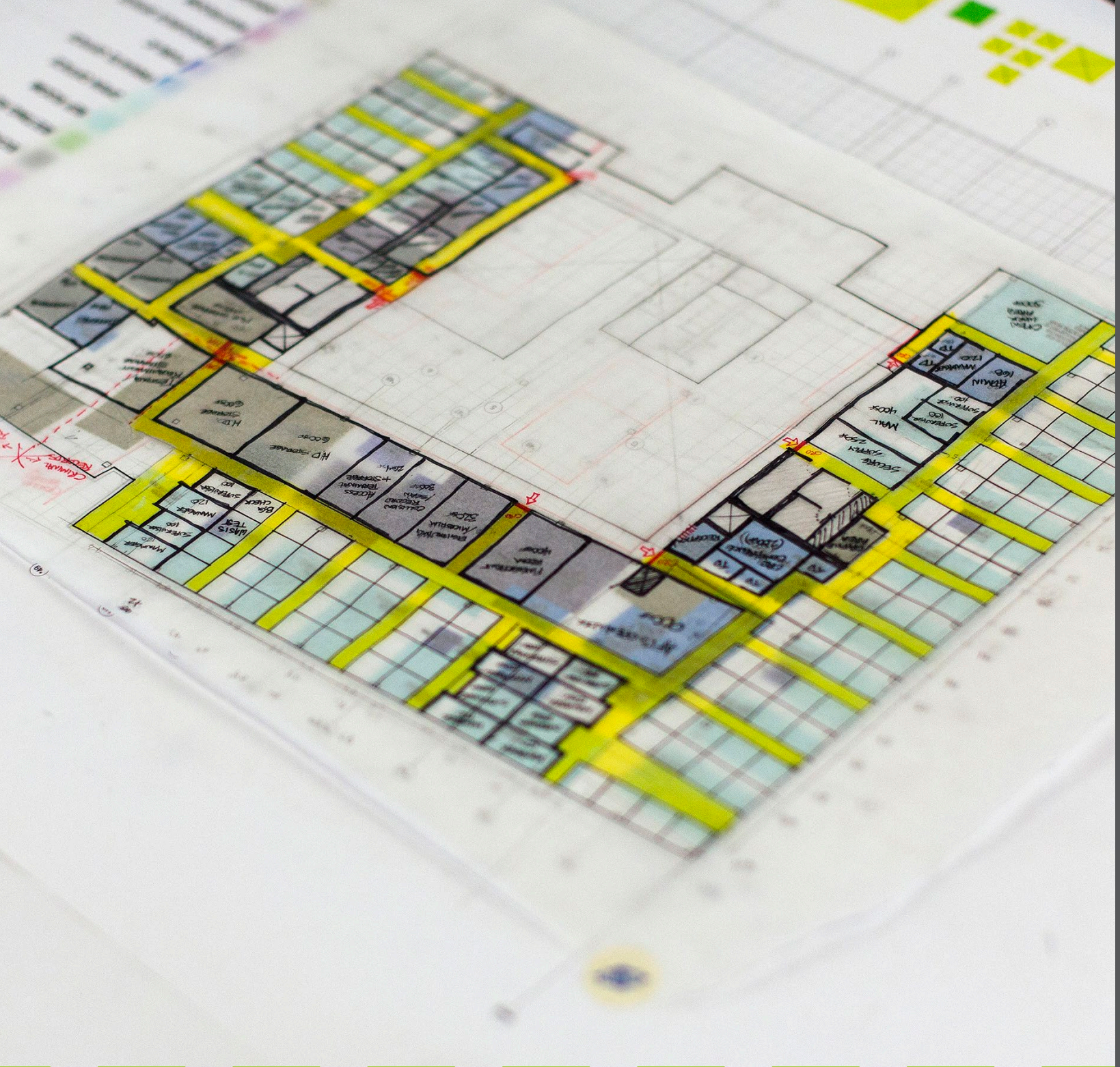


Sellen

ZGF
ZIMMER GUNSUL FRASCA ARCHITECTS LLP

6. DESIGN SUBMITTAL

6. Design Submittal

A new building on the State of Washington Capitol Campus carries a responsibility to honor generations of Washington legislative leadership and citizen ingenuity in its function and form. Engaging with the Capitol Campus and in dialogue with the city of Olympia, our design solution for the 1063 Block Replacement Project delivers a high-performance approach to building design inspired by a legacy of invention reflected in the state's history and a dynamism of spirit inseparably rooted in the diverse natural ecology of the Pacific Northwest.

Urban Entrance—View from Corner Capitol Way and Union Avenue

Design Concept for the 1063 Block Replacement Project

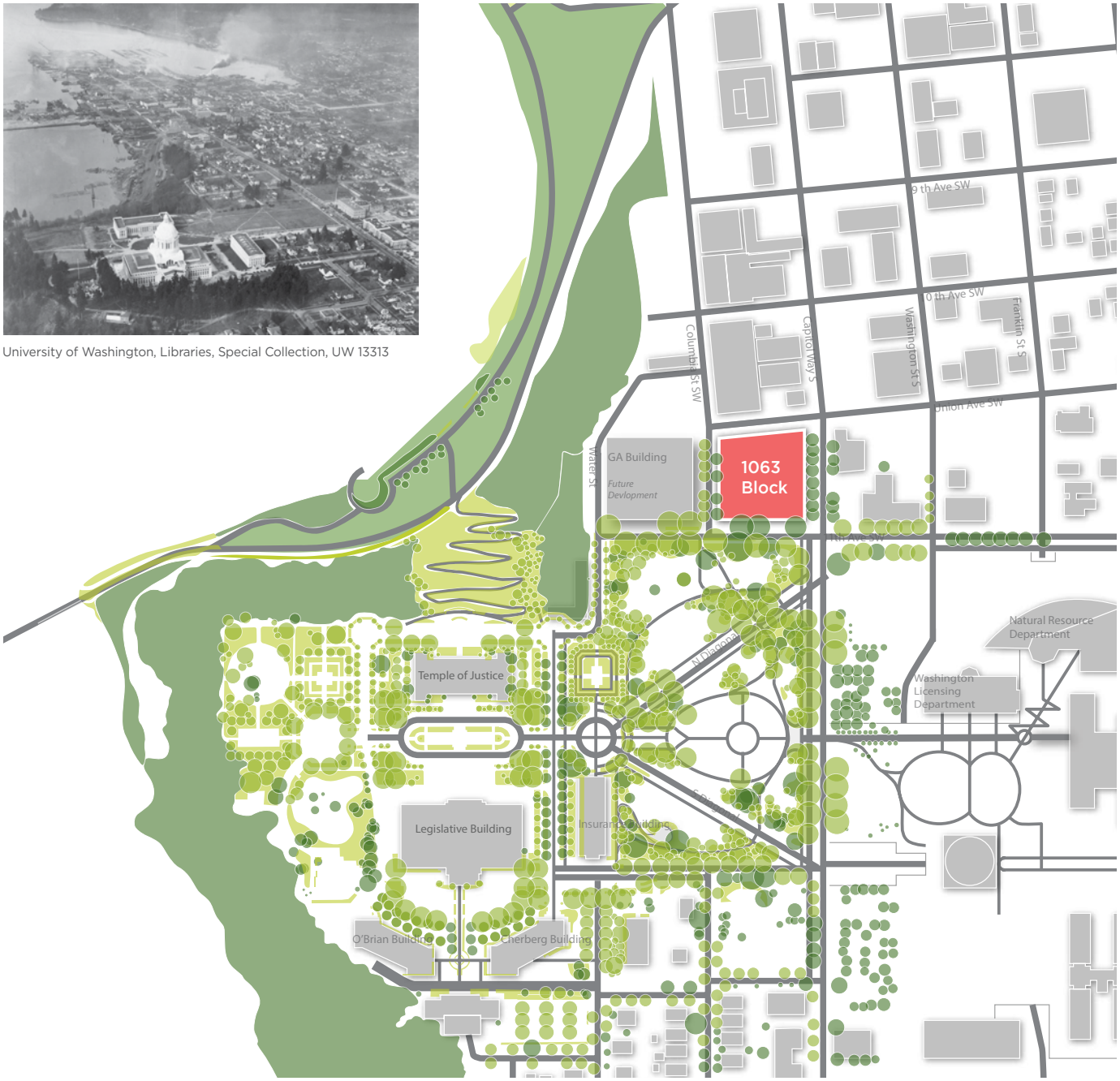
Our design for the 1063 Block Replacement offers the State and its citizens a high-performing, sustainable workplace of the future—through simplicity and judicious use of public funds. The five-story, 215,800 SF building creates an open and inviting, high-performance workplace and community destination. It fulfills all of the programming requirements while providing the integral gateway between the Capitol Campus and the city of Olympia identified in the 2009 West Capitol Campus Historic Landscape Preservation Master Plan. Our concept is fully integrated, providing the best response to both the campus and city context and landscape; enabling long-term programmatic and functional flexibility for the State; and creating a dynamic, highly sustainable workplace environment for tenants. The 1063 Block Replacement is designed around a central, interactive atrium, thoughtfully designed with key light-filled activity centers and meeting spaces that connect tenants and the community and inspire an active workplace. Sixty-eight foot wings flank the atrium and provide an efficient, secure and infinitely flexible workspace. The civic front Porch—an extension of the Olmsted Lawn—invites the landscape from the historic campus to seamlessly flow up and through the building and into the city of Olympia. The Porch initiates the building's active façade with openness, transparency and terraced views—fitting of a next generation government building that acknowledges the past while anticipating the future, themes that are consistent throughout the building.

South Elevation facing Capitol Campus

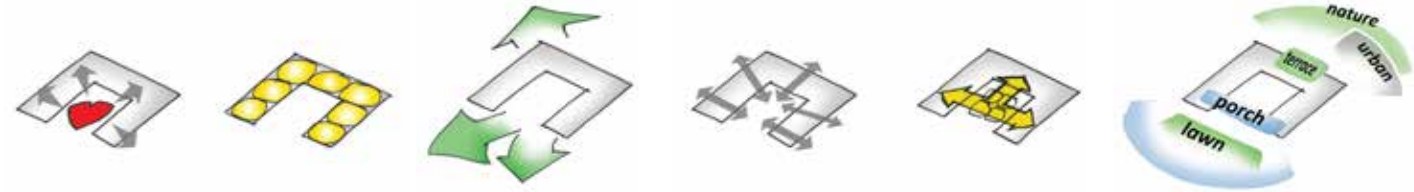
Inspired by Washington History

We look no further than Jean Cory Beall's 1959 glass and stone mosaic mural—a cornucopia of Washington ingenuity and beauty—as the design inspiration for our 1063 Block Replacement. Beall's piece tells the straightforward story of the state's economic history built on simplicity, a high performing, strong work ethic, and connections to the natural environment. Our design concept is similarly simple, hard working and high performing, fitting seamlessly into the context of the Capitol Campus, Olmsted Lawn and the city of Olympia while offering straightforward durability and value within an elegant solution that serves tenants, the environment and the community alike. As expressed in Beall's mural, timber, agriculture, aviation, hydroelectricity, and atomic energy, to name a few, are all fundamental to Washington's rich history and diverse economy. Fostered by a state government that has long nurtured business and innovation, these industries and the addition of high tech, clean tech, coffee, retail, and tourism have joined as 20th and 21st century leaders who continue to propel the state's identity—still founded on high performance, simplicity and hard work.

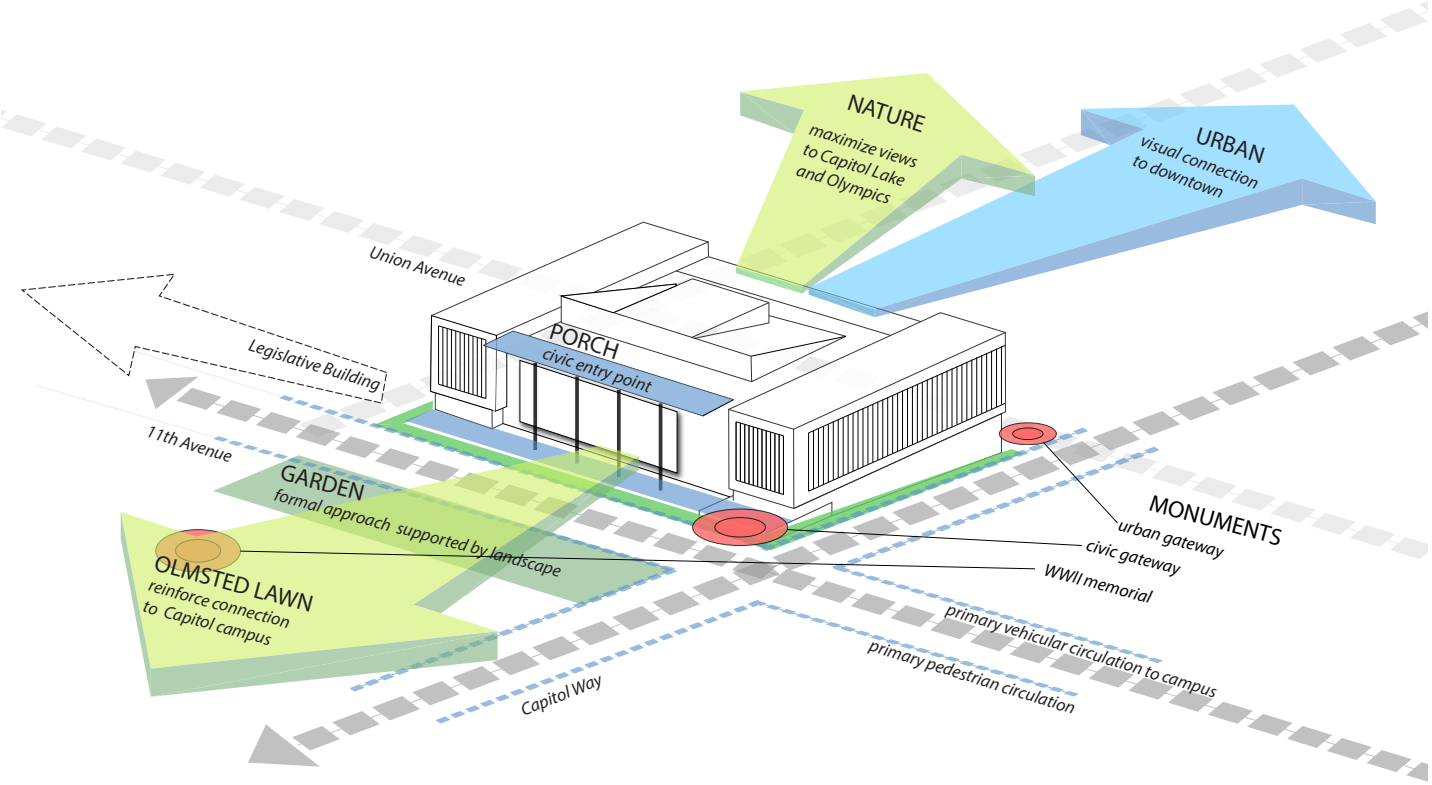
University of Washington, Libraries, Special Collection, UW 13313



Landscape Master Plan based on Olmsted 1929 Planting Plan



HEART CONNECTIVITY NEIGHBORHOOD LANDSCAPE TRANSPARENCY INTERFACE



Campus and Community Context

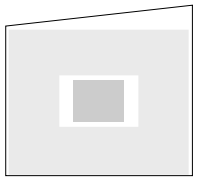
The nature of the 1063 Block Replacement siting at Capitol Way and 11th Avenue makes it one of the most important intersections on the Capitol Campus and sets the standard for future campus growth. The experience along Capitol Way, ascending southward toward the capitol, passing from city to State, gives the site a unique role as a gateway sequence to the historic campus. The site inherently asks for an inclusive gathering place that speaks to all the surrounding forces and stakeholders. The atrium and front Porch of the 1063 Block Replacement provides the necessary link or stitch between the historic campus and downtown. From the south end of the atrium tenants and visitors approach the ceremonial and civic side of the building, entering at the 11th Avenue entry. Those who arrive at the building from the north enter the "urban front door" at Union Avenue.

The building honors the historic influences of the Wilder and White Capitol Campus Group, the Olmsted Brothers' landscape design principles, as well as the more recent direction from the 2006 Capitol Campus Master Plan and the 2009 Historic Landscape Preservation Master Plan.

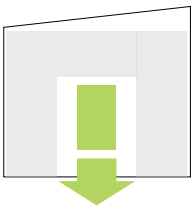
The architecture and massing of the 1063 Block Replacement honors the monumentality, spatial considerations and materiality of the Wilder and White Capitol Group with a formal Porch entrance and interior central gathering space (an atrium or "inverted dome") anchored by workplace wings to the east and west. The building follows the Capitol Group's axial views to the mountains and the Sound. The exterior façade of the building pays homage to the Capitol Building with accents of Wilkeson stone, a compatible warm grey stone cladding, and a similar vertical rhythm seen in such features as the sunscreen fins placed on the east and west faces of the building.

The Olmsted Lawn enhances the historic Capitol Group at both the civic and human scales. Our 1063 Block Replacement design further frames the strong diagonal paths that reinforce campus axes, frame views and define the campus thresholds and edges at a larger scale providing a template for future campus growth. The Porch entry of our design opens to the landscape and literally draws the Olmsted Lawn into the building, which is a cohesive addition to the pedestrian experiences seen across campus, including the Tivoli Fountain, the Sunken Garden, The Vietnam Veteran Memorial, and the World War II Memorial.

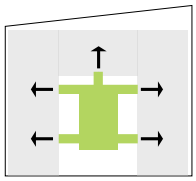
View from 11th Avenue and Capitol Way



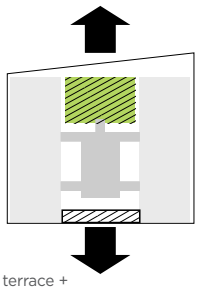
typical shell and
core response



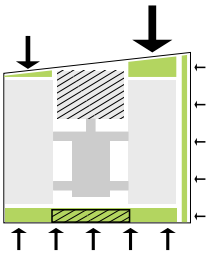
open to
Olmsted lawn



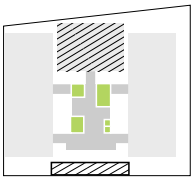
connect commons
to office core



terrace +
protected porch



setbacks respond to site approach
and public circulation

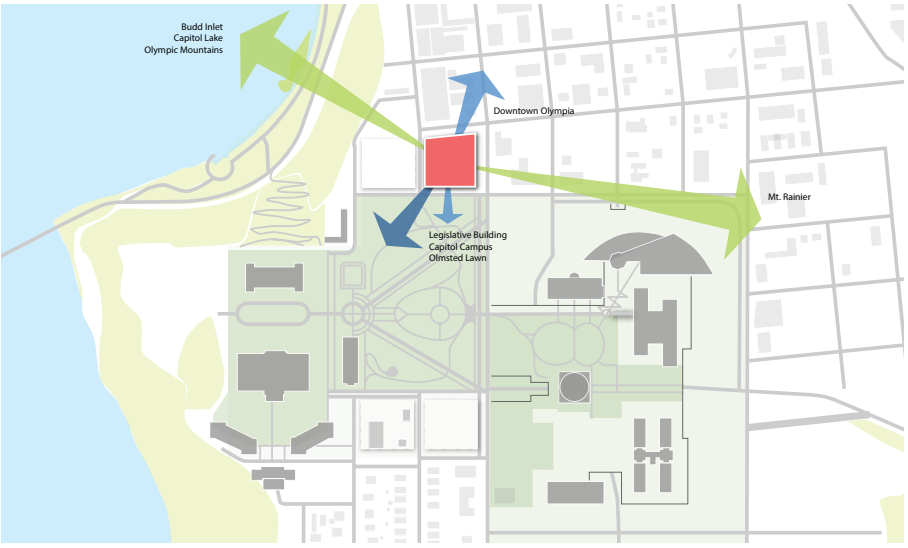


activated
commons space

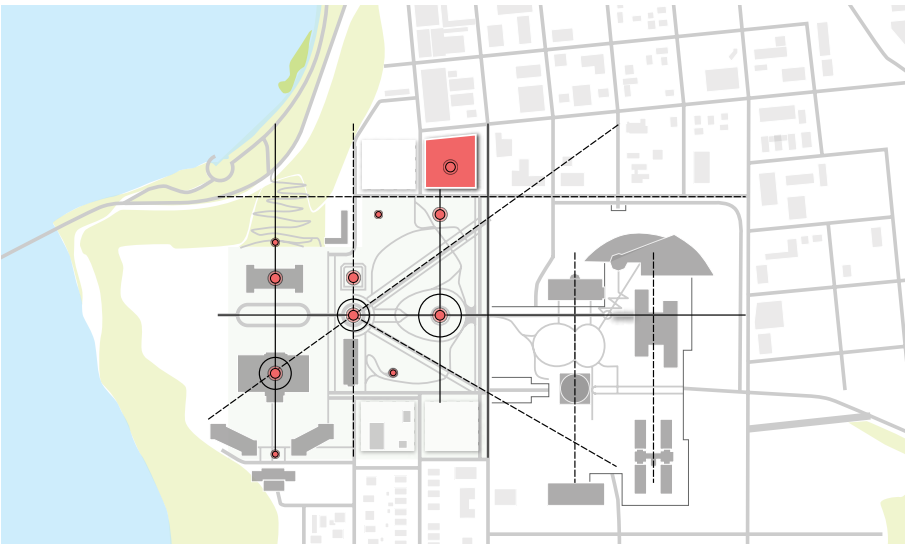
Landscape and Site

The landscape surrounding the exterior façade and within the building is core to our design and stitches together the civic and urban forces of the site while integrating key Olmsted design principles, including:

- **Respect and Regard for Scenery** Terraced views throughout the atrium culminate at the fourth floor terrace garden offering sweeping views of the Olympic Mountains, Budd Inlet and Puget Sound.
- **Creating a Unified Composition** The 1063 Block Replacement design fluidly connects to the Olmsted Lawn with the civic front Porch and coherent and layered landscape features placed around and within the building.
- **Experiences at Both the Civic and Human Scales** As a whole, the 1063 Block Replacement design further develops the civic scale of the campus and acknowledges the Capitol Grounds' history and the need for future growth with a modern take on classical proportions and principles such as symmetry, and centrality. At the human scale and similar to the Tivoli Fountain and Sunken Garden, the 1063 Block Replacement provides a front porch and atrium amenities, fostering both collaboration and reflection spaces.



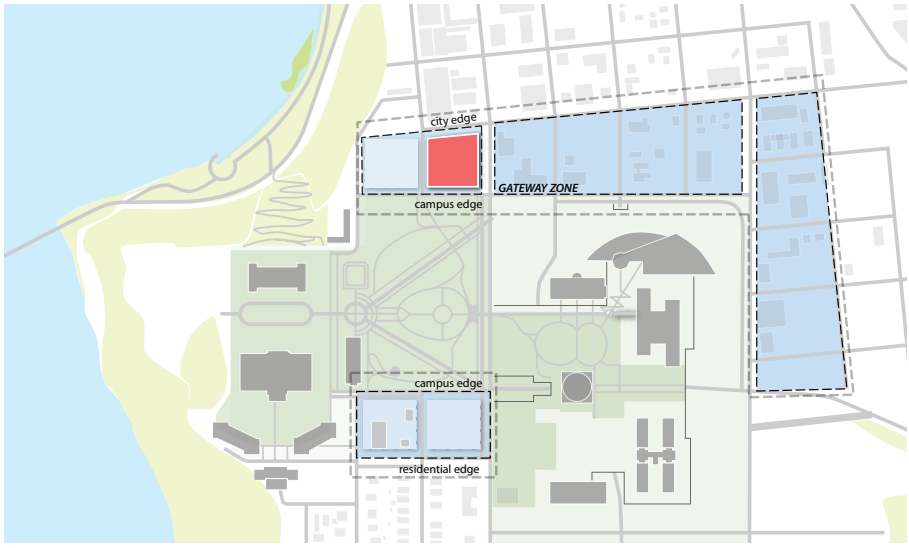
VIEWS



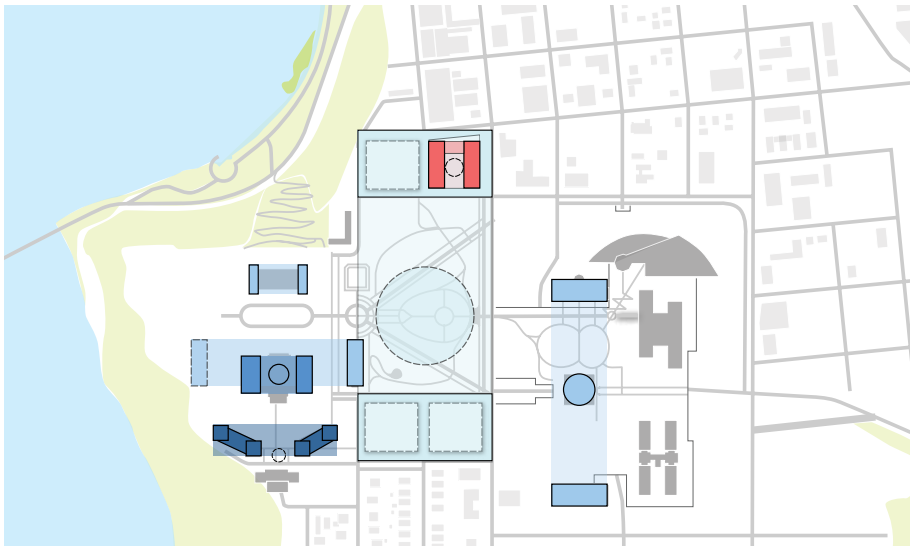
ORGANIZATION

- **Enhanced Pedestrian Experience**
  Layered landscape consisting of low walls, native and adapted plantings and tree canopies are tailored at each side of the building to respond to both the campus and urban elements of the site.

- **Landscape as a Framing Element**
  Just as the Olmsted Lawn seeks to frame the Capitol Group buildings and connect them to the rest of campus and the city of Olympia, the 1063 Block Replacement further frames this integral intersection with natural wayfinding elements that signal a transition from city to campus and green space to building.



MASTER PLAN OPPORTUNITIES



TRANSITION ZONE

Capitol Way and the Historic West Campus Approach

The experience along Capitol Way of ascending southward toward the capitol, of passing from city to State, gives the 1063 Block Replacement the unique role as a gateway sequence to the historic campus. At the southern end, the building at this corner of Capitol Way and Union is purposefully set back from the property line to allow room for a garden space that invites the city to the edge of the campus, provides a place to sit and enjoy, thereby acting as a small urban gateway plaza.

Anchored by a new heritage tree or grouping of trees at Union and Capitol Way, this garden creates a new contact point between the city and the Capitol Campus. In lieu of, or in conjunction with, a new heritage tree or trees this garden zone also offers the opportunity for a gateway art element that marks this northeast corner as the entry to the Capitol Campus. The landscape within this garden acts as a stormwater charged rain garden that helps clean surface run off, roof water and potentially a portion of the run off from Capitol Way. Along Capitol Way, pedestrians feel the urban rhythm of the building's façade and the canopy of trees, while the five-foot building set back helps create an inviting landscaped urban edge. The understory landscapes consist of native and adaptive plant species, specifically chosen to provide a garden like feeling to the street edge. Plant selection and enhanced soil zone strategies that maximize the amount of soil the plants have to achieve healthy mature growth ensures an enduring streetscape that maintains the integrity of the pavement, vehicular and sightline clearances, and ease of maintenance over the long term.

Common Ground at 11th Avenue Approach

The sequence along Capitol Way leads to a threshold that opens to the grand Porch at the building's south edge, framing views in a gateway between the façade, the building canopy four floors above, and the ground plane, beckoning visitors through to the campus while standing on its own as a space to socialize and linger. Just as the architecture of the Porch extends toward the street zone to perch at the campus edge, the shrub layer intended for the Greensward in the Olmsted Brothers plans draws across the street to the site, creating a garden at the Porch and emphasizing the common ground between the campus and city. A generous paved area at the corner of Capitol Way and 11th Avenue, facing the historic campus, welcomes visitors into the site, to pass through thresholds defined by low walls, native and adapted plantings, an allée of small canopy trees at the edge of the Porch, reflecting in a contemporary street-edge reinterpretation of the thresholds and layering that the Olmsteds' had originally intended for the entry sequence at the historic campus edge at the Greensward directly across the street.

Art

The gateway corner of the site at Capitol Way and 11th Avenue also offers a highly visible location for art placement at the focal point between the ground plane and building overhang as it extends out to frame views of the Historic Campus to the south and west, and views of the city from the north and east. The architectural nature of the Porch's interior offers additional opportunities to serve as a setting for art installation that users pass through or by as they enter the building as well.

Columbia Street SW

Columbia Street north of West Campus, with State buildings flanking either side, becomes a campus street as set forth in the 2006 Master Plan and as implied by the Olmsted Plans. A pedestrian-oriented environment, it maintains the language of the Street Edge typology with canopy trees and a planted understory. The streetscape design and edge treatment allows for potential future conversion to a shared-use or pedestrian street.

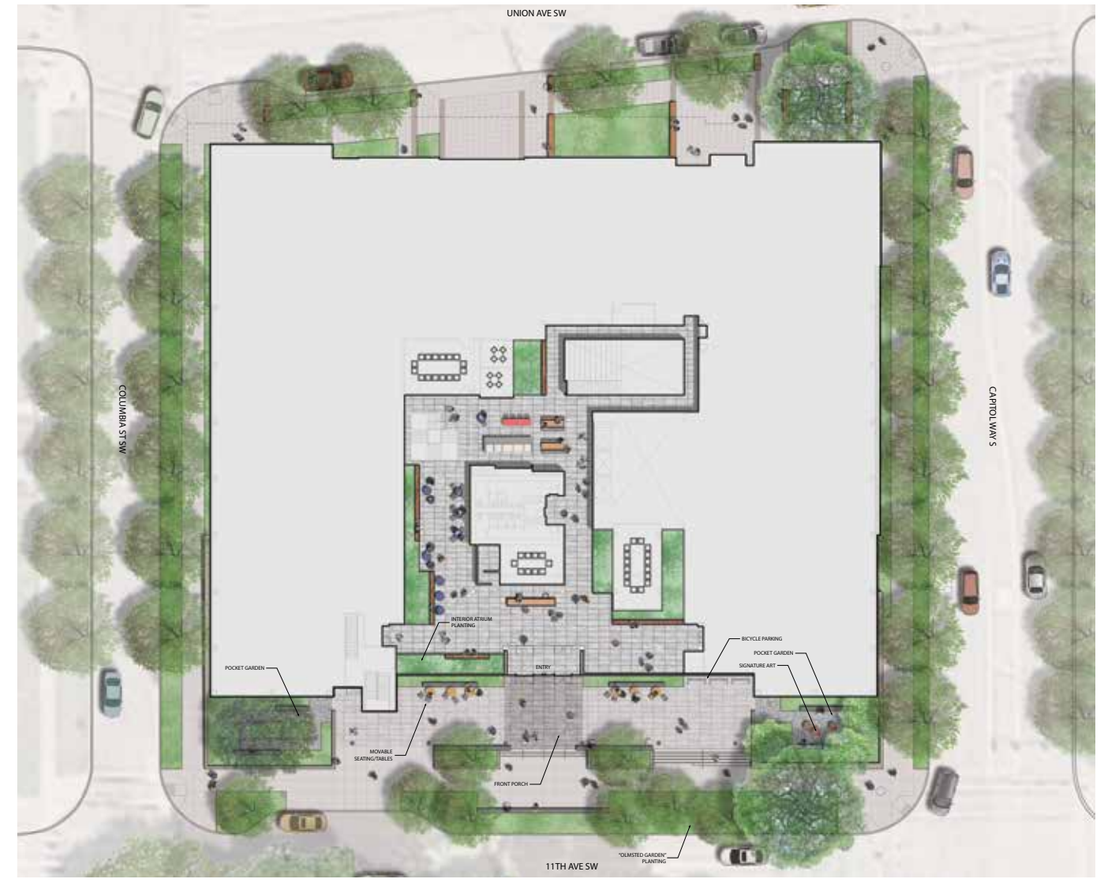
Union Street Frontage

Union Street marks the true outside edge of the Capitol Campus, providing a face to the city of Olympia and the building's working edge. Pedestrian scale campus lighting reinforces the transition from city to campus. Union Street provides on street public parking that serves the neighborhood, as well as softening the scale of the façade and the activity of the loading dock. In conjunction with Capitol Way and the corner plaza, at the street intersection of Union and Capitol Way, this street edge demonstrates the State's commitment to sustainable landscape and site design practices.

- **Flexible-use Public Open Space** The building entry comprises a generous and welcoming public plaza—The Porch—with a variety of fixed and movable seating opportunities in a garden setting. Overhead protection and edges that are buffered from adjacent traffic create a place of respite for both State employees and the general Olympia community, who can enjoy lunch outdoors or take time to enjoy the vista of the West Campus.

Urban Entrance—View from Corner Capitol Way and Union Avenue

Union Avenue Plan



Terrace Plan

- **Material Selection—Paving and Surfacing** All materials for this project are sourced from suppliers based in Washington state. Pavers in the plaza and building entry provide an enduring and low-maintenance surface that relates to the materiality of other legacy buildings on the campus. Cast-concrete sidewalks in the right-of-way connect the building to the surrounding urban environment. Low concrete retaining walls and planters are capped with precast concrete caps, while seatwalls feature lumber reclaimed from locally salvaged trees.

- **Green Stormwater Infrastructure** Opportunities for stormwater management are proposed both within the property line and in the right-of-way. Planting strips and planters along the north edge of the building has capacity to store runoff, which can then be released at a metered rate into the municipal system.

- **Plant Material Selection** Plant selection is grounded in analysis of the original Olmsted planting plan and informed by the recent Master Plan update. The original plant schedule included a variety

CONFIDENTIAL RECORD

11th Avenue Plan

of flowering trees and shrubs that offer seasonal color and fragrance; however, many of these plants are not well suited to the local climate. Our selections provide similar effects with proven success in the Pacific Northwest.

Exterior Lighting

Lighting on each face of the block in the Street Edge zone incorporates pedestrian poles consistent with the recommendations set forth in the 2009 West Capitol Campus Historic Landscape Preservation Master Plan based on concepts set forth in the Olmsted Plan.

The exterior lighting design creates a visually comfortable, dark sky friendly, energy efficient design, reinforcing architectural and landscape features as appropriate. The primary building entrances are illuminated for safety and to feel inviting. All exterior lighting sources are LED. Luminaires and controls meet or exceed the 2012 Washington State Energy Code and LEED Gold certification requirements. Luminaires have been selected to minimize glare and light trespass. Exit doors have canopy or building mounted downlights with full cut-off optics. Multi-level controls with combined photocell and timer controls allow for reduced light levels and energy loads after office hours. Per tenant requirements, lighting remains at safe

and recommended levels for agencies requiring 24-hour access. The site lighting design emphasizes safety and security and provides uniform light levels with high color-rendering sources. Outdoor paths and shared public spaces are illuminated to minimize dark areas.

Irrigation

Irrigation systems emphasize resource efficiency by minimizing maintenance and efficiently distributing water based on careful plant selection and soil analysis. The system is fully automatic with stub-outs for future connection to the Capitol Campus Irrigation system. It employs current water saving technologies including Evapotranspiration monitoring, rain sensor overrides and connections to existing Capitol campus irrigation monitoring systems as applicable.

Planting

Plant Materials are selected for ease of maintenance, disease resistance, historic and modern aesthetic qualities, seasonal interest and drought tolerance. All trees are specimen quality. Shrub and groundcovers are grade A nursery stock and are approved by the Landscape Architect and Contractor prior to installation on site.

Service Access

The building's loading zone is located on Union Avenue at the north end of the building, The loading dock is adjacent to the service elevators and atrium creating efficient flow and minimizing travel distances from the loading entry. Two Washington State Patrol departments—Special Operations and IT—are located near the service entry for convenient access to the patrol cars located on Union Avenue.

Garden Edge

Prospect and refuge at 11th Ave SW

Ornamental tree grove

Olmsted shrub layer spills across from Historic West Campus

Porch

Porch as "common ground"

Rich paving pattern and texture

Stoop and garden at porch frontage

Garden Street

Sidewalk through landscape zone

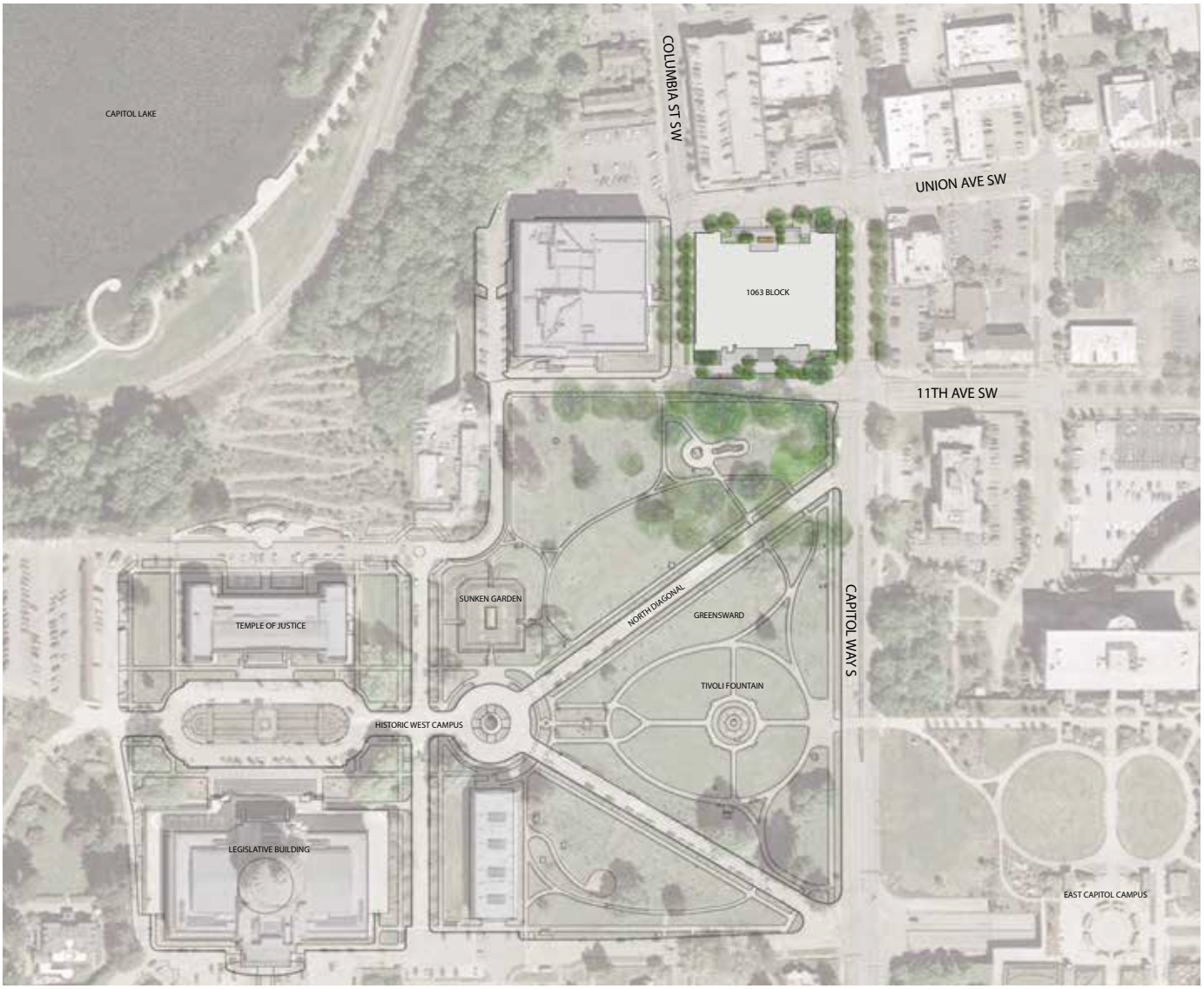
Foundation plantings softens facade

"Green" wall

Urban Edge

Gateway plaza at Union with Heritage Tree or signature art

Green Stormwater Infrastructure in the city right-of-way


CAPITOL LAKE
COLUMBIA ST SW
UNION AVE SW
1063 BLOCK
11TH AVE SW
SUNKEN GARDEN
NORTH DIAGONAL
GREENSWARD
CAPITOL WAY S
TEMPLE OF JUSTICE
TIVOLI FOUNTAIN
HISTORIC WEST CAMPUS
LEGISLATIVE BUILDING
EAST CAPITOL CAMPUS

Program Goals and Objectives

Consistent with the goals outlined in the RFP, the programming document, and the proprietary meetings, our team has developed a concept that creates a gateway design bridging between campus and city, provides a high-performance workplace and community destination that will serve as a leading example of future State office buildings, and connects to the surrounding urban environment. The aesthetic sensibility communicates a respect for function, an economy of means, and the surrounding historic and urban context. The core principles and objectives guiding our design concept include:

Efficient Operations

Responding to the program requirements and the State's Lean Culture, we have designed respectful, intelligent spaces and adjacencies throughout the building. The building floor plate width is sized for modular workstation dimensions while still allowing for infinite flexibility. Circulation elements are intuitively located, which enhances the active design of the building and results in clear wayfinding. By grouping together break areas, meeting spaces, restrooms and main building circulation into the "heart" of the building—the central light-filled atrium—all staff are within sight and a short distance away from amenities, stairs and elevators. Enclosed offices are adjacent to open workplaces and daily huddle meeting spaces which further supports the State's collaborative culture and minimizes staff's effort to find the people they need.

Staff Support and Satisfaction

We plan to measure and achieve 100% occupant satisfaction by implementing systems and design that enhance staff health and well-being. Key design features include a high-performance office program, community interaction spaces, abundant connections to nature, views to campus and Puget Sound, a dedicated outside air system to continuously bring fresh air to the workplace, and abudant daylight throughout the building.

Quality and Best Value

Long-term value has informed each design decision. We have implemented integrated, durable systems that are simple and straightforward so life-cycle costs and maintenance remain low. There is no replacement for natural light, so we have brought it deep into each part of the building—both the central atrium and the workplace wings. The workplace environment is fit out with infinitely flexible infrastructure, optimal workstation spacing and appropriate acoustics, and long-lasting finishes designed for high-performance and secure office functionality.

Flexibility

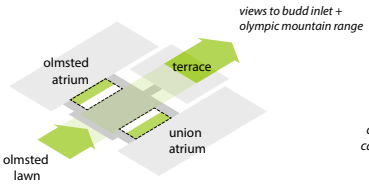
While the design carefully considers tenants such as the Washington State Patrol and the Office of Financial Management, the design offers inherent flexibility within the workplace wings. Bringing the shared meeting spaces and conference rooms to the central atrium has enabled the workplace wings to become a highly adaptable core and shell building that can easily be fitted to any combination of current and future tenants, organizational patterns, and new ways of working.

Twenty-Four Hour Operations

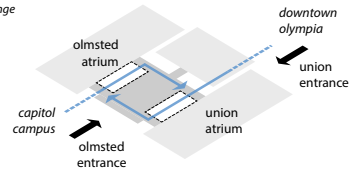
The 1063 Block Replacement serves tenants around the clock and responds to the need for security for both staff and sensitive information. With intelligent space planning, the design places all departments with 24/7 needs at the podium level on the first and second floors, simultaneously optimizing energy performance of the building via dedicated HVAC systems. Tenants in these departments maintain access to amenities.

Safety and Security

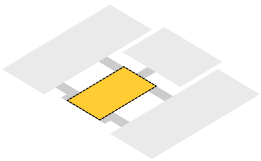
A combination of efficient space planning, including lobby control access, and integrated security systems technology ensures that the people, materials and information remain secure within the building. A comprehensive electronic security system allows the State and tenants to respond quickly to security threats and concerns.



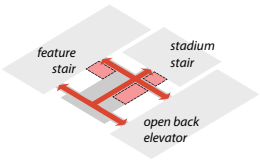
CONNECT
bringing the park inside



GATEWAY
enforcing connection between city and state

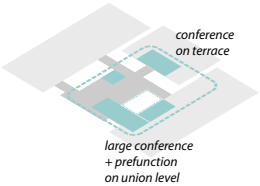


AGORA
centralized market place enhances departmental interconnectivity

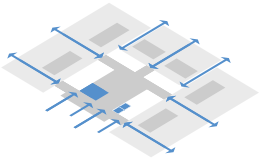


ACTIVATE
vertical circulation + bridges + stadium seating

INNOVATE
introducing break-out spaces and pocket parks



INTERACT
centralized conferencing center



TRANSPARENCY
porous office maximizes daylighting efficency

COMMUNITY
office layout to enhance neighborhood-centric workplace

Energy and Environment
The energy performance of the building is core to our design solution. Resource efficiency in the form of energy use 30.1 kBTU/sf/yr and an Energy Star score of 99), 35% water use reduction, careful use of materials, and continuous monitoring of operations is integral in maximizing performance. Integrated and straightforward systems drive this performance and will ensure the building achieves LEED Gold certification at a minimum.

Active Design
The 1063 Block Replacement's active design is based on bringing nature into the building and then utilizing dynamic vertical and horizontal flows that encourage more natural movement throughout the building to encourage interaction and foster community. Core activity centers, such as break areas and conference rooms, flow out into open spaces to maximize planned and unplanned interactions. Emphasis on abundant vegetation and clear sightlines and wayfinding promote increased use of stairs and general movement throughout the common spaces. The approach to the building also incorporates active design with pedestrian-scaled, landscaped spaces as well as covered bike storage for bike commuters and visitors.

Image and Identity
The 1063 Block Replacement is truly an extension of the campus and Olmsted Lawn. The design responds to the historic buildings' classical proportions and the south-facing Porch unites the building with the adjacent green space, inviting the outdoors in with natural elements located throughout the atrium and workplace wings. Both the civic entrance on 11th Avenue and the urban entry on Union Avenue respond to the site as a gateway between the campus and city and pedestrian-scaled experiences inside and around the 1063 Block Replacement are open and approachable. Shared meeting spaces and individual departments all share a civic and professional environment that promotes productivity and collaboration.

Exterior Design

The exterior expression of the 1063 Block Replacement Project complements and respects the architecture and massing of the Capitol Group buildings—a central, common space (the atrium) flanked by office wings. The building reflects similar proportions, symmetry, texture, and color to the Capitol Group. The vertical rhythm, similar to the columns of the Capitol Building, is achieved through the use of vertical sun shades on the east and west facades and with the Porch's steel columns. An aluminum high-performance curtainwall system framed with precast concrete wraps the building. Back-painted spandrel glazing blends to create cohesive façade, operable windows occur every 10 feet, and horizontal sun shades (mullion extrusions to provide shade and texture) provide a secondary level of shade. Stone cladding flanks the Porch, providing a warmth that is reflective of other campus architecture.

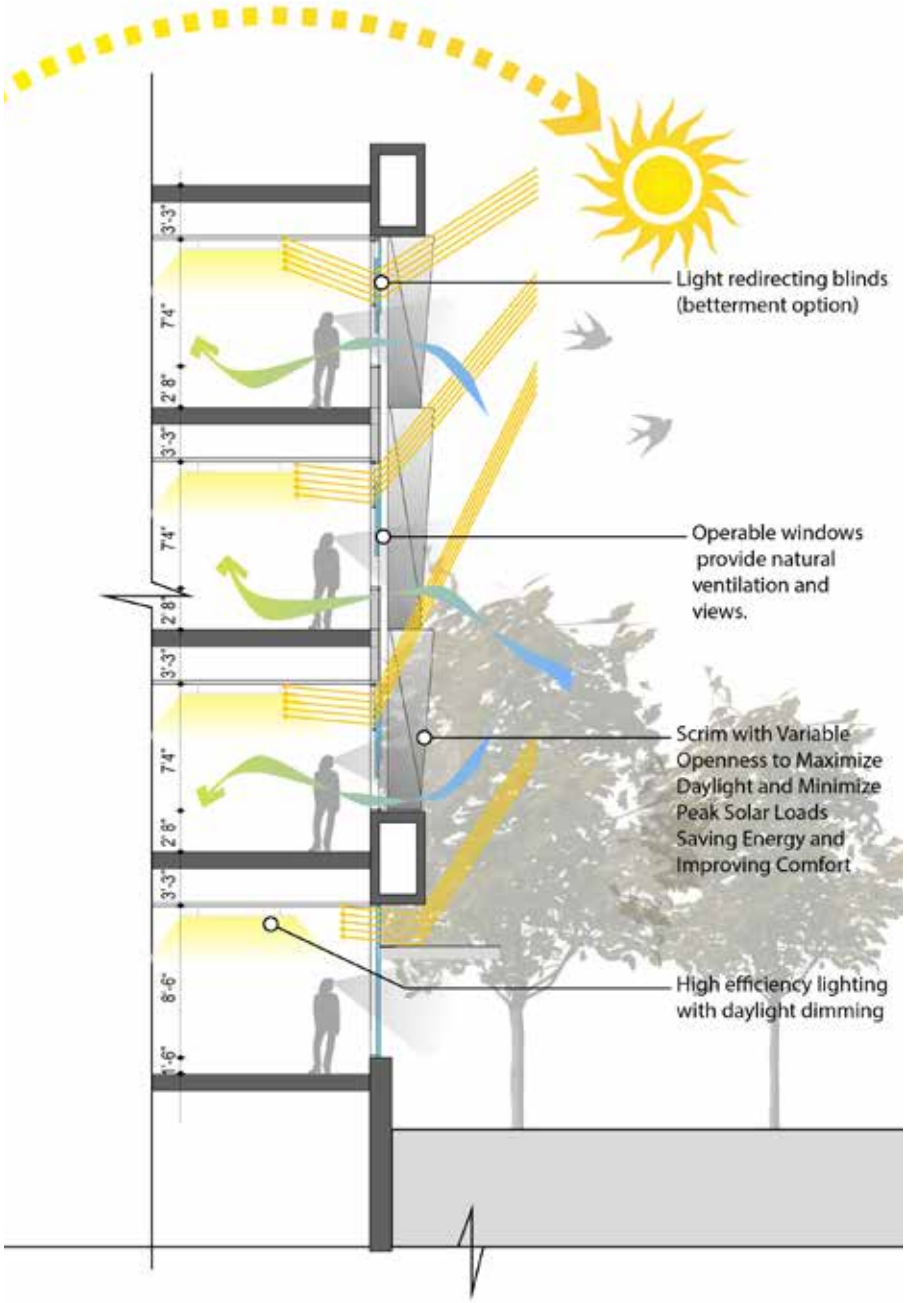
Thirty-nine perforated metal sun shades on the east and west office bars on the east and west façade represent the total number of counties in the state. The shades optimize climate conditions, provide visual interest and are supported outside of the curtainwall system within their own structure.

The Porch is constructed of steel columns that support a light metal panel canopy that allows for maximum daylight penetration into the atrium. The conference rooms and meetings spaces within the atrium penetrate the southern façade to form a singular geometric pattern that reflect Beall's mosaic mural tiles. Using ceramic frits, the exterior glass faces of these conference and meeting spaces are complete with Beall's mural scenes that remind onlookers of the cornucopia of Washington state industry, leadership, ingenuity and beauty.

The urban face on Union Avenue is symbolic of the site as a gateway between the capitol campus and the community. Currently located on the front of the General Administration Building, our 1063 Block Replacement design offers the Washington State Seal a prominent new home above the urban entryway that faces out to the city of Olympia.

The exterior building expression illustrates high-performance engineering excellence and suggests a respectful and integrated relationship with the Olmsted Lawn, Capitol Campus, and the city of Olympia. Careful accommodation of security setbacks and appropriate glazing treatment along exterior faces provides a high level of required safety and security

The materiality of the building appropriately reflects the site's gateway identity between the Capitol Campus and the city of Olympia while using Washington-made materials. Wilkeson stone accents at the Porch entryway ties in with the color palette and texture of the rest of the campus buildings. The notion of transparent government is reflected in the extensive use of glass. The perforated metal sunscreen fins complement further add visual interestingness.



Exterior East and West Wall Section

North Elevation

East Elevation

South Elevation

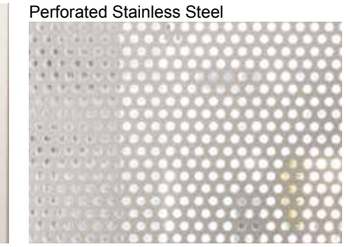
West Elevation

Exterior Design Materials

The 1063 Block Replacement design is a modern reflection of the strong civic form of the Capitol Campus in proportion, color, and texture. Exterior building materials are simple, economical and true to their function. Precast concrete, prefinished profile metal panels and vertical mesh sunshade screens are each custom finished to match the campus's historic Wilkeson stone. Abundant glass elements along the curtainwall resound in openness and transparency, reflecting the values of modern state government, and textural board-form concrete at the building's base retains the natural wood characteristics of Washington's forests.

Prefinished Profile Metal Panel

Vertical Mesh Sunshade Screens - Perforated Stainless Steel



Precast Concrete - finished to match Wilkeson stone

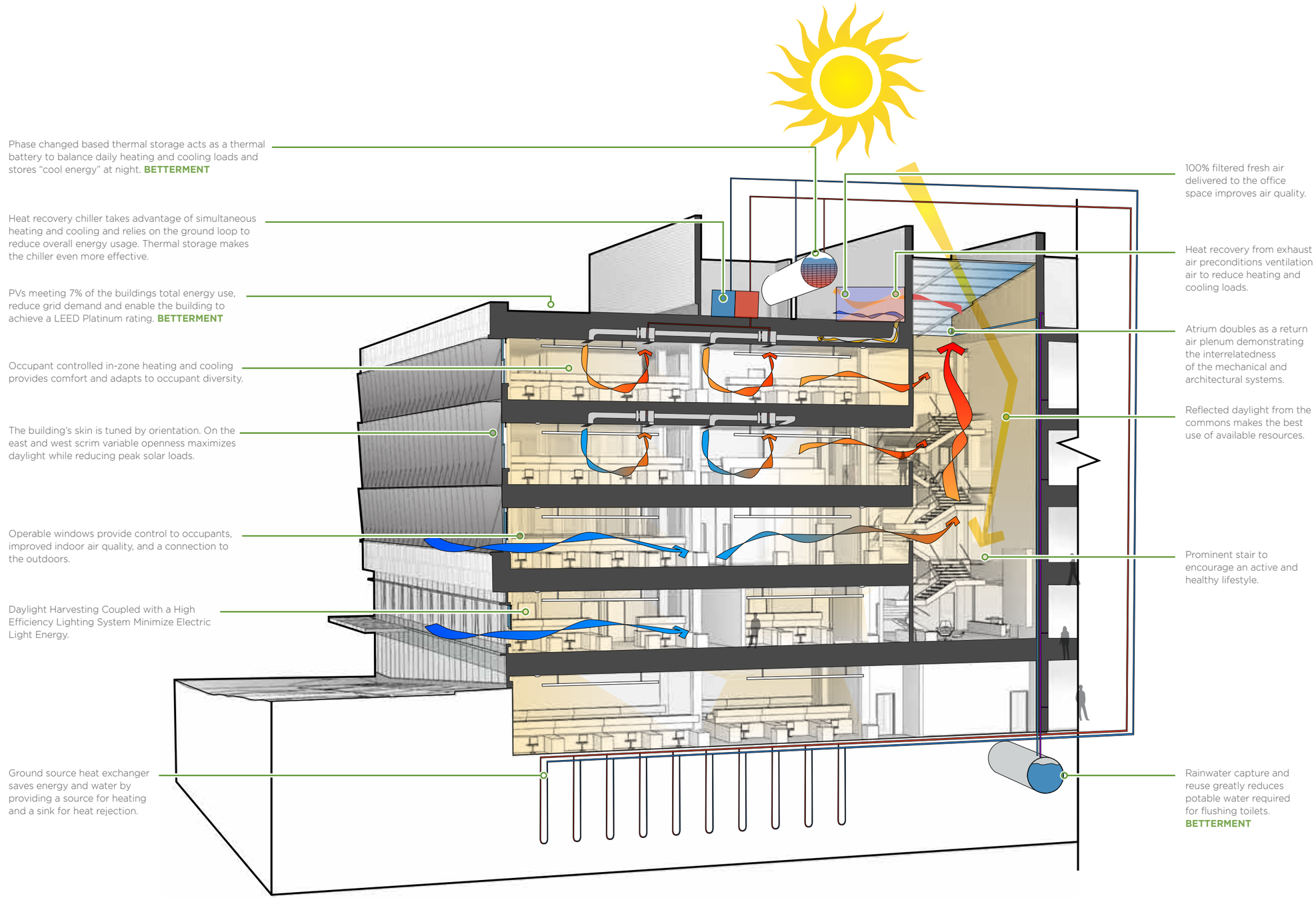
Textural Board-Form Concrete at Base

Aluminum Curtainwall System with Low-E Vision Glass and back-painted glass at spandrel zones

CONFIDENTIAL RECORD

High-Performance Green Building

The 1063 Block Replacement establishes a new design standard and approach for State buildings through a set of interrelated strategies, achieving high performance with superior occupant comfort and control, tenant health and well-being, resource efficiency, community connection, and flexibility.



Lobby and Central Atrium Featuring Beall Mural

Workplace Design and Intelligent Programming

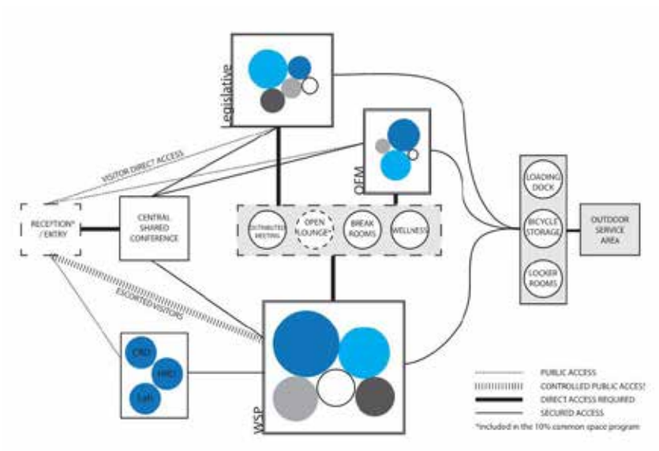
Building form and interior program distribution work together to create a high performing and efficient layout that celebrates a common civic purpose, allows for the development of department-specific identities, builds community, and encourages collaboration.

The interface between the multi-tenant corridor and the central atrium provides a simple solution that optimizes program requirements and offers highly flexible office wings. The atrium contains open and public spaces with distributed conference rooms, break areas, restrooms and other shared amenities. This central gathering area functions as foundational space around which tenant needs can vary. Placing the office space at the perimeter of the building maximizes views and offers tenants separate and secure office space with varying levels of security and public access.

As discussed during the proprietary meeting, multiple program alternatives were explored to arrive at the most efficient and effective solution. An example of optimal placement includes the Washington State Patrol Forensics Lab, Latent Prints, and Criminal Records at the podium level to address the requirement for both secure and public access. The Office of Financial Management and legislative offices are located on floors two and four for more restricted access. The Washington State Patrol is the sole tenant at the Union Street Level as well as levels One and Two.

Key components include:

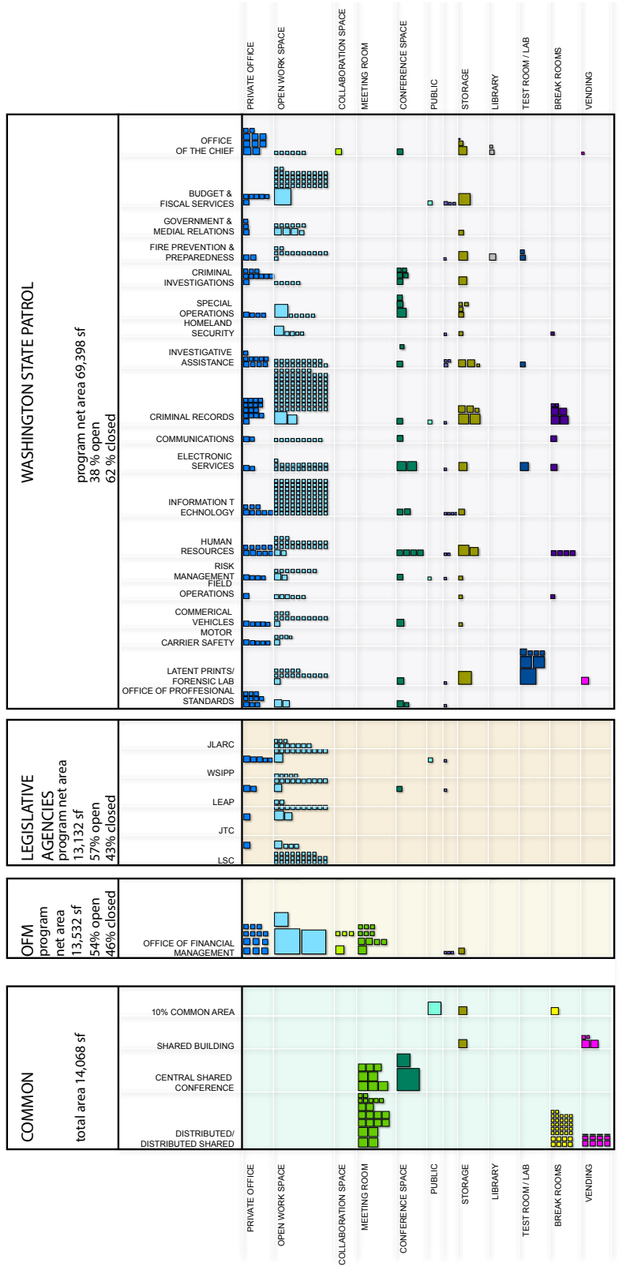
- A layout that minimizes future reconfiguration to meet short and long-term tenants
- Multi-tenant corridor offers flexible options for either single tenant or multi-tenant layouts
- Clustering of departments that have frequent interactions
- Large, open workspaces combined with private offices which allow for maximum program flexibility, planning efficiency, and daylight exposure
- Varying levels of security appropriate to each department
- Department-specific resource allocation to ensure direct and efficient support for employee workspaces
- A central atrium with shared spaces, horizontal and vertical connects and a transparent elevator core that encourage interaction, collaboration and supports the State's Lean Culture

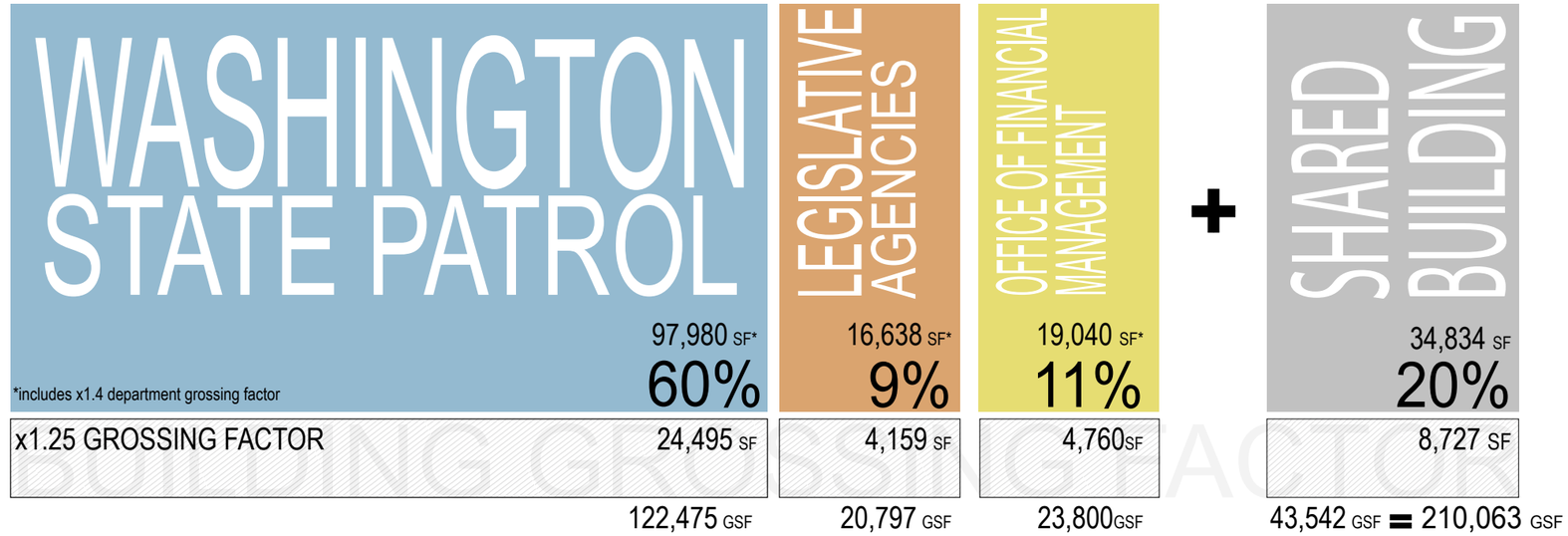


Program Adjacencies and Building Access Zones

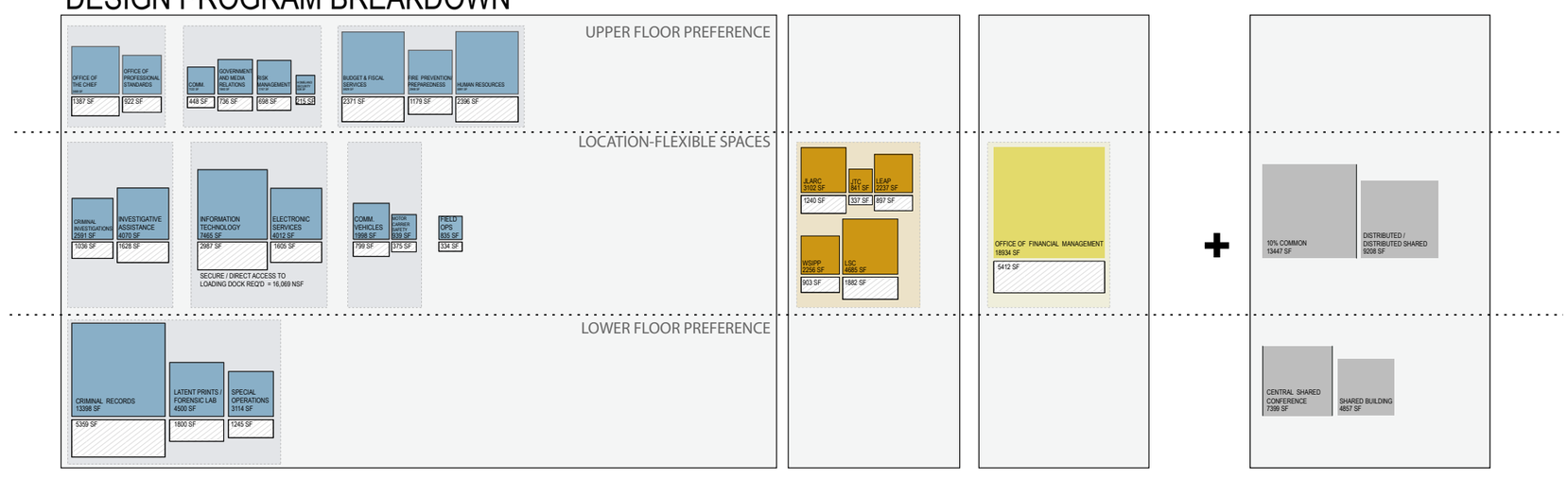
Building Section

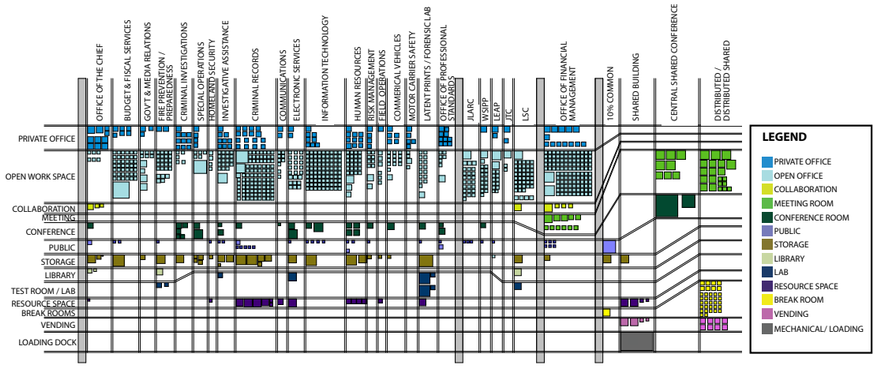
1063 Block Replacement Program



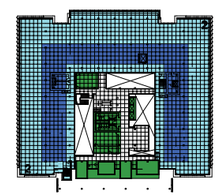


DESIGN PROGRAM BREAKDOWN

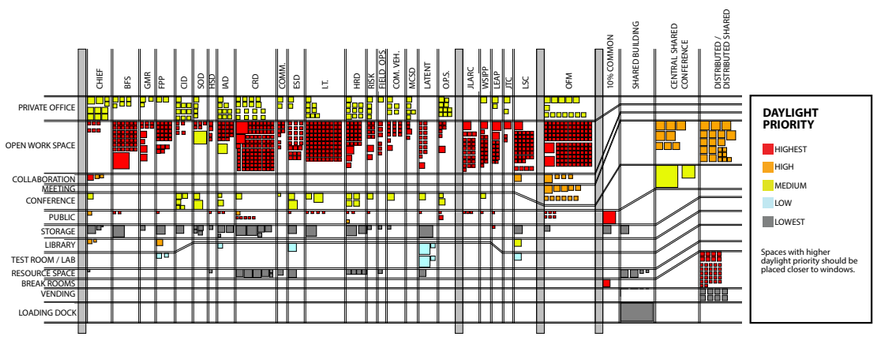


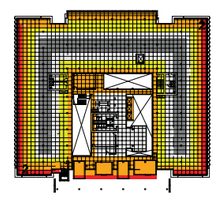


OPTIMUM PROGRAM DISTRIBUTION

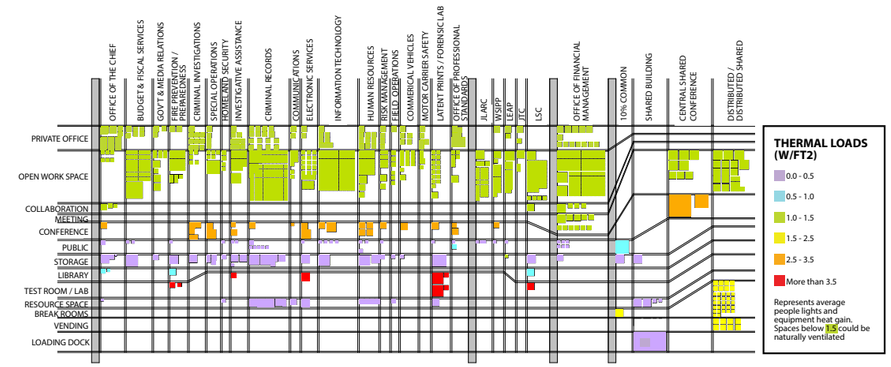


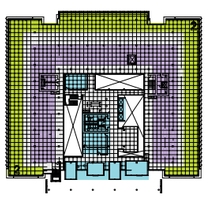
OCCUPANCY TYPE





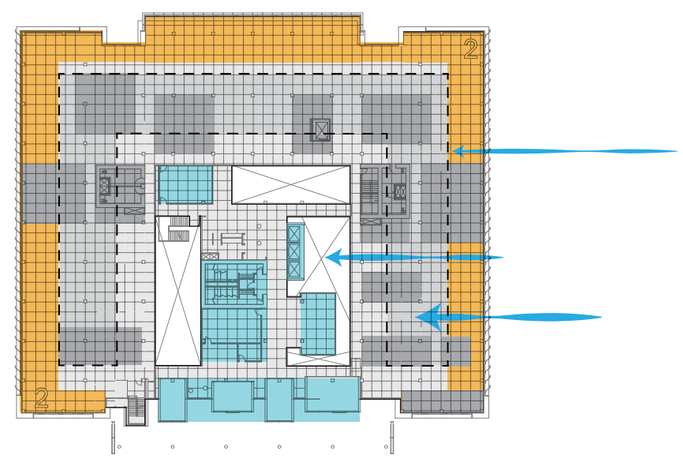
DAYLIGHT PRIORITY



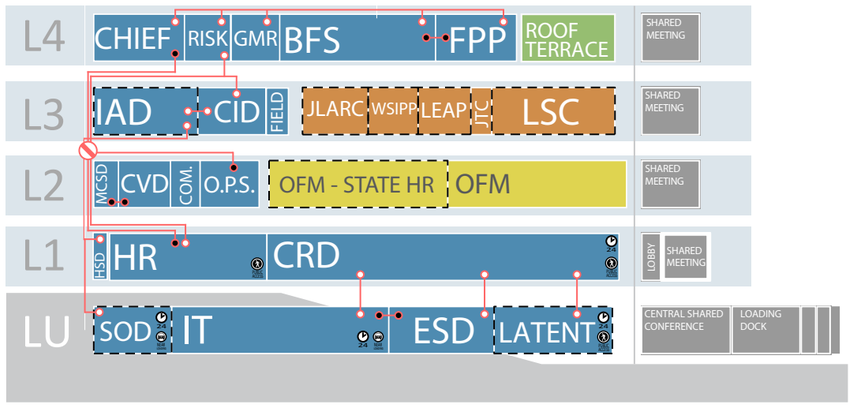


THERMAL LOADS / NATURAL VENTILATION

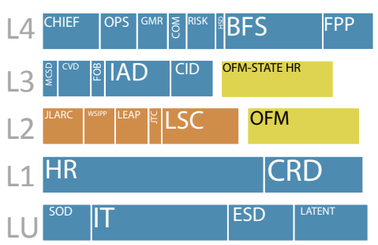
The building core and shell were optimized by sorting the program according to daylight requirements and the need for natural ventilation. These factors were tracked from the outset of schematic design allowing the team to catch potential problems faster.



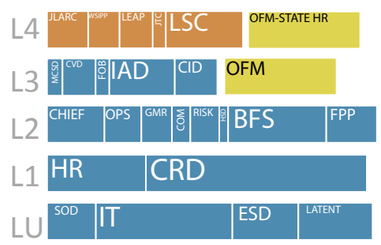
Blocks of closed/dark program are shifted away from the optimal zone at the center of the office bar in order to create neighborhoods and communities in the workplace. This creates a visual porosity that lends itself to a friendlier workplace, while allowing better ventilation and connectivity to the atrium.



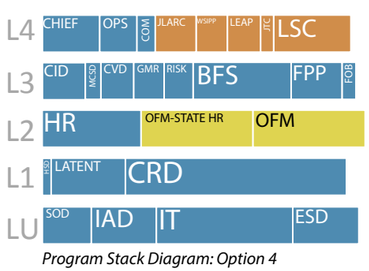
Program Stack Diagram: Prefered Option



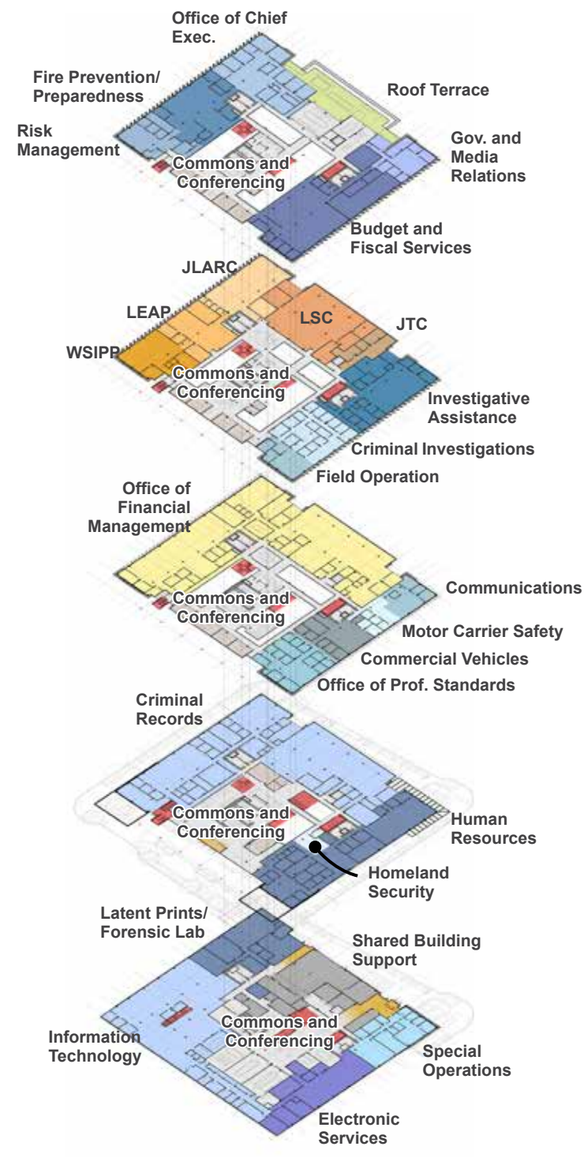
Program Stack Diagram: Option 2



Program Stack Diagram: Option 3



Program Stack Diagram: Option 4

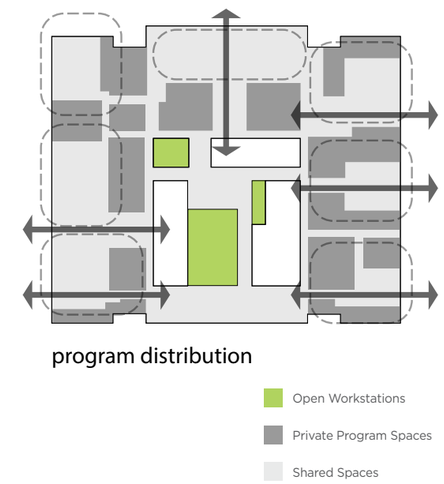


Optimizing Planning Flexibility

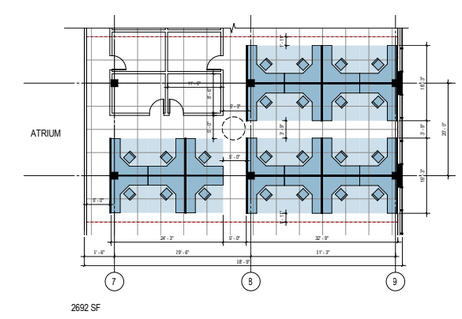
Optimizing Flexibility and Efficiency

The 1063 Block Replacement has been designed primarily for the Washington State Patrol, the Office of Financial Management, and other legislative offices, but features high flexibility as tenant needs changes or new tenants move into the building.

The building's form and dynamic C-shaped floor plate, wrapped around the central atrium, provides a balanced and best value response to the challenges of workplace, landscape, site organization, and surrounding context. The strategy also maximizes natural daylight (minimizing energy use and improving human comfort), provides overall project value (ensuring first cost, operational cost and life cycle cost balance), and maximizes flexibility and efficiency (accommodating a variety of tenant space planning and floor layout options).



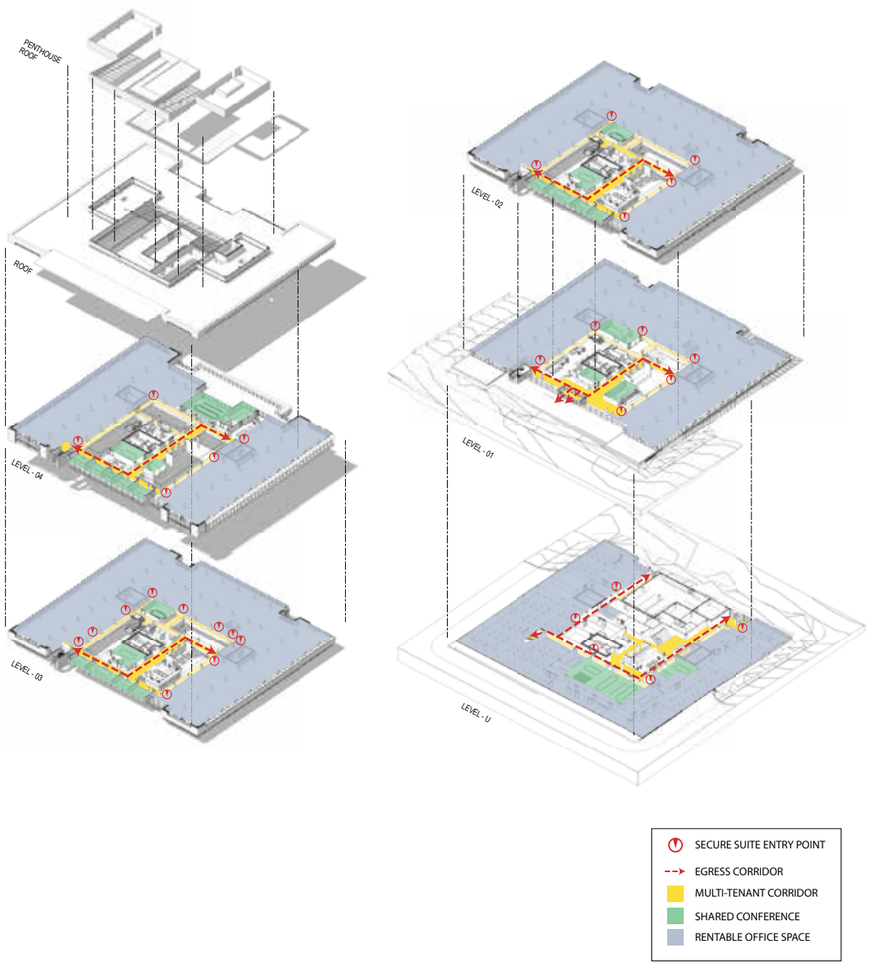
68 Foot Wing Width Planning Bay



Core and Shell

The basic building organization is designed to provide long-term flexibility. Building infrastructure is organized around a simple multi-tenant corridor in the shape of a "Z". The multi-tenant corridor contains access to all shared program elements, including conference rooms, break areas, lounge space, as well as vertical circulation to adjacent floors above and below.

Future planning flexibility is maintained to allow future multi-tenant or single-tenant configuration to ensure a highly collaborative and integrated horizontal and vertical floor plate arrangement. Access to amenities for internal occupants and exterior visitors from campus and the community.



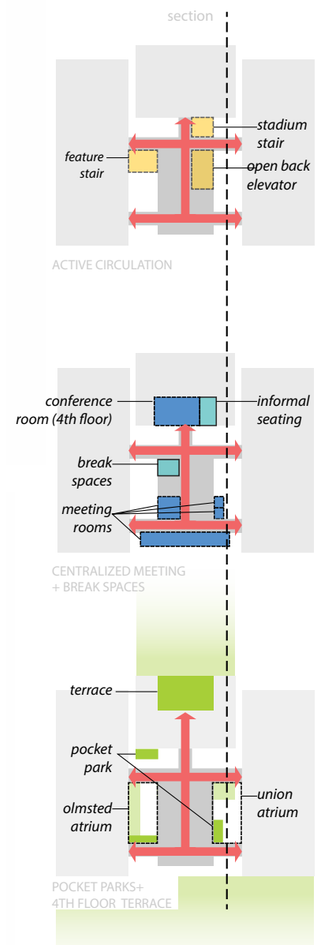
Third and Fourth Floor Atrium View

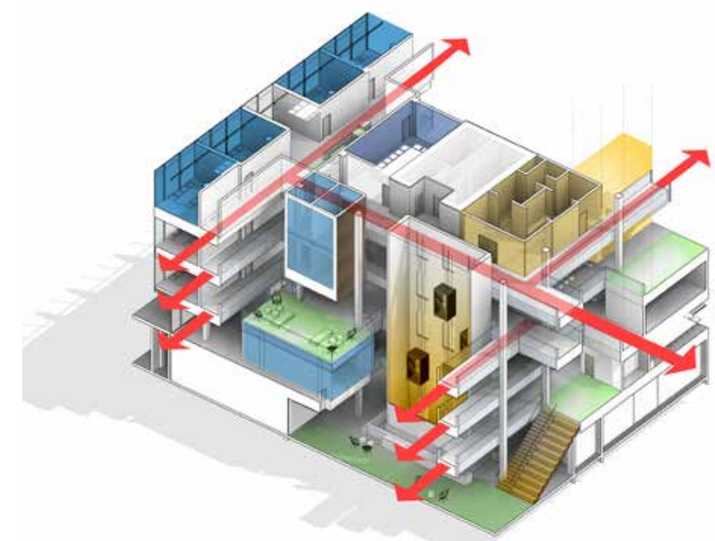
Workplace "Zones" and Departments

With a diverse mix of tenants, the central atrium provides ample meeting space and amenities while the perimeter workspace wings offer distinct but flexible and productive work zones with ergonomic furnishings.

Lean Design

The design for the 1063 Block Replacement Project incorporates Lean thinking by minimizing waste and creating an environment that is transparent, fostering communication and creative problem solving. The building is simple and flexible to adapt to future technologies and workplace models. Circulation and wayfinding is efficient and clear for visitors and staff. A variety of formal and informal meeting spaces support collaboration and a range of work styles. The building operates as an integrated whole, balancing first and operating costs with right-sized systems designed for future changes and campus growth.





Central Atrium

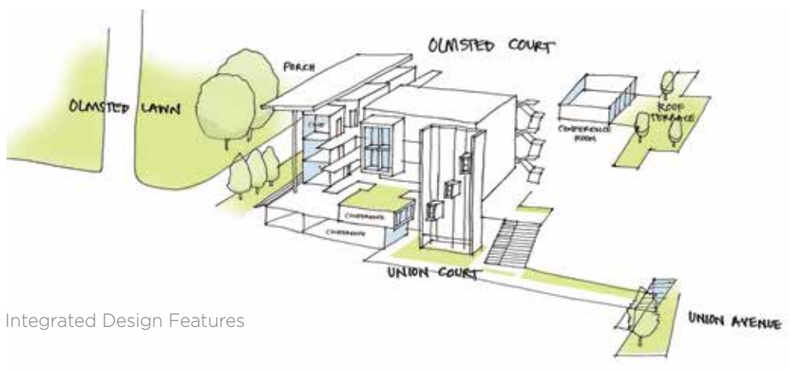
An indoor garden landscape with terraced views and consolidation of interaction activities creates a vibrant mixing area. This space is identified by the design expression of the Olmsted Lawn and representative of the state's history, transformative past and promising future.

Shared Internal Resource and Support Spaces

Distributed for convenience, departmental support spaces minimize access times and help scale the workspace into comfortable sizes. These spaces are primarily utilitarian but are designed with transparency to permit the passage of daylight. Sidewalls are conventional opaque partitions, and glass is used for doors and partitions facing the workspace and atrium.

CONFIDENTIAL RECORD

Fourth Floor Atrium View



Integrated Design Features

CIRCULATION

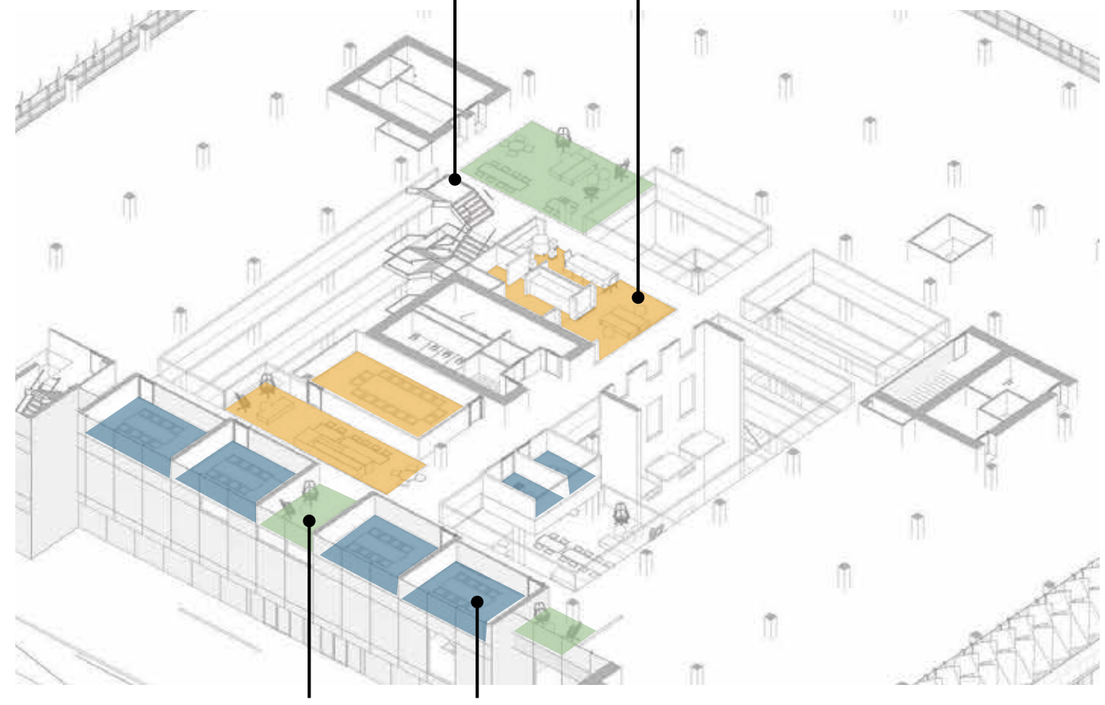
MAIN STAIR AND PEDESTRIAN BRIDGES

Walkways connect and integrate common amenities and shared functional programs. Vertical "communicating" stairs encourage active design and ease quick access between office suites.

INTERACT

BREAK AREAS AND VENDING

Areas for relaxation and eating maintain the open feel of the atrium.



INFORMAL SEATING

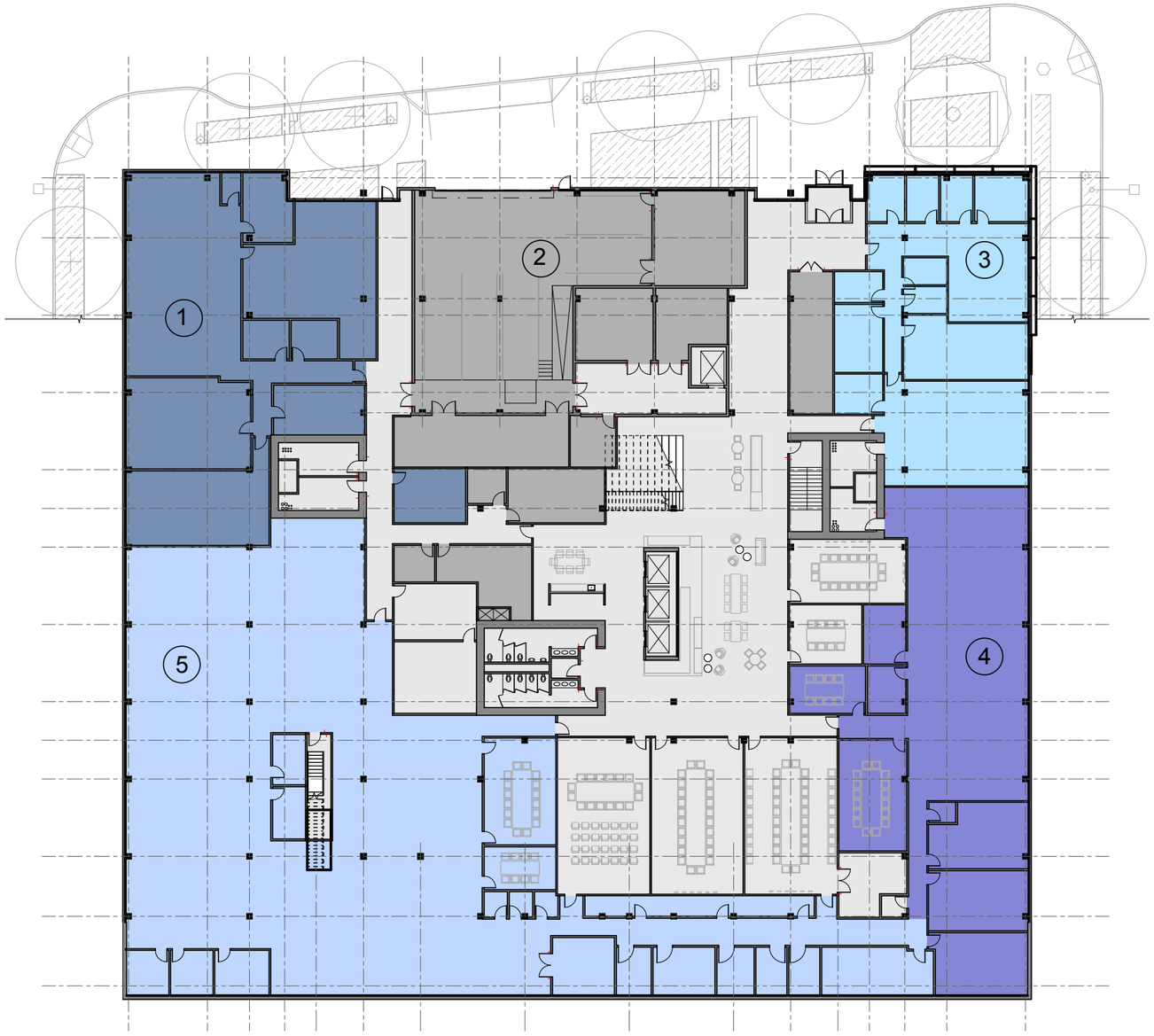
Seating and lounge areas are located at the intersection of two primary circulation routes to encourage interactions. Seating zones adjacent to conference rooms provide space for impromptu breakout sessions and informal meetings.

CONFERENCE ROOMS

Meeting areas are centrally located between office suites and stacked vertically for intuitive wayfinding. Views frame the Olmsted Lawn and beyond to the Capitol Dome.

CORE ELEMENTS

Conveniently located circulation and support spaces, include elevators, restrooms, and egress stairs are clearly defined and vertically stacked.



FLOOR PLAN, LEVEL U

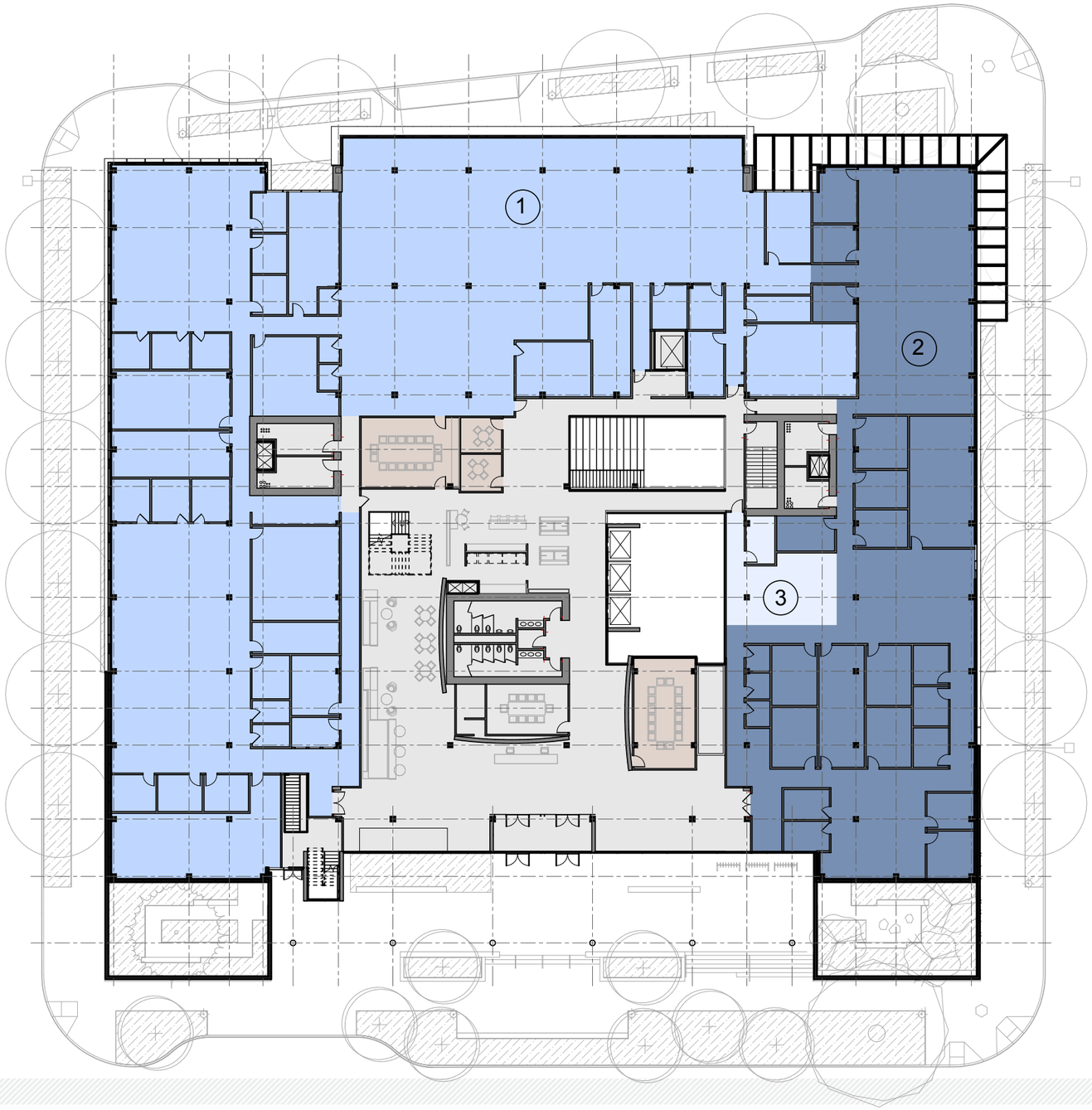
Building Commons and Conferencing

Commons & Central Shared

Program Allocation

1. Latent Prints/Forensic Lab
2. Shared Building Support
3. Special Operations
4. Electronic Services
5. Information Technology

*See Document B, Sheets A0.01 and A0.02 in Design Submittal Drawings for Assignable Area Breakdowns.



FLOOR PLAN, LEVEL 1

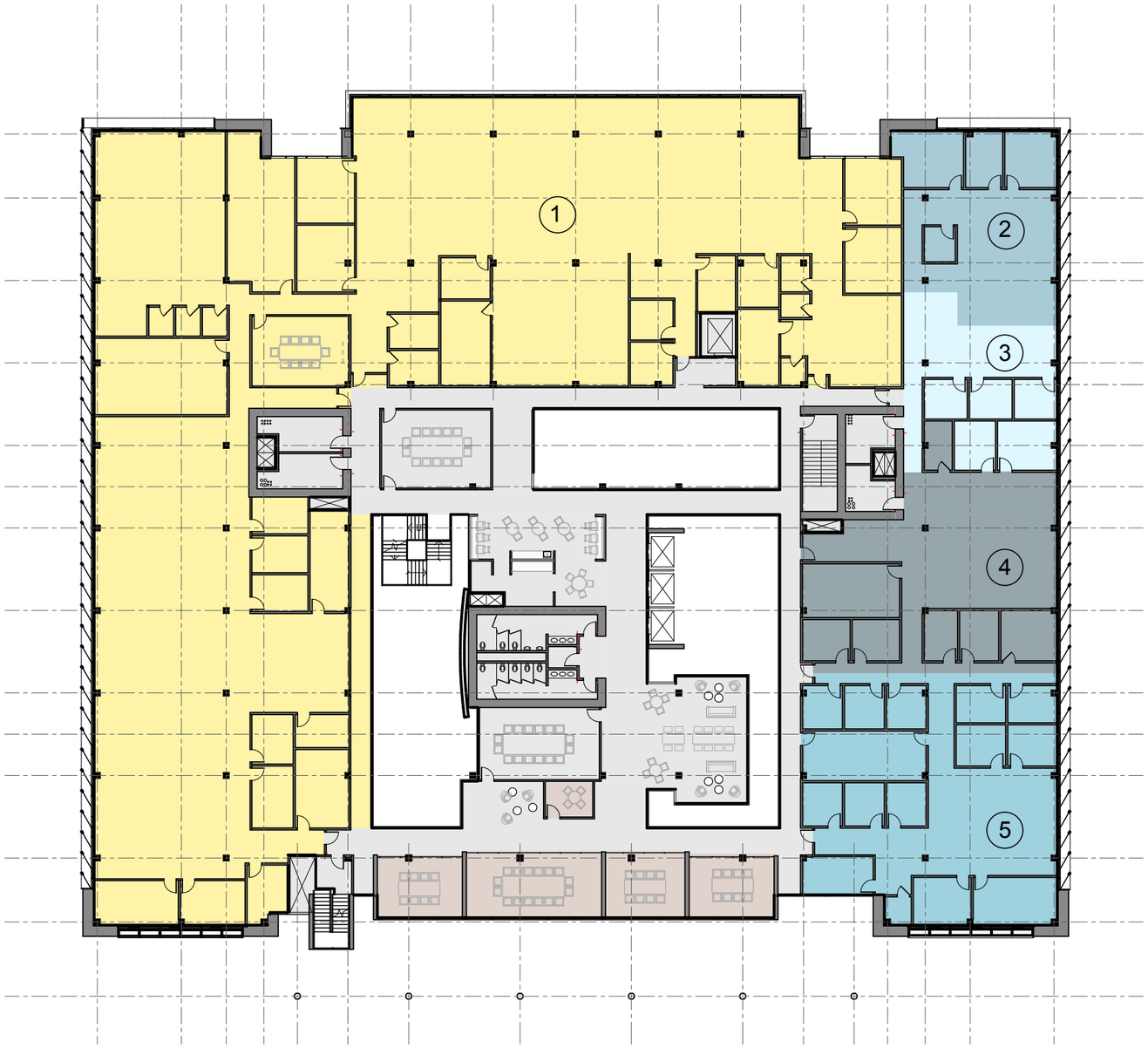
Building Commons and Conferencing

- Commons & Central Shared
- Distributed Shared

Program Allocation

1. Criminal Records
2. Human Resources
3. Homeland Security

*See Document B, Sheets A0.01 and A0.02 in Design Submittal Drawings for Assignable Area Breakdowns.



FLOOR PLAN, LEVEL 2

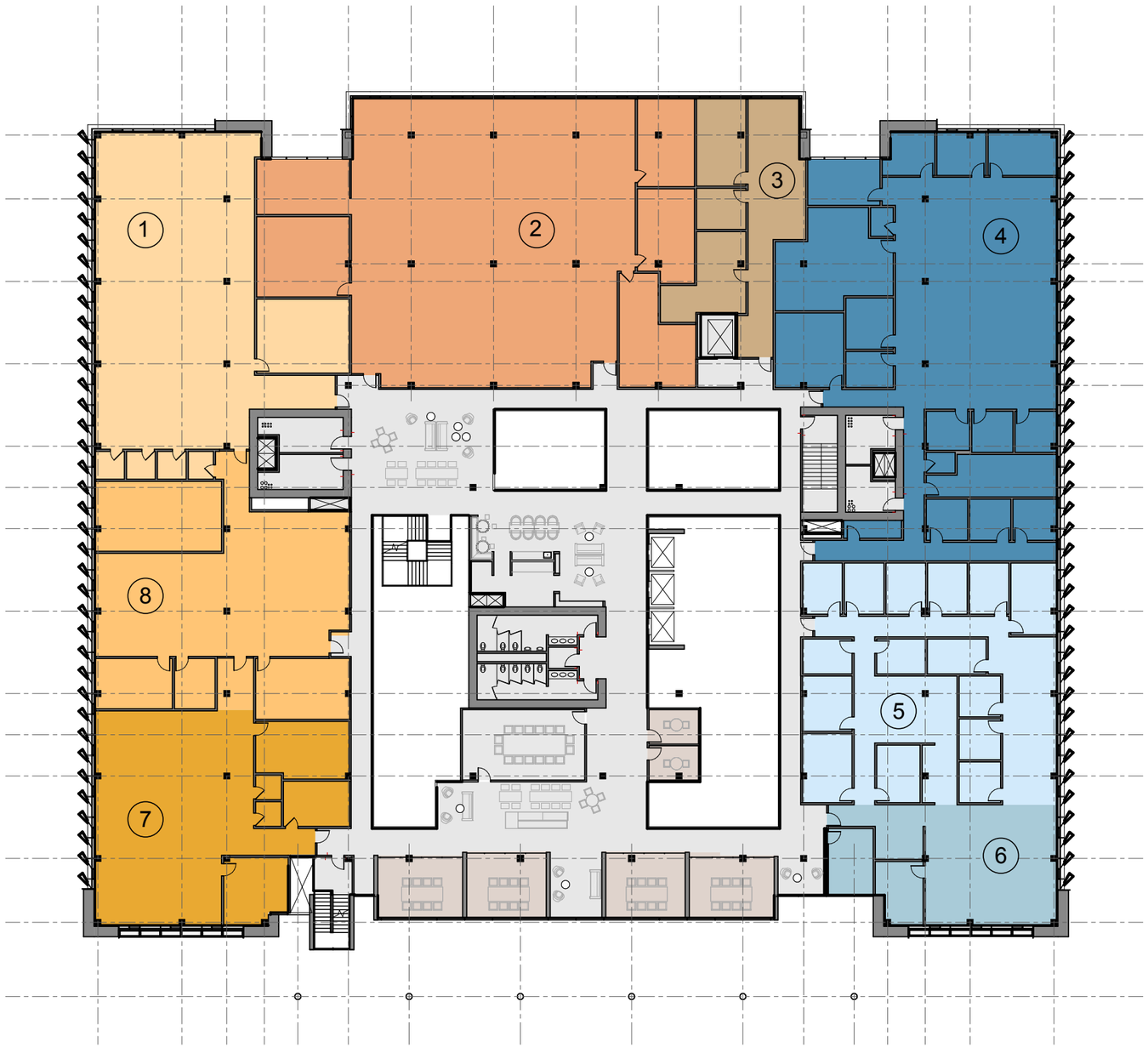
Building Commons and Conferencing

- Commons & Central Shared
- Distributed Shared

Program Allocation

1. Office of Financial Management
2. Communications
3. Motor Carrier Safety
4. Commercial Vehicles
5. Office of Prof. Standards

*See Document B, Sheets A0.01 and A0.02 in Design Submittal Drawings for Assignable Area Breakdowns.



FLOOR PLAN, LEVEL 3

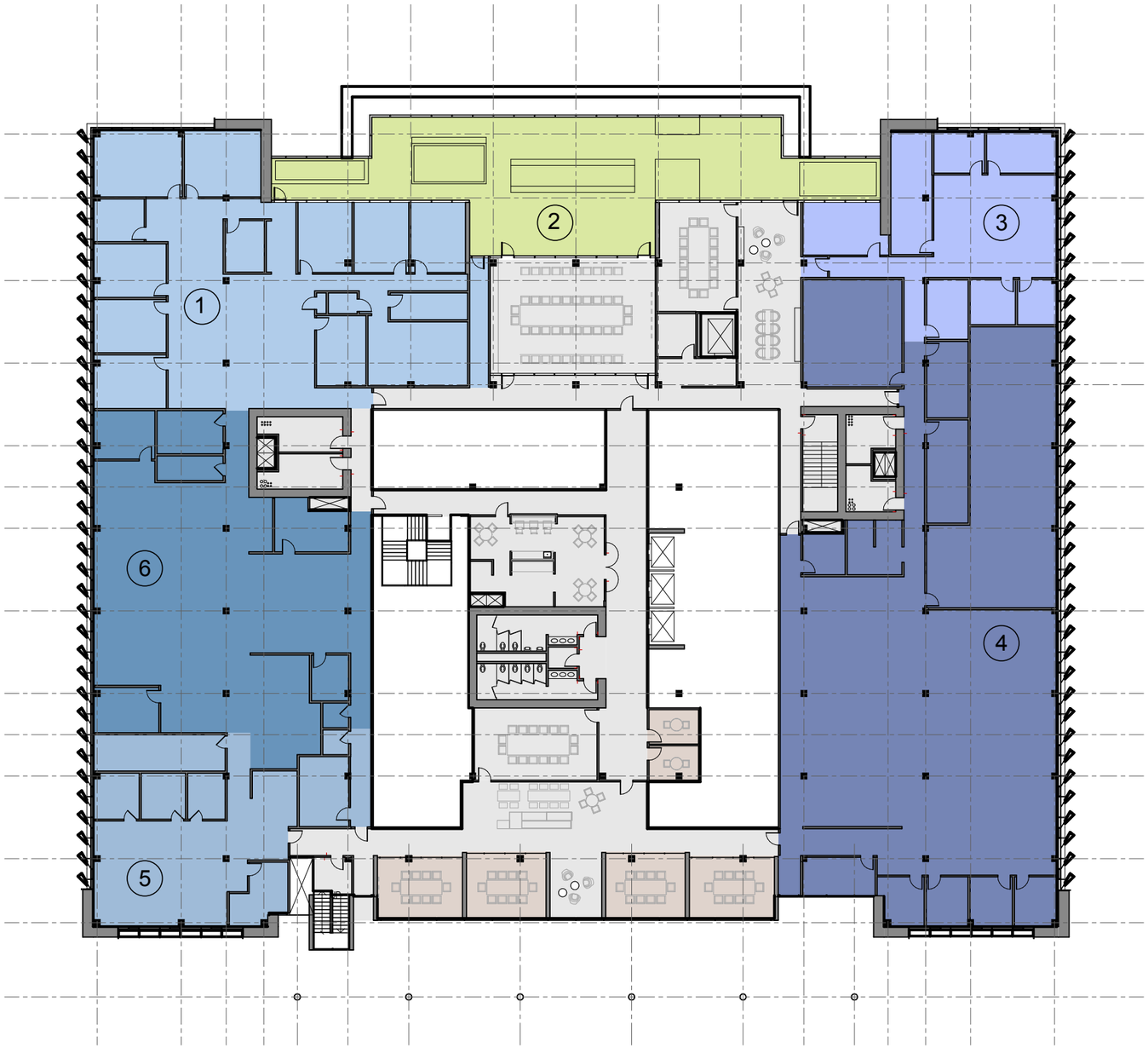
Building Commons and Conferencing

- Commons & Central Shared
- Distributed Shared

Program Allocation

1. JLARC
2. LSC
3. JTC
4. Investigative Assistance
5. Criminal Investigations
6. Field Operation
7. WSIPP
8. LEAP

*See Document B, Sheets A0.01 and A0.02 in Design Submittal Drawings for Assignable Area Breakdowns.



FLOOR PLAN, LEVEL 4

Building Commons and Conferencing

- Commons & Central Shared
- Distributed Shared

Program Allocation

1. Office of Chief Exec.
2. Roof Terrace
3. Gov. and Media Relations
4. Budget and Fiscal Services
5. Risk Management
6. Fire Prevention/Preparedness

*See Document B, Sheets A0.01 and A0.02 in Design Submittal Drawings for Assignable Area Breakdowns.

Indoor Environmental Quality

Energy and human performance, health and well-being, are optimized in the 1063 Block Replacement design using two key strategies: connections to nature/biophilic design—man's inherent need to connect with the natural environment—and the desire for individual occupant control over the quality of the indoor environment. These strategies are well-researched and can positively impact productivity and can reduce absenteeism.

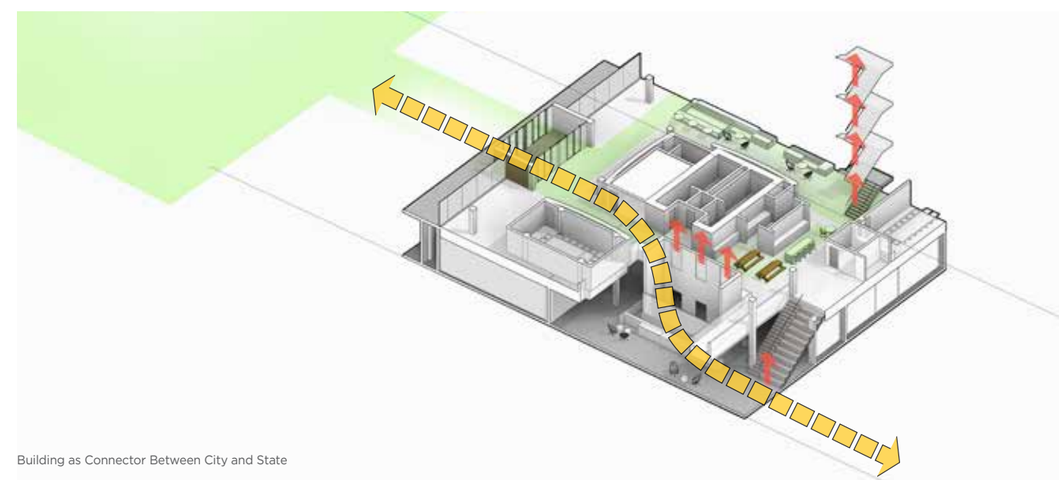
Occupant Comfort and Control

The 1063 Block Replacement design goes well beyond the standard comfort paradigms and gives users full control of their thermal environment, with the goal of 100% occupant satisfaction versus the 80% industry standard. Design features that address occupant comfort and control, include:

- A proposed HVAC system that is surprisingly simple, and unlike traditional HVAC systems. It keeps the entire space at one temperature, but allows for a range of temperatures within individual work zones dictated by building occupants. The strategy includes decoupling the ventilation air from the heating and cooling system which allows us to provide 100% fresh air to the occupants (minimizing the spread of germs) while improving occupant well-being. This also allows us to reduce duct work and maximize floor to ceiling height, which reduces cost, increases flexibility, allows for maximum daylight penetration, and enhances views to the outdoors. It is also easier to control—on/off switch—with lower first and maintenance costs. In addition, energy is reclaimed from every unit of air leaving the building, via an air-to-air heat recovery system.

- The Pacific Northwest, and Olympia in particular, is relatively temperate during most of the year. In order to provide occupants with a greater degree of control over their workplace climatic environment, operable windows are evenly distributed throughout the building. This passive cooling strategy relies on in-zone heating and cooling units set to automatically hit the appropriate temperatures that can be switched off by occupants if they are feeling too hot or too cold. The in-zone heating and cooling remains off during ideal times of the year, when windows can be used to maintain comfort. The occupants always have the option to switch their system on if they prefer mechanical cooling/heating, but are empowered to reduce HVAC energy use by using their windows.

- A ground loop heat exchanger (GLHX) manages almost 70% of the heating at 3 to 4 times the efficiency of even the highest performing boilers. It is also expected to manage 75% of the required heat rejection without using any water which is necessary in a traditional cooling tower based system (similar to the campus chilled water system). It is sized to balance first costs and energy performance.



Building as Connector Between City and State

CONFIDENTIAL RECORD

Atrium View from Union Lobby

Fourth Floor Conference Room and Roof Terrace

- The mild climate of Olympia enables the use of both air and water side economizer. The water side economizer, is significantly more efficient (potentially up to five times) than a conventional chiller tied to the campus central chilled water system.

- The cooling system operates on higher temperature chilled water (~55°F vs. typical systems which operate at ~45°F as is the case with the campus chilled water loop), enabling cooling at higher efficiency.

Flexibility of Systems Design

The building systems are designed to be equally flexible to adapt to reconfigured workspaces and new functions without needing excessive resource reinvestment. With value in mind, the HVAC and electrical system consists of cost-effective features that still maintain the building as a future-ready facility. Monitoring the way tenants use the HVAC and electrical systems, along with how the building responds, is essential. The metering system allows for the segregation of load-by-load categories, and tenant spaces by square foot or head count. This eliminates complexity and cost while increasing flexibility and owner/tenant understanding of how tenants' behaviors affect the building's performance.

Lighting

The proposed lighting system optimizes energy use, reduces system maintenance, and offers greater visual comfort and improved ability to control lighting than conventional fluorescent lighting systems. It meets/exceeds a 30% improvement over ASHRAE 90.1 2007 and achieves LEED Gold (minimum) and EUI goals while maintaining IES (Tenth Edition) recommended light levels. Natural daylight plays a fundamental role in the building design and intelligently controlled electrical lighting supplements the natural light to meet and exceed the requirements for the project with a high degree of flexibility. Functional task lighting is recommended to be provided at all workstations to allow for individual

control over increased light levels as desired. Innovative LED lamp and lighting controls technology is specified to provide significant annual energy and maintenance savings compared to relative historical spending levels, while eliminating mercury contamination associated with fluorescent lamp disposal in traditional workplaces.

Acoustics

The interior acoustic environment has been designed in accordance with GA Facility Design Guidelines as well as ASHRAE Sound and Vibration Control standards. Typically, open office areas are the most challenging to manage acoustically in order to meet occupant privacy and comfort expectations. For open office areas to work effectively, all elements of the design must work together. These elements include, but are not limited to, acoustically absorbent finishes on the ceiling and workstation partitions, carpet tile or similar sound absorbing material on the floor, approximately 8 foot separation between occupants across aisles, and workstation partitions that are 58 to 60 inches in height perpendicular to the exterior windows to block "line of sight" transmission of sound between occupants that are less than 8 feet away from their co-worker(s). Private offices and conference rooms are enclosed by acoustic partitions that extend to the underside of the structure above, and include sound absorbing ceiling systems and wall finishes. Vibration and ancillary noise from mechanical and electrical equipment mitigates as required per GA and ASHRAE office environment standards.

IT/Audiovisual Systems

Flexible and secure IT/audiovisual systems support the evolving needs of diverse tenants with leading wireless infrastructure, structured cabling systems, and pre-terminated optical fiber cabling to support future-generation technologies. Regardless of where building occupants "plug in" or "touch down"—workstation, conference room, impromptu meeting spaces—full IT/audiovisual capabilities are available.

Security

The 1063 Block Replacement requires a high level of security and redundancy. Security systems are comprehensive and electronic include access control, intrusion detection, video surveillance, and rescue assistance and distributed antenna life safety systems. The security systems operate over a common structured cabling system and Internet Protocol (IP) network infrastructure to provide an integrated system capable of implementing and automating security and life safety objectives, policies, and procedures and enabling the DES and tenants to quickly identify and respond to security threats and concerns. Flexibility built-in to these systems allows tenants such as the Washington State Patrol to command and control the security of their workspaces.

Building Conveyance

While the 1063 Block Replacement concept encourages the use of stairs for vertical and horizontal connection throughout the building, consistent with all other building systems, the glass enclosed elevators provide a feature of interest in the atrium, exposing the mechanics of the moving machine, and are highly energy efficient. Using CompassPlus, the system automatically moves elevators to standby and sleep mode when not in use. The specified gearless traction/machine roomless elevators are more efficient than typical systems (see appendix for more detail).

Building Section

1063 Block Replacement Model, View from North

Civil

The concept for the 1063 Block Replacement responds to the 1.31-acre full block and 12-foot elevation change between 11th Avenue and Union. The design integrates the systems and utilities on site with economical, durable, and environmentally friendly features that are produced with less impact on the environment and offer up to 100 years of service that reduces replacement costs. Using Low Impact Development (LID) and green storm infrastructure as guides, our design integrates systems and materials that enhance the 1063 Block Replacement as well as surrounding buildings on campus, by using rain gardens, bioretention planters, and drainage swales to minimize stormwater run-off to the city, and features a rainwater harvesting system for use in landscape irrigation.

Site Preparation

The two existing buildings and surface improvements within the project limits will be demolished prior to performing grading and excavation associated with the proposed development. In addition to the surface improvements, select utilities will be demolished, capped or rerouted in order to clear the building footprint.

Temporary Erosion and Sediment Control

Due to ground disturbance in excess of one acre, the project is required to prepare a SWPPP and submit for a National Pollution Discharge Elimination System (NPDES) permit for discharge of construction stormwater.

Stormwater: Detention / Retention /Reuse

Stormwater and bioretention infrastructure throughout the site, including landscape features and roof stormwater collection integrates with the existing infrastructure on the Capitol Campus and utilizes simple technologies that are economical and energy efficient. A gravity-fed mechanical system collects rainwater on the roof, and a combination of below-grade and above grade drainage systems optimize the way stormwater is stored and used throughout the site. The 12-foot elevation drop from 11th Avenue to Union Street offers an opportunity to address runoff through conveyance runnels and/or swales. Silva Cells installed as part of the pavement system also offers powerful on-site stormwater management and additional green infrastructure.

Structure

The simplicity of the proposed structural system is deliberate and fundamental to our overall design solution— it is high performing, straightforward, and inexpensive, allowing us to invest in other high quality systems and finishes throughout the building. The structure minimizes column grids to increase flexibility within the workplace environment, and maximizes daylight and exterior views. Vibration-resistance and high durability creates added comfort for tenants and lower maintenance costs over the life of the building.

Safety and strength are achieved using a GeoPier Intermediate Foundation System consisting of Rammed Aggregate Piers (RAP) and spread footings used in combination with soil improvements, post-tensioned concrete floors, and concrete shear walls strategically positioned around stairways, elevators, and shafts. The RAP system reduces waste from the existing concrete building demolition by reusing the crushed and processed concrete for fill beneath the new building's slab. Additionally we will test and optimize a ground source heat pump geothermal heating and cooling system for the building.

Fire and Life Safety

The 1063 Block Replacement five-story building is fully sprinklered with an atrium open to three levels. In compliance with IBC requirements and Washington State code, a smoke control system is modeled, sized and designed for the entire building. In other than the lowest level, where the required means of egress can be addressed through the atrium space, the exit access travel distance within the atrium does not exceed 200 feet.

FIRE AND LIFE SAFETY		
CONSTRUCTION TYPE 1B		
Exterior Walls	Non-combustible materials	0
Interior Building Elements	Any material permitted by code	
Structural Frame		2
Bearing Walls	Exterior	2
	Interior	2
Non-Bearing Walls	Exterior Wall (All > 30 feet)	0
	Interior	0
Floor Construction		2
Roof Construction		1
Height (FT)	with Auto Sprinklers	160 FT
Stories	with Auto Sprinklers	11
Area / Floor (SF)	with Auto Sprinklers and Yard Allowances	Uncounted

Made in Washington

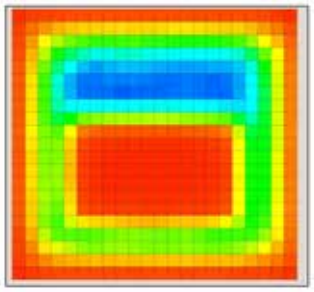
Bringing to life the scenes in Beall's mural, the 1063 Block Replacement design is literally rooted in the native landscape and constructed of Washington-made materials. Our team is committed to calling upon the people, businesses, natural resources, products and technologies of our state to create a durable and long-lasting building that is truly made in Washington. By sourcing local businesses and materials, from Washington grown timber to stone produced at in-state quarries, the 1063 Block Replacement not only makes a financial reinvestment in the state but it also advances Washington-based industries.

Intelligent Envelope: Building Form and Façade Optimization

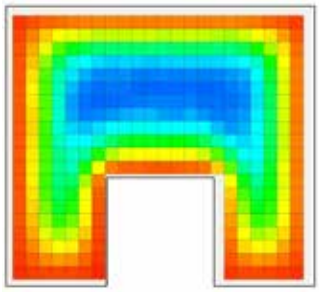
The building form and use of glass for the 1063 Block Replacement has been carefully considered to optimize energy performance while providing an exceptional workplace environment for building occupants. High-performance glass with a balance of good insulating value keeps the building warm in the winter, a low Solar Heat Gain Coefficient (SHGC) to block solar gain and enable the low energy cooling system, and a high Visible Light Transmittance (VLT) to allow in natural daylight. A balanced use of 55% glass across the building is low enough to allow for superior energy performance without sacrificing views or access to natural light. External shading treatments tuned to orientation are provided to minimize against direct sun and visual discomfort, working in tandem with owner-provided internal blinds or shades.

Numerous building forms were explored from multiple perspectives. With respect to energy, the selected form provides optimal access to daylight and associated lighting energy reduction. Likewise, the massing and associated heating and cooling strategies, and the use of operable windows provide occupants personal control and a superior workplace environment while also reducing energy usage significantly.

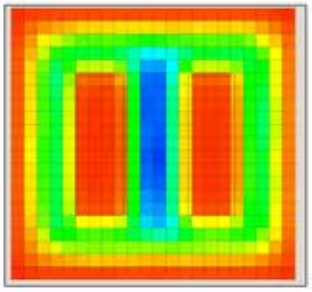
A



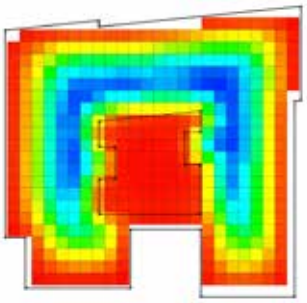
D



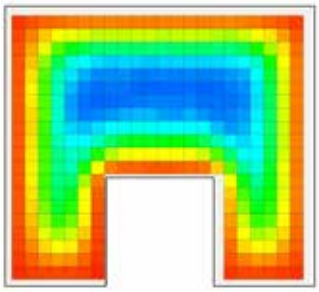
B



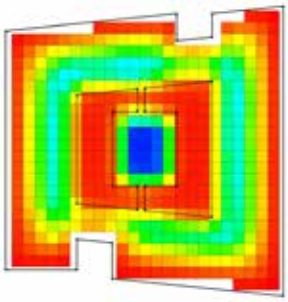
E



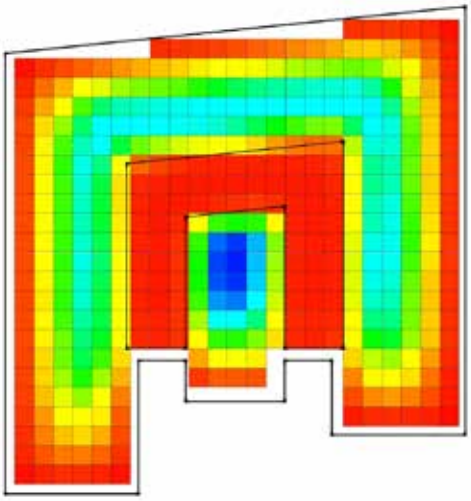
C



F



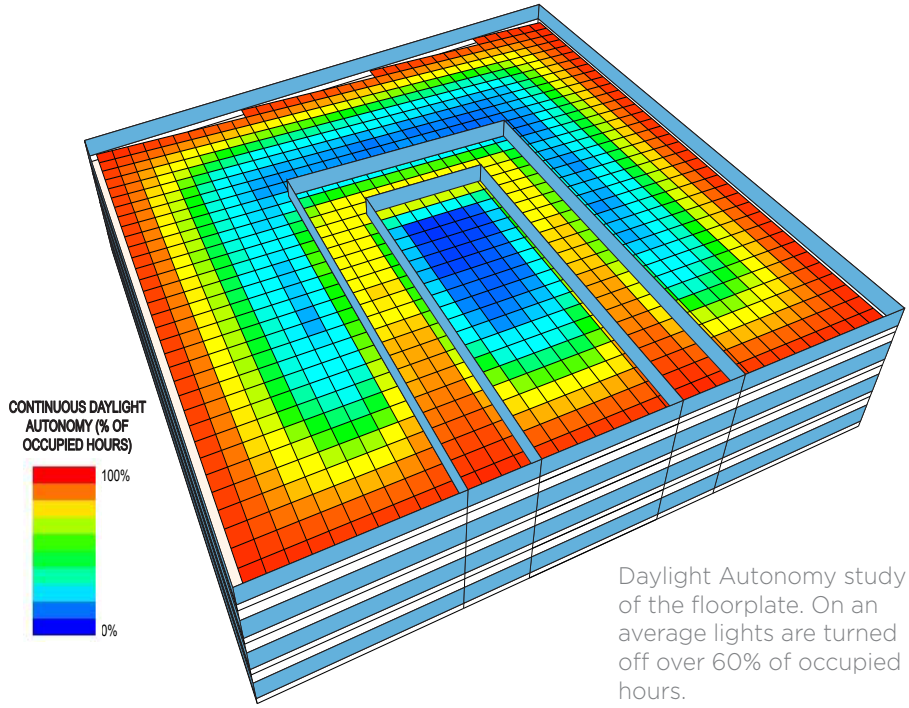
G



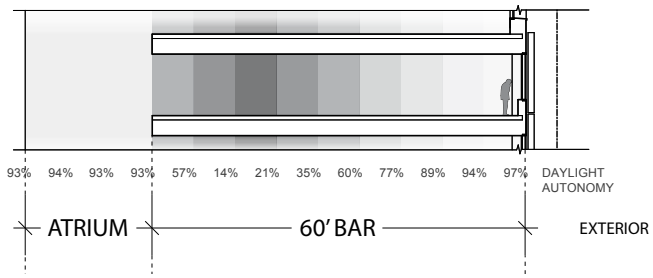
Shape studies for different floorplate diagrams. Options F & G performed the best from a daylighting standpoint, and option G was picked because it works better for a multi-tenant plan.

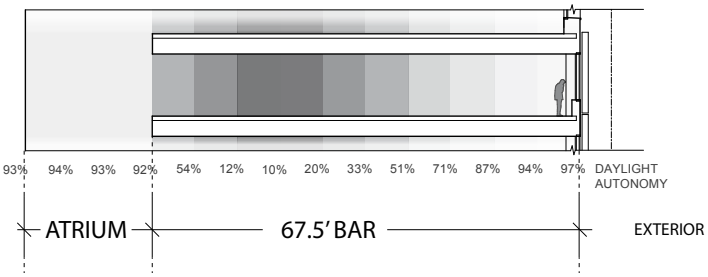
Daylighting

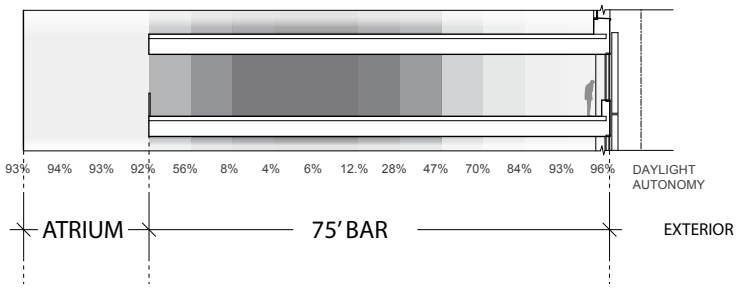
Access to daylight is a key aspect of occupant well-being. Daylight is omnipresent throughout the building—penetrating the perimeter windows and the central atrium—providing the building with balanced and controlled daylight. Controlled daylight reduces both the amount of electricity required and the heat produced by electrical lighting. The 68 foot width of the office bars has been optimized to maximize daylight while also providing the greatest flexibility for space utilization. It is recommended that smart blinds be procured by the owner to redirect daylight back up to the ceiling plane, improving light levels.



Daylight Autonomy study of the floorplate. On an average lights are turned off over 60% of occupied hours.

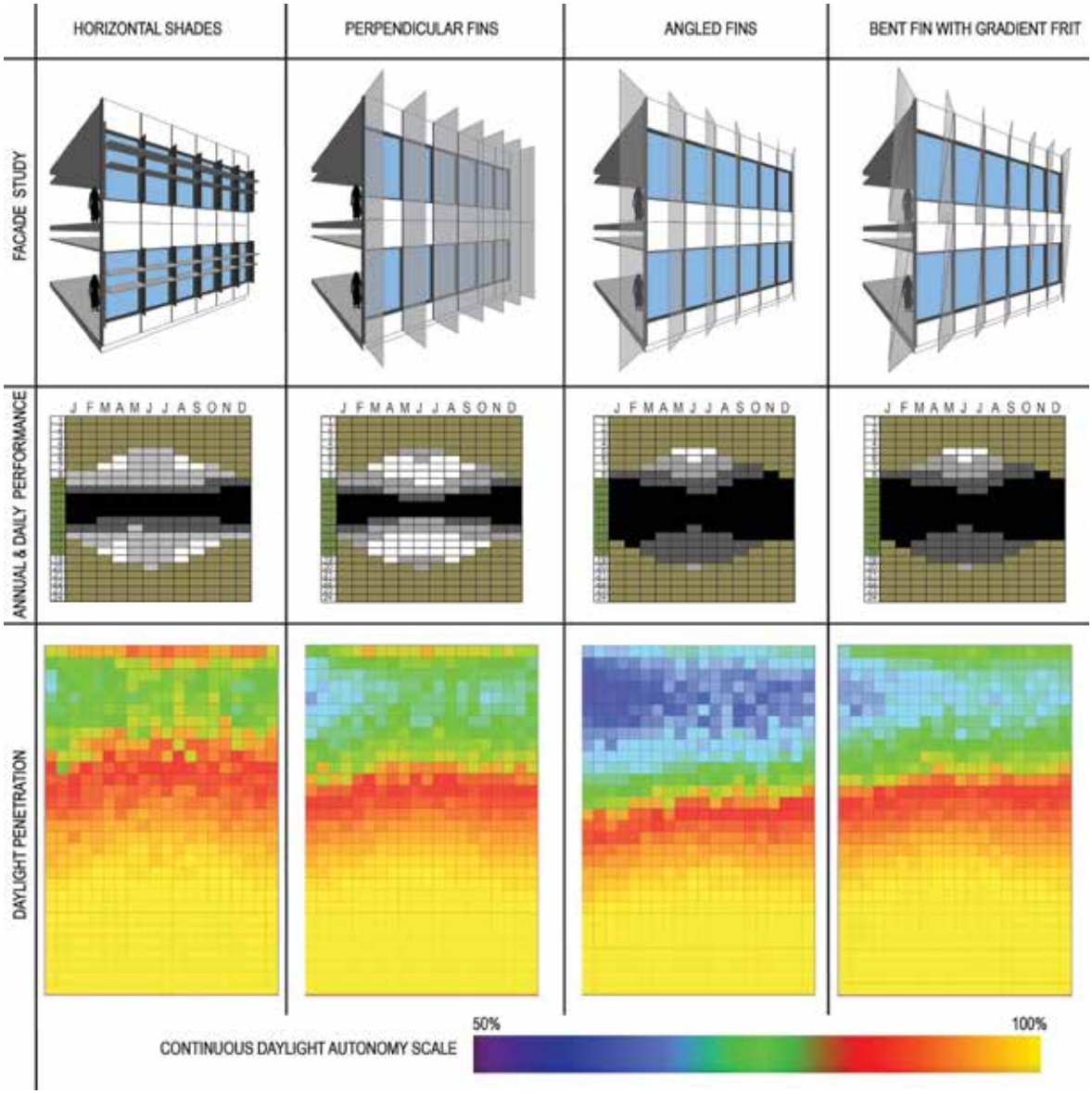






External Solar Control

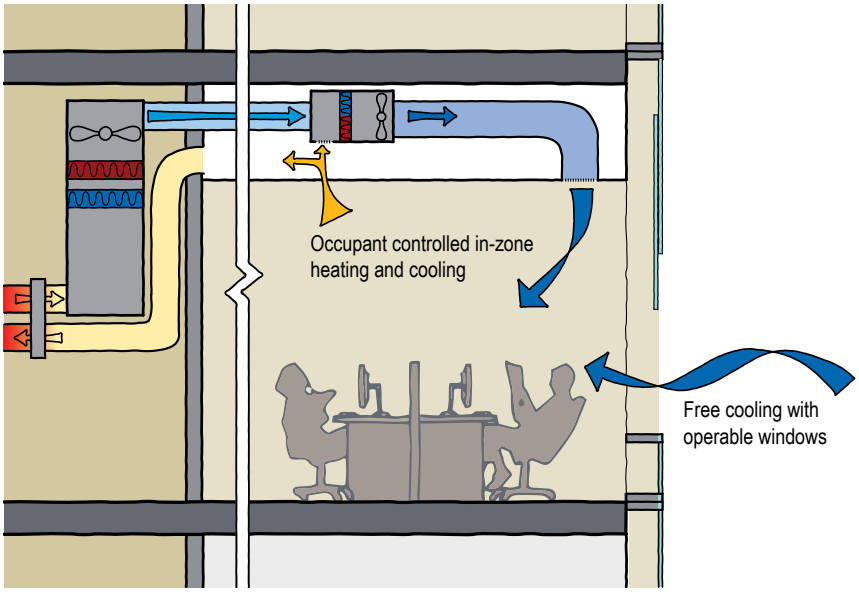
The use of an efficient, high temperature hydronic cooling and natural ventilation system requires reduced solar heat gain on building facades. The south façade uses horizontal shades and the Porch to reduce peak solar loads. On the east and west facades, perforated angled fins control low angle sun, aligned to improve daylight penetration.

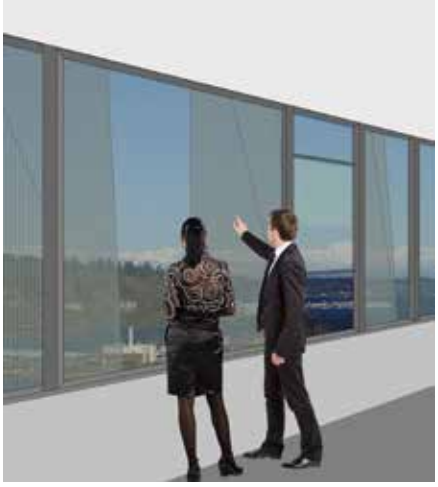


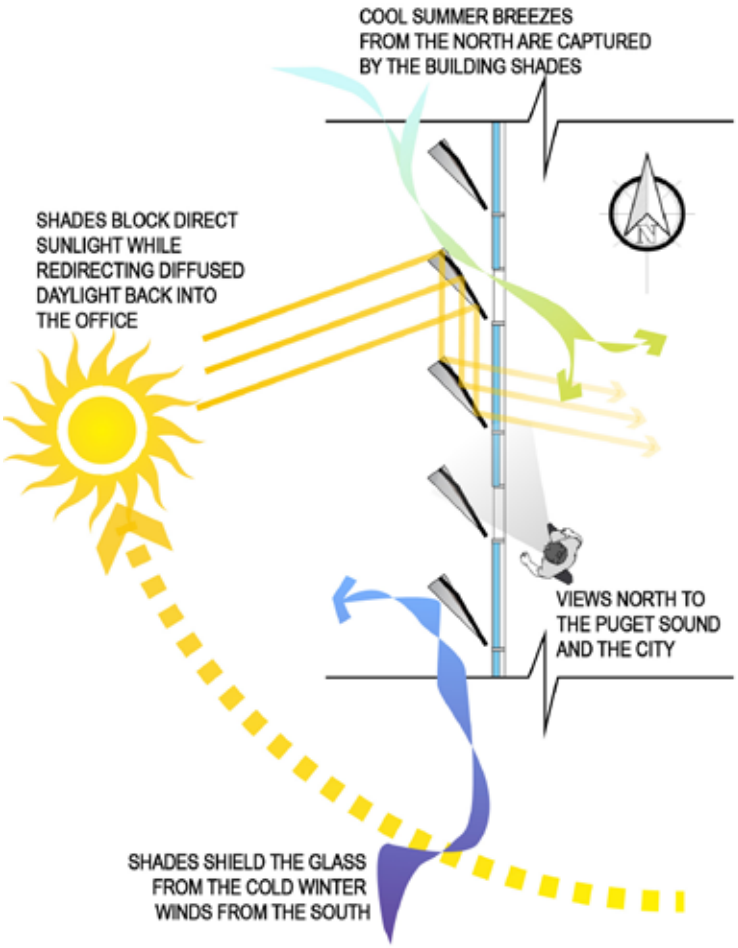
This matrix looks at the effectiveness of different shading strategies along the east and west facades. The matrix in the middle looks at annual performance of each shading strategy with Months of the year on the X-Axis and hours of the day on the Y. Darker areas mean that there is more shade provided. The Angled fins provide the most effective shading for the hours of operation. Bending the fin back with a gradient frit increases the daylight penetration.

Natural Ventilation

The occupants of the building have a choice to open their windows to get free cooling in temperate climates. Weather data from three stations around the site was assessed, and a recurring pattern was identified. During the late spring to early fall the wind comes from the north, and it moves to the south during the colder months. Angling the fins to the north allows the capture of winds when needed, while shielding the building when in heating mode. The angle of the fins also allow unimpeded vistas to Puget Sound and the city of Olympia, while still providing sheltered views southward.





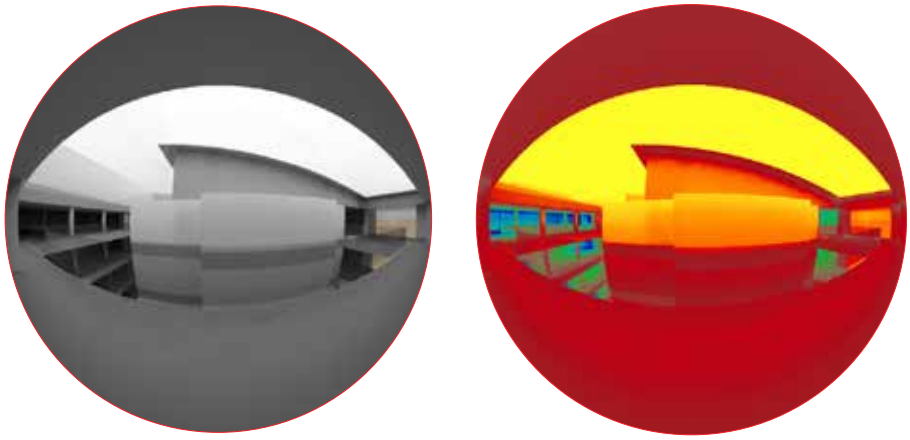


High-Performance Glazing

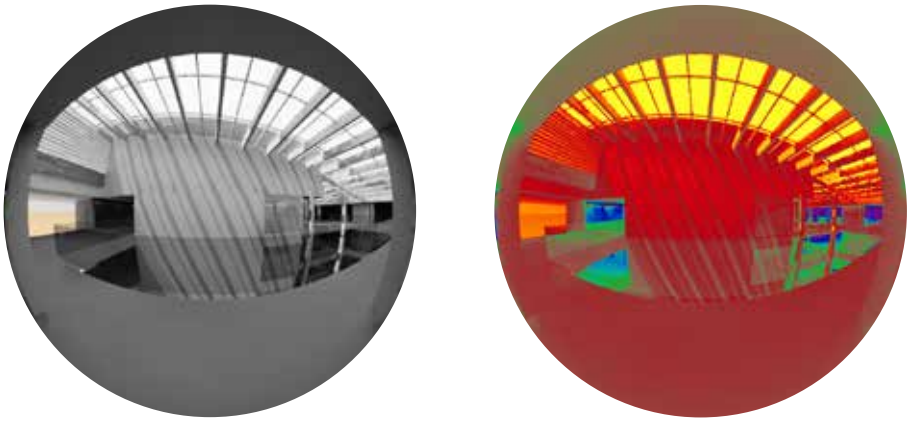
The window-wall ratio is higher than a standard code compliant building—to maximize daylight, views and connection to the outdoors. To make up for this, a high-performance low-e glazing system is used throughout the building. The glass has a low solar heat gain coefficient along with a high visible light transmittance. Coupled with the shades and daylight redirecting glass, the envelope outperforms a standard office building.

Overhead Glazing

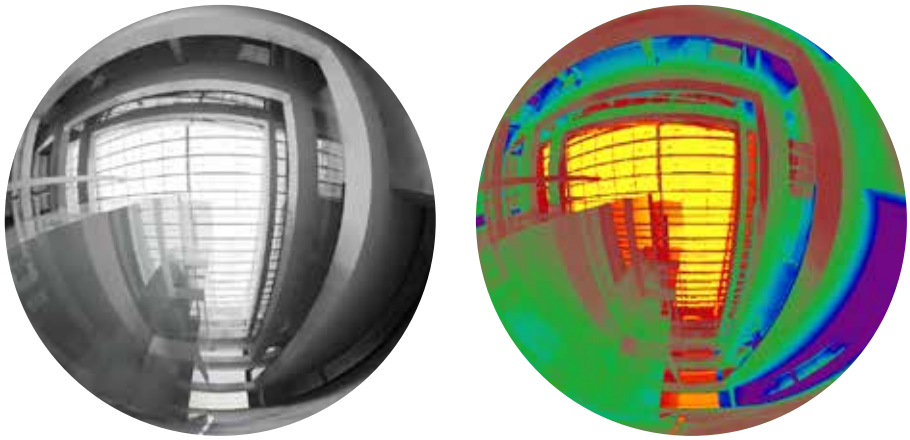
The atrium roof is sloped to minimize solar heat gain. Extensive daylight and glare analysis was performed to optimize the glazing to achieve maximum glare-free daylight within the workplace. The design utilizes a combination of high-performance translucent glass with glazing integrated louvers that maximize views to the northern sky and redirect southern light down into the atrium.



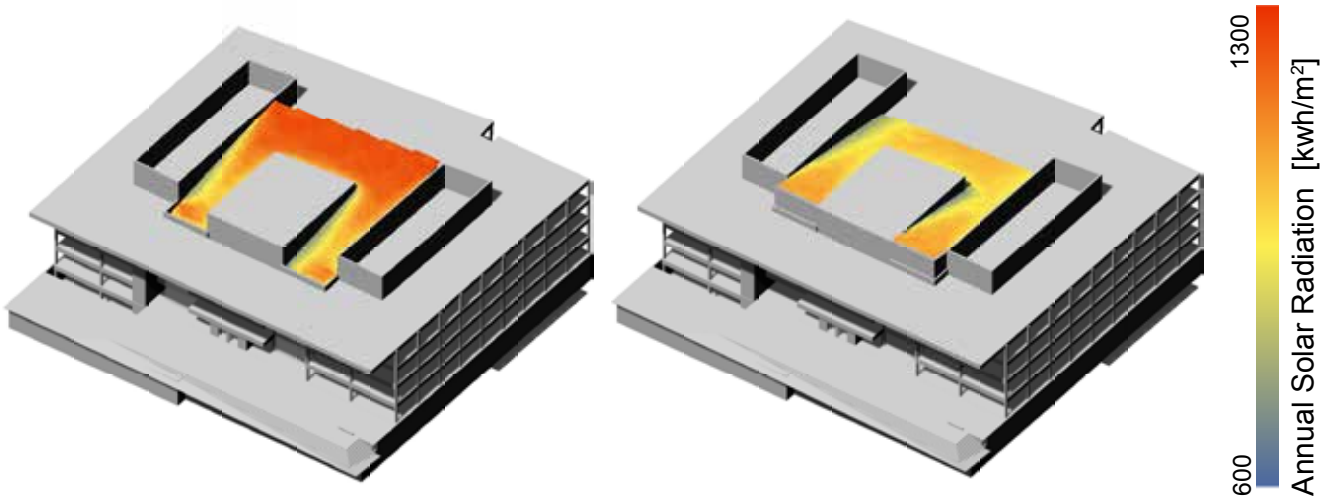
Glare study of Atrium - 4th Floor fisheye lens looking west. Translucent atrium roof with no structure.



Glare study of Atrium - 4th Floor fisheye lens looking west. Partially translucent roof with structure added in - reduces glare potential.



Atrium - fisheye lens looking up at the roof.



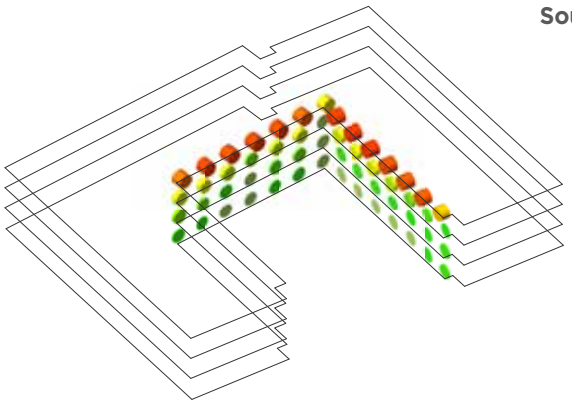
1085 [kwh/m²] avg

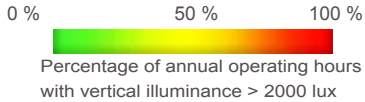
951 [kwh/m²] avg (-12%)

By sloping the roof down towards the north, we reduced solar heat gain on the surface by 12% .

A

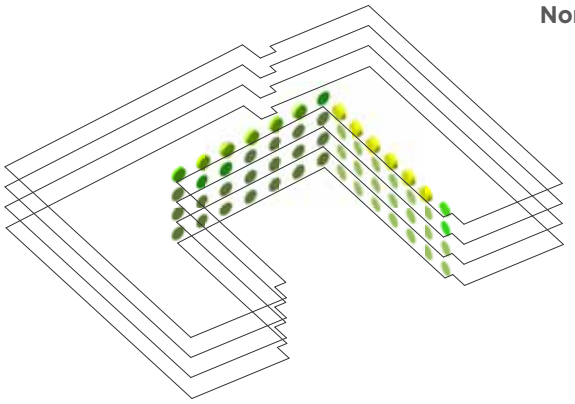
South-facing Skylight





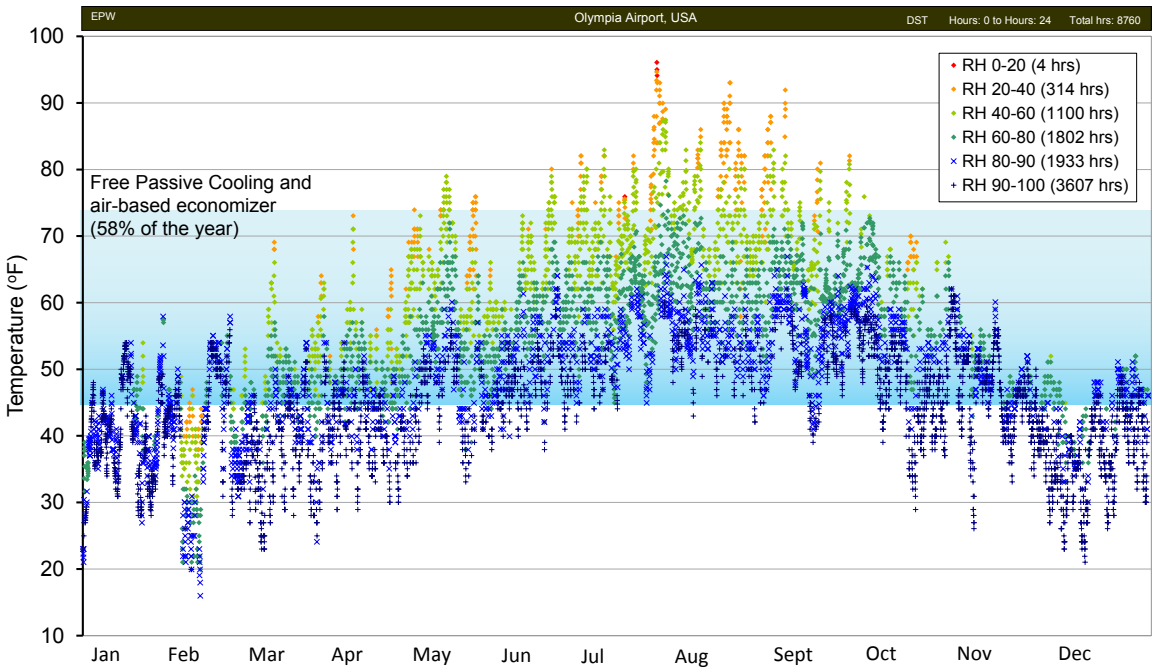
B

North-facing with Structure



These diagrams illustrate glare potential in the spaces along the atrium. Spaces registering over 200 footcandles are likely to see glare. By sloping the roof to face north, the glare potential is vastly reduced.

Annual Climate Trends



Resource Efficiency

The reduction of natural resource consumption is a key focus on the 1063 Block Replacement design.

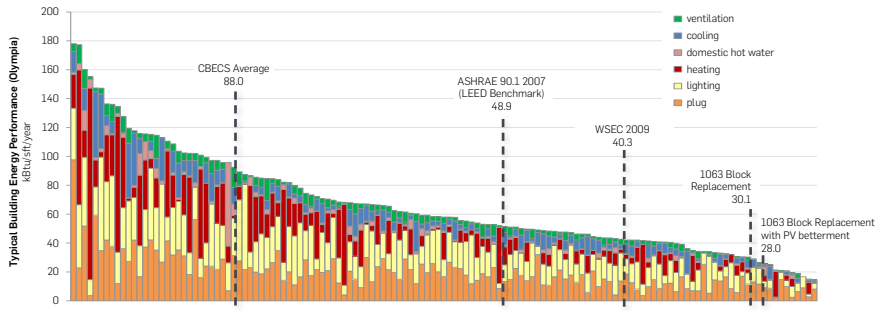
Proposed Energy Use: 30.1 KBTU/SF/YR and an Energy Star score of 99

Equivalent to:

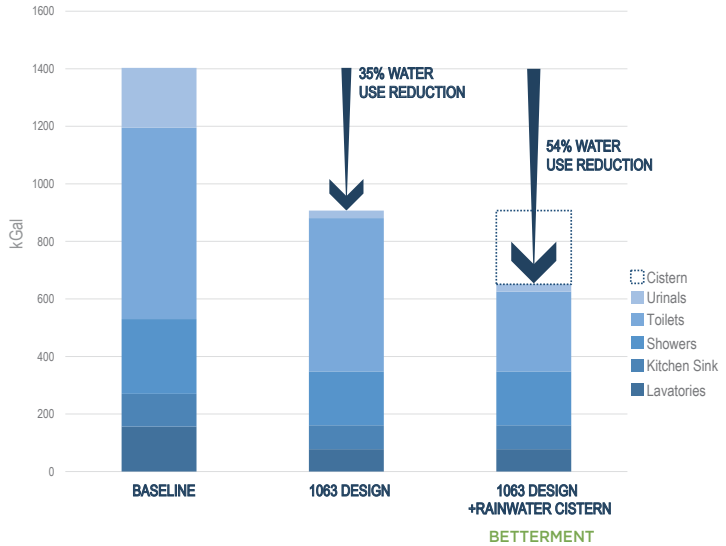
- 38% Reduction in energy cost vs. the ASHRAE 90.1 2007 Baseline
- 14 LEED EAc1 points
- Energy cost performance of $128,000 each year - an $87,000 cost savings compared to a building built to the national standard
- 810,000 lbs of CO2 equivalent a year. This is almost 550,000lbs less than a building built to the national standard.

Water Use: The 1063 Block Replacement incorporates the highest efficiency fixtures and is able to outperform a LEED baseline building by 35%.

Proposed Energy Use



Proposed Water Use



Interior Design

The interior design of the 1063 Block Replacement is intentionally timeless and elegant in its simplicity, envisioned to reinforce the focused ingenuity of the state of Washington. Inextricably connected to the building's exterior, the interior design conveys a spirit of openness and light consistent with the transparency of the State reinforced by the history shown in the use of reclaimed timber and metalwork. The strong material palette that starts on the building's exterior, and works its way indoors. The exterior Wilkeson stone evolves to sandstone pavers that seamlessly move into the lobby giving the space a remarkable park like feeling.

Interior precedents

The basic palette of the building atrium is simple and cost effective—wood, concrete, glass and metal. Soft carpets and upholstered seating add vibrant color and texture. Acknowledging the diversity of Washington ingenuity, each floor is themed to establish clear wayfinding marked by natural motifs, signage and floor and wall finishes.

Complementing the warm natural feel of the interior design of the atrium and common areas, the workplace wings feature reclaimed wood accents and colorful paint. Finished concrete floors are economical and expressive of the building's structure. Acoustical treatments equalize the wood and finished concrete.

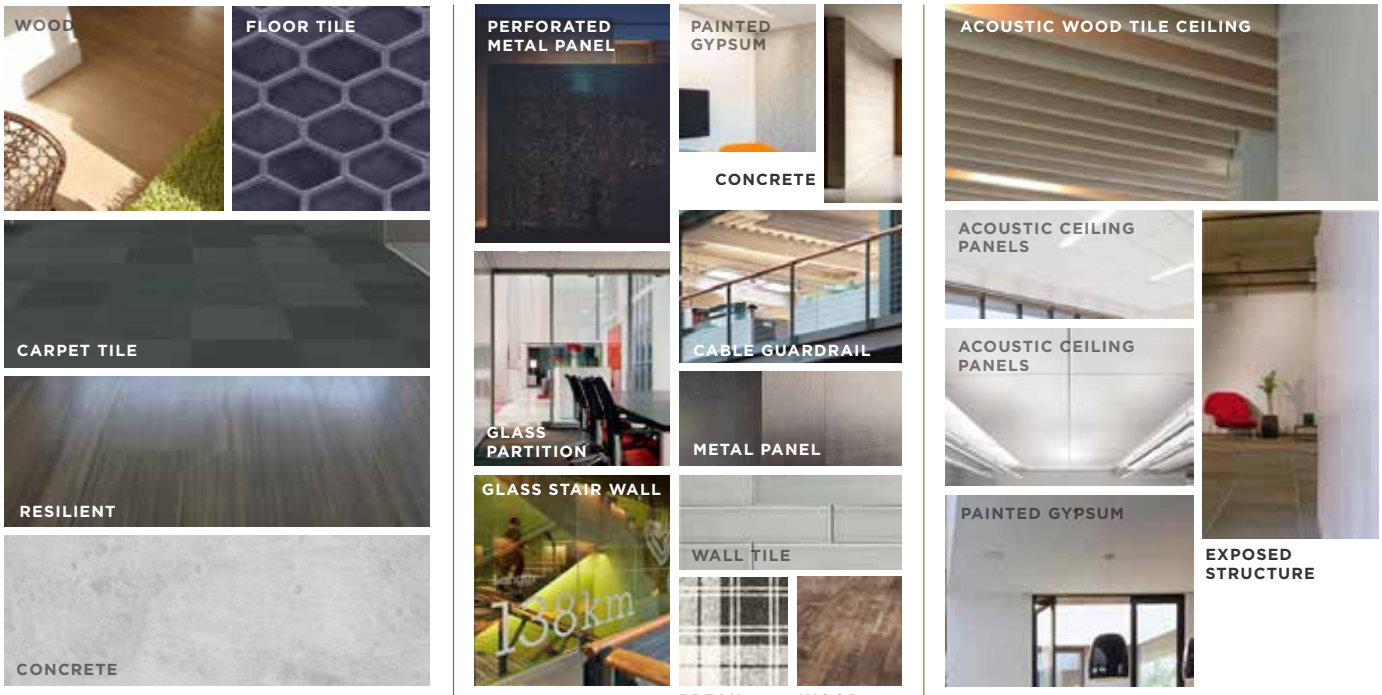
The Beall mural, which has informed our 1063 Block Replacement design and much of our interior concept, has a prominent place within the first floor lobby, visible from the central atrium, main stairway and office spaces,

The range of formal and informal meeting spaces distributed throughout building are distinguished by wood and metal, natural materials common in the state of Washington.

Interior precedents

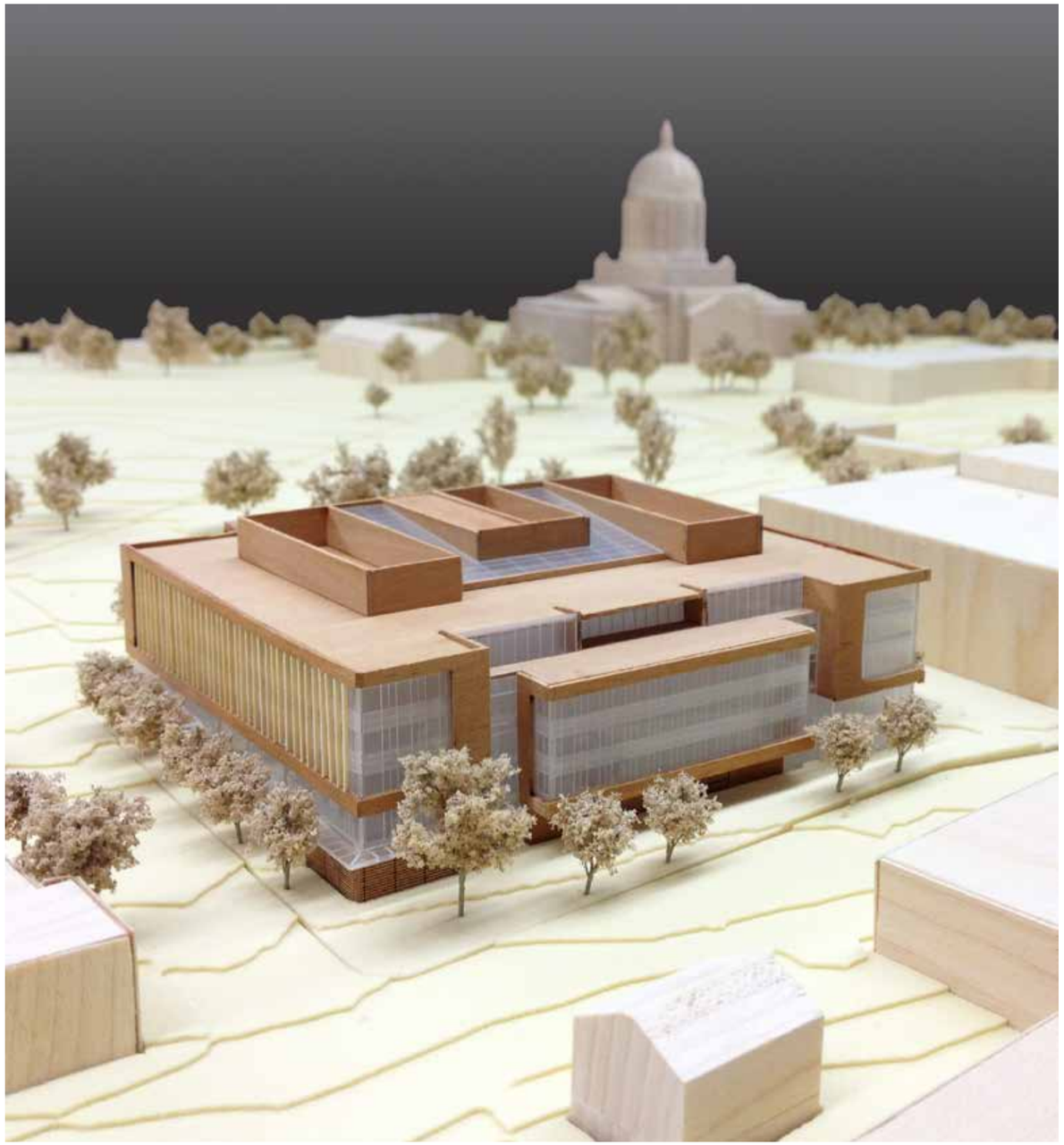
Lobby and Central Atrium Featuring Beall Mural

Interior Design Materials



COMMONS	FLOORS	WALLS	CEILING
Lobby / Reception	Polished Concrete	Perforated Metal Panels	Acoustic Wood and Exposed Structures
Atrium Corridors and Bridges	Polished Concrete	Painted Gypsum, Concrete, Cable Guardrail	Exposed Structure
Level U Informal Meeting	Polished Concrete	Painted Gypsum, Glass	Exposed Structure
Level U Bleacher Stairs	Wood and Concrete	Cable Guardrail	open
Level 1-4 Atrium Stair	Concrete and Metal	Cable Guardrail	open
Level 1-4 Communicating stair	Concrete and Metal	Glass Atrium Wall, Cable Guardrail	Painted Gypsum
Break / Vending	Concrete and Resilient	Wood, Wall Tile, Painted Gypsum, Glass	Painted Gypsum
Conference	Carpet Tile	Painted Gypsum, Glass	Acoustic Wood / Ceiling Panel
Level 1-4 Informal Meeting	Carpet Tile	Painted Gypsum, Metal / Wood Panel	Exposed Structure
WORKPLACE	**FLOORS**	**WALLS**	**CEILING**
Open Office, Open Collaboration	Carpet Tile	Painted Gypsum	Painted Structure with Acoustic Panel
Enclosed Offices, Touchdown Squad and Evidence Rooms Coding Lab, HD (High Density) Storage Wellness and Lactation Rooms Distributed Meeting	Carpet Tile	Painted Gypsum	Acoustic Panel
Work / Copy / Supply / Mail Equipment / Storage Hardware Lab Photo / Media Studios	Resilient Tile	Painted Gypsum	Acoustic Panel
SUPPORT	**FLOORS**	**WALLS**	**CEILING**
Custodial Closet and Supply	Resilient Tile	Painted Gypsum	Acoustic Panel
Restrooms, Shower, Locker	Resilient Tile	Tile on wet walls, Painted Gypsum	Painted Gypsum

Model Images

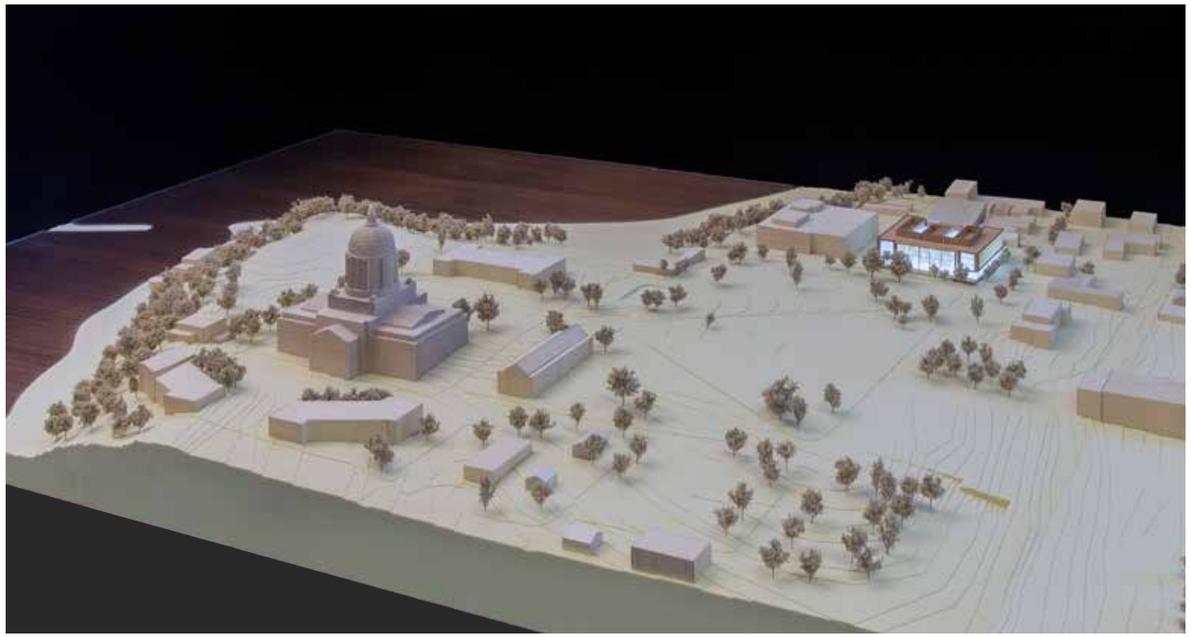


View from Corner of Union Avenue and Capitol Way

View of North Facade

View of South Facade

Model Images



Aerial View of Capitol Campus

Campus View Looking North

View from Capitol Campus