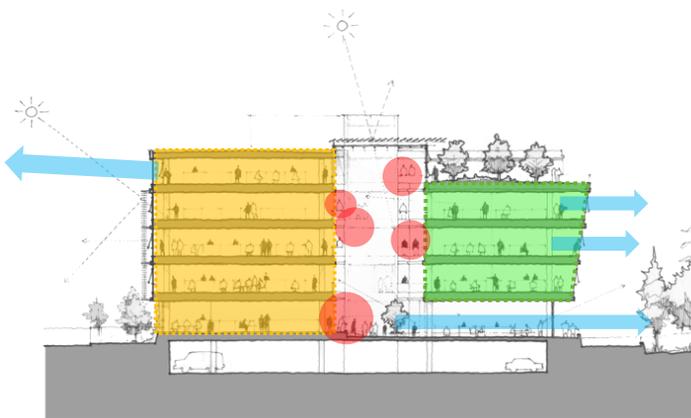
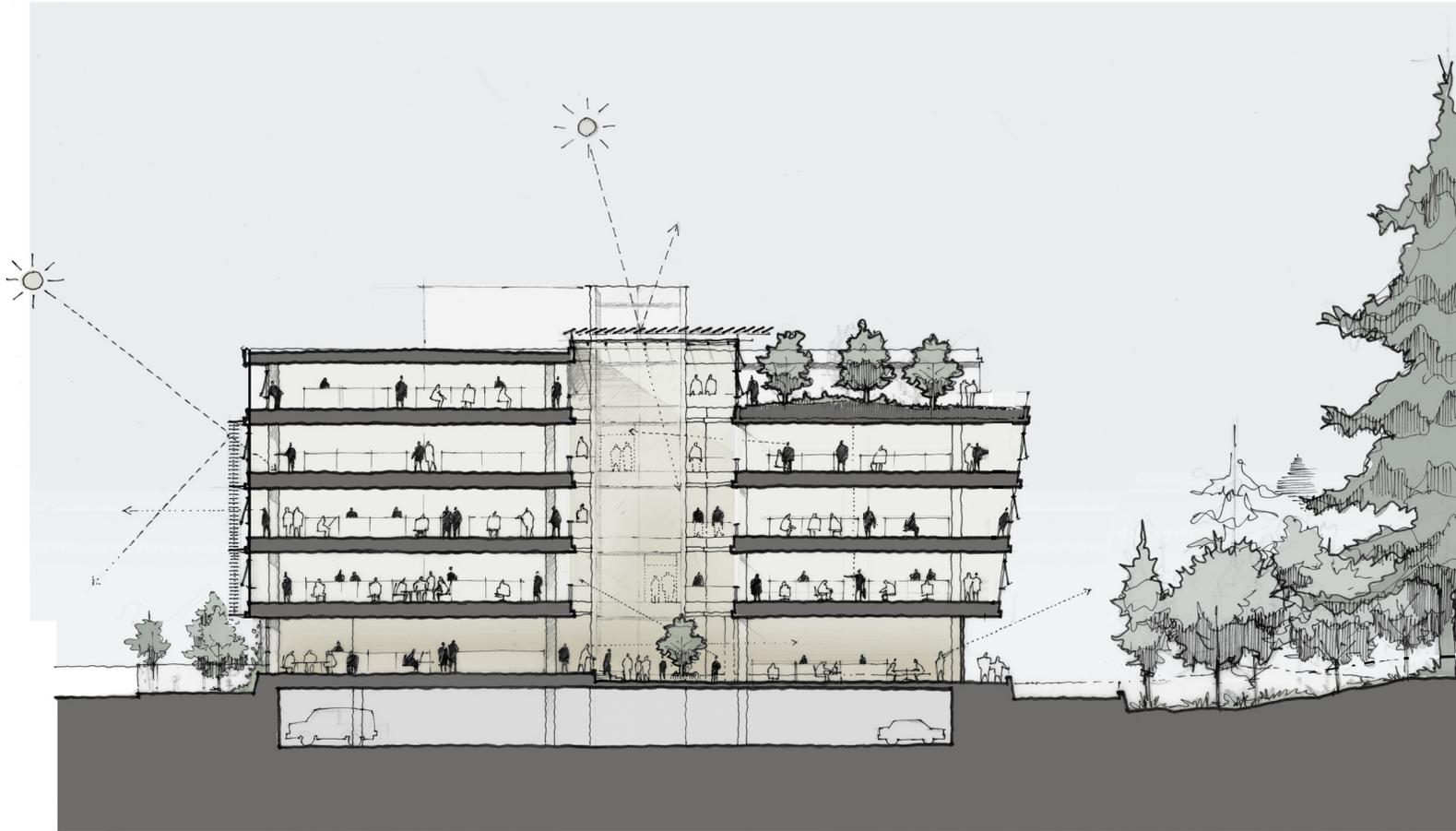
Precast Concrete to harmonize with Capitol Stone

North



East





- Design integrates Workspace and Natural Features
- Design creates internal vitality and external views. Magnet spaces, common meeting rooms, copy and coffee hubs, and lounge areas are located centrally along with connecting stairs, elevators and walkways.
- Flexible open workspace surrounds open daylight atrium. Private offices to be distributed as required by tenant programs.

9.0 Appendix

- 9.1 Pre-design Checklist
- 9.2 GA Building Prioritization of Repairs / Revisions
- 9.3 Workplace Strategies
- 9.4 CCDAC Design Opportunities Recommendations
- 9.5 Cost Estimate Summaries

9.1 Pre-Design Checklist

Predesign Checklist

- Executive Summary
- Project Analysis
 - Discussion of operational needs
 - Discussion of alternatives
 - Discussion of selected alternative
 - Identification of Issues and risk identification
 - Prior planning and history
 - Stakeholders
 - Project description
 - Implementation approach
 - Schedule
- Program Analysis
 - Assumptions
 - Functions and FTE's
 - Spatial Relationships between the facility and site
 - Interrelationships and adjacencies of functions
 - Major equipment
 - Special systems such as environmental, information technologies, etc.
 - Future needs and flexibility
 - Sustainability and energy utilization
 - Applicable codes and regulations
- Site Analysis
 - Potential sites
 - Building footprint
 - Site considerations such as physical, regulatory and access issues
 - Acquisition process
- Project Budget Analysis
 - Assumptions
 - Detailed estimates
 - Funding sources
 - Project Cost estimate
 - Form C-3, Benefit and Life-Cycle Cost Analysis Summary
 - Sign-off by agency
- Master Plan and Policy Coordination
 - Impacts to existing plans
 - Adherence to significant State policies

- Facility Operations and Maintenance Requirements
 - Assumptions
 - Operating costs in table form
 - Staffing plan (capital and operating)

- Project Drawings and Diagrams
 - Site Plan
 - Building plans
 - Building volumes
 - Elevations

- Appendix
 - Predesign checklist
 - Project budget unit cost detail
 - Sustainability design charrette summary
 - Additional information as needed

9.2 GA Building Prioritization of Repairs / Revision

GA Building Prioritization of Repairs / Revisions

The following assessment report is provided in response to the language in the Legislative proviso that stipulated that some of the current GA Building tenants *may* be considered for the ProArts Building due either to replacement of or major systems renovations to the existing building. It is intended to provide insight into the extent and potential costs of those upgrades.

G.A. BUILDING PRIORITIZATION OF NECESSARY REPAIRS/REVISIONS

In researching the General Administration Building (GA Bldg.) history for this project I gathered several previous reports, studies and commentaries by contracted consulting teams and current Asset Management Staff to develop a more thorough understanding of the issues facing this 60's era facility. I will be referring heavily to these reports and studies as they have been quite consistent in their respective results and shall include excerpts from them in supporting the conclusions in this document.

I believe it is most relevant to point out initially that the most recent tenant space modifications to the GA Bldg. by the Washington State Patrol were reluctantly allowed by the City of Olympia Building Department with the understanding that the building would be demolished by the end of 2011. The primary reason for establishing this caveat stemmed from the fact that the 288,000 square foot building is not sprinkled and that any future attempts to modify space within the building would require the installation of an approved fire suppression system. A May '09 analysis of the GA Bldg. determined that the cost for this **No. 1 Priority, (a wet-type sprinkler system)**, would be in the neighborhood of \$2.5 M. This estimated cost does not include the values assigned to associated work in the areas of asbestos abatement, modifications to existing plumbing systems and other elements that would inevitably become part of the work associated with the installation of the sprinkler system. And speaking of asbestos abatement, the most recent estimated cost for **total** asbestos abatement was valued at \$2.5 M. While the cost for the abatement process that only relates to the sprinkler system installation has not been determined it must be noted that a significant portion of the abatement work includes the necessary removal of the existing asbestos ceiling tiles.

The 2006, 2008 and 2009 studies and reports established the **No. 2 Priority, as Repairs/Replacement of the HVAC System**. Primary components of the HVAC system are obsolete (frozen valves, antiquated pumps) and irreplaceable and cannot be repaired. Some components necessary to facilitate 'make-do' repairs have fabrication, manufacture and delivery lead times of up to 20 weeks and would, upon failure of existing components, leave the facility untenable for prolonged periods. The May '09 survey of the building's system indicates that several components of the existing HVAC system are facing **"imminent failure"** and include items that are affected by these lead time delivery issues. The estimated total cost to replace the system is \$28.5 M and would necessarily include significant amounts of related work (plumbing, asbestos abatement, electrical upgrades and ceiling replacement) to facilitate the installation

G.A. BUILDING PRIORITIZATION OF NECESSARY REPAIRS/REVISIONS

of the new HVAC system.



Existing Steam/Water Distribution Pumps and Piping

G.A. BUILDING PRIORITIZATION OF NECESSARY REPAIRS/REVISIONS



Asbestos Covered Piping

The 2008 and 2009 reports identified **Seismic Upgrades as the No. 3 Priority**. A 1992 study of the G.A. Building by Zimmer Gunsel and Frasca Partnership included observations relative to seismic resistance noting that “the earthquake resistance (of the G.A. Building) is half the capacity required by code.” More recently, the 2001 Nisqually Earthquake damaged several areas of the building and there are still many areas where evidence of the damage is visible. Fortunately, the internal steel structure maintained the building’s structural integrity. The original cost estimate from the 2006 study of the facility designated a budget of \$9M for the improvements necessary to meet current code and the subsequent 2008 report by the Asset Manager of the facility indicates a significant increase in estimated cost in excess of \$17M.

G.A. BUILDING PRIORITIZATION OF NECESSARY REPAIRS/REVISIONS



Cracking at Brick Chase

G.A. BUILDING PRIORITIZATION OF NECESSARY REPAIRS/REVISIONS



Separation at CMU Wall

The **No.4 Priority is the building plumbing system**. Researching the previous studies and interviews with current facility staff indicates that this aspect of the facility has not been significantly improved or upgraded. Per the 1992 ZGF Partnership study of the facility no improvements had been made to the original plumbing system in 36 years. With the exception of minimal repairs over the past few years the 36 year span just noted has been extended to 53 years with the same system. Included with this item is the history of leakage issues at the lower floors where plumbing chases have provided a convenient route for water escaping from an increasing quantity of ruptured lines. The latest estimates to replace this system were \$3.2M in 2006 and \$5.5M in 2008.

G.A. BUILDING PRIORITIZATION OF NECESSARY REPAIRS/REVISIONS



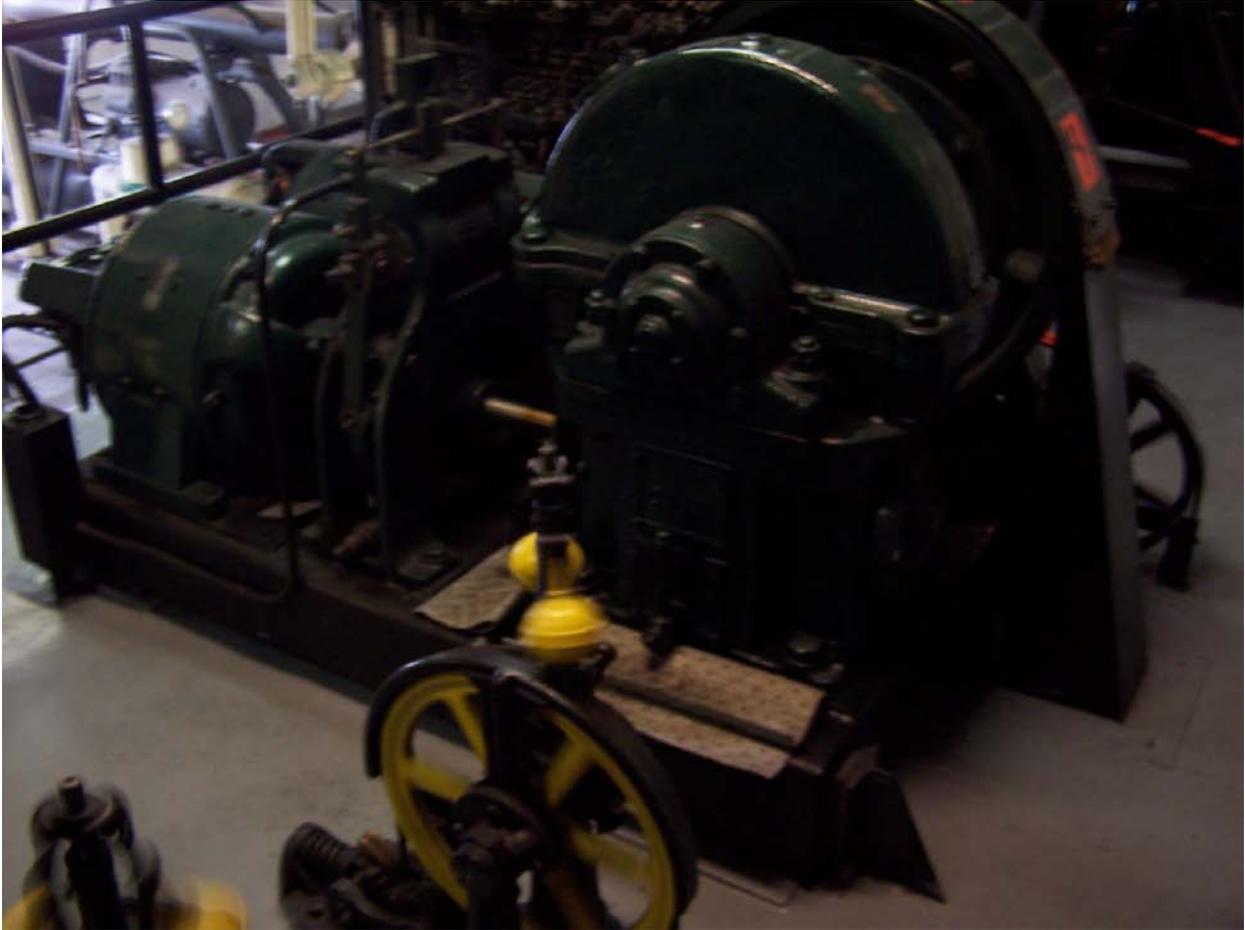
Sample of Plumbing System and Corrosion

The **Four Priority Items** noted above are just the highlights of a much longer list of necessary actions and repairs required to maintain the facility in both the near future and a longer timeframe. Interviews with the building asset staff have stressed that **it's not matter of whether or not these systems fail but how soon they will fail**. Failure of any of these major building systems would most assuredly result in the need to vacate the facility to accommodate the necessary replacement of systems. Costs for evacuating the building would necessarily reach into the millions of dollars for relocation costs. The following items, while not as critical as the first four, are also significant and in some cases just as costly.

The electrical distribution system, exterior skin, lighting, and elevator controls represent areas of obsolescence and substantial sources of energy and resource inefficiencies which have translated into excessive energy costs over the past several decades. The original elevators and controls are still in operation. The frequency of elevator 'down' time and repairs is unacceptable for a facility of this size. The antiquated controls do not allow for individual programming so that when a unit is called to your location all of the elevator cabs respond. In other words, the system has a collective brain without the ability to function independently. The lighting system, although upgraded in the past to include more efficient fixtures still does not include control features that minimize the energy consumed. The basic electrical distribution system is decidedly undersized to meet the needs of a modern office

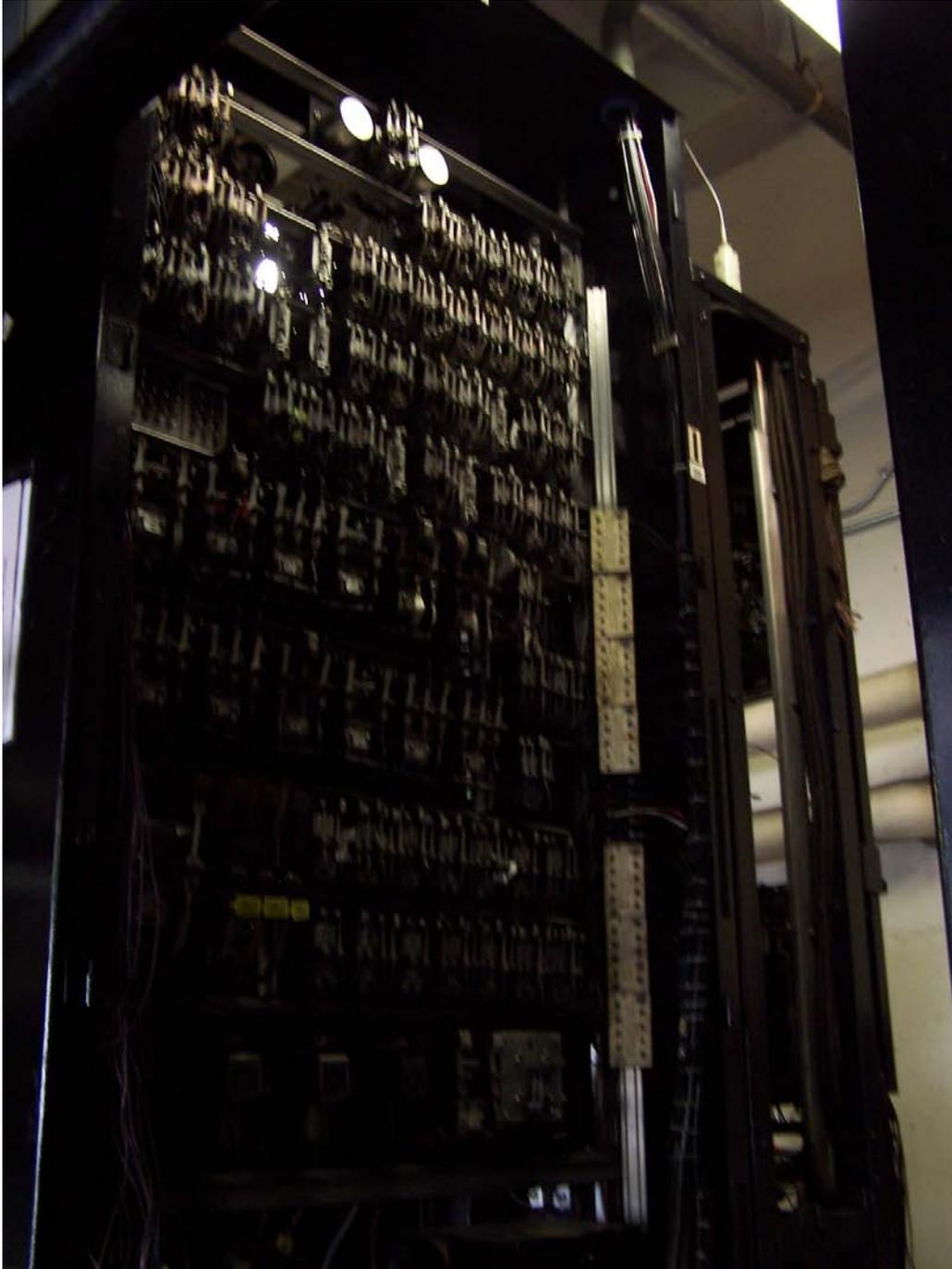
G.A. BUILDING PRIORITIZATION OF NECESSARY REPAIRS/REVISIONS

environment. Replacement of the distribution system would necessitate a complete closure of the facility as would the replacement of the plumbing and HVAC systems. This, of course would then lead to the abatement of the asbestos pipe insulation. The combined single pane windows and un-insulated exterior skin allow for a constant loss of energy and require an already obsolete and mostly uncontrolled HVAC system to work too hard to keep up with demand.



Originally Installed Elevator Motor

G.A. BUILDING PRIORITIZATION OF NECESSARY REPAIRS/REVISIONS



Original Elevator Controls

G.A. BUILDING PRIORITIZATION OF NECESSARY REPAIRS/REVISIONS



Electrical Distribution Connectors at Building Perimeter During Moisture Intrusion

Add to the above highlighted items a list that includes: Communication and Security improvements, Accessibility Upgrades, a new roof, repairs to damaged materials due to building leaks, interior improvements and exterior upgrades and an impressive picture takes shape that, if not promptly addressed, will rapidly lead to an untenable facility.

9.3 Workplace Strategies

Facilities Efficiencies and Strategies (GA)

Innovative Workspaces: Benefits and Best Practices (GSA)

FACILITY EFFICIENCIES AND WORKPLACE STRATEGIES

Introduction

In the report for Fiscal Year 2008, GA described certain factors and trends that were affecting the workplace. This report expands this discussion, with the following perspectives:

- The relationship between space standards and facility efficiency and effectiveness;
- The costs and benefits related to increased investments in improving the office environment, reflected in GA's move to "high performance building standards", as well as the increasing importance attached to "green buildings" (emphasizing reduction of climate impacts);
- Workplace design; and the changing nature of work

Space Standards and Facility Efficiency

Research points to a fundamental change taking place in the way office space is used and managed -- a change driven by technology-enabled organizational transformations. The modern workplace has become a more fluid and responsive environment. Collaborative work teams and a wider variety of work settings are just two of the indications of change. More and more organizations are improving efficiency and effectiveness by offering flexible working styles and schedules to support expanded staff mobility and work-life choices. For many, sitting at the same desk each day, all day, while performing routine tasks has become outdated.

These trends provide opportunities to introduce more efficient workplace standards, without compromising employee comfort and productivity. While space at the workstation might shrink in size, or become shared with others, opportunities to use other types of work settings increase. However, such flexibility requires a change in approach to space management and facilities support to improve the work experience and productivity.

Similarly, the concept of an average "occupancy density" must be treated with some caution. As indicated previously, the achievable space per person will vary based upon various factors, including: configuration and specification of building; age and condition of building; how long the organization has occupied the building, the work functions, the design of the layout and the goals of the management team.

The traditional concept of space per person being the same as space per workstation is changing dramatically. As "ownership" of a desk evolved into shared workstations, greater space efficiency outcomes translate into higher per capita of employees per building and improved working environments.

As long as a "space standard" is coupled with improved work environment that responds to flexibility, the balance between "efficiency" and "effectiveness" is maintained. The combination of improved efficiency and improved workplaces will support a more productive workforce.

Workplace Environment

Many people and organizations consider the "office environment" or workplace simply as a physical setting, somewhat autonomous to the occupants, their work activities, and organizational structures. In contrast, a holistic view of the office which encompasses what is necessary to support its employees, business functions and processes provides a better approach for understanding and responding to dynamic issues in the workplace. It also provides a tool for developing more effective facility efficiency standards and workplace strategies geared to assisting agencies in achieving effective and efficient office facilities.

Cost Benefits of Better Workspace

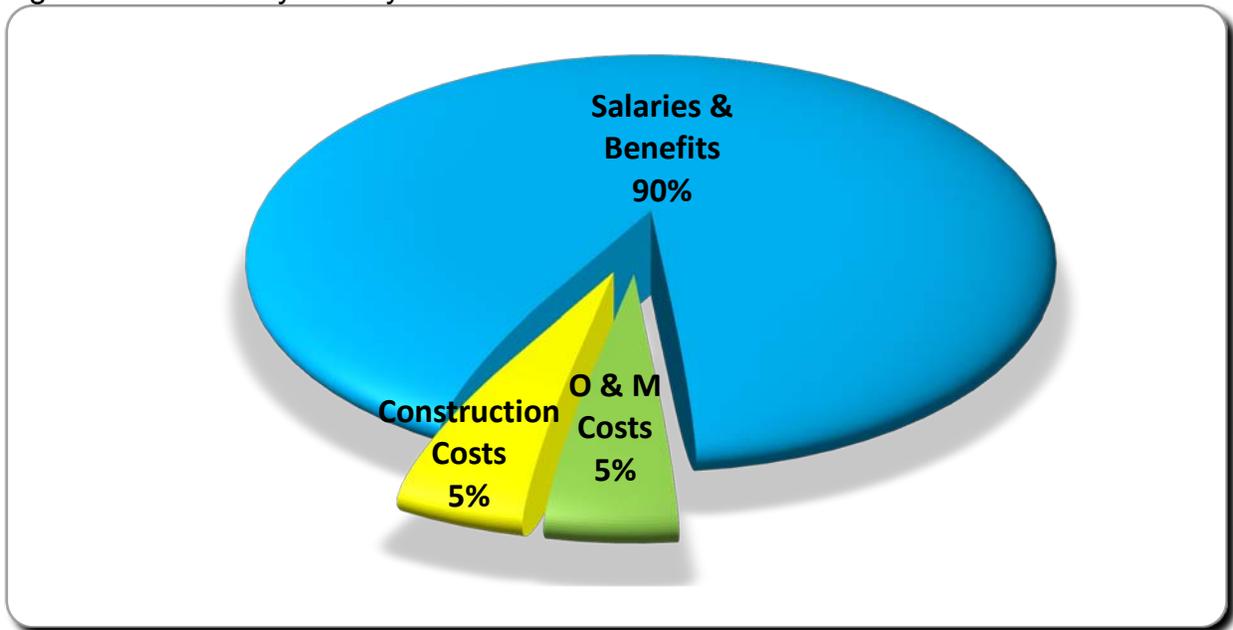
Employee performance is directly affected by the quality and suitability of the overall work environment, adequate work space, and work tools. Research clearly indicates that investment in space, furniture, furnishings and equipment is an investment in the people and the mission of an organization.

Over the last two decades, an increasing amount of research has identified the potential for a direct payoff from improvements in the office environment. This can be contrasted with the importance that some organizations place on efficiency—an emphasis that is focused on reducing facility expenditures. The actual expenditure for employees' salaries and benefits for most organizations exceeds the yearly cost of facility operations and the amortization costs by a factor of 5 to 10 or more. This suggests that there is more to gain by investing in things that improve human productivity and effectiveness, than by strictly cutting space costs.¹

According to research developed by the federal government, over the typical 20-year life of a facility, up to 90% of its cost can be attributed to the salaries of employees while only 5% is attributable to initial construction costs and another 5% is operation and maintenance costs.²

The quality of the physical environment does make a significant difference in work performance as well as in satisfaction.

Figure 4 Facility Life Cycle Costs



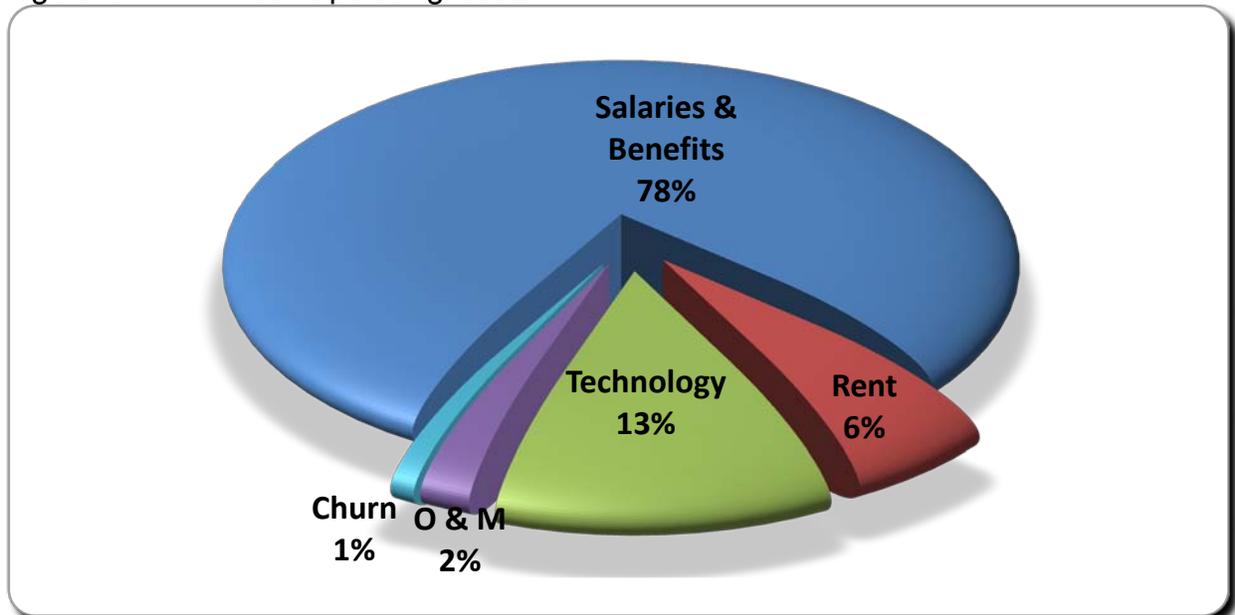
Source: GSA Public Buildings Service (1997)

¹ M. Brill (ed.). *Using Office Design to Increase Productivity*. Workplace Design and Productivity. Buffalo, N.Y. 1984; J. Vischer. *Environmental Quality in Offices*. Van Nostrand Reinhold, N.Y. 1989.

² Federal Facilities Council, *Federal Facilities Beyond the 1990's: Ensuring Quality in an Era of Limited Resources*. Technical Report 133. 1997

On an annual basis, the Center for Building Performance and Diagnostics at Carnegie Mellon University has found that about 78% of an organization's annual operating costs goes for salaries and benefits, while only 8% of total costs are directly attributed to the workspace. These figures show that the greatest opportunity for workplace gains is in improving the performance of the people in the space, not cutting the cost of the workplace.

Figure 5 Annual Operating Costs



Source: Center for Building Performance and Diagnostics, Carnegie Mellon University (2007)

This makes a compelling argument for cost analyses that include the effects of workspace on the employees when determining the cost benefit of workspace elements. If the cost of providing important workspace attributes demonstrates even a modest increase in productivity, such investment can be more easily justified. Conversely, a short-sighted approach of cutting the first or initial cost by providing inadequate workspace, or installing systems, furniture, and technology that only meet minimum standards will likely hamper work performance and result in detrimental long-term effects.

It is in this context that a discussion of space utilization needs to be framed. This requires quantifying the effects described above in a cost-benefit framework that is presented in a language understood by those making the financial decisions. And this is what the GSA has done, illustrating the cost justification for providing workspace alternatives and amenities that increase productivity.

The justification of facility upgrades or enhancements to improve productivity was the subject of a study by the GSA Public Buildings Service. HOK Architects analyzed the cost differentials and payback of traditional and alternative office designs based on the value of increased productivity. Payback for providing more workplace amenities that would increase productivity was shown to range from 2 to 4.3 years depending on the expected level of increase in productivity.

There is continuing research to quantify effects of the workspace on productivity and the bottom line. Carnegie Mellon's Center for Building Performance and Diagnostics and the Advanced

Building Systems Integration Consortium (ABSIC) have gathered data from various construction projects and existing facilities and developed a computer model that shows the life-cycle value of specific workplace improvements. Their analysis focuses on cost benefits of improvements in seven building infrastructure categories: air, thermal and lighting control, network access, privacy and interaction, ergonomics, and access to the natural environment. The results indicate that the benefits of good workspaces are quantifiable and conclude that the workplace is an integral part of the value creation process for an organization and can no longer be considered a separate overhead item.³

The emphasis of workplace design should be on the people and the work they accomplish. The cost of people in a building is typically 10 to 12 times the cost of the building's infrastructure. We believe that space—as a tool to help people work - can, should, and does matter.
U.S General Services Administration

Workplace Design

Effective office space planning not only improves the productivity of the workplace and the level of staff satisfaction but results in functional efficiencies resulting in better service delivery.

Traditional office accommodation no longer suits contemporary working patterns. Instead, offices must now accommodate changing work practices, evolving attitudes towards work, emerging forms of IT and respond to new workplace styles and initiatives. Traditional office layouts are being challenged, with space now being allocated based upon such considerations as:

- Work function rather than position
- Enhanced opportunities for improved communication, interaction and collaboration
- Organization learning and knowledge
- Information transfer

The key is to match facility strategies with overall business purposes by providing structures and layout that aid, rather than obstruct organizations in their quest for success. Too often, facility plans lag behind and serve as a drag on the implementation of core business strategies.⁴ Organizations should design organizational structures, processes and facilities to support their business strategies rather than the reverse.

Changing Nature of Work

In the past, office design and allocation of space have been focused on status than work requirements. As work in the public sector continues to become more information driven and centered around services provided by people, work environments need to be flexible to enhance communication, improve efficiency and productivity and respond to organizational change.

The trend in offices today is to have fewer and smaller individual workspaces and a greater portion of the space dedicated to interactive uses in an array of functions and sizes. Space is being optimized for all types of collaboration. Facilities must provide a mix of spaces designed to accommodate group collaboration and individual “think space” as well as support for virtual interaction with dispersed teams of colleagues and customers. This variety of “activity settings”

³ Advanced Building Systems Integration Consortium. “Summer Meeting Document”. Center for Building Performance and Diagnostics. Carnegie Mellon University. Pittsburgh, June 17-18, 1998.

⁴ A.E. Schriefer. Workplace Strategy: “*What it is and why you should care*”, Journal of Corporate Real estate, Volume 7, Number 3, March 2005.

is geared to provide quick activity transitions to meeting a range of needs, with workers moving to the most appropriate space throughout the day.⁵

The way to the future is – integration of space, technology, policies and practices.

An effective workplace strategy must simultaneously address the social, physical, and technical components of the work environment as well as financial considerations, since each factor impacts the others.

Changing Need for Office Space

Changes to the way work is performed are creating an urgent need for agencies to explore alternative approaches to planning, designing and managing office layouts and work environments. Increasing trends toward flattened organization structures also bring increased flexibility in employment. Collaborative work groups that form and disband around projects and consultants and outsourced workers that come and go in the workplace, require much greater fluidity in the use of space. Many key workers typically may be working on projects away from their desks either at home or with clients outside the office.

State agencies and organizations should now be looking for opportunities to utilize space differently, reduce occupancy costs and maximize performance. These factors point to greater use of "open" layouts, more intensive use of space and the introduction of "alternative" initiatives such as desk sharing and teleworking.

The primary drivers for changing space design and layout should still be the functional requirements of the agency. However, coupled with that should be considerations that promote:

- Improved productivity,
- Better service delivery,
- Development of policies enabling employees to balance work and family responsibilities, improved facilities
- Processes to improve teamwork and collaboration
- Introduction of programs to attract and retain employees.

This approach addresses the need for a better understanding of the nature of the workplace, how it is designed, planned and managed and how those factors affect the ability of the agency to provide better services to the public and government in a cost effective manner.

“Facility efficiency standards should not be used simply to “squeeze” space, but should be used creatively in a change management context to change the way people work.”
National Audit Office: Getting the Best from Public Sector Office Accommodation. The Stationary Office, London. 2006

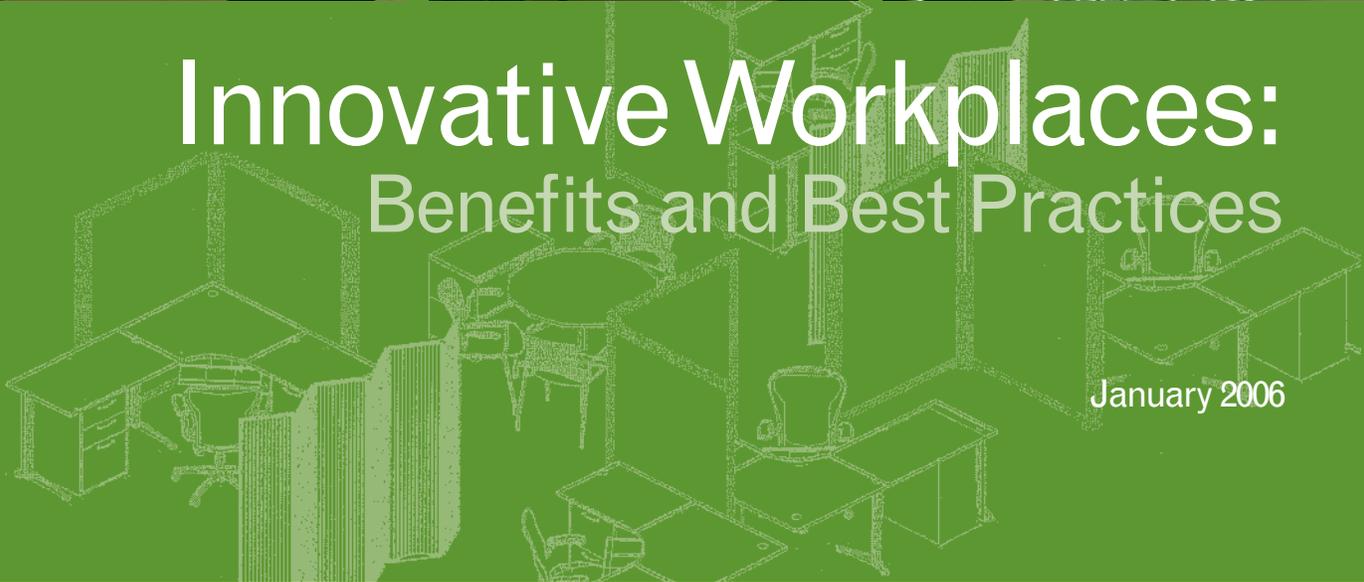
GA’s goal is in facilitating a flexible work environment that is able to respond to change, meet the needs of employees and customers, enhance communication amongst staff and improve efficiency and productivity in order to better support the delivery of service objectives.

⁵ P.J.Stone and R. Luchetti. “*Your Office is Where You Are*”, Harvard Business Review, March-April 1985, Volume 63, Number 2, Page 102.



Innovative Workplaces: Benefits and Best Practices

January 2006



This publication was developed as a joint project between the General Services Administration (GSA) Office of Governmentwide Policy's Office of Real Property Management (under the direction of Stanley F. Kaczmarczyk) and the GSA Public Buildings Service Office of Applied Science (under the direction of Glenn S. Hunter).

The team members contributing to the research and development of this publication include Robert Obenreder, Michael Atkinson, Jonathan Herz, Cherie McClam, and Cindy Quan, with support from SpauldingSlye | Colliers: Diane Hartley, Tara Auclair, Kate Kolb, and Tiana Peterson; and Jenifer Kern from Eastern Research Group (ERG).

Innovative Workplaces: Benefits and Best Practices

January 2006

Foreword

The U.S. General Services Administration (GSA) is pleased to issue *Innovative Workplaces: Benefits and Best Practices*, our latest publication focused on advancing innovative workplace strategies in the Federal Government.

For years, GSA has promoted improved design and efficiency of Federal buildings, developing information and tools to help Federal agencies create innovative work environments. By designing innovative workplaces, the Federal Government provides agencies with the high-performance facilities they need to attract and retain talented, motivated employees.

This publication describes the value of improving facilities and work practices to create not only more efficient, but more *effective* workplaces—ones that offer increased benefits to all stakeholders,

including building owners, managers, occupants, and the American public. Innovative workplaces are achieved through a holistic, integrated approach to development—balancing business strategies, short- and long-term costs, and occupant performance. Using this approach, workplaces are more efficient, flexible, and sustainable—thereby offering the best value to stakeholders.

I would like to thank both the GSA Office of Governmentwide Policy's Office of Real Property Management and the GSA Public Buildings Service's Office of Applied Science for providing the insights presented in this document and helping to improve our facilities' value and workforce quality. GSA believes innovative workplaces are important to the continued success of the U.S. Government. I hope you will find this publication enlightening and useful.



John Sindelar
Acting Associate Administrator
Office of Governmentwide Policy
U.S. General Services Administration

Preface

The words “United States Federal Government” and “innovation” are not often uttered in the same breath. But for nearly a decade, the work of the General Services Administration (GSA) – Office of Real Property Management and Public Buildings Service on innovative workplace strategies has helped dispel the image of government as slow and stodgy. GSA recognized that new approaches to designing and using Federal buildings—representing more than 3.4 billion square feet and occupied by more than 2.7 million employees—had the potential to not only generate billions of dollars in annual facility savings, but could also boost employee productivity and job satisfaction.

The role of the *place* where people work in government has never been more important, especially considering that over the next decade large numbers of Baby Boomers will start to retire—resulting in about 40 percent of current employees leaving the workforce. Using innovative workplace design strategies to create working conditions that will help

attract young and talented people to government service is critically important. Understanding how physical design, information technology, and management practices can work in harmony to help the Federal Government become an “employer of first choice”—and do it in a way that is efficient and effective—is an extraordinary challenge.

Particularly remarkable about GSA’s innovative approach to workplace design is that the agency adopted a commitment early on to pilot-test new design strategies for its own and other government departments, as well as evaluating innovative private sector initiatives. The results, reflected in this milestone report, *Innovative Workplaces: Benefits and Best Practices*, are guidelines that provide a roadmap for future workplace design grounded in credible data and tested by real-life experience of a diverse employee population. It is a singular achievement.

Franklin Becker
Professor and Chair, Department Design &
Environmental Analysis
Director, International Workplace Studies Program
College of Human Ecology
Cornell University

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Executive Summary

The Federal Government employs 2.7 million workers and owns or leases more than 495,000 buildings—3.4 billion square feet—worldwide. Unfortunately, most Federal office space suffers from poor workplace design and does not adequately support the increasingly collaborative work style of today’s information-based workforce. The result: less productive and satisfied workers and higher costs due to inefficient space use.

Forward-thinking organizations of all sizes and across all industries have come to recognize that *innovative workplaces* can enhance employee and business performance—resulting in long-term cost savings and/or improved organizational performance. These companies have begun to tailor their workplaces to meet their particular needs. They are seeking ways to use their space and technology investments to enable rather than inhibit progress toward their objectives.¹

Definitive industry studies prove that implementing innovative workplace strategies produces significant savings through (1) *leveraging investments in human capital*—to improve employee productivity, reduce absenteeism, and increase retention rates; and (2) *enhancing portfolio value* through reduced churn costs, energy consumption, and office space requirements. In fact, research shows that if improved workplace strategies were applied across the board to the entire Federal office space portfolio (comprised of 725 million square feet), the potential savings to the government could be as much as **\$8.4 billion annually**. Applying this same potential formula for savings to all Federal space types (3.4 billion square feet) could ostensibly produce savings near **\$39 billion annually**.

To help Federal agencies realize these financial and productivity benefits, the General Services Administration (GSA) actively promotes and espouses innovative workplace strategies, tools, and techniques. After years of conducting extensive workplace research and tracking industry-wide best practices, we have found that simple workplace changes can significantly improve Federal employee performance and operating costs.

This milestone workplace publication by GSA’s Office of Governmentwide Policy (OGP) identifies key workplace trends; discusses the history, background, and current state of the Federal workplace; and outlines the benefits of innovative workplace approaches. Numerous case study examples are provided to demonstrate the appeal of workplace strategy across industries—with a strong focus on successful Federal implementations—and varied financial and productivity benefits. The case studies summarize best practices and provide guidelines that can be applied by the reader to his or her unique workplace situation.

As innovative workplaces continue to become more mainstream among U.S. businesses, GSA encourages all Federal agencies to assess their workplace strategy and look for opportunities to implement innovative workplace concepts in an effort to improve Federal employee and agency performance.

Innovative workplaces are work environments that support organizational change, incorporate integrated and sustainable approaches, and improve employee performance—increasing business performance and reducing long-term operating expenses.

¹ Schriefer, A.E. (2005).

Section 1: Introduction

1.1 The Workplace Context

“The work environments that companies have provided for the past half-century are increasingly unsuited to emerging patterns of work and are inhibiting workers from performing to their full potential.”²

In today’s highly competitive global business environment organizations are increasingly revisiting their workplace strategies. Why? Because fixed office space and inflexible work arrangements provide little or no value to most organizations. Flexible workplace strategies are required to accommodate the rising mobile workforce. Today’s generation of workers expects adaptable office environments with high-tech features. Collaborative office environments are also on the rise, as team- and project-based work is becoming the predominant work style.

All these workplace pressures, accompanied by continual advancements in technology, are transforming work patterns and creating the need for more innovative workplace strategies. The workplace today needs to accommodate rapid organizational changes and more progressive work styles and cultures. A more complex formula of workplace is evolving:

Work Strategies + Space + Culture = Workplace

As defined by Audrey Schriefer, a leading workplace expert, workplace strategy is “the dynamic alignment of an organization’s work patterns with the work environment to enable peak performance and reduced cost.” In *The Agile Workplace* Bell and Joroff estimated, based on survey data, that only five percent of

U.S. corporations use space as a strategic tool.³

To offer the best value in today’s chaotic work environment, workplaces must go beyond simple function and aesthetics to become a *strategic business tool* that supports emerging work practices and organizational culture.

1.2 Why the Workplace Is Important to the Government

The Federal Government spends more than \$20 billion annually on acquiring or substantially renovating Federal facilities. Furthermore, Federal workplace decisions affect the performance of 2.7 million workers representing more than **\$195 billion in salaries and benefits**. Because employees account for the majority of an agency’s expenses⁴, the workplace’s impact on employee productivity has been widely studied and acknowledged as a significant contributor to employee satisfaction.

According to a two-year workplace study by DYG Inc. for Knoll Inc., consisting of 1,500 interviews with 350 full-time office workers, people increasingly believe the workplace affects their productivity and job satisfaction.⁵ The employees surveyed cited the following factors as having a “major” or “moderate” impact on their performance and satisfaction:

The workplace, and the world of work, is experiencing an upheaval and transformation as profound as that created by the printing press in the 15th century.

CoreNet Global 2010 Report

Current research shows, and leading businesses agree, that the workplace significantly influences employee satisfaction, health, hiring, retention, and productivity.

2 Schriefer, A.E. (2005).

3 Bell, M. and Joroff, M. (2002). *The Agile Workplace: Supporting People and Their Work*.

4 The Federal Facilities Council and other studies show that over the typical life of a facility, employees account for 80 to 90 percent of the expenses, while building construction and maintenance expenses come in a distant second. This statistic means that if organizations do not consider the effect of workplace solutions on their employees, they are ignoring the effects on their largest cost center and missing the greatest opportunity for improved benefits and savings.

Major Impact

- *Technology* – providing the right technological tools and support to work effectively.
- *Storage space* – supplying ample storage within close proximity to their desk.
- *Climate control* – allowing employees to control the workplace climate to provide comfort.
- *Quiet space* – minimizing noise that causes distractions and disruptions.
- *Adjustable and adaptable space* – supplying space that can be personalized to fit an individual's work style.

Moderate Impact

- Personal lighting control
- Ergonomic equipment and chairs for physical comfort
- Proximity to exterior windows, providing natural light and views
- Privacy and space for personal items at the workstation
- A visually appealing workplace with a professional atmosphere

The study also showed that satisfaction is crucial to staff retention. Employees planning to leave the organization were 25 percent less satisfied with their physical workplace than those who planned to stay. Similar research studies have revealed that when employees do not have control over their individual work environment (e.g., lighting, ergonomics, and quiet space), it negatively affects their physical health and mental disposition leading to increased absenteeism, employee dissatisfaction, inferior work products, and unsatisfactory customer service.⁵

Such studies make clear that failing to provide space, systems, furniture, and technology that optimize occupants' performance can have detrimental long-term effects—reducing the organization's performance and increasing operational

expenses. All else being equal, people will more often choose to work for organizations that provide better workplace accommodations.

By analyzing and conducting numerous workplace studies and research programs like these, GSA has found that innovative workplace solutions are vital to the success of the U.S. government, its employees, and its citizens. However, there are numerous challenges inherent in today's Federal workplace environment that must be recognized before new strategies can be assessed and adopted.

1.3 The Current State of the Federal Workplace

Despite continuous improvement efforts, the Federal office portfolio still shows signs of poor workplace design. Space is sometimes designed using old criteria—or not designed at all—or may be designed based on outdated concepts that do not adequately support the changing needs of today's information-based workforce. Such work settings make it difficult to incorporate new approaches and reduce operating costs.

The following poor workplace conditions can adversely affect employees in Federal office buildings:

- *Space as status* – Space is assigned based on status rather than the type of work completed in the space.
- *Indoor Air Quality* – Poor indoor air circulation can lead to people feeling lethargic or having eye, nose, and throat irritations.
- *High churn cost*⁷ – Significant time, cost, and effort is required to reconfigure space to match organizational changes.
- *Environmental complaints* – People complain about noise and odors or being too hot or too cold.

5 DYG, Inc., 1998

6 GSA (2001b). *Productivity and the Workplace: Featuring the Productivity Payback Model.*

7 Churn costs are defined as the cost required to relocate personnel and equipment, whether it is moving down the hall, to another building, or across town.

- *Outmoded technology* – Outdated or aging phone and computer systems impact productivity in the workplace, as well as the ability to work from remote locations.
- *Nagging service calls* – Building management responds to emergency repairs or repetitive maintenance calls on a frequent basis.
- *Anonymous space* – It is difficult to locate other employees within the building; the workspace lacks variety and has no focal points.

Figure 1 illustrates characteristics of poor workplace design; including lack of natural light (the high cubicle dividers do not allow daylight to pass through to interior spaces), fixed workstation panels, and a narrow circulation pattern which makes teaming and collaborative work difficult.

Another challenge facing Federal workplace improvements is the fact that most Federal managers do not yet view the workplace as a strategic business tool. For example, each year Federal agencies ask GSA to provide millions of square feet of new office space requirements. Until recently, agencies would ask GSA to play the role of order-taker only, giving the agencies what they asked for without considering how workplace budgets could be leveraged to improve employee and business performance. This paradigm began to change in the 1990s.

In response to these and other Federal workplace challenges, and recognizing the

strategic importance of the workplace within the organization’s asset management, the President enacted Executive Order (EO) 13327, Federal Real Property Asset Management, in 2004. The EO called for each Federal agency to establish a senior real property officer position and participate on the Federal Real Property Council (FRPC) to promote the efficient and economical use of Federal real property resources. The EO encourages “enhancement of Federal agency productivity through an improved working environment.”

In the traditional “old school” perspective, the workplace is viewed solely as a physical container for work.

Three agency stakeholders have come together to support the EO and drive Federal workplace change:

1. *The Office of Management and Budget (OMB)*, whose mission is to ensure Federal funds are appropriately used and that agencies get the best value for taxpayers’ dollars. OMB chairs the FRPC in support of EO 13327.
2. *The Office of Personnel Management (OPM)*, which plans for workforce succession. OPM is concerned about recruiting and retaining talented personnel and providing acceptable work coverage through alternative work strategies such as telework.
3. *The Government Accountability Office (GAO)*, which is concerned with the condition of the Federal infrastructure, the magnitude of deferred maintenance, mitigation of threats that could damage the infrastructure, and maintaining continuity of operations.

GSA is responsible for responding to these important stakeholders, providing the tools and guidance Federal agencies need in order to meet the EO’s requirement of enhancing agency productivity.

Figure 1



Section 2: Defining Innovative Workplaces

2.1 What Are Innovative Workplaces?

Innovative workplaces are cost-effective, flexible, and sustainable work environments that support organizational change and

Successful workplaces can only happen when executives, managers, designers, and employees all actively participate in developing and owning the workplace.

collaborative work styles. The end goal of an innovative workplace is to provide high-performance work environments that maximize employee productivity and reduce long-term operating expenses.

Designing innovative workspaces requires *new ways of thinking*

about the physical and virtual aspects of the space—tying together people, space, and technology to support changing (and more progressive) business practices. This approach requires an integrated development process, balancing business strategies, short- and long-term costs, and occupant performance. During this process, organizations must collaborate closely with all parties affected by workplace decisions—including building owners, designers, facility managers, leasing experts, and occupants. By using this integrated approach, workplaces are more effective and offer the best value to all stakeholders.

To further define and understand innovative workplaces, GSA identified specific workplace characteristics, termed the “Hallmarks of the Productive Workplace:” *spatial equity, healthfulness, flexibility, comfort, technological connectivity, reliability, and sense of place.*

2.2 Characteristics of Innovative Workplaces

To be an effective strategic tool for the organization and serve varying occupant needs, workplaces must incorporate the GSA Hallmarks of the Productive Workplace. These characteristics are described in detail below.

Spatial Equity

A humane, well-designed workspace that meets the user’s functional needs and provides individual access to privacy, daylight, outside views, and aesthetics.

This concept means that all workers have the space, equipment, and support they need to excel at their job, with equal access to important workplace elements, such as natural light, outside views, and space to talk privately. Organizations can no longer ring the outside of a building with private offices, cutting off natural light and views to people sitting inside, and expect them to perform at their best.

Healthfulness

Clean and healthy work environments with access to air, light, and water— and free of contaminants and excessive noise.

Construction materials, furniture, office equipment, and cleaning products/processes can add harmful contaminants that pollute the indoor air. Liberal amounts of fresh air must be provided to the space when occupied, and ventilation systems must be designed, tested, and maintained to ensure good air quality.

Alternate work strategies include telework, hoteling, virtual offices, and other distributed work arrangements. Telework is currently the most popular of these strategies. As defined by GSA and the Office of Personnel Management in 2005, telework is: “The act of performing all or a portion of work functions at an alternate work site under circumstances which reduce or eliminate the employee’s commute. It must occur at least one day per week on a recurring basis.”

Flexibility

Easily adaptable workplaces that support varied work strategies and help balance an individual’s work and home life—including systems and furnishings that accommodate organizational change with minimal time, effort, and waste.

Easily reconfigured infrastructure and furniture, including freestanding work surfaces, mobile storage units, modular walls, and access floor systems—to distribute power, data, and air—are leading examples of flexible systems.

Flexible work strategies, such as flex-time, job sharing, and telework programs, allow employees to work how, when, and where they are most productive—contributing significantly to employee satisfaction and work-life balance.

Comfort

Occupant-adjustable temperature, ventilation, lighting, acoustic, and furniture systems providing personal and group comfort.

Allowing people to control their workspace goes a long way toward satisfying their needs and reducing complaints. Providing furniture and

task lighting that occupants can reconfigure to suit their work needs, and giving them the ability to adjust lighting levels, temperature, and ventilation within the personal workspace will result in more satisfied and productive employees.

Connectivity

A robust communications system providing access to people and/or data from any place, at any time.

“Follow-me/Find-me” technology (enables callers to find you wherever you are by dialing

just one number), wireless voice and data technology, and virtual networking (logging into your company’s network from any location) are examples of advanced communications systems that improve employee productivity.

Reliability

Efficient and state-of-the-art building, security, computer, and telecommunication systems that are easy to maintain.

Providing heating, ventilation, air conditioning, lighting, power, security, telecommunication systems, and technology equipment that provide reliable service with minimal disruptions.

Sense of Place

A workplace that has a unique character, with an appropriate image and identity, instills a sense of pride, purpose, and dedication for the individual and the workplace community.

One test of workplace success is whether the space would pass the “relative test.” Would most of the occupants be proud to bring in family and friends and show them where they work? If not, the workplace has not yet achieved an appropriate sense of place for the people using it.

It is good to add some recreational amenities in the workplace, such as a television lounge (that doubles as an informal meeting area), informal seating or lunch areas, or a small area with a pool or ping-pong table. Consider providing some areas that incorporate color and direct sunlight to warm up neutral tones typically used in office furniture.

2.3 The Sustainable Workplace

In addition to accommodating employees and the organization, innovative workplaces must accommodate *the environment*. Combining the concepts of sustainable design, development, and maintenance produces a

“sustainable workplace” that:

- Respects the environment
- Improves health and performance
- Maximizes human capital
- Supports an efficient organization
- Makes the best use of resources

The features and benefits of sustainable workplaces can be defined within the context of three main categories:

- 1. Sustainable planning, design, and construction:** Eliminates toxics, minimizes or eliminates waste, reduces contingent liability, increases safety and proficiency, and creates long-term value.
- 2. Sustainable repair and alteration:** Abates hazardous materials, reduces churn costs, and provides healthier environments.
- 3. Sustainable operations and maintenance:** Increases occupant health and safety, prolongs the life of

building finishes and systems, and uses healthier, eco-friendly products and procedures. Investing in high-quality systems maintenance extends equipment life and maximizes efficiency.⁸

A powerful concept for creating “world-class” workspace, sustainable workplaces provide the most effective work environments

and strategies at the lowest life cycle “true” cost. When sustainable workplace concepts are integrated with an organization’s mission, the organization can make decisions that benefit the project constituents, the environment, and the bottom line. The following key qualities are found in a sustainable workplace:

- **Integrated design process** – focused on adaptability and mobility, environmental issues, ergonomics, collaboration, privacy, and noise control.
- **Healthy environment** – with more daylight, outside views, and fresh air.
- **Flexible systems** – such as ergonomic equipment, chairs, and keyboards; flexible monitor location; and moveable task lighting.
- **Occupant control** of lighting, heating, and cooling systems.
- **Alternative work strategies** – including telework programs and centers, desk-sharing, touchdown space, and remote information access.
- **Flexible workplace strategies** – such as community space and ample private space; cell phones and laptops.

Integrating sustainable workplace features with the Hallmarks of the Productive Workplace results in an innovative workplace approach that not only creates a healthy and productive work environment but also delivers *significant additional benefits* to the Federal Government and other organizations. The next section explores these benefits in more detail.

Increased sensitivity to sustainability is another trend that will increasingly shape the nature of work, as companies begin measuring success—and making operational decisions—in terms of economic, social, and environmental parameters..

CoreNet 2010: The Changing Nature of Work and the Workplace.

“A guiding principle of sustainable design is to create places that are not only healthy and productive, but which also lift the human spirit. The premise is a simple one: healthy, happy people will be more productive and more engaged with their work and their organization.”

Dr. Judith Heerwagen
Environmental Psychologist
J.H. Heerwagen &
Associates Inc.

8 For more detailed information on the Sustainable Workplace, refer to GSA’s Innovative Workplace Strategies publication. (2003b).

Workplace, Continuity, Telework, and Change

(An Excerpt)

By Wendell Joice, PhD, and Tony Gill

I. ORGANIZATIONAL CHANGE

Fundamental changes in the workplace are happening today and are driven by a number of factors such as improvements in communication technology, the need to address inefficient management structures, and the desire to better manage risk. This is all taking place at a time when cost efficiency and competitiveness are paramount.

One of the more powerful factors impacting our early 21st century culture of work is the continuing explosive development of technology and the consequent revision of workplace attitudes and operations. The advance of technology has spawned a new generation of entrepreneurs who don't need suits, ties, and standard office space to compete successfully in business. Their success has been a key catalyst in changing fundamental work patterns in many organizations. Not only did they eliminate the nine-to-five, five-day week in favor of an entirely new system of time management, they used the tools of new technology to change the way work was done. This has become an indelible blueprint for success across a wide spectrum of industries.

In the midst of these changing dynamics is the move toward telework. Telework is both a cause of the changing dynamics as well as a result. As a cause, telework plays a key role in each of the change factors mentioned above. Telework facilitates the increased and improved utilization of technology, enables globalized service provision, and enhances the feasibility of adequate risk management. On the other hand, improved technology, globalization pressures, and risk management needs have all resulted in an increased focus on telework. Telework has begun to play an increasingly critical role in the changing dynamics of today's workplace.

II. REASONS WHY ORGANIZATIONS ARE ADOPTING TELEWORK

Early deployments of telework were significantly slowed by an institutional resistance-to-change management culture and, also, by the limited capability of technology. Even during much of the 90s the telework toolkit didn't expand to much more than a dedicated phone line, a modem, a fax machine, and perhaps a stack of file folders. Given these limitations, as well as its perpetual label as an "ongoing special project," telework had difficulty in gaining the traction necessary to move forward.

During the past couple of decades, numerous public and private entities have been

unsuccessful in their attempts to sell telework, mainly because they lacked a catalyst to make telework an operational imperative and overcome change resistance. For many organizations and industries, however, that catalyst occurred on September 11, 2001. Since then, business continuity planning (BCP)—organizational strategies to maintain, reinstate, and/or shield necessary operating functions, systems, processes and personnel when work is disrupted and/or threatened by emergency circumstances—has assumed a significant role.

Based on the increased need to manage organizational risk in an era of increased risk due to threats of terrorism, technology sabotage, and/or other disruptive events, BCP and risk management have become strong incentives for the increased adoption of telework. Through the use of telework, organizations can manage risk by creating dispersed workplaces that don't concentrate human capital and other organizational infrastructures in one location. Risk management, however, is not the only emerging driver for telework adoption. Other important drivers include:

- **Cost Management:** Telework is a key contributor in lowering operational overhead as it enhances workplace productivity and cost efficiency of operations.
- **Facility Management:** Telework is an integral component in enhancing the efficiency of facility management. It can provide substantial cost efficiencies, improve utilization rates, and drive development of sustainable buildings.
- **Decentralization:** Telework supports the trend toward organizational decentralization as a solution to factors such as urban sprawl, overburdened transportation infrastructures, and rising fuel prices. Telework leads to reduced commuting times, traffic congestion, and air pollution.
- **HR Considerations:** Telework expands (geographically and sociologically) an organization's labor pool and improves recruiting and retention, leading to enhanced employment opportunities.

Keeping Pace with Technology: Organizations need to keep pace with rapidly changing organizational and technological processes. Telework strategies keep the organization current with the most recent technology advances such as videoconferencing, Web casting, Web-based Intranets, and virtual presence.⁹

Knowledge Work Facilitator: Telework is an effective tool for knowledge-based work; it can facilitate a high degree of knowledge sharing and worker productivity.

III. TELEWORK-ORIENTED WORKPLACE CONTINUITY/CHANGE STRATEGY

Putting this all together, it can be seen that telework is a key **workplace continuity and change strategy**:

It is a strategy for reconfiguring organizational structures and functioning to align with the principles and benefits of decentralization, sustainable development, business

⁹ For more information on the growing use of virtual presence, see the work being conducted by the Congressionally-funded Telework Consortium at www.teleworkconsortium.org.

continuity, alternative workplaces, management by results, and evolving workplace technology.

Given the circumstances cited above, telework-oriented workplace continuity/change strategies have reached the top of the list as the most effective way to address contemporary organizational concerns. In addition to the foundational changes identified previously, however, there are a number of other reasons why telework strategies make more and more sense, including:

- **Lifestyle Considerations.** Employers need to accommodate the more fluid lifestyles of employees, including a better work/life balance. The increased strain on families to maintain a balanced lifestyle and handle dependent care responsibilities can be positively addressed through telework arrangements.
- **Environmental Concerns.** Urban sprawl creates drastically increased commuting times which lead to:
 - Increases in work-related stress and other health-related problems
 - Reductions in productivity and quality of work-life
 - Increases in fuel prices and other work-related expenses
 - Increases in air pollution, traffic congestion, and inefficient energy consumption

Telework can achieve dramatic decreases in commuting times and distances, and the resultant environmental concerns.

- **Organizational Flexibility.** Increased flexibility is a key benefit of adopting telework strategies. If planned well, they create seamless connections between central and remote alternative workplaces and, thereby, facilitate organizational benefits from flexible workplaces. Flexible workplaces equip workers with a better ability to adapt to personal and organizational changes (e.g., moves, team assignments, reorganizations).

Given the amount of organizational change already underway and projected over the coming years, a transitional strategy like telework makes good sense.

- **Economic Development.** As knowledge work becomes more decentralized, creating flexible workplaces provides the additional benefit of being a catalyst for a wide array of economic development opportunities for communities of all types, from urban metropolitan areas to rural and/or economically depressed areas.

IV. CHALLENGES

While the mainstreaming of telework strategies is still stymied by resistance-to-change management, there are other implementation and cultural challenges that must be addressed. These include:

Work/Management Behaviors

- Some teleworkers find it difficult to work in isolation, while still remaining productive or creative.

- Monitoring and preventing the negative impact on career due to an “out of sight, out of mind” management attitude.
- Resolving issues of managers that experience telework as a disabling loss of control and/or oversight.
- Training managers how to manage by results.
- Ensuring that telework programs create alternative workplace arrangements for managers.

Building and Technology Strategies

- Establishing “smarter” central and/or backup IT systems (especially remote access) in the event of a large-scale power outage or other disruptions.
- Creating secure and robust technology infrastructures. Planners must identify various levels of security and design methods that address network security and remote access to information.

Archaic Management Practices

Outdated management practices present a range of significant challenges that need to be overcome. Many managers, especially middle managers, have a deeply ingrained resistance to telework that is primarily based on the prevalence of the “command and control” management philosophy that is a holdover from 20th century industrial management and is fundamentally incongruous with knowledge work.

V. MOVING FORWARD

Despite the difficult and persistent challenges mentioned above, telework is growing steadily, albeit slowly. In order to expedite the mainstreaming of telework, organizations, policy-makers, program developers, and advocates need to take advantage of numerous lessons learned, treat the challenges seriously, and continue to boost awareness of and exposure to telework.

Reconfiguring the workplace is critical to the success and effective functioning of today’s organizations. Adopting telework strategies will dramatically increase organizational flexibility and enable workers to more completely embrace the “work anywhere, anytime” mentality of many of today’s knowledge-based business models and labor pools. In the process of doing this, many other benefits will be achieved—such as risk mitigation—through internally imbedded business continuity processes.

Section 3: Benefits of Innovative Workplaces

The three main benefits derived from the application of innovative workplaces are its ability to:

- 1. Leverage investments in human capital** by increasing occupant comfort and satisfaction—leading to improved productivity, performance, recruitment, and retention, and reduced absenteeism.
- 2. Improve portfolio value** through greater flexibility of building services, more effective space utilization, improved operations and maintenance, and greater customer satisfaction—increasing overall organizational effectiveness.
- 3. Support strategic mission/business objectives** by clarifying goals and strategies, identifying performance measures to track continuous improvement, facilitating business process evolution, improving customer service, and supporting corporate stewardship.

This section points to conclusive private and public sector research results that have proven the qualitative and quantitative benefits of innovative workplaces. The benefits are discussed within the context of the three main benefit categories.

3.1 Qualitative Benefits

Examining the qualitative benefits of innovative workplaces provides insight on how these improved work environments can create happier, healthier, and more productive employees.

3.1.1 Leveraging Human Capital Investments

Studies show that innovative workplaces help leverage the investment in employees, who typically represent from 80 to 90 percent of total business operating expenses, by providing the following benefits:

- **Reduced absenteeism.** Healthier indoor environments reduce sick building symptoms and absenteeism. A Canadian study revealed that approximately one-third of employees' sick leave can be attributed to symptoms caused by poor indoor air quality. The same study found that communication and social support enabled by open office plans are strong contributors to healthy workplaces and lowered absenteeism.¹⁰

According to a study by Carnegie Mellon University (CMU) for the Department of Energy (DOE), improving indoor air quality and providing natural light reduces illness and stress. The CMU study¹¹ showed that occupants closer to windows reported fewer health problems.

In addition, a survey of three case studies by the Rocky Mountain Institute proved that better lighting and HVAC systems can reduce absenteeism from 15 to 25 percent.¹²

- **Improved recruitment and retention.** The workplace is a proven factor in hiring and keeping a world-class workforce, resulting in improved recruitment and retention rates and decreasing expenses to replace

A new breed of worker (“the knowledge worker”) is emerging to provide the required creativity and innovation. These highly sophisticated workers will demand an environment that attracts them, satisfies their needs, and provides an incentive to stay (Schriefer, 2005).

¹⁰ Charles, K. et al. (2004).

¹¹ Advanced Building Systems Integration Consortium, Center for Building Performance and Diagnostics. (1995).

¹² Romm, J.D., & Browning, W.D. (1998).

staff. Knoll reports that a Hay Group study found that half the people planning to leave their current employer were dissatisfied with their workplace, while only one-quarter of those staying were dissatisfied.¹³ A study commissioned by the American Society of Interior Designers also found that 51 percent of employees surveyed said the physical workplace would impact their decision to leave their job.¹⁴

Similar studies show that employees are happier when they have control over how and where they work, resulting in a better work-life balance and higher retention rates. This finding is particularly important given that Boston College's Sloan Work and Family Research Network found that 54 percent of the current workforce is part of a dual-earner couple—meaning that employees are increasingly responsible for caring for children and parents.¹⁵

- **Increased productivity and performance.** Flexible, adaptable work settings allow people to customize their workspace to suit their individual needs, providing improved comfort. When given control over their environment, workers are less distracted and more productive and satisfied with their jobs. They also report fewer complaints to building management. For example, Public Works and Government Services Canada found that when people were given individual ventilation control, the number of trouble calls decreased significantly.¹⁶

Healthier, more ergonomic workplaces can also improve performance and reduce expenses. The Occupational Safety and Health Administration (OSHA) reports that repetitive strain injuries caused by poor ergonomic design, including computer use, cost business and industry as much as \$54

billion annually in workers compensation and other costs.¹⁷ A National Institute of Safety and Health (NIOSH) study found that installing ergonomically designed furniture reduced health complaints by 50 percent and increased productivity by 23 percent.

In addition, effectively planned work spaces allow workers to interact on an informal basis as needed, increasing collaboration, teaming, and social ties, which can create more cohesive groups and more creative problem solutions. Research has shown that supportive co-worker relationships help people in dealing with stress.¹⁸ Herman Miller found that enabling teams to collaborate and share information improved work group process quality by 3 percent and decreased project cycle times.¹⁹

3.1.2 Enhancing Portfolio Value

Facility operations and maintenance costs are a significant company expense—typically 10 to 20 percent of personnel and building costs—and are easy to quantify and track. Innovative workplace and building design helps increase the value of an organization's real estate portfolio through:

- **Greater flexibility of building services.** Improved flexibility in workplace design reduces the time and expense required for reconfigurations and daily operations and maintenance. The GSA Adaptable Workplace Lab showed that using easily reconfigured furniture can save 90 percent of reconfiguration costs, and reduce reconfiguration time from days to hours. In another example, the Pennsylvania Department of Environmental Protection reduced average churn costs from \$2,500 to \$250 per workstation by using more flexible building and furniture systems in their high-performance green buildings.²⁰

13 Knoll & The Hay Group. (1998).

14 American Society of Interior Designers. (1999).

15 Sloane Work and Family Research Network. (2005).

16 Charles, K.E., et al. (2004).

17 Occupational Health and Safety Administration (OSHA), Department of Labor. (1999).

18 Charles, K.E., et al. (2004).

19 Gee, L., & Miller, H. (2003).

20 Toothacre, J., & Pennsylvania Department of Environmental Quality. (2001).

- **More effective space utilization.** Workplace strategies such as telework and hoteling support better space-use alternatives. The U.S. Patent and Trademark Office eliminated three floors of office space and saved \$1.5 million per year in rent by incorporating telework and office sharing into its new building program.
- **Efficient operations and maintenance.** Innovative workplaces help decrease facility management, operating, and technology expenses. Vivian Loftness et al at Carnegie Mellon have compiled case studies that show that improved lighting efficiency and controls can save up to 40 percent in total building energy costs.²¹
- **Greater customer satisfaction.** Employee performance and satisfaction can also increase with improved workplace systems. For example, building management in the Alfred A. Arraj Federal Courthouse in Denver, Colorado, and the Capital One Headquarters Building in Fairfax, Virginia, both report fewer occupant heating and cooling complaints with the under-floor air distribution system compared to other buildings with ceiling-supplied systems.
- **Identifying performance measures to encourage and track continuous improvement.** In determining how a workplace will perform, a balanced scorecard approach should be used to assess financial, business process, customer, and employee measures. At the University of Miami, implementing monthly performance indicators increased productivity by 109 percent in two years and improved the preventative maintenance completion rate from 40 to 90 percent.
- **Facilitating business process evolution.** With a better understanding of an organization's operations and performance measures, the workplace can serve as a catalyst for change and facilitate quick reconfigurations. One group in GSA's Portfolio Management division was able to change from individual cubicles to a more open, interactive space in only 90 minutes (see *Adaptable Workplace Lab Case Study*, section 6.14).
- **Enhancing product or brand image.** The workplace can make a positive statement to employees and customers. At GSA's Federal Supply Service (FSS) building in Fort Worth, Texas, the workplace team improved customer perceptions, brand image, and product expertise by using the workplace as a showcase for FSS products and vendors and by co-locating work groups in the same building.
- **Improving customer service.** Employees are more productive and happier when their work is adequately supported by their workplace. This positive attitude will affect their relationships with their customers and each other, and help them excel at their job.

3.1.3 Supporting Mission Objectives

Beyond human capital and portfolio value, approaching the workplace as a strategic tool can support and enhance the mission of the organization by:

- **Clarifying mission goals and strategies.** During the pre-design phase of an innovative workplace project, the team examines the organization's objectives and goals, giving the designer a better understanding of business operations. The GSA Office of Civil Rights discovered that staff involvement in its workplace design helped improve morale and functionality.

²¹ Center for Building Performance and Diagnostics. (2005).

3.2 Quantitative Benefits

The most important question remains: how could implementing innovative workplace strategies impact the Federal budget? To gauge an order of magnitude of the possible savings, GSA used the following 2001 and 2002 Federal space and employment statistics to determine the potential impact improved office space could have on the Federal budget:

U.S. Federal Government Statistics

- 3.4 billion square feet of space worldwide (includes building, land, and structures) used by Federal employees
- 724.8 million square feet of office space worldwide (24 percent of total Federal space) used by Federal employees
- \$2.8 billion spent annually on office construction
- \$71,760 spent annually, on average, per civilian Federal employee for salary and benefits
- 9.6 days of sick leave taken per year, on average, by each civilian Federal employee
- 6.8 percent turnover rate for U.S. government employees (2004)²²

GSA Portfolio Statistics

Within the Federal portfolio of owned and leased office buildings managed by GSA there are:

- 1.1 million workers housed
- 334 million square feet of office space (45 percent of Federal Government office space)

GSA applied the results of reputable workplace research studies, simulations, and analyses to its own portfolio of managed

Federal office facilities and found that improved workplace strategies could substantially impact the Federal budget. The results follow.

3.2.1 Leveraging Human Capital

Innovative workplace strategies can have the most significant budgetary impact on human capital costs. These include:

- **Reduced absenteeism** resulting in a cost benefit valued at \$432 million annually. This figure is based on a 15-percent reduction in absenteeism confirmed by two studies.²³
- **Higher staff retention** could save \$187 million annually in expenses to replace staff. This figure is based on a modest assumption of a 10-percent higher retention rate due to better office environments, a 6.8 percent turnover rate for Federal employees; and the average cost of \$25,000 to replace an employee (BIDS, 2003).
- **Increased productivity** can be valued at \$2.4 billion annually. This figure is based on two studies showing that better control of workplace comfort conditions produces a 3-percent productivity increase.²⁴

These personnel benefits yield a potential savings of approximately \$3 billion per year, or about \$2,700 per person for GSA building occupants.

3.2.2 Enhancing Portfolio Value

Annual portfolio cost savings delivered by innovative workplaces could include:

- **Reduced churn costs** of \$379 million annually, if move costs were decreased by 80 percent. This statistic is based on average results from four project case studies²⁵ and 1 million workstations with a 30 percent churn rate. (Average private sector churn rates are 41 percent according the International Facility

²² Bureau of Labor Statistics. (2003). Job Openings and Labor Turnover Survey. U. S. Department of Labor.

²³ The two studies referenced are: (1) Romm, J.D., & Browning, W.D. (1998)., and (2) Benton and Fountain. (1990).

²⁴ The two studies referenced are: (1) Kroner, Stark-martin & Eillemain. (1992)., and (2) Wyon. (1996).

²⁵ The four case studies references are from: (1) Lucent Project Atlas, (2) Pennsylvania Department of Environmental Protection, (3) GSA Adaptable Workplace Lab, and (4) Herman Miller MarketPlace.

Management Association and can be up to 300 percent for some organizations.)

- **Decreased electricity consumption** worth approximately \$178 million annually. This figure is based on average energy costs of \$1.62 per square foot²⁶ for GSA-managed facilities and three studies showing a 33-percent average reduction in total energy consumption by utilizing more efficient lighting strategies.²⁷
- **Reduced office space requirements** saving \$344 million annually based on 5-percent reduction in space requirements. GSA's Office of Real Property Management found that the combined effects of telework and hoteling reduced its own space requirements by 8 percent—without decreasing workstation size or group space needs—through decreased numbers of workstations.

The potential space cost savings are approximately **\$901 million per year, or about \$2.70 per square foot**, for the GSA-controlled office portfolio.

Combining the estimates provided for human capital and portfolio savings yields a potential savings of **\$3.9 billion annually** for the 334 million square feet of GSA-controlled office space. Because the GSA inventory represents only 45 percent of the Federal Government's overall office inventory, the potential benefits of innovative workplaces for all U.S. government office space could be more than **\$8.4 billion per year**. These savings taken to the next level and applied to the entire Federal property could potentially reach **\$39 billion**. See *Table 1 for details*.

Given the significant potential value evidenced through these employee productivity and portfolio benefits, many organizations—particularly the Federal Government—should consider adopting innovative workplace strategies for their entire portfolio. The next section presents recommended steps for implementing an innovative workplace approach.

Table 1. Potential Federal Savings from Innovative Workplace Strategies

| | GSA-Managed Office space | All Federal Office Space | All Federal Property Space |
|--|---------------------------------|---------------------------------|-----------------------------------|
| Square Feet Affected | 334 Million SF | 725 Million SF | 3.4 Billion SF |
| Potential Human Capital Savings | \$3 Billion | \$6.5 Billion | \$30.5 Billion |
| Potential Portfolio Savings | \$901 Million | \$1.9 Billion | \$9.1 Billion |
| Total Potential Savings | \$3.9 Billion | \$8.4 Billion | \$39.6 Billion |

²⁶ GSA Energy Usage and Analysis System. (2005). <http://euas.gsa.gov>.

²⁷ Center for Building Performance and Diagnostics. (2005). "BIDS" Mid-year Report. Pittsburgh: Carnegie Mellon University.

Section 6: Case Studies

This section presents 14 “real life” case studies from diverse public and private sector organizations. The variety of examples illustrates that innovative workplace features can be applied across different facilities and

organizations. Table 2 summarizes the case studies in this section, highlighting the primary benefits realized or anticipated by the organization.

Table 2. Summary of Case Studies

| Case Study Number | Project | Primary Benefits |
|-------------------|--|--|
| 6.1 | PBS WorkPlace 20•20 Pilot (Chicago, Illinois), 2005 | Improved financial performance and business processes. |
| 6.2 | GSA Regional Office (Kansas City, Kansas), 2004 | Decreased churn costs, enhanced communication and information sharing. |
| 6.3 | GSA Federal Supply Service (Fort Worth, Texas), 2004 | Improved financial performance, information sharing, and image. |
| 6.4 | U.S. Patent and Trademark Office (Alexandria, Virginia.), 2003 | Reduced office costs and improved employee productivity via telework programs. |
| 6.5 | Treasury Inspector General for Tax Administration (Washington, D.C.), 2003 | Improved work-life balance and employee productivity through telework. |
| 6.6 | GSA Office of Real Property IW Pilot (Washington, D.C.), 2002 | Improved collaboration and customer services. |
| 6.7 | GSA Mid-Atlantic Region (Philadelphia, Pennsylvania), 2002 | Reduced space needs and increased staff interaction. |
| 6.8 | Deutsche Bank (Global locations), 2002 | Improved space utilization, retention, and flexibility. |
| 6.9 | Millennium Pharmaceuticals (Cambridge, Massachusetts), 2002 | Improved collaboration and space flexibility. |
| 6.10 | CIGNA (Philadelphia, Pennsylvania), 2002 | Improved employee productivity and reduced turnover costs. |
| 6.11 | University of Miami (Coral Gables, Florida), 1995-2002 | Enhanced productivity and customer satisfaction. |
| 6.12 | Herman Miller (Zeeland, Michigan), 2001 | Sustainability, cost savings, and increased collaboration and communication. |
| 6.13 | GSA Office of the Future (Auburn, Washington), 2000 | Increased collaboration and communication. |
| 6.14 | GSA Adaptable Workplace Lab (Washington, D.C.), 1999 | Reduced operating expenses and churn costs, improved flexibility. |

Conclusion

Changes in modern business practices have altered the way people work inside and outside the office—and have also modified the office itself. To accommodate these and many other business changes, forward-thinking organizations have recognized the significant impact that positive innovative workplace strategies can have on employee and business performance, ultimately resulting in long-term cost savings.

Through extensive workplace research and pilot studies conducted over the past eight years, GSA has also come to realize the financial and productivity-based benefits of innovative workplaces. GSA advocates for all Federal agencies to move toward a more integrated and sustainable workplace model, in an effort to reduce operating costs and improve employee productivity and morale. In addition to providing the tools and best-practices discussed in the previous sections, GSA encourages agencies to adopt innovative workplace strategies by following these guidelines:

- Rethink standard practices by using sustainable, integrated design processes and services that support healthier and more productive workplaces.
- Develop new ways of thinking that go beyond function and aesthetics, considering how the organization's mission, strategic plan, and nature of work relate to its work strategies and space—creating work “places,” not just work “spaces.”

- Be an advocate for change by raising awareness of the strategic value of the workplace, educating customers or stakeholders and helping them use their workplace as a tool for change.
- Offer expanded services, such as organizational development, change management, and performance measurement to increase the scope and value of design processes and workplace solutions. Be prepared to demonstrate the value and impact of these services on the workplace.
- Share information with the real estate community on project progress or lessons learned.

This document demonstrates how progressive organizations are leveraging significant investments in workplace development to derive long-term benefits, and to achieve organizational mission and business objectives.

While individual impacts are a fraction of the whole, the cumulative impacts of incremental change, and compound effects of adopting integrated workplace planning principles are significant. If every Federal agency adopted innovative workplace strategies for all types of Federal space, the *potential* financial impact could reach as much as \$39 billion annually, and the human impact—the improved health and satisfaction of each Federal employee—would be incalculable.

Appendices

Appendix A:

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Appendix C:

Integrated Workplace Attributes

By Rob Obenreder and Michael Atkinson,
January 2005. Revised January 2006.

General Considerations

Integrated workplaces go beyond function and aesthetics to become strategic business tools. They are the result of integrated, sustainable approaches to developing high-performance workplaces that reflect the GSA “Hallmarks of the Productive Workplace” described below. This approach involves the following design and management processes:

1. Develop written project goals based on business strategies with broad constituency involvement.
2. Make design decisions with occupant involvement based on health and comfort, project goals, occupant tasks, and adaptability to maximize workplace effectiveness for the users.
3. Use a project team with the requisite expertise, sustained involvement, and interaction throughout the project. In addition to design and construction experience, the project team should have specialized expertise in integrated systems design, lighting design, organizational development, change management, and communications.
4. If transitions between project phases involve new teams, provide continuity between phases by involving team members from the previous phase.
5. Use an integrated systems approach to analyze all building systems from a holistic model that considers impacts of each component on all the others and maximizes design and operational efficiencies. (See the ABSIC Guidelines for High Performance Workspaces at <http://www.arc.cmu.edu/cbpd/projects/index.html>.)
6. Base decisions on a life cycle cost analysis that considers both facility costs and staff costs over 10-30 years.
7. Use the most environmentally sustainable (“green”) materials and construction and maintenance methods to eliminate or minimize any risk to those manufacturing and using the products.

Workplace Attributes

Integrated, high-performance workplaces should reflect the GSA “Hallmarks of the Productive Workplace” (shown in bold type below) and satisfy the recommended criteria listed below. Properly integrated, these attributes will result in work settings that can be changed to meet any organizational need with the least impact on future budgets or disruption to the users.

Equitable (or Spatial Equity): Design the workplace to meet the functional needs of the users by accommodating the tasks to be undertaken without compromising individual access to privacy, daylight, outside views, and aesthetics. Specific recommendations include:

1. Space standards should be based on documented work tasks, desired business processes, and other organizational needs.
2. All regularly occupied office space should have access to natural daylight.
3. Enclosed spaces such as private offices and meeting rooms should not block daylight and views from within open-plan offices.
4. Provide speech and visual privacy that matches work needs and organizational culture, especially for those seated in open-plan office workstations.
5. In open-plan office areas, accommodate needs for temporary individual privacy.
6. Provide a variety of adequate, alterable settings (furnishings, equipment, and software) to support changing needs and a high level of job performance and satisfaction, and accessible by all users.

Sustainable (or Healthfulness): Create workplaces using environmentally sustainable (“green”) products and processes that provide a clean, healthy workplace environment, free of harmful contaminants and excessive noise, with access to quality air, light, and water. Specific recommendations include:

1. Provide clean, fresh air to each occupant’s seated and standing breathing zone. Maintain air quality levels that provide an optimal working environment. These levels may be above minimum ASHRAE standards, such as those required by EPA for their own workplaces.
2. Provide exhaust ventilation per applicable codes and standards for all noxious fumes and odors, including those from copy areas, food preparation or storage, toilet rooms, janitor closets, battery/rectifier/UPS rooms, and diesel generator rooms.
3. Do not locate fresh air intakes where they can be contaminated by any noxious or lethal sources.
4. Prior to occupancy, and periodically after occupancy, monitor indoor air quality in occupied spaces to verify conditions meet requirements. This should include monitoring levels of contaminants such as carbon dioxide, carbon monoxide, radon, formaldehyde, and, if present, asbestos. Make any corrections necessary to eliminate hazards.
5. Give preference to office space with operable exterior windows.
6. Use only construction materials and methods that will not contain or release harmful contaminants that could adversely affect indoor air quality or require special treatment (such as abatement) during future modifications.
7. Do not contaminate occupied space or building systems during construction. Avoid contamination of in-place systems by not operating building HVAC systems in construction areas.
8. Perform routine building maintenance with trained mechanics to maintain specified air quality standards.
9. Use only maintenance and cleaning materials and methods that will not introduce harmful contaminants that can adversely affect indoor air quality and the health of service personnel and occupants. Assure training has been provided to all maintenance personnel in the proper use of maintenance equipment and products.
10. Commission all building systems to assure they meet design specifications. Performance levels shall be certified in writing by a licensed engineer.
11. Office layouts should provide all occupants with seated views to the exterior.
12. Use “green lease” provisions for leased facilities that meet or exceed GSA, EPA, and Pennsylvania Department of Environmental Protection guidelines. Building and interiors should be capable of LEED Silver certification.
13. Provide ergonomically sound furnishings and equipment, especially, but not limited to, task chairs, variable-height work surfaces, computer monitor stands, adjustable keyboard trays, and adjustable, moveable task lights.
14. Provide ergonomic consultation and training on office equipment use for all new occupants.
15. Optimize natural light penetration into office areas by using, to the extent possible, light transmitting vertical surfaces, especially where they occur parallel to windows.

Flexible: Choose workplace configuration components that can be easily adapted to organizational or work process changes, and can be readily restructured to accommodate key functional changes with a minimum of time, effort, and waste. Specific recommendations include:

1. Select workstation and office elements that facilitate user adjustment and reconfiguration, including furniture, task lighting, power, data and communications connections, and air supply control.

2. Provide free-standing, modular furniture components for all individual offices and workstations. Work surfaces should be small and light enough to be moved by one person. Heavy furniture such as file cabinets, storage towers, and book cases should be on wheels, glides, or other devices so that, when fully loaded, they can be moved by one person.
3. Provide power, data, and communications services through plug-and-play and/or wireless systems, with integrated cable management to the desktop that allows connections to be made easily, by the occupant, to serve components anywhere within the workstation.
4. Provide flexible utility distribution systems that can service any location or accommodate common space uses without requiring demolition and new construction of building or space elements.
5. For open-plan office workstations:
 - a. Provide workstation enclosures with modular, freestanding elements, such as stackable panels or moveable screens that can be reconfigured with a minimum of time or special support. Minimize the number of different panel or component sizes and installation hardware. If possible, select a single, uniform panel size for optimal interchangeability.
 - b. Minimize the total “kit of parts” required to construct workstations without compromising function.
 - c. Avoid panel-hung elements that cannot work with freestanding panels.
 - d. Avoid running wiring within panels of workstation enclosures.
 - e. Use modular clamp-on desk power and data terminals where desk-height utilities are needed. Feed from accessible, independent power sources in lieu of beltline raceways or other internal wiring systems.
 - f. For open-plan, rectilinear “cubicles” where space is at a premium, consider freestanding, modular work surfaces that can be easily reconfigured by the occupant in a variety of arrangements and that have surfaces that nest together without major gaps between adjoining work surfaces. Avoid using free-form work surfaces that waste precious space when used in small, enclosed areas.
6. Provide room enclosure assemblies that meet the sound transmission requirements of applicable codes and standards, such as the GSA Facilities Standards for the Public Buildings Service. Where fully enclosed spaces are required, consider using modular, reusable panels that maintain applicable acoustic requirements for speech privacy.
7. Carefully consider needs for, and locations of, shared-use facilities such as meeting rooms, copy centers, file storage, and kitchenettes. Establish requirements that will satisfy the carefully defined needs of the users in the most effective way. Size spaces to fit requirements, and consider modular meeting space that can be quickly re-sized as needed. This may include “drop-in” flexible meeting spaces that serve small groups of 4 to 8 people; separated by operable walls that can be opened to create larger conference rooms when needed.
8. Provide for a central reservation system for all shared meeting facilities, especially for large buildings.
9. Offer and support alternative work strategies developed as an integral part of business operations, including:
 - a. Encouraging the use of telework and enabling the maximum number of teleworkers and telework days for eligible tasks.
 - b. Supporting alternative work strategies with responsive spaces such as touchdown workstations,

community centers, desk sharing, hoteling, collaborative space, and reverse telework centers.

- c. Using shared workstation strategies (desk sharing, hoteling, etc) where work needs make it possible to achieve greater net space savings.
 - d. Providing the protocols, equipment, software, and services necessary to fully support remote work at the same level as on-site work.
10. Design workspace and communications/IT infrastructure to accommodate a fully networked, flexible organization; and, to maintain continuity of operations independent of any specific location.

Comfortable: Distribute workplace services, systems, and components that allow occupants to adjust thermal, lighting, acoustic, and furnishing systems to meet personal and group comfort levels. Specific recommendations include:

1. Provide individual user control, within a reasonable range, of temperature and ventilation conditions at each workstation.
2. Provide individual user control of lighting, including integrated lighting solutions that use daylight to the maximum extent possible.
3. Provide lighting designed for both quality and light levels per the latest editions of the “IESNA Lighting Handbook” and the “Advanced Lighting Guidelines” published by the Illuminating Engineering Society of North America.
4. Design lighting to illuminate surfaces rather than volumes.
5. Follow appropriate IESNA guidelines for lighting color temperature and color rendering.
6. Provide a level of visual privacy for open-plan workstations that generally satisfies work requirements, occupant demographics, and organizational need. (Note: Flexible furniture solutions should be readily adaptable to accommodate varying degrees of privacy.)

7. Provide furniture within the workstation enclosure that can be reconfigured by the user without tools or special expertise. Allow complete location flexibility for computer desk surfaces, storage elements, and computer monitor.
8. Select workspace elements that are modular and are equally adaptable for right-handed or left-handed configurations to accommodate user needs or building conflicts.
9. Furnish freestanding work surfaces with supports, such as “C” legs with low-profile bases, that minimize obstacles to user movement within the work area.
10. At a minimum, provide work surfaces that can be adjusted by simple means (such as pins in sliding leg tubes) to accommodate ergonomic height requirements. Except where required by special need, “one-touch” height adjustment mechanisms are not necessary.
11. Enable occupants to choose, to the extent possible within furniture standards and budget, ergonomic workstation elements that best support their work needs and style, especially such items as task chairs, keyboard trays, storage units, desk accessories, etc.
12. Create a variety of work settings with varied types of seating to suit identified work types, meeting types, and individual needs.

Connectable (or Technological Connectivity): Enable full communication and simultaneous data access among distributed co-workers for both on-site workplaces (including individual workstations, team space, conference/multimedia space, hoteling space, etc.) and off-site workplaces (including telework or commuting center, home office, travel venues, etc.). Specific recommendations include:

1. Provide a unified, enterprise-wide voice and data system that can meet the work process automation needs of all occupants and allows data sharing/access across the organization.

2. Establish a standardized baseline computer configuration for all users, with additional special elements added to the standard configuration as justified.
3. Provide a telephone service that can provide one phone number access for each person, regardless of location, and that links both desk and mobile handsets.
4. Provide robust network access and support for remote workers from any location.
5. Select data, voice, and software systems that can accommodate wider utilization of wireless equipment or devices and larger collaboration groups. Workspaces, hardware, and software should also anticipate/accommodate the introduction and implementation of video or “virtual presence” systems such as multi-media desktop conferencing.
6. Provide for current and future virtual meeting needs, including the capability for quality video conferencing in meeting rooms. Also consider video at the workstation, desktop and laptop.
7. Develop and maintain a healthy dialogue between leadership and staff that fosters clear expectations for both groups and generates “protocols” for working arrangements, especially for those working away from the office.

Reliable: Support the workplace with efficient, state-of-the-art heating, ventilating, air conditioning (HVAC), lighting, power, security, and telecommunication systems and equipment that require little maintenance, and are designed with back-up capabilities to insure minimal loss of service or downtime. Specific recommendations include:

1. Use a combination of ambient and task lighting systems, relying on task lighting to meet required illumination levels on work surfaces while keeping overall ambient lighting levels low. Use daylight to the maximum extent possible.
2. Provide ambient lighting through a combination of controlled daylight and indirect or direct/indirect dimmable, high-efficiency fluorescent fixtures,

individually addressable for occupant control, and automatically controlled by both occupancy and daylight sensors.

3. Provide task lighting through a combination of glare-free daylight and user-reconfigurable fixtures with high-efficiency lamps.
4. Provide HVAC systems with displacement ventilation and individual user control of temperature and air flow (within reasonable minimums and maximums). Select systems that can be easily adapted to changing space configurations and uses without involving demolition and renovation work that generates waste.
5. Provide training and written operating instructions to **all occupants** on use of building systems and features, office equipment, and software, including, but not limited to, personal comfort, building operation and facilities use, HVAC systems, computers, computer peripherals (printers, scanners, etc.), copiers, faxes, lighting, and furniture (especially with regard to ergonomics). Occupant user manuals should be provided electronically, limiting the printing of hard-copy documents to small summary cards, etc.
6. Provide building systems security and access control to adequately safeguard the physical health and safety of building occupants. As early as possible, link reliability of systems to a central command location, especially for health/life/safety considerations during emergency situations or when advance notice is possible.
7. Develop and implement a comprehensive maintenance program to keep all building systems and equipment in good operating condition and to minimize breakdowns.

Identifiable (or Sense of Place): Endow the workplace with a unique familiarity, character, image, and business identity that enable and convey a sense of pride, purpose, and dedication among both the individual and the workplace community. Specific

recommendations include:

1. Provide designs of the highest aesthetic quality and best value that successfully address organizational image or “branding.”
2. Provide clean, attractive, accessible, functional spaces that occupants can take pride in showing to colleagues, family, and friends.
3. Provide amenities that are valuable to the building occupants and that enhance way-finding, image and identity.
 - a. For public areas, consider seating, plants, security staging areas, integrated information display systems, exterior and interior signage, employee and room location guide, and exterior building name and address number.
 - b. Consider occupant amenities such as food service, food vending, and break areas with kitchenettes, as well as facilities for exercise, child care, and elder care.
 - c. When choosing a building location, consider pedestrian and public transit access, average commuting time, green space, views, and availability of neighboring services and amenities such as restaurants, shopping, dry cleaners, pharmacies, and repair shops).
4. Address transportation needs in an environmentally sustainable manner, making provision for all applicable transportation modes, with special focus on pedestrian and public transportation access, handicapped accessibility, and alternative transportation modes such as shuttle buses, carpools, and bicycles.
5. Provide opportunities for connection to nature through views, lighting, and material choices.
6. Employ skilled, friendly, helpful, building management staff committed to timely responsiveness to occupant needs with a minimum of disturbance or disruption.
7. Provide guidelines, controls, and supervision for building operations, maintenance, and alterations to avoid changes that detract from building and space quality so as to maintain or enhance original design qualities and aesthetics and maintain a cohesive workplace appearance.
8. Use color judiciously to create and reinforce desirable moods and themes. Avoid colors that will cause glare or reduce reflectivity near natural light sources.
9. Use real or virtual mock-ups to demonstrate proposed workplace components and get feedback from users on applicability and ease of use.



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9.4 CCDAC Design Opportunities Recommendations

**Draft Design Opportunity Recommendations:
Pro Arts Office Building
October 12, 2009**

Introduction:

The purpose of the following Design Opportunity Recommendations (DOR) is to provide guidance to the design consultants and project staff, as well as provide a point of reference for future design review of project development by CCDAC. The DOR identifies relevant campus design considerations regarding context, programming, historic features, building design and landscaping that should be addressed, as well as major opportunities that exist for design of the project. The DOR also discusses special requirements and expectations. The goal of the DOR is to encourage design excellence in campus development to ensure intelligent functioning and produce the highest overall design quality. CCDAC considers the Pro Arts Office Building to be an extremely important and significant addition to the Capital Campus.

The following includes categories of Context, Program and Concept Development. The DOR recommends the concurrent development of the context analysis and preliminary programming work. The resulting study with prioritized issues, objectives, criteria and program requirements will be used as the basis for concept development and evaluation.

As with the development of any significant campus area and its associated buildings, there is the impulse to expand the scope of the study beyond the primary objectives of the study. This DOR acknowledges that the scope of the study does not include a campus wide transportation or parking evaluation to evaluate the project's parking program component. These are major encompassing studies on their own and if it is felt they are needed, they should be undertaken separately. However, evaluation of existing data and development of new may be critical to ensure that parking and transportation issues are properly addressed.

Context:

The study shall consider and evaluate the context of the project within the campus and surrounding community. It will consider how the proposed facilities will contribute to the context and how the context will shape the facility. The context evaluation shall take the form of an urban design study, including the consideration of the following:

1. Assessment of the physical, environmental and functional campus and city fabric to allow development of site and building design criteria and parameters. These include but are not limited to campus organizing tools such as view corridors, axes, edges, buffers, transitional zones and topography; They also address city structure including zoning, pedestrian and vehicular circulation; aesthetic objectives that include design character, form and style of campus and surrounding City, and current and proposed City development plans. Reference the June 2006 master plan and 1991 master plan for additional information. This effort shall result in the identification of design criteria, development parameters and prioritized design objectives and opportunities. This shall be used as a tool for shaping and evaluating concept development.

2. While the Pro Arts Site is not a contiguous part of the Capital Campus, the site, Centennial Park and Sylvester Park have historically been identified extensions of the Capital Campus to the northeast, surrounded by the City of Olympia. As such, in conjunction with the axial alignments, boulevards, views, etc, they are critical organizing elements for both the city and the capital campus. As one of the first significant project efforts outside the immediate Capital Campus, the planning for Pro Arts Site is of significant importance.
3. Address the following issues identified by the CCDAC in developing the context study. Each shall be considered and used in the development of concept and design work:
 - a. Respect and capture the spirit of the site by acknowledging and responding to the adjoining Centennial Park, adjacent diverse neighborhoods and the axial visual connection to the Capitol Building.
 - b. Explore all opportunities as the new building relates to site orientation, pedestrian movement and connections, plazas and open spaces, and possible view corridors.
 - c. Minimize impact of vehicular access and parking as much as possible to the surrounding neighborhood.
 - d. The building and site design should respond to the very important corner of Washington Street SE and 11th Avenue SE as well as address pedestrian traffic coming from the Capitol Campus.
 - e. Evaluate the various approach sequences to the project site from the campus and city for all travel modes.
 - f. Evaluate the problems and opportunities associated with all sides of the site. Consider that all sides of the site are public and the site does not have a "back".
 - g. Evaluate the role and function of adjacent city streets for vehicle and pedestrian access and urban design continuity.
4. Evaluate development capability of the site given the contextual issues identified above. This should include the evaluation of plazas and other public amenities which identify the development as a civic facility.

Program:

The following are program issues and observations that in conjunction with the context study will shape subsequent concept development:

1. Provide opportunities for open spaces maximizing sun and view potentials, not just with ground level plaza areas but also with the building exterior in the form of decks and balconies.
2. Provide spaces for public activity at ground level to activate the street and Centennial Park.
3. Evaluate the sites capacity to support parking. Concurrently obtain data regarding potential available parking capacity elsewhere on campus.
4. Evaluate the impact of the transportation needs of the program on the site, adjoining campus and transportation systems.
5. Identify security issues which might dictate design parameters.

Concepts:

1. As this building will potentially have multiple tenants it will be important that the entry and lobby space be welcoming, open with good wayfinding.
2. Throughout the building there should be spaces that encourage collaboration and interaction.
3. The building should address and incorporate Centennial Park within the general spatial concept including existing and/or future programmatic functions.
4. All site concepts shall result in an appropriately scaled massing and spaces that relate to the civic function and campus/city relationships, the existing campus/city open space, and the adjoining context.
5. Prepare site concepts that develop sequenced exterior spaces which support the larger campus/city but establish a hierarchy of open spaces specific to this site and context.
6. Consider means of visually tying the site back to the main Capitol Campus.
7. Evaluate the issues and opportunities associated with the project functioning as a model of sustainability, meeting or exceeding a LEED Silver rating.

9.5 Cost Estimate Summaries

CES Preferred Scheme GCCM 2013

CES Preferred Scheme GCCM 2014

CES Preferred Scheme DBB 2013

CES Preferred Scheme DBB 2014

CES Reduced Scheme GCCM 2013

CES Reduced Scheme GCCM 2014

CES Reduced Scheme DBB 2013

CES Reduced Scheme DBB 2014

Davis Langdon Cost Estimates

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

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Cost Estimate Number: 276
 Cost Estimate Title: ProArts - Preferred GCCM

Report Number: CBS003
 Date Run: 1/14/2010 10:09AM

Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 184,380
 Usable Sq. Ft.: 169,380
 Space Efficiency: 92%
 MACC Cost per Sq. Ft.: 308
 Escalated MACC Cost per Sq. Ft.: 332
 Remodel? No
 Construction Type: Office Buildings
 A/E Fee Class: B
 A/E Fee Percentage: Varies

Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Pre-design: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2011 | 05-2013 |
| Duration of Construction (Months): | 22 | |

Cost Summary Escalated

| | | |
|--|------------|-------------------|
| Acquisition Costs Total | | 0 |
| Pre-Schematic Design Services | | 150,000 |
| Construction Documents | | 2,423,368 |
| Extra Services | | 1,033,564 |
| Other Services | | 1,671,253 |
| Design Services Contingency | | 247,256 |
| Consultant Services Total | | 5,525,441 |
| Site work | | 6,211,851 |
| Related Project Costs | | 0 |
| Facility Construction | | 54,958,235 |
| Construction Contingencies | | 4,602,708 |
| Non Taxable Items | | 0 |
| Sales Tax | | 6,097,796 |
| Construction Contracts Total | | 77,836,583 |
| Maximum Allowable Construction Cost(MACC) | 61,170,086 | |
| Equipment | | 2,274,663 |
| Non Taxable Items | | 0 |
| Sales Tax | | 193,346 |
| Equipment Total | | 2,468,009 |
| Art Work Total | | 289,641 |
| Other Costs Total | | 997,477 |
| Project Management Total | | 2,606,523 |
| Grand Total Escalated Costs | | 89,723,674 |
| Rounded Grand Total Escalated Costs | | 89,724,000 |

Additional Details

Alternative Public Works Project: Yes
 State Construction Inflation Rate: 3.50%
 Base Month and Year: 03-2010
 Project Administration By: Varies

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 276

Report Number: CBS003

Cost Estimate Title: ProArts - Preferred GCCM

Date Run: 1/14/2010 10:09AM

Contact Info

Contact Name: Penny Koal

Contact Number: 360.902.7259

Additional Details

Project Admin Impact to GA that is NOT Included in Project Total: \$1,613,760

Cost Estimate Detail

2009-11 Biennium

*

Cost Estimate Number: 276 Analysis Date: January 13, 2010
 Cost Estimate Title: ProArts - Preferred GCCM
 Detail Title: General Office Building
 Location: Olympia
 Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 150,000
 Usable Sq. Ft.: 135,000
 Rentable Sq. Ft.:
 Space Efficiency: 90%
 Escalated MACC Cost per Sq. Ft.: 386
 Escalated Cost per S. F. Explanation

Construction Type: Office Buildings
 Remodel? No
 A/E Fee Class: B
 A/E Fee Percentage: 5.89%
 Contingency Rate: 4.50%
 Contingency Explanation

Management Reserve: 3.00%
 Projected Life of Asset (Years): 50
 Location Used for Tax Rate: Olympia
 Tax Rate: 8.50%
 Art Requirement Applies: Yes
 Project Administration by: GA
 Higher Education Institution?: No
 Alternative Public Works?: Yes

Project Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Predesign: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2011 | 05-2013 |
| Duration of Construction (Months): | 22 | |
| State Construction Inflation Rate: | 3.50% | |
| Base Month and Year: | 3-2010 | |

Project Cost Summary

| | |
|----------------------------------|---------------|
| MACC: | \$ 53,792,000 |
| MACC (Escalated): | \$ 57,928,286 |
| Current Project Total: | \$ 79,232,052 |
| Rounded Current Project Total: | \$ 79,232,000 |
| Escalated Project Total: | \$ 84,950,685 |
| Rounded Escalated Project Total: | \$ 84,951,000 |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---|--------------------|------------------|------------------------------|---------------------------|
| CONSULTANT SERVICES | | | | |
| <u>Pre-Schematic Design Services</u> | | | | |
| Programming/Site Analysis | 150,000 | | | |
| SubTotal: Pre-Schematic Design Services | | 150,000 | 1.0000 | 150,000 |
| <u>Construction Documents</u> | | | | |
| A/E Basic Design Services | 2,186,161 | | | |
| SubTotal: Construction Documents | | 2,186,161 | 1.0203 | 2,230,540 |
| <u>Extra Services</u> | | | | |
| Civil Design (Above Basic Services) | 181,000 | | | |
| Geotechnical Investigation | 55,000 | | | |
| Commissioning (Systems Check) | 45,000 | | | |
| Leadership Energy & Environment Design List(LEED) | 135,000 | | | |
| Voice/Data Consultant | 17,000 | | | |
| Environmental Mitigation Services (EIS) | 42,000 | | | |
| Landscape Consultant | 106,000 | | | |
| Arborist | 43,000 | | | |
| Acoustic Consultant | 22,000 | | | |
| Cost Reconciliation (beyond basic services) | 75,000 | | | |
| Document Reproduction (construction Docs) | 100,000 | | | |
| ELCCA | 57,000 | | | |
| Elevator Consultant | 21,000 | | | |
| Envelope Consultant | 18,000 | | | |
| Fire & Life Safety | 32,000 | | | |
| Systems Furniture Planning | 39,000 | | | |
| Systems Furniture Installation | 25,000 | | | |
| SubTotal: Extra Services | | 1,013,000 | 1.0203 | 1,033,564 |
| <u>Other Services</u> | | | | |
| Bid/Construction/Closeout | 982,188 | | | |
| GCCM Participation (beyond basic services) | 88,000 | | | |
| Graphics & Wayfinding | 32,000 | | | |
| Interior Consultant | 250,000 | | | |
| Mockups Models & Rendering | 13,000 | | | |
| Public Meetings | 8,000 | | | |
| Misc. Reimbursible | 74,500 | | | |
| Security & Access Control | 14,000 | | | |
| SubTotal: Other Services | | 1,461,688 | 1.0806 | 1,579,500 |
| <u>Design Services Contingency</u> | | | | |
| Design Services Contingency | 216,488 | | | |
| SubTotal: Design Services Contingency | | 216,488 | 1.0806 | 233,937 |
| Total: Consultant Services | | 5,027,337 | 1.0398 | 5,227,541 |

CONSTRUCTION CONTRACTS

Site work

| | | | | |
|---------------------------------|-----------|------------------|---------------|------------------|
| G10 - Site Preparation | 755,000 | | | |
| G20 - Site Improvements | 3,668,000 | | | |
| G30 - Site Mechanical Utilities | 755,000 | | | |
| G40 - Site Electrical Utilities | 755,000 | | | |
| SubTotal: Site work | | 5,933,000 | 1.0470 | 6,211,851 |

Facility Construction

| | | | | |
|-----------------------------|-----------|--|--|--|
| A10 - Foundations | 965,000 | | | |
| B10 - Superstructure | 7,998,000 | | | |
| B20 - Exterior Closure | 9,299,000 | | | |
| B30 - Roofing | 1,273,000 | | | |
| C10 - Interior Construction | 5,095,000 | | | |
| C20 - Stairs | 211,000 | | | |
| C30 - Interior Finishes | 4,802,000 | | | |

| ITEM | Base Amount | Sub Total | Escalation Factor | Escalated Cost |
|---|--------------------|-------------------|------------------------------|---------------------------|
| CONSTRUCTION CONTRACTS | | | | |
| D10 - Conveying | 655,000 | | | |
| D20 - Plumbing Systems | 1,018,000 | | | |
| D30 - HVAC Systems | 7,653,000 | | | |
| D40 - Fire Protection Systems | 720,000 | | | |
| D50 - Electrical Systems | 6,703,000 | | | |
| GCCM Risk Contingency | 1,467,000 | | | |
| SubTotal: Facility Construction | | 47,859,000 | 1.0806 | 51,716,435 |
| Maximum Allowable Construction Cost (MACC) | | 53,792,000 | 1.0800 | 57,928,286 |
| GCCM or Design Build Costs | | | | |
| GCCM Fee | 1,956,000 | | | |
| Bid General Conditions | 2,444,000 | | | |
| GCCM Preconstruction Services | 733,000 | | | |
| SubTotal: GCCM or Design Build Costs | | 5,133,000 | 1.0806 | 5,548,720 |
| Construction Contingencies | | | | |
| Management Reserve | 1,613,760 | | | |
| Allowance for Change Orders | 2,420,640 | | | |
| SubTotal: Construction Contingencies | | 4,034,400 | 1.0806 | 4,369,573 |
| Sales Tax | | 5,351,549 | 1.0774 | 5,765,938 |
| Total: Construction Contracts | | 68,310,949 | 1.0774 | 73,600,517 |
| EQUIPMENT | | | | |
| E10 - Equipment | 5,000 | | | |
| E20 - Furnishings | 2,100,000 | | | |
| SubTotal: | | 2,105,000 | 1.0806 | 2,274,663 |
| Sales Tax | | 178,925 | 1.0806 | 193,346 |
| Total: Equipment | | 2,283,925 | 1.0806 | 2,468,009 |
| ART WORK | | | | |
| Total: Art Work | | 289,641 | 1.0000 | 289,641 |
| OTHER COSTS | | | | |
| Hazardous Material Remediation/Removal | 45,000 | | | |
| Historic and Archeological Mitigation | 35,000 | | | |
| Enhanced Third Person Commissioning | 298,000 | | | |
| Project Signage | 5,000 | | | |
| General Building Permit | 280,000 | | | |
| Plan Check, Design, Code, Impact Fees | 185,000 | | | |
| Special Inspection (Code Required) | 97,000 | | | |
| GA ADA Review | 2,000 | | | |
| GA ELCCA Review | 2,700 | | | |
| Advertising | 3,000 | | | |
| Total: Other Costs | | 952,700 | 1.0470 | 997,477 |
| PROJECT MANAGEMENT | | | | |
| GA Project Management | 1,613,760 | | | |
| Agency Indirect | 375,000 | | | |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|--|--------------------|------------------|------------------------------|---------------------------|
| PROJECT MANAGEMENT | | | | |
| B&G In-Plant Services | 298,000 | | | |
| IAA - Engineering & Architectural Services | 1,297,000 | | | |
| Project Expenses | 9,500 | | | |
| Site Reps | 388,000 | | | |
| Total: Project Management | | 2,367,500 | 1.0000 | 2,367,500 |

Cost Estimate Detail

2009-11 Biennium

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Cost Estimate Number: 276 Analysis Date: January 13, 2010
 Cost Estimate Title: ProArts - Preferred GCCM
 Detail Title: Parking
 Location: Olympia
 Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 34,380
 Usable Sq. Ft.: 34,380
 Rentable Sq. Ft.:
 Space Efficiency: 100%
 Escalated MACC Cost per Sq. Ft.: 94
 Escalated Cost per S. F. Explanation

Construction Type: Office Buildings
 Remodel? No
 A/E Fee Class: B
 A/E Fee Percentage: 9.13%
 Contingency Rate: 4.50%
 Contingency Explanation

Management Reserve: 3.00%
 Projected Life of Asset (Years): 50
 Location Used for Tax Rate: Olympia
 Tax Rate: 8.50%
 Art Requirement Applies: No
 Project Administration by: AGY
 Higher Education Institution?: No
 Alternative Public Works?: Yes

Project Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Predesign: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2011 | 05-2013 |
| Duration of Construction (Months): | 22 | |
| State Construction Inflation Rate: | 3.50% | |
| Base Month and Year: | 3-2010 | |

Project Cost Summary

| | |
|----------------------------------|--------------|
| MACC: | \$ 3,000,000 |
| MACC (Escalated): | \$ 3,241,800 |
| Current Project Total: | \$ 4,445,354 |
| Rounded Current Project Total: | \$ 4,445,000 |
| Escalated Project Total: | \$ 4,772,989 |
| Rounded Escalated Project Total: | \$ 4,773,000 |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---|--------------------|------------------|--------------------------|-----------------------|
| CONSULTANT SERVICES | | | | |
| <u>Construction Documents</u> | | | | |
| A/E Basic Design Services | 188,991 | | | |
| SubTotal: Construction Documents | | 188,991 | 1.0203 | 192,828 |
| <u>Other Services</u> | | | | |
| Bid/Construction/Closeout | 84,909 | | | |
| SubTotal: Other Services | | 84,909 | 1.0806 | 91,753 |
| <u>Design Services Contingency</u> | | | | |
| Design Services Contingency | 12,326 | | | |
| SubTotal: Design Services Contingency | | 12,326 | 1.0806 | 13,319 |
| Total: Consultant Services | | 286,226 | 1.0408 | 297,900 |
| CONSTRUCTION CONTRACTS | | | | |
| <u>Facility Construction</u> | | | | |
| A10 - Foundations | 480,000 | | | |
| B10 - Superstructure | 984,000 | | | |
| B30 - Roofing | 441,000 | | | |
| C10 - Interior Construction | 141,000 | | | |
| C20 - Stairs | 45,000 | | | |
| C30 - Interior Finishes | 81,000 | | | |
| D10 - Conveying | 123,000 | | | |
| D20 - Plumbing Systems | 24,000 | | | |
| D50 - Electrical Systems | 199,000 | | | |
| D30 - HVAC Systems | 234,000 | | | |
| D40 - Fire Protection Systems | 164,000 | | | |
| Elevator Consultant | 84,000 | | | |
| SubTotal: Facility Construction | | 3,000,000 | 1.0806 | 3,241,800 |
| Maximum Allowable Construction Cost (MACC) | | 3,000,000 | 1.0800 | 3,241,800 |
| <u>GCCM or Design Build Costs</u> | | | | |
| GCCM Fee | 148,000 | | | |
| Bid General Conditions | 185,000 | | | |
| GCCM Preconstruction Services | 55,000 | | | |
| SubTotal: GCCM or Design Build Costs | | 388,000 | 1.0806 | 419,273 |
| <u>Construction Contingencies</u> | | | | |
| Management Reserve | 90,000 | | | |
| Allowance for Change Orders | 135,000 | | | |
| SubTotal: Construction Contingencies | | 225,000 | 1.0806 | 243,135 |
| Sales Tax | | 307,105 | 1.0806 | 331,858 |
| Total: Construction Contracts | | 3,920,105 | 1.0806 | 4,236,066 |
| PROJECT MANAGEMENT | | | | |
| Agency Project Management | 239,023 | | | |
| Total: Project Management | | 239,023 | 1.0000 | 239,023 |

OFM

Cost Estimate Summary and Detail

2009-11 Biennium

*

Cost Estimate Number: 276
Cost Estimate Title: ProArts - Preferred GCCM

Report Number: CBS003
Date Run: 1/14/2010 10:09AM

| <u>Parameter</u> | <u>Entered As</u> | <u>Interpreted As</u> |
|----------------------------|-------------------|----------------------------------|
| Associated or Unassociated | Unassociated | Unassociated |
| Biennium | 2009-11 | 2009-11 |
| Agency | 150 | 150 |
| Version | * | All Versions-All Version Sources |
| Project Classification | * | All Project Classifications |
| Capital Project Number | * | All Project Numbers |
| Cost Estimate Number | 276 | 276 |
| Sort Order | Number | Number |
| User Group | Agency Facility | Capital Facility |
| User Id | 15000PKOAL | 15000PKOAL |

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150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 276
 Cost Estimate Title: ProArts - Preferred GCCM

Report Number: CBS003
 Date Run: 1/14/2010 10:12AM

Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 184,380
 Usable Sq. Ft.: 169,380
 Space Efficiency: 92%
 MACC Cost per Sq. Ft.: 308
 Escalated MACC Cost per Sq. Ft.: 342
 Remodel? No
 Construction Type: Office Buildings
 A/E Fee Class: B
 A/E Fee Percentage: Varies

Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Pre-design: | 08-2009 | 02-2010 |
| Design: | 05-2010 | 05-2012 |
| Construction: | 07-2012 | 05-2014 |
| Duration of Construction (Months): | 22 | |

Cost Summary Escalated

| | | |
|--|------------|-------------------|
| Acquisition Costs Total | | 0 |
| Pre-Schematic Design Services | 150,000 | |
| Construction Documents | 2,459,417 | |
| Extra Services | 1,048,455 | |
| Other Services | 1,720,359 | |
| Design Services Contingency | 254,520 | |
| Consultant Services Total | | 5,632,751 |
| Site work | 6,392,808 | |
| Related Project Costs | 0 | |
| Facility Construction | 58,574,408 | |
| Construction Contingencies | 4,737,893 | |
| Non Taxable Items | 0 | |
| Sales Tax | 6,276,992 | |
| Construction Contracts Total | | 80,123,936 |
| Maximum Allowable Construction Cost(MACC) | 62,967,216 | |
| Equipment | 2,340,760 | |
| Non Taxable Items | 0 | |
| Sales Tax | 198,965 | |
| Equipment Total | | 2,539,725 |
| Art Work Total | | 298,060 |
| Other Costs Total | | 1,026,534 |
| Project Management Total | | 2,606,523 |
| Grand Total Escalated Costs | | 92,227,529 |
| Rounded Grand Total Escalated Costs | | 92,228,000 |

Additional Details

Alternative Public Works Project: Yes
 State Construction Inflation Rate: 3.50%
 Base Month and Year: Varies
 Project Administration By: Varies

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

| | | | |
|------------------------------|--|----------------------------|------------------|
| Cost Estimate Number: | 273 | Report Number: | CBS003 |
| Cost Estimate Title: | ProArts General Office Building - DBB | Date Run: | 1/14/2010 1:21PM |
| Version: | 00 Facility Version | Facility Preferred: | Yes |
| Project Number: | 30000510 | | |
| Project Title: | ProArts General Office Building (DBB Preferred size) | | |
| Project Phase Title: | | | |

Contact Info **Contact Name:** Penny Koal **Contact Number:** 360.902.7259

Statistics

| | |
|----------------------------------|------------------|
| Gross Sq. Ft.: | 184,380 |
| Usable Sq. Ft.: | 169,380 |
| Space Efficiency: | 92% |
| MACC Cost per Sq. Ft.: | 327 |
| Escalated MACC Cost per Sq. Ft.: | 352 |
| Remodel? | No |
| Construction Type: | Office Buildings |
| A/E Fee Class: | B |
| A/E Fee Percentage: | Varies |

Schedule

| | Start Date | End Date |
|------------------------------------|-------------------|-----------------|
| Pre-design: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2011 | 06-2013 |
| Duration of Construction (Months): | 23 | |

Cost Summary Escalated

| | | |
|--|------------|-------------------|
| Acquisition Costs Total | | 0 |
| Pre-Schematic Design Services | | 150,000 |
| Construction Documents | | 2,543,215 |
| Extra Services | | 1,529,940 |
| Other Services | | 1,802,577 |
| Design Services Contingency | | 313,959 |
| Consultant Services Total | | 6,339,691 |
| Site work | | 6,995,007 |
| Related Project Costs | | 0 |
| Facility Construction | | 57,949,413 |
| Construction Contingencies | | 6,516,890 |
| Non Taxable Items | | 0 |
| Sales Tax | | 6,074,212 |
| Construction Contracts Total | | 77,535,522 |
| Maximum Allowable Construction Cost(MACC) | 64,944,420 | |
| Equipment | | 2,274,663 |
| Non Taxable Items | | 0 |
| Sales Tax | | 193,346 |
| Equipment Total | | 2,468,009 |
| Art Work Total | | 307,589 |
| Other Costs Total | | 428,956 |
| Project Management Total | | 2,367,000 |
| Grand Total Escalated Costs | | 89,446,767 |
| Rounded Grand Total Escalated Costs | | 89,447,000 |

Additional Details

Alternative Public Works Project: No

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 273
Cost Estimate Title: ProArts General Office Building - DBB
Version: 00 Facility Version
Project Number: 30000510
Project Title: ProArts General Office Building (DBB Preferred size)
Project Phase Title:
Report Number: CBS003
Date Run: 1/14/2010 1:21PM
Facility Preferred: Yes

Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Additional Details

State Construction Inflation Rate: 3.50%
Base Month and Year: 03-2010
Project Administration By: GA
Project Admin Impact to GA that is NOT Included in Project Total: \$1,808,970

Cost Estimate Detail

2009-11 Biennium

*

Cost Estimate Number: 273 Analysis Date: December 04, 2009
 Cost Estimate Title: ProArts General Office Building - DBB
 Detail Title: ProArts Office Building
 Project Number: 30000510
 Project Title: ProArts General Office Building (DBB Preferred size)
 Project Phase Title:
 Location: Olympia
 Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 150,000
 Usable Sq. Ft.: 135,000
 Rentable Sq. Ft.:
 Space Efficiency: 90%
 Escalated MACC Cost per Sq. Ft.: 410
 Escalated Cost per S. F. Explanation

Construction Type: Office Buildings
 Remodel? No
 A/E Fee Class: B
 A/E Fee Percentage: 5.82%
 Contingency Rate: 5.00%
 Contingency Explanation

Management Reserve: 5.00%
 Projected Life of Asset (Years): 50
 Location Used for Tax Rate: Olympia
 Tax Rate: 8.50%
 Art Requirement Applies: Yes
 Project Administration by: GA
 Higher Education Institution?: No
 Alternative Public Works?: No

Project Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Pre-design: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2011 | 05-2013 |
| Duration of Construction (Months): | 22 | |
| State Construction Inflation Rate: | 3.50% | |
| Base Month and Year: | 3-2010 | |

Project Cost Summary

| | |
|----------------------------------|---------------|
| MACC: | \$ 57,137,000 |
| MACC (Escalated): | \$ 61,517,761 |
| Current Project Total: | \$ 79,360,241 |
| Rounded Current Project Total: | \$ 79,360,000 |
| Escalated Project Total: | \$ 85,042,910 |
| Rounded Escalated Project Total: | \$ 85,043,000 |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---|--------------------|------------------|--------------------------|-----------------------|
| CONSULTANT SERVICES | | | | |
| <u>Pre-Schematic Design Services</u> | | | | |
| Programming/Site Analysis | 150,000 | | | |
| SubTotal: Pre-Schematic Design Services | | 150,000 | 1.0000 | 150,000 |
| <u>Construction Documents</u> | | | | |
| A/E Basic Design Services | 2,294,508 | | | |
| SubTotal: Construction Documents | | 2,294,508 | 1.0203 | 2,341,087 |
| <u>Extra Services</u> | | | | |
| Civil Design (Above Basic Services) | 181,000 | | | |
| Geotechnical Investigation | 55,000 | | | |
| Commissioning (Systems Check) | 45,000 | | | |
| Leadership Energy & Environment Design List(LEED) | 135,000 | | | |
| Voice/Data Consultant | 17,000 | | | |
| Value Engineering Participation & Implementation | 65,000 | | | |
| Constructability Review Participation | 40,000 | | | |
| Environmental Mitigation Services (EIS) | 42,000 | | | |
| Landscape Consultant | 106,000 | | | |
| Arborist | 43,000 | | | |
| Acoustic consultant | 22,000 | | | |
| Document Reproduction | 100,000 | | | |
| ELCCA | 57,000 | | | |
| Elevator Consultant | 21,000 | | | |
| Envelope Consultant | 18,000 | | | |
| Fire & Life Safety | 32,000 | | | |
| Systems Furniture Planning | 39,000 | | | |
| Systems Furniture Installation | 25,000 | | | |
| Graphics & Wayfinding | 32,000 | | | |
| Interiors Consultant | 250,000 | | | |
| Security & Access Control | 14,000 | | | |
| As-Built Drawings (CAD only) | 65,000 | | | |
| Misc. Reimbursibles | 74,500 | | | |
| Public Meetings | 8,000 | | | |
| Mockups, Models & Renderings | 13,000 | | | |
| SubTotal: Extra Services | | 1,499,500 | 1.0203 | 1,529,940 |
| <u>Other Services</u> | | | | |
| Bid/Construction/Closeout | 1,030,866 | | | |
| On Site Clerk of the Works (construction only) | 250,000 | | | |
| Enhanced Third Person Commissioning | 298,000 | | | |
| SubTotal: Other Services | | 1,578,866 | 1.0806 | 1,706,123 |
| <u>Design Services Contingency</u> | | | | |
| Design Services Contingency | 276,144 | | | |
| SubTotal: Design Services Contingency | | 276,144 | 1.0806 | 298,401 |
| Total: Consultant Services | | 5,799,018 | 1.0391 | 6,025,551 |
| CONSTRUCTION CONTRACTS | | | | |
| <u>Site work</u> | | | | |
| G10 - Site Preparation | 793,000 | | | |
| G20 - Site Improvements | 4,302,000 | | | |
| G30 - Site Mechanical Utilities | 793,000 | | | |
| G40 - Site Electrical Utilities | 793,000 | | | |
| SubTotal: Site work | | 6,681,000 | 1.0470 | 6,995,007 |
| <u>Facility Construction</u> | | | | |
| A10 - Foundations | 1,041,000 | | | |
| B10 - Superstructure | 8,964,000 | | | |
| B20 - Exterior Closure | 10,055,000 | | | |
| B30 - Roofing | 1,374,000 | | | |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---|--------------------|-------------------|--------------------------|-----------------------|
| CONSTRUCTION CONTRACTS | | | | |
| C10 - Interior Construction | 5,507,000 | | | |
| C20 - Stairs | 228,000 | | | |
| C30 - Interior Finishes | 5,194,000 | | | |
| D10 - Conveying | 701,000 | | | |
| D20 - Plumbing Systems | 1,093,000 | | | |
| D30 - HVAC Systems | 8,280,000 | | | |
| D40 - Fire Protection Systems | 772,000 | | | |
| D50 - Electrical Systems | 7,247,000 | | | |
| SubTotal: Facility Construction | | 50,456,000 | 1.0806 | 54,522,764 |
| Maximum Allowable Construction Cost (MACC) | | 57,137,000 | 1.0800 | 61,517,761 |
| <u>Construction Contingencies</u> | | | | |
| Management Reserve | 2,856,850 | | | |
| Allowance for Change Orders | 2,856,850 | | | |
| SubTotal: Construction Contingencies | | 5,713,700 | 1.0806 | 6,174,224 |
| Sales Tax | | 5,342,309 | 1.0770 | 5,753,820 |
| Total: Construction Contracts | | 68,193,009 | 1.0770 | 73,445,805 |
| EQUIPMENT | | | | |
| E10 - Equipment | 5,000 | | | |
| E20 - Furnishings | 2,100,000 | | | |
| SubTotal: | | 2,105,000 | 1.0806 | 2,274,663 |
| Sales Tax | | 178,925 | 1.0806 | 193,346 |
| Total: Equipment | | 2,283,925 | 1.0806 | 2,468,009 |
| ART WORK | | | | |
| Project Artwork | 315,476 | | | |
| Total: Art Work | | 307,589 | 1.0000 | 307,589 |
| OTHER COSTS | | | | |
| Hazardous Material Remediation/Removal | 45,000 | | | |
| Historic and Archeological Mitigation | 45,000 | | | |
| General Building Permit | 280,000 | | | |
| Plan Check, Design, Code Impact Fees | 185,000 | | | |
| Special Inspection (Code Required) | 97,000 | | | |
| Advertising | 3,000 | | | |
| GA ADA Review | 2,000 | | | |
| GA ELCCA Review | 2,700 | | | |
| Clerk-of-the-works (construction only) | (250,000) | | | |
| Total: Other Costs | | 409,700 | 1.0470 | 428,956 |
| PROJECT MANAGEMENT | | | | |
| GA Project Management | 1,714,110 | | | |
| Agency indirect | 385,000 | | | |
| IAA - Engineering & Architectural Services | 1,297,000 | | | |
| In Plant Services | 297,000 | | | |
| Site Reps | 388,000 | | | |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---------------------------|--------------------|------------------|------------------------------|---------------------------|
| PROJECT MANAGEMENT | | | | |
| Total: Project Management | | 2,367,000 | 1.0000 | <u>2,367,000</u> |

Cost Estimate Detail

2009-11 Biennium

*

Cost Estimate Number: 273 Analysis Date: January 11, 2010
 Cost Estimate Title: ProArts General Office Building - DBB
 Detail Title: Parking
 Project Number: 30000510
 Project Title: ProArts General Office Building (DBB Preferred size)
 Project Phase Title:
 Location: Olympia
 Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 34,380
 Usable Sq. Ft.: 34,380
 Rentable Sq. Ft.:
 Space Efficiency: 100%
 Escalated MACC Cost per Sq. Ft.: 100
 Escalated Cost per S. F. Explanation

Construction Type: Office Buildings
 Remodel? No
 A/E Fee Class: B
 A/E Fee Percentage: 9.08%
 Contingency Rate: 5.00%
 Contingency Explanation

Management Reserve: 5.00%
 Projected Life of Asset (Years): 50
 Location Used for Tax Rate: Olympia
 Tax Rate: 8.50%
 Art Requirement Applies: No
 Project Administration by: GA
 Higher Education Institution?: No
 Alternative Public Works?: No

Project Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Predesign: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 08-2011 | 06-2013 |
| Duration of Construction (Months): | 22 | |
| State Construction Inflation Rate: | 3.50% | |
| Base Month and Year: | 3-2010 | |

Project Cost Summary

| | |
|----------------------------------|--------------|
| MACC: | \$ 3,162,000 |
| MACC (Escalated): | \$ 3,426,659 |
| Current Project Total: | \$ 4,075,314 |
| Rounded Current Project Total: | \$ 4,075,000 |
| Escalated Project Total: | \$ 4,403,857 |
| Rounded Escalated Project Total: | \$ 4,404,000 |

| ITEM | Base Amount | Sub Total | Escalation Factor | Escalated Cost |
|---|--------------------|------------------|--------------------------|-----------------------|
| CONSULTANT SERVICES | | | | |
| <u>Construction Documents</u> | | | | |
| A/E Basic Design Services | 198,108 | | | |
| SubTotal: Construction Documents | | 198,106 | 1.0203 | 202,128 |
| <u>Other Services</u> | | | | |
| Bid/Construction/Closeout | 89,004 | | | |
| SubTotal: Other Services | | 89,004 | 1.0837 | 96,454 |
| <u>Design Services Contingency</u> | | | | |
| Design Services Contingency | 14,356 | | | |
| SubTotal: Design Services Contingency | | 14,356 | 1.0837 | 15,558 |
| Total: Consultant Services | | 301,466 | 1.0420 | 314,140 |
| CONSTRUCTION CONTRACTS | | | | |
| <u>Facility Construction</u> | | | | |
| A10 - Foundations | 520,000 | | | |
| B10 - Superstructure | 1,067,000 | | | |
| B30 - Roofing | 478,000 | | | |
| C10 - Interior Construction | 153,000 | | | |
| C20 - Stairs | 49,000 | | | |
| C30 - Interior Finishes | 87,000 | | | |
| D10 - Conveying | 134,000 | | | |
| D20 - Plumbing Systems | 26,000 | | | |
| D50 - Electrical Systems | 216,000 | | | |
| D30 - HVAC Systems | 254,000 | | | |
| D40 - Fire Protection Systems | 178,000 | | | |
| SubTotal: Facility Construction | | 3,162,000 | 1.0837 | 3,426,659 |
| Maximum Allowable Construction Cost (MACC) | | 3,162,000 | 1.0800 | 3,426,659 |
| <u>Construction Contingencies</u> | | | | |
| Management Reserve | 158,100 | | | |
| Allowance for Change Orders | 158,100 | | | |
| SubTotal: Construction Contingencies | | 316,200 | 1.0837 | 342,666 |
| Sales Tax | | 295,648 | 1.0837 | 320,392 |
| Total: Construction Contracts | | 3,773,848 | 1.0837 | 4,089,717 |
| PROJECT MANAGEMENT | | | | |
| GA Project Management | 94,860 | | | |

OFM

Cost Estimate Summary and Detail

2009-11 Biennium

*

Cost Estimate Number: 273

Report Number: CBS003

Cost Estimate Title: ProArts General Office Building - DBB

Date Run: 1/14/2010 1:21PM

| <u>Parameter</u> | <u>Entered As</u> | <u>Interpreted As</u> |
|----------------------------|-------------------|-----------------------------|
| Associated or Unassociated | Associated | Associated |
| Biennium | 2009-11 | 2009-11 |
| Agency | 150 | 150 |
| Version | 00-F | 00-F |
| Project Classification | * | All Project Classifications |
| Capital Project Number | 30000510 | 30000510 |
| Cost Estimate Number | 273 | 273 |
| Sort Order | Number | Number |
| User Group | Agency Facility | Capital Facility |
| User Id | 15000PKOAL | 15000PKOAL |

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

| | | | |
|-----------------------|--|---------------------|-------------------|
| Cost Estimate Number: | 273 | Report Number: | CBS003 |
| Cost Estimate Title: | ProArts General Office Building - DBB | Date Run: | 1/14/2010 10:36AM |
| Version: | 00 Facility Version | Facility Preferred: | Yes |
| Project Number: | 30000510 | | |
| Project Title: | ProArts General Office Building (DBB Preferred size) | | |
| Project Phase Title: | | | |

Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

| | |
|----------------------------------|------------------|
| Gross Sq. Ft.: | 186,000 |
| Usable Sq. Ft.: | 171,000 |
| Space Efficiency: | 92% |
| MACC Cost per Sq. Ft.: | 324 |
| Escalated MACC Cost per Sq. Ft.: | 361 |
| Remodel? | No |
| Construction Type: | Office Buildings |
| AE Fee Class: | B |
| AE Fee Percentage: | Varies |

Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Pre-design: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2012 |
| Construction: | 07-2012 | 05-2014 |
| Duration of Construction (Months): | 22 | |

Cost Summary Escalated

| | | |
|--|-------------------|-------------------|
| Acquisition Costs Total | | 0 |
| Pre-Schematic Design Services | | 150,000 |
| Construction Documents | | 2,587,927 |
| Extra Services | | 1,696,611 |
| Other Services | | 1,865,346 |
| Design Services Contingency | | 332,445 |
| Consultant Services Total | | 6,632,329 |
| Site work | | 7,240,200 |
| Related Project Costs | | 0 |
| Facility Construction | | 59,966,371 |
| Construction Contingencies | | 6,743,840 |
| Non Taxable Items | | 0 |
| Sales Tax | | 6,285,786 |
| Construction Contracts Total | | 80,236,197 |
| Maximum Allowable Construction Cost(MACC) | 67,206,571 | |
| Equipment | | 2,354,232 |
| Non Taxable Items | | 0 |
| Sales Tax | | 200,110 |
| Equipment Total | | 2,554,342 |
| Art Work Total | | 318,351 |
| Other Costs Total | | 985,842 |
| Project Management Total | | 2,367,000 |
| Grand Total Escalated Costs | | 93,094,061 |
| Rounded Grand Total Escalated Costs | | 93,094,000 |

Additional Details

Alternative Public Works Project: No

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

| | | | |
|-----------------------|---|---------------------|-------------------|
| Cost Estimate Number: | 274 | Report Number: | CBS003 |
| Cost Estimate Title: | ProArts Reduced Version (GCCM-no parking) | Date Run: | 1/15/2010 11:47AM |
| Version: | 00 Facility Version | Facility Preferred: | Yes |
| Project Number: | 30000511 | | |
| Project Title: | ProArts Reduced Version (GCCM) | | |
| Project Phase Title: | | | |

Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

| | |
|----------------------------------|------------------|
| Gross Sq. Ft.: | 153,160 |
| Usable Sq. Ft.: | 134,380 |
| Space Efficiency: | 88% |
| MACC Cost per Sq. Ft.: | 310 |
| Escalated MACC Cost per Sq. Ft.: | 333 |
| Remodel? | No |
| Construction Type: | Office Buildings |
| A/E Fee Class: | B |
| A/E Fee Percentage: | Varies |

Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Pre-design: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2011 | 05-2013 |
| Duration of Construction (Months): | 22 | |

Cost Summary Escalated

| | | |
|--|------------|-------------------|
| Acquisition Costs Total | | 0 |
| Pre-Schematic Design Services | 135,000 | |
| Construction Documents | 2,106,847 | |
| Extra Services | 1,508,412 | |
| Other Services | 1,560,285 | |
| Design Services Contingency | 273,515 | |
| Consultant Services Total | | 5,584,059 |
| Site work | 6,145,890 | |
| Related Project Costs | 0 | |
| Facility Construction | 44,841,566 | |
| Construction Contingencies | 5,036,485 | |
| Non Taxable Items | 0 | |
| Sales Tax | 5,184,893 | |
| Construction Contracts Total | | 66,183,645 |
| Maximum Allowable Construction Cost(MACC) | 50,987,456 | |
| Equipment | 1,893,645 | |
| Non Taxable Items | 0 | |
| Sales Tax | 160,960 | |
| Equipment Total | | 2,054,605 |
| Art Work Total | | 238,728 |
| Other Costs Total | | 627,153 |
| Project Management Total | | 2,163,500 |
| Grand Total Escalated Costs | | 76,851,690 |
| Rounded Grand Total Escalated Costs | | 76,852,000 |

Additional Details

Alternative Public Works Project: Yes

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 274
Cost Estimate Title: ProArts Reduced Version (GCCM-no parking)
Version: 00 Facility Version
Project Number: 30000511
Project Title: ProArts Reduced Version (GCCM)
Project Phase Title:
Report Number: CBS003
Date Run: 1/15/2010 11:47AM
Facility Preferred: Yes

Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Additional Details

State Construction Inflation Rate: 3.50%
Base Month and Year: 03-2010
Project Administration By: GA
Project Admin Impact to GA that is NOT Included in Project Total: \$1,422,720

Cost Estimate Detail

2009-11 Biennium

Cost Estimate Number: 274 Analysis Date: January 12, 2010
 Cost Estimate Title: ProArts Reduced Version (GCCM-no parking)
 Detail Title: General Office Building
 Project Number: 30000511
 Project Title: ProArts Reduced Version (GCCM)
 Project Phase Title:
 Location: Olympia, WA
 Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 118,780
 Usable Sq. Ft.: 100,000
 Rentable Sq. Ft.:
 Space Efficiency: 84%
 Escalated MACC Cost per Sq. Ft.: 402
 Escalated Cost per S. F. Explanation

Construction Type: Office Buildings
 Remodel? No
 A/E Fee Class: B
 A/E Fee Percentage: 6.12%
 Contingency Rate: 5.00%
 Contingency Explanation

Management Reserve: 5.00%
 Projected Life of Asset (Years): 50
 Location Used for Tax Rate: Olympia, WA
 Tax Rate: 8.50%
 Art Requirement Applies: Yes
 Project Administration by: GA
 Higher Education Institution?: No
 Alternative Public Works?: Yes

Project Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Pre-design: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2011 | 04-2013 |
| Duration of Construction (Months): | 21 | |
| State Construction Inflation Rate: | 3.50% | |
| Base Month and Year: | 3-2010 | |

Project Cost Summary

| | |
|----------------------------------|---------------|
| MACC: | \$ 44,424,000 |
| MACC (Escalated): | \$ 47,745,656 |
| Current Project Total: | \$ 67,599,183 |
| Rounded Current Project Total: | \$ 67,599,000 |
| Escalated Project Total: | \$ 72,319,205 |
| Rounded Escalated Project Total: | \$ 72,319,000 |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---|--------------------|------------------|--------------------------|-----------------------|
| CONSULTANT SERVICES | | | | |
| <u>Pre-Schematic Design Services</u> | | | | |
| Programming/Site Analysis | 135,000 | | | |
| SubTotal: Pre-Schematic Design Services | | 135,000 | 1.0000 | 135,000 |
| <u>Construction Documents</u> | | | | |
| A/E Basic Design Services | 1,875,937 | | | |
| SubTotal: Construction Documents | | 1,875,937 | 1.0203 | 1,914,019 |
| <u>Extra Services</u> | | | | |
| Civil Design (Above Basic Services) | 181,000 | | | |
| Geotechnical Investigation | 55,000 | | | |
| Commissioning (Systems Check) | 40,500 | | | |
| Leadership Energy & Environment Design List(LEED) | 135,000 | | | |
| Voice/Data Consultant | 15,300 | | | |
| Environmental Mitigation Services (EIS) | 42,000 | | | |
| Landscape Consultant | 95,400 | | | |
| Arborist | 43,000 | | | |
| Acoustic Consultant | 19,800 | | | |
| Cost Reconciliation (beyond basic services) | 67,500 | | | |
| ELCCA | 57,000 | | | |
| Elevator Consultant | 18,900 | | | |
| Envelope Consultant | 16,200 | | | |
| Fire & Life Safety | 28,800 | | | |
| Systems Furniture Planning | 35,100 | | | |
| Systems Furniture Installation | 22,500 | | | |
| GCCM Participation (beyond basic services) | 79,000 | | | |
| Interiors Consultant | 225,000 | | | |
| Security & Access Control | 12,600 | | | |
| As-Built Documents (CAD only) | 65,000 | | | |
| Misc. Reimbursibles | 74,000 | | | |
| Public Meetings | 8,000 | | | |
| Mockups, Models, & Renderings | 13,000 | | | |
| Document Reproduction | 100,000 | | | |
| Graphics & Wayfinding | 28,800 | | | |
| SubTotal: Extra Services | | 1,478,400 | 1.0203 | 1,508,412 |
| <u>Other Services</u> | | | | |
| Bid/Construction/Closeout | 842,812 | | | |
| Enhanced Third Person Commissioning | 268,200 | | | |
| On Site Clerk of the Works (Construction only) | 250,000 | | | |
| SubTotal: Other Services | | 1,361,012 | 1.0790 | 1,468,532 |
| <u>Design Services Contingency</u> | | | | |
| Design Services Contingency | 242,517 | | | |
| SubTotal: Design Services Contingency | | 242,517 | 1.0790 | 261,676 |
| Total: Consultant Services | | 5,092,866 | 1.0382 | 5,287,639 |

CONSTRUCTION CONTRACTS

Site work

| | | | | |
|---------------------------------|-----------|-----------|--------|-----------|
| G10 - Site Preparation | 734,000 | | | |
| G20 - Site Improvements | 3,668,000 | | | |
| G30 - Site Mechanical Utilities | 734,000 | | | |
| G40 - Site Electrical Utilities | 734,000 | | | |
| SubTotal: Site work | | 5,870,000 | 1.0470 | 6,145,890 |

Facility Construction

| | | | | |
|------------------------|-----------|--|--|--|
| A10 - Foundations | 987,000 | | | |
| B10 - Superstructure | 6,567,000 | | | |
| B20 - Exterior Closure | 7,142,000 | | | |
| B30 - Roofing | 1,196,000 | | | |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---|--------------------|-------------------|--------------------------|-----------------------|
| CONSTRUCTION CONTRACTS | | | | |
| C10 - Interior Construction | 4,039,000 | | | |
| C20 - Stairs | 207,000 | | | |
| C30 - Interior Finishes | 3,808,000 | | | |
| D10 - Conveying | 649,000 | | | |
| D20 - Plumbing Systems | 803,000 | | | |
| D30 - HVAC Systems | 6,070,000 | | | |
| D40 - Fire Protection Systems | 566,000 | | | |
| D50 - Electrical Systems | 5,313,000 | | | |
| GCCM Risk Contingency | 1,207,000 | | | |
| SubTotal: Facility Construction | | 38,554,000 | 1.0790 | 41,599,766 |
| Maximum Allowable Construction Cost (MACC) | | 44,424,000 | 1.0700 | 47,745,656 |
| <u>GCCM or Design Build Costs</u> | | | | |
| GCCM Fee | 1,609,000 | | | |
| Bid General Conditions | 2,010,000 | | | |
| GCCM Preconstruction Services | 603,000 | | | |
| SubTotal: GCCM or Design Build Costs | | 4,222,000 | 1.0790 | 4,555,538 |
| <u>Construction Contingencies</u> | | | | |
| Management Reserve | 2,221,200 | | | |
| Allowance for Change Orders | 2,221,200 | | | |
| SubTotal: Construction Contingencies | | 4,442,400 | 1.0790 | 4,793,350 |
| Sales Tax | | 4,512,514 | 1.0755 | 4,853,036 |
| Total: Construction Contracts | | 57,600,914 | 1.0755 | 61,947,580 |
| EQUIPMENT | | | | |
| E10 - Equipment | 5,000 | | | |
| E20 - Furnishings | 1,750,000 | | | |
| SubTotal: | | 1,755,000 | 1.0790 | 1,893,645 |
| Sales Tax | | 149,175 | 1.0790 | 160,960 |
| Total: Equipment | | 1,904,175 | 1.0790 | 2,054,605 |
| ART WORK | | | | |
| Project Artwork | 236,779 | | | |
| Total: Art Work | | 238,728 | 1.0000 | 238,728 |
| OTHER COSTS | | | | |
| Hazardous Material Remediation/Removal | 45,000 | | | |
| Historic and Archeological Mitigation | 35,000 | | | |
| Project Signage | 5,000 | | | |
| General Building Permit | 252,000 | | | |
| Plan Check, Design, Code, Impact Fees | 167,000 | | | |
| Special Inspection (Code Required) | 87,300 | | | |
| Advertising | 3,000 | | | |
| GA ELCCA Review | 2,700 | | | |
| GA ADA Review | 2,000 | | | |
| Total: Other Costs | | 599,000 | 1.0470 | 627,153 |
| PROJECT MANAGEMENT | | | | |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|--|--------------------|------------------|------------------------------|---------------------------|
| GA Project Management | 1,332,720 | | | |
| Agency Indirect et al | 300,000 | | | |
| B&G In Plant Services | 298,000 | | | |
| IAA - Engineering & Architectural Services | 1,168,000 | | | |
| Project Expenses | 9,500 | | | |
| Site Reps | 388,000 | | | |
| Total: Project Management | | 2,163,500 | 1.0000 | 2,163,500 |

Cost Estimate Detail

2009-11 Biennium

*

Cost Estimate Number: 274 Analysis Date: January 13, 2010
 Cost Estimate Title: ProArts Reduced Version (GCCM-no parking)
 Detail Title: Parking
 Project Number: 30000511
 Project Title: ProArts Reduced Version (GCCM)
 Project Phase Title:
 Location: Olympia
 Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 34,380
 Usable Sq. Ft.: 34,380
 Rentable Sq. Ft.:
 Space Efficiency: 100%
 Escalated MACC Cost per Sq. Ft.: 94
 Escalated Cost per S. F. Explanation

Construction Type: Office Buildings
 Remodel? No
 A/E Fee Class: B
 A/E Fee Percentage: 9.13%
 Contingency Rate: 4.00%
 Contingency Explanation

Management Reserve: 3.50%
 Projected Life of Asset (Years): 50
 Location Used for Tax Rate: Olympia
 Tax Rate: 8.50%
 Art Requirement Applies: No
 Project Administration by: GA
 Higher Education Institution?: No
 Alternative Public Works?: Yes

Project Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Pre-design: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2011 | 05-2013 |
| Duration of Construction (Months): | 22 | |
| State Construction Inflation Rate: | 3.50% | |
| Base Month and Year: | 3-2010 | |

Project Cost Summary

| | |
|----------------------------------|--------------|
| MACC: | \$ 3,000,000 |
| MACC (Escalated): | \$ 3,241,800 |
| Current Project Total: | \$ 4,204,961 |
| Rounded Current Project Total: | \$ 4,205,000 |
| Escalated Project Total: | \$ 4,532,485 |
| Rounded Escalated Project Total: | \$ 4,532,000 |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---------------------------------------|--------------------|------------------|--------------------------|-----------------------|
| CONSULTANT SERVICES | | | | |
| <u>Construction Documents</u> | | | | |
| A/E Basic Design Services | 188,991 | | | |
| SubTotal: Construction Documents | | 188,991 | 1.0203 | 192,828 |
| <u>Other Services</u> | | | | |
| Bid/Construction/Closeout | 84,909 | | | |
| SubTotal: Other Services | | 84,909 | 1.0806 | 91,753 |
| <u>Design Services Contingency</u> | | | | |
| Design Services Contingency | 10,956 | | | |
| SubTotal: Design Services Contingency | | 10,956 | 1.0806 | 11,839 |
| Total: Consultant Services | | 284,856 | 1.0406 | 296,420 |

| | | | | |
|--|---------|------------------|---------------|------------------|
| CONSTRUCTION CONTRACTS | | | | |
| <u>Facility Construction</u> | | | | |
| A10 - Foundations | 480,000 | | | |
| B10 - Superstructure | 984,000 | | | |
| B30 - Roofing | 441,000 | | | |
| C10 - Interior Construction | 141,000 | | | |
| C20 - Stairs | 45,000 | | | |
| C30 - Interior Finishes | 81,000 | | | |
| D10 - Conveying | 123,000 | | | |
| D20 - Plumbing Systems | 24,000 | | | |
| D30 - HVAC Systems | 234,000 | | | |
| D40 - Fire Protection Systems | 164,000 | | | |
| D50 - Electrical Systems | 199,000 | | | |
| Risk contingency | 84,000 | | | |
| SubTotal: Facility Construction | | 3,000,000 | 1.0806 | 3,241,800 |
| Maximum Allowable Construction Cost (MACC) | | 3,000,000 | 1.0800 | 3,241,800 |
| <u>GCCM or Design Build Costs</u> | | | | |
| GCCM Fee | 148,000 | | | |
| Bid General Conditions | 185,000 | | | |
| GCCM Preconstruction Services | 55,000 | | | |
| SubTotal: GCCM or Design Build Costs | | 388,000 | 1.0806 | 419,273 |
| <u>Construction Contingencies</u> | | | | |
| Management Reserve | 105,000 | | | |
| Allowance for Change Orders | 120,000 | | | |
| SubTotal: Construction Contingencies | | 225,000 | 1.0806 | 243,135 |
| Sales Tax | | 307,105 | 1.0806 | 331,857 |
| Total: Construction Contracts | | 3,920,105 | 1.0806 | 4,236,065 |

| | | | | |
|---------------------------|--------|--|--|--|
| PROJECT MANAGEMENT | | | | |
| GA Project Management | 90,000 | | | |

OFM

Cost Estimate Summary and Detail

2009-11 Biennium

*

Cost Estimate Number: 274

Report Number: CBS003

Cost Estimate Title: ProArts Reduced Version (GCCM-no parking)

Date Run: 1/15/2010 11:47AM

| <u>Parameter</u> | <u>Entered As</u> | <u>Interpreted As</u> |
|----------------------------|-------------------|-----------------------------|
| Associated or Unassociated | Associated | Associated |
| Biennium | 2009-11 | 2009-11 |
| Agency | 150 | 150 |
| Version | 00-F | 00-F |
| Project Classification | * | All Project Classifications |
| Capital Project Number | 30000511 | 30000511 |
| Cost Estimate Number | 274 | 274 |
| Sort Order | Number | Number |
| User Group | Agency Facility | Capital Facility |
| User Id | 15000PKOAL | 15000PKOAL |

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

| | | | |
|------------------------------|---|----------------------------|-------------------|
| Cost Estimate Number: | 274 | Report Number: | CBS003 |
| Cost Estimate Title: | ProArts Reduced Version (GCCM-no parking) | Date Run: | 1/15/2010 11:49AM |
| Version: | 00 Facility Version | Facility Preferred: | Yes |
| Project Number: | 30000511 | | |
| Project Title: | ProArts Reduced Version (GCCM) | | |
| Project Phase Title: | | | |

| | | | | |
|---------------------|----------------------|------------|------------------------|--------------|
| Contact Info | Contact Name: | Penny Koal | Contact Number: | 360.902.7259 |
|---------------------|----------------------|------------|------------------------|--------------|

Statistics

| | |
|----------------------------------|------------------|
| Gross Sq. Ft.: | 153,160 |
| Usable Sq. Ft.: | 134,380 |
| Space Efficiency: | 88% |
| MACC Cost per Sq. Ft.: | 310 |
| Escalated MACC Cost per Sq. Ft.: | 344 |
| Remodel? | No |
| Construction Type: | Office Buildings |
| A/E Fee Class: | B |
| A/E Fee Percentage: | Varies |

Schedule

| | <u>Start Date</u> | <u>End Date</u> |
|------------------------------------|-------------------|-----------------|
| Predesign: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2012 |
| Construction: | 07-2011 | 04-2014 |
| Duration of Construction (Months): | 33 | |

Cost Summary Escalated

| | | | |
|--|-------------------|------------|-------------------|
| Acquisition Costs Total | | | 0 |
| Pre-Schematic Design Services | | 135,000 | |
| Construction Documents | | 2,140,051 | |
| Extra Services | | 1,534,579 | |
| Other Services | | 1,611,731 | |
| Design Services Contingency | | 282,682 | |
| Consultant Services Total | | | 5,704,043 |
| Site work | | 6,361,319 | |
| Related Project Costs | | 0 | |
| Facility Construction | | 46,298,907 | |
| Construction Contingencies | | 5,204,407 | |
| Non Taxable Items | | 0 | |
| Sales Tax | | 5,354,917 | |
| Construction Contracts Total | | | 68,353,953 |
| Maximum Allowable Construction Cost(MACC) | 52,660,226 | | |
| Equipment | | 1,959,984 | |
| Non Taxable Items | | 0 | |
| Sales Tax | | 166,599 | |
| Equipment Total | | | 2,126,583 |
| Art Work Total | | | 247,092 |
| Other Costs Total | | | 649,136 |
| Project Management Total | | | 2,163,500 |
| Grand Total Escalated Costs | | | 79,244,307 |
| Rounded Grand Total Escalated Costs | | | 79,244,000 |

Additional Details

| | |
|-----------------------------------|-----|
| Alternative Public Works Project: | Yes |
|-----------------------------------|-----|

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 275
 Cost Estimate Title: ProArts Reduced Version - DBB
 Version: 00 Facility Version
 Project Number: 30000512
 Project Title: ProArts Reduced Version (DBB)
 Project Phase Title:

Report Number: CBS003
 Date Run: 1/15/2010 11:57AM

Facility Preferred: Yes

Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 153,160
 Usable Sq. Ft.: 134,380
 Space Efficiency: 88%
 MACC Cost per Sq. Ft.: 325
 Escalated MACC Cost per Sq. Ft.: 350
 Remodel? No
 Construction Type: Office Buildings
 A/E Fee Class: B
 A/E Fee Percentage: Varies

Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Predesign: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2011 | 05-2013 |
| Duration of Construction (Months): | 22 | |

Cost Summary Escalated

| | | | |
|--|------------|------------|-------------------|
| Acquisition Costs Total | | | 0 |
| Pre-Schematic Design Services | | 135,000 | |
| Construction Documents | | 2,191,444 | |
| Extra Services | | 1,459,437 | |
| Other Services | | 1,604,389 | |
| Design Services Contingency | | 281,032 | |
| Consultant Services Total | | | 5,671,302 |
| Site work | | 6,642,168 | |
| Related Project Costs | | 0 | |
| Facility Construction | | 47,008,038 | |
| Construction Contingencies | | 5,386,336 | |
| Non Taxable Items | | 0 | |
| Sales Tax | | 5,018,106 | |
| Construction Contracts Total | | | 64,054,648 |
| Maximum Allowable Construction Cost(MACC) | 53,650,206 | | |
| Equipment | | 1,896,453 | |
| Non Taxable Items | | 0 | |
| Sales Tax | | 161,199 | |
| Equipment Total | | | 2,057,652 |
| Art Work Total | | | 250,870 |
| Other Costs Total | | | 627,153 |
| Project Management Total | | | 2,162,500 |
| Grand Total Escalated Costs | | | 74,824,125 |
| Rounded Grand Total Escalated Costs | | | 74,824,000 |

Additional Details

Alternative Public Works Project: No

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 275
Cost Estimate Title: ProArts Reduced Version - DBB
Version: 00 Facility Version
Project Number: 30000512
Project Title: ProArts Reduced Version (DBB)
Project Phase Title:

Report Number: CBS003
Date Run: 1/15/2010 11:57AM
Facility Preferred: Yes

Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Additional Details

| | |
|---|-------------|
| State Construction Inflation Rate: | 3.50% |
| Base Month and Year: | 03-2010 |
| Project Administration By: | GA |
| Project Admin Impact to GA that is NOT Included in Project Total: | \$1,493,723 |

Cost Estimate Detail

2009-11 Biennium

*

Cost Estimate Number: 275 Analysis Date: January 12, 2010
 Cost Estimate Title: ProArts Reduced Version - DBB
 Detail Title: General Office Building
 Project Number: 30000512
 Project Title: ProArts Reduced Version (DBB)
 Project Phase Title:
 Location: Olympia, WA
 Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 118,780
 Usable Sq. Ft.: 100,000
 Rentable Sq. Ft.:
 Space Efficiency: 84%
 Escalated MACC Cost per Sq. Ft.: 422
 Escalated Cost per S. F. Explanation

Construction Type: Office Buildings
 Remodel? No
 A/E Fee Class: B
 A/E Fee Percentage: 6.06%
 Contingency Rate: 5.00%
 Contingency Explanation

Management Reserve: 5.00%
 Projected Life of Asset (Years): 50
 Location Used for Tax Rate: Olympia, WA
 Tax Rate: 8.50%
 Art Requirement Applies: Yes
 Project Administration by: GA
 Higher Education Institution?: No
 Alternative Public Works?: No

Project Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Pre-design: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2011 | 05-2013 |
| Duration of Construction (Months): | 22 | |
| State Construction Inflation Rate: | 3.50% | |
| Base Month and Year: | 3-2010 | |

Project Cost Summary

| | |
|----------------------------------|---------------|
| MACC: | \$ 46,628,782 |
| MACC (Escalated): | \$ 50,173,903 |
| Current Project Total: | \$ 65,722,764 |
| Rounded Current Project Total: | \$ 65,723,000 |
| Escalated Project Total: | \$ 70,359,396 |
| Rounded Escalated Project Total: | \$ 70,359,000 |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---|--------------------|------------------|------------------------------|---------------------------|
| CONSULTANT SERVICES | | | | |
| <u>Pre-Schematic Design Services</u> | | | | |
| Programming/Site Analysis | 135,000 | | | |
| SubTotal: Pre-Schematic Design Services | | 135,000 | 1.0000 | 135,000 |
| <u>Construction Documents</u> | | | | |
| A/E Basic Design Services | 1,949,736 | | | |
| SubTotal: Construction Documents | | 1,949,736 | 1.0203 | 1,989,316 |
| <u>Extra Services</u> | | | | |
| Civil Design (Above Basic Services) | 181,000 | | | |
| Geotechnical Investigation | 55,000 | | | |
| Commissioning (Systems Check) | 40,500 | | | |
| Leadership Energy & Environment Design List(LEED) | 135,000 | | | |
| Voice/Data Consultant | 15,300 | | | |
| Value Engineering Participation & Implementation | 58,500 | | | |
| Constructability Review Participation | 40,000 | | | |
| Environmental Mitigation Services (EIS) | 42,000 | | | |
| Landscape Consultant | 95,400 | | | |
| Arborist | 43,000 | | | |
| Acoustic Consultant | 19,800 | | | |
| Document Reproduction | 100,000 | | | |
| ELCCA | 57,000 | | | |
| Elevator Consultant | 18,900 | | | |
| Envelope Consultant | 16,200 | | | |
| Fire & Life Safety | 28,800 | | | |
| Systems Furniture Planning | 35,100 | | | |
| Systems Furniture Installation | 22,500 | | | |
| Graphics & Wayfinding | 28,800 | | | |
| Interiors Consultant | 225,000 | | | |
| Security & Access Control | 12,600 | | | |
| As-Built Documents (CAD only) | 65,000 | | | |
| Misc. Reimbursibles | 74,000 | | | |
| Public Meetings | 8,000 | | | |
| Mockups, Models, & Renderings | 13,000 | | | |
| SubTotal: Extra Services | | 1,430,400 | 1.0203 | 1,459,437 |
| <u>Other Services</u> | | | | |
| Bid/Construction/Closeout | 875,968 | | | |
| On Site Clerk of the Works (construction only) | 250,000 | | | |
| Enhanced Third Person Commissioning | 268,200 | | | |
| SubTotal: Other Services | | 1,394,168 | 1.0806 | 1,506,538 |
| <u>Design Services Contingency</u> | | | | |
| Design Services Contingency | 245,465 | | | |
| SubTotal: Design Services Contingency | | 245,465 | 1.0806 | 265,249 |
| Total: Consultant Services | | 5,154,769 | 1.0389 | 5,355,540 |
| CONSTRUCTION CONTRACTS | | | | |
| <u>Site work</u> | | | | |
| G10 - Site Preparation | 793,000 | | | |
| G20 - Site Improvements | 3,965,000 | | | |
| G30 - Site Mechanical Utilities | 793,000 | | | |
| G40 - Site Electrical Utilities | 793,000 | | | |
| SubTotal: Site work | | 6,344,000 | 1.0470 | 6,642,168 |
| <u>Facility Construction</u> | | | | |
| A10 - Foundations | 986,782 | | | |
| B10 - Superstructure | 7,098,000 | | | |
| B20 - Exterior Closure | 7,720,000 | | | |
| B30 - Roofing | 1,292,000 | | | |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|--|--------------------|-------------------|--------------------------|-----------------------|
| CONSTRUCTION CONTRACTS | | | | |
| C10 - Interior Construction | 4,365,000 | | | |
| C20 - Stairs | 224,000 | | | |
| C30 - Interior Finishes | 4,116,000 | | | |
| D10 - Conveying | 701,000 | | | |
| D20 - Plumbing Systems | 866,000 | | | |
| D30 - HVAC Systems | 6,562,000 | | | |
| D40 - Fire Protection Systems | 611,000 | | | |
| D50 - Electrical Systems | 5,743,000 | | | |
| SubTotal: Facility Construction | | 40,284,782 | 1.0806 | 43,531,735 |
| Maximum Allowable Construction Cost (MACC) | | 46,628,782 | 1.0800 | 50,173,903 |
| <u>Construction Contingencies</u> | | | | |
| Management Reserve | 2,331,439 | | | |
| Allowance for Change Orders | 2,331,439 | | | |
| SubTotal: Construction Contingencies | | 4,662,878 | 1.0806 | 5,038,706 |
| Sales Tax | | 4,359,790 | 1.0764 | 4,693,072 |
| Total: Construction Contracts | | 55,651,450 | 1.0764 | 59,905,681 |
| EQUIPMENT | | | | |
| E10 - Equipment | 5,000 | | | |
| E20 - Furnishings | 1,750,000 | | | |
| SubTotal: | | 1,755,000 | 1.0806 | 1,896,453 |
| Sales Tax | | 149,175 | 1.0806 | 161,199 |
| Total: Equipment | | 1,904,175 | 1.0806 | 2,057,652 |
| ART WORK | | | | |
| Project Artwork | 249,217 | | | |
| Total: Art Work | | 250,870 | 1.0000 | 250,870 |
| OTHER COSTS | | | | |
| Hazardous Material Remediation/Removal | 45,000 | | | |
| Historic and Archeological Mitigation | 35,000 | | | |
| Project Signage | 5,000 | | | |
| General Building Permit | 252,000 | | | |
| Plan Check, Design, Code, Impact Fees | 167,000 | | | |
| Special Inspection (Code Required) | 87,300 | | | |
| Advertising | 3,000 | | | |
| GA ELCCA Review | 2,700 | | | |
| GA ADA Review | 2,000 | | | |
| Total: Other Costs | | 599,000 | 1.0470 | 627,153 |
| PROJECT MANAGEMENT | | | | |
| GA Project Management | 1,398,863 | | | |
| Agency indirect | 300,000 | | | |
| B&G In Plant Services | 297,000 | | | |
| IAA - Engineering & Architectural Services | 1,168,000 | | | |
| Project Expenses | 9,500 | | | |
| Site Reps | 388,000 | | | |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---------------------------|--------------------|------------------|------------------------------|---------------------------|
| PROJECT MANAGEMENT | | | | |
| Total: Project Management | | 2,162,500 | 1.0000 | <u>2,162,500</u> |

Cost Estimate Detail

2009-11 Biennium

Cost Estimate Number: 275 Analysis Date: January 14, 2010
 Cost Estimate Title: ProArts Reduced Version - DBB
 Detail Title: Parking
 Project Number: 30000512
 Project Title: ProArts Reduced Version (DBB)
 Project Phase Title:
 Location: Olympia
 Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 34,380
 Usable Sq. Ft.: 34,380
 Rentable Sq. Ft.:
 Space Efficiency: 100%
 Escalated MACC Cost per Sq. Ft.: 101
 Escalated Cost per S. F. Explanation

Construction Type: Office Buildings
 Remodel? No
 A/E Fee Class: B
 A/E Fee Percentage: 9.08%
 Contingency Rate: 5.00%
 Contingency Explanation

Management Reserve: 5.00%
 Projected Life of Asset (Years): 50
 Location Used for Tax Rate: Olympia
 Tax Rate: 8.50%
 Art Requirement Applies: No
 Project Administration by: GA
 Higher Education Institution?: No
 Alternative Public Works?: No

Project Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Predesign: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2011 |
| Construction: | 07-2012 | 05-2013 |
| Duration of Construction (Months): | 10 | |
| State Construction Inflation Rate: | 3.50% | |
| Base Month and Year: | 3-2010 | |

Project Cost Summary

| | |
|----------------------------------|--------------|
| MACC: | \$ 3,162,000 |
| MACC (Escalated): | \$ 3,476,303 |
| Current Project Total: | \$ 4,075,314 |
| Rounded Current Project Total: | \$ 4,075,000 |
| Escalated Project Total: | \$ 4,464,729 |
| Rounded Escalated Project Total: | \$ 4,465,000 |

| <u>ITEM</u> | <u>Base Amount</u> | <u>Sub Total</u> | <u>Escalation Factor</u> | <u>Escalated Cost</u> |
|---------------------------------------|--------------------|------------------|--------------------------|-----------------------|
| CONSULTANT SERVICES | | | | |
| <u>Construction Documents</u> | | | | |
| A/E Basic Design Services | 198,106 | | | |
| SubTotal: Construction Documents | | 198,106 | 1.0203 | 202,128 |
| <u>Other Services</u> | | | | |
| Bid/Construction/Closeout | 89,004 | | | |
| SubTotal: Other Services | | 89,004 | 1.0994 | 97,851 |
| <u>Design Services Contingency</u> | | | | |
| Design Services Contingency | 14,356 | | | |
| SubTotal: Design Services Contingency | | 14,356 | 1.0994 | 15,783 |
| Total: Consultant Services | | 301,466 | 1.0474 | 315,762 |

| | | | | |
|--|-----------|------------------|---------------|------------------|
| CONSTRUCTION CONTRACTS | | | | |
| <u>Facility Construction</u> | | | | |
| A10 - Foundations | 520,000 | | | |
| B10 - Superstructure | 1,067,000 | | | |
| B30 - Roofing | 478,000 | | | |
| C10 - Interior Construction | 153,000 | | | |
| C20 - Stairs | 49,000 | | | |
| C30 - Interior Finishes | 87,000 | | | |
| D10 - Conveying | 134,000 | | | |
| D20 - Plumbing Systems | 26,000 | | | |
| D30 - HVAC Systems | 254,000 | | | |
| D40 - Fire Protection Systems | 178,000 | | | |
| D50 - Electrical Systems | 216,000 | | | |
| SubTotal: Facility Construction | | 3,162,000 | 1.0994 | 3,476,303 |
| Maximum Allowable Construction Cost (MACC) | | 3,162,000 | 1.1000 | 3,476,303 |
| <u>Construction Contingencies</u> | | | | |
| Management Reserve | 158,100 | | | |
| Allowance for Change Orders | 158,100 | | | |
| SubTotal: Construction Contingencies | | 316,200 | 1.0994 | 347,630 |
| Sales Tax | | 295,648 | 1.0994 | 325,034 |
| Total: Construction Contracts | | 3,773,848 | 1.0994 | 4,148,967 |

| | | | | |
|---------------------------|--------|--|--|--|
| PROJECT MANAGEMENT | | | | |
| GA Project Management | 94,860 | | | |

Cost Estimate Summary and Detail

2009-11 Biennium

*

Cost Estimate Number: 275

Report Number: CBS003

Cost Estimate Title: ProArts Reduced Version - DBB

Date Run: 1/15/2010 11:57AM

| <u>Parameter</u> | <u>Entered As</u> | <u>Interpreted As</u> |
|----------------------------|-------------------|-----------------------------|
| Associated or Unassociated | Associated | Associated |
| Biennium | 2009-11 | 2009-11 |
| Agency | 150 | 150 |
| Version | 00-F | 00-F |
| Project Classification | * | All Project Classifications |
| Capital Project Number | 30000512 | 30000512 |
| Cost Estimate Number | 275 | 275 |
| Sort Order | Number | Number |
| User Group | Agency Facility | Capital Facility |
| User Id | 15000PKOAL | 15000PKOAL |

OFM

150 - Department of General Administration

Cost Estimate Summary

2009-11 Biennium

*

Cost Estimate Number: 275
 Cost Estimate Title: ProArts Reduced Version - DBB
 Version: 00 Facility Version
 Project Number: 30000512
 Project Title: ProArts Reduced Version (DBB)
 Project Phase Title:

Report Number: CBS003
 Date Run: 1/15/2010 11:59AM

Facility Preferred: Yes

Contact Info Contact Name: Penny Koal Contact Number: 360.902.7259

Statistics

Gross Sq. Ft.: 153,160
 Usable Sq. Ft.: 134,380
 Space Efficiency: 88%
 MACC Cost per Sq. Ft.: 325
 Escalated MACC Cost per Sq. Ft.: 368
 Remodel? No
 Construction Type: Office Buildings
 A/E Fee Class: B
 A/E Fee Percentage: Varies

Schedule

| | Start Date | End Date |
|------------------------------------|------------|----------|
| Predesign: | 08-2009 | 02-2010 |
| Design: | 03-2010 | 05-2012 |
| Construction: | 07-2012 | 05-2014 |
| Duration of Construction (Months): | 22 | |

Cost Summary Escalated

| | | |
|--|-------------------|-------------------|
| Acquisition Costs Total | | 0 |
| Pre-Schematic Design Services | 135,000 | |
| Construction Documents | 2,225,954 | |
| Extra Services | 1,484,755 | |
| Other Services | 1,684,135 | |
| Design Services Contingency | 295,073 | |
| Consultant Services Total | | 5,824,917 |
| Site work | 7,115,430 | |
| Related Project Costs | 0 | |
| Facility Construction | 49,312,328 | |
| Construction Contingencies | 5,653,053 | |
| Non Taxable Items | 0 | |
| Sales Tax | 5,276,868 | |
| Construction Contracts Total | | 67,357,679 |
| Maximum Allowable Construction Cost(MACC) | 56,427,758 | |
| Equipment | 1,996,839 | |
| Non Taxable Items | 0 | |
| Sales Tax | 169,731 | |
| Equipment Total | | 2,166,570 |
| Art Work Total | | 264,757 |
| Other Costs Total | | 671,838 |
| Project Management Total | | 2,162,500 |
| Grand Total Escalated Costs | | 78,448,261 |
| Rounded Grand Total Escalated Costs | | 78,448,000 |

Additional Details

Alternative Public Works Project: No

UNIFORMAT SUMMARY

| | Gross Area: 150,000 SF | | Mark-ups Included 150,000 SF | |
|--|------------------------|-------------------|------------------------------|-------------------|
| | \$/SF | TOTAL | \$/SF | TOTAL |
| A SUBSTRUCTURE | | | | |
| A10 FOUNDATIONS | \$0.00 | 0 | \$0.00 | 0 |
| B SHELL | | | | |
| B10 SUPERSTRUCTURE | \$43.69 | 6,552,807 | \$54.94 | 8,241,699 |
| B20 EXTERIOR CLOSURE | \$50.76 | 7,613,940 | \$63.84 | 9,576,323 |
| B30 ROOFING | \$6.94 | 1,040,305 | \$8.72 | 1,308,429 |
| C INTERIORS | | | | |
| C10 INTERIOR CONSTRUCTION | \$27.80 | 4,170,066 | \$34.97 | 5,244,841 |
| C20 STAIRS | \$1.15 | 172,784 | \$1.45 | 217,317 |
| C30 INTERIOR FINISHES | \$26.22 | 3,933,023 | \$32.98 | 4,946,704 |
| D SERVICES | | | | |
| D10 CONVEYING | \$3.54 | 530,673 | \$4.45 | 667,447 |
| D20 PLUMBING | \$5.52 | 827,930 | \$6.94 | 1,041,317 |
| D30 HVAC | \$41.80 | 6,270,037 | \$52.57 | 7,886,049 |
| D40 FIRE PROTECTION | \$3.90 | 584,253 | \$4.90 | 734,836 |
| D50 ELECTRICAL | \$36.58 | 5,487,708 | \$46.01 | 6,902,085 |
| E EQUIPMENT & FURNISHINGS | | | | |
| E10 EQUIPMENT | \$0.00 | 0 | \$0.00 | 0 |
| E20 FURNISHINGS | \$0.00 | 0 | \$0.00 | 0 |
| TOTAL BUILDING | \$247.89 | 37,183,528 | \$311.78 | 46,767,047 |
| F SPECIAL CONSTRUCTION & DEMOLITION | | | | |
| F20 SELECTIVE BUILDING DEMOLITION | | <i>excluded</i> | | <i>excluded</i> |
| G BUILDING SITEWORK | | | | |
| G10 SITE PREPARATION | \$4.00 | 600,000 | \$5.03 | 754,887 |
| G20 SITE IMPROVEMENTS | \$20.00 | 3,000,000 | \$25.16 | 3,773,453 |
| G30 SITE CIVIL / MECHANICAL UTILITIES | \$4.00 | 600,000 | \$5.03 | 754,887 |
| G40 SITE ELECTRICAL UTILITIES | \$4.00 | 600,000 | \$5.03 | 754,887 |
| TOTAL SITEWORK | \$32.00 | 4,800,000 | \$40.25 | 6,038,115 |
| TOTAL DIRECT WORK (BUILDING + SITE) | \$279.89 | 41,983,528 | \$352.03 | 52,805,162 |
| Contingency for Development of Design | \$41.99 | 6,298,000 | | <i>included</i> |
| Sub-contractor Bonds | \$4.02 | 603,519 | | <i>included</i> |
| PLANNED CONSTRUCTION COST | \$325.90 | 48,885,047 | \$352.03 | 52,805,162 |
| GC/CM Risk Contingency | \$9.78 | 1,467,000 | | <i>included</i> |
| Pre-construction Services | \$4.89 | 733,000 | | 733,000 |
| Fee | \$13.04 | 1,956,000 | | 1,956,000 |
| Bid General Conditions | \$16.29 | 2,444,000 | | 2,444,000 |
| Reimbursable General Conditions | \$13.58 | 2,037,000 | | <i>included</i> |
| GC/CM Bonds & Insurances | \$2.77 | 416,000 | | <i>included</i> |
| PLANNED CONSTRUCTION COST | \$386.25 | 57,938,047 | \$386.25 | 57,938,162 |
| Escalation | | EXCLUDED | | <i>included</i> |
| RECOMMENDED BUDGET | \$386.25 | 57,938,047 | \$386.25 | 57,938,162 |

UNIFORMAT SUMMARY

| | Gross Area: | | Mark-ups Included | |
|--|-----------------|-------------------|-------------------|-------------------|
| | 150,000 SF | | 150,000 SF | |
| | \$/SF | TOTAL | \$/SF | TOTAL |
| A SUBSTRUCTURE | | | | |
| A10 FOUNDATIONS | \$0.00 | 0 | \$0.00 | 0 |
| B SHELL | | | | |
| B10 SUPERSTRUCTURE | \$43.69 | 6,552,807 | \$50.87 | 7,630,009 |
| B20 EXTERIOR CLOSURE | \$50.76 | 7,613,940 | \$59.10 | 8,865,579 |
| B30 ROOFING | \$6.94 | 1,040,305 | \$8.08 | 1,211,318 |
| C INTERIORS | | | | |
| C10 INTERIOR CONSTRUCTION | \$27.80 | 4,170,066 | \$32.37 | 4,855,574 |
| C20 STAIRS | \$1.15 | 172,784 | \$1.34 | 201,188 |
| C30 INTERIOR FINISHES | \$26.22 | 3,933,023 | \$30.53 | 4,579,565 |
| D SERVICES | | | | |
| D10 CONVEYING | \$3.54 | 530,673 | \$4.12 | 617,909 |
| D20 PLUMBING | \$5.52 | 827,930 | \$6.43 | 964,032 |
| D30 HVAC | \$41.80 | 6,270,037 | \$48.67 | 7,300,755 |
| D40 FIRE PROTECTION | \$3.90 | 584,253 | \$4.54 | 680,298 |
| D50 ELECTRICAL | \$36.58 | 5,487,708 | \$42.60 | 6,389,820 |
| E EQUIPMENT & FURNISHINGS | | | | |
| E10 EQUIPMENT | \$0.00 | 0 | \$0.00 | 0 |
| E20 FURNISHINGS | \$0.00 | 0 | \$0.00 | 0 |
| TOTAL BUILDING | \$247.89 | 37,183,528 | \$288.64 | 43,296,047 |
| F SPECIAL CONSTRUCTION & DEMOLITION | | | | |
| F20 SELECTIVE BUILDING DEMOLITION | | <i>excluded</i> | | <i>excluded</i> |
| G BUILDING SITEWORK | | | | |
| G10 SITE PREPARATION | \$4.00 | 600,000 | \$4.66 | 698,879 |
| G20 SITE IMPROVEMENTS | \$20.00 | 3,000,000 | \$23.29 | 3,493,409 |
| G30 SITE CIVIL / MECHANICAL UTILITIES | \$4.00 | 600,000 | \$4.66 | 698,879 |
| G40 SITE ELECTRICAL UTILITIES | \$4.00 | 600,000 | \$4.66 | 698,879 |
| TOTAL SITEWORK | \$32.00 | 4,800,000 | \$37.27 | 5,590,046 |
| TOTAL DIRECT WORK (BUILDING + SITE) | \$279.89 | 41,983,528 | \$325.91 | 48,886,092 |
| Contingency for Development of Design | \$41.99 | 6,298,000 | | <i>included</i> |
| Sub-contractor Bonds | \$4.02 | 603,519 | | <i>included</i> |
| PLANNED CONSTRUCTION COST | \$325.90 | 48,885,047 | \$325.91 | 48,886,092 |
| Fee/OHP | \$13.04 | 1,956,000 | | 1,956,000 |
| General Conditions | \$30.96 | 4,644,000 | | 4,644,000 |
| PLANNED CONSTRUCTION COST | \$369.90 | 55,485,047 | \$369.91 | 55,486,092 |
| Escalation | | EXCLUDED | | <i>included</i> |
| RECOMMENDED BUDGET | \$369.90 | 55,485,047 | \$369.91 | 55,486,092 |

UNIFORMAT SUMMARY

| | Gross Area: 118,780 SF | | Mark-ups Included 118,780 SF | |
|--|------------------------|-------------------|---------------------------------|-------------------|
| | \$/SF | TOTAL | \$/SF | TOTAL |
| A SUBSTRUCTURE | | | | |
| A10 FOUNDATIONS | \$0.00 | 0 | \$0.00 | 0 |
| B SHELL | | | | |
| B10 SUPERSTRUCTURE | \$45.22 | 5,371,355 | \$56.88 | 6,755,632 |
| B20 EXTERIOR CLOSURE | \$49.18 | 5,841,261 | \$61.85 | 7,346,639 |
| B30 ROOFING | \$8.23 | 977,426 | \$10.35 | 1,229,323 |
| C INTERIORS | | | | |
| C10 INTERIOR CONSTRUCTION | \$27.81 | 3,303,074 | \$34.97 | 4,154,325 |
| C20 STAIRS | \$1.42 | 169,225 | \$1.79 | 212,837 |
| C30 INTERIOR FINISHES | \$26.22 | 3,114,413 | \$32.98 | 3,917,042 |
| D SERVICES | | | | |
| D10 CONVEYING | \$4.47 | 530,673 | \$5.62 | 667,435 |
| D20 PLUMBING | \$5.52 | 655,606 | \$6.94 | 824,566 |
| D30 HVAC | \$41.80 | 4,965,005 | \$52.57 | 6,244,560 |
| D40 FIRE PROTECTION | \$3.90 | 462,648 | \$4.90 | 581,879 |
| D50 ELECTRICAL | \$36.58 | 4,345,508 | \$46.01 | 5,465,409 |
| E EQUIPMENT & FURNISHINGS | | | | |
| E10 EQUIPMENT | \$0.00 | 0 | \$0.00 | 0 |
| E20 FURNISHINGS | \$0.00 | 0 | \$0.00 | 0 |
| TOTAL BUILDING | \$250.35 | 29,736,196 | \$314.86 | 37,399,648 |
| F SPECIAL CONSTRUCTION & DEMOLITION | | | | |
| F20 SELECTIVE BUILDING DEMOLITION | | <i>excluded</i> | | <i>excluded</i> |
| G BUILDING SITEWORK | | | | |
| G10 SITE PREPARATION | \$5.05 | 600,000 | \$6.36 | 754,875 |
| G20 SITE IMPROVEMENTS | \$25.26 | 3,000,000 | \$31.77 | 3,773,390 |
| G30 SITE CIVIL / MECHANICAL UTILITIES | \$5.05 | 600,000 | \$6.36 | 754,875 |
| G40 SITE ELECTRICAL UTILITIES | \$5.05 | 600,000 | \$6.36 | 754,875 |
| TOTAL SITEWORK | \$40.41 | 4,800,000 | \$50.83 | 6,038,014 |
| TOTAL DIRECT WORK (BUILDING + SITE) | \$290.76 | 34,536,196 | \$365.70 | 43,437,662 |
| Contingency for Development of Design | \$43.61 | 5,180,000 | | <i>included</i> |
| Sub-contractor Bonds | \$4.18 | 496,452 | | <i>included</i> |
| PLANNED CONSTRUCTION COST | \$338.55 | 40,212,648 | \$365.70 | 43,437,662 |
| GC/CM Risk Contingency | \$10.16 | 1,207,000 | | <i>included</i> |
| Pre-construction Services | \$5.08 | 603,000 | | 603,000 |
| Fee | \$13.55 | 1,609,000 | | 1,609,000 |
| Bid General Conditions | \$16.92 | 2,010,000 | | 2,010,000 |
| Reimbursable General Conditions | \$14.11 | 1,676,000 | | <i>included</i> |
| GC/CM Bonds & Insurances | \$2.88 | 342,000 | | <i>included</i> |
| PLANNED CONSTRUCTION COST | \$401.24 | 47,659,648 | \$401.24 | 47,659,662 |
| Escalation | | EXCLUDED | | <i>included</i> |
| RECOMMENDED BUDGET | \$401.24 | 47,659,648 | \$401.24 | 47,659,662 |

UNIFORMAT SUMMARY

| | Gross Area: 118,780 SF | | Mark-ups Included 118,780 SF | |
|--|------------------------|-------------------|---------------------------------|-------------------|
| | \$/SF | TOTAL | \$/SF | TOTAL |
| A SUBSTRUCTURE | | | | |
| A10 FOUNDATIONS | \$0.00 | 0 | \$0.00 | 0 |
| B SHELL | | | | |
| B10 SUPERSTRUCTURE | \$45.22 | 5,371,355 | \$52.65 | 6,254,193 |
| B20 EXTERIOR CLOSURE | \$49.18 | 5,841,261 | \$57.26 | 6,801,333 |
| B30 ROOFING | \$8.23 | 977,426 | \$9.58 | 1,138,076 |
| C INTERIORS | | | | |
| C10 INTERIOR CONSTRUCTION | \$27.81 | 3,303,074 | \$32.38 | 3,845,969 |
| C20 STAIRS | \$1.42 | 169,225 | \$1.66 | 197,039 |
| C30 INTERIOR FINISHES | \$26.22 | 3,114,413 | \$30.53 | 3,626,299 |
| D SERVICES | | | | |
| D10 CONVEYING | \$4.47 | 530,673 | \$5.20 | 617,895 |
| D20 PLUMBING | \$5.52 | 655,606 | \$6.43 | 763,362 |
| D30 HVAC | \$41.80 | 4,965,005 | \$48.67 | 5,781,056 |
| D40 FIRE PROTECTION | \$3.90 | 462,648 | \$4.54 | 538,689 |
| D50 ELECTRICAL | \$36.58 | 4,345,508 | \$42.60 | 5,059,738 |
| E EQUIPMENT & FURNISHINGS | | | | |
| E10 EQUIPMENT | \$0.00 | 0 | \$0.00 | 0 |
| E20 FURNISHINGS | \$0.00 | 0 | \$0.00 | 0 |
| TOTAL BUILDING | \$250.35 | 29,736,196 | \$291.49 | 34,623,648 |
| F SPECIAL CONSTRUCTION & DEMOLITION | | | | |
| F20 SELECTIVE BUILDING DEMOLITION | | <i>excluded</i> | | <i>excluded</i> |
| G BUILDING SITEWORK | | | | |
| G10 SITE PREPARATION | \$5.05 | 600,000 | \$5.88 | 698,862 |
| G20 SITE IMPROVEMENTS | \$25.26 | 3,000,000 | \$29.41 | 3,493,327 |
| G30 SITE CIVIL / MECHANICAL UTILITIES | \$5.05 | 600,000 | \$5.88 | 698,862 |
| G40 SITE ELECTRICAL UTILITIES | \$5.05 | 600,000 | \$5.88 | 698,862 |
| TOTAL SITEWORK | \$40.41 | 4,800,000 | \$47.06 | 5,589,914 |
| TOTAL DIRECT WORK (BUILDING + SITE) | \$290.76 | 34,536,196 | \$338.55 | 40,213,562 |
| Contingency for Development of Design | \$43.61 | 5,180,000 | | <i>included</i> |
| Sub-contractor Bonds | \$4.18 | 496,452 | | <i>included</i> |
| PLANNED CONSTRUCTION COST | \$338.55 | 40,212,648 | \$338.55 | 40,213,562 |
| Fee/OHP | \$13.55 | 1,609,000 | | 1,609,000 |
| General Conditions | \$32.16 | 3,820,000 | | 3,820,000 |
| PLANNED CONSTRUCTION COST | \$384.25 | 45,641,648 | \$384.26 | 45,642,562 |
| Escalation | | EXCLUDED | | <i>included</i> |
| RECOMMENDED BUDGET | \$384.25 | 45,641,648 | \$384.26 | 45,642,562 |

UNIFORMAT SUMMARY

Gross Area:

34,380 SF

Mark-ups Included
 34,380 SF

| | \$/SF | TOTAL | \$/SF | TOTAL |
|--|-----------------|------------------|-----------------|------------------|
| A SUBSTRUCTURE | | | | |
| A10 FOUNDATIONS | \$34.24 | 1,177,187 | \$43.07 | 1,480,666 |
| B SHELL | | | | |
| B10 SUPERSTRUCTURE | \$23.41 | 804,811 | \$29.44 | 1,012,292 |
| B20 EXTERIOR CLOSURE | \$0.00 | 0 | \$0.00 | 0 |
| B30 ROOFING | \$10.48 | 360,444 | \$13.19 | 453,367 |
| C INTERIORS | | | | |
| C10 INTERIOR CONSTRUCTION | \$3.35 | 115,270 | \$4.22 | 144,986 |
| C20 STAIRS | \$1.08 | 37,050 | \$1.36 | 46,601 |
| C30 INTERIOR FINISHES | \$1.92 | 66,017 | \$2.42 | 83,037 |
| D SERVICES | | | | |
| D10 CONVEYING | \$2.94 | 101,033 | \$3.70 | 127,079 |
| D20 PLUMBING | \$0.56 | 19,231 | \$0.70 | 24,189 |
| D30 HVAC | \$5.57 | 191,548 | \$7.01 | 240,929 |
| D40 FIRE PROTECTION | \$3.90 | 133,910 | \$4.90 | 168,432 |
| D50 ELECTRICAL | \$4.73 | 162,619 | \$5.95 | 204,542 |
| E EQUIPMENT & FURNISHINGS | | | | |
| E10 EQUIPMENT | \$0.00 | 0 | \$0.00 | 0 |
| E20 FURNISHINGS | \$0.00 | 0 | \$0.00 | 0 |
| TOTAL BUILDING | \$92.18 | 3,169,120 | \$115.94 | 3,986,120 |
| F SPECIAL CONSTRUCTION & DEMOLITION | | | | |
| F20 SELECTIVE BUILDING DEMOLITION | | <i>excluded</i> | | <i>excluded</i> |
| G BUILDING SITEWORK | | | | |
| G10 SITE PREPARATION | \$0.00 | 0 | \$0.00 | 0 |
| G20 SITE IMPROVEMENTS | \$0.00 | 0 | \$0.00 | 0 |
| G30 SITE CIVIL / MECHANICAL UTILITIES | \$0.00 | 0 | \$0.00 | 0 |
| G40 SITE ELECTRICAL UTILITIES | \$0.00 | 0 | \$0.00 | 0 |
| TOTAL SITEWORK | \$0.00 | 0 | \$0.00 | 0 |
| TOTAL DIRECT WORK (BUILDING + SITE) | \$92.18 | 3,169,120 | \$115.94 | 3,986,120 |
| Contingency for Development of Design | \$13.82 | 475,000 | | <i>included</i> |
| Sub-contractor Bonds | \$1.34 | 46,000 | | <i>included</i> |
| PLANNED CONSTRUCTION COST | \$107.33 | 3,690,120 | \$115.94 | 3,986,120 |
| GC/CM Risk Contingency | \$3.23 | 111,000 | | <i>included</i> |
| Pre-construction Services | \$1.60 | 55,000 | | 55,000 |
| Fee | \$4.30 | 148,000 | | 148,000 |
| Bid General Conditions | \$5.38 | 185,000 | | 185,000 |
| Reimbursable General Conditions | \$4.48 | 154,000 | | <i>included</i> |
| GC/CM Bonds & Insurances | \$0.90 | 31,000 | | <i>included</i> |
| PLANNED CONSTRUCTION COST | \$127.23 | 4,374,120 | \$127.23 | 4,374,120 |
| Escalation | | EXCLUDED | | <i>included</i> |
| RECOMMENDED BUDGET | \$127.23 | 4,374,120 | \$127.23 | 4,374,120 |

UNIFORMAT SUMMARY

Gross Area:

34,380 SF

Mark-ups Included
 34,380 SF

| | \$/SF | TOTAL | \$/SF | TOTAL |
|--|-----------------|------------------|-----------------|------------------|
| A SUBSTRUCTURE | | | | |
| A10 FOUNDATIONS | \$34.24 | 1,177,187 | \$45.41 | 1,561,272 |
| B SHELL | | | | |
| B10 SUPERSTRUCTURE | \$23.41 | 804,811 | \$31.05 | 1,067,400 |
| B20 EXTERIOR CLOSURE | \$0.00 | 0 | \$0.00 | 0 |
| B30 ROOFING | \$10.48 | 360,444 | \$13.90 | 478,047 |
| C INTERIORS | | | | |
| C10 INTERIOR CONSTRUCTION | \$3.35 | 115,270 | \$4.45 | 152,879 |
| C20 STAIRS | \$1.08 | 37,050 | \$1.43 | 49,138 |
| C30 INTERIOR FINISHES | \$1.92 | 66,017 | \$2.55 | 87,557 |
| D SERVICES | | | | |
| D10 CONVEYING | \$2.94 | 101,033 | \$3.90 | 133,997 |
| D20 PLUMBING | \$0.56 | 19,231 | \$0.74 | 25,505 |
| D30 HVAC | \$5.57 | 191,548 | \$7.39 | 254,045 |
| D40 FIRE PROTECTION | \$3.90 | 133,910 | \$5.17 | 177,601 |
| D50 ELECTRICAL | \$4.73 | 162,619 | \$6.27 | 215,677 |
| E EQUIPMENT & FURNISHINGS | | | | |
| E10 EQUIPMENT | \$0.00 | 0 | \$0.00 | 0 |
| E20 FURNISHINGS | \$0.00 | 0 | \$0.00 | 0 |
| TOTAL BUILDING | \$92.18 | 3,169,120 | \$122.25 | 4,203,120 |
| F SPECIAL CONSTRUCTION & DEMOLITION | | | | |
| F20 SELECTIVE BUILDING DEMOLITION | | <i>excluded</i> | | <i>excluded</i> |
| G BUILDING SITEWORK | | | | |
| G10 SITE PREPARATION | \$0.00 | 0 | \$0.00 | 0 |
| G20 SITE IMPROVEMENTS | \$0.00 | 0 | \$0.00 | 0 |
| G30 SITE CIVIL / MECHANICAL UTILITIES | \$0.00 | 0 | \$0.00 | 0 |
| G40 SITE ELECTRICAL UTILITIES | \$0.00 | 0 | \$0.00 | 0 |
| TOTAL SITEWORK | \$0.00 | 0 | \$0.00 | 0 |
| TOTAL DIRECT WORK (BUILDING + SITE) | \$92.18 | 3,169,120 | \$122.25 | 4,203,120 |
| Contingency for Development of Design | \$13.82 | 475,000 | | <i>included</i> |
| Sub-contractor bonds | \$1.34 | 46,000 | | <i>included</i> |
| PLANNED CONSTRUCTION COST | \$107.33 | 3,690,120 | \$122.25 | 4,203,120 |
| Fee/OHP | \$4.30 | 148,000 | | <i>included</i> |
| General Conditions | \$10.62 | 365,000 | | <i>included</i> |
| PLANNED CONSTRUCTION COST | \$122.25 | 4,203,120 | \$122.25 | 4,203,120 |
| Escalation | | EXCLUDED | | EXCLUDED |
| RECOMMENDED BUDGET | \$122.25 | 4,203,120 | \$122.25 | 4,203,120 |

ZGF

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