CAPITOL COMPLEX MASTER PLAN

DENVER, COLORADO

NOVEMBER 2014

CAPITOL COMPLEX MASTERPLAN

DENVER, COLORADO

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Foreword

This Capitol Complex Master Plan (CCMP) was authorized by Senate Bill 13 - 263 (C.R.S. 24-82-101(3)). The scope of the master plan includes the eleven buildings and grounds in the Capitol Buildings Group at the Capitol Complex as well as additional buildings and sites owned by the Department of Administration & Personnel (DPA) and managed by Capitol Complex Facilities (CCF) in the Denver metropolitan area and one DPA/CCF building located in Grand Junction. The Colorado History Museum and the Ralph L. Carr Judicial Center are not included in the CCMP because these were recently planned and occupied facilities. Furthermore, no institutions of higher education are included as well as the five executive branch departments that are not housed in DPA owned/CCF managed buildings or adjacent downtown Denver lease space: Department of Agriculture, Department of Corrections, Department of Military and Veterans Affairs, Department of Public Health and Environment and Department of Transportation.

This Capitol Complex Master Plan evaluates agency needs, building conditions, Capitol Complex urban design issues and organizational structure relative to decision-making and funding and facilities planning and maintenance. This master planning effort seeks to address the recommendation of the Performance Evaluation of State Capital Asset Management and Lease Administration Practices audit dated November 2012 that states: "The State generally lacks a comprehensive mechanism for long-term planning (such as a master plan) for its real estate assets. Such a mechanism could assist the State in its efforts to maximize the value of its real estate assets, reduce facility costs and support funding decisions."

Executive Summary

From the State Capitol to the Legislative Services Building, the state of Colorado has a rich inventory of buildings located in the heart of downtown Denver that enable thousands of workers to deliver services to the citizens of Colorado. It has been more than 25 years since a Facilities Master Plan has been completed and this undertaking therefore has tremendous potential to positively impact the efficiency with which these services are being delivered.

The State Capitol and adjacent grounds are a treasure visited by numerous citizens and tourists and, while the building has received a significant investment in recent years to maintain and restore its grandeur, there remains much to be done. Adjacent state buildings have received much less attention over the past decades. Strategic investment in those facilities is required to address code deficiencies, and will result in a substantial reduction of operating costs. Upgrades and reorganization would increase the efficiency of the buildings, reduce energy use and also improve the effectiveness of the state workforce.

The year-long study analyzed the optimum organization of agency personnel within the Capitol Complex in order to provide the most cost-effective facilities possible. Staffing projections reflect modest adjustments over the coming years to respond to projected service needs, and space standards have been proposed that are comparable to those found in highly efficient public and private entities.

A central question of the Facilities Master Plan and a strategic question that all states confront is: what is the right mix of leased vs owned facilities to accommodate state functions? The State currently leases approximately 700,000 SF of space in the downtown core which represents 39% of total occupied space. This is a significant amount of space and has a large impact on the State's annual budget. While a short term analysis would lead one to extend leases due to relatively low rental rates for Class B office space, a deeper analysis suggests an alternate strategy.

The planning team carefully evaluated the purchase of all viable existing office buildings in, and adjacent to, the Capitol Complex. These were compared to the extension of existing leases and also to the construction of a new office building at Lincoln and Colfax. The recommended strategy is to build a new State office building to house up to 500,000 SF of state agencies currently in leased space. This approach offers the following benefits:

- Agencies can be co-located in higher efficiency space, reducing travel time between multiple facilities
- The options are cost neutral over a 30 year horizon from a cash perspective and the State would realize cost savings thereafter rather than being obligated to make lease payments in perpetuity
- The state would not be impacted by large fluctuations in the lease rate market and would ultimately own the asset
- This development provides a unique opportunity to transform two key blocks of the Capitol Complex through the integration of street-grade retail (restaurant, café, convenience shops) that would improve the pedestrian experience in the region.

Transforming the character of the area is also one of the primary objectives of this master planning effort. The Capitol Complex is primarily a single-use district, populated mostly by state agencies and as such, has limited activity beyond the normal workweek. It possesses very little of the civic identity that such a prominent district should exhibit. Given the high number of employees in the region, the natural amenities including the State Capitol, civic lawns, proximity to the Civic Center, views, adjacency to the arts district and Civic Center Station, and proximity to the Central Business District, there is tremendous potential for the area to become a vibrant neighborhood with a civic jewel at its core.

The keys to transforming the district include the following:

- Increased residential development that adds 24/7 activity
- A cohesive signage and streetscape program that improves wayfinding, civic identity and the pedestrian experience
- A new building at Lincoln and Colfax that adds worker activity and improves the street edge
- Development of a 'Capitol Mall' along Sherman Street that stimulates pedestrian and bicycle activity through the zone and dramatically changes the character of the neighborhood.
- Improvement of Civic Center Station as currently planned by RTD to enliven Colfax between Lincoln and Broadway and improve the view of the State Capitol from the 16th Street Mall
- Improvements to the west lawn of the Capitol to improve public access and civic presence
- Renovation of 1375 Sherman and 1313 Sherman
- Development of the State Land Board site for residential and retail uses with a possible future office component

Several of these improvements can be implemented by the State while others will require participation of the private sector as well as other agencies such as the City and County of Denver and RTD. There is interest and motivation from these other entities to help transform this area and we strongly recommend that the State takes a lead role in establishing a task force that can move this agenda forward. It will require a cohesive effort and will have significant benefit for all parties.

In order to drive greater value into the master planning process, the team conducted an extensive analysis of best practices from other states. Ten states were surveyed to understand how they manage and operate their facilities portfolio, as well as how they prioritize capital construction, building renewal and controlled maintenance needs. Additionally, approach to long range planning, facilities management structure and funding strategies were benchmarked and insights that best apply to Colorado have been detailed in the report.

One of the key observations is that much of the deteriorated condition of state office buildings can be attributed in large part to the lack of an annual allocation to address deferred maintenance and regular building upgrades. It is recommended that an amount equal to 1.5 to 2% of the replacement value of existing assets be budgeted for such purposes in the future. This report also recommends several organizational changes, detailed in section 6, that we believe will result in a more streamlined and effective decision making process.

In summary, it is the intent of this master plan that State facilities in the Capitol Complex are upgraded, agency personnel relocated, and leases consolidated in such a manner that State services will be provided in a more efficient and cost effective manner. The master plan also lays out a visionary and achievable strategy to transform the Capitol Complex District into a vibrant, mixed-use neighborhood that has a cohesive civic identity and offers a memorable pedestrian experience.

These goals can be achieved through implementation of the strategies outlined in Section 7.0. The state's ability to complete the recommendations depends on its annual funding capacity. Results can be accelerated through the use of public private partnerships, an increasingly common strategy for civic entities to deliver projects. Through the use of Certificates of Participation (COPs), or a 6320 non-profit entity, capital and expertise can be accessed to generate the desired results.

The district surrounding the State Capitol represents one of the most under-appreciated assets in Colorado. It has the potential to be a great place to live and work, as well as a remarkable destination for visitors. With appropriate levels of investment, State buildings can increase employee efficiencies and improve public access, while significantly reducing operating costs. Ultimately this master plan needs to be flexible to respond to changing legislative and executive branch priorities as well as evolving economic conditions.

The enclosed road map should be updated on a regular basis, and as many of the top priorities implemented as there are resources to accomplish. The planning team stands ready to assist, provide further clarification as needed and modify as necessary to enable the State to achieve as many of its stated goals as possible.

CAPITOL COMPLEX MASTERPLAN

DENVER, COLORADO

01

INTRODUCTION

1.1 Overview of the Master Plan

1.1.1 OVERVIEW OF MASTER PLAN SCOPE

C.R.S. 24-82-101(3) directs the Department of Personnel & Administration to develop a Master Plan for the Capitol Complex. The master plan is subject to final approval from the Office of State Planning and Budgeting and the Capital Development Committee and must be completed no later than December 1, 2014. Its scope is outlined as follows:

- Determine space utilization needs for state agencies located in and near the capitol complex;
- Prioritize the location of various state agencies based on their service functions;
- Consider the symbolic importance of certain capitol complex buildings and grounds;
- Identify opportunities for co-locating state agencies;
- Identify the most appropriate use of state owned and leased space for state agencies;
- Identify opportunities for energy cost savings and improved sustainability within state-owned facilities;
- Assess and improve security for state-owned facilities, especially for those state agencies performing sensitive government functions;
- Establish guidelines regarding the appropriate use and maintenance of grounds within the capitol complex;
- Assess existing parking capacity and identify the current and future need for capitol complex tenants, including the location of parking facilities;
- Establish guidelines for future development within the capitol complex, including a multi-year plan for:
    - New and renovated capital construction projects;
    - Controlled maintenance projects; and
    - Real estate acquisition or disposition transactions as applicable;
- Review the pedestrian circulation around the capitol complex;
- Suggest financing options for future improvements and development;
- Make recommendations on buying, selling, constructing, financing, or leasing properties in the capitol complex based on factors such as land use and centralization versus decentralization of state functions; and
- Address any other issues that the office of the state architect deems important in relation to the goals of the master plan.

1.1.2 PREVIOUS MASTER PLANNING EFFORTS

Beginning in the late 1960s, several master planning efforts, ranging in scope and purpose, have been undertaken to guide the future of the Capitol Complex. Two recent plans were appropriated and initiated and subsequently de-appropriated because of budget issues prior to completion of any analysis.

- Master Site Plan, Colorado State Capitol, Volume 4 of The Capitol Complex Master Plan, Prepared For The State of Colorado, By, S.U.A. Incorporated, John Carl Warnecke and Associates, September 1967.
- Space Master Plan for the State of Colorado Capitol Complex, by Pouw & Associates, Inc., Geisler Smith Associates, and Joseph Farber & Co., April, 1989
- Capitol Complex Master Plan, De-appropriated, 2002
- Capitol Complex Master Plan, De-appropriated, 2009

1.1.3 METHODOLOGY

Initial Master Plan Assessment

The first 60 days of the master planning process were focused on addressing three high priority issues: A Build/Buy/Lease analysis, the West Lawn, and a condition assessment for 1313 and 1375 Sherman Street. Based on a high level estimate of space needs, the RNL/JLL team identified all viable buildings in and around the Capitol Complex for purchase and evaluated those, both on a short term and long term basis, to building a new state office building at Lincoln and Colfax and also toward the strategy of continuing to maintain existing leased space. The extension of the West Lawn of the Capitol over Lincoln Street was further developed in order to understand projected costs and the pros and cons associated with the project. The two state office buildings most in need of upgrades (1313 and 1375 Sherman Street) were evaluated in detail to determine renovation costs and appropriate agency occupants.

Agency Assessments

Interviews were conducted with all agency executive and deputy directors, elected official staff, and General Assembly service agency staff to understand missions, organizational structures, which agency functions need to be in proximity to other agencies or the Capitol and which functions could be located elsewhere, current and projected staffing levels, unique space needs, and ideal space configuration to deliver efficient services. Staff projections were based on historic departmental appropriations as well as input from the agency directors regarding conditions unique to the individual agencies at this time.

Space standards were developed for all functions based on functional need and were benchmarked against best practices of other states and the private sector. Total space needs by group were then tabulated and are summarized in Chapter 3.0 - Agencies.

Consolidation of Agencies and Renovation of Facilities

Departmental relocations have been recommended in order to consolidate agency functions currently dispersed in multiple buildings and allow for phased renovation of state owned buildings that will create effective and efficient workspace and lower operating and deferred maintenance costs.

Detailed Facility Assessments

Detailed condition assessments were completed for all state owned buildings in the Complex in order to determine the level of work required to bring each building up to acceptable standards. In part due to the lack of a guaranteed funding mechanism for building maintenance and upgrades, several of the buildings in the Capitol Complex have fallen into disrepair and require significant improvements. For each building, the assessment addressed mechanical, electrical, structural, architectural, code, security, and technology needs, and then associated cost estimates were developed for each. These assessments can be found in Chapter 4.0 - Facility Assessments.

Urban Design

The downtown Capitol Complex study area was defined as a sixteen square block area, defined by Broadway, Logan, 12th Avenue and 16th Avenue. A comprehensive urban design analysis of this area examined all factors affecting the experience of legislators, employees, the business community, and general public either working in or visiting the Complex. Multiple concepts were analyzed in order to increase the level of activity and vibrancy, improve the pedestrian experience, encourage private sector investment and enhance the overall character of the area around the State Capitol. Analysis and recommendations can be found in Chapter 5.0 - Urban Design.

Outreach

Meetings were conducted with the City and County of Denver, Regional Transportation District (RTD), the Civic Center Conservancy, the Downtown Denver Partnership, representatives from the local business community and private developers in order to solicit ideas that would facilitate achieving the urban design goals.

Benchmarking

The master plan team conducted a benchmarking analysis which included studies of space allocation, facility management, and funding strategies of other states with similarities to Colorado. Data was gathered on ten state capitols and detailed interviews were conducted with Minnesota, Utah and Washington, the three that had notable similarities and offered the best learning opportunities. Several ‘best practices’ were identified through this process that provide valuable insights and have informed the recommendations. Analysis and recommendations can be found in Chapter 6.0 - Benchmarking.

Recommendations and Next Steps

The master plan makes several recommendations for the relocation of agencies from leased space into State owned space; the space needs have been accommodated by a combination of new construction, renovation and efficient right sizing of space. The master plan also proposes the Capitol Mall concept as an over arching element to define a Capitol campus and activate the downtown Capitol Complex. To achieve these goals it is suggested that a task force be formed composed of key decision makers from the State and that it include influential members of the surrounding districts, neighborhoods, governmental and private agencies. This task force would help to coordinate the efforts of the surrounding community to benefit the State and the citizens in making the recommended enhancements to the Capitol Complex.

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02

OVERVIEW OF THE CAPITOL COMPLEX

2.1 - General Overview of Campus and Agency Locations

2.1.1 OVERVIEW OF CAPITOL COMPLEX CAMPUSES INCLUDED IN THE MASTER PLAN

Downtown Capitol Complex Campus

The downtown campus consists of ten, tenant-occupied buildings with a total of 1,300,998 square feet, clustered on 15 city blocks on the southeast corner of Denver's Central Business District. These blocks are bound by Broadway to the west, 16th Avenue to the north, Logan Street to the east, and 12th Avenue to the south. The campus contains three large open spaces (Lincoln Park and the Capitol's east and west lawns). Additionally, the campus contains five surface parking lots and one parking structure with a total of 905 parking spaces (this count does not include the Capitol Circle or Motor Pool lots as they are not part of the general inventory of State-owned spaces). The 15 block campus includes several privately owned parcels and buildings, but the presence of the State-owned facilities provides the area with a unique identity.

Portions of the campus - most notably the Capitol Building, its grounds, Lincoln Park and the buildings along Sherman Street - are an integral part of the larger, historic Denver Civic Center that includes a number of City of Denver buildings (including the City and County Building), cultural institutions (the Central Library and the Denver Art Museum), and an extended open space system that acts as the binding element among the various uses. Further detail on the Downtown Campus can be found in section 2.2.1.

Kipling Campus

The Kipling campus is comprised of two office buildings - with a total of 128,000 SF - located at the northeast corner of Kipling Street and the 6th Avenue freeway (US Highway 6) in Lakewood, Colorado, a western suburb of Denver. The State-owned facilities are located just east of the 6th Avenue Frontage Road as it approaches Kipling Street. A third, privately-owned building - built contemporaneously and as part of a three building set with the State-owned buildings - is located just east of Kipling Street and north of the junction with the 6th Avenue Frontage Road. Further detail on the Kipling Campus can be found in section 2.2.2.

Pierce Street Site

The Pierce Street site consists of a single structure on a large parcel of land in Lakewood, Colorado. The site is bound by 20th Avenue to the north, Pierce Street to the east, 17th Avenue to the south, and Reed Street to the west. The site is comprised of a large, single story building (119,502 SF) on a 24 acre site, approximately six acres of which are surface parking. Further detail on the Pierce Street Site can be found in section 2.2.3.

North Campus

The North Campus consists of three single-story buildings located at the northwest corner of 62nd Avenue and Downing Street approximately three-quarters of a mile north of the Denver City and County border in Adams County. The three buildings sit on 6.27 acres of paved land and have a combined total of approximately 98,000 square feet. Further detail on the North Campus can be found in section 2.2.4.

Executive Residence and Carriage House

The Executive Residence is the residential compound offered to the Governor of Colorado. It is located on the southeast corner of Logan Street and 8th Avenue in Denver Colorado, four blocks south of the southern-most portion of the Downtown Campus. The site consists of a 26,430 square foot residence and a 4,837 square foot carriage house. The two buildings sit on 2.18 acres which are largely made up of formal gardens and terraces, as well as a parking lot across Logan Street. Further detail on the Executive Residence site can be found in section 2.2.5.

Camp George West Campus

The Camp George West campus is 290 acres of land located on Golden Road - just north of the Colfax Avenue and Interstate 70 junction - in Golden, Colorado. The site contains 64 buildings, though they are not managed by Capitol Complex Facilities. Further detail on the Camp George West site can be found in section 2.2.6.

Grand Junction Site

The Grand Junction site is comprised of a single 51,194 square foot office building on the northeast corner of Ute Avenue and 6th Street in downtown Grand Junction, Colorado. The building sits on 0.83 acres and is surrounded by surface parking. Further detail on the Grand Junction site can be found in section 2.2.7.

Diagram Showing State-Owned, CCF-Managed Building Locations Across the State of Colorado

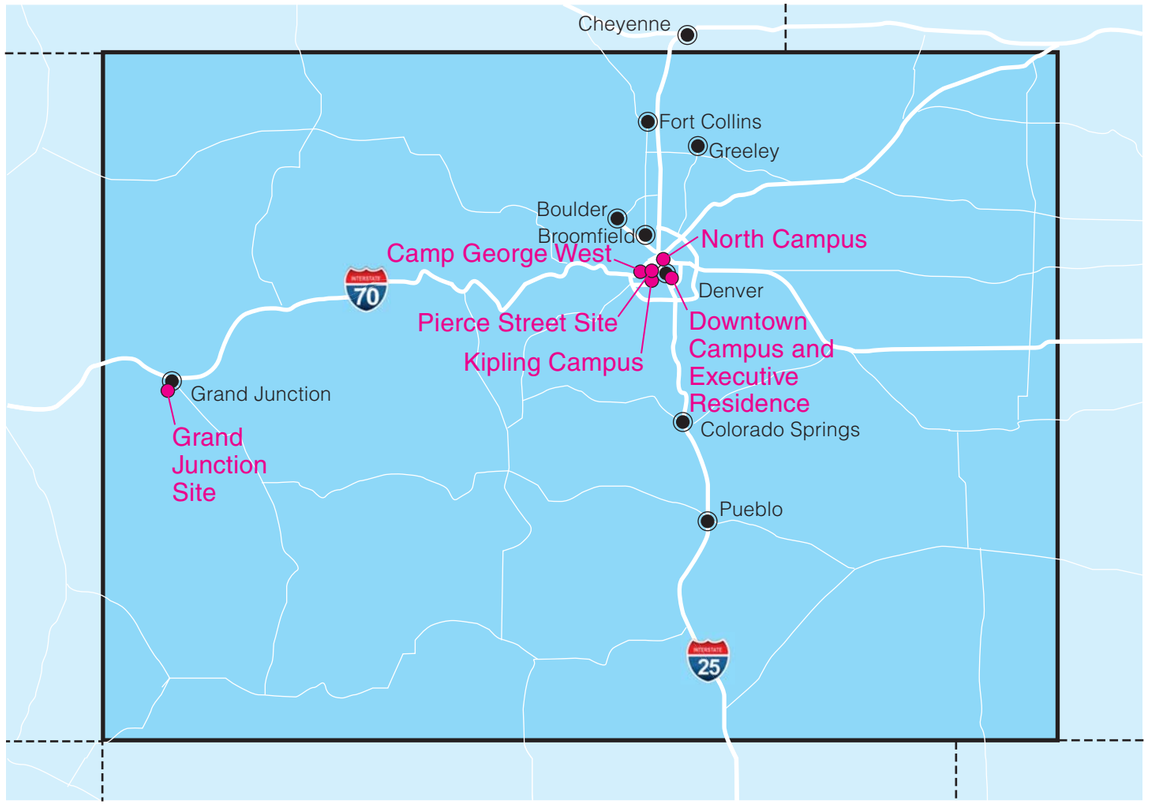
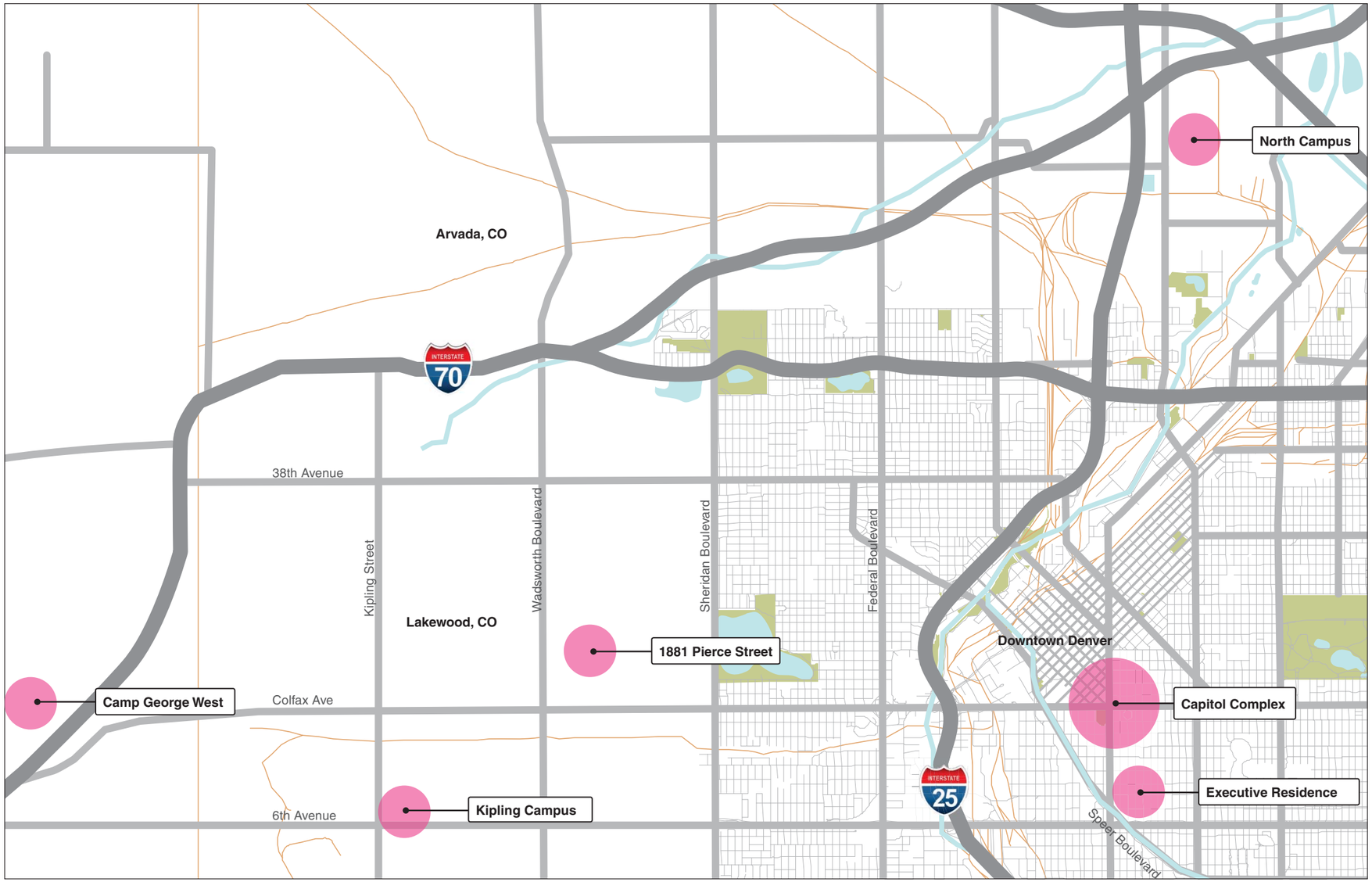


Diagram Showing State-Owned, CCF-Managed Building Locations Across the Denver Region



2.1.2 OVERVIEW OF AGENCIES IN THE CAPITOL COMPLEX

General Overview of the Agencies Located In or Near the Downtown Campus

The following State departments occupy space in or near the Capitol Complex in either DPA-owned/Capitol Complex Facilities managed, agency-owned, or commercially leased facilities and are included in the scope of the master plan.

Executive /Elected Officials

- Office of the Governor
- Office of the Lieutenant Governor
- Secretary of State
- Department of Treasury

Executive/Branch Agencies

- Department of Education (DOE)
- Department of Health Care Policy & Financing (HCPF)
- Department of Higher Education (DHE)
- Department of Human Services (DHS)
- Department of Labor & Employment (DOLE)
- Department of Local Affairs (DOLA)
- Department of Natural Resources (DNR)
- Department of Personnel & Administration (DPA)
- Department of Public Safety (DPS)
- Department of Regulatory Agencies (DORA)
- Department of Revenue (DOR)

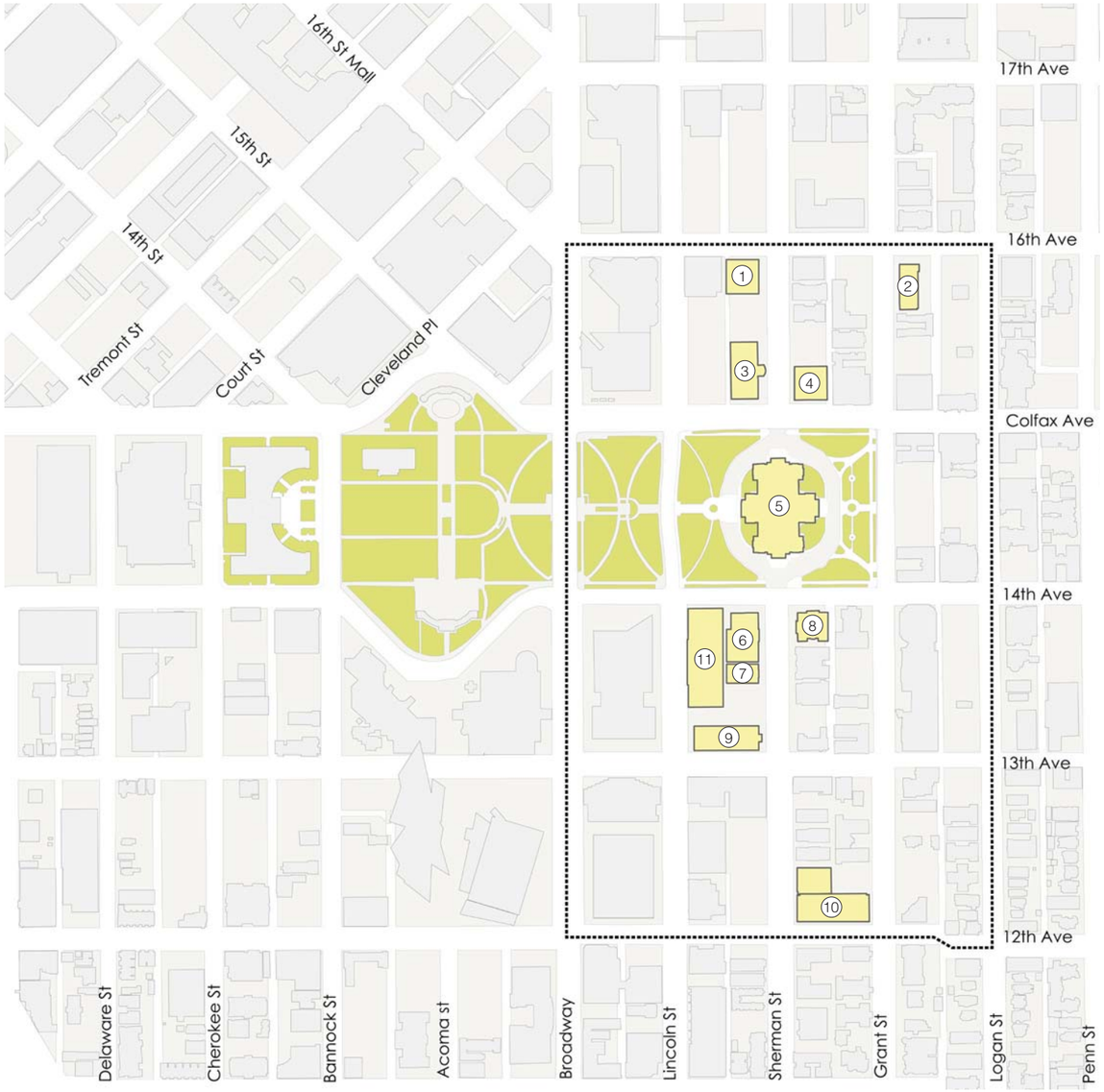
Legislative

- General Assembly (GA)
- Joint Budget Committee (JBC)
- Legislative Council
- Legislative Legal Services
- State Auditor

*Agencies or locations excluded from this study include Department of Agriculture, Department of Corrections, Department of Military and Veterans Affairs, Department of Public Health and Environment, and Department of Transportation.

2.2 - Detailed Campus Overviews

Diagram 3.4 Showing State-Owned, CCF-Managed Building Locations in Capitol Complex



Capitol Complex Buildings

1. Human Services Building
2. 1570 Grant Building
3. State Services Building
4. State Office Building
5. State Capitol Building
6. Capitol Annex
7. Power Plant
8. Legislative Services Building
9. Centennial Building
10. DOLE Building
11. Merrick Parking Structure

2.2.1 - DOWNTOWN CAMPUS

Capitol Complex Buildings and Facilities in the Downtown Campus:

The downtown campus contains a majority of Capitol Complex Facilities-managed buildings. There are ten buildings within the campus and comprise a total gross floor area of 1,523,920 square feet. The downtown campus buildings are as follows:

1. Human Services Building, 1575 Sherman Street
   - Constructed in 1952, acquired by the State of Colorado in 1964, renovated in 1987.
   - GFA: 145,370 square feet
   - Tenants: DHS (548 total staff)
2. 1570 Grant Street
   - Constructed 1956, acquired by State of Colorado in 2001.
   - GFA: 49,751 square feet
   - Tenants: HCPF (226 total staff)
3. State Services Building, 1525 Sherman Street
   - Constructed in 1960, renovated in 1992, updated in 2014.
   - GFA: 165,930 square feet
   - Occupants: General Assembly, Auditor, DPA (320 total staff)
4. State Office Building, 201 East Colfax Avenue
   - Constructed in 1921, added to National Historic Register in 1974, renovated in 1985.
   - GFA: 78,115 square feet
   - Tenants: DOE (272 total staff)
5. State Capitol Building, 200 East Colfax Avenue
   - Constructed in 1886 to 1903, added to National Historic Register in 1974.
   - GFA: 323,375 square feet
   - Occupants: Office of the Governor, Office of Lieutenant Governor, Department of Treasury, General Assembly, Legislative Council, Legislative Legal Services, DPS - State Patrol, DPA (286 total staff)
6. Capitol Annex, 1375 Sherman Street
   - Constructed in 1937, added to National Historic Register in 1991.
   - GFA: 114,720 square feet.
   - Tenants: DOR (548 total staff)
7. Power Plant, 1341 Sherman Street
   - Constructed in 1939, added to National Historic Register in 1991.
   - GFA: 25,690 square feet
   - Tenants: DPS - State Patrol (59 total staff)
8. Legislative Services Building, 200 East 14th Avenue
   - Constructed in 1915, added to National Historic Register in 1974, renovated in 1986.
   - GFA: 59,301 square feet
   - Occupants: General Assembly, Joint Budget Committee, and Legislative Council (47 total staff)
9. Centennial Building, 1313 Sherman Street
   - Constructed 1976.
   - GFA: 201,746 square feet
   - Tenants: DNR, DOLA, DPA (473 total staff)
10. Department of Labor and Employment, 251 East 12th Avenue (DOLE owns and manages this building)
    - Constructed in 1957.
    - GFA: 137,000 square feet
    - Tenants: DOLE (320 total staff)
11. Merrick Parking Structure
    - Constructed in 2006.
    - (See Parking Section)

Parking

Off-Street Parking

The downtown campus includes seven State-owned surface parking lots that comprise a total of 3.65 acres and 242 parking spaces, as well as one 5-level parking structure that contains 663 spaces, totalling 905 off-street parking spaces:

1. Tan Parking Lot, 1520 Lincoln Street
   - Area: 0.9 Acres
   - Number of Spaces: 115
2. Green Parking Lot, 1520 Lincoln Street
   - Area: 0.1 Acres
   - Number of Spaces: 15
3. Yellow Parking Lot, 1530 Sherman Street
   - Area: 0.4 Acres
   - Number of Spaces: 46
4. Blue Parking Lot, 1570 Grant Street
   - Area: 0.2 Acres
   - Number of Spaces: 19
5. Merrick Parking Garage, 1350 Lincoln Street
   - Area: 5 parking stories (200,000 Square feet)
   - Number of Spaces: 663
6. Black Parking Lot, 1325 Sherman Street
   - Area: 0.4 Acres
   - Number of Spaces: 47

Additionally, the Motor Pool Lot and the Capitol Circle are State-owned facilities but are not available as part of the general inventory of State spaces:

7. Motor Pool Lot, 1550 Lincoln Street
   - Area: 0.4 Acres
   - Number of Spaces: 45
8. Capitol Circle, 200 East Colfax Avenue
   - Area: 1.25 Acres
   - Number of Spaces: 162

On-Street Parking

There are approximately 467 on-street parking spaces within the Downtown Campus. Almost 87% of the on-street parking spaces in the study are controlled through the use of single-space parking meters. The time limit on those meters include: 1 hour limits, 2 hour limits, and some with 5 hour limits. The remaining 13% of the on-street spaces are not metered but are restricted with a 2 hour time limit.

The on-street spaces in the study area are controlled and managed by the City of Denver. During the legislative sessions the metered spaces along Sherman and Grant Streets are bagged and are under the control of the State Senate Sergeant of Arms.

Parking Operations

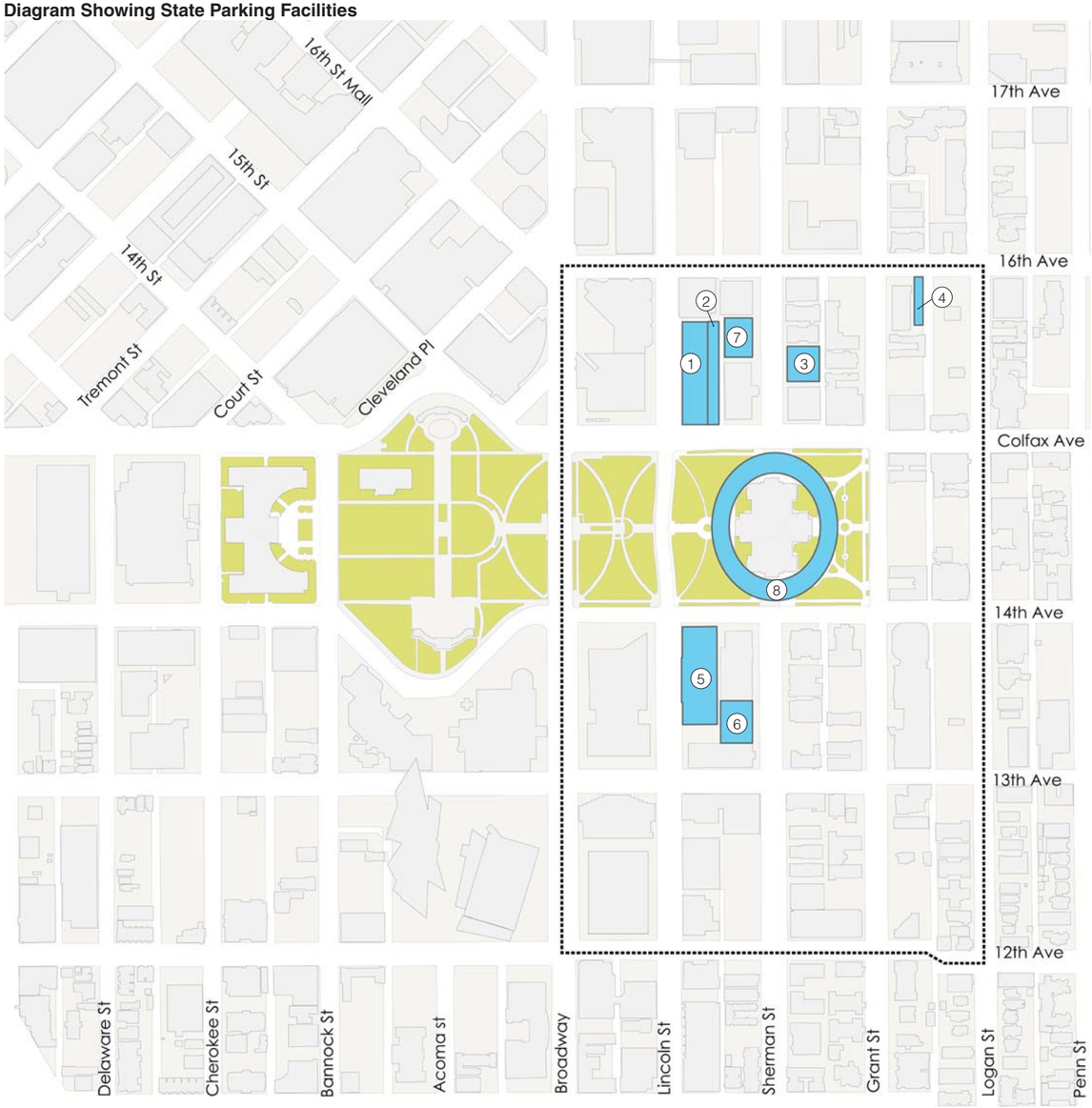
The State controlled Capitol Complex parking is allocated by the General Assembly and administered by the Department of Personnel & Administration (DPA). Parking in the Capitol Circle is not managed by the Capitol Complex Facilities parking office. The Capitol Circle is largely reserved for the legislative branch and the Office of the Governor. Some spaces in the Capitol Circle are for use by other elected officials, employees with physical challenges that work in the Capitol, loading, facilities maintenance, etc. Outside of the Capitol Circle, approximately 66% of parking spaces are allocated to individual employees and 34% are allocated to agencies. Each parking space is assigned to a specific agency or employee and there is no oversell of available parking.

The State of Colorado does not provide visitor parking. Visitors are expected to utilize on-street spaces or privately owned off-street facilities.

Approximately 400 employees are on the current waiting list for parking permits. Approximately 14% of the people on the waiting list have been waiting for one year or more.

Note: While not included in the scope of the master plan the Judicial Center and History Colorado Museum have separate parking resources. Judicial has 299 spaces in the parking garage located on the 1200 block of Lincoln. History Colorado has 25 spaces located in the same structure. Judicial also has an additional 72 parking spaces located under the Judicial Center as parking for supreme court justices and appellate court judges.

Diagram Showing State Parking Facilities



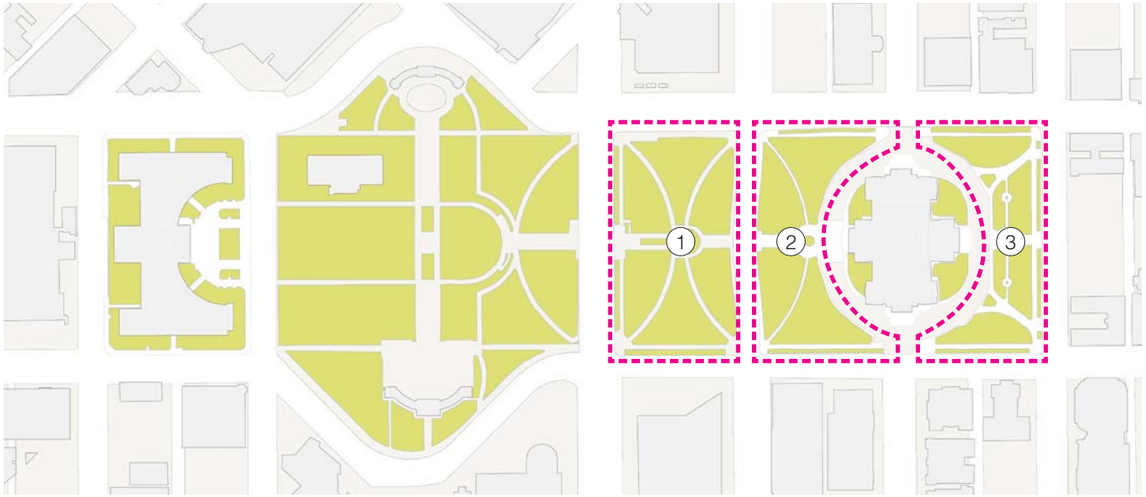
1. Tan Parking Lot
2. Green Parking Lot
3. Yellow Parking Lot
4. Blue Parking Lot
5. Merrick Parking Structure
6. Black Parking Lot
7. Motor Pool Lot
8. Capitol Circle

Capitol Complex Parking Facilities

The downtown campus includes three primary open spaces that comprise a total of 6.6 acres. These open spaces make up a part of the larger Civic Center Park open space framework that extends to the west. The State-owned open space facilities are:

1. Lincoln Park
    - Bound by the Lincoln Street, Colfax Avenue, Broadway, and 14th Avenue
    - Area: 3.0 Acres
2. The Capitol Grounds West Lawn
    - Bound by the Capitol Building, Colfax Avenue, Lincoln Street, and 14th Avenue
    - Area: 2.0 Acres
3. The Capitol Grounds East Lawn
    - Bound by the Capitol Building, Colfax Avenue, Grant Street, and 14th Avenue
    - Area: 1.6 Acres

Diagram Showing State-Owned Open Spaces in Capitol Complex



1. Lincoln Park
2. West Lawn
3. East Lawn

Transit

The data obtained from the agency interviews indicate that as many as 50% of State employees utilize RTD ecopasses to ride public transportation. Civic Center Station is located one block northwest of the Capitol Building and functions as a major transportation hub served by multiple bus routes as well as the 16th Street Free Mall Ride and the Downtown Circulator both of which connect to Denver Union Station.

Many employees take advantage of alternative forms of transportation. Although exact figures are not currently available, it appears that many employees bike to work. There is currently a waiting list for the bicycle lockers located north of 1525 Sherman Street.

In addition, employees can take advantage of the State's carpool/vanpool parking program. Approved participants are eligible to receive a discount on their parking fees based on the number of people in their carpool.

Visitation

The Colorado State Capitol is a major tourist destination in the downtown area, attracting between 250,000 and 300,000 thousand visits per year. In addition the Capitol building is a working building currently housing offices for the General Assembly and staff, the Governor and Lieutenant Governor and accompanying staff, and the State Treasurer and staff.

Public access to the Capitol is provided at the first floor on the north entry and accessible access is provided at the basement/ground level at the south entry. Both public access points require visitors to pass through magnetometer devices which are administered by the State Patrol.

The east and west entries to the Capitol are controlled entrances for State employees and members of the General Assembly.

Even with state agencies providing more opportunities to conduct business on-line, a number of agencies - including DOR, DOLE, and DNR - still have significant walk-in traffic. While some of these visitors may use public transportation, the lack of adjacent visitor parking presents challenges.

Security

The following primary security systems are currently in place throughout the Capital Complex: access control (ACS), video surveillance, wireless duress and central monitoring by CSP.

The access control system deployment is campus wide and currently exists throughout other Capitol Complex Facilities-managed buildings within the system with the exception of a DOR-exclusive card reader system within the Capitol Annex Building and 1881 Pierce Street. The ACS serves as the primary security management system for monitoring intrusion alarms. The state's existing wireless duress alarm system infrastructure is in place and operational. The existing security systems are controlled and monitored centrally from Colorado State Patrol's Central Command Center (CCC) in Denver CO. Within the downtown campus, the CCC is staffed by the Executive Protection Unit of the Colorado State Patrol based out of the Power Plant Building.

2.2.2 KIPLING CAMPUS

Capitol Complex Buildings

1. 700 Kipling Building, 700 Kipling Street, Lakewood
   - Constructed in 1985, acquired by the State of Colorado in 1992
   - GFA: 36,380 square feet
   - Tenants: DPS (212 total staff)
2. Dale Tooley Building, 690 Kipling Street, Lakewood
   - Constructed in 1985, acquired by the State of Colorado in 1986
   - GFA: 42,008 square feet
   - Tenants: OIT, DPS (151 total staff)

Parking

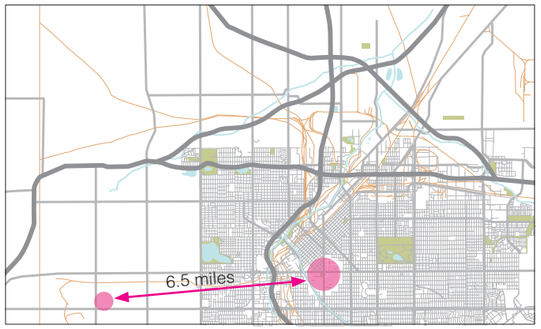
1. Dale Tooley Building
   - Total spaces = 159
   - Visitor only parking = 18
   - Employee only parking (CBI-GGCC) = 141
2. 700 Kipling Building
   - Total spaces = 212
   - Visitor only parking = 9
   - Employee only parking = 203

Security

The following primary security systems are currently in place throughout the Capitol Complex: access control (ACS), video surveillance, wireless duress and central monitoring by CSP.

The access control system deployment is campus wide and currently exists throughout other state Capitol Complex Facilities managed buildings within the system. The ACS serves as the primary security management system for monitoring intrusion alarms. The state's existing wireless duress alarm system infrastructure is in place and operational.

Location Map Relative to the State Capitol Building



Oblique View of the Kipling Campus

1. 700 Kipling Building
2. Dale Tooley Building

2.2.3 PIERCE CAMPUS

Capitol Complex Buildings

1. 1881 Pierce Building, 1881 Pierce Street
   - Constructed in 1972, acquired by the State of Colorado in 1983
   - GFA: 90,261 square feet
   - Tenants: DOR (362 total staff)

Parking

1. 1881 Pierce Building
   - Total parking spaces = 418
   - Visitor-only parking = 111

Visitation

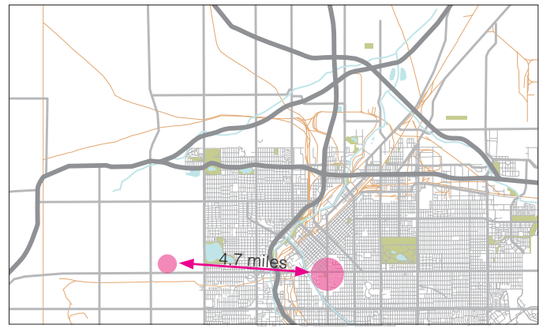
The Pierce Campus experiences a high level of visitation due to a Department of Motor Vehicles office being located at this facility.

Security

The following primary security systems are currently in place on the Pierce Campus: access control (ACS), video surveillance, and wireless duress. Emergency response is provided by Lakewood Police.

The access control system deployment is campus wide and currently exists throughout other Capitol Complex Facilities managed buildings within the system. The ACS serves as the primary security management system for monitoring intrusion alarms. The state's existing wireless duress alarm system infrastructure is in place and operational.

Location Map Relative to the State Capitol Building



Oblique View of the Pierce Campus

1. 1881 Pierce Building

2.2.4 NORTH CAMPUS

Capitol Complex Buildings

1. North Campus North Building, 6321 N. Downing St,
   - Constructed in 1968, acquired by State of Colorado in 1976
   - GFA: 21,175 Square Feet
   - Tenants: Storage
2. North Campus East Building, 6221 N. Downing St,
   - Constructed in 1968, acquired by State of Colorado in 1976
   - GFA: 38,916 Square Feet
   - Tenants: Storage
3. North Campus West Building, 1001 E. 62nd Ave,
   - Constructed in 1968, acquired by State of Colorado in 1976.
   - GFA: 37,711 Square Feet
   - Tenants: DPA Central Services, DOLE, DOR (90 total staff)

Parking

71 employee parking spaces including 2 disabled and 2 reserved spaces

Visitation

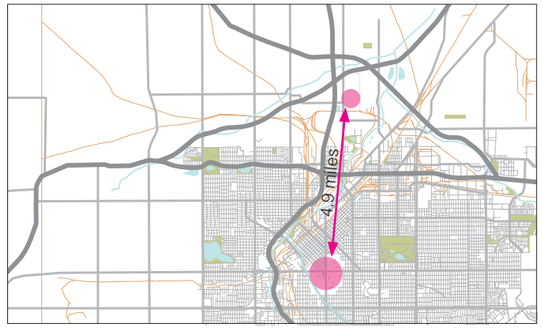
The North Campus due to its function has minimal visitors outside of the State employees assigned to this location.

Security

The following primary security systems are currently in place throughout: access control (ACS), video surveillance, and wireless duress. Emergency response is provided by Adams County Police.

The access control system deployment is campus wide and currently exists throughout other Capitol Complex Facilities managed buildings within the system. The ACS serves as the primary security management system for monitoring intrusion alarms. The state's existing wireless duress alarm system infrastructure is in place and operational.

Location Map Relative to the State Capitol Building



Oblique View of the North Campus

1. North Campus West Building
2. North Campus East Building
3. North Campus North Building

2.2.5 EXECUTIVE RESIDENCE

Capitol Complex Buildings

1. Executive Residence, 400 East 8th Avenue
   - Constructed in 1908, donated to the State of Colorado in 1959, added to National Historic Register in 1969
   - GFA: 26,430 Square Feet
   - Tenants: Residence of the incumbent Governor of Colorado
2. Carriage House, 400 East 8th Avenue
   - Constructed in 1908, donated to the State of Colorado in 1959, added to National Historic Register in 1969, remodeled in 2006
   - GFA: 4,837 Square Feet
   - Tenants: Auxiliary structure to Executive Residence

Parking

Executive Residence parking lot is located directly to the west of the Residence at the southwest corner of 8th Avenue and Logan Street. The Executive Residence lot serves two purposes:

- Governor's Residence Parking from 5:00pm - 6:00am
- Leased for other uses from 6:00am to 5:00pm
  - Total spaces = 83

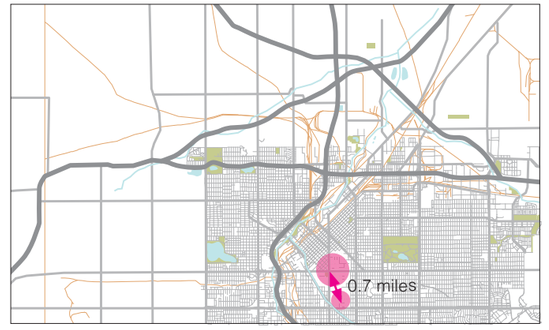
Visitation

Executive Residence hosts numerous functions with visitors.

Security

The Colorado State Patrol is responsible for security of the Executive Residence and Carriage House. The Residence has a security office with monitors and alarms that are manned by the Colorado State Patrol. The Executive Residence and Carriage House are staffed by the Executive Protection unit of the Colorado State Patrol.

Location Map Relative to the State Capitol Building



Oblique View of the Executive Residence and Carriage House

1. Executive Residence
2. Carriage House

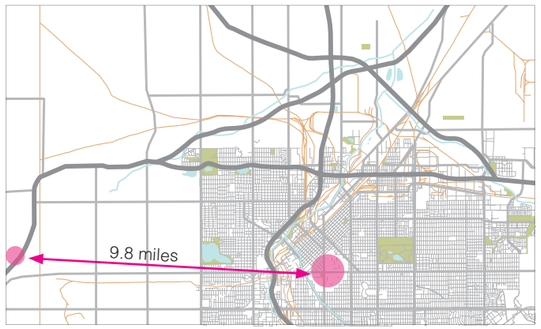
2.2.6 CAMP GEORGE WEST

Capitol Complex Buildings

There are 64 individual buildings on the Camp George West campus and they are owned and managed by the departments that occupy them. The site and its infrastructure is owned and managed by the DPA and the Capitol Complex Facilities respectively. The site and its infrastructure is subject to this master plan but the buildings are not.

- Established in 1903 as the State Rifle Range, designated Camp George West in 1934, placed on Historic Register in 1993
- Site area: 289.78 acres
- Tenants: Department of Corrections and Correctional Industries, Department of Military and Veterans Affairs, Department of Public Safety, Department of Transportation

Location Map Relative to the State Capitol Building



Aerial View of the Camp George West Campus

2.2.7 GRAND JUNCTION STATE SERVICES BLDG

Capitol Complex Buildings

1. Grand Junction State Services Building, 222 S. 6th Street, Grand Junction, Co
   - Constructed in 1983
   - GFA: 52,000 square feet
   - Tenants: DPA, DPHE, DOLE, DOLA, DOR, DOT, DORA, DNR

Parking

- Grand Junction State Services Building, 222 S. 6th Street, Grand Junction, Co
  - Spaces in State-owned lot = 42 metered
  - Spaces in adjacent, privately owned lots = 41
  - Accessible Spaces = 3

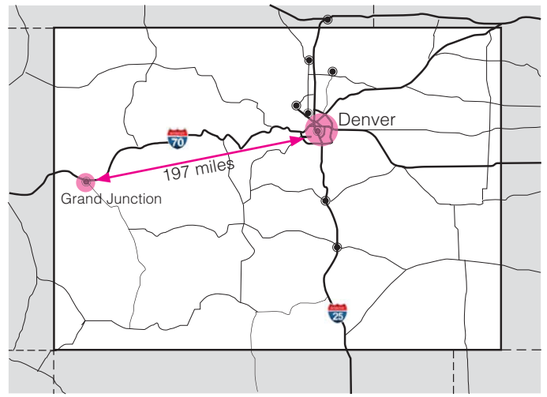
Visitation

The Grand Junction State Services Building experiences a moderate level of visitation.

Security

The primary security system that is currently in place at the Grand Junction State Services Building is access control. The Grand Junction police respond to this building.

Location Map Relative to the State Capitol Building



Oblique View of the Grand Junction State Services Building

1. Grand Junction State Service Building

CAPITOL COMPLEX MASTERPLAN | DENVER, COLORADO

03
AGENCIES

3.1 Methodology

The current master plan builds upon space needs programming data from the majority of State agencies collected by the previous master planning consultant in 2008. The data and information collected at that time was verified in 2013 through the redistribution of the 2008 documentations to each department, and a series of interviews with management leaders in those organizations. The newly compiled and updated information was then reviewed through interviews conducted with the executive director, or a representative from the director's office, for each department to confirm information and directions received through the verification process.

Space Planning Interviews

The space planning interviews were conducted with the deputy director or assigned representatives from the executive and legislative functions between September and November of 2013. Follow up interviews with the executive director's office from each department were conducted in January and February of 2014. The purpose of the interviews was to update data previously compiled, as noted above, and discuss operating and space conditions listed below:

- Mission/function.
- Organizational structure.
- Staff levels since 2008, any available historical staff data, and primary workload indicators.
- Frequent interaction with other departments necessitating a close physical adjacency.
- Adjacency requirements to be within the Capitol Complex.
- Impact of technology on current and projected department operations and/or staffing.
- Deficiencies with the current space at each location.
- Any unique space types required.
- Any parking, security or service concerns at any location.

The interview information provided the department's qualitative perspective of its needs, as well as the basic quantitative data necessary for the consultant team to begin the planning process. The updated surveys provide an analytical description of characteristics necessary to project future personnel and space needs, determine location requirements, and identify other factors critical to the department satisfying its mission. Updated surveys for each department are provided in supporting documents (see Appendix 1 (a) - Updated Surveys).

General comments from the department interviews related to space use are highlighted below.

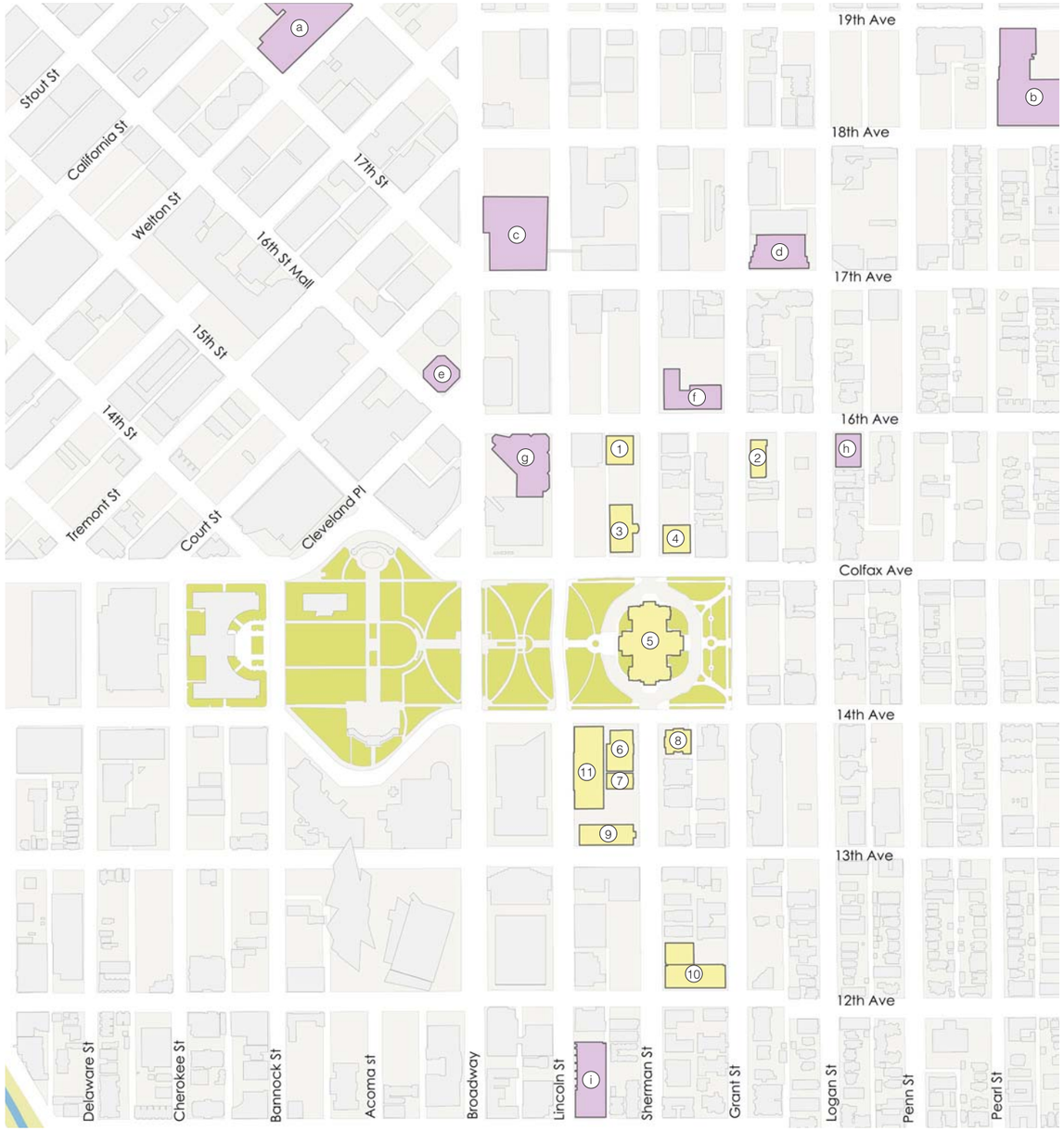
- Staff growth is primarily dictated by legislative changes, and is therefore somewhat difficult to project out more than one year.
- Requests for additional space are typically only appropriated with an increase of 20 or more positions, resulting in makeshift solutions within existing space to accommodate growth.
- Current office space in many locations, particularly in the older and owned State buildings, is dated, with less than ideal working conditions.
- Office workspace conditions are somewhat dictated by outdated furniture solutions and issues (this applies less to more recently leased locations) including:
  - Open office furniture (e.g. workstations) utilize obsolete and/or declining components that are beyond their serviceable life;
  - This frequently contributes to decreased efficiencies in space use, decreased flexibility for reconfiguration and change, lower levels of light, and a less professional appearance;
  - In general where workstation panels are used, they are very tall, with freestanding furniture within. This typically results in larger individual workspace footprints than are necessary, and limits access to natural light by blocking light from reaching the interior spaces; and
  - Storage tends to be scattered, decentralized and inefficient.
- Technology improvements have been made since 2008 in a number of locations, particularly with respect to conference room AV and communications devices. There are still technology challenges related primarily to infrastructure in many locations.
- Parking availability for clients and public visitors is an issue for most downtown Denver locations, and is a particular challenge both for visitors and staff during legislative sessions (see Section 5.6 in Chapter 5.0 - Urban Design).
- Security is an on-going concern in some locations (specific issues are addressed in the Section 4.5 in Chapter 4.0 - Facility Assessments).
- A number of agencies have a desire to be more consolidated including the Department of Education, Department of Revenue, Health Care Policy and Financing and Department of Natural Resources. These preferences were addressed in the development of alternatives.
- Virtually all agencies want to have at least some presence in the Capitol Complex whether that be their full operations or, at a minimum, an executive office.

Lease vs. Own Strategies

The map to the right shows the Capitol Complex and surrounding downtown area and indicates which buildings the State occupies that are owned versus leased, and which departments occupy space in these locations. As the State considers the alternatives and recommendations outlined in this document it is important to consider the issues related to owning versus leasing space. Leased space has provided the State with overflow space as agencies have outgrown their owned facilities. It has also provided some flexibility for agencies that have had significant fluctuations in staff based on federal or state funding and programs from year to year. However, a long term strategy and goal of the State is to own more than lease, and only lease space for those agencies that have historically experienced significant change.

It is significant to note that entire agencies such as the Department of Regulatory Agencies and the Department of Higher Education and half of the Department of Labor and Employment are located in leased space. The Secretary of State and the Unclaimed Property Office of the Department of Treasury are in leased rather than owned space. And finally, several of the organizational units of the Governor's Office, which have been in existence for over a quarter of a century, including the Office of Economic Development and International Trade and the Energy Office as well as more recently created Office of Information Technology, are in leased space as well. All of these entities perform on-going functions of State government. These agencies were recommended to be consolidated in State-owned space while agencies having expanding needs are recommended to be consolidated in leased space.

Diagram Showing Agency Locations in Owned and Leased Space



Capitol Complex Buildings

1. Human Services Building, 1575 Sherman Street
   - Tenants: DHS
2. 1570 Grant Street
   - Tenants: HCPF
3. State Services Building, 1525 Sherman Street
   - Tenants: DPA, State Auditor, GA
4. State Office Building, 201 East Colfax Avenue
   - Tenants: DOE
5. State Capitol Building, 200 East Colfax Avenue
   - Tenants: Office of the Governor, Office of Lieutenant Governor, Department of Treasury, GA, Legislative Council, Legislative Legal Services, DPS-State Patrol, DPA-CCF
6. Capitol Annex, 1375 Sherman Street
   - Tenants: DOR
7. Power Plant, 1341 Sherman Street
   - Tenants: DPS-State Patrol
8. Legislative Services Building, 200 East 14th Avenue
   - Tenants: GA, Joint Budget Committee, Legislative Council
9. Centennial Building, 1313 Sherman Street
   - Tenants: DNR, DOLA, DPA-Archives
10. Department of Labor and Employment, 251 East 12th Avenue
    - Tenants: DOLE
11. Merrick Parking Structure
    - Tenants: N/A

Privately Owned Buildings with State Tenants

a. 633 and 621 17th Street
   - Tenants: DOLE

b. 601 E 18th Avenue
   - Tenants: OIT

c. 1700 Broadway
   - Tenants: Secretary of State

d. 303 E. 17th Avenue
   - Tenants: HCPF

e. 1625 Broadway
   - Tenants: OEDIT

f. 225 E. 16th Avenue
   - Tenants: HCPF

g. 1560 Broadway
   - Tenants: DORA, DHE, DOE

h. 1580 Logan Street
   - Tenants: GEO, DOE, TREASURY

i. 1120 Lincoln Street
   - Tenants: DNR, DHS

Locations not shown include 1881 Pierce Street, the Kipling Campus, and leases outside of the downtown area

3.2 Agency Needs

The data collection process resulted in an understanding of not only each agency's space needs but also operational and locational requirements, which have been briefly summarized in the following tables. This information provided a critical part of the framework for the development of alternatives discussed in Chapter 7.

GOVERNOR'S OFFICE

GOVERNOR: John Hickenlooper

TOTAL FTE: 54

AGENCY NEEDS:

The Governor's Office is located in the Capitol Building. There are several functions that fall under the Governor that are located elsewhere including the Office Of Economic Development and International Trade, the Governor's Energy Office and the Office of Information of Technology. These are described separately.

OWNED LOCATIONS	CURRENT SF	DIVISIONS
200 E. Colfax Ave.	19,284	Exec. Offices, State Planning & Budgeting, Boards & Commissions, Policy & Initiatives, Legal, Press Office, Legislative Relations

LEASED LOCATIONS	CURRENT SF	DIVISIONS	LEASE COST/SF
None			

GOVERNOR'S OFFICE OF ECONOMIC DEVELOPMENT & INTL TRADE (OEDIT)

DIRECTOR: Ken Lund

TOTAL FTE: 40

AGENCY NEEDS:

This office is located in leased space which has been appropriate for its functions; however there is little room for growth. This office could be considered as a candidate for a new State office building.

OWNED LOCATIONS	CURRENT SF	DIVISIONS
None		

LEASED LOCATIONS	CURRENT SF	DIVISIONS	LEASE COST/SF
1625 Broadway	14,337	Entire Office	$31.45

GOVERNOR'S ENERGY OFFICE (GEO)

DIRECTOR: Jeffery Ackerman

TOTAL FTE: 30

AGENCY NEEDS:

This office is in leased space with a near term lease expiration. There is a significant amount of underutilized space. If relocated, this office will need to remain in close proximity to the Capitol, Public Utilities Commission, OEDIT and DNR. In addition, any new location would require parking for six pool trucks and materials storage.

OWNED LOCATIONS	CURRENT SF	DIVISIONS
None		

LEASED LOCATIONS	CURRENT SF	DIVISIONS	LEASE COST/SF
1580 Logan St.	10,031	Entire Office	$17.65

GOVERNOR'S OFFICE OF INFORMATION TECHNOLOGY (OIT)

DIRECTOR: Kristin Russell (currently Suma Nallapati)

TOTAL FTE: 286 (at main office)

AGENCY NEEDS:

Recent organizational changes have centralized the OIT reporting structure but left many OIT personnel still physically located with the agencies they serve. The main office occupies leased space only. This space has no expansion capability which has caused issues with projected department growth. Currently nineteen data centers are located within the Capitol Complex so one goal for the department is to consolidate these into two primary data centers - one located at the Kipling complex, and the second at the E-FORT Disaster Recovery Center on Arapahoe Road (not included).

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
690 Kipling St	4,104	Data Center	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
601 E. 18th St.	2,279	Main office	$17.13
(2 leases)	59,220		$16.65

OFFICE OF LIEUTENANT GOVERNOR

LIEUTENANT GOVERNOR: Joe Garcia

TOTAL FTE: 15

AGENCY NEEDS:

The Lt. Governor's office oversees the Offices of Indian Affairs, Health & Wellness, Community Services and Early Childhood Education. These functions are split between the Capitol Building and one leased space.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
200 E. Colfax Ave	1,997	Exec Off, Indian Affairs, Health & Wellness	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
225 E. 16th Ave.	1,245	Commun. Svcs, Early Childhood Education	$19.00

SECRETARY OF STATE

SECRETARY OF STATE: Scott Gessler

TOTAL FTE: 135

AGENCY NEEDS:

All divisions of this office are located in a single leased location. There would be some benefit to moving closer to the Capitol for the executive team; however, the current location works well and relocating the existing data center would be difficult. Any newly leased space or retrofitted owned space would need to meet technology and security criteria that are in place in the current space.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
None			
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
1700 Broadway	36,557	Entire Office	$18.79

DEPARTMENT OF TREASURY

TREASURER: Walker Stapleton

TOTAL FTE: 32

AGENCY NEEDS:

This office is located primarily in the State Capitol building with the unclaimed property function in a leased location. Ideally the two functions would be consolidated in owned space. However, the current location has the benefit of available public parking.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
200 E. Colfax Ave	4,379	Main office	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
1580 Logan St.	3,466	Unclaimed Property	$17.85

DEPARTMENT OF EDUCATION (DOE)

COMMISSIONER: Robert Hammond

TOTAL FTE: 466 (all locations)

AGENCY NEEDS:

This department is housed in extremely crowded conditions at 201 E. Colfax and in multiple leased spaces. Ideally most of this Department would be co-located. Two options to consider for consolidation are to construct an addition to 201 E. Colfax or vacate the leased space and consolidate those displaced functions into the new State Office building.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
201 E. Colfax Ave.	42,988	Admin. & OIT	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
1535 Grant St.	1,731	Content Specialist Div	$17.17
1560 Broadway	24,351	Fed. Programs Admin	$28.12
1580 Logan St. (5 Leases)	4,863	Charter School	$18.50
	3,207	Educator Effect.	$19.88
	1,147	IT	$17.81
	2,785	CDE	$19.17
	2,851	Cap. Const.	$19.21
6000 E. Evans St.	3,320	Prof. Svcs & Licensing	$12.53

HEALTH CARE POLICY & FINANCING (HCPF)

DIRECTOR: Sue Birch

TOTAL FTE: 628 (all 3 locations)

AGENCY NEEDS:

This department has grown significantly with the addition of approximately 100 FTE since 2013, driving the need for additional leased space. Ideally this agency would be in a single location. HCPF recently leased additional space at 303 17th Street, leaving the department in three locations for the next five to seven years. The longer term assumption is that HCPF will vacate 1570 Grant Street and consolidate at two leased locations. This will allow the Grant Street building to be remodeled for future use potentially by the Department of Local Affairs.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
1570 Grant Street	41,453	Admin. & Ops	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
225 E. 16th Street	21,403	Admin & Ops	$21.00
(3 leases)	18,497	Admin & Ops	$18.96
	2,791	Admin & Ops	$18.00
303 E. 17th Street	25,935	Admin & Ops Office	$24.86
	847	Storage	$24.86

DEPARTMENT OF HIGHER EDUCATION (DHE)

DIRECTOR: Joe Garcia

TOTAL FTE: 94

AGENCY NEEDS:

This agency includes the CollegeInvest office, which is funded separately from the general department and is located in a separate space within the same building. Ideally CollegeInvest will remain co-located with the rest of the department if relocation occurs upon lease expiration. DHE is a candidate for a new State office building if occupants of 1560 Broadway are considered.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
None			
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
1560 Broadway	21,304	DHE Department	$29.43
	18,320	CollegeInvest	$29.43

DEPARTMENT OF HUMAN SERVICES (DHS)

DIRECTOR: Reggie Bicha

TOTAL FTE: 548 (at 1575 Sherman St)

AGENCY NEEDS:

This agency plans to evaluate its administrative and operational space needs in more detail. The feasibility of co-locating all of their administrative functions at the Fort Logan campus will be considered. If 1575 Sherman is vacated, the building could be backfilled by Department of Revenue functions from 1881 Pierce and DOR leased space.

OWNED LOCATIONS	CURRENT SF	DIVISIONS
1575 Sherman Street	99,087	All Divisions

(Fort Logan is excluded from the study)

LEASED LOCATIONS	CURRENT SF	DIVISIONS	LEASE COST/SF
None			

DEPARTMENT OF LABOR AND EMPLOYMENT (DOLE)

DIRECTOR: Ellen Golombeck

TOTAL FTE: 1,081

AGENCY NEEDS:

This department's primary locations are 251 E. 12th and 633 17th Street, a leased facility. The State building is 81% federally funded and 19% DOLE owned. While consolidation would be ideal, the amount of space this department requires makes that difficult. One option to consider for greater consolidation is relocation to a new State owned building.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
251 E. 12th Ave.	137,000	Unemploy. Insur. & OIT	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
633 17th St.	172,240	Exec Off, Unemp.Ins., Labor, Oil & Pub. Safety, Workers Comp	$21.64
621 17th St	13,624	Worker's Comp	$18.50

DEPARTMENT OF LOCAL AFFAIRS (DOLA)

DIRECTOR: Reeves Brown

TOTAL FTE: 170

AGENCY NEEDS:

DOLA occupies only owned space; they are located on three floors of the 1313 Sherman Building. The department's interaction with a number of other agencies requires that it be centrally located in the Capitol Complex. This agency is a candidate to backfill 1570 Grant Street if that building is vacated by HCPF and remodeled.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
1313 Sherman St.	33,822	Entire agency	
	1,480	Storage	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
None			

DEPARTMENT OF NATURAL RESOURCES (DNR)

DIRECTOR: Mike King

TOTAL FTE: 388 (not Including 6060 Broadway)

AGENCY NEEDS:

The majority of this department is located at 1313 Sherman and 6060 Broadway. The department has expressed a desire to co-locate all of its administrative divisions and potentially sell 6060 Broadway. This can be accomplished by relocating DOLA to 1570 Grant Street as proposed. DNR would backfill the space at 1313 Sherman with most of the outlying DNR functions, with the exception of the service center, warehouse, and training facilities that ideally would be relocated from 6060 Broadway closer to the I-70 Corridor.

OWNED LOCATIONS	CURRENT SF	DIVISIONS
1313 Sherman St. - office	71,879	All Divisions except Parks and Wildlife (at 6060)
1313 Sherman St. - Storage	852	
1127 Sherman St.	12,000	State Brd of Land Commiss

(6060 Broadway and other outlying locations are excluded from this study)

LEASED LOCATIONS	CURRENT SF	DIVISIONS	LEASE COST/SF
1120 Lincoln St.	19,991	Oil & Gas Conserv Commiss &OIT	$20.66

DEPARTMENT OF PERSONNEL & ADMINISTRATION (DPA)

DIRECTOR: Kathy Nesbitt

TOTAL FTE: 294

AGENCY NEEDS:

This agency is located in recently remodeled space at 1525 Sherman Street with Central Services functions and storage located outside of the Capitol Complex at the North Campus facility. Some Central Service functions (e.g. mail services) could be considered for relocation if the North Campus is repurposed for other uses in the future.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
1525 Sherman St.	78,580	All Exec/ Admin functions including Admin. Courts	
	5,908	Storage	
1313 Sherman St.	5,292	Archives Mgmt Office	
	34,581	Archives Storage	
200 E. Colfax Ave.	8,734	Storage	
1001 E. 62nd Ave	30,860	Central Svcs. Office	
(North Campus)	12,000	Archives Storage	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
None			

DEPARTMENT OF PUBLIC SAFETY (DPS)

DIRECTOR: James Davis (currently Stan Hilkey)

TOTAL FTE: 603

AGENCY NEEDS:

The recent departure of the Department of Agriculture and the Colorado Bureau of Investigation lab from the Kipling campus has opened up space that DPS could occupy, potentially vacating most of their lease at 710 Kipling. They have requested funding for this. (This department has additional owned facilities outside of the Kipling campus, i.e. at Camp George West and 9195 E. Mineral, that are not included here.)

OWNED LOCATIONS	CURRENT SF	DIVISIONS
1341 Sherman St. (State Patrol)	2,494	State Patrol
690 Kipling St.	32,429	Exec. Off., Fire Prev/ Control,
	5,475	Homeland Sec/Info. Analysis Center (CIAC)
700 Kipling St.	36,380	Exec Off., ICJIS, OIT, Criminal Justice, State Patrol

LEASED LOCATIONS	CURRENT SF	DIVISIONS	LEASE COST/SF
710 Kipling St	3,038	Bureau of Invest.	$19.44
(4 leases)	8,748	Bureau of Invest.	$18.00
	4,426	Criminal Justice	$17.44
	1,401	State Patrol	$17.50

DEPARTMENT OF REGULATORY AGENCIES (DORA)

DIRECTOR: Barbara Kelley

TOTAL FTE: 614

AGENCY NEEDS:

This department is required by statute to be located in the Capitol Complex. It was housed in 1525 Sherman until that building was remodeled in 1991. DORA moved to leased space at that time and never returned to the Capitol Complex. DORA is a candidate for occupying a new State Office building.

OWNED LOCATIONS	CURRENT SF	DIVISIONS
None		

LEASED LOCATIONS	CURRENT SF	DIVISIONS	LEASE COST/SF
1560 Broadway - Office	154,615	All Divisions	$17.90
(2 leases)	5,710	& Conference Center	$31.61

DEPARTMENT OF REVENUE (DOR)

DIRECTOR: Barbara Brohl

TOTAL FTE: 1,032 (all locations)

AGENCY NEEDS:

1375 Sherman Street is in the poorest condition of the State owned buildings in the Capitol Complex; this has created a very poor working environment, and space shortages have driven the need for multiple leased spaces. These dispersed locations have caused a number of operational difficulties. The downtown location is one of the most publicly visited State agency buildings and has parking and access challenges. The other primary location is 1881 Pierce which also is in poor condition, and faces similar public access issues due to a lack of public transportation. Proposed solutions include selling the 1881 Pierce location to move all but the DMV functions closer to, or within, the Capitol Complex. If feasible, some functions currently in leased space would consolidate with the customer facing functions from 1881 Pierce.

OWNED LOCATIONS	CURRENT SF	DIVISIONS
1375 Sherman St.	63,636	Exec.Off, Taxation, Central Ops, Security, OIT
	10,944	Storage
1881 Pierce St.	90,261	Tax Business Group, Enforcement, Motor Vehicle Dept
1001 E. 62nd Ave	2,640	Tax Processing Ops, Storage

LEASED LOCATIONS	CURRENT SF	DIVISIONS	LEASE COST/SF
455 Sherman St	7,500	Tax	$21.88
(2 leases)	14,853	Marijuana	$20.26
17301 W. Colfax Ave.	16,260	Gaming	$19.20
700 W. Mississippi Ave.	11,229	State Lottery Storage	$7.82
720 S. Colorado Blvd.	11,962	Lottery & Field Audit	$19.41
(2 leases)	16,339	Tax Field Audit	$22.16

GENERAL ASSEMBLY: STATE SENATE, HOUSE OF REPRESENTATIVES

SECRETARY OF SENATE: Cindi Markwell

CHIEF CLERK OF THE HOUSE: Marilyn Eddins

TOTAL HEADCOUNT SENATE: 35 Senators/~175 Total incl. Staff, Aides, Interns

TOTAL HEADCOUNT HOUSE: 65 Represenatives/ ~90 Total w/Staff, Aides, Interns

AGENCY NEEDS:

Of the 100 members of the House and Senate, 44 will have offices in 1525 Sherman Street (30 House members/14 Senate members). Committee rooms for the House and Senate will be split between the Capitol and the Legislative Services Building as renovations are completed in both buildings.

OWNED LOCATIONS	CURRENT SF	DIVISIONS
200 E. Colfax Ave.	86,089	General Assembly Space For Both House & Senate
	4,689	General Assembly Storage
200 E. 14th Ave.	21,203	General Assembly
1525 Sherman St.	15,200	General Assembly
	500	Storage

LEASED LOCATIONS	CURRENT SF	DIVISIONS	LEASE COST/SF
None			

JOINT BUDGET COMMITTEE

STAFF DIRECTOR: John Zeigler
TOTAL FTE: 16
AGENCY NEEDS:

This office is located in the Legislative Services Building. It requires a dedicated hearing room that can accommodate committee members, testimony seating and 50-60 spectators. Close proximity to the Capitol is required for legislators who sit on the committee.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
200 E. 14th Ave.	5,620	Office space	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
None			

LEGISLATIVE COUNCIL

DIRECTOR: Mike Mauer
TOTAL FTE: 69
AGENCY NEEDS:

The Legislative Council offices and support spaces occupy space at the Capitol and the Legislative Services Building. One office division recently moved out of leased space to backfill vacated State Auditor's space at 200 E. 14th where the server room and print shop were already located.

OWNED LOCATIONS	CURRENT SF	DIVISIONS
200 E. Colfax Ave.	13,942	Legislative Council
200 E. 14th Ave.	10,149	Legislative Council
	1,567	Server Room
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
None			

LEGISLATIVE LEGAL SERVICES

DIRECTOR: Dan Cartin
TOTAL FTE: 49
AGENCY NEEDS:

This office is located in the State Capitol. Some storage is shared with General Assembly storage (included in Senate/General Assembly SF). Close proximity to the Capitol is required.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
200 E. Colfax Ave.	13,706	Office space	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
None			

STATE AUDITOR

AUDITOR: Dianne Ray
TOTAL FTE: 68
AGENCY NEEDS:

The State Auditor's Office recently moved from the Legislative Services Building and leased space into 1525 Sherman Street, including storage. This new location provides adequate meeting rooms. The Legislative Audit Committee will hold hearings in the Capitol Building or the Legislative Services Building.

OWNED LOCATIONS	CURRENT SF	DIVISIONS	
1525 Sherman St.	13,600	Office space	
	500	Storage	
LEASED LOCATIONS	**CURRENT SF**	**DIVISIONS**	**LEASE COST/SF**
None			

3.3 - Summary of Existing Space Utilization

Using data compiled for the updated department survey profiles, the consultant team prepared a database inventory of the existing allocation of department assigned space in both owned and commercially leased space ("Office Useable Area" or "Rentable Area"). The methods for calculating current occupancies is described in this section.

Space Planning Standards

Space standards and professional practice guidelines provide an objective basis to identify uniform measurements of space expressed in square feet per person or use area. Space standards are required to:

- Make the most efficient use of state owned and leased space;
- Establish uniformity and consistency among personnel in all departments and agencies;
- Establish uniformity and consistency in the allocation of space for equipment;
- Provide a uniform basis for projecting space needs for personnel and equipment to logically plan for the acquisition of future owned and leased space; and
- Determine the probable cost of needed space.

This section explains the basis for estimating total space need based on the progression from functional net use spaces or areas to complete departments that comprise a total projected building space need.

Net Space

Estimating the amount of useable area or floor space needed to provide an appropriate environment capable of supporting a function involves the application of space allocations or space standards to the operational requirements of the functional component (e.g. office, restroom, conference room etc.). These standards, guidelines and specific space allocations are expressed as "net useable square feet" or NSF.

Department Gross Space

In a master space plan, the size of individual offices/ workstations is not as important as the total allocation of space for each staff position. For example, an office may be 100 square feet, but the total space to support that office requires corridors, conference rooms, reception areas, printer stations etc. The total "department gross square feet" (DGSF) is the sum of the various personnel, support spaces and circulation space within the confines of that department including interior walls.

For typical office environments, the average DGSF per staff is driven by the function of the department and a) the mix of private offices versus open workstations; and b) types and sizes of support spaces. Using data provided by the State, the consultant team calculated the amount of existing space currently occupied by each department as DGSF for both owned and commercially leased space. Existing department space was provided at one or both of the following levels:

- Office Useable Area (OUA) – area where a tenant houses personnel and/or furniture, including circulation internal to that department space, also referred to as Useable Square Feet (USF)
- Rentable Area (RA) – office area of a tenant plus the tenant's share of the floor common area and common building area, also referred to as Rentable Square Feet (RSF).

NOTE: For State owned buildings, USF as reported in the 2004 State Buildings Report, was determined to be the closest equivalent to RSF occupancy in commercially leased spaces. The 2008 Master Plan data, used as the starting point for determining space needs for this plan, also utilized USF for State owned buildings.

Building Gross Space

Building gross square feet (BGSF) is the sum of all the assignable (DGSF) spaces and non-assignable spaces to include exterior wall thickness, common public circulation, public restrooms, stairwells and mechanical shafts. A BGSF factor is applied after the addition of all the DGSF components to yield a final estimate of the full spatial impact of each component of the building. Building grossing factors can range from 20%-60%+ depending upon the building's purpose.

Current Conditions

There is currently little standardization of workspace in the Capitol Complex as a whole. This is the result both of the existing conditions, particularly in owned buildings, and of the decentralized system currently in place by which agencies procure, budget for, plan and design space. There is more consistency in some of the commercially leased spaces the State occupies as these spaces have less restrictive existing conditions, have generally more flexible and efficient floor plans and opportunities to implement some of the best practices in workplace design through independent use of space planning services provided by the State's tenant broker contract. A good example of space where standards are more consistent with current benchmarks and trends is the newly remodeled HCPF space at 303 17th Avenue.

Table 1 summarizes the existing inventory of owned and commercially leased space included in this study. Of the current inventory 39% is commercially leased space and 61% is owned space.

Of the owned space, 15% is legislative space, 82% is space occupied by executive branch agencies and 3% is occupied by elected official functions. Of the leased space, 83% is occupied by executive branch agencies, and 17% is occupied by elected official functions.

Table 1: Summary of Existing Space Occupied – Owned vs. Leased

SPACE TYPE/ DEPARTMENT	EXISTING SPACE/ DGSF
OWNED	
Executive Elected Officials	
Office of the Governor, Executive	19,284
Office of the Governor, Information Technology	4,104
Office of the Governor, Storage	1,873
Office of Lieutenant Governor	1,997
Department of Treasury	4,379
Executive Elected Officials Total	*31,637*
Executive Branch Agencies	
Department of Education	42,988
Department of Health Care Policy & Financing	41,453
Department of Human Services	99,087
Department of Labor & Employment	147,364
Department of Local Affairs	35,302
Department of Natural Resources	226,169
Department of Personnel & Administration	175,955
Department of Public Safety	77,353
Department of Revenue	167,481
Executive Branch Agencies Total	*1,013,152*
Legislative	
General Assembly	127,681
Joint Budget Committee	5,620
Legislative Council	25,658
Legislative Legal Services	13,706
State Auditor	14,100
Legislative Total	*186,765*
OWNED TOTAL	**1,231,554**
LEASED	
Executive Elected Officials	
Office of the Governor, Economic Dev & International Trade	14,337
Office of the Governor, Energy	10,031
Office of the Governor, Information Technology	73,666
Office of Lieutenant Governor	1,245
Secretary of State	36,557
Department of Treasury	3,466
Executive Elected Officials Total	*139,302*
Executive Branch Agencies	
Department of Education	44,165
Department of Health Care Policy & Financing	69,553
Department of Higher Education	39,624
Department of Labor & Employment	185,864
Department of Natural Resources	27,751
Department of Public Safety	51,321
Department of Regulatory Agencies	160,497
Department of Revenue	78,143
Executive Branch Agencies Total	*656,918*
LEASED TOTAL	**796,220**
GRAND TOTAL	**2,027,774**

Source: Updated survey data, compiled by CGL; November 2013, updated March 2014 and August 2014.

Table 2 shows both current staff and existing square feet by department and branch. An inventory of existing square footage by building has been provided in the appendix (Appendix 1 (b) - Baseline Data Table).

NOTE: Staff totals for some agencies - including the Departments of Education, Human Services, Labor and Employment, Local Affairs, Natural Resources, Public Safety, Regulatory Affairs, and Revenue - include Office of the Governor/Office of Information Technology staff, since these positions are assigned to be co-located with the agency served.

Table 2: Summary of Space Inventory By Branch/Department

BRANCH/DEPARTMENT	EXISTING STAFF	EXISTING SPACE/ DGSF
EXECUTIVE		
Elected Officials		
Office of the Governor, Executive	54	19,284
Office of the Governor, Economic Dev & International Trade	40	14,337
Office of the Governor, Energy	30	10,031
Office of the Governor, Information Technology	288	77,770
Office of the Governor, Storage		1,873
Office of Lieutenant Governor	15	3,242
Secretary of State	135	36,557
Department of Treasury	32	7,845
Elected Officials Total	**593**	**170,939**
Branch Agencies		
Department of Education	466	87,153
Department of Health Care Policy & Financing	628	111,006
Department of Higher Education	94	39,624
Department of Human Services	548	99,087
Department of Labor & Employment	1,081	333,228
Department of Local Affairs	170	35,302
Department of Natural Resources	520	253,920
Department of Personnel & Administration	294	175,955
Department of Public Safety	603	128,674
Department of Regulatory Agencies	614	160,497
Department of Revenue	1,032	245,624
Branch Agencies Total	**6,050**	**1,670,070**
EXECUTIVE TOTAL	**6,643**	**1,841,009**
LEGISLATIVE		
Legislative		
General Assembly	265	127,681
Joint Budget Committee	16	5,620
Legislative Council	44	25,658
Legislative Legal Services	49	13,706
State Auditor	68	14,100
LEGISLATIVE TOTAL	**467**	**186,765**
GRAND TOTAL	**7,110**	**2,027,774**

Source: Updated survey data, compiled by CGL; November 2013, updated March 2014 and August 2014.

3.4 - Space Standards Benchmarking

Benchmarks provide a means to compare Colorado's space use with peer institutions and form a baseline from which to develop space standards. A commonly used benchmark is square foot per person. There are a variety of sources for benchmark comparisons of square feet per person across states. Benchmarking is not an exact science as there are often inconsistencies in how space measurement is defined and calculated. However, for the purposes of providing a comparison of Colorado's DGSF/person range, several sources were reviewed. The average DGSF/staff in Colorado state agencies ranges from 138-422 per person, with an overall average of 240. Figures 1 and 2 show the average broken down by Owned vs. Leased agency space. For owned (or OUA) space, Colorado ranges from 138 to 406, with an average of 224. For leased (or RA) space, the benchmarks range from a low of 156 to a high of 422, with an average of 263.

Space planning benchmarks were examined from the federal government, public organizations, private sector, other state governments, and industry research and compared to the existing Colorado standards, as shown in Figures 3 and 4. In summary, the SF/person averages for Colorado are higher than many of the benchmarks considered. However, recent projects such as the newly completed HCPF space in a leased facility, are coming closer to the norm. The HCPF space has 185 SF/person, which is on par with the most recent General Services Administration target of 190 for federal facilities, and is under the goal of 204 SF/person that Colorado and its real estate consultant, JLL, have established for leased space.

Figure 1: Owned Office Space per Staff by Department

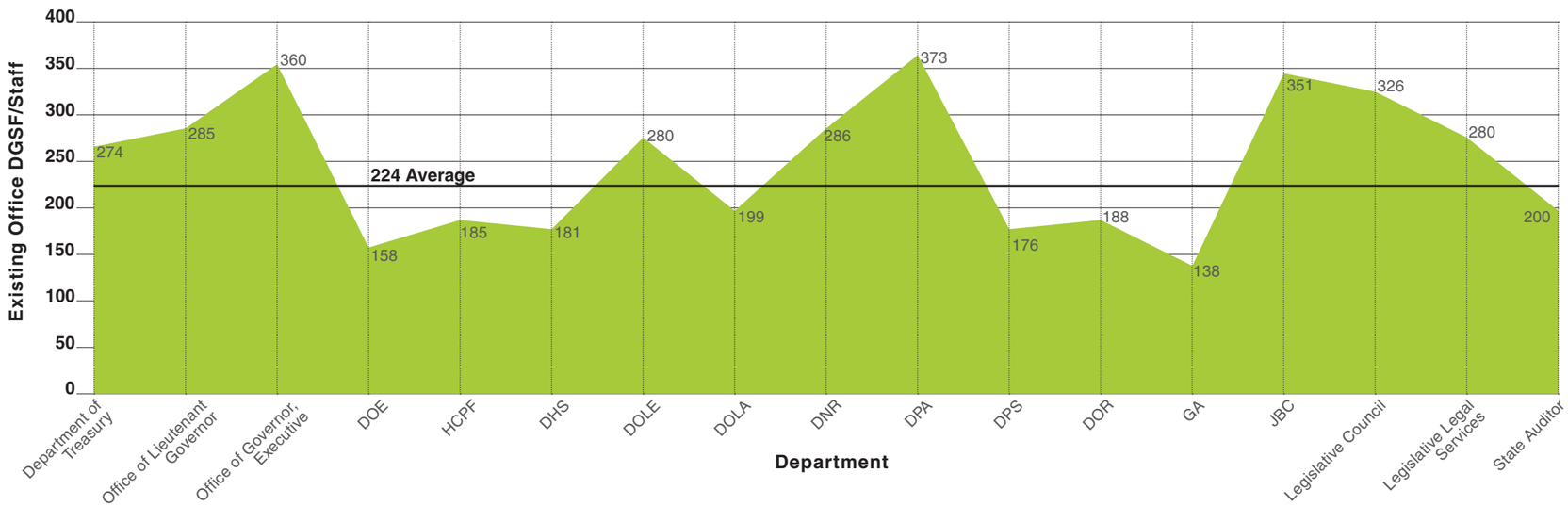


Figure 2: Leased Office Space per Staff by Department

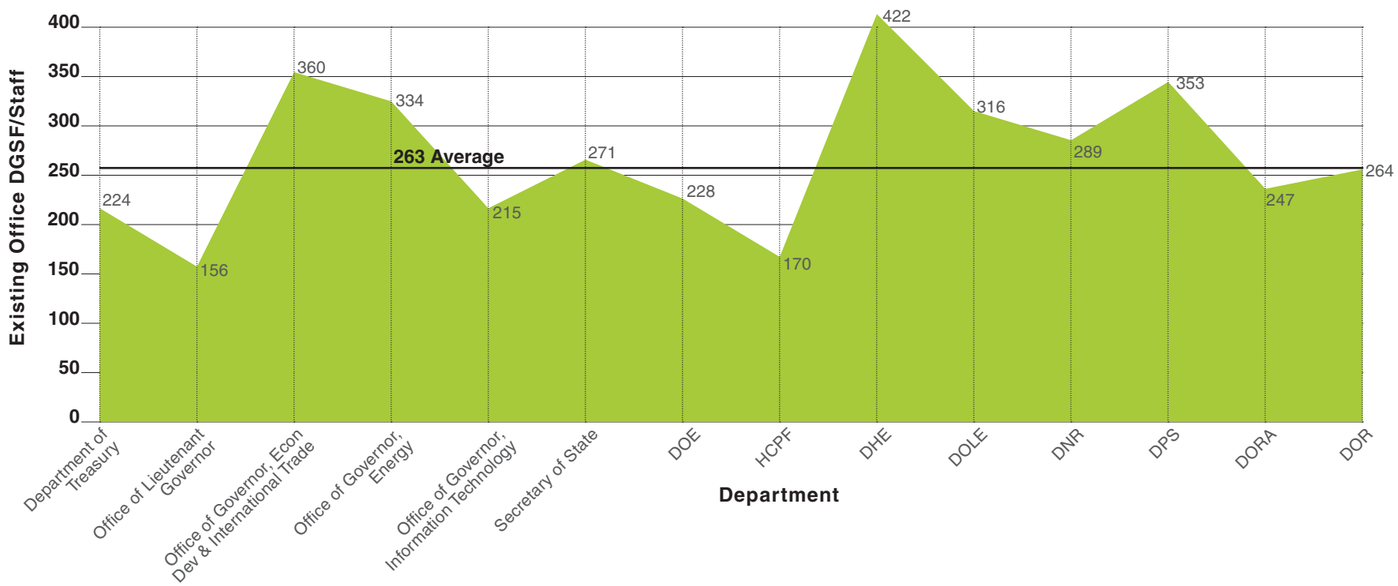


Figure 3: Owned/Office Usable Area (OUA) Standard Comparison

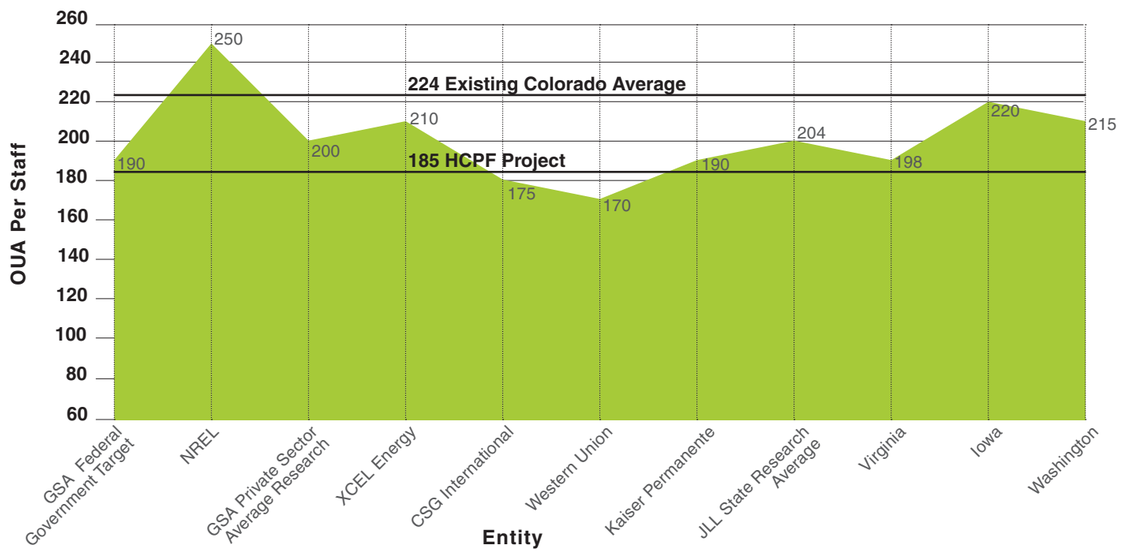
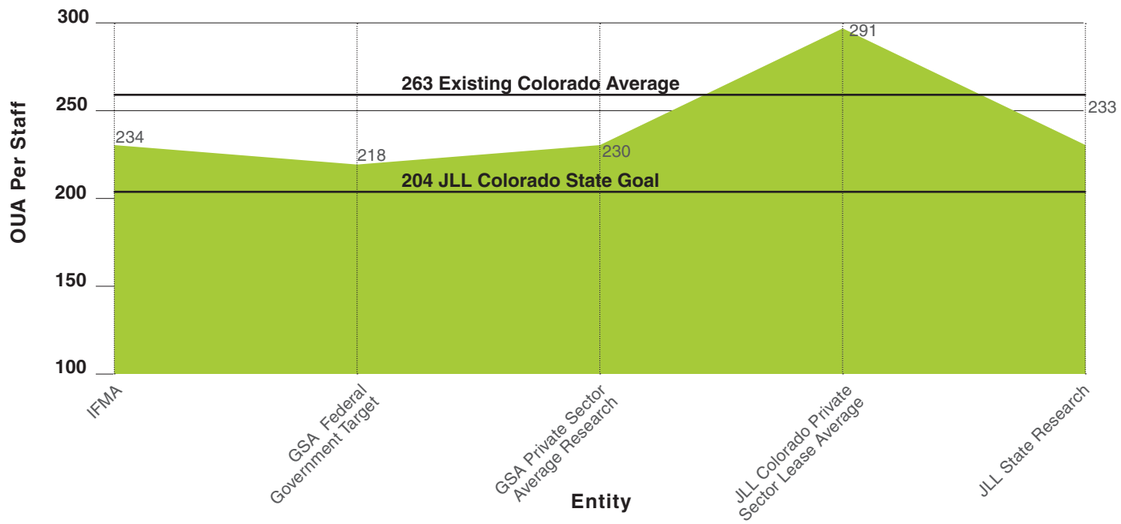


Figure 4: Owned/Office Usable Area (OUA) Standard Comparison



3.5 - Personnel and Space Projections

Personnel Projections

Typically the largest space driver for an office function is personnel and the spaces needed to support their respective function. Future personnel projections provide an objective basis for estimating the probable magnitude of building space needs in future years. These estimates in turn provide a planning basis for examining alternative development strategies and building concepts and thus determining preliminary estimates of construction and project costs.

Historic data, often used as a basis for generating alternate projection models, was used to arrive at personnel projections for this project because personnel data at a department level by location was not readily available. The consultant team reviewed annual department appropriations over the past ten years published by the State of Colorado Joint Budget Committee to arrive at a percent growth factor to apply to future years. State population was also looked at, but population growth is not as closely correlated with headcount growth as looking at the historical appropriations data. To project future personnel, the average annual appropriations rate of 0.62% was applied to the 2013 staffing levels except for where the department identified specific projections at a higher rate of growth as listed below. Table 3 summarizes the projected personnel growth by Department.

- Department of Labor and Employment – Unemployment insurance.
- Department of Public Safety – Criminal Justice.
- Department of Regulatory Agencies – Securities, Insurance, Real Estate and Public Utilities Commission.
- Department of Revenue – Tax and Marijuana Enforcement.
- Legislative Council.
- Legislative Legal Services.

Table 3: Projected Personnel By Department

BRANCH/DEPARTMENT	EXISTING STAFF	2018 STAFF	2023 STAFF
EXECUTIVE			
Elected Officials			
Office of the Governor, Executive	54	55	57
Office of the Governor, Economic Dev & International Trade	40	41	43
Office of the Governor, Energy	30	31	32
Office of the Governor, Information Technology	288	297	306
Office of the Governor, Storage			
Office of Lieutenant Governor	15	15	16
Secretary of State	135	139	144
Department of Treasury	32	33	33
Elected Officials Total	**593**	**611**	**631**
Branch Agencies			
Department of Education	466	480	496
Department of Health Care Policy & Financing	628	648	667
Department of Higher Education	94	97	100
Department of Human Services	548	565	583
Department of Labor & Employment	1,081	1,080	1,089
Department of Local Affairs	170	175	181
Department of Natural Resources	520	537	552
Department of Personnel & Administration	294	304	313
Department of Public Safety	603	625	646
Department of Regulatory Agencies	614	661	686
Department of Revenue	1,032	1,109	1,147
Branch Agencies Total	**6,050**	**6,281**	**6,460**
Executive Total	**6,643**	**6,892**	**7,091**
LEGISLATIVE			
Legislative			
General Assembly	265	200	205
Joint Budget Committee	16	17	17
Legislative Council	69	76	82
Legislative Legal Services	49	53	57
State Auditor	68	70	72
Legislative Total	**467**	**416**	**433**
GRAND TOTAL	**7,110**	**7,308**	**7,524**
Percent Change from Existing		2.8%	5.8%

Source: CGL; November 2013, updated March 2014 and August 2014.

Recommended Office Space Standard

To project space at a master planning level, a Department Gross Square Foot per person standard is applied to current and projected headcount to define future needs. This provides a macro level space planning number that can be used to test a variety of development options prior to developing a detailed architectural space program. The estimated requirements in this master plan are based upon assigning an aggregate amount of space per person and are not based upon the development of a room-by-room identification of spaces.

Using the existing inventory data, the consultant team reviewed the existing office DGSF for each department and division. Current DGSF and headcount were used to calculate existing SF/person, as discussed previously. The planning target was then established by department and division which for most functions is 220 SF/person with a few exceptions. As shown previously, there is wide variation in the existing SF/person metric from 138 to 422. This is not uncommon as any facility portfolio has a mix of historic buildings, functions housed in purpose built and non-purpose built spaces for their mission, updated or outdated facilities etc.

For projecting office space needs, three space standards are recommended:

- 350 SF/person for executive offices located in the Capitol Building;
- 275 SF/person for executive offices not located in the Capitol Building; and
- 220 SF/person for the remaining office spaces.

For non-office spaces, the existing square footage was used as an estimate of future needs (e.g. storage).

Space Projections

Table 4 shows the existing and projected space needs through 2023 based on the recommended standards, and projected headcount as defined above. Overall, space need is projected to increase from an existing total of 2.03 million square feet to 2.14 million square feet by 2023, a 110,710 SF increase, or 5.5% over the ten year period. These projected requirements provide the basis for considering alternative solutions to meet space needs over time.

Table 4: Summary of Projected Space Need By Department

BRANCH/DEPARTMENT	EXISTING SPACE	2018 SPACE	2023 SPACE
EXECUTIVE			
Elected Officials			
Office of the Governor, Executive	19,284	19,825	20,546
Office of the Governor, Economic Dev & International Trade	14,337	14,695	15,412
Office of the Governor, Energy	10,031	10,365	10,700
Office of the Governor, Information Technology	77,770	79,705	81,641
Office of the Governor, Storage	1,873	1,873	1,873
Office of Lieutenant Governor	3,242	3,242	3,398
Secretary of State	36,557	37,640	38,994
Department of Treasury	7,845	8,230	8,230
Elected Officials Total	**170,939**	**175,576**	**180,793**
Branch Agencies			
Department of Education	87,153	89,681	92,775
Department of Health Care Policy & Financing	111,006	114,518	117,851
Department of Higher Education	39,624	40,841	42,176
Department of Human Services	99,087	102,161	105,416
Department of Labor & Employment	333,228	333,678	336,924
Department of Local Affairs	35,302	36,297	37,490
Department of Natural Resources	253,920	257,656	261,046
Department of Personnel & Administration	175,955	179,673	183,097
Department of Public Safety	128,674	133,400	137,457
Department of Regulatory Agencies	160,497	171,731	178,001
Department of Revenue	245,624	271,408	280,322
Branch Agencies Total	**1,670,070**	**1,731,043**	**1,772,555**
EXECUTIVE TOTAL	**1,841,009**	**1,906,620**	**1,953,349**
LEGISLATIVE			
Legislative			
General Assembly	127,681	118,008	118,008
Joint Budget Committee	5,620	5,971	5,971
Legislative Council	25,658	28,143	30,312
Legislative Legal Services	13,706	14,825	15,944
State Auditor	14,100	14,500	14,900
LEGISLATIVE TOTAL	**186,765**	**181,448**	**185,135**
GRAND TOTAL	**2,027,774**	**2,088,067**	**2,138,484**
Percent Change from Existing		3.0%	5.5%

Source: CGL; November 2013, updated March 2014 and August 2014.

3.6 - Key Recommendations

CHAPTER 3.0 - AGENCY SPACE KEY RECOMMENDATIONS

- THE LONG TERM STRATEGY FOR THE CAPITOL COMPLEX FACILITIES IS THE REDUCTION OF THE AMOUNT OF SQUARE FOOTAGE OCCUPIED IN COMMERCIALLY LEASED SPACE AND THE INCREASE OF STATE OWNED SPACE. CURRENTLY 39% OF THE INVENTORY IS IN COMMERCIALLY LEASED SPACE.

- A 5.5% GROWTH IN SPACE REQUIREMENTS IS PROJECTED OVER THE NEXT TEN YEARS, DRIVING THE NEED FOR ADDITIONAL SPACE OVER AND ABOVE THE CURRENT INVENTORY.

- OF THE OWNED BUILDINGS, SEVERAL NEED SIGNIFICANT RENOVATION IN ORDER TO BE APPROPRIATE FOR ON-GOING, LONG-TERM USE, MOST NOTABLY THE 1313 SHERMAN STREET, 1375 SHERMAN STREET AND 1570 GRANT STREET BUILDINGS.

- IN RENOVATING ANY OF THE STATE'S OWNED INVENTORY, THERE IS THE OPPORTUNITY TO GREATLY IMPROVE THE WORKING ENVIRONMENT FOR STATE EMPLOYEES. THROUGH COST EFFECTIVE DESIGN SOLUTIONS, EFFICIENT SPACE PLANNING AND A REDUCTION IN WORKSTATION SIZES, THE STATE CAN ACHIEVE A HIGHER DENSITY IN ITS BUILDINGS AND HELP CREATE AN ENVIRONMENT THAT WILL HELP ATTRACT AND RETAIN EMPLOYEES.

- REMODELING OF THESE FACILITIES, REPLACING LEASED SPACE WITH OWNED, AND INCREASING THE OVERALL INVENTORY AVAILABLE PROVIDES OPPORTUNITIES TO RELOCATE AND CONSOLIDATE SOME FUNCTIONS TO IMPROVE AGENCY OPERATIONS AS WELL AS TO CREATE MORE CONSISTENCY AND EFFICIENCY IN SPACE UTILIZATION AND SPACE STANDARDS BETWEEN BUILDINGS AND AGENCIES.

CAPITOL COMPLEX MASTERPLAN | DENVER, COLORADO

04

Facility Assessments

4.1 - Methodology

The facility assessments provide Findings & Recommendations (F&R) for the Capitol Complex Buildings and Camp George West site. The reports include a description and evaluation of the existing conditions, recommendations, and cost estimates for the recommended work from the following focus areas: architecture, structural, civil, mechanical/electrical/plumbing, voice and data/security and historical. The project team reviewed existing building documentation, drawings, and audit reports provided by the State, and conducted site visits to identify and document the observable existing conditions of the buildings and Camp George West site and the code and life safety issues.

The buildings were in fair to poor condition. The following table identifies the buildings with the greatest deficiencies as well as the top five major deficiencies within each building managed by Capitol Complex Facilities. The FCI (Facilities Condition Index), as audited by the state, is also shown for reference. The FCI is a numerical representation of the condition of a facility on a scale of 1 to 100, with 1 being the lowest. The date of the most recent FCI audit is indicated.

This chapter includes abridged facility assessments. Complete assessments are included as Appendix 4 - Comprehensive Facility Assessments.

Definitions

1. Life Safety (LS)
2. Loss of Use/Reliability (LOU)
3. Finishes (F)
4. Fair – usable but in serious need of repair
5. Poor – urgent need of repair, or life safety and/or loss of use/reliability issues could result

4.2 - Facility Assessment & Priorities Summary

CAPITOL COMPLEX PRIORITY	LOCATION	GENERAL BUILDING CONDITION	FACILITIES CONDITION INDEX (FCI)	BUILDING PRIORITY ITEMS
1	**Capitol Annex Building** (1375 Sherman, Denver)	Poor	36.35 (10/2009)	**1. Total gut and renovation back to core shell** (LS, LOU, F) 2. Asbestos abatement (LS, LOU) 3. Replace all electrical (LS, LOU) 4. Convert steam heat to hot water (LOU) 5. Replace all plumbing piping (LS, LOU)
2	**Centennial Building** (1313 Sherman, Denver)	Poor	53.14 (2/2011)	**1. Total gut and renovation back to core shell** (LS, LOU, F) 2. Replace fire alarm (LS) 3. Replace all HVAC, add stair pressurization (LS, LOU) 4. Replace roof (LOU) 5. Replace all plumbing piping (LS, LOU)
3	**1570 Grant Building** (1570 Grant, Denver)	Fair	60.07 (9/2010)	**1. Modernize elevators (LS)** 2. Replace windows (LOU) 3. Modify fire sprinkler system (LS) 4. Replace HVAC (LOU) 5. Replace AHU system in basement (LOU)
4	**North Campus West Bldg.** (1001 E. 62nd, Denver)	Poor	39.78 (8/2012)	**1. Demolish the building structure and rebuild to suit.** OR, if the building cannot be demolished: **1. Fix/correct fuel testing room code issues (LS)** **2. Fix/correct printer room code issues (LS)** 3. Replace fire alarm/install fire sprinkler system (LS) 4. Replace roof and add fall protection (LS, LOU) 5. Replace HVAC (LOU)
5	**1881 Pierce Building** (1881 Pierce, Lakewood)	Fair	61.51 (12/2010)	**1. Modify fire sprinkler system to floor 1 (LS)** 2. ADA upgrades (LS) 3. Repair/replace site paving (LS, LOU) 4. Asbestos assessment and abatement (LOU) 5. Replace HVAC system (LOU)

State Office Building (201 E. Colfax, Denver)	Fair	69.02 (9/2007)	1. Replace fire sprinkler piping (LS) 2. Provide fall protection at roof (LS) 3. Replace north chiller (LOU) 4. Replace windows (LOU) 5. Replace/repair exterior sealant & grout (LOU)
Legislative Services Building (200 E. 14th, Denver)	Fair	54.12 (5/2012)	1. Add panic devices on alley gates to allow exit to public way (LS) 2. Upgrade fire alarm (LS) 3. FL 3 Hearing Rm: need fire rated wall & change door swing (LS) 4. Replace windows & exterior doors (LOU) 5. Replace electric panel boards, past useful life (LOU)
Human Services Building (1575 Sherman, Denver)	Fair	60.27 (1/2013)	1. Replace engine generator (LS) 2. Replace electrical panels & receptacles (LS, LOU) 3. Accessibility upgrades (LS) 4. Replace roof (LOU) 5. Light fixture & control upgrade (LOU)
State Services Building (1525 Sherman, Denver)	Fair	69.77 (10/2012)	1. Replace fire alarm (LS) 2. Replace engine generator (LS) 3. Insulate exterior walls (LOU) 4. Replace roof (LOU) 5. Repair/replace exterior sealant (LOU)
Power Plant Building (1341 Sherman, Denver)	Fair	60.98 (4/2012)	1. Install a full fire alarm & detection system through out (LS) 2. Install fall protection (LS) 3. Replace all panel boards & receptacles over 25 years old (LS, LOU) 4. Repair exterior walls & window leaks (LOU) 5. Replace lighting (LOU)
Dale Tooley Building (690 Kipling, Lakewood)	Fair	64.71 (3/2010)	1. Replace fire alarm (LS) 2. Modernize elevator (LS) 3. Total redo of data center UPS (LOU) 4. Add electrical capacity (LOU) 5. Replace windows (LOU)
700 Kipling Building (700 Kipling, Lakewood)	Fair	69.92 (6/2010)	1. Upgrade fire alarm (LS) 2. Elevator modernization (LS) 3. Replace roof (LOU) 4. HVAC upgrade (LOU) 5. Repair exterior wall & window leaks (LOU)
State Capitol (200 E. Colfax, Denver)	Fair	44.47 (10/2009)	1. Replace roof (LOU) 2. Repair short tunnel roof/structural (LS) 3. Windows & façade restoration/repair (LOU) 4. Plumbing system repair/replacement (LOU) 5. Site repair: sidewalk, paving & drainage (LS, LOU)
North Campus North Bldg. (6321 N. Downing, Denver)	Poor	48.74 (8/2012)	1. Demolish the original building structure and rebuild to suit. <u>OR, if the building cannot be demolished:</u> 1. Add fire sprinkler system (LS) 2. Replace fire alarm (LS) 3. Replace roof and add fall protection (LS, LOU) 4. Upgrade lights (LOU) 5. Replace original building skin, doors, and windows (LOU)
North Campus East Bldg. (6221 N. Downing, Denver)	Poor	53.57 (8/2012)	1. Demolish the building structure and rebuild to suit. <u>OR, if the building cannot be demolished:</u> 1. Replace roof and add fall protection (LS, LOU) 2. Replace windows (LOU) 3. Add lighting controls (LOU) 4. Repair/replace sealant (LOU) 5. Repair/replace asphalt (LS, LOU)
Executive Residence (400 E. 8th, Denver)	Fair Fair	51.65 (12/2011) 69.13 (Carriage House 3/2012)	1. Replace electric panel boards & wiring past useful life (LS, LOU) 2. Rebuild brick wall adjacent to visitor center (LS) 3. Repair drainage problems (LOU) 4. Re-tuck point stone and brick (F) 5. Replace roof (LOU)
G. J. State Services Building (222 S. 6th, Grand Junction)	Fair	57.32 (4/2011)	1. Repair/replace parking lots/sidewalks (LS, LOU) 2. Replace roof (LS, LOU) 3. Replace condensing unit (LOU) 4. Upgrade lighting/add more controls (LOU) 5. Replace waterproof membrane at berm/building (LOU)
Camp George West Site (15000 S. Golden, Pleasant View)	Poor	None	1. Assessment of underground utilities (LOU) 2. Add additional site lighting (LS) 3. Repair/replace broken & cracked concrete on site (LS, LOU) 4. Drainage improvements (LOU) 5. Repair/replace site asphalt (LS, LOU)

4.3 - Facility Overviews

4.3.1 CAPITOL ANNEX BUILDING

1375 SHERMAN STREET (DENVER)

Building Area: 114,228 GSF

Constructed: 1937

Remodeled: N/A

Acquired: N/A

Agency Tenants:

- Department of Revenue

FCI: 36.35/100.00, 10/2009

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $22,321,671.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $22,688,430.

Five Major Deficiencies:

1. Total gut and renovation of the building back to the core shell, with the exception of the historically-protected areas outlined in the facility assessment, including, but not limited to, the replacement of all windows and converting steam heat to hot water. This would provide an effective approach for abating all asbestos, replacing all of the aged electrical systems, replacing all of the old plumbing piping, and providing a more efficient layout. These recommendations encompass life safety, loss of use/reliability, finishes, and overall energy efficiency issues. Cost Estimate: $22,321,671.
2. Asbestos abatement. This recommendation encompasses life safety and loss of use/reliability issues. Cost estimate: $710,767.
3. Replace all electrical. This recommendation encompasses life safety and loss of use/reliability issues and is due to electrical code issues including an inadequate service load capacity. Cost estimate: $3,202,081
4. Convert steam heat to hot water. This recommendation encompasses loss of use/reliability and overall energy efficiency issues and is due to the inability to maintain a consistent comfortable working temperature within the building. Cost estimate: $5,434,187.
5. Replace all plumbing piping. This recommendation encompasses life safety and loss of use/reliability issues and is due to plumbing code issues as well as ongoing maintenance efforts. Cost estimate: $2,899,510.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.2 CENTENNIAL BUILDING

1313 SHERMAN STREET (DENVER)

Building Area: 207,091 GSF

Constructed: 1976

Remodeled: N/A

Acquired: N/A

Agency Tenants:

- Department of Local Affairs
- Department of Natural Resources
- Department of Personnel & Administration (Archives)

FCI: 53.14/100.00, 2/2011

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top 5 priorities, the cost estimate is: $34,212,015.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $34,482,015.

Five Major Deficiencies:

1. Total gut and renovation back to core shell, including, but not limited to, replacing the roof, replacing the windows, replacing the aged fire alarm system and HVAC systems, adding stair pressurization for life safety, installing energy saving lighting, adding insulation to the exterior walls, and providing a more efficient layout. These recommendations encompass life safety, loss of use/reliability, finishes, and overall energy efficiency issues. Cost estimate: $34,212,015.
2. Replace fire alarm. This recommendation encompasses life safety issues and is due to fire protection code issues and the age of the system. Cost estimate: $291,541.
3. Replace all HVAC, add stair pressurization. This recommendation encompasses life safety issues and overall energy efficiency issues and is due to the age of the HVAC systems and to fire protection code issues. Cost estimate: $9,839,947.
4. Replace roof. This recommendation encompasses loss of use/reliability issues and is due to the age of the roof. Cost estimate: $301,539.
5. Replace all plumbing piping. This recommendation encompasses life safety and loss of use/reliability issues. Cost estimate: $2,722,582.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.3 1570 GRANT BUILDING

1570 GRANT STREET (DENVER)

Building Area: 47,749 GSF

Constructed: 1956

Remodeled: N/A

Acquired: 2001

Agency Tenants:

- Department of Health Care Policy & Financing

FCI: 60.07/100.00, 9/2010

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $5,573,428.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $5,643,711.

Five Major Deficiencies:

1. Modernize elevators. This recommendation encompasses life safety issues and is due to the age of the elevator systems. Cost estimate: $71,420.
2. Replace windows. This recommendation encompasses loss of use/reliability issues and overall energy efficiency issues and is due to the age and condition of the windows. Cost estimate: $1,133,406.
3. Modify fire sprinkler system. This recommendation encompasses life safety issues and is due to egress issues from the building and fire protection code issues. Cost estimate: $545,534.
4. Replace HVAC. This recommendation encompasses loss of use/reliability issues and overall energy efficiency issues and is due to the age of the HVAC systems. Cost estimate: $1,900,098.
5. Replace AHU system in basement. This recommendation encompasses loss of use/reliability issues and overall energy efficiency issues and is due to the age of the system. Cost estimate: $294,642.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.4 NORTH CAMPUS WEST BUILDING

1001 EAST 62ND AVENUE (DENVER)

Building Area: 37,763 GSF

Constructed: 1968

Remodeled: N/A

Acquired: 1976

Agency tenants:

- Department of Personnel & Administration (Division of Central Services)

FCI: 39.78/100.00, 8/2012

Costs to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $4,939,494.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $5,469,429.

Five Major Deficiencies:

1. Correct fuel testing room code issues. This recommendation encompasses life safety issues and is related to the hazardous materials stored and tested in the room and fire protection code and National Electrical Code issues. Cost estimate: $189,661.
2. Correct print shop code issues. This recommendation encompasses life safety issues and is due to the levels of paper dust accumulation throughout and fire protection code and National Electrical Code issues. Cost estimate: $202,396.
3. Replace fire alarm/install fire sprinkler system. This recommendation encompasses life safety issues and is due to the age of the fire alarm system and fire protection code issues related to the fuel testing room and print shop code issues. Cost estimate: $289,938.
4. Replace roof and add fall protection. This recommendation encompasses life safety and loss of use/reliability issues and is due to the age and condition of the roof and the fact that no fall protection is provided. Cost estimate: $565,523.
5. Replace HVAC. This recommendation encompasses loss of use/reliability issues and overall energy efficiency issues and is due to the age and condition of the HVAC system and the inability to maintain a consistent comfortable working temperature within the building. Also provide air distribution, as part of the overall project, in the main entrance and lobby spaces which currently use portable heaters to provide heat. Cost estimate: $687,552.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.5 1881 PIERCE BUILDING

1881 PIERCE STREET (LAKEWOOD)

Building Area: 122,542 GSF

Constructed: 1972

Remodeled: N/A

Acquired: 1983

Agency Tenants:

- Department of Revenue

FCI: 61.51/100.00, 12/2010

Costs to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $9,583,603.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $9,724,003.

Five Major Deficiencies:

1. Install fire sprinkler system throughout the first floor. This recommendation encompasses life safety issues and is due to egress and fire protection code issues. Cost estimate: $949,488.
2. Accessibility upgrades. This recommendation encompasses life safety issues and is due to a number of non-accessible drinking fountains and other non-accessible features found throughout the restrooms and break rooms. Cost estimate: $328,957.
3. Repair/replace site paving. This recommendation encompasses life safety issues and loss of use/reliability issues and is due to the overall deterioration of the site pavement which is creating a potential tripping hazard. Cost estimate: $2,830,816.
4. Asbestos assessment and abatement. This recommendation encompasses life safety issues. Cost estimate: $634,199.
5. Replace HVAC system. This recommendation encompasses loss of use/reliability issues and overall energy efficiency issues and is due to the age and condition of the HVAC system and the inability to maintain a consistent comfortable working temperature within the building. Cost estimate: $542,650.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.6 STATE OFFICE BUILDING

201 EAST COLFAX AVENUE (DENVER)

Building Area: 78,115 GSF

Constructed: 1921

Remodeled: 1985

Acquired: N/A

Agency Tenants:

- Department of Education

FCI: 69.02/100.00, 9/2007

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $5,476,204.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $5,724,206.

Five Major Deficiencies:

1. Replace fire sprinkler piping. This recommendation encompasses life safety issues and is due to the age of the fire sprinkler piping and fire protection code issues. Cost estimate: $782,031.
2. Provide fall protection at roof. This recommendation encompasses life safety issues and is due to code issues and the fact that inadequate fall protection is provided at the roof. Cost estimate: $26,857.
3. Replace north chiller. This recommendation encompasses loss of use/reliability and overall energy efficiency issues and is due to the current system's inability to meet the building load. Cost estimate: $613,487.
4. Replace windows. This recommendation encompasses loss of use/reliability issues and overall energy efficiency issues and is due to the age and condition of the windows. Cost estimate: $1,076,998.
5. Replace/repair exterior sealant and grout. This recommendation encompasses loss of use/reliability issues and is due to the overall deterioration of the sealant and grout which is creating access points by which water can penetrate the building envelope. Cost estimate: $80,342.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.7 LEGISLATIVE SERVICES BUILDING

200 EAST 14TH AVENUE (DENVER)

Building Area: 59,301 GSF

Constructed: 1915

Remodeled: 1986

Acquired: N/A

Agency Tenants:

- General Assembly
- Joint Budget Committee
- Legislative Council

FCI: 54.12/100.00, 5/2012

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $4,528,638.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $4,609,638.

Five Major Deficiencies:

1. Add panic devices on alley gates to allow exit to public way. This recommendation encompasses life safety issues and is due to egress issues from the building. Cost estimate: $51,056.
2. Upgrade fire alarm. This recommendation encompasses life safety issues and is due to the age of the system and fire protection code issues. Cost estimate: $33,881.
3. Floor 3, Hearing Room: need fire rated wall and change door swing. This recommendation encompasses life safety issues and is due to fire protection code issues related to assembly occupancies. Cost estimate: $98,727.
4. Replace windows and exterior doors. This recommendation encompasses loss of use/ reliability issues and overall energy efficiency issues and is due to the age and condition of the windows and exterior doors. Cost estimate: $332,038.
5. Replace electric panel boards. This recommendation encompasses loss of use/ reliability issues and overall energy efficiency issues and is due to the age of the panel boards. Cost estimate: $602,620.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.8 HUMAN SERVICES BUILDING

1575 SHERMAN STREET (DENVER)

Building Area: 145,370 GSF

Constructed: 1952

Remodeled: 1987

Acquired: 1964

Agency Tenants:

- Department of Human Services

FCI: 60.27/100.00, 1/2013

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $15,146,974.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $16,503,123.

Five Major Deficiencies:

1. Replace engine generator. This recommendation encompasses life safety issues due to the age of the generator which is used for emergency power. Cost estimate: $438,599.
2. Replace electrical panels and receptacles. This recommendation encompasses life safety, loss of use/reliability, and overall energy efficiency issues and is due to the age of the panels and receptacles. Cost estimate: $3,848,536.
3. Accessibility upgrades. This recommendation encompasses life safety issues and is due to non-accessible features found throughout the restrooms and break rooms. Cost estimate: $136,051.
4. Replace roof. This recommendation encompasses loss of use/reliability issues and is due to the age and condition of the roof. Cost estimate: $609,958.
5. Light fixture and controls upgrade. This recommendation encompasses loss of use/reliability issues and overall energy efficiency issues and is due to the age of the T8 fluorescent fixtures and controls. Cost estimate: $1,012,390.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.9 STATE SERVICES BUILDING

1525 SHERMAN STREET (DENVER)

Building Area: 165,930 GSF

Constructed: 1960

Remodeled: 1992 and 2013

Acquired: N/A

Agency Tenants:

- Department of Personnel & Administration
- General Assembly
- State Auditor

FCI: 69.77/100.00, 10/2012

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $10,168,019.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $10,438,019.

Five Major Deficiencies:

1. Replace fire alarm. This recommendation encompasses life safety issues and is due to fire protection code issues and the age of the system. Cost estimate: $643,728.
2. Replace engine generator. This recommendation encompasses life safety issues. Cost estimate: $161,301.
3. Insulate exterior walls. This recommendation encompasses loss of use/reliability and energy. Cost estimate: $1,188,172.
4. Replace roof. This recommendation encompasses loss of use/reliability issues and is due to the age and condition of the roof. Cost estimate: $638,206.
5. Repair/replace exterior sealant. This recommendation encompasses loss of use/reliability issues and is due to the overall deterioration of the sealant which is creating access points by which water can penetrate the building envelope. Cost estimate: $569,715.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.10 POWER PLANT BUILDING

1341 SHERMAN STREET (DENVER)

Building Area: 25,690 GSF

Constructed: 1939

Remodeled: N/A

Acquired: N/A

Agency Tenants:

- Department of Public Safety - CSP

FCI: 60.98/100.00, 4/2012

Cost to Remodel:

- If all recommendations in this report are implemented as a single project, including the top five priorities, the cost estimate is: $4,598,921.
- If all recommendations in this report are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $4,970,686.

Five Major Deficiencies:

1. Install a full fire alarm and detection system throughout. This recommendation encompasses life safety issues and is due to the lack of a full detection fire alarm system. Cost estimate: $32,101.
2. Provide fall protection at roof. This recommendation encompasses life safety issues and is due to code issues and the fact that inadequate fall protection is provided at the roof. Cost estimate: $20,269.
3. Replace all electrical panels and receptacles that are past their useful life. This recommendation encompasses life safety, loss of use/reliability, and overall energy efficiency issues and is due to the age of the panels and receptacles. Cost estimate: $898,703.
4. Repair exterior walls and window leaks. This recommendation encompasses loss of use/reliability issues and is due to the age and condition of the windows and the cladding on the building and the overall deterioration of the mortar and sealant. Cost estimate: $665,694.
5. Replace lighting. This recommendation encompasses loss of use/reliability issues and is due to the age and condition of the fixtures. Cost estimate: $187,710.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.11 DALE TOOLEY BUILDING

690 KIPLING STREET (LAKEWOOD)

Building Area: 67,035 GSF

Constructed: 1985

Remodeled: N/A

Acquired: 1985

Agency Tenants:

- Department of Public Safety
- Office of Information Technology

FCI: 64.71/100.00, 3/2010

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $8,857,325.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $8,949,125.

Five Major Deficiencies:

1. Replace fire alarm. This recommendation encompasses life safety issues and is due to fire protection code issues and the age of the system. Cost estimate: $239,328.
2. Modernize elevators. This recommendation encompasses life safety issues and is due to the age of the elevator systems. Cost estimate: $204,275.
3. Upgrade the data center UPS. This recommendation encompasses loss of use/reliability issues and is due to the need for a UPS system that will provide adequate capacity, reliability, and redundancy. Cost estimate: $224,328.
4. Add electrical capacity. This recommendation encompasses loss of use/reliability issues and is due to the need for increased capacity. Cost estimate: $1,018,827.
5. Replace windows. This recommendation encompasses loss of use/reliability issues and is due to the age and condition of the windows. Cost estimate: $856,823.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.12 700 KIPLING BUILDING

700 KIPLING STREET (LAKEWOOD)

Building Area: 60,964 GSF

Constructed: 1985

Remodeled: N/A

Acquired: 1992

Agency Tenants:

- Department of Public Safety

FCI: 69.92/100.00, 6/2010

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $9,113,674.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $9,329,674.

Five Major Deficiencies:

1. Upgrade fire alarm. This recommendation encompasses life safety issues and is due to fire protection code issues and the age of the system. Cost estimate: $111,882.
2. Modernize elevators. This recommendation encompasses life safety issues and is due to the age and condition of the elevator systems. Cost estimate: $87,035.
3. Replace roof. This recommendation encompasses loss of use/reliability issues and is due to the age and condition of the roof. Cost estimate: $275,345.
4. HVAC upgrade. This recommendation encompasses loss of use/reliability issues and overall energy efficiency issues and is due to the age and condition of the HVAC system, including VAV boxes, and the inability to maintain a consistent comfortable working temperature within the building. Cost estimate: $2,864,999.
5. Repair exterior walls and window leaks. This recommendation encompasses loss of use/reliability and overall energy efficiency issues and is due to the overall deterioration of the mortar and sealant, which is creating access points by which water can penetrate the building envelope, and the age and condition of the windows. Cost estimate: $1,862,908.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.13 STATE CAPITOL BUILDING

200 EAST COLFAX AVENUE (DENVER)

Building Area: 323,813 GSF

Constructed: 1895-1903

Remodeled: Life safety upgrade 2009, dome restoration 2014

Acquired: N/A

Agency Tenants:

- General Assembly
- Legislative Council
- Legislative Legal Services
- Office of the Governor
- Office of Lieutenant Governor
- Department of Treasury
- Department of Public Safety - CSP
- Department of Personnel and Administration - CCF

FCI: 44.47/100.00, 10/2009

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $60,328,458.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $61,845,759.

Five Major Deficiencies

1. Replace roof. This recommendation encompasses loss of use/reliability issues and is due to the age and condition of the roof. Cost estimate: $2,873,728.
2. Repair short tunnel roof/structural. This recommendation encompasses life safety issues and is due to the age and general deterioration of the tunnel over the past 115+ years, ongoing maintenance efforts, and the potential hazard to motorists passing overhead. Cost estimate: $11,764,925.
3. Windows and facade restoration/repair. This recommendation encompasses loss of use/reliability and overall energy efficiency issues and is due to the age and condition of the windows and facade. Cost estimate: $10,467,816.
4. Plumbing system repair/replacement. This recommendation encompasses loss of use/reliability issues and is due to the age and condition of the plumbing as well as ongoing maintenance efforts. Cost estimate: $6,190,182.
5. Site repair: sidewalk, paving, and drainage. This recommendation encompasses life safety and loss of use/reliability issues and is due to the overall deterioration of the site pavement which is creating a potential tripping hazard. Cost estimate: $1,267,662.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.14 NORTH CAMPUS NORTH BUILDING

6321 NORTH DOWNING STREET (DENVER)

Building Area: 23,630 GSF

Constructed: 1968

Remodeled: A west addition, approximately 10 years ago

Acquired: 1976

Agency Tenants:

- Department of Personnel & Administration (Division of Central Services - Primarily Storage)

FCI: 48.74/100.00, 8/2012

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $2,788,886.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $3,036,190.

Five Major Deficiencies:

1. Add fire sprinkler system. This recommendation encompasses life safety issues and is due to egress and fire protection code issues. Cost estimate: $150,686.
2. Replace fire alarm. This recommendation encompasses life safety issues and is due to fire protection code issues and the age of the system. Cost estimate: $60,888.
3. Replace roof and add fall protection. This recommendation encompasses life safety and loss of use/reliability issues and is due to the age and condition of the roof and the fact that no fall protection is provided. Cost estimate: $378,738.
4. Upgrade lights. This recommendation encompasses loss of use/reliability issues and is due to the age and condition of the T8 fluorescent fixtures. Cost estimate: $185,071.
5. Replace original building skin, doors, and windows. This recommendation encompasses loss of use/reliability issues and is due to the age and overall deterioration of the original building skin, doors, and windows. Cost estimate: $341,604.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.15 NORTH CAMPUS EAST BUILDING

6221 NORTH DOWNING STREET (DENVER)

Building Area: 39,195 GSF

Constructed: 1968

Remodeled: N/A

Acquired: 1976

Agency Tenants:

- Department of Personnel & Administration (Storage)

FCI: 53.57/100.00, 8/2012

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $2,126,672.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $2,373,976.

Five Major Deficiencies:

1. Replace roof and add fall protection. This recommendation encompasses life safety and loss of use/reliability issues and is due to the age and condition of the roof and the fact that no fall protection is provided. Cost estimate: $551,571.
2. Replace windows. This recommendation encompasses loss of use/reliability issues and is due to the age and condition of the windows. Cost estimate: $37,954.
3. Add lighting controls. This recommendation encompasses loss of use/reliability and overall energy efficiency issues and is due to the need for automatic occupancy controls. Cost estimate: $51,644.
4. Repair/replace sealant. This recommendation encompasses loss of use/reliability issues and is due to the overall deterioration of the sealant which is creating access points by which water can penetrate the building envelope. Cost estimate: $64,028.
5. Repair/replace site paving. This recommendation encompasses life safety and loss of use/reliability issues and is due to the overall deterioration of the site pavement which is creating a potential tripping hazard. Cost estimate: $467,733.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.16 EXECUTIVE RESIDENCE

400 EAST 8TH AVENUE (DENVER)

Building Area: 26,431 GSF

Constructed: 1908

Remodeled: Residence N/A, Carriage House 2006

Acquired: 1959

Agency Tenants:

- Governor's Residence

FCI: 51.65/100.00, 12/2011, Residence

69.13/100.00, 3/2012, Carriage House

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $7,266,211.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $8,540,834.

Five Major Deficiencies:

1. Replace electric panel boards and wiring that are past their useful life. This recommendation encompasses life safety, loss of use/reliability, and overall energy efficiency issues and is due to the age of the panels and wiring. Cost estimate: $502,341.
2. Rebuild brick wall adjacent to visitor center. This recommendation encompasses life safety issues and is due to the fact that the wall is failing structurally along the eastern and southern portions of the terraced grounds, near the Tebo Visitor's Center. Cost estimate: $198,017.
3. Repair drainage problems. This recommendation encompasses loss of use/reliability issues and is due to damage that has occurred to the building and site retaining walls from standing water and other drainage problems. Cost estimate: $1,197,887.
4. Tuck point the stone and brick. This recommendation encompasses issues with the building's exterior finishes and is due to the deterioration of the mortar which is creating access points by which water can penetrate the building envelope. Cost estimate: $777,000.
5. Replace roof. This recommendation encompasses loss of use/reliability issues and is due to the age of the roof and problems with water leaks. Cost estimate: $518,845.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.17 GRAND JUNCTION STATE SERVICES BUILDING

222 SOUTH 6TH STREET (GRAND JUNCTION)

Building Area: 52,000 GSF

Constructed: 1983

Remodeled: N/A

Acquired: N/A

Agency Tenants:

- Department of Personnel & Administration
- Department of Public Health & Environment
- Department of Labor & Employment
- Department of Local Affairs
- Department of Revenue
- Department of Transportation
- Department of Regulatory Agencies
- Department of Natural Resources

FCI: 57.32/100.00, 4/2011

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $6,419,618.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $7,064,335.

Five Major Deficiencies:

1. Repair/replace parking lots/sidewalks. This recommendation encompasses life safety and loss of use/reliability issues and is due to the overall deterioration of the site pavement which is creating a potential tripping hazard. Cost estimate: $157,527.
2. Replace roof and provide fall protection. This recommendation encompasses life safety and loss of use/reliability issues and is due to the age and condition of the roof and the fact that inadequate fall protection is provided. Cost estimate: $220,378.
3. Replace condensing unit. This recommendation encompasses loss of use/reliability issues and overall energy efficiency issues and is due to the age of the condensing unit. Cost estimate: $101,273.
4. Upgrade lighting/add more controls. This recommendation encompasses loss of use/reliability issues and overall energy efficiency issues and is due to the age and condition of the T8 fluorescent fixtures and the building's current lighting control system which turns all lighting on at 5:30 a.m. and off at 9:30 p.m. Cost estimate: $996,129.
5. Replace waterproof membrane along the foundation on the south side of the building. This recommendation encompasses loss of use/reliability issues and is due to the overall deterioration of the waterproof membrane. Cost estimate: $82,630.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.3.18 CAMP GEORGE WEST

15000 SOUTH GOLDEN ROAD (PLEASANT VIEW)

Site Area: 290 acres

Constructed: 1903

Remodeled: N/A

Acquired: 1999 (DPA)

Agency Tenants:

- Department of Corrections
- Department of Public Safety
- Department of Transportation

FCI: None

Cost to Remodel:

- If all recommendations in the facility assessment are implemented as a single project, including the top five priorities, the cost estimate is: $13,847,708.
- If all recommendations in the facility assessment are implemented system by system as multiple projects, including the top five priorities (systems), the cost estimate is: $14,697,457.

Five Major Deficiencies:

1. Assessment of underground utilities. This recommendation encompasses loss of use/reliability issues. Cost estimate: $332,779.
2. Add additional site lighting. This recommendation encompasses life safety issues and is due to areas of the site without any lighting and inadequate site lighting along roadways, parking lots, and storage areas. Cost estimate: $633,895.
3. Repair/replace broken and cracked concrete on site. This recommendation encompasses life safety and loss of use/reliability issues and is due to the overall deterioration of the site pavement which is creating a potential tripping hazard. Cost estimate: $2,125,156.
4. Drainage improvements. This recommendation encompasses loss of use/reliability issues and is due to problems with local flooding occurring on-site and the flooding of numerous existing structures during minor storm events. Cost estimate: $3,533,749.
5. Repair/replace site asphalt. This recommendation encompasses life safety and loss of use/reliability issues and is due to the overall deterioration of the site pavement which is creating a potential tripping hazard. Cost estimate: $5,406,945.

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

4.4 - Sustainability Goals

4.4.1 OVERVIEW

The long range planning of the State Capitol Complex is an excellent opportunity to integrate sustainability goals and approaches that can be implemented with the master plan. The goals are incremental with improved performance each year, to the year 2030. Achieving the sustainability goals are not only an important way for the State to demonstrate leadership around stewardship of the state's resources; it is also a good business case for increased efficiency of operation. The goals outlined in this report are focused on energy, water and waste as key drivers of performance. To achieve these goals it is critical that a Sustainability Manager position is created with the responsibility for the position recognized at all management levels within the department. However, while pursuing these goals it is important to also keep a focus on the pursuit of holistic sustainability, including the health and wellbeing of state employees, customers, and other visitors of state facilities. Social sustainability often goes hand-in-hand with energy efficiency goals as they can increase thermal comfort, improve air quality and enhance daylighting. In addition, there is a great opportunity to leverage the inherent sustainability in renovating existing buildings, particularly the historic state buildings in downtown Denver, which are an important part of the city's fabric.

An important component of the sustainability plan is the tracking of utility usage and cost. For DPA, one of the largest challenges has been its ability to track and report on utility information. DPA, through support from the Colorado Energy Office, has taken action toward tracking utility information with the implementation of EnergyCAP, a web-based energy accounting software that tracks and helps analyze energy and water utility bills. The entering of utility data into EnergyCAP has only recently been completed. A critical step is the verification of tracked utility data against the invoices from the respective utility vendors. The 2013 Capital Complex Energy Use table created from EnergyCAP data indicates a total energy cost that was lower than actual utility budget figures. It is critical that EnergyCAP data be verified against utility vendor invoices. A comprehensive tracking and management plan will result in better information and communication about progress and spur further performance improvements over time.

Policy and guidance for sustainability and energy efficiency within the State's own building portfolio is driven from state statutes, executive orders and department initiatives. Greening of State Government Executive Orders D011 07 and D012 07 were signed by Governor Bill Ritter, Jr. in 2007. The Greening Government executive orders called for a variety of goals to be achieved by June 20, 2012.

The state has had some success and some challenges in meeting these goals. The State of Colorado has been a long time leader in the use of energy performance contracting (EPC) to fund energy efficiency projects for State-owned buildings. For example, in 2010 there were 19 State entity projects that utilized EPCs for a total of $72 million. These projects save 16.1 million kWh of electricity, 77,881 MMBtu of fuel and $2.8 million in energy costs annually. One very notable EPC is the geothermal heating and cooling system project for the State Capitol completed in 2013. The project is a first of its kind for any state capitol and is projected to save the state $100,000 in heating and cooling energy costs in the first year.

The state introduced an environmentally preferable purchasing policy (EPP) in 2009. The policy is designed to reduce consumption, waste, and possible environmental impacts by following a set of green purchasing guidelines. Further efforts to reduce paper use and increase recycling have been introduced at agencies across the state government.

Greening Government Goals

1. Reduce energy use by 20%
2. Reduce paper use by 20%
3. Reduce water consumption by 10%
4. Reduce state vehicle petroleum consumption by 25% (volumetric reduction)
5. To track and report greening government performance, each state department and campus will create a sustainability management system.

The overarching goal is for a 2% reduction each year in energy, water and waste based on the aggregate tracking of all facilities within the capitol complex.

4.4.2 ENERGY, WATER AND WASTE REDUCTION GOALS

The buildings in the State Capitol Complex should achieve specific energy, water and waste reduction goals compared to a baseline of current consumption metrics. The State uses a program called EnergyCAP to track energy and water use at many of the facilities in the Capitol Complex. The data derived from EnergyCAP was used to help set energy and water use reduction goals for the Capitol Complex in this master plan. Currently waste and waste diversion/recycling activities are not tracked.

In concert with energy, water and waste reduction goals it is recommended that the Capitol Complex consider certifying buildings within the complex under LEED for Buildings Operations and Maintenance. Each building should be reviewed for the feasibility of LEED O+M certification. It is important for the State to utilize industry tools and benchmarks to improve and assess building operation over time and LEED O+M provides a valuable framework for meeting the energy, water and waste reduction goals in this master plan.

One of the most successful programs implemented by the state is the High Performance Certification Program (HPCP). The HPCP requires all new facilities, additions and renovation projects greater than 5,000 sf to conform to the policy adopted by the Office of the State Architect. For most qualifying projects the goal is LEED Gold. Further the State Architect has established sustainability priorities within the LEED rating system that include minimum energy performance, enhanced commissioning (over 20,000 sf), measurement and verification (over 50,000 sf), potable water reduction goals, indoor environmental quality goals and construction waste and materials goals. As a result of the state leading by example, Colorado was ranked 8th in the nation for LEED buildings per capita in 2013.

Energy Reduction Goals

The potential energy use reduction presented is based upon benchmarking buildings against industry standards. The EPA ENERGY STAR program and the Architecture 2030 Challenge are two industry recognized benchmarks relevant to DPA. The ENERGY STAR program was designed to compare similar buildings to indicate how they perform. The table below shows ENERGY STAR benchmark data applicable to the Capitol Complex using the average facility size for the Capitol Complex, an office building type, and a zip code of 80203. The 2030 Challenge has established goals to seek, once the buildings are benchmarked. The EnergyCAP program is the tool that provides the benchmark numbers. As stated, the information in EnergyCAP needs to be validated. The value of projecting savings is important to indicate potential savings; once the EnergyCAP data is validated, it is assumed that the final tracked savings will be greater.

The baseline energy use is derived from EnergyCAP using annual data for each building. It is useful to review the energy benchmarks by location and not for the Capitol Complex portfolio of buildings. The facility at 690 Kipling has a high energy use index (EUI) of 353.1 kBtu/sf/year because it houses a data center and therefore, is not representational of the remainder of the Capitol Complex. A useful subgroup of buildings to track is the buildings in downtown Denver connected to Xcel's central steam plant. This subgroup of buildings has a 2013 EUI of 54.1 kBtu/sf/year, and an ECI of $1.13/sf/year. The energy baseline includes energy use only associated with buildings in the scope of this master plan. The IDS building in Pueblo is not included in the scope of this plan and is not included in the EnergyCAP database. As a clarifying note the conversion of pounds of steam to BTUs is based on the ENERGY STAR conversion rate of 1,200 kBTU per MLB (1,000 LB of steam). Refer to the following table for details on the 2013 Capitol Complex energy use.

2013 Capital Complex Energy Use

					2013													
	Address	Bldg Name	Const	Gross Area	Electric		Steam		Natural Gas		Total Energy		Per SF	
1	1575 Sherman	Human Services Bldg	1952	145,370	1,391,959	kWh	877	MLB						
					4,749,364	kBtu	1,052,400	kBtu			5,801,764	kBtu	39.9	kBtu/SF
					115,690	$	20,193	$			135,883	$	0.93	$/SF
2	1525 Sherman	State Services Bldg	1960	165,930	2,551,925	kWh	565	MLB	4,793	DKTHM				
					8,707,168	kBtu	678,000	kBtu	4,793,000	kBtu	14,178,168	kBtu	85.4	kBtu/SF
					212,099	$	15,976	$	28,600	$	256,675	$	1.55	$/SF
3	1570 Grant		1956	47,749	401,523	kWh			1,762	DKTHM				
					1,369,996	kBtu			1,762,000	kBtu	3,131,996	kBtu	65.6	kBtu/SF
					46,791	$			10,041	$	56,832	$	1.19	$/SF
4	201 E Colfax	State Office Bldg	1921	78,115	1,160,046	kWh	239	MLB						
					3,958,077	kBtu	286,800	kBtu			4,244,877	kBtu	54.3	kBtu/SF
					96,832	$	9,147	$			105,979	$	1.36	$/SF
5	200 E Colfax	State Capitol	1903	323,813	2,087,938	kWh	5,915	MLB						
					7,124,044	kBtu	7,098,000	kBtu			14,222,044	kBtu	43.9	kBtu/SF
					173,536	$	101,640	$			275,176	$	0.85	$/SF
6	1313 Sherman	Centennial Bldg	1976	207,091	1,739,949	kWh	1,643	MLB						
					5,936,706	kBtu	1,971,600	kBtu			7,908,306	kBtu	38.2	kBtu/SF
					144,613	$	41,094	$	239	$	185,946	$	0.90	$/SF
7	1375 Sherman	Capitol Annex Bldg	1937	114,228	928,012	kWh	3,502	MLB						
					3,166,377	kBtu	4,202,400	kBtu			7,368,777	kBtu	64.5	kBtu/SF
					77,319	$	83,178	$			160,497	$	1.41	$/SF
8	200 E 14th	Legislative Services Bldg	1915	59,301	927,973	kWh	33	MLB	1,076	DKTHM				
					3,166,244	kBtu	39,600	kBtu	1,076,000	kBtu	4,281,844	kBtu	72.2	kBtu/SF
					77,127	$	3,911	$	6,661	$	87,699	$	1.48	$/SF
9	1341 Sherman	Power Plant	1939	25,690	579,983	kWh	483	MLB						
					1,978,902	kBtu	579,600	kBtu			2,558,502	kBtu	99.6	kBtu/SF
					48,204	$	12,947	$			61,151	$	2.38	$/SF
10	400 East 8th Ave	Exec Residence & Carriage House	1908	31,268	297,381	kWh			877	DKTHM				
					1,014,664	kBtu			877,000	kBtu	1,891,664	kBtu	60.5	kBtu/SF
					30,562	$			5,361	$	35,923	$	1.15	$/SF
11	690 Kipling	Dale Tooley Bldg	1985	67,035	6,348,216	kWh			2,012	DKTHM				
					21,660,113	kBtu			2,012,000	kBtu	23,672,113	kBtu	353.1	kBtu/SF
					489,141	$			11,249	$	500,390	$	7.46	$/SF
12	700 Kipling		1985	60,964	774,065	kWh								
					2,641,110	kBtu					2,641,110	kBtu	43.3	kBtu/SF
					101,743	$					101,743	$	1.67	$/SF
13	1881 Pierce		1972	122,542	1,535,981	kWh			3,051	DKTHM				
					5,240,767	kBtu			3,051,000	kBtu	8,291,767	kBtu	67.7	kBtu/SF
					130,144	$			16,654	$	146,798	$	1.20	$/SF
14	6321 North Downing	North Campus North Bldg	1968	23,630	No data in EnergyCAP									
15	6221 North Downing	North Campus East Bldg	1968	39,195	105,920	kWh			11	THERMS				
	(2011 Data as building was vacant in 2012 and 2013)				361,399	kBtu			1,100	kBtu	362,499	kBtu	9.2	kBtu/SF
	(Meter address in EnergyCAP as 6215 Downing)				8,873	$			257	$	9,130	$	0.23	$/SF
16	1001 East 62nd Ave	North Campus West Bldg	1968	37,763	672,362	kWh			16,847	THERMS				
					2,294,099	kBtu			1,684,700	kBtu	3,978,799	kBtu	105.4	kBtu/SF
					62,580	$			9,345	$	71,925	$	1.90	$/SF
17	222 South 6th	Grand Junction	1983	52,000	705,760	kWh			19,416	THERMS				
					2,408,053	kBtu			1,941,600	kBtu	4,349,653	kBtu	83.6	kBtu/SF
					62,985	$			11,420	$	74,405	$	1.43	$/SF
18	15000 S. Golden Rd	Camp George West, Site		0	No data in EnergyCAP, not a building									
	Totals													
	Buildings with Energy Data			**1,578,054**							**108,883,884**	**kBtu**	**69.0**	**kBtu/SF**
											2,266,152	**$**	**1.44**	**$/SF**
	Buildings with Energy Data			**1,511,019**							**85,211,771**	**kBtu**	**56.4**	**kBtu/SF**
	(excluding 690 Kipling)										**1,765,762**	**$**	**1.17**	**$/SF**
	Buildings on Steam			**1,119,538**							**60,564,282**	**kBtu**	**54.1**	**kBtu/SF**
											1,269,006	**$**	**1.13**	**$/SF**

The 2030 Challenge stipulates that existing buildings should reduce energy use by 50% by 2030 from an ENERGY STAR score of 50 as a baseline. The challenge includes incremental goals between now and the year 2030 to build to the 50% overall reduction. In this scenario the baseline ENERGY STAR score of 50 has a EUI of 96.7 kBtu/sf/year and would need to be reduced to 48.4 kBtu/sf/year by the year 2030 to meet the industry challenge.

The *Energy Reduction Goal Matrix to 2030* table outlines the impact of the Capitol Complex's energy reduction goal of a 2% reduction per year. It assumes a 2% reduction on the previous year's energy use for each year up to 2030. Note that the last year (2030) calls for a 3% reduction to bring the overall accumulative reduction to approximately 30% in 2030 compared with the 2013 baseline. This table uses the 2013 data from EnergyCAP for all Capitol Complex buildings as its baseline, and is therefore more aggressive than the 2030 Challenge. The annual and accumulative energy cost savings do not include escalation of energy cost, nor do they include a discount rate to account for the time value of money. Considering that the utility budget is just over $4 million in FY12-13 and the EnergyCAP data indicates the utility cost is just under $2.4 million, the projected accumulated saving could be over $10 million and not the $6,347,969 as indicated. Note that energy escalation typically outpaces inflation over time so these savings are conservative.

It is critical that the Sustainability Manager update the department's sustainable master plan to reflect industry energy benchmarks, energy related state statutes, executive orders, energy costs and an implementation plan outlining what can be achieved. The continuously updated plan can highlight successes and indicate additional steps necessary to maintain the overall goals. A key part of the master plan is the utilization of the State of Colorado Facility Audit Program. Energy audits for each building in the Capitol Complex will guide the identification of energy efficiency projects to implement.

ENERGY STAR Scores and Energy Use Intensity

ENERGY STAR Score	EUI (kBtu/sf/yr)
50	96.7
60	86.6
70	76.6
75	71.5
80	66.1
90	53.6
93*	48.4
100	28.8

* 50% reduction from score of 50

Energy Reduction Goal Matrix to 2030

Year	EUI kBtu/sf	ECI $/sf	Accumulative % Savings	Annual Savings	Accum. Savings
2013	69.0	$1.44			
2014	67.6	$1.41	2.0%	$46,128	
2015	66.3	$1.38	4.0%	$91,334	$137,463
2016	64.9	$1.36	5.9%	$135,636	$273,099
2017	63.6	$1.33	7.8%	$179,052	$452,151
2018	62.4	$1.30	9.6%	$221,599	$673,751
2019	61.1	$1.28	11.4%	$263,296	$937,047
2020	59.9	$1.25	13.2%	$304,159	$1,241,205
2021	58.7	$1.23	14.9%	$344,204	$1,585,409
2022	57.5	$1.20	16.6%	$383,448	$1,968,857
2023	56.4	$1.18	18.3%	$421,908	$2,390,765
2024	55.3	$1.15	19.9%	$459,598	$2,850,363
2025	54.1	$1.13	21.5%	$496,535	$3,346,898
2026	53.1	$1.11	23.1%	$532,733	$3,879,631
2027	52.0	$1.09	24.6%	$568,206	$4,447,837
2028	51.0	$1.06	26.1%	$602,971	$5,050,808
2029	49.9	$1.04	27.6%	$637,040	$5,687,848
2030	48.4	$1.01	29.8%	$687,121	$6,374,969

Note: 2% savings from each previous year and a 3% savings in the final year (2030)

Common energy efficiency upgrades and retrofits include:

- Lighting and lighting controls upgrades
- Plug load management
- HVAC controls upgrades
- HVAC equipment and efficiency upgrades (when equipment is scheduled to be replaced)
- Building envelope upgrades to reduce loads and strategically reduce the size and cost of HVAC equipment upgrades.
- Advanced metering by building / sub-metering

Water Reduction Goals

Baseline water use is derived from EnergyCAP using annual data for each building. The Capitol Complex portfolio has an overall 2013 water use intensity (WUI) of 16.4 gallons/sf/year and an overall water cost intensity (WCI) of $0.09/sf/year. Refer to table to the right for details on the 2013 Capitol Complex water use. Note that water use can vary significantly on a building by building basis, depending on water uses such as building fixtures, irrigation, and HVAC and process water.

The water data in the table was derived using data from the State's EnergyCAP account. It is highly recommended that the Capitol Complex Sustainability Manager (or similar role) verify the data in EnergyCAP and recalibrate the final 2013 baseline and water results. Some water data was missing or appeared irregular in EnergyCAP. Numerous additional water meters are included in EnergyCAP but not associated with a physical building. Note that the water baseline includes water use only associated with buildings in the scope of this master plan. Also note that the IDS building in Pueblo is not included in the scope of this plan and is not included in the EnergyCAP database.

The *Water Reduction Goal Matrix to 2030* table outlines the impact of the Capitol Complex's water reduction goal of a 2% reduction per year. It assumes a 2% reduction on the previous year's water use for each year up to 2030. Note that the last year (2030) calls for a 3% reduction to bring the overall reduction to 30% in 2030 compared with the 2013 baseline. This table uses the 2013 data from EnergyCAP as its baseline. The annual and accumulative water cost savings do not include escalation of water cost, nor do they include a discount rate to account for the time value of money.

It is critical that the Sustainability Manager update the department's sustainable master plan to reflect industry water benchmarks, water related state statutes, executive orders, water costs and an implementation plan outlining what can be achieved. The continuously updated plan can highlight successes and indicate additional steps necessary to maintain the overall goals. A key part of the master plan is the utilization of the State of Colorado Facility Audit Program. Water audits for each building in the Capitol Complex will guide the identification of water conservation projects to implement.

The EPA has a program focused on water efficiency called WaterSense. There are many WaterSense labeled products on the market. WaterSense labeled products have been certified to be at least 20% more efficient than standard fixtures without sacrificing performance. Further, Denver Water offers rebates on many products that are WaterSense labeled.

Water Reduction Goal Matrix to 2030

Year	WUI gal/sf	WCI $/sf	Accumulative % Savings	Annual Savings	Accum. Savings
2013	17.2	$0.10			
2014	16.9	$0.10	2.0%	$3,203	
2015	16.5	$0.10	4.0%	$6,343	$9,546
2016	16.2	$0.09	5.9%	$9,419	$18,965
2017	15.9	$0.09	7.8%	$12,434	$31,399
2018	15.5	$0.09	9.6%	$15,389	$46,788
2019	15.2	$0.09	11.4%	$18,284	$65,073
2020	14.9	$0.09	13.2%	$21,122	$86,195
2021	14.6	$0.09	14.9%	$23,903	$110,098
2022	14.3	$0.08	16.6%	$26,628	$136,726
2023	14.1	$0.08	18.3%	$29,299	$166,025
2024	13.8	$0.08	19.9%	$31,917	$197,942
2025	13.5	$0.08	21.5%	$34,482	$232,423
2026	13.2	$0.08	23.1%	$36,995	$269,419
2027	13.0	$0.08	24.6%	$39,459	$308,878
2028	12.7	$0.07	26.1%	$41,873	$350,751
2029	12.4	$0.07	27.6%	$44,239	$394,989
2030	12.1	$0.07	29.8%	$47,717	$442,706

Note: 2% savings from each previous year and a 3% savings in the final year (2030)

Common water conservation upgrades and retrofits include:

- Water leak detection and repair
- Tenant water conservation education
- Upgrade to EPA WaterSense fixtures
- Upgrade irrigation system and controls
- Upgrade or repair cooling towers to increase water efficiency and increase cycles of concentration
- Advanced metering / sub-metering

2013 Capital Complex Water Use

	Address	Bldg Name	Const	Gross Area	2013 Water		Per SF	
1	1575 Sherman	Human Services Bldg	1952	145,370	1,112	Kgal	7.6	gal/SF
					6,948	$	0.05	$/SF
2	1525 Sherman	State Services Bldg	1960	165,930	1,613	Kgal	9.7	gal/SF
					10,310	$	0.06	$/SF
3	1570 Grant		1956	47,749	932	Kgal	19.5	gal/SF
					5,944	$	0.12	$/SF
4	201 E Colfax	State Office Bldg	1921	78,115	No data in EnergyCAP			
5	200 E Colfax	State Capitol	1903	323,813	No data in EnergyCAP			
6	1313 Sherman	Centennial Bldg	1976	207,091	1,126	Kgal	5.4	gal/SF
					3,623	$	0.02	$/SF
7	1375 Sherman	Capitol Annex Bldg	1937	114,228	565	Kgal	4.9	gal/SF
					4,648	$	0.04	$/SF
8	200 E 14th	Legislative Services Bldg	1915	59,301	No data in EnergyCAP			
9	1341 Sherman	Power Plant	1939	25,690	No data in EnergyCAP			
10	400 East 8th Ave	Exec Residence & Carriage House	1908	31,268	1,275	Kgal	40.8	gal/SF
					6,424	$	0.21	$/SF
11	690 Kipling	Dale Tooley Bldg	1985	67,035	1,827	Kgal	27.3	gal/SF
					8,810	$	0.13	$/SF
12	700 Kipling		1985	60,964	404	Kgal	6.6	gal/SF
					2,973	$	0.05	$/SF
13	1881 Pierce		1972	122,542	7,103	Kgal	58.0	gal/SF
					36,835	$	0.30	$/SF
14	6321 North Downing	North Campus North Bldg	1968	23,630	No data in EnergyCAP			
15	6221 North Downing	North Campus East Bldg	1968	39,195	No data in EnergyCAP			
16	1001 East 62nd Ave	North Campus West Bldg	1968	37,763	1,530	Kgal	40.5	gal/SF
					13,605	$	0.36	$/SF
17	222 South 6th	Grand Junction	1983	52,000	635	Kgal	12.2	gal/SF
					3,677	$	0.07	$/SF
18	15000 S. Golden Rd	Camp George West, Site		0	53,792	Kgal	N/A	
	(Not a building, included for reference only)				37,260	$	N/A	
	Totals							
	Buildings with Water Data			**1,051,940**	**18,122**	**Kgal**	**17.2**	**gal/SF**
					103,797	**$**	**0.10**	**$/SF**

Waste Reduction Goals

Quantities of waste and diverted waste, such as recycling, have not been measured and tracked for buildings in the Capitol Complex. The first step in meeting a waste reduction goal of 2% per year is to conduct a waste stream audit on facilities in the Capitol Complex. This will establish the first year municipal waste and diversion baseline.

The municipal waste reduction goal is based on a 2% reduction of the prior year's waste, measured by pound per square foot. The table below shows the compounding impact of this goal through the year 2030. Note that the 2014 waste baseline has not been determined and the table uses 1.0 pounds/square foot/year as a place holder. Note that some waste industry experts estimate that offices generate between 2.5 to 4.0 pounds of waste per square foot per year.

Municipal Waste Stream Audit

- Put together an internal team to conduct the waste audit, manage the tracking of waste and implement strategies to meet waste reduction goals. Check with the contracted waste hauler to see if they can provide some of the audit and tracking services.
- Establish the time period for each building's waste audit (i.e. one day's worth of trash) and the frequency of audits per year.
- Weigh and track waste in each stream leaving the building (waste, recyclables, compost, etc.).
- Conduct a building walk through and questionnaire to determine types of waste being generated and the types and frequency of diversion techniques such as recycling.
- Extrapolate waste audit records to estimate annual waste and diversion volumes.

While the waste reduction goal is based on a measure of waste generated, it is useful to also track annual diversion rates to gauge the success of recycling programs. Increasing participation in recycling and expanding the types of recyclables collected are key strategies to meeting the waste reduction goal. The other key strategy is to reduce potential waste in the first place. This can be accomplished by implementing programs that target a reduction in use for the biggest waste generators by type, which can be identified in the waste stream audits. It is also important that hazardous waste and electronic recycling programs be integrated into the overall waste management program.

Construction waste associated with renovations and construction activities in the Capitol Complex should also be tracked against a reduction goal. Because these activities are often one-time events rather than a uniform waste stream, construction waste should be tracked separately. In the Denver region current best practice is to divert 75% of construction waste. For the construction waste reduction goal for the Capitol Complex this 75% diversion rate is considered the baseline and the goal is a 1% reduction per year starting in 2016 resulting in a 90% diversion rate by 2030.

It is critical that the Sustainability Manager update the department's sustainable master plan to reflect industry waste benchmarks, waste related state statutes, executive orders, waste related costs and an implementation plan outlining what can be achieved. The continuously updated plan can highlight successes and indicate additional steps necessary to maintain the overall goals. A key part of the master plan is the utilization of the State of Colorado Facility Audit Program. Waste audits, as described above, for each building in the Capitol Complex will guide the identification of waste reduction projects to implement.

Municipal Waste Reduction Goal Matrix to 2030

Year	Waste lb/sf	% Savings
2014	1.00	
2015	0.98	2.0%
2016	0.96	4.0%
2017	0.94	5.9%
2018	0.92	7.8%
2019	0.90	9.6%
2020	0.89	11.4%
2021	0.87	13.2%
2022	0.85	14.9%
2023	0.83	16.6%
2024	0.82	18.3%
2025	0.80	19.9%
2026	0.78	21.5%
2027	0.77	23.1%
2028	0.75	24.6%
2029	0.74	26.1%
2030	0.72	27.6%

Construction Waste Reduction Goal Matrix to 2030

Year	Diversion Rate
2015	75.0%
2016	76.0%
2017	77.0%
2018	78.0%
2019	79.0%
2020	80.0%
2021	81.0%
2022	82.0%
2023	83.0%
2024	84.0%
2025	85.0%
2026	86.0%
2027	87.0%
2028	88.0%
2029	89.0%
2030	90.0%

Waste Management Best Practices

- Provide all tenants with convenient recycling bins and recycling collection facilities. Right size recycling capacity vs. standard waste capacity.
- Provide single stream recycling that includes glass, plastics, paper, cardboard and metals. Include clear signage for what items can or can't be included in recycling collection.
- Provide facility for collecting batteries, toner cartridges, and electronic waste for recycling.
- Provide a composting program with facilities to collect food and organic waste.
- Provide a program for the donation of reusable durable goods such as office equipment and furniture.
- Require high levels of waste diversion in the construction contract for all facility renovations and alterations.

4.4.3 PROJECT SPECIFIC OPPORTUNITIES

There are several specific projects within the Capitol Complex master plan that offer targeted opportunities for deep energy, water and waste reductions as well as meeting a variety of other high performance objectives. These projects consist of three major renovations (1375 Sherman, 1313 Sherman and 1570 Grant) and a potential new 567,000 SF State office building at Lincoln and Colfax.

Colorado's High Performance Certification Program (HPCP) would apply to these renovations and new construction project. As outlined in the "State Sustainability Implementation Process" section of this report, the HPCP recommends a LEED Gold rating and meeting several OSA Sustainable Priorities. However, because these projects are in the Capitol Complex, high profile and relatively large in scale, this master plan recommends that the performance goals in the HPCP be expanded to include higher levels of performance and LEED certification.

1375 Sherman

The 1937 Capitol Annex Building is a 114,228 SF art deco architectural gem from the New Deal era and is listed on the Historic Register. The building has been identified as needing an extensive HVAC and lighting renovation or replacement, as well as extensive envelope improvements. Heating is currently supplied with Xcel steam and it is recommended to convert the building to natural gas heating or ground source heat pumps. Ground source heat pumps would also enable the building to be removed from the existing central chiller plant located in an adjacent building. This building is a great opportunity for a historic preservation sensitive deep green retrofit.

1375 Sherman - Recommended Deep Green Retrofit Performance Goals

- Perform energy efficiency upgrades including lighting, plug load management, HVAC & building envelope.
- Integrate a demand response system.
- Current water use intensity is 4.9 gal/SF/year, with a water cost of $0.04/SF/year. Low flow plumbing fixtures will further reduce water use.
- Implement advanced metering for energy and water use.
- Construction waste diversion of 75% or greater.
- LEED-NC v4 Platinum

1313 Sherman

1313 Sherman is a 207,091 SF, ten story 1970's office building known as the Centennial Building. The building is in need of extensive renovation including exterior envelope, HVAC and lighting. One key advantage that the Centennial Building has is good solar orientation along with relatively narrow floor depth. Enhanced daylighting and natural ventilation can be effectively explored in a deep green retrofit. Another excellent opportunity to explore in a deep green retrofit is in the integration of on-site photovoltaic systems, which could be installed on the building roof and over the adjacent, parking structure at 1350 Lincoln. If these two PV installations were optimized it may be possible to provide approximately 836 kW of PV. This system size would be able to generate approximately 42% of the existing energy use (38.2 kBtu/SF/year) of the building. It would generate approximately 61% of the target energy use (26.7 kBtu/SF/year). The building energy would need to be reduced to 16.4 kBtu/SF/year or lower to achieve net zero energy.

1313 Sherman - Recommended Deep Green Retrofit Performance Goals

- Perform energy efficiency upgrades including lighting, plug load management, HVAC & building envelope.
- Integrate a demand response system.
- Current water use intensity is 5.4 gal/SF/year, with a water cost of $0.02/SF/year. Low flow plumbing fixtures will further reduce water use.
- Implement advanced metering for energy and water use.
- Construction waste diversion of 75% or greater.
- LEED-NC v4 Platinum

1570 Grant - Recommended Deep Green Retrofit Performance Goals

- Perform energy efficiency upgrades including lighting, plug load management, HVAC & building envelope.
- Integrate a demand response system.
- Current water use intensity is 19.5 gal/SF/year, with a water cost of $0.12/SF/year. Low flow plumbing fixtures, improved cooling tower or ground source heat pump system will further reduce water use.
- Implement advanced metering for energy and water use.
- Construction waste diversion of 75% or greater.
- LEED-NC v4 Platinum

1570 Grant

The 1570 Grant building is a 47,749 SF office building and a great example of mid-century modern commercial architecture. The building has been identified as needing an extensive HVAC renovation or replacement. The HVAC replacement can be like-for-like with increased efficiency, but the feasibility of ground source heat pumps should also be explored. A ground source heat pump solution would have the dual advantage of increased energy efficiency while eliminating the water use for cooling. The high water use of the facility can be mostly attributed to the existing cooling tower. The exterior envelope is in fair condition and a deep green retrofit would be a great opportunity to enhance the performance of the envelope.

New State Office Building - Recommended Performance Goals

- Energy use intensity target of 25.0 kBtu/SF/year or less and explore opportunity for net zero energy.
- Building water use reduction of 40% or greater compared with LEED baseline.
- Integrate a demand response system.
- Implement advanced metering for energy and water use.
- Construction waste diversion of 75% or greater.
- Design project as model for occupant health and well-being and explore certifying the building under the Well Building Standard.
- LEED-NC v4 Platinum

New State Office Building at Lincoln and Colfax

New construction projects are excellent opportunities for advancing building performance. The new State office building should be designed to be the highest performing building in the Capitol Complex and a model for sustainability. Investments in energy performance will result in the lowest overall life cycle cost over the life of the building. Further, investments in design and operational features that promote health and wellness are important investments in state employees, which comprise the largest operating expense and most important resource for the facility.

The size and height of the new building will make net zero energy using on-site photovoltaics challenging, but integration of on-site renewables is encouraged and could be paired with a dedicated off-site source such as a solar garden.

4.4.4 STATE SUSTAINABILITY IMPLEMENTATION PROCESS

Benchmarking State Energy Management Practices with the ACEEE Scorecard

The American Council for an Energy-Efficient Economy (ACEEE) compiles an annual scorecard for state energy efficiency measures. The scorecard tracks a variety of state-level metrics including utility programs, transportation policies, building energy codes, combined heat and power policies, state government initiatives and appliance efficiency standards. For 2013 Colorado ranked 16th in the nation overall, with the top five states (in order) being Massachusetts, California, New York, Oregon and Connecticut.

For comparison in this master plan the state government initiatives metric is most applicable because it measures the state's internal initiatives around state-owned buildings. Rankings in this metric follow very closely with the overall scorecard rankings. The following are highlights of state-led initiatives by the top three states in the ACEEE scorecard, Massachusetts, California and New York.

Massachusetts

Massachusetts Executive Order 484 highlights:

- Establishes a "Leading by Example" program and council which shall direct efforts across state government to track and measure progress toward clean energy and environmental goals, develop long-term programs at state facilities and training efforts necessary to carry out the provisions of the executive order.
- Reduction in overall energy consumption in state-owned and leased buildings by 20% by 2012 and 35% by 2020 (2004 baseline).
- Procure 15% of agency annual energy consumption from renewable sources by 2012 and 30% by 2020.
- State agencies with new construction or major renovations over 20,000 square feet must meet the MA LEED Plus green building standard and perform 20% better than the state energy code.
- Reduce potable water use by 10% by 2012 and 15% by 2020 (2006 baseline)
- The state launched an Accelerated Energy Program in 2012 to accelerate the implementation of energy and water projects across the Commonwealth and help meet the goals of Executive Order 484.

Massachusetts Enterprise Energy Management System (EEMS):

- Awarded to EnerNOC in 2010
- Measuring real-time energy use at 480 state-owned buildings, comprising 25 million square feet of buildings, through the installation of 1,200 state of the art real-time energy meters.

California

California Executive Order B-18-12 highlights:

- Reduce greenhouse gas emissions by at least 10% by 2015 and by at least 20% by 2020 (2010 baseline).
- All new state buildings and major renovations beginning design after 2025 shall be constructed as net zero energy facilities with an interim target of 50% of new facilities beginning design after 2020 to be net zero energy. State agencies should also take measures toward achieving net zero energy for 50% of the square footage of existing state-owned building area by 2025.
- State agencies shall reduce grid-based energy purchases for state-owned buildings by at least 20% by 2018 (2003 baseline).
- State agencies shall participate in demand response programs.
- Any proposed new or major renovation of state buildings larger than 10,000 square feet shall use clean, on-site power generation and clean back-up power supplies, if economically feasible.
- New and major renovated state buildings and build-to-suit leases larger than 10,000 square feet shall obtain LEED Silver certification or higher.
- New and existing buildings shall incorporate building commissioning to facilitate improved and efficient building operation.
- All existing state buildings over 50,000 square feet shall complete LEED-EB certification by the end of 2015 (include ENERGY STAR rating of 75) to the maximum extent cost-effective.
- The Department of General Services shall work with other state agencies to develop by no later than July 1, 2013, policies and guidelines for the operation and maintenance of state buildings to achieve operating efficiency improvements and water and resource conservation, and to continually update and incorporate these in the State Administrative Manual.
- State agencies shall implement relevant and feasible voluntary measures from Divisions A4.5 and A5.5 of the California Green Building Standards Code to ensure healthy environments for occupants.
- State agencies shall reduce water use at the facilities they operate by 10% by 2015 and by 20% by 2020 (2010 baseline).
- State agencies shall identify and pursue available financing and project delivery mechanisms to achieve these goals.
- State agencies shall measure, monitor, report and oversee progress on measures in this Order.
- A Green Building Action Plan was developed for implementation of Executive Order B-18-12.

New York

New York Executive Order 88 highlights:

- 20% improvement in energy efficiency in all state facilities by 2020 (2010/2011 baseline)
- Build Smart NY is the implementation plan launched with the executive order. The guidelines for meeting Executive Order 88 include provisions for:
  - Reporting and benchmarking
  - Energy auditing plan
  - Capital project implementation
  - Retrocommissioning
  - Operations and maintenance
  - Submetering
- Under the Build Smart NY initiative the New York Power Authority (NYPA) will provide $450 million in low-cost financing for energy efficiency projects in the largest and least efficient state government buildings.

Sustainability Goals

Improving energy and water efficiency and sustainability starts with a comprehensive set of goals. As noted earlier in this report, statewide goals have typically been established through executive orders, as well as state statutes and initiatives. However, the last set of sustainability goals from executive orders in 2007 have expired. It is appropriate that the Capitol Complex has its own set of sustainability goals to guide long-term improvement and efficiency. It is recommended that the goals established in this master plan function as these long-term goals.

The Capitol Complex sustainability goals in this master plan are generally aligned well with the best practices of other states and specifically the top states highlighted in the ACEEE scorecard for state energy efficiency measures. It is noteworthy that Massachusetts and California both have state goals for renewable energy, and California has an aggressive net zero energy goal. Renewable energy and net zero, or near net zero, goals are highlighted in the master plan as project specific opportunities rather than Capitol Complex goals.

An important requirement of any plan is the continuous review and updating of the plan. The review needs to list achievements and failures as a learning tool, be compared to other state plans, and reflect industry benchmarks and changes. The energy, water and waste goals need to be updated to reflect new priorities, statutes, executive orders, and utility costs. The plan needs to emphasize the importance of an individual or a group assigned to implement the plan as their first task and not as time permits.

Current Guiding Policies and Programs

The State has several guiding policies and programs utilized to enhance building performance and sustainability. These core policies guide existing building operation, new construction performance standards and a funding mechanism for energy efficiency upgrades to existing facilities. The current state energy and sustainability policies are useful tools in helping to meet the sustainability goals in this master plan.

The Office of the State Architect's Energy Management of Existing Buildings Policy

- Policy outlines guidelines for the efficient operation and maintenance of existing buildings including a facility audit program and energy management program.
- Facility Audit Program

  Required to be established by all state agencies.

  A comprehensive operation and management tool which identifies, quantifies and prioritizes areas requiring necessary action as well as costs to renovate, retrofit, restore, modernize or maintain the building and equipment in a like new condition.
- Energy Management Program

  Required to be established by all state agencies to incorporate energy efficiency into the decision making process during the design and acquisition of buildings, the repair and replacement of existing systems, and should emphasize the use of renewable energy sources.

  High Performance Certification Program for new buildings and substantial renovation of existing buildings.

  Utilize EPA ENERGY STAR program to benchmark building's energy profile.

  Utilize LEED for Existing Buildings: Operations & Maintenance program to benchmark and verify success in building operation and maintenance programs.
- Energy Efficiency Projects Funding Options

  Controlled Maintenance Funds: For corrective repairs or replacement used for existing state-owned, General-Funded buildings, when such work is not funded in an agency's operating budget. Controlled Maintenance projects arise out of the deterioration of a facility's physical and functional condition.

  Energy Performance Contracts (EPC): Utilize the future energy savings of an energy efficiency program to finance the project through an energy service company (ESCO).

High Performance Certification Program (HPCP)

- Applies to new facilities, additions, or renovation projects of 5,000 square feet or more, and with a HVAC system. For renovation projects the cost of renovation should not exceed 25% of the current value of the building for the HPCP to apply.
- Achieve a LEED certification with a goal of a Gold rating.
- Strongly encouraged to meet OSA Sustainable Priorities in addition to prerequisites:

  24% reduction in energy cost

  Enhanced commissioning (greater than 20,000 square feet).

  Measurement and verification of energy and water systems (greater than 50,000 square feet).

  50% reduction in potable landscape water use.

  30% reduction in potable indoor water use.

  Low toxicity materials (achieve two of the following: IEQc4.1, 4.2, 4.3, 4.4)

  Daylighting for 75% of regularly occupied spaces.

  50% diversion rate of construction waste.

  Source as many materials as possible from Colorado region.

Energy Performance Contracting (EPC)

- Executive Order D014 03 directs each state agency to investigate the feasibility for an energy performance contract to improve energy efficiency of existing state facilities.

Organization and Implementation Process

The state has a decentralized model for implementing energy management and sustainability initiatives. There are a few entities that serve as central resources for state agencies. These include the Office of the State Architect (OSA), and the Greening Government Council and the Governor's Energy Office (GEO).

OSA develops the guidelines and policies for energy management and sustainability including the HPCP, as well as administrating controlled maintenance projects and providing review and resources to capital projects. GEO provides resources and technical guidance around energy issues for the entire state including assistance with energy performance contracting. The Greening Government Council was established with Executive Orders D011 07 and D012 07 to help implement the goals in these executive orders. The council also provides a central source for collaboration and communication between State agencies as each agency has a seat on the council.

State agencies and higher education institutions develop their own programs in accordance with State goals and have staff assigned to manage these energy and sustainability programs and plans. Each State agency manages a general operation and maintenance budget that can be used for energy efficiency projects as part of general operation and maintenance. State agencies work with OSA on controlled maintenance and capital projects, which also include energy efficiency improvements.

The Capitol Complex Facilities team serves as the property manager for all Capitol Complex facilities and includes an energy manager position on its staff. In order to meet the goals in this master plan it is recommended that this position be expanded into a full-time sustainability manager role. The current energy manager position description divides the position into several duties including energy management (35%), tenant project coordination (35%), manage building audit and CM program (10%), insurance claims (10%), and greening of state government (10%). In becoming a full-time sustainability manager position the duties should be reprioritized to remove non-sustainability duties such as insurance claims so that time involved in tenant coordination is in support of sustainability goals. In addition to roles outlined in the existing energy manager position description, the expanded sustainability manager roles should include the following:

Additional Duties of Sustainability Manager

- Develop and implement a comprehensive sustainability plan for the Capitol Complex that addresses goals and recommendations of this master plan in addition to other state sustainability goals and policies.
- Conduct energy and water audits on Capitol Complex facilities and develop energy and water efficiency projects in support of the comprehensive sustainability plan.
- Develop and implement an energy and water metering plan. The metering plan should include the installation of State-owned and operated real time meters and sub-meters (wherever practical). Coordinate the capture of real time energy and water data with database and analytical tools such as EnergyCAP or other appropriate programs. Track and report out energy and water use and cost in relationship to goals.
- Develop and implement a waste audit and waste reduction plan. Track and report out waste streams in relationship to goals.
- Work with tenants in both typical building operation and with renovation projects to provide resources, guidance and education to further energy, water and waste reductions.
- Manage LEED O+M certification and recertification for applicable buildings in the Capitol Complex.

Specific Sustainability Goals

- Create a sustainability program that is staffed by an individual whose sole responsibility is this program.
- Validate EnergyCAP data against utility vendor invoices.
- Perform energy and water audits of all buildings - most recent audit was in 2003 by EPC.
- Institute a plug load management program.
- Utilize EPA's ENERGY STAR and WATERSENSE programs for benchmarking, education, and potential upgrade ideas.
- Review LEED existing building operations and maintenance guidelines for certifying all DPA buildings.

4.5 - Security

Colorado State Patrol

Currently the Colorado State Patrol (CSP) Executive Security Unit has 60 employees and their central communications center is located in the 1341 Sherman Street Power Plant Building. The Executive Security Unit is responsible for security for the Capitol Complex and the Executive Residence. When requested, the CSP provides guidance to state agencies within the Capitol Complex on security needs. They operate the security check points at the Capitol and the Judicial Building and 1525 Sherman Street. The CSP also provides year round escort service for individuals to get to their cars when requested.

Space at 1341 Sherman Street is insufficient for CSP needs since troopers share locker and office space. The secure communications center is located downstairs and was recently renovated. Typically there are three individuals who monitor multiple security screens.

The CSP also has storage space throughout the Capitol Complex including bike storage space under the stairs of the Legislative Services Building at 200 E. 14th Street. Preferably the bike storage would be located in a more accessible location.

Due to the fact that the CSP is located in the Power Plant Building and their space is less than ideal and not large enough, it would be optimal for them to be relocated in a new space preferably within a block of the Capitol.

Security Systems

The security systems design guidelines outline electronic security systems infrastructure that would enhance security operations and provide a safe and secure environment for persons and assets within the Capitol Complex. The approach to the security systems should be implemented such that they can be easily and effectively monitored real time from CSP centralized communication center(s).

Physical Security Strategies

Physical security can be simply defined as the physical measures utilized in providing protection of assets against threats. These strategies are a combination of industry best practices and methods taken from such sources as ASIS (American Society of Industrial Security) International, various government agencies, commercial entities, and the consultant team's professional experience. Additionally the recommendations are supported by Crime Prevention through Environmental Design (CPTED). CPTED is defined as a multi-disciplinary approach to deterring criminal behavior through environmental design. CPTED strategies rely upon the ability to influence offender decisions that precede criminal acts by affecting the built, social and administrative environment.

Design Requirements

In general, there are multiple strategies that can be implemented that will supplement and support the effective security program. As the following explanations show, these strategies shall overlap and complement each other. Most importantly, they cannot stand alone as a singular method of mitigating a security incident. From an asset protection standpoint, complete protection is provided when security implementations meet the following three requirements:

- Deter – prevention of action through fear of penalty
- Detect – determination and communication that an event has occurred
- Delay and Deny – the ability of physical or psychological barriers to restrict or oppose the action

Combined, these three functions provide overall protection of the asset(s). Failure to meet one of the requirements opens the asset to attack and creates vulnerability.

In protecting an asset, the concept of Integrated Design establishes effective security programs through the integration of security technology with architectural components and operational elements. The premise for using this concept is that architecture, operations, and electronics must complement one another to create a strong security program. No one element of this group can standalone or operate independently to provide adequate protection.

Once established, the integrated design components are most effective when applied in a concentric manner beginning at the outlying edge of the site perimeter. As one moves across the site perimeter and in towards the building perimeter and interior secured spaces, the security controls and boundaries become increasingly more difficult to breach without detection and intervention. Zones of intervention between each level provide the ability for security operations to control, detect, evaluate, and respond to unauthorized activities.

Site Planning and Area Development

The planning and layout of a building and site contributes greatly in creating a physically secure structure and safe area. Perimeter protection, lighting, locking hardware, entrances and exits, flow and traffic patterns of building occupants and other pedestrians, and the location of service areas such as lobby reception, visitor services, and loading docks all assist in providing a protective ring for the building. In developing criteria to protect the facility the following recommendations can be used as guidelines.

- Locate high-risk areas in the interior of the installation. There should be a clear division between secure and unsecure spaces.
- Clear lines of sight should be established at all building entry points and site areas. Areas of concealment should be minimized to eliminate hiding spots. Landscaping and hardscaping should be laid out in such a way as to enhance the ability to view the entire area.
- Consolidate high-risk areas to take advantage of opportunities for security efficiency such as minimized control points.
- Maximize the distance (stand-off) between the perimeter and secure area to provide as much open space as possible. The maximization of stand-off distance is imperative in any blast mitigation measures.
- The arrangement of areas, with strongly delineated boundaries and buildings oriented to enhance surveillance opportunities, results in the creation of "defensible space" that can be protected more efficiently than scattered buildings or areas.
- Design entry roadways so that they do not provide direct or straight-line vehicular access to high-risk resources. All vehicular entries and exits should be provided with crash-rated barriers to prevent vehicle access.
- Whenever possible commercial, service, and delivery vehicles should have a designated entry to the installation preferably distant from high-risk resources. Where this is not feasible, all such vehicles should be inspected and cleared prior to admittance.

Entrances and Exits

All perimeter doors should be lockable, but always available for emergency exiting. All entrances and exits should be protected with security surveillance and the number of entrances should be minimized so that security surveillance and access control is manageable. The number of exits should be based on the local fire and building codes' means of egress requirements and building occupancy loads. Security should never impede the means of egress and exit from a building.

Lobbies

A lobby desk should be positioned on the first floor so that attendants or security personnel can screen visitors and view building entrances and access to the elevator banks. Turnstiles, optical portals, and other design control points can be positioned to funnel and control access to restricted space and upper floors. Public access and employee access should be segregated to provide efficient monitoring of pedestrian traffic. This lessens the possibility of someone trying to conceal themselves within a group of employees. All employee entrances should be monitored and controlled via the Security Management System.

Checkpoint facilities should be used to screen bags and personnel depending on the threat level. All public entries to the facility should be screened. Portable equipment can be utilized for other entrances and for use at special functions that do not require a permanent installation.

The Facilities

The following primary security systems are currently in place throughout the Capital Complex: access control (ACS), video surveillance, wireless duress and central monitoring by CSP. Electronic security systems that should be replaced and/or addressed include video surveillance, access control, intrusion alarm, duress alarm and audio intercom.

The access control system deployment is campus wide and currently exists throughout other state Capitol Complex buildings within the system. The ACS serves as the primary security management system for monitoring intrusion alarms. The state's existing wireless duress alarm system infrastructure is in place and operational. The existing security systems are controlled and monitored centrally from Colorado State Patrol's Central Command Center (CCC) in Denver. The single subsystem most in need of an upgrade are the security cameras and video management system.

By industry standards, the video surveillance system is considered an antiquated analog video based system. With that, poor video image quality is a direct result from the optical sensors and the transport mechanism currently in place. Analog video systems cannot be easily integrated into other security management systems, and the current user interface is not capable of meeting industry standards for evidentiary purposes.

This report is not designed as a specification but rather as an outline to provide information on required security system upgrades and security criteria recommended for implementation. The security systems must be planned and designed to allow CSP and security personnel the operational flexibility to provide proper security response in the event of an incident. Best practice security design methodology should be applied, including layered security, security in depth, and an integrated systems design. Applicable state of Colorado construction standards and design guidelines should be followed as a baseline.

The access control system deployment should follow as an expansion of the existing campus-wide system currently installed throughout other State Capitol Complex buildings and should utilize similar ACS door controllers and peripheral equipment. New proximity-type card readers shall operate with the existing proximity card credentials. A common practice for door devices should be to wire through a consolidation junction box above each door and be routed to the nearest intermediate distribution frame (IDF) room where door controllers and power supplies are located. ACS door controllers should be installed in telecommunications IDF rooms that will connect to the building's local area network (LAN) for communication with the ACS server.

New security equipment to be located within IDF rooms must be coordinated with the State IT technical staff. Each access controlled door should be equipped with a card reader, an electrified lock, a door position switch and a request-to-exit motion device (or hardware integral request-to-exit switch). All doors described as a card reader controlled access door should be designed with the standard equipment listed, unless specifically defined elsewhere to vary from this configuration. For new controlled doors, the use of magnetic locks and electronic strikes is not recommended. Electrified lever sets and panic hardware are to be equipped with request-to-exit switch built into the exit hardware. At controlled door locations, the specific electrified hardware requirements must be compatible and coordinated with the ACS control interface circuit.

The ACS shall also serve as the primary security management system for monitoring intrusion alarms. Intrusion alarms, such as door status and motion detection alarms, are to be integrated with and monitored through the access control security management system. Alarm device additions and modifications should be coordinated with the State during the design phase. Security personnel should be able to monitor the security system's alarm notification devices through network connected client workstations, where authorized.

The current video surveillance system (VSS) is in need of an upgrade from analog to digital, and the implementation IP cameras integrated to new network video recorders (NVRs) should be a high priority. New IP cameras should have the capability to communicate with the VSS over an IP infrastructure transport system (CAT6). Security camera deployment should consider the use of fixed field of view and pan-tilt-zoom (PTZ) type cameras, with minimum resolution requirements and clearly defined mega-pixel rating as well as be Power-over-Ethernet (PoE) devices. Camera network cabling should follow basic guidelines supporting 10-Gigabit transmission to pull to the nearest IDF room providing connectivity to the building's LAN. IP camera network cabling should terminate to building PoE network switches. Security personnel shall be able to monitor the security video surveillance system through network connected client workstations, where authorized.

The State's existing wireless duress alarm system infrastructure should be expanded, where needed, to support new locations of wireless duress buttons. Duress alarms should be installed at all public interface and cash-handling locations. CSP Central Command Center monitors a wide network of wireless duress buttons at multiple State Capitol Complex facilities in Denver. This is accomplished using wireless mesh coverage by use of repeaters located at State facilities. The duress system currently utilizes wireless duress buttons, which transmit radio frequency (RF) signals to an infrastructure of wireless RF receivers and repeaters. System repeaters should be provided, if necessary, to boost the wireless signal strength. Currently deployed duress alarms in the buildings are monitored by the existing CSP head-end system.

Consideration of an IP-based Intercom Communication System (ICS) is highly recommended to enhance security operations across the Capitol Complex facilities for security personnel, staff and visitors. Intercom over IP (IoIP) systems provide superior audio quality utilizing the latest digital technology and provide much greater flexibility for locating both master and substations anywhere on the local area network via IP communications. Security personnel in CSP CCC should be provided with two-way audio communications to any remote building, and this could be accomplished via an IP intercom substation.

As part of any renovation work, all security head-end equipment should be located or moved to IDF rooms, where possible, and coordinated with State IT technical staff. New security network video recorders (NVRs) to support IP cameras should also be relocated/located within the appropriate IDF rooms. It is highly suggested that all head-end security control equipment be placed on emergency power circuits or UPS units. State security personnel and other authorized staff may remotely monitor access control events, system alarms and security video through network connected client workstations.

Any building renovation work with requirements for security device additions/upgrades and specific security system functionality should be coordinated with CSP and State security personnel during design and construction phases.

Any security installation work, construction standards and operational requirements should be reviewed and approved by the appropriate staff and closely coordinated with the State by the electronic security integrator. Security cabling within IDF rooms shall be piped to wire gutters and or security equipment panels. Within IDF rooms, a 4-foot-by-8-foot section of wall space must be reserved for security equipment and supplied with fire treated plywood backboard. Rack mounted security equipment may share space in telecommunication equipment racks, where appropriate and as coordinated with the appropriate state IT personnel. One dedicated 120VAC 20A emergency power circuit is required at each security wall board location to support head-end equipment. All mission critical electronic security equipment shall be provided with back-up UPS. All UPS units shall be stand alone, dedicated for security and sized accordingly based on required run time.

As a practice, security system cabling should share cable routes with that of the building structured network cabling system wherever possible. The network cabling paths and riser locations generally provide the most direct route through a facility and typically contain sufficient space for security cabling requirements. Data cabling required for IP security cameras is to be provided and installed by approved telecommunications contractor(s). As a recommendation, this should be the approved construction method for provisioning of the IP camera network cabling to support the new VSS system. State IT construction standards for network and security cabling types and jacket color must be adhered to. Security cabling must never be exposed and must be contained in protective conduit wherever cable is accessible to vandalism or accidental damage or where it traverses any unsecured space. Security cabling shall be plenum-rated where required by codes.

4.6 - Key Recommendations

CHAPTER 4.0 - FACILITY ASSESSMENT KEY RECOMMENDATIONS

- THE CAPITOL ANNEX BUILDING, LOCATED AT 1375 SHERMAN STREET IN DENVER, NEEDS TO HAVE ALL SYSTEMS REPLACED AND BE TOTALLY RENOVATED.
- THE CENTENNIAL BUILDING, LOCATED AT 1313 SHERMAN STREET IN DENVER, NEEDS TO HAVE ALL SYSTEMS REPLACED AND BE TOTALLY RENOVATED.
- THE REMAINDER OF CAPITOL COMPLEX FACILITIES-MANAGED BUILDINGS (ASSESSED AS PART OF THIS MASTER PLAN) NEED TO UNDERGO A SERIES OF SYSTEM UPGRADES TO ADDRESS ISSUES WITH LIFE SAFETY, LOSS OF USE/RELIABILITY, AND/OR OVERALL ENERGY EFFICIENCY. THE COMPREHENSIVE RECOMMENDED SYSTEM UPGRADES ARE OUTLINED IN THE INDIVIDUAL FINDINGS & RECOMMENDATIONS (F&R) NEEDS ASSESSMENTS PER BUILDING AND THE CAMP GEORGE WEST SITE.
- IN ADDITION TO REPAIRING AND REPLACING FAILING SYSTEMS, THE STATE COULD EMPLOY A CONSULTANT TO EVALUATE AND MAKE RECOMMENDATIONS CONCERNING THE RESTORATION OF THE REMAINDER OF THE CAPITOL INCLUDING THE GOVERNOR'S OFFICE, COMMITTEE ROOMS, AND OTHER SPACES.
- THE CREATION OF A FULL-TIME, SUPPORTED SUSTAINABILITY MANAGER POSITION FOR THE CAPITOL COMPLEX IS PIVOTAL TO THE COST-EFFECTIVE AND SUSTAINABLE OPERATION OF THE CAPITOL COMPLEX. THE SUSTAINABILITY MANAGER WOULD CONDUCT BUILDING ENERGY, WATER AND WASTE AUDITS AND DEVELOP AND IMPLEMENT A SUSTAINABILITY MANAGEMENT PLAN.
- IT WOULD BE BENEFICIAL FOR THE STATE PATROL TO MOVE OUT OF THE POWER PLANT BUILDING, LOCATED AT 1341 SHERMAN STREET IN DENVER, AND INTO ANOTHER BUILDING WITHIN THE CAPITOL COMPLEX WITH MORE SPACE FOR PERSONNEL AND EQUIPMENT REQUIREMENTS.

CAPITOL COMPLEX MASTERPLAN

DENVER, COLORADO

05

URBAN DESIGN

5.1 - Methodology

Outreach

As part of the urban design effort of the master planning process, the team met with agencies within the Capitol Complex as well as multiple neighboring organizations and City departments. The provided input concerned the Complex's use by State employees, citizens, surrounding residents, downtown users, and tourists. The interviewed groups included:

- Capitol Tours
- City of Denver Community Planning and Development
- City of Denver Public Works
- City of Denver Parks and Recreation
- The Downtown Denver Partnership (DDP)
- The Civic Center Conservancy
- The Colfax Business Improvement District
- The Regional Transportation District (RTD)
- Capitol Hill United Neighborhoods

Analysis

The urban design recommendations include input gained from these organizations and is based upon an analysis of the existing conditions. The following subjects were analyzed for this master plan:

- Traffic study looking at vehicular, public transit, bicycle, and pedestrian movements
- Pedestrian circulation including the study of key intersections
- Parking study of Capitol Complex, including on street and private parking within and surrounding the Complex
- Existing signage and wayfinding analysis
- Urban design analysis of the Capitol Complex which studied the public realm needs of the Complex and the surrounding urban context

Image Showing Capitol Building as Downtown Gateway

5.2 - Context

5.2.1 CULTURAL SIGNIFICANCE OF THE CAPITOL COMPLEX

The Capitol District and Civic Center area are arguably the most important cultural places within the state of Colorado. Not only are they historically significant, but they are the ceremonial heart of the state, being both the seat of state and local government and an arena where democratic expression and cultural events play out.

The Capitol Building, completed in 1908, sits atop a prominent bluff that slopes towards the Cherry Creek to the west. The Capitol steps are situated at elevation 5,280 feet above sea level, giving Denver its official elevation. The statehouse has prominent views of the front range of the Rocky Mountains to the west. Lincoln Park is strategically located at the base of the slope to the west of the Capitol Building and was intended as a foreground for the statehouse and to provide views of the Capitol from the nearby downtown. The State Capitol has a view corridor restriction projecting west from the west facade of the building, as well as restrictions for the blocks to the north, east, and south of the building, which influences the heights of the surrounding buildings and preserves the views to and from the Capitol building.

Image Showing Large Gathering in Lincoln Park and West Lawn

5.2.2 URBAN FORM

The downtown Capitol Complex consists of eleven buildings, their associated grounds, and adjacent surface parking lots which are organized to the north and south of the Capitol building along Sherman Street. The Capitol building and grounds span Sherman Street in the block located between the 14th Avenue and Colfax Avenue, with Lincoln Park just to its west.

Context

The Capitol Building is located at the confluence of two major street grids in the downtown. Denver streets are based on an east-west/north-south grid, where roadways are parallel to the cardinal directions. Downtown Denver is based on a diagonal street grid, where roadways are plotted to be parallel with Cherry Creek and the South Platte River and almost exactly 45 degrees off of the standard grid.

The Capitol Building and Lincoln Park also sit at the intersection of two major arterials in the downtown. Colfax Avenue/US Hwy 40 lies adjacent to the north edge of the Capitol lawn and spans the entire metro area in an east/west direction. Colfax Avenue is among the longest continuous streets in the United States. The couplet comprised of Lincoln Street and Broadway borders Lincoln Park on two sides and extends from downtown Denver to the south. Both of these corridors carry large volumes of traffic contributing to the Capitol's visibility and prominence but also isolating it from downtown and the Civic Center due to issues for pedestrians crossing the streets.

A Divided Campus

The Capitol Complex is informally divided into a north and south campus by Colfax Avenue which transitions from four lanes to six lanes west of Grant Street on the northwest corner of the Capitol lawn. The volume of traffic, combined with the parking located in the Capitol circle and the lack of pedestrian amenities make it difficult for users and visitors to navigate the Capitol Complex. This creates user proximity issues including the separation of a majority of State parking within the Complex which is located south of 14th Avenue and a significant number of State employees working in offices north of Colfax Avenue.

Diagram Showing Capitol Complex within Downtown Region

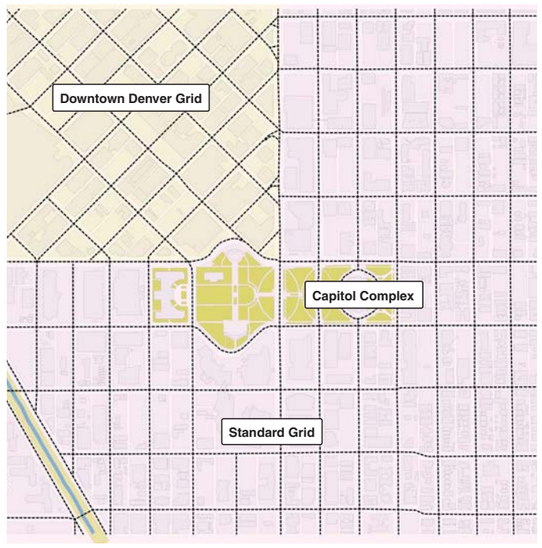


Diagram Showing Differing Street Grids at Capitol Complex

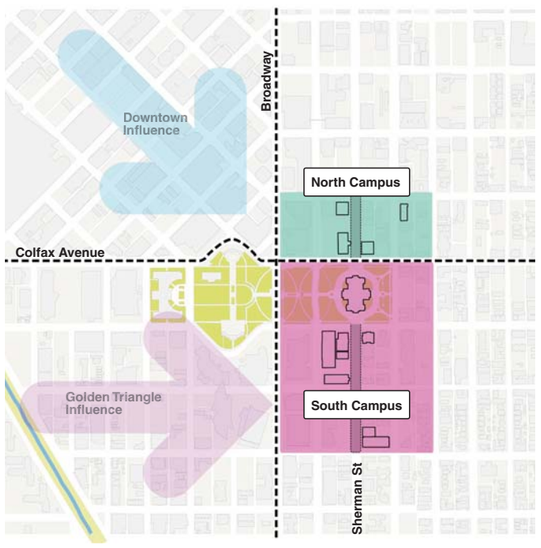


Diagram Showing Influences and Divisions within the Capitol Complex

5.2.3 SURROUNDING DISTRICTS

The Capitol Complex sits at the center of the City of Denver's cultural core which is composed of civic institutions and cultural attractions including the Denver Art Museum, the Denver Public Library, the Colorado Convention Center, the United States Mint and History Colorado. The Capitol Building and Lincoln Park are historically the point of beginning for Civic Center Park, a central open space for the downtown area and home to multiple programmed events, attractions as well as demonstrations. Currently there is limited connectivity and interaction between the Capitol Complex and the surrounding cultural attractions in part due to lack of wayfinding and also due to traffic volumes on the neighboring arterials such as Colfax Avenue and the Lincoln Street-Broadway couplet. The Capitol Complex sits at the intersection of three primary neighborhoods, as described below:

Central Business District

Denver's Central Business District is located northwest of the Capitol Complex on the rotated grid of downtown Denver. This district is the heart of Denver's commerce and economic activity being comprised of large office towers which are major employers and house a significant portion of the downtown workforce including several State agencies located in leased space. The density and overall height of this area tapers towards its southern boundary along Colfax Avenue as it transitions towards the institutional uses of the Golden Triangle, in which the Capitol Building and Lincoln Park are located. The 16th Street pedestrian mall, a major tourist attraction and the retail corridor of downtown Denver, is aligned upon the west facade and dome of the Capitol Building.

Capitol Hill

The Capitol Hill neighborhood abuts the east edge of the Capitol Complex with Grant Street and the Lincoln Avenue-Broadway couplet serving as the transition point between the Central Business District and the mixed commercial residential neighborhoods to the east. Capitol Hill has seen significant transformation over the years, with the redevelopment of a number of sites transitioning from inner-urban single family housing sites into consolidated multi-family housing developments. Colfax Avenue continues to function as the primary retail and service core for this neighborhood and has undergone a period of urban renewal in the past years; however, the west edge of Capitol Hill and the corresponding section of Colfax Avenue have poor urban character, narrow sidewalks and are predominantly populated with surface parking lots and lower rent establishments making for an awkward and undesirable edge on the eastern boundary of the Capitol Complex.

The Golden Triangle

The Golden Triangle abuts the south and west edges of the Capitol Complex. This neighborhood has seen significant change and re-development. The city of Denver has recently finalized a master plan for this district providing strategic direction and guidelines to shape the transition of this neighborhood. New investment is anticipated to be drawn to the Golden Triangle, revitalizing and activating the area. Many of the City's cultural institutions - such as the Denver Art Museum, the City and County Building, and the United States Mint - are within this neighborhood, though they may be perceived as a distinct district unto themselves.

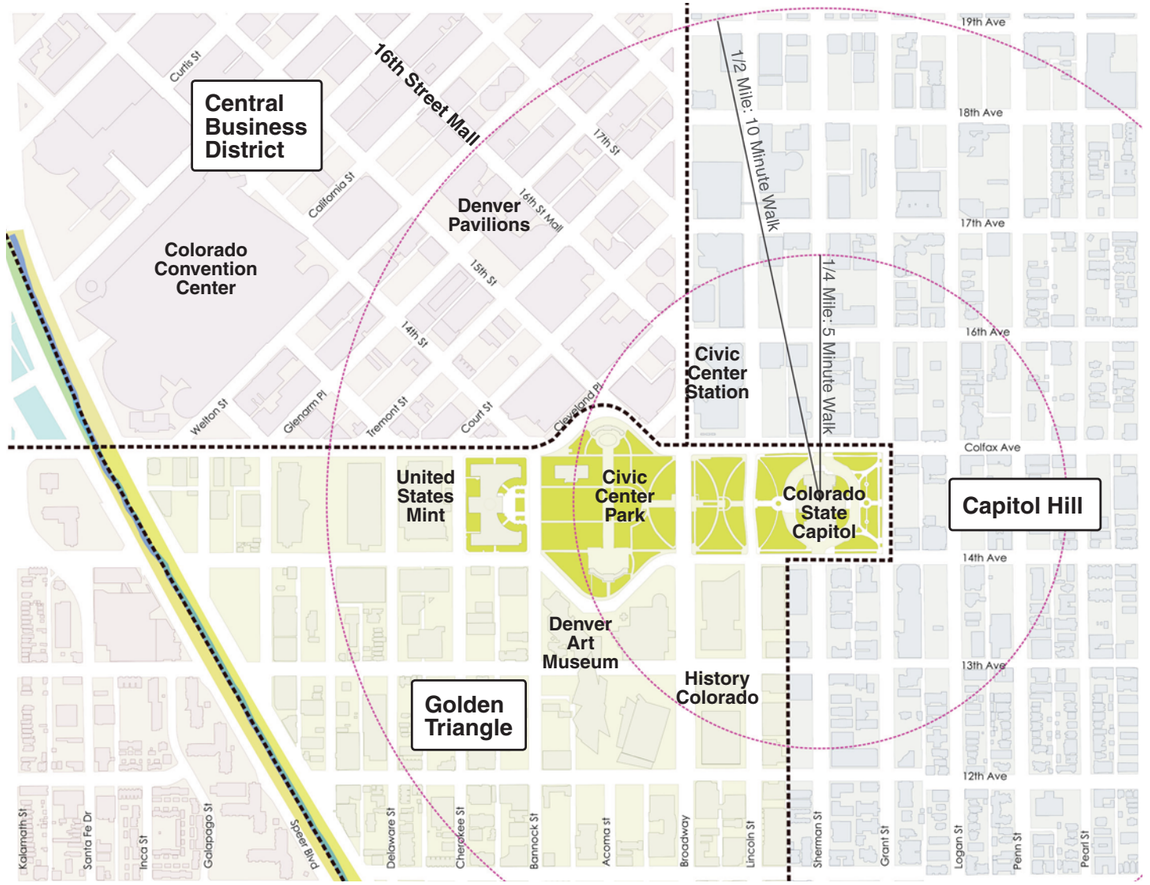
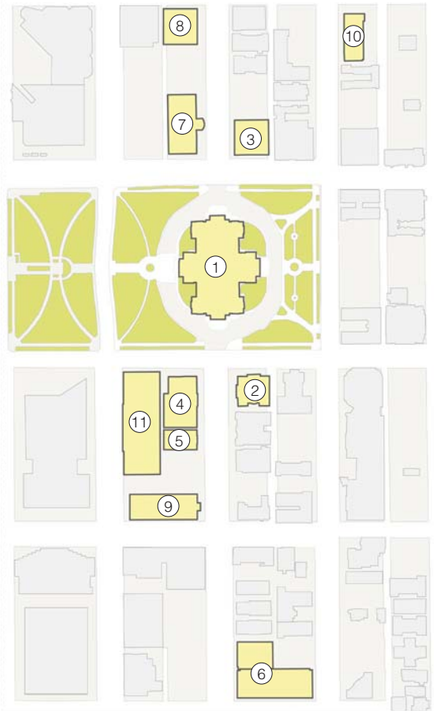


Diagram Showing Neighborhoods around Capitol Complex and Landmarks



Capitol Complex Buildings

1. State Capitol Building, Built 1895-1903
2. Legislative Services Building, Built 1915
3. State Office Building, Built 1921
4. Capitol Annex, Built 1937
5. Power Plant, Built 1939
6. DOLE Building, Built 1957
7. State Services Building, Built 1960
8. Human Services Building, Built 1952, Acquired 1964
9. Centennial Building, Built 1976
10. 1570 Grant Building, Built 1956, Acquired 2001
11. Merrick Parking Structure, Built 2006

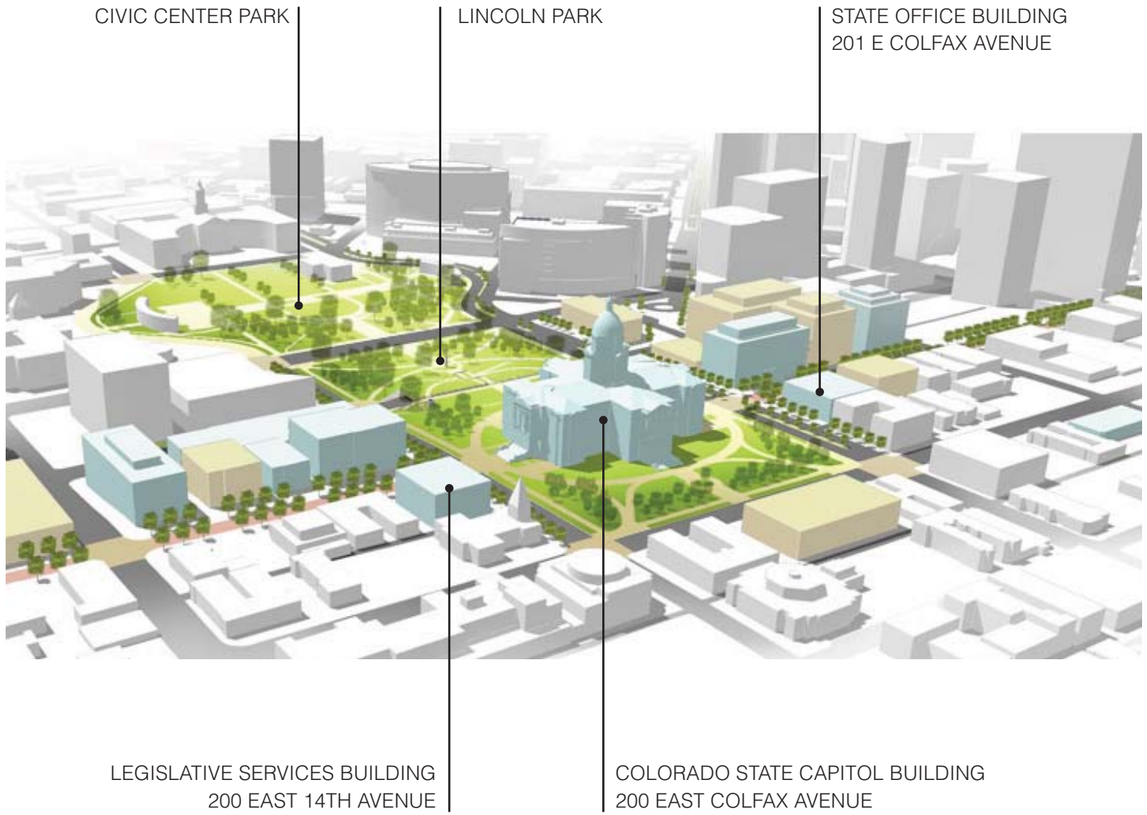


Diagram Locating Original Capitol Complex Buildings and Open Spaces

5.2.4 HISTORY OF THE CAPITOL COMPLEX

The design of the Colorado State Capitol (designed by Elijah E. Myers in 1885-86) and Lincoln Park (designed by Reinhard Schuetze in 1895) became the starting point for all subsequent plans for the Denver Civic Center and Civic Center Park. The design for the Civic Center Park was shaped by several renowned designers including Charles Mumford Robinson, Frederick Law Olmsted Jr., and finally Edward H. Bennett whose plan combined the ideas of previous plans adding the Greek amphitheater, the colonnade and proposed the realignment of Colfax Avenue and 14th Avenue around the park. Civic Center Park officially opened in 1919. The City and County of Denver Building anchoring the west end of the park was completed in 1932.

The Civic Center achieved National Historic Landmark status from the National Park Service in 2013. The Capitol Complex includes a number of important contributing elements to the Landmark Designation of the Civic Center. Important contributing elements include the Capitol Building, the Colorado State Museum, the State Office Building, as well as the Colorado Soldiers Monument and Lincoln Park.

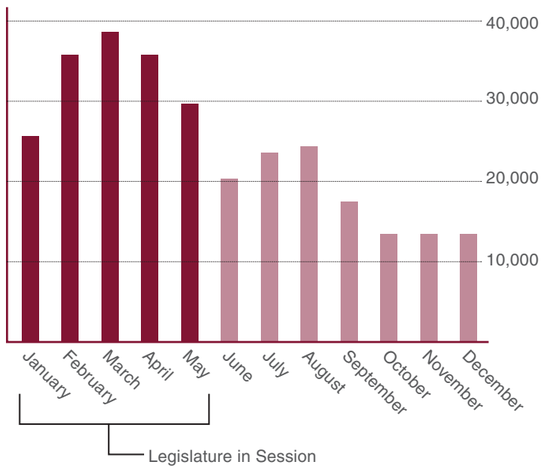
The west lawn of the Capitol and Lincoln Park not only serve as landscape foregrounds to frame views of the Capitol, these open spaces (in addition to the Lincoln Street right of way) function as a civic stage with the State Capitol as a backdrop providing space for public gatherings, memorial services, and demonstrations. The cultural gravity of the Capitol and the function of the Civic Center as a confluence of State and local government attract and lend magnitude to events held in this space.

5.2.5 VISITATION AND TOURISM

Capitol Visitation

The Capitol Building attracts as many as 300,000 visitors each year. This number includes organized tours, school children, tourists and visitors conducting business at the Capitol. The Capitol also serves as offices for the Governor, Lt. Governor, the General Assembly, the State Treasurer and staff.

The Capitol Building is open to the public Monday through Friday from 7:30 am to 5:00 pm. The main visitor access is located at the north entry on the 1st floor level. All other entries to the Capitol are restricted to the general public. The north and south entries have security in the form of magnetometers which are staffed by security personnel. There is no separate security line for lobbyists or business persons entering the Capitol so they often find themselves waiting in line with the larger tour groups entering the building.



Volume of Visitors to the Capitol by Month

The Capitol also lacks a designated area for the staging of large tour groups. Currently volunteers separate and organize masses of school children or other visitors into smaller tours in the Capitol atrium. Disabled users are required to enter through the accessible entrance located at the south basement level entry. Peak visitation often occurs during the legislative session resulting in high traffic levels within the Capitol Building during the session.

Currently there is no designated parking or unloading for tour buses. Numerous grade school and high school tours visit the Capitol each year. Bus loads of children are dropped off curb side on either Grant Street or Colfax Avenue and assemble in either the east lawn or the Capitol circle. There is no designated parking or queuing for tour buses. Buses are forced to parallel park on Lincoln Street, Grant Street, or Broadway depending upon availability.

Other agencies located in the Capitol Complex or in adjacent leased space have significant customer service activity. These agencies include: Secretary of State, Office of Economic Development, HCPF, DOR, DORA, DOLE, and DNR. The location of the Civic Center RTD transit station nearby allows users to arrive by public transit. The Department of Labor and Employment which experiences a high number of visitors dependent on transit is located four blocks south of Civic Center Station making it difficult for visitors to access this agency. Public parking is accommodated through metered on-street parking. Disabled parking is not provided for visitors to State agencies or the Capitol Building.

Signage

Lack of clear uniform signage and wayfinding contributes to confusion among citizens visiting the Capitol and looking for specific buildings and agencies within the Capitol Complex. The master plan recommends that the visitor signage and wayfinding be upgraded. For a detailed signage plan, see section 5.4.

Capitol Visitor Center

Currently tourists visiting the Capitol and state of Colorado are not provided with a visitors center which could provide information and services for Capitol tours as well as visitor information for the rest of the state of Colorado as well. The master plan recommends that additional study be devoted to the potential for a visitors center which could accommodate these requirements.

Recommendations

The master plan recommends accommodations for additional visitor parking - specifically accessible parking. Parking needs should be studied and parking should be located adjacent to agencies which have the highest levels of visitation.

Expanded hours for Capitol visitation - potentially including evenings and weekends - could be studied so as to allow for visitation outside of peak business hours. This would be beneficial in activating the campus during evenings and weekends.

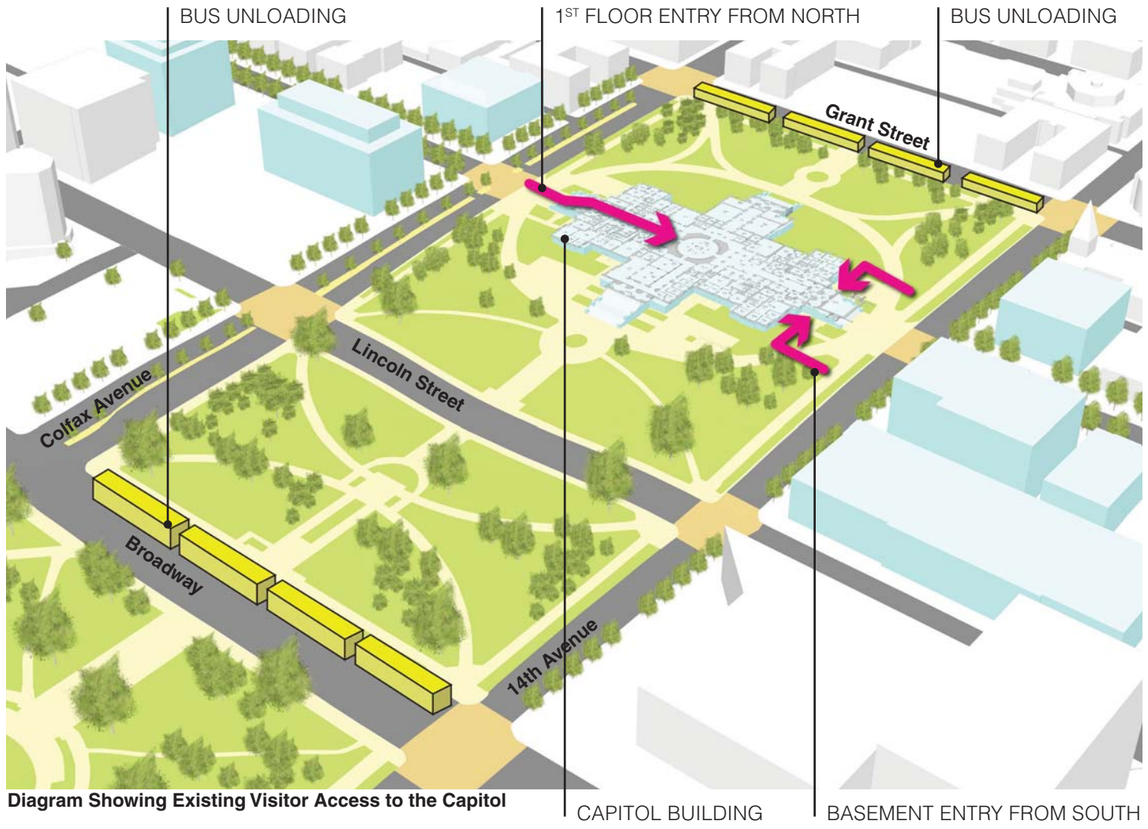


Diagram Showing Existing Visitor Access to the Capitol

5.3 - Urban Design Opportunities

6.3.1 URBAN DESIGN ISSUES

Upon completion of the analysis, several issues became apparent within the Capitol Complex. The primary issues discovered relate to the pedestrian and visitor experience. These issues included:

Single Use District

The Capitol Complex lacks a vitality and a diverse set of activities as a result of its predominant office and institutional uses. The Complex is active only during peak commuting times and lunch during week days.

A Divided Campus

The Complex is divided into north and south sections by the Colfax Avenue arterial. Furthermore, the campus is severed from the downtown area by the busy couplet of Broadway and Lincoln Street.

Connectivity

Safe and easy transportation and parking within the Complex and to surrounding areas is paramount to an active district. This includes vehicular, bicycle, transit, and pedestrian movement being accommodated in the Complex.

Wayfinding

For a visitor to the Complex, locating the desired destination can be challenging due to the incomplete and fragmented signage package. A comprehensive set of signs identifying buildings and providing direction is essential.

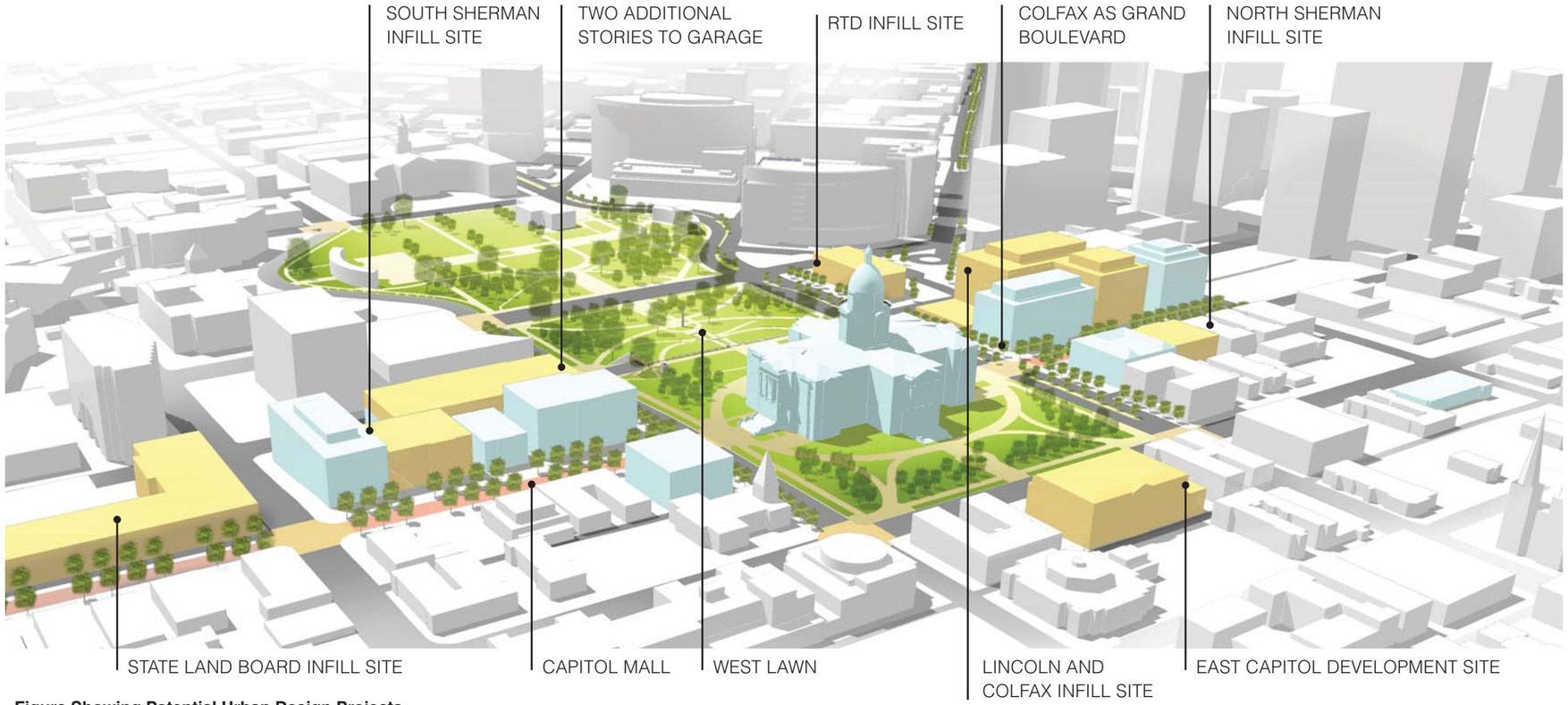


Figure Showing Potential Urban Design Projects

5.3.2 THE CAPITOL MALL

The master plan recommends the creation of a Capitol Mall on Sherman Street between 12th and 16th Avenues. While still including driving and parking lanes for vehicles and space for parking meters, this Capitol Mall will possess and expanded pedestrian character that will differentiate it from the surrounding street network.

The Mall would be anchored on the north end by the existing State office buildings facing onto Sherman Street. In addition, a proposed mixed use office building could be located on the parking lot on the corner of Lincoln Street and Colfax Avenue with an additional mixed use component of the building fronting onto Sherman mid-block. The south end of the mall would be anchored by the renovation of the Centennial Building at 1313 Sherman Street and the potential State Land Board mixed use development site on the corner of 13th Avenue and Sherman Street. Opportunity sites fronting onto Sherman Street should encourage development of mixed-use infill projects which have active frontages and ground floor retail uses such as sidewalk cafes.

The Capitol Mall would include streetscape improvements while introducing a mixture of uses in addition to the State institutional uses to create a vibrant activated defined campus. Streetscape improvements should include signage and wayfinding, pedestrian lighting, xeric landscaping and street trees, uniform site furnishings, outdoor seating, bike parking, crosswalk enhancements and defined bike lanes. The Mall would provide for a comfortable and safe pedestrian experience while allowing for continued automobile use.

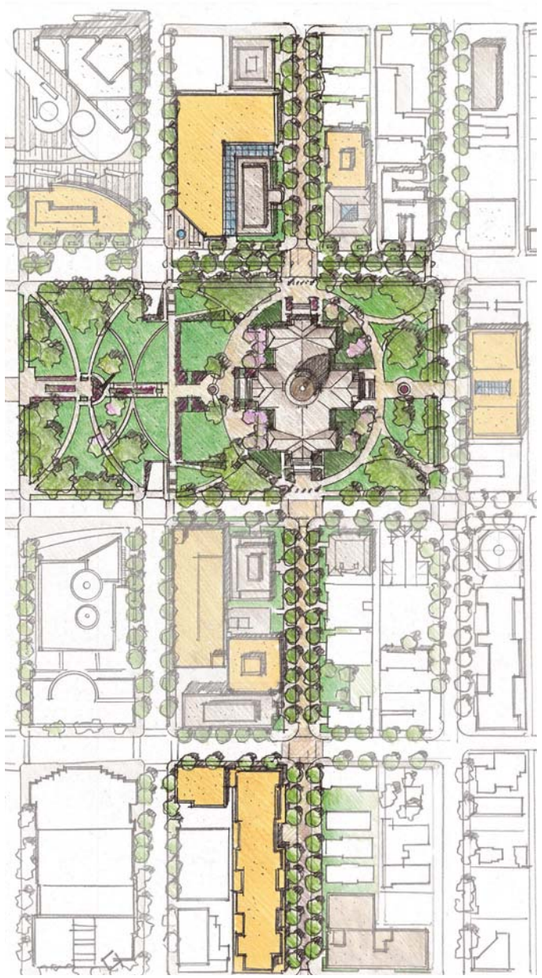


Figure Showing Illustrative Site Plan for Capitol Mall

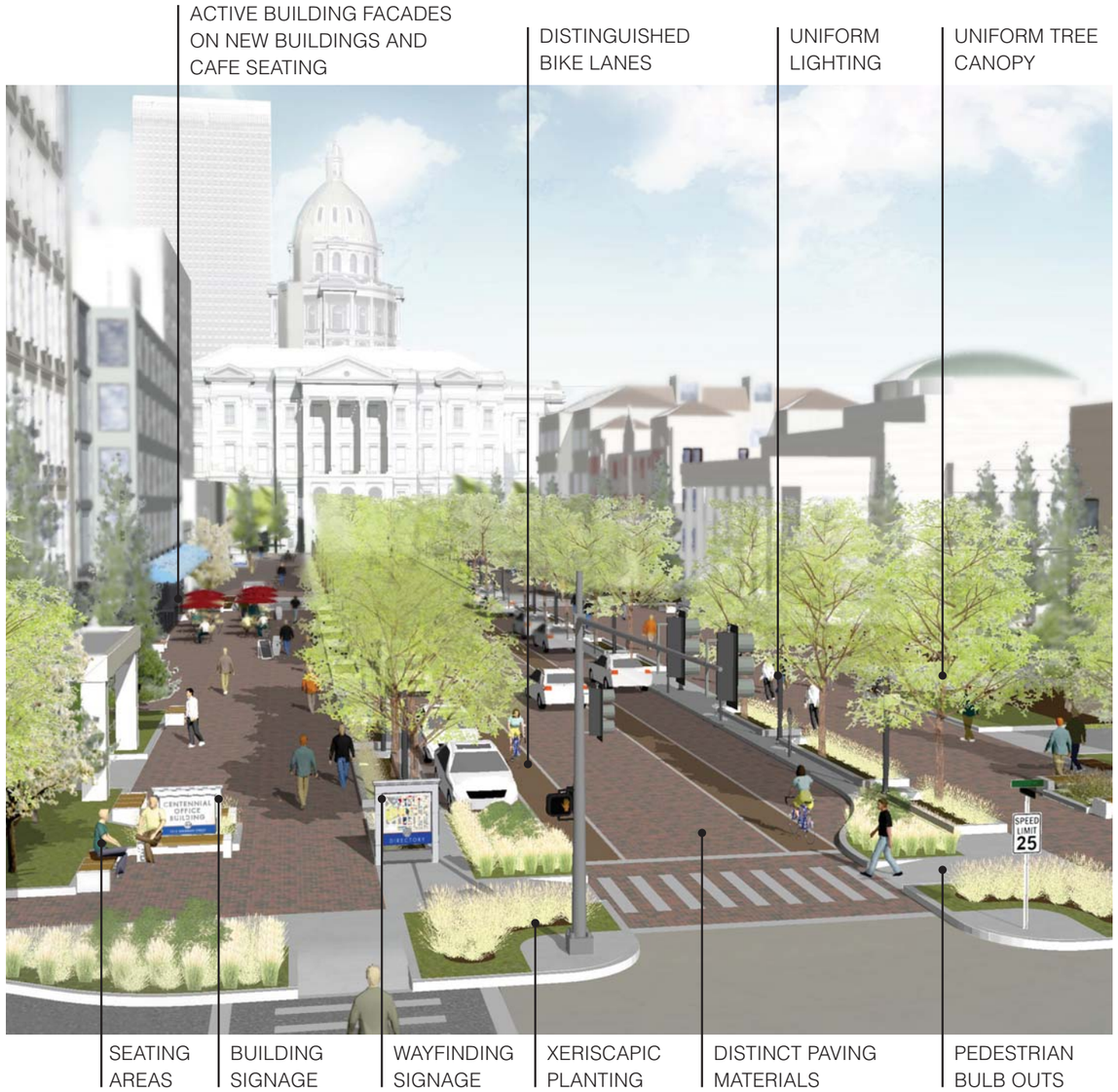


Figure Showing Proposed Capitol Mall Improvements to Sherman Street Looking North from 13th Avenue

5.3.3 MIXED USE OFFICE BUILDING AT LINCOLN STREET AND COLFAX AVENUE

The master plan recommends the infill of the Lincoln Street and Colfax Avenue site located northwest of the Capitol Building. The infill of this site - either as a State office building or through a public private partnership that might redevelop the site as a mixed use office, retail, and residential building - would be a significant element in creating and attracting activity within the Capitol Complex. The infill of this site would stimulate the street environment on Colfax Avenue by providing active, retail uses at the street level which would increase pedestrian/ sidewalk activity and provide services to users and employees of the Complex.

If the site were built out to capacity, it would accommodate in excess of 500,000 gross square feet (GFA) and provide structured parking to offset the loss of surface spaces. A parking structure integrated into the building would provide additional parking for the northern part of the Complex, which is currently underserved.

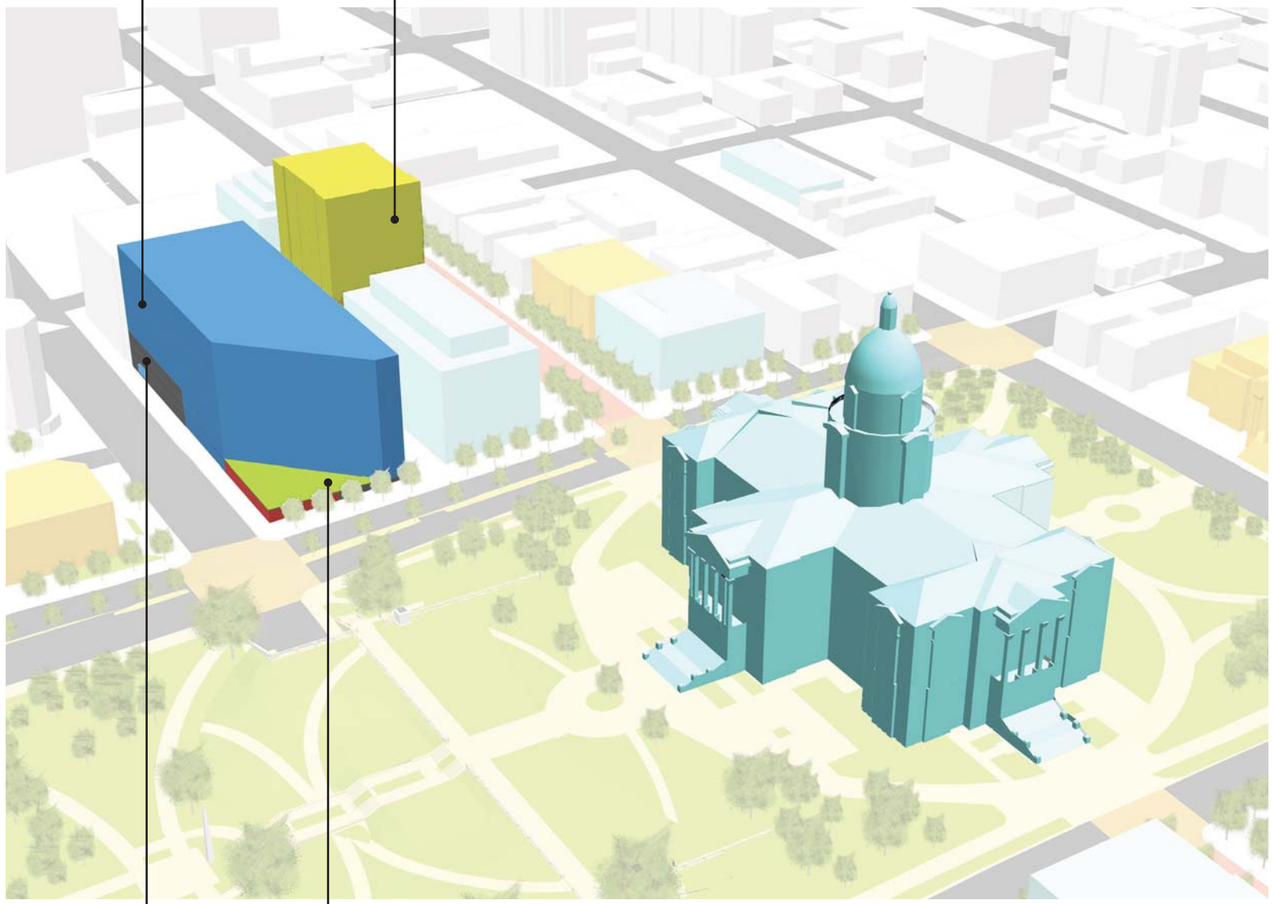
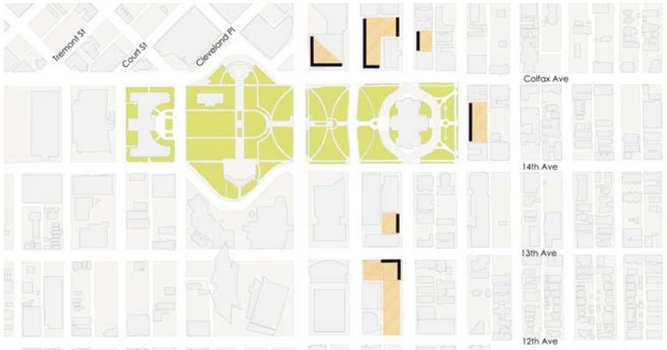


Figure Showing Potential Mixed-Use Building on the Lincoln and Colfax Site

5.3.4 INFILL OPPORTUNITIES



Opportunity Sites

The master plan recommends that the State move agencies currently located in leased spaces downtown into State owned buildings located within the Capitol Complex. The urban design analysis of the current available sites within the Complex has identified under utilized parcels which currently function as surface parking lots for State employees. These sites could be infilled with mixed-use state office buildings. The State would be able to realize the long term financial benefits of owning these buildings as opposed to leasing office space, which would prove more costly over time. Additionally, the construction of buildings on these sites would, in effect, fill in the missing gaps in the Capitol Complex and aid in activating the campus by including ground level retail or commercial uses. These uses would draw users from outside the Complex and serve more than 5,000 State employees who currently work in the downtown.

North Sherman Infill Site - 1530 Sherman Street

This site is currently a surface parking lot for State employees. Future infill of this site - either through a public-private partnership or as a mixed-use expansion of the State Office Building - would benefit the Complex by creating a more active mix of uses for this area of the Complex. Development on this site should incorporate a ground floor retail or restaurant use. Residential development or an extended-stay hotel could aid in activating the Complex by adding after-hours users to the campus. Infill development on this site should respect the existing build-to lines established by the State Office Building and be in accordance with the architectural language established in the campus. Under existing zoning and height restrictions, a building of approximately seven stories and 105,000 gross square feet is possible on this site.

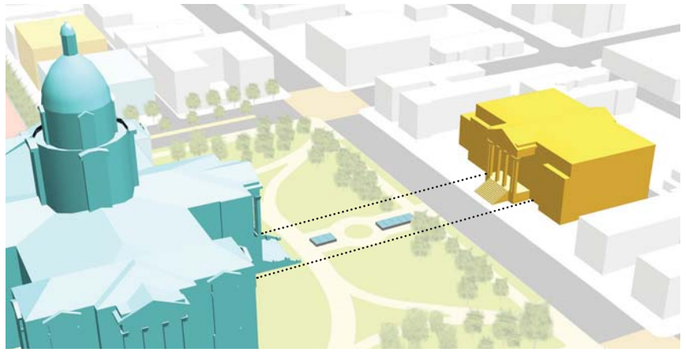
In the short term, landscape improvements to the street frontage along the current surface parking lot (Yellow lot) could be considered. These improvements could include a low architectural wall or hedge to screen the bumpers and headlights of the parked cars, pedestrian level lighting, street trees, planted medians within the lot and signage to designate that the lot is for State employees.

South Sherman Infill Site - 1325 Sherman Street

This site currently serves as a surface parking lot for State employees. This site has potential for future infill either as a expansion of the Centennial building located at 1313 Sherman or as a public-private partnership which could take the form of a mixed use development. Development of the ground floor, as either retail or restaurant use, is encouraged for this site to provide services for the users and employees of the Complex. These uses would also further activate the Complex and help extend its active hours beyond the work day. Infill development on this site should respect the existing build-to lines established by the Centennial Building and be in accordance with the architectural language established in the campus. Under existing zoning and height restrictions, a building of approximately seven stories and 82,800 gross square feet is possible on this site.

Over the short term landscape and streetscape improvements are recommended along the Sherman Street frontage. These improvements could include a low architectural wall or hedge to screen the bumpers and headlights of the parked cars, pedestrian level lighting, street trees, planted medians within the lot and signage to designate that the lot is for State employees.

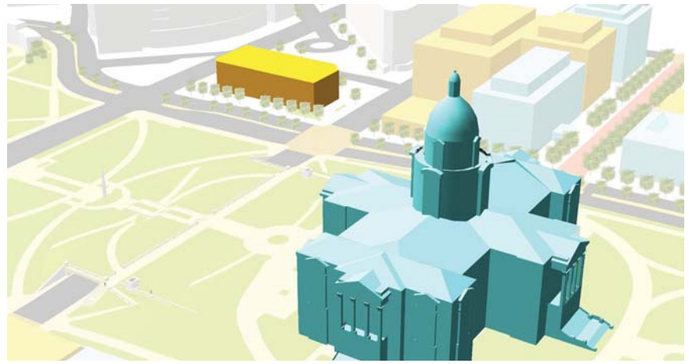
5.3.5 STRATEGIC OPPORTUNITY SITES



East Grant Street Site

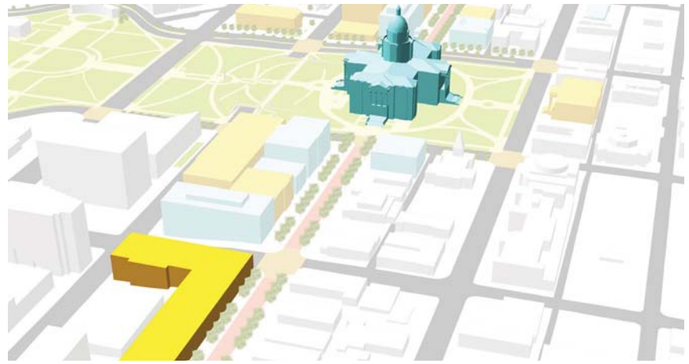
This site which is currently operated as a privately-owned surface parking lot, located directly east of the State Capitol Building, is an important site which exerts an influence upon the image of the Statehouse. Redevelopment of this site either for State use or as a private development would activate the portions of the Complex and streets east of the Capitol and provide important opportunities for connectivity between the Capitol Complex and the Capitol Hill neighborhood for both users of the Complex and surrounding residents.

Opportunities for the redevelopment of this site should be studied as part of the long term master plan for the Capitol Complex. The current use as a surface parking lot directly reflects upon the image of the Capitol building. While there is a need for visitor parking within the Complex, this could be accommodated by structured parking within the redevelopment of this site. It would be beneficial to the Complex and the surrounding district for this site to be developed as a mixed-use building, whether this development be State- or private-sector-led. As a State use, this site would provide an optimal site as a Legislative Office Building with underground parking and a sky-lit, underground passageway for access to the Capitol.



RTD Infill Site - Civic Center Station

The RTD Civic Center Station Site represents a value added to the Capitol Complex. This transit hub provides a valuable amenity to users and employees of the Capitol Complex by providing access to multiple transit routes. Currently RTD is studying plans for the reconfiguration of the station and possible re-development opportunities for the south portion of the site facing onto Colfax Avenue and across from Lincoln Park. Commercial/retail development on this site would help to activate the Colfax frontage, provide greater connectivity between the Complex and the station as well as providing services and amenities to users and employees of the Complex.



State Land Board Infill Site

The State Land Board owns a site located between 12th Avenue and 13th Avenue on the west side of Sherman Street. Mixed-use development on this site would provide the opportunity for retail and residential development that would further activate the Complex outside of normal business hours and provide services and amenities to users and employees of the Complex. Development on this site, as well as the DOLE building on 12th Avenue, would anchor the proposed Capitol Mall on its southern end.

5.4 - Signage and Wayfinding

Existing Signage Analysis

Currently there is no comprehensive system of signage for the Capitol Complex. A few buildings have names and addresses listed upon the exterior facades but no uniform system of signage or monumentation exists. A comprehensive signage package would help differentiate State buildings from other office or institutional uses within the area. There also exists no pedestrian level wayfinding signage or directories which provide locations of the various buildings and their respective agencies within the Capitol Complex.

Over time, signage has been added through the Complex, with varying appearances and intents. The existing signage is lacking in hierarchy, uniformity and consistency of location and placement thereby making the existing signage ineffective as wayfinding.

There are no consistent elements which unify the Capitol Complex as a singular district. Visitors are unaware of whether they are inside or outside of the Complex boundaries. This prevents the Complex from being seen as a singular destination and instead appears as a disparate cluster of unrelated buildings.

Goals for Signage Program

The overall goal is to create a hierarchy of signs that share a family resemblance that unifies the Capitol Complex, providing a consistent element that visitors recognize among a variety of conditions and architecture. This signage package should clearly and distinctively provide:

- Identification (building/facility name, address and departments within)
- Interpretation (describe the purpose and history of the buildings/facilities)
- Direction (to destinations throughout Capitol Complex)
- Regulation (public access, contact info, etc)

A well-designed signage program will provide several benefits to the Capitol Complex and its users. The program should aim to:

- Help visitors get oriented and find their way to key destinations within the Capitol Complex.
- Create a repeatable system of signs, documented in a signage manual that can be expanded in the future and implemented in phases.
- Implement signage that helps to create a positive impression of the Capitol Complex. Sign design, materials, locations and messages shall contribute to:
  - Making all visitors (citizens and other visitors and employees) feel welcome when visiting the Capitol Complex.
  - Helping visitors find the services they seek.
  - Portraying efficiency and effectiveness.
  - Establish an appropriate character for the Complex.
- Emphasize key building and significant monuments.
- Utilize symbols, logos, color-coding and iconic graphics to maximize the effectiveness and beauty of the signage.
- Identify consistent, logical locations for signs relative to established circulation routes, so that visitors can anticipate where to find them. Locate signs at decision points where users find that they need information.
- Coordinate signage design and placement with outdoor lighting to ensure legibility after dark without the need for dedicated sign lighting.
- Recommend maintenance of the signage system, including timely replacement of obsolete information, eliminating unnecessary, confusing, or inappropriate signs.
- Minimize the number and variety of signs to clarify communication and reduce clutter.

Images Showing Existing Building and Directional Signage in the Capitol Complex

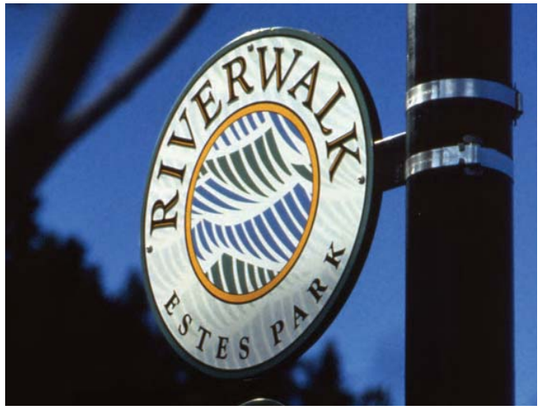
District Signage

Building/Facility Signage

Wayfinding Signage

Interpretive Signage

Landmark Directional Signage



Commemorative Plaque

Images Showing Typical Signage for Various Uses

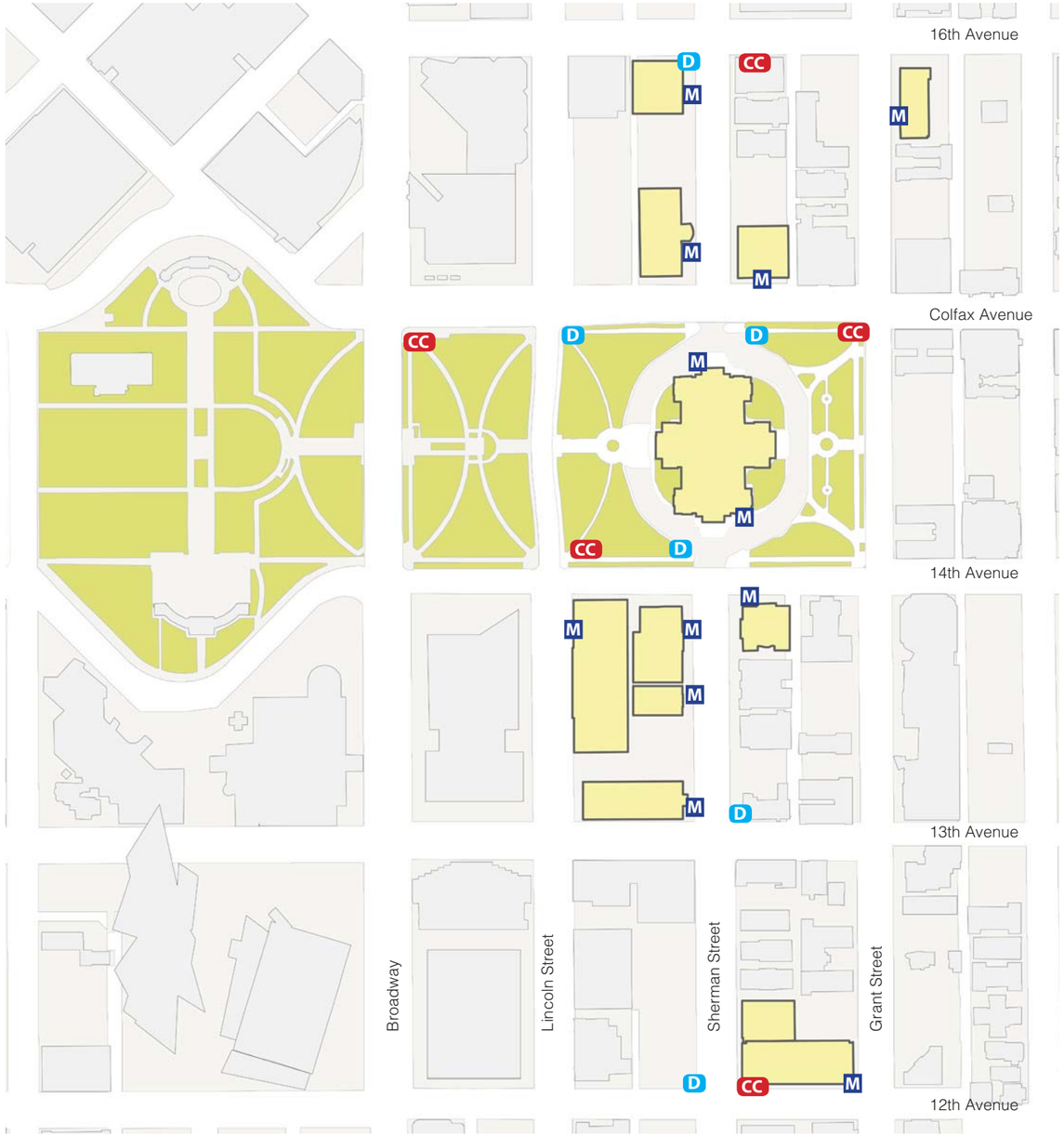
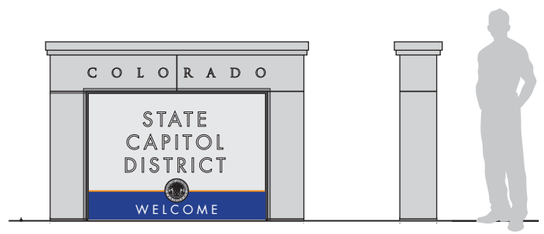


Diagram Showing a Proposed Distribution of Signage in the Capitol Complex



CC District Identification

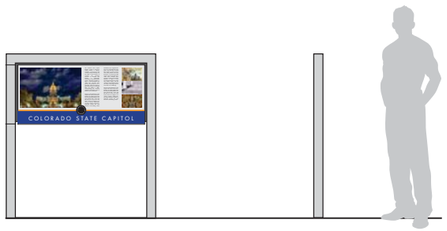
District identification signage is designed to be located along the major arterials where they enter the Capitol Complex. These elements should be of the size and scale so as to be readable from a variety of angles and modes of transportation. These element will also need to be sensitive to the pedestrian scale of their surroundings.

M Building Identification

Building identification signage identifies buildings as State facilities belonging to the Capitol Complex and provides visitors and users with the name and addresses of the building. Uniform signage elements add to the campus identity and wayfinding within the campus. The signage should be designed with the intention of being long term, elegant, and effective in communicating basic information. It is recommended that these signs be monument type signs that are uniform and proportional in size and scale throughout the campus with text that can read from vehicles but the overall signage should be scaled to pedestrians. Building signage should also identify the agencies located within a given building.

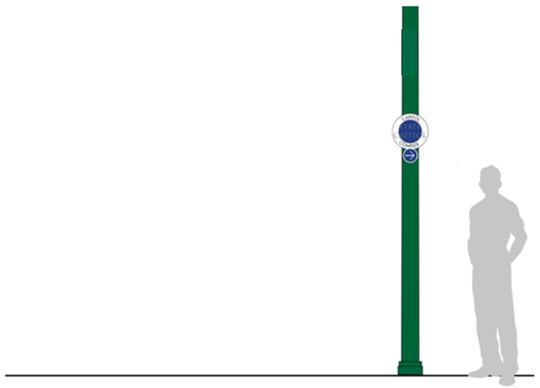
Wayfinding Sign

Wayfinding or directory signage is intended to be located at entries to and key intersections within the Capitol Complex. The signage is intended to orient visitors and users to the Complex and help them find their way to a specific destination within the Complex. The directory should contain a map of the Complex with building names and the universal “You are here” symbol. A directory of agencies and their locations within the Capitol Complex should be included. These elements have the potential to be interactive using new technologies and have information on current events, updates and bulletins that would be beneficial to visitors and employees as well. The design of these signage elements should be accessible to all users and scaled for pedestrians.



Interpretive Sign

Interpretive signage is intended to be placed at locations of historic significance to inform and educate visitors to the Capitol Complex about the history of specific buildings or elements located in the Complex. The design of these elements has the potential to utilize technology to link users to multimedia devices and incorporate links or updates. The signage should incorporate graphics and visuals to tell the story. The design of these signage elements should be accessible to all users and scaled for pedestrians.



Landmark Directional Sign

Directional signage is intended to be located at intermediate points along streets or walking paths within the Capitol Complex to indicate to a pedestrian that they are traveling towards a specific landmark. This element works together with building signage and wayfinding to reinforce directions to visitors unfamiliar with the Complex. These signs should share a simplified, but identifiable language with the remainder of the signage package.

Commemorative Plaque

Commemorative plaques are intended to impart information that is important to the heritage of a building or the Complex. These plaques may indicate historical status, years built, architect, or other information that relates to the building on which it is affixed. These elements should be located at a common location on Capitol Complex buildings, such as adjacent to the front entrance.

5.5 - Access and Circulation

5.5.1 PEDESTRIAN CIRCULATION

A Divided Campus

Due to the heavy traffic volumes Colfax Avenue separates the Complex into a north and south campus. The Lincoln Street and Broadway couplet separates the Capitol Complex from the greater Civic Center and many of the cultural destinations which are tourist attractions located only a short distance from the Capitol Building.

Key Intersections

The signalized intersections at Colfax Avenue and Sherman provide connectivity between the north and south portions of the campus. Colfax Avenue and Lincoln Street provides connectivity from the Complex to RTD's Civic Center station and to the downtown Denver Central Business District where many agencies are located within leased space. The intersection of Colfax Avenue and Grant Street provides an eastern gateway from the Colfax business district to the Capitol Complex.

Lincoln and Broadway Mid Block Crossings

The mid block crossing located on Lincoln Street midway between Colfax Avenue and 14th Avenue is also used by pedestrians and school groups to cross from Lincoln Park and the Civic Center Park. Currently, this crossing does not have a crossing signal, creating a safety concern for pedestrians. This crossing, as well as the corresponding mid-block crossing on Broadway between Colfax Avenue and 14th Avenue, could have crosswalks and signalized crossings to provide a safe connection between the Capitol and Civic Center Park along its formal and historic axis.

Sherman Street and Colfax Avenue

The Colfax Avenue and Sherman Street intersection is important to connecting the north and south halves of the Complex. Beginning with the 2015 legislative session, 44 members of the General Assembly will have their offices located at the State Services Building at 1525 Sherman Street. This will potentially increase pedestrian traffic crossing Colfax Avenue at Sherman Street. This intersection currently receives below average pedestrian rating in the traffic study conducted for this report. (See Appendix 2 (a) - Intersection Analysis) The study recommends specific refinements to the pedestrian crossing including:

- Pedestrian detection systems
- Pedestrian countdowns and "animated eyes"
- Pedestrian priority signals
- No right turn on red signals from either street

In addition to the refinements to the pedestrian signal the master plan recommends a raised planted median to be located in the turn lane on Colfax Avenue in the blocks between Grant and Sherman and Sherman and Lincoln be studied. The median would provide a pedestrian refuge in the middle of Colfax Avenue so pedestrians attempting to cross the seven lanes of traffic would have a refuge midway in case they were unable to complete the crossing. The median would potentially require the removal of the left turn movement at Sherman Street and Colfax Avenue. The median and the associated planting would also have a calming effect on traffic in these blocks and create the effect of a Grand Boulevard in the blocks adjacent to the Capitol Building.

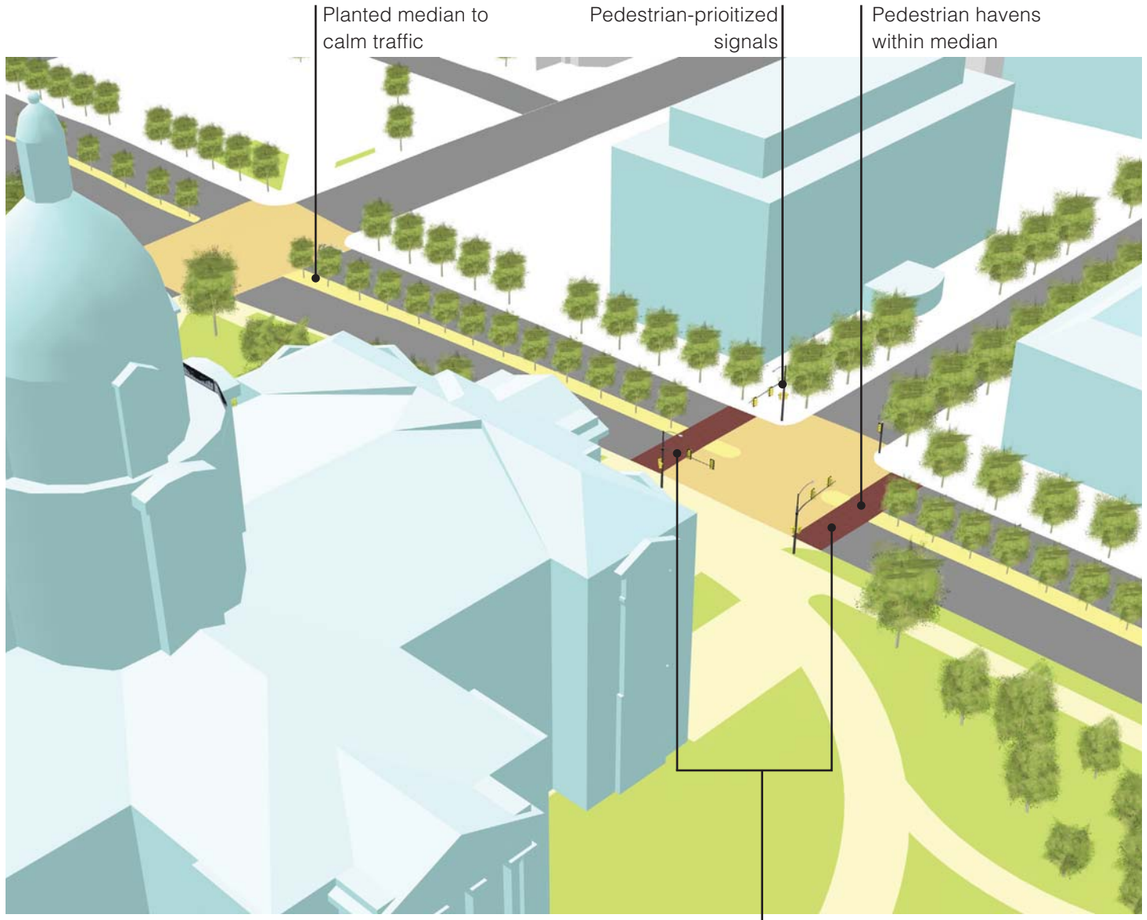


Diagram Showing Improvements to Colfax Avenue Crossing

Diagram Showing Key Intersections and Destinations in and around Capitol Complex

1. Broadway and Colfax Avenue Intersection
2. Sherman Street and Colfax Avenue Intersection
3. Grant Street and Colfax Avenue Intersection
4. Broadway Mid-Block Crossing
5. Lincoln Street Mid-Block Crossing
6. Sherman Street and 14th Avenue Intersection

Capitol Complex Buildings
Key Intersections

5.5.3 BICYCLE CIRCULATION

Bicycle Routes

Many of the streets surrounding the Capitol Complex are designated to facilitate bicycle traffic. Sherman Street, which intersects the driveway surrounding the Capitol, features shared bike lane markings in both directions. East-west bike traffic is facilitated by a bike lane on 16th Avenue and bike routes on 12th Avenue. Connections into the Central Business District are provided by the bike lane on 16th Avenue and cycle track on Bannock Street, in front of the City and County of Denver building. Meetings with the City of Denver Public Works indicated that the Sherman Street bike lane may be supplemented by additional bike lanes on Grant Street in the future.

Recommendations

The master plan recommends as part of the Capitol Mall that striped bicycle routes be added to Sherman Street as part of the Capitol Mall concept to endorse bicycle usage. To further encourage cycling to and from the Capitol, the provision of additional bike parking facilities should be considered. Currently, employees working in the Capitol Complex are allowed to register for bike lockers. Additional bike storage should be considered and it should provide controlled access, weather protection, and security. These facilities may include bike lockers, indoor cages, or a bicycle room. Additionally, short-term bicycle parking should be added within 50' of the entrances of the Capitol Complex buildings, as it not only facilitates easier and faster bicycle access to the buildings and reduces demand for visitor parking but also serves as an endorsement of multi-modal travel.

For a detailed assessment of the bicycle circulation and recommendations refer to Appendix 2 (b) - Multimodal Transportation Assessment.

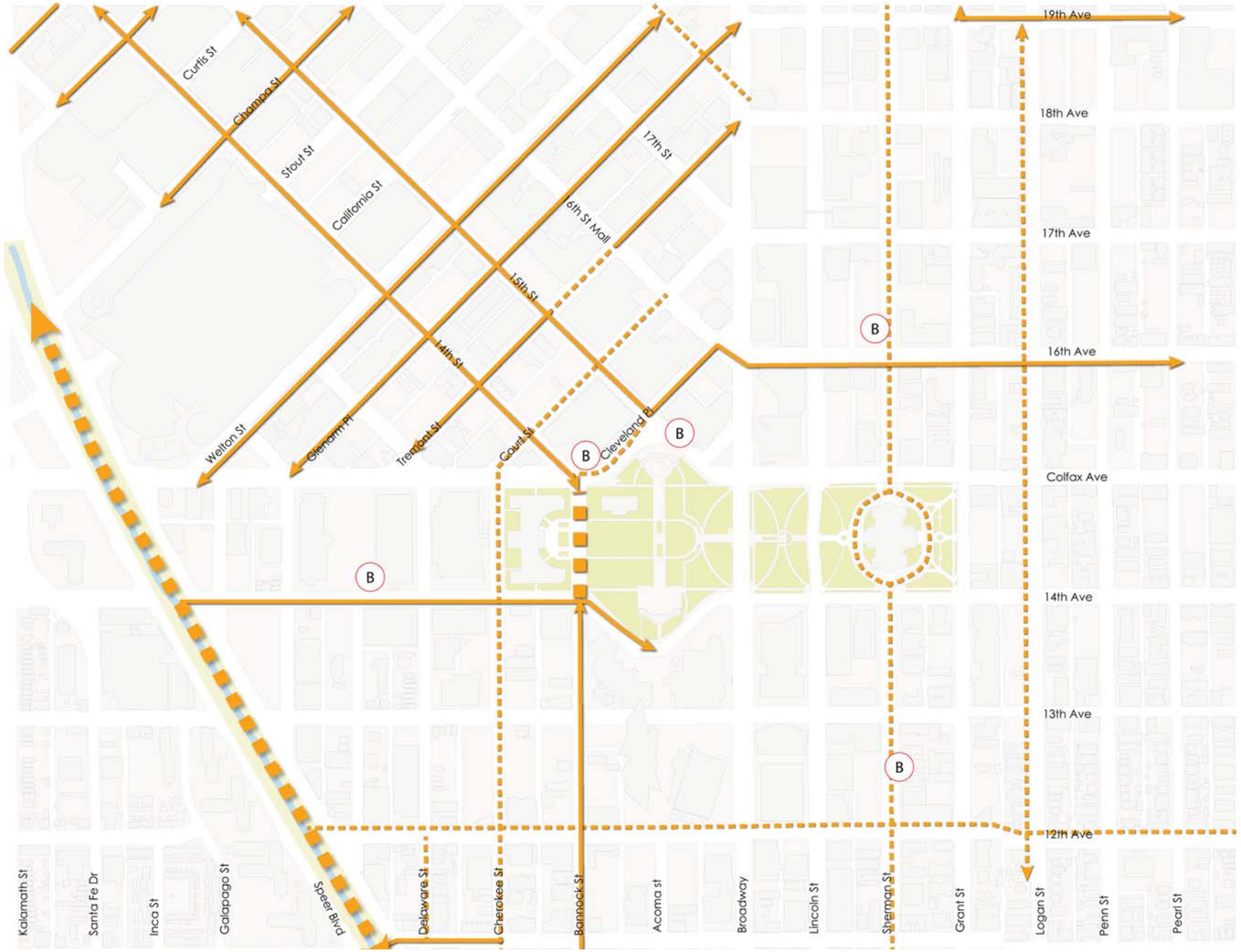


Diagram Showing Bicycle Facilities in and around the Capitol Complex

5.5.4 TRANSIT

Civic Center Station

With a centralized site in downtown Denver located one block away from Civic Center Station, the Capitol Complex is located adjacent to several bus routes. This location proximate to transit is a benefit to the users and employees of the Capitol Complex. Citizens are able to utilize transit to conduct affairs with agencies located within the Complex. State employees are able to obtain RTD EcoPasses at discounted rates and agency interview data indicates that as many as fifty percent of State employees utilize transit to commute to and from work each day.

RTD is in the process of developing a master plan for Civic Center Station that will study future configurations for the station and the RTD site. The master plan recommends ongoing coordination with RTD so that the Civic Center Station plan can take into account the needs of Capitol Complex users.

The Downtown MetroRide Circulator

The MetroRide circulator is a free bus service (opened in 2014) connecting Denver Union Station to Civic Center Station via 18th and 19th Streets. There are future plans for extending the circulator south to 12th Avenue and Lincoln Street, but these plans have stalled due to lack of operating funds. The extension of the circulator south would benefit the Capitol Complex by providing a transit connection closer to DOLE which is located at 12th Avenue and Sherman Street. This agency has a higher than average visitation by users who are dependent upon transit.

The Colfax Corridor

Currently studies are underway for alternative transit modes to increase efficiency within the Colfax Avenue corridor. The Colfax Corridor Connections is a long-term study intended to identify multi-modal transportation improvements. The study preliminarily identified bus rapid transit (BRT) as a preferred option for improved transit along the corridor. A short term study - the Transit Priority Study - is intended to reduce travel times and increase security and ridership for bus routes. Potential improvements being studied include stop amenities, bus bulbs, bypass lanes/queue jumps, and transit signal priority.

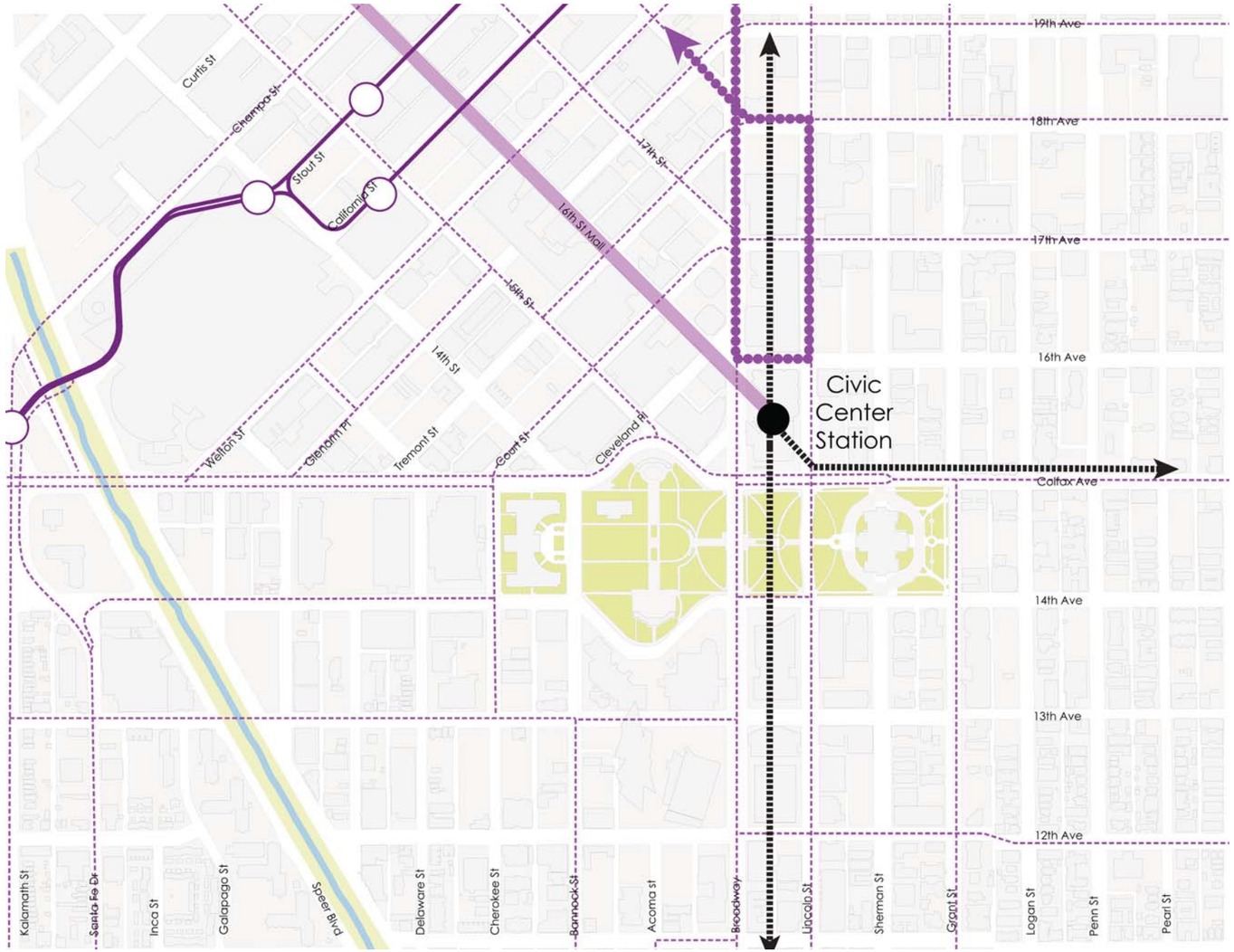


Diagram Showing Transit in and around the Capitol Complex

5.5.5 VEHICULAR CIRCULATION

Traffic Volumes

The Capitol Complex lies at the intersection of two major downtown arterials which exposes the Complex to high volumes of traffic. Regional access to the Complex is provided from Colfax Avenue/US Highway 40 which has north and southbound exits from Interstate 25. Numerous surface streets and arterials provide access to the Complex.

The master plan has no specific recommendations to improve traffic conditions as these right-of-ways fall outside of the Complex. However, the master plan does identify a number of pedestrian circulation issues due to the high volumes of traffic surrounding the Complex and additionally recommends refinements to pedestrian crossings, signage and wayfinding to improve the visitor and user experience in accessing the Complex. Currently there is limited signage directing vehicular users to specific destinations within the Complex or to visitor parking.

The City of Denver is studying the feasibility of converting Lincoln Street and Broadway from one-way streets to two-way streets. This has the potential of slowing vehicular traffic and providing a safer pedestrian experience at crossings. Though vehicular circulation may be slowed, access would be improved by the creation of new north-south options along these streets.

Diagram Showing Location of Major Roads Connecting to the Capitol Complex

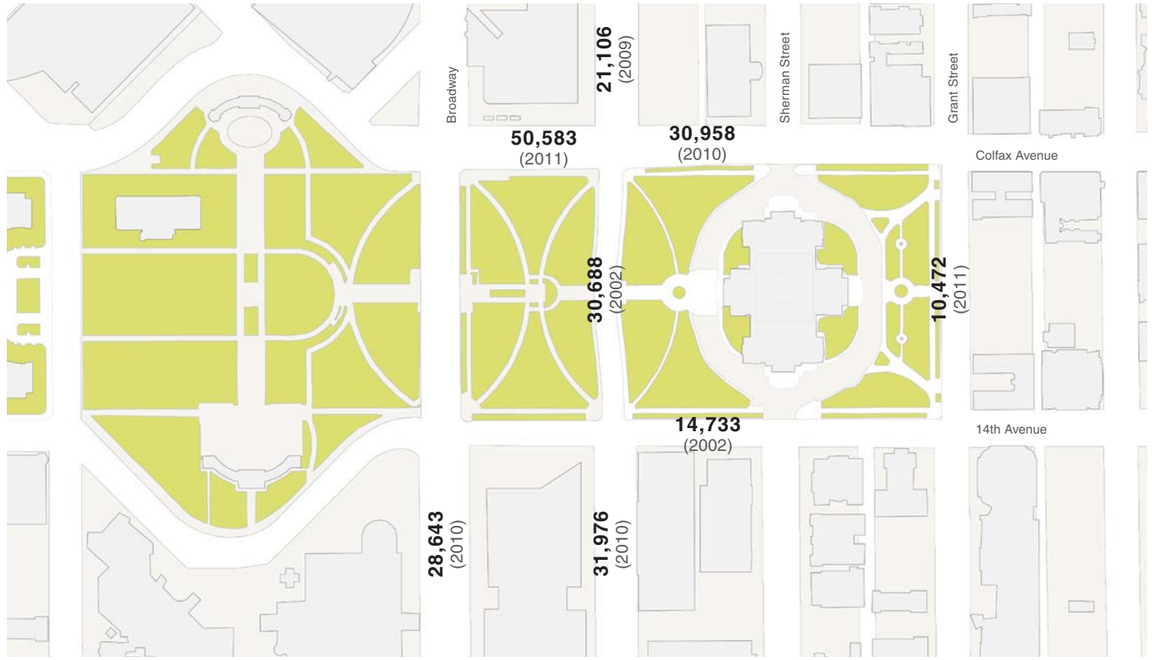


Diagram Showing Vehicular Average Daily Trips (ADT) on Key Streets within the Capitol Complex

5.6 - Parking

5.6.1 EXISTING PARKING

Capitol Complex Operated Parking

The Capitol Complex downtown operates a total of 905 employee parking spaces - 242 spaces located in surface lots and an additional 663 spaces located in the Merrick Parking Structure. Permits to use the available Capitol Complex parking supply are issued on an individual basis. Each parking space is assigned to a specific employee or agency and there is no oversell of available parking. Currently there are approximately 400 employees on the waiting list for a parking space.

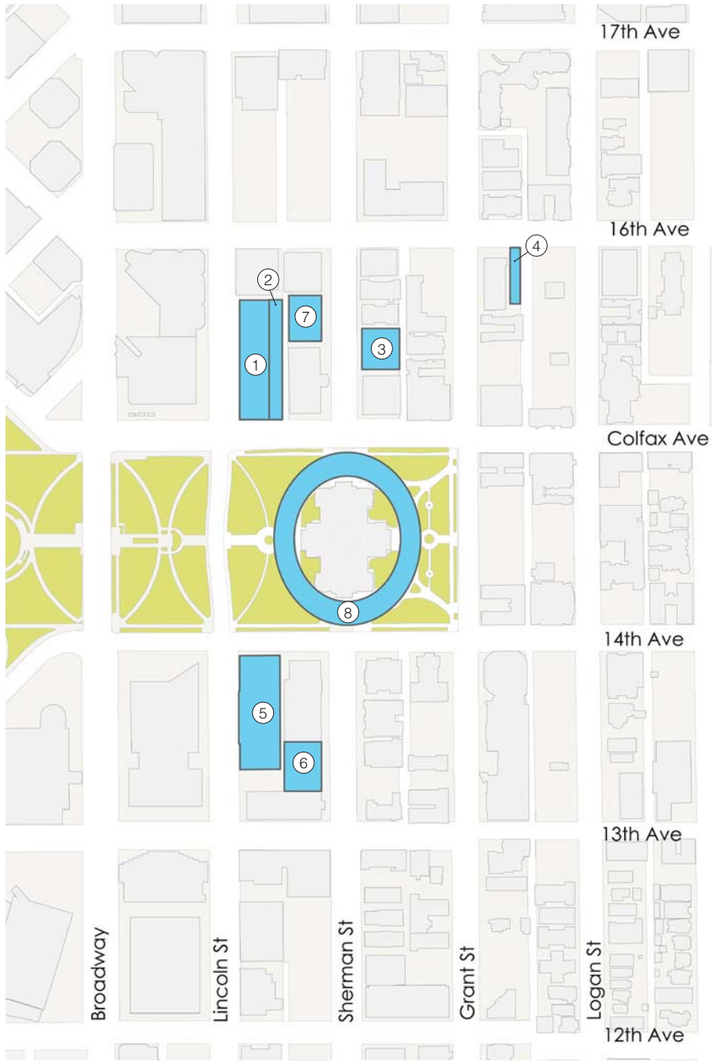
Many employees take advantage of alternative forms of transportation, thereby reducing overall parking demands. While exact figures are not currently available, it appears that many employees bike to work or use mass transit. There is currently a waiting list for the bicycle lockers located north of 1525 Sherman Street.

Visitor Parking

Visitor parking within the Capitol Complex is provided by metered on-street parking. The parking analysis conducted for the master plan showed that the metered spaces located in and around the Capitol Complex were typically utilized at 74% on average which is nearing the industry standard of 85% for when parking inventory is perceived to be effectively full. During the legislative session, a number of the parking spaces along Sherman Street and Grant Street are bagged which further contributes to the deficit of visitor parking.

Visitor parking demand is largely met through private parking lots located near the Complex. No accessible visitor parking is supplied within the Capitol Complex.

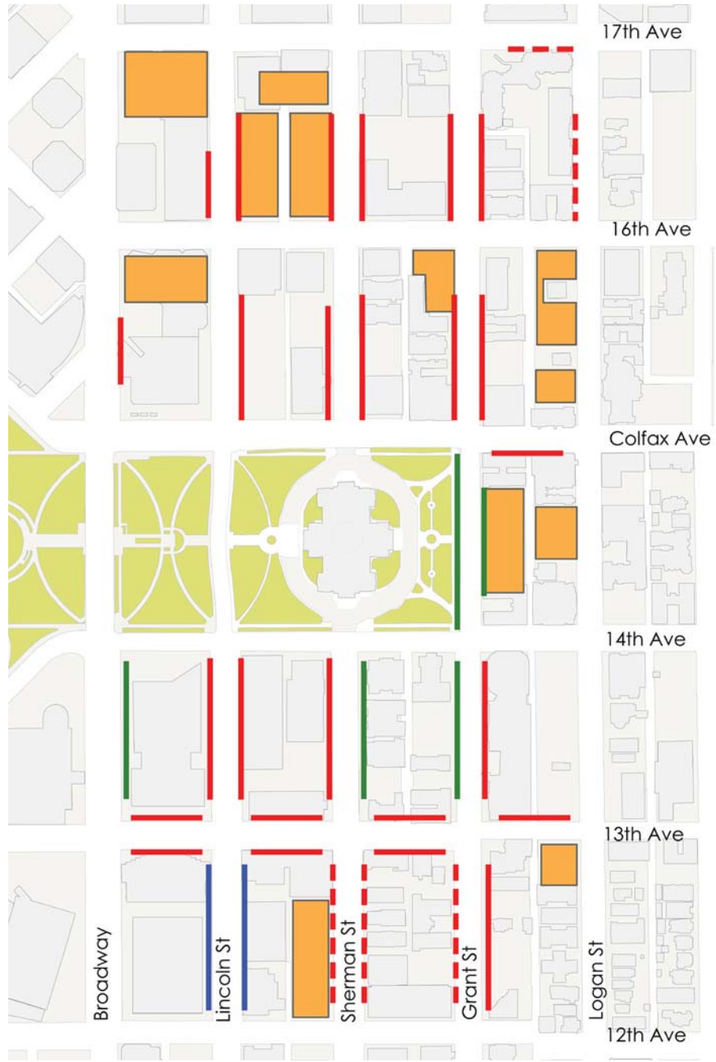
Diagram Showing State-Owned Parking Facilities



1. Tan Parking Lot
2. Green Parking Lot
3. Yellow Parking Lot
4. Blue Parking Lot
5. Merrick Parking Structure
6. Black Parking Lot
7. Motor Pool Lot
8. Capitol Circle

Capitol Complex Parking Facilities

Diagram Showing Privately-Owned and On-Street Parking Facilities



Private Parking Facilities
5 Hour Metered Parking
2 Hour Metered Parking
2 Hour Time limit
1 Hour Metered Parking

5.6.2 PARKING RECOMMENDATIONS

Parking in the Capitol Circle

Colorado is one of the few state capitols that allow for parking directly adjoining to and surrounding the Capitol Building. The accommodation of parking within the Capitol circle creates a number of issues including congestion, conflicts between pedestrians accessing the building and vehicles parking, and security concerns of allowing vehicular access directly adjacent to the Capitol Building.

The master plan recommends that the approximately 162 spaces currently located in the Capitol circle be relocated to another location. Options to accommodate the parking may include it in the design of the proposed building at Lincoln Street and Colfax Avenue or by adding additional levels to the Merrick Parking Structure which would provide an additional 282 spaces.

Employee Parking

The parking analysis conducted as part of the master plan concluded that the parking demand could be mitigated by better utilizing the existing parking supply. The State should reconsider the current policy of assigning each parking space to specific individuals. This system could be maximized by overselling the number of parking permits by approximately ten percent as other states do; permit holders would be assigned to a specific lot but not a specific space.

Bus Parking

The State Capitol receives roughly 300,000 visitors each year. A large portion of these visitors are school children and tour groups arriving by bus. Currently there is no allowance for bus drop off or parking within the Complex. This creates instances in which school aged children and groups are being unloaded curb side on highly trafficked arterial streets; buses are then parking street side while tours are being conducted.

Visitor and Disabled Parking

The master plan recommends that directional signage be provided to direct users to the available parking and then provide them with a pedestrian wayfinding system to direct them to their destinations within the Complex. The Capitol Complex Facilities website and specific agency websites could include directions for visitors guiding them to parking options nearby the Complex. The State should investigate the provision of accessible visitor parking located adjacent to the agencies where the need is the greatest. Capitol Complex Facilities could further monitor visitor parking demand to understand which agencies require additional user parking and where it may best be located.

Further study should be conducted to find solutions for the arrival and drop off of large tour groups, allocation of loading areas for buses and designated parking for buses for the time period required for tours. These parking studies should be conducted in tandem with the assessment of the pedestrian accessibility of the Capitol Complex.

Image Showing Parking around Capitol Circle

Image Showing Historic View without Parking

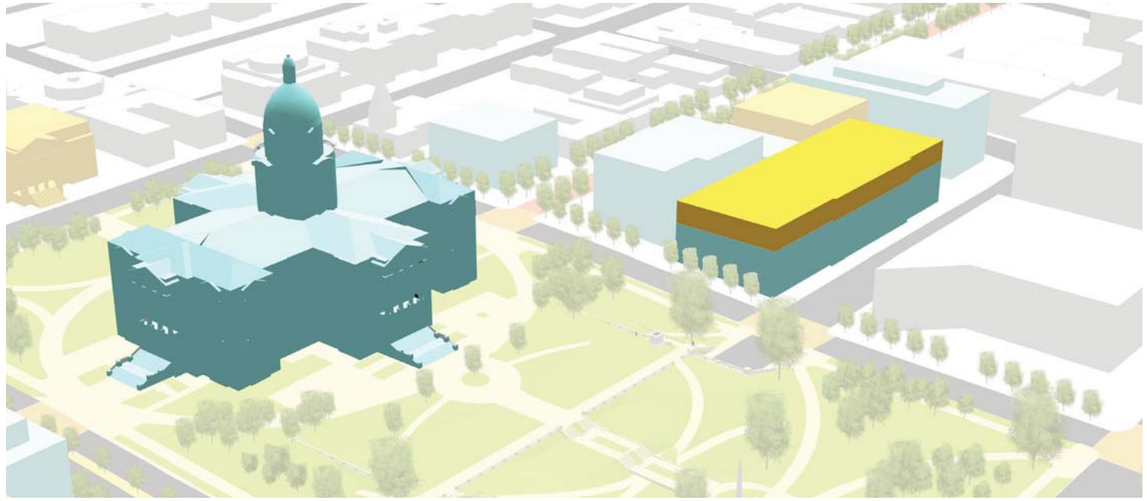


Image Showing Two Added Stories to Merrick Parking Garage and Its Proximity to the Capitol Building

5.7 - Architecture

5.7.1 ARCHITECTURAL RECOMMENDATIONS

The architectural language of the State buildings is one of the defining elements of the Capitol Complex. The earlier buildings dating from the turn of the century exhibit cultural richness and architectural flourishes while the later buildings share a common use of materials such as granite and other stones but have more efficient forms. The buildings reflect their institutional heritage often having defined points of entry through formal and processional portals, monolithic facades with minimal glazing and small windows and a stately street presence as the massings are arrayed along a common build-to line.

Share Common Elements

To continue the language of the State architecture, future buildings should share a commonality with the existing buildings. Future buildings should employ a similar use of materials that have a timeless quality such as stone accents and cladding while allowing for modern technologies and material to be interposed. The scale and stateliness of the existing building inventory should carry over to future construction. The massing of future buildings should match the current build-to line as established by the existing buildings.

Use Quality Materials

To ensure that future buildings achieve the same longevity and express a similar quality of construction as the existing Complex buildings, premium materials and construction techniques should be used. The design and execution of all future Capitol Complex buildings should be geared towards creating a product that will be sustainable and elegant. In designing for quality structures, the future buildings will integrate into a campus that exhibits the permanence and consistency of the state of Colorado.

Creating a Mixed Use Campus

In keeping with the goal of creating a more pedestrian friendly and open-campus environment, future buildings should display a more open and inviting street presence. The ground levels should incorporate a mixture of uses which include service retail uses, restaurants and cafes. The facades should be open and incorporate higher percentages of glazing and storefront treatments with multiple entries and open lobbies.

Images Showing the Variety and Consistency of Architectural Styles in the Capitol Complex

5.8 - Public Realm

Value of the Public Realm

The State Capitol building and the surrounding Capitol Complex are enduring and symbolic institutions that are representative of the state of Colorado. It is important that improvements to the campus and the overall image of the Capitol be seen as long term investments in Colorado's cultural heritage. All of the components of the Capitol Complex contribute to this image whether they be the architecture of the buildings, parking, signage, circulation or the trees and landscape. The public realm consists of all of these elements as they are experienced by visitors and users of the Complex outside of the buildings. Public realm improvements aim to enhance the user experience and provide a sense of place for the Complex.

Streetscape Improvements

Pedestrian circulation and creating a pedestrian friendly environment is a important goal of the proposed Capitol Mall. In addition to improvements to traffic signals, streetscape improvements are recommended to improve pedestrian functionality as well as defining the center of the Capitol Complex. While the streets fall outside of the jurisdiction of the State, cooperation with the City and other entities to implement streetscape improvements would be beneficial to the Complex.

- Grand Boulevards are referenced in several plans for the downtown area but not specifically defined. The master plan recommends enhancements to the two blocks of Colfax Avenue/US Highway 40 between Grant and Lincoln Streets which are directly adjacent to the Capitol Building. These improvements to the streetscape and landscape would create the effect of a Grand Boulevard transitioning the character of the street to a planted boulevard, slowing traffic and serving to unite the north and south halves of the Capitol Complex.
- Gateway Elements created through the use of signage and the transitioning of Colfax into a Grand Boulevard would have the effect of creating a gateway to the Capitol Complex. These elements combined with the architectural grandeur of the Statehouse would add to the definition of place at the center of the Capitol Complex.
- Bulbouts extend the sidewalk and curb edge out into the street to the edge of the parallel parking lane improving the visibility of pedestrians waiting to cross the intersection and shortening the overall crossing. These elements reduce the street width at intersections, thereby slowing or calming traffic.
- Clearly delineated crosswalks are important to signal to drivers of the pedestrian realm. Crosswalks can be painted special colors or higher quality materials may be used to create a more prominent pedestrian crossing area. On crossings such as the one at Colfax Avenue and Sherman Street, the crosswalk could cross through a proposed center median on Colfax Avenue, providing a respite and safe-haven for pedestrians crossing the street.
- The intent of introducing special paving, such as modular or unit pavers, on key streets or key intersections is to slow traffic and to emphasize the multi-modal nature of these streets by adding texture and visual appeal. Unit pavers should also be utilized in the sidewalks and crosswalks where applicable to accentuate entries and to enhance the pedestrian appeal of the streetscape.

Image Showing Lincoln Park and its Paving Features

Image Showing the Character of a Grand Boulevard

Image Showing a Curb Bulbout with Planted Edges

Image Showing a Crosswalk with a Median Safe-Haven

Site Furnishings

Uniform site furnishings used throughout the Capitol Complex would contribute to the perception of a unified campus. The location and types of furnishings should be decided as part of a overall design study that looks at the needs of users, visitors and employees within the Complex and the functionality of the furnishings should complement the needs of these users. The palette of elements may include:

- Bollards
- Trash receptacles
- Bike racks
- Planters
- Benches and other seating

Image Showing an Urban Seating Option

Image Showing a High-Quality Bicycle Rack

Lighting

Lighting is an important element of the public realm. Light fixtures can be used as ornamental street furnishing elements during the day mounting banner arms and accessories. At night, lighting can help to activate the public realm, create a perception of safety and can be used as a defining element.

Currently the Capitol Complex uses a City of Denver standard pedestrian level light fixture located in the tree lawns in front of Capitol Complex facilities and in the Capitol lawn. These lights are supplemented by street-level overhead lights. The master plan recommends that the pedestrian level lighting be studied as part of an overall public realm master plan and that signature pedestrian lighting fixtures be utilized in the Sherman Street Capitol Mall streetscape to create a campus identity and to activate the public realm after hours.

Image Showing Historically Appropriate Bollards

Image Showing a Well-Lit Capitol District (Madison, WI)

Landscape and Plantings

The Capitol lawn and many of the streets within the Capitol Complex are planted with mature trees. To further enhance the Complex and create the feeling of a defined campus it is important that the Complex have a uniform and defined landscape.

Mature street trees and established plantings can have a profound impact upon the outdoor environment by slowing traffic, providing shade, seasonal color, mitigating noise and creating a human scaled organic environment. The value of a mature maintained landscape is significant for the aesthetic and cultural effect that it can impart upon the surrounding environment. The landscape and especially the street tree plantings need to be viewed as legacy elements that need to be nurtured and maintained. In the Colorado climate, trees can take decades to mature but they also have an appreciable impact upon the character of the environment.

The master plan recommends the creation of an overall landscape master plan for the Capitol Complex which would identify priority areas, user needs and outline a maintenance strategy and budget for the upkeep of the Complex landscape. The use of native and xeric plantings and groundcovers in low traffic areas and where applicable should be emphasized. Blue grass plantings in tree lawns may be replaced by curbed landscape planters populated with xeric species with intermittent pedestrian access to accommodate parallel parking.

The master plan recommends that the landscape plan for the Capitol Mall and the Capitol Complex overall explore methods for sustaining healthy plantings in the streetscape. These may include larger tree cutouts to provide aeration, raised curbs around tree lawns to prevent snow melt chemicals from damaging trees, drip irrigation and the use of native species.

Landscape Maintenance

The planting and ongoing maintenance of street trees in the blocks surrounding the Capitol Complex needs to be prioritized to capitalize upon this investment.

Image Showing a Consistent and Stately Tree Canopy

Image Showing Urban Planters with Seating Elements

Image Showing Xeriscapic Street Planting

5.9 - West Lawn

Figure Showing the Existing West Lawn with Lincoln Street at Grade and Potential Mid-Block Crossings

Figure Showing the Proposed West Lawn with Lincoln Street Tunneled

Figure Showing the Proposed West Lawn Viewed From Lincoln Street and 14th Avenue Looking North

Intent

The West Lawn proposal connects the western portion of the Capitol grounds to Lincoln Park directly west across Lincoln Street. The design expands the West Lawn over Lincoln Street and connects it to Lincoln Park by creating a cut and cover tunnel structure. The design would remove permanent parking from the Capitol Circle and provide plazas for small functions, public art and seating opportunities on the western side of the Capitol Building. The expanded West Lawn would accommodate terraced lawn gardens providing large, level spaces for gatherings and functions.

The plan also presents the opportunity for a two level underground parking structure located beneath the West Lawn adjacent to the Capitol building. The structure would provide 195 parking spaces for occupants of the Capitol Building. The garage would involve a connection into the basement level of the Capitol building.

The estimated cost of the West Lawn project is $69 million including escalation. It is recommended an Environmental Assessment or Environmental Impact Study be undertaken to analyze the feasibility of this project.

Pros and Cons

The West Lawn proposal has several advantages and disadvantages related to visibility, security, accessibility and traffic issues. These pros and cons are outlined in the table on the opposite page. For a more detailed analysis of the West Lawn project, please see the full report included in the appendix (See Appendix 2 (c) - West Lawn Report).

PROS	CONS
Visibility and Appearance	
• The project creates a continuous landscape bridging Lincoln Street and connecting Lincoln Park with the West Lawn. • The proposed design introduces additional space for programmed and unprogrammed activities and provides a forum for large gatherings and events. • There are aesthetic advantages to removing parking from the Capitol circle; this would remove a non-original design element and convert the circle back to its original use and structure.	• The creation of the Lincoln Street tunnel and the resulting loss of public realm/right-of-way adjacent to Lincoln Street removes this area as a venue for non-scheduled public demonstrations with the State Capitol as a backdrop. • There will be a loss of a number of mature trees within the West Lawn. While the design replaces these trees, it will be a number of years before they will retain the prominence of the existing landscape.
Security	
• There are security advantages to removing the parking from the Capitol circle and providing secure parking underground with access for the Governor and members of the General Assembly to the Capitol basement. • There are safety advantages by providing a connection between the West Lawn and Lincoln Park and separating pedestrian traffic from vehicular traffic mid-block at Lincoln Street.	• Elevating the West Lawn above the adjacent streets removes its relationship to Lincoln Street, 14th Avenue and Colfax Avenue creating the perception of an unmonitored and potentially unsafe environment and requiring additional security patrols in the parking garage, Lincoln Street tunnel, and the West Lawn. • Elevating the West Lawn provides pedestrian access directly over Lincoln Street which may provide opportunity for individuals to drop objects onto passing vehicles.
Accessibility	
• The proposed design creates a designated accessible pathway for disabled users to cross over and through the West Lawn separated from vehicular traffic on Lincoln Street.	• Elevating the West Lawn over Lincoln Street necessitates the introduction of multiple accessible ramps required to traverse the elevation gain.
Traffic Issues	
• Removal of traffic from the Capitol circle reduces conflicts between cars and pedestrians, providing a pedestrian refuge on the Capitol grounds.	• Traffic entering and exiting the parking garage will have effects upon the traffic flow on Lincoln Street - Queuing past 14th Avenue in the a.m. peak and potentially crossing three lanes of traffic to turn left on Colfax Avenue during the p.m. peak.
Historic Designation	
	• The proposed design may impact the historical fabric of what was there and what was foundational to the National Historic Landmark designation of the site, including the view of the Capitol from Lincoln Street and the layout of the west lawn.

5.10 - Key Recommendations

CHAPTER 5.0 - URBAN DESIGN KEY RECOMMENDATIONS

- A NEWLY-CONSTRUCTED, MIXED-USE OFFICE BUILDING ON THE STATE-OWNED PARCEL ON THE NORTHEAST CORNER OF LINCOLN STREET AND COLFAX AVENUE COULD ACCOMMODATE STATE AGENCY SPACE NEEDS AND PROVIDE AN ACTIVATING ELEMENT FOR THE CAMPUS. THE PROPOSED BUILDING WILL ADD USERS TO THE COMPLEX AND ACT AS A GATEWAY BETWEEN THE COMPLEX AND DOWNTOWN.

- SIGNAGE, WAYFINDING, AND STREETSCAPE IMPROVEMENTS WHICH ARE EMBODIED IN THE CAPITOL MALL CONCEPT REPRESENT THE OPPORTUNITY TO DEFINE THE CAPITOL COMPLEX CAMPUS AND MAKE IT MORE USER FRIENDLY.

- CIRCULATION AND CONNECTIVITY, BUILDING UPON THE WAYFINDING IMPROVEMENTS, SHOULD BE MADE TO KEY INTERSECTIONS TO FACILITATE BETTER PEDESTRIAN CIRCULATION AND CONNECTIVITY. CONNECTIONS ACROSS COLFAX AVENUE BETWEEN THE NORTH AND SOUTH CAMPUS, AS WELL AS CONNECTIONS BETWEEN THE CAMPUS AND THE DOWNTOWN, ARE THE MOST CRITICAL.

- THE CAPITOL COMPLEX SHOULD LOOK FOR OPPORTUNITIES TO INTRODUCE RETAIL AND RESIDENTIAL SERVICES INTO THE CAMPUS TO HELP ACTIVATE THE CAMPUS AND ATTRACT USERS FROM OUTSIDE OF THE CAMPUS AND ALSO PROVIDE SERVICES TO THE USERS AND EMPLOYEES OF THE STATE.

CAPITOL COMPLEX MASTER PLAN

DENVER, COLORADO

06

BENCHMARKING

6.1 - Methodology

Overview

This chapter provides an overview of Colorado's planning and facilities management practices and provides a summary of the benchmarking study that was conducted in the context of the master plan goals. The intent of the Colorado Capitol Master Plan is to provide a context for understanding Colorado's funding levels, facilities management, and planning practices relative to programs in similar states. The benchmarking of other states was undertaken as part of the master plan to find the scope of standard practices that many states follow that are similar to Colorado in population, annual budget, square footage of Capitol Complex buildings, acreage of Capitol Complex, facilities management organization, and/or geographic adjacency.

Methodology

The consultant team conducted the benchmarking study in distinct phases. The initial data gathering and initial research phase identified up to 10 states and state capitols that provide similarities and differences with the facilities management organization of Colorado. The case studies were identified for research focusing on statewide and capitol complex facilities management organizational structure, long range planning, and legislative provisions, prioritization of building renewal, capital construction and controlled maintenance projects, and funding sources. The following 10 states and state capitols were identified for the benchmarking study based on preliminary research and analysis. They include:

- Arizona
- Iowa
- Kansas
- Minnesota
- Oregon
- Texas
- Utah
- Virginia
- Washington
- Wisconsin

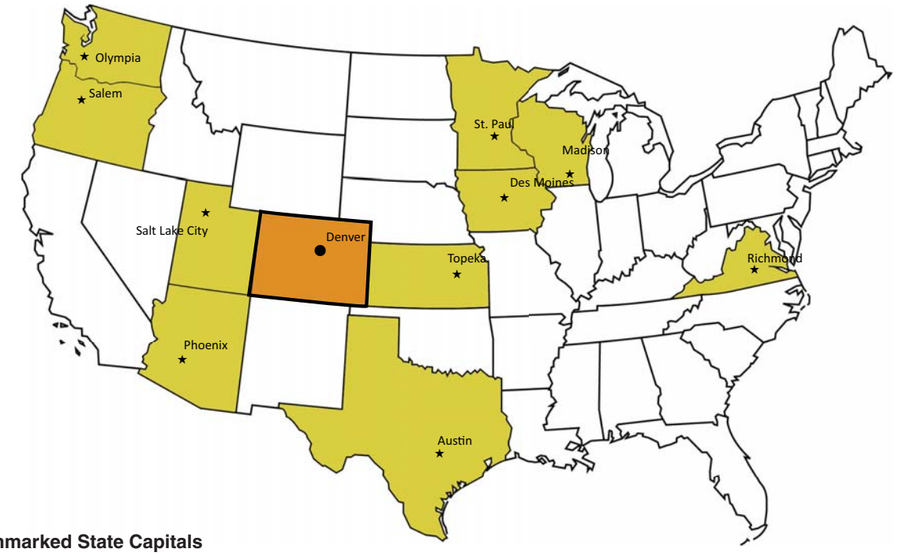
The benchmarking analysis was based on available documents and information regarding state-wide and capitol complex facilities management organizational structure, planning, funding, capital projects and controlled maintenance projects - prioritization processes, etc.

Summary abstracts (see Appendix 3 (a) – Detailed State Abstracts) of key benchmarking information of each state were prepared in the second phase based on review of and analysis of documents for each state in the context of state of Colorado. A compiled analysis of each state (see Appendix 3 (b) – Comparative State Analysis) was compiled including a detailed bibliography of benchmarking related documents.

Three states were recommended (Minnesota, Utah, and Washington) that are most relevant for the goals of the CCMP and are considered to illustrate governmental best practices. Additional details were obtained in the last phase of the benchmarking study through interviews with key officials. The consultant team along with the DPA / OSA conducted telephone interviews with key facility management representatives from the three states to confirm the findings of the initial benchmarking summaries.

To understand the State of Colorado's facility management practices particularly within the capitol complex and to highlight related key differentiators with other benchmarked states, the consultant team also referred to the following documents prepared by the State:

- The Performance Evaluation of State Capital Asset Management and Lease Administration Practices Audit conducted by the Office of the State Auditor and released in November 2012.
- The State of Colorado Strategic Real Estate Plan prepared by the State's tenant broker in June 2013.



Benchmarked State Capitals

Colorado Capitol, Denver

6.2 - History of Facilities Planning and Maintenance in Colorado

In the late 1960's the task force Colorado Committee on Government Efficiency and Economy recommended the establishment of executive branch agencies moving those functions out of the Governor's Office. The report recommended: "Organize the Department of Administration in order to provide a sound structure as a basis for rendering effective service to all departments…. The proposed organization should be designed to place department activities in their proper place with relation to each other and similarity of functions…."

One of the divisions of this new Department of Administration was the Division of Public Works which included the following sub-units: Architecture and Engineering, Contract Administration, Construction and Maintenance Inspection, Administrative Services, and the Capitol Buildings Group. The report included this appraisal of current operations: "The basic function of the division is technical in character, yet only a small portion of the personnel possess a formal technical education. These individuals appear to be concentrated in the Architectural and Engineering Section." It also states: "The state has no comprehensive master plan in public works. In the planning process, there is little uniformity in effort or approach between departments…. Because of independence of scope and approach to planning by various agencies there is no effective coordination or standardization."

Implementing the recommendations, in 1973 the Governor's Budget identified the goal of the Division of Public Works within the Department of Administration as providing "efficient and effective centralized support services for construction, maintenance, and space utilization of facilities housing the three principal branches of government." This division "functions as a service agency on building facilities for the various state agencies, institutions, and departments". In addition to its 25 assigned FTE, the budget requested an additional FTE for a "professional planner" to provide comprehensive critical review of master plans and program plans.

The Division of Public Works also had supervisory responsibility for the operation, maintenance, and management of the Capitol Buildings Group Section and the 143 FTE providing these services on the buildings and grounds.

This 1973 budget also shows Central Services Program located within the Office of the Executive Director of the Department of Administration. Central Services Program had 25 FTE and included the functions of graphic arts, offset printing, Xerox quick copy, Central Stores for office supplies, U.S. and interdepartmental mail distribution, motor pool, and a proposed aircraft pool.

Subsequent to this, the Division of Public Works in the Department of Administration was abolished and the functions moved to the Office of State Planning and Budgeting where they remained from 1975 until 1979. During this period of time the Capitol Buildings Section remained within the Department of Administration.

In 1979 the functions were transferred back to the Department of Administration into what was then called State Buildings Division. "The Division actively managed the State's planning, design, and construction programs and was the direct recipient of statewide controlled maintenance appropriations." In 1984, the name of the Capitol Buildings Section was changed to the Division of Capitol Complex Facilities so the two divisions responsible for facilities planning and facilities maintenance existed within the department.

At this time State Buildings Division and its 23 FTE were responsible for planning, design and construction management of facilities statewide. A former director of State Buildings describes the transition from a centralized approach to these functions to a new model: "During the mid 1980's a trend toward decentralization of the responsibilities to the agency level developed. In 1987, during a low point in construction appropriation levels, the Division was down-sized to a manager and one administrative position. Over the next few years as construction appropriations increased, it again became apparent that centralized functions in the planning, design, construction and controlled maintenance process were sorely needed. While the centralized planning function was assumed by OSPB, there remained a need to provide administrative and technical staff capable of managing these processes." In order to meet the demand for services, State Buildings Programs continued to provide technical assistance through the development of policies, procedures and contracts, statewide implementation of codes and standards, and the administration of the controlled maintenance, real estate and energy programs while delegating its authority to manage design and construction projects to state agencies and institutions of higher education.

In 1988 State Buildings staff increased to three in addition to an FTE assigned to coordinate and review leases. Then in 1993 State Buildings was moved into the Division of Purchasing where it remained until 2000. That year Capitol Complex Facilities was no longer designated an independent division, the division director position was abolished, and the facilities/property management function was moved into the Division of Central Services. State Buildings, now designated as State Buildings and Real Estate Services, was also moved into the Division of Central Services. These two functions were designated Facilities Maintenance and Planning in the budget.

This continued until 2002 when State Buildings, now designated as Real Estate Services Program, was moved to the newly created Division of Finance and Procurement where it remained until 2008. In 2009 it was renamed the Office of the State Architect and moved to the executive office of DPA and then to the Office of Statewide Programs in 2012. Capitol Complex Facilities has remained in the Division of Central Services along with Integrated Document Solutions (printing, mail, etc.) and Fleet/Motor Pool. The Office of the State Architect currently has 6 FTE, Capitol Complex Facilities has 55 FTE and the Division of Central Services has an additional 138 FTE.

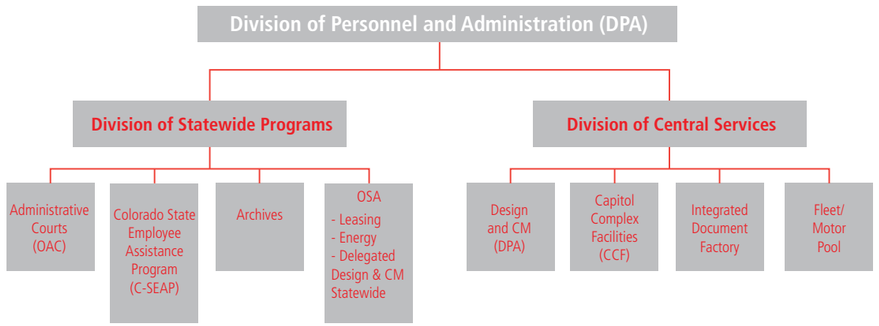
6.3 - Facilities Oversight by Department of Personnel and Administration

The State of Colorado's Department of Personnel & Administration (DPA) provides centralized human resources, information, tools, resources and materials needed for the state of Colorado government to function. The adjoining chart provides the organizational structure of the DPA that includes the Office of the State Architect (OSA) and Capitol Complex Facilities (CCF).

Office of State Architect (OSA)

The Office of the State Architect (OSA) within the Division of Statewide Programs has statewide responsibility for administering capital construction, prioritizing controlled maintenance requests, ensuring code compliance, tracking facilities' condition, approving emergency maintenance funds, managing energy conservation, and overseeing and approving leasing and real estate transactions for executive branch agencies, including higher education. Responsibilities of OSA include:

- Overseeing controlled maintenance of buildings constructed or acquired with capital construction or general funds.
- Coordinating the initiation of budget requests and prioritizing and recommending funding for controlled maintenance projects to the Capital Development Committee (CDC).
- Negotiating and executing leases on behalf of the State government for land, buildings, and office or other space. [Section 24-30-1303, C.R.S.]
- Responsible for other real estate activities such as the purchase of real estate for the State and sale or lease of State-owned real estate.
- Tracking statistics on State owned buildings.
- Reporting annually to the Capital Development Committee on acquisitions, dispositions, lease summaries, and other real estate management issues including ongoing controlled maintenance and capital construction expenditures and controlled maintenance needs.
- Establishing office space goals for private leased space.
- Responsible for capital construction administration for executive branch projects (including most institutions of higher education) inclusive of: solicitation and procurement of professional design and construction services; development of standard contract language; establishment of project management guidelines including cost management; and adoption and implementation of building codes and compliance requirements.
- The Office of the State Architect does not oversee three areas including:
  - Acquisitions by the Department of Transportation;
  - Acquisitions or disposition of State land by the State Land Board
  - Management of certain easements, rights of way, and vacant land leases and acquisitions by Colorado Parks and Wildlife, a division within the Department of Natural Resources.



Capitol Complex Facilities (CCF)

Capitol Complex Facilities is part of Division of Central Services (DCS) which is one of multiple divisions located under the umbrella of the Department of Personnel & Administration. Capitol Complex Facilities supports tenant state agencies with property management services, and provides the public with special event permits and information resources. Services include building maintenance, state employee parking, project space requests, ceremonial flag requests, and state employee ID badges. Capitol Complex Facilities maintains the State Capitol, the Governor's Mansion, and DPA owned buildings with routine maintenance, plumbing, HVAC, electrical, custodial, and grounds maintenance. Capitol Complex Facilities building management services include assistance with electrical, elevator, plumbing, lighting, HVAC, grounds maintenance, and general maintenance/ repair issues.

Facility Management System / Software

Total Maintenance Authority (TMA) preventative maintenance software is currently used by the Capitol Complex Facilities for tracking and managing facilities related work orders, parts inventory control, etc. Discussion with the CCF indicate that an update push / upgrade or change would be required to bring the TMA up to speed on recent HVAC replacement projects, and other current building data.

An updated computerized maintenance management system would be helpful to track, collect and report the costs associated with maintenance, grounds and housekeeping activities. The system would track routine work orders, preventative maintenance, corrective maintenance and occasionally projects outside of facilities maintenance and operations. Tracking all material and labor, the system can report on productivity including number of work orders completed, response times based on criticality, etc.

Lease Rates – Benchmarking

The internal rate CCF charges to tenant agencies could be benchmarked with rates that are changed in the private sector within the geographic region or with national benchmarks published by BOMA. A similar such process is currently used by the State of Utah.

6.4 - Offices and Committees with Facilities Oversight

6.4.1 GOVERNOR'S OFFICE OF STATE PLANNING AND BUDGETING

The primary role of the Office of State Planning and Budgeting (OSPB) is to provide the Governor with timely and complete information and recommendations for sound public policy and budget decisions.

- Developing reliable revenue estimates.
- Review, approval, and prioritization of executive branch capital project requests for funding consideration by the Capital Development Committee (CDC).
- Review of program plans for State departments in the executive branch.
- Developing a defensible budget within revenue constraints.
- Developing proposals for new legislation.
- Advocating for the Governor's priorities.
- Monitoring budget implementation.

6.4.2 GENERAL ASSEMBLY

Capital Development Committee (CDC)

The CDC is a joint committee, consisting of three members of the House of Representatives and three members of the Senate. Each house is represented by two members of the majority party and one member of the minority party. Members of the CDC are chosen according to the rules of each house. CDC responsibilties include general review and oversight of all capital projects statewide, including projects initiated by the executive, judicial, and legislative branches and institutions of higher education, and including purchase, construction, renewal, and controlled maintenance. It reviews and recommends funding for all capital construction projects, including lease purchase agreements, valued at more than $500,000. The CDC also reviews capital construction projects at institutions of higher education that do not require any general or capital contruction funds, but have been approved by the governing boards of the institutions and the Colorado Commission on Higher Education. The CDC receives reports on the progress of all capital construction projects, regardless of the agency or branch of government, and typically tours completed capital construction and controlled maintenance projects in a different region of the State every other year.

Responsibilities of the Capital Development Committee

The CDC has the following statutory responsibilities:

- Considers funding requests for capital construction and controlled maintenance projects submitted by State departments and higher education institutions, including regular and emergency supplemental capital construction requests;
- Prioritizes recommendations for the funding of capital construction and controlled maintenance projects for submittal to the Joint Budget Committee (JBC);
- Forecasts the state's requirements for capital construction, controlled maintenance, and the acquisition of capital assets for the next fiscal year and the following four fiscal years;
- Considers cash-funded capital construction projects submitted by higher education institutions to be commenced without prior legislative authorization in an appropriations bill, and make recommendations to the JBC regarding projects subject to the Higher Education Revenue Bond Intercept Program (pursuant to Senate Bill 09-290);
- Studies the capital construction request from the Transportation Commission for state highway reconstruction, repair, and maintenance, and determine the projects that may be funded from money available in the Capital Construction Fund;
- Consider requests for waivers of the six-month encumbrance deadline for capital construction appropriations;
- Reviews the annual capital construction and controlled maintenance requests from the Office of Information Technology regarding the Public Safety Trust Fund.

Joint Budget Committee (JBC) And General Assembly

The General Assembly's permanent fiscal and budget review agency, the Joint Budget Committee (JBC), writes the annual appropriations bill - called the Long Bill - for the operations of state government. The JBC has six members: the Chairman and one majority and one minority member of the House Appropriations Committee, and the Chairman and one majority and one minority member of the Senate Appropriations Committee. Members serve two-year terms and are selected following the general election. Traditionally, the Senate elects its JBC members. In the House, the Speaker appoints the majority party members, and the Minority Leader appoints the minority party member. The chairmanship alternates between the Chairmen of the Senate and House Appropriations Committees. The House and Senate calendars reflect the Joint Budget Committee's schedule during the legislative session. Responsibilities include:

- Analysis of the management, operations, programs and fiscal needs of State agencies and institutions.
- Recommendations to the General Assembly for funding of projects per Capital Development Committee guidance for inclusion in the Long Bill.
- Approval of capital projects initiated by legislation.

Capitol Building Advisory Committee

State law directs the advisory committee to review plans to restore, redecorate, or reconstruct space within the public and ceremonial areas of the state Capitol Building, the Legislative Services Building and its surrounding grounds, and the grounds surrounding the Capitol. The advisory committee is required to make recommendations to the Capital Development Committee (CDC), and in some cases the Governor, based on such plans. The advisory committee is also authorized to:

- Engage in long-range planning for modifications and improvements to the Capitol and its grounds.
- Accept gifts, grants, or donations from private or public sources to develop publications and memorabilia.
- Expend moneys from the advisory committee's special account to publish and develop memorabilia, to restore the Capitol, the Legislative Services Building, and the Capitol grounds, and for other related and necessary purposes.
- Call upon Legislative Council Staff and the Department of Personnel & Administration for necessary assistance.

6.4.3 OTHER AGENCIES

Colorado Commission on Higher Education

General review and oversight of capital projects undertaken by institutions of higher education on State owned or State controlled land, including purchase, construction, renewal, and controlled maintenance.

- Review and approval of institutions' master and program plans.
- Prioritize institutions' capital projects and submit to OSPB and the Capital Development Committee, when required by the type of funding source

The adjoining diagram highlights key aspects of the facility management organization for the State of Colorado. While institutions of higher education have not been included in the scope of the Capitol Complex Master Plan, the oversight process of Colorado Commission on Higher Education requires significant long-term planning.

6.5 - Capital Projects Existing Decision Making Framework

The term “capital” collectively refers to three types of projects: (1) Capital construction; (2) Capital renewal; and (3) Controlled maintenance. The following provides overview for the approval / decision making and funding process of the capital projects within the State of Colorado.

Capital Construction Approval Process

According to statute, “it is the policy of the General Assembly not to acquire sites or authorize or initiate any program or activity requiring capital construction or acquisition of a capital asset . . . for any State department or subdivision thereof unless the program or activity is an element of the facilities program plan for the department.” [Section 2-3-304.6, C.R.S.] Consequently, capital construction projects are program driven and an agency must justify a capital request based on how the project will allow it to improve or alter its ability to provide a certain program or services.

Requests from Executive Branch Agencies

- Capital construction and acquisition projects are initiated by individual agencies.
- Agencies prepare program plans and justify their capital construction requests in accordance with criteria outlined by OSPB.
- Agencies then submit their requests to OSPB, which reviews the projects and prioritizes the agency requests based on priorities outlined by the Governor.
- The prioritized list of capital construction project requests is submitted to the Capital Development Committee, which reviews and holds hearings on the requests, requesting additional information, if needed. The Capital Development Committee then makes prioritized funding recommendations to the Joint Budget Committee for State-funding requests. The Capital Development Committee also makes recommendations for cash funded projects for State agencies and reviews higher education cash projects costing more than $2 million.
- The Joint Budget Committee then makes a recommendation for inclusion of certain State- and cash-funded capital construction projects in the annual Long Bill, which delineates actual appropriations.

Table Showing Existing Decision Making Process in Colorado

Type of Project	Requesting Entity	Approval Process	Project Differentiation	Review and Recommendation	Approval and Funding	Project Administration
Controlled Maintenance Projects (Major Planned Maintenance)	All Departments, Institutions of Higher Education, and Govt Branches → All departments, institutions of higher education, and branches of government that own buildings (except the Division of Parks and Wildlife within the Department of Natural Resources) may request Controlled Maintenance (CM) funds based on an approved five year plan for their owned buildings. The requesting entity should be prepared with project documentation and cost analysis according to OSA criteria.	Office of the State Architect (OSA) → The Office of the State Architect is the primary entity in charge of recommending all Controlled Maintenance projects. This office will review projects, categorize them according to criticality, prioritize them, and recommend them. The Department of Personnel & Administration/Capitol Complex team follows the guidelines set by OSA for all departments.	Controlled Maintenance (Projects less than $2m) → [Governor's Office of State Planning and Budgeting (OSPB) (Only for Capital Renewal Projects more than $2m)] → Projects will be categorized into three levels according to their overall criticality. Projects valued under $2 million per phase - known as Controlled Maintenance projects - are reviewed by the OSA, submitted to OSPB, and are recommended directly to the CDC. Projects valued at more than $2 million per phase - known as Capital Renewal projects - require review by OSA as well as OSPB. Capital Renewal projects are prioritized against Capital Construction projects.	Capital Development Committee (CDC) → The CDC will receive a prioritized list of Controlled Maintenance requests along with Capital Construction projects. If a request requires more information or documentation, the CDC may request it. The CDC will develop a prioritized list of projects including Capital Construction, Capital Renewal, and one, two, or three levels of Controlled Maintenance that will be forwarded to the Joint Budget Committee.	Joint Budget Committee (JBC) → The JBC will make a recommendation for inclusion in the Long Bill for funding appropriation along with Capital Construction and Capital Renewal requests.	Office of the State Architect (OSA) → Once a project is approved and funded, the OSA is responsible for the administration and oversight of the project. The project is managed at the agency level.
Capital Construction Projects	Executive Branch Departments and Higher Education → Any Executive Branch department may make a Capital Construction request for their owned buildings. The department should be prepared with program plan documentation and cost analysis according to OSPB criteria.	Governor's Office of State Planning and Budgeting (OSPB) + [Department of Higher Education (DHE)] → OSPB receives Capital Construction requests from Executive Branch Departments. The requests are reviewed for their compliances with OSPB budget instructions. DHE reviews Higher Ed projects and submits a prioritized list to OSPB and the CDC. OSPB develops a combined prioritized list of department and Higher Ed projects for submittal to the CDC.	Construction, Renovation, Purchase, Demolition, and Divesting → A Capital Construction project request can take several forms. A requesting entity may request: • construction of a new facility, • the renovation of an existing facility, • the purchase or sale of real property, • and the demolition of existing facilities. All Capital Construction projects are program-driven as opposed to maintenance-driven (CM projects).	Capital Development Committee (CDC) → The CDC will receive a prioritized list of Capital Construction projects along with Controlled Maintenance requests. If a request requires more information or documentation, the CDC may request it. The CDC will develop a prioritized list of projects including Capital Construction, Capital Renewal, and one, two, or three levels of Controlled Maintenance that will be forwarded to the Joint Budget Committee.	Joint Budget Committee (JBC) → The JBC will make a recommendation for inclusion in the Long Bill for funding appropriation along with Controlled Maintenance level requests. If a Higher Ed project is funded with 100% cash funds - funds derived from private donors, fees, or other non-State funds - it does not require review from the OSPB or funding from the CDC/JBC.	Office of the State Architect (OSA) → Once a project is approved and funded, the OSA is responsible for the administration and oversight of projects requested by all branches of government as well as Higher Education projects. The project is managed at the agency level.
Legislative or Judicial Capital Projects	Legislative or Judicial Branch → The Legislative or Judicial branches of the state government may request a capital project. The project is initiated by special legislation.			Capital Development Committee (CDC) → Projects initiated by the Legislative or Judicial Branches do not require review by the OSA or the OSPB.	The project may be initiated and funded through specific legislation and may or may not be included in the Long Bill.	Varies

Type of Project	Requesting Entity	Approval Process	Project Differentiation	Review and Recommendation	Approval and Funding	Project Administration
Operating Lease Requests (Centralized Leasing Process)	All Departments and Institutions of Higher Education → Office of the State Architect (OSA) → Broker Engagement, Needs Analysis, and, Market Survey → Requesting Agency					
	Any Executive Branch department or Institution of Higher Education may make an Operating Lease request. The requesting entity must complete a space request form and a TA form, and evidence of funding under that agency's operating budget for submittal to the OSA. Operating Leases, which comprise a large majority of State agency leases, are subject to the Centralized Leasing Process.	All lease requests are received, reviewed, and tracked by the OSA under their Real Estate Programs department. OSA analyzes request for space needs and other lease criteria. This office is responsible for negotiating and executing lease agreements. If space is available within a currently owned or leased building, the OSA will follow the Capitol Complex process to prioritize the use of existing spaces.	The Centralized Leasing Process is similar to private sector real estate leasing procedures. Operating Leases can take several forms, including a Gross (Common) Lease, a Base Year Lease, or a Triple Net Lease. After OSA reviews the request, the State's contracted broker is engaged. The broker will do an independent space needs assessment for the agency. The requesting agency is subject to space programming analysis and the request is compared against strategic planning/best practices filters.			The requesting agency will hold and make payments on the executed lease over the life of the lease agreement. OSA does not hold any leases.
Lease/ Purchase Requests And Purchases for Cash (Capital Lease Requests)	All Departments and Institutions of Higher Education → Office of the State Architect (OSA) → Lease Agreements over $500k → For Executive Agencies: Governor's Office of State Planning and Budget (OSPB); For non-Executive Entities: OSPB → Capital Development Committee (CDC) → Joint Budget Committee (JBC) + General Assembly → The Requesting Agency					
	Any Executive Branch department or Institution of Higher Education may make a Capital Lease request. The requesting entity should be prepared with program plan documentation and cost analysis.	All lease requests are received, reviewed, and tracked by the OSA under their Real Estate Programs department. This office is responsible for negotiating and executing lease agreements. The State's contracted broker provides tenant/purchase representation services.	Leasing purchase requests in excess of $500,000 over the term of the agreement must be authorized by a separate bill enacted by the General Assembly other than the Long Bill.	The CDC will review and approve the plan for recommendation to the JBC and the General Assembly.	The JBC will make a final review of a proposed Capital Lease request and approve funding. The General Assembly will then either approve or deny the request. Though approval of the lease agreement is made through separate legislation in the General Assembly, the lease itself is paid each year through the Long Bill appropriations process. Alternatively, Capital Lease projects may be funded exclusively or partially through Certificates of Participation in which a project is funded by outside investors who are in turn repaid by lease revenues paid by agency tenants.	Once appropriations are secured, the agency that requested and received a lease is responsible for the maintenance of the lease. The agency is also responsible for holding the lease, not the OSA.
Tenant Finish Projects (Capital Outlay)	Certain maintenance and construction projects are not required to follow the procedures described above based on their lower cost or value. These Tenant Finish projects are funded through a requesting agency's operating budget as previously approved by OSPB, submitted to JBC, and appropriated as part of the Long Bill. These projects include: • Equipment, furniture, and other hard goods with a useful life of one year or more valued less than $50,000 • Maintenance, alteration, or replacement of buildings valued less than $50,000 • New structures or non-structural improvements to buildings and property valued less than $50,000 Capitol Complex Facilities administers Tenant Finish projects for DPA owned/Capitol Complex managed buildings. Projects are bid and managed by Capitol Complex.					

Requests for Controlled Maintenance

In accordance with statute [Section 24-30-1303 (1) (k.5), C.R.S.], controlled maintenance requests are reviewed and prioritized by the Office of the State Architect prior to submission to the Capital Development Committee and OSPB using the following criteria:

- Level 1: critical projects that predominantly involve life safety issues or loss of use.
- Level 2: projects that are predominantly causing operational disruptions, energy inefficiencies, or environmental contamination.
- Level 3: projects that are predominantly containing differing levels of deterioration.
- Requests for Capital Renewal - controlled maintenance projects valued at more than $2 million per phase.
- Capital renewal funding requests are reviewed and prioritized by the Office of the State Architect prior to submission to OSPB for legislative funding consideration.

Legislative Branch and Judicial Branch Projects

Projects initiated by the judicial branch and the legislative branch, as well as certain projects initiated in the executive branch, may be initiated by specific legislation.

These projects are reviewed by the Capital Development Committee, but are not reviewed by OSPB and are not subject to the specific criteria OSPB requires for project justifications and analyses in support of capital construction requests.

Higher Education Projects

- Capital construction and acquisition projects are initiated by each individual institution of higher education. Statute [Section 23-1-106 (3), C.R.S.] requires institutions of higher education to develop master plans, which must be approved by the institutions' respective governing board and by the Colorado Commission on Higher Education.
- Institutions must prepare program plans to justify their capital construction requests and align their program plans with their master plans.
- Governing boards review and approve the institution's capital construction program plan and ensure the request aligns with the institution's master plan.
- The Department of Higher Education also reviews the institution's capital construction request to ensure alignment with the institution's master plan; if projects are not aligned, the Department will not approve the request.
- If the Department of Higher Education determines that the capital construction request aligns with the institution's master plan, the project is submitted to the Colorado Commission on Higher Education.
- If the institution's capital construction request requires any amount of "State funds," which are primarily general funds deposited in the Capital Construction Fund, the Colorado Commission on Higher Education submits a prioritized list of higher education projects to OSPB for review and inclusion in the statewide prioritized list, and the project is processed in the same manner as the executive branch capital construction requests described above.

CAPITAL ACQUISITION AND CONSTRUCTION FINANCING (PROCESS)

Executive branch agencies receive funding for capital projects by submitting their requests to the OSPB, which prioritizes the projects for review by the CDC. The CDC makes recommendations for project prioritization and submits its recommendations for funding to the Joint Budget Committee for appropriation through the Long Bill.

Statute requires all lease-purchase agreements for real property in excess of $500,000 over the term of the agreement, regardless of whether financed by COPs or "rent-to-own" agreements, to be specifically authorized by a separate bill enacted by the General Assembly other than by the Long Bill or a supplemental appropriations bill. [Section 24-82-801 (1) (a), C.R.S.]

Prior to the State Treasurer executing any lease-purchase transaction, OSPB (for Executive Branch agencies) and the Capital Development Committee must first review and approve the plans for the project. [Section 24-82- 802 (3) (d), C.R.S.] Subsequent lease payments are then annually appropriated in the operating or capital budget. The lease agreement itself is renewed each year through the Long Bill appropriations process.

POLICIES

Centralized Leasing Policy

"Ensure optimum use of State owned and leased space." The Centralized Leasing Policy, effective December 15, 2005, applies to all space acquisitions by executive departments and institutions of higher education whether by lease, sublease, lease/purchase, or license.

It requires all executive branch agencies (with a few exceptions), including institutions of higher education, to work through the Office of the State Architect to acquire leased space. According to the Office of the State Architect, the Centralized Leasing Policy is triggered once an agency's Executive Director identifies a need for leased space and the agency has received an appropriation for its lease costs.

The Centralized Leasing Policy requires the Office of the State Architect to execute a contract with a real estate broker (the"contract broker") to assist with evaluating leased space options in the metropolitan area counties of Denver, Douglas, Arapahoe, Boulder, Broomfield, Adams, and Jefferson as well as for El Paso and Pueblo Counties in southern Colorado.

Note: Judicial and Legislative Branch agencies have authority to manage their own capital acquisition and construction projects without oversight by the Office of the State Architect or OSPB. Additionally, the Judicial and Legislative Branches are not subject to the Centralized Leasing Policy, but may use the services of the Office of the State Architect and its contract broker to assist with procuring leased space if desired.

- Executive Directors of individual State agencies have input on real estate decisions and capital project requests and have authority to make leasing decisions, if funds have been appropriated for that purpose. State agencies are also responsible for managing their own leases, once the agreement has been executed.
- State of Colorado Strategic Real Estate Plan recommends that the State develop comprehensive asset management strategies for the State's real property portfolio with the goal of reducing overall real estate costs and improving the efficiency and utilization of State leased and owned assets.
- Comprehensive Annual Report to the Capital Development Committee. The Office of the State Architect reports on acquisitions, dispositions, lease summaries, and other real estate management issues including ongoing capital construction and controlled maintenance expenditures and major maintenance needs.

Operating Common Policy (Reappropriated Funds)

Certain budget requests are common among government agencies and as a result require a common policy for requested level of funding. In Capitol Complex managed buildings, Operating Common Policy requests cover:

- Basic grounds maintenance, custodial services, property management services
- Capitol Complex security
- Basic building repairs

All agencies within Capitol Complex leased space have specifically appropriated line items in their operating budgets. The Department of Personnel & Administration(DPA) is responsible for developing and submitting the common policy allocations for all state agencies. The allocations, which are reviewed and approved by the OSPB, are submitted to the JBC for consideration and approval. Once the JBC provides its final approval, which would include any of their adopted changes, the final allocations are then appropriated in each agency's Long Bill section under the Capitol Complex Leased Space line item.

DPA provides the requested services through the Capitol Complex Facilities management group. The agencies, in turn, pay the DPA for these services based on the total square footage the agency occupies within the Capitol Complex. The DPA has spending authority in its budget that appears as Reappropriated Funds. Departments outside of Capitol Complex facilities make direct requests for funding that are not coordinated or administered by the DPA.

6.6 - Peer States

A brief summary of Colorado and seven peer states highlighting the key aspects of state-wide and capitol complex organizational structure, legislative process, and funding is provided below. In addition, key aspects of each state's facilities management structure including owned and leased space adjacent to the Capitol Complex, presence of statewide long-range planning, facility condition assessment, space standards, facility management entities, capital and controlled maintenance prioritization processes, and funding methods are highlighted in a diagrammatic form.

Colorado

Arizona

Iowa

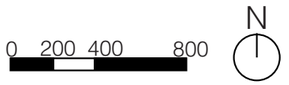
Kansas

Oregon

Texas

Virginia

Wisconsin



Colorado

State Population: 5.2M

Capital City Population: Denver, 600,158

Facilities Management Organization: Decentralized

Capitol Complex Master Plan: December, 2014

For facilities planning and maintenance and the decision making framework specific to Colorado, refer to sections 6.3, 6.4, and 6.5.

The following components were highlighted in the Performance Evaluation of State Capital Asset Management and Lease Administration Practices Audit (November 2012).

Organizational / Governing Structure

A variety of agencies oversees and manages the State's real estate portfolio in a decentralized fashion.

Capital Construction Process

State practices for justifying capital construction requests are not consistent across branches of government.

State mechanisms for tracking, monitoring, reporting on expenditures, project assumptions, and cost savings are inconsistent across agencies and projects. In some cases they do not align with recognized real estate practices.

Funding for Controlled Maintenance

The State lacks sufficient funding for controlled maintenance and, if not addressed, controlled maintenance needs will likely result in higher repair and replacement costs for taxpayers.

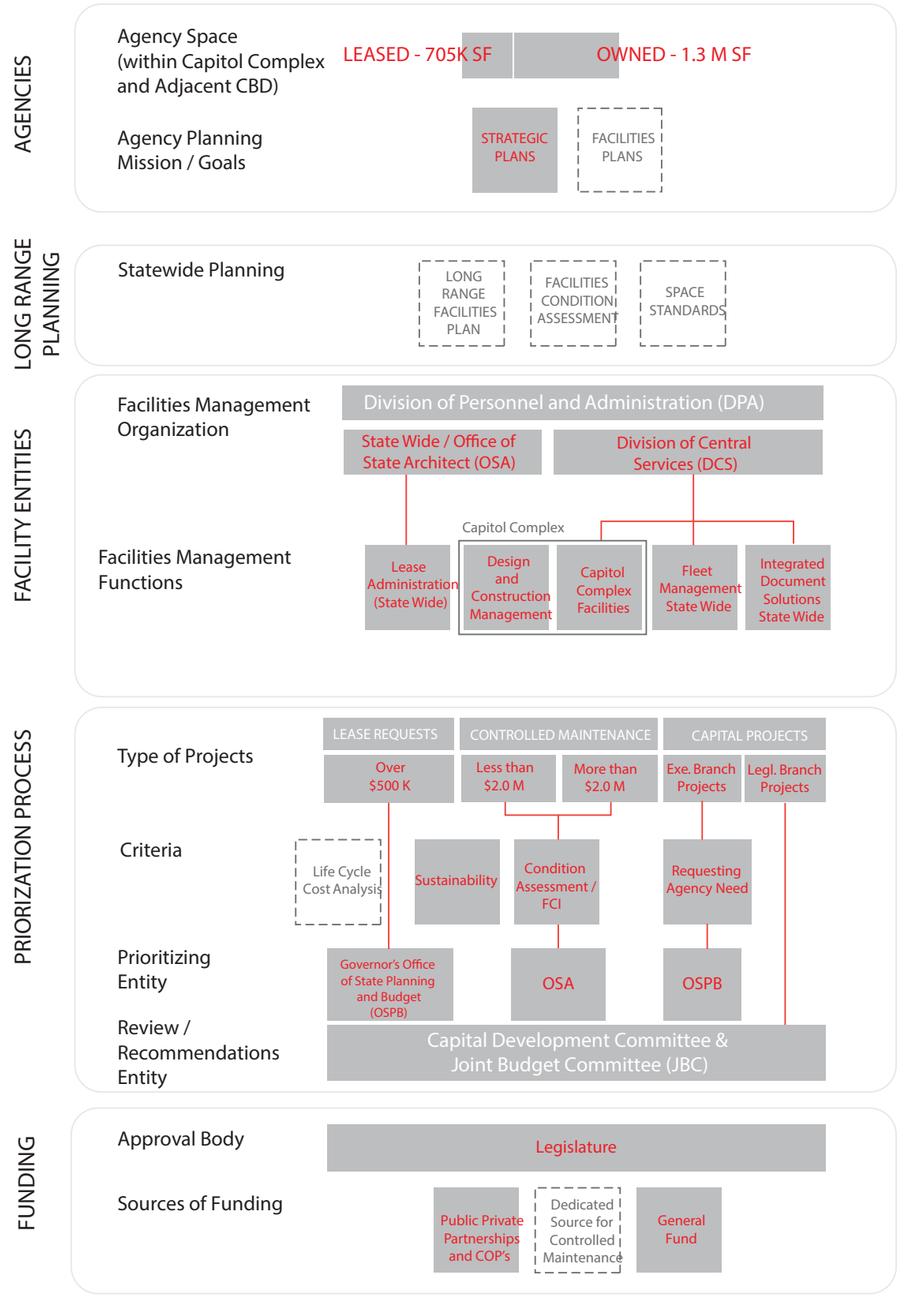
DPA / OSA has proposed the concept of accumulating between 1.5% to 3.0% of building replacement costs as a reserve to the Legislature. This approach has been reviewed, but not been approved.

Long Term Real Estate Planning

There is no statutory requirement for the State to complete a real estate master plan at the State level. Further, there is no statutory requirement that capital construction projects align or comply with master planning documents.

Individual State agencies are required to maintain facilities master plans and no capital construction may commence except in accordance with an approved facilities master plan.

In addition to the above findings, the following additional facility management related issues may require consideration within the context of this master plan.



Arizona

State Population: 6.4M

Capital City Population: Phoenix, 1.5M

Facilities Management Organization: Modified Decentralized

Statutory Authority over Capitol Complex Planning:

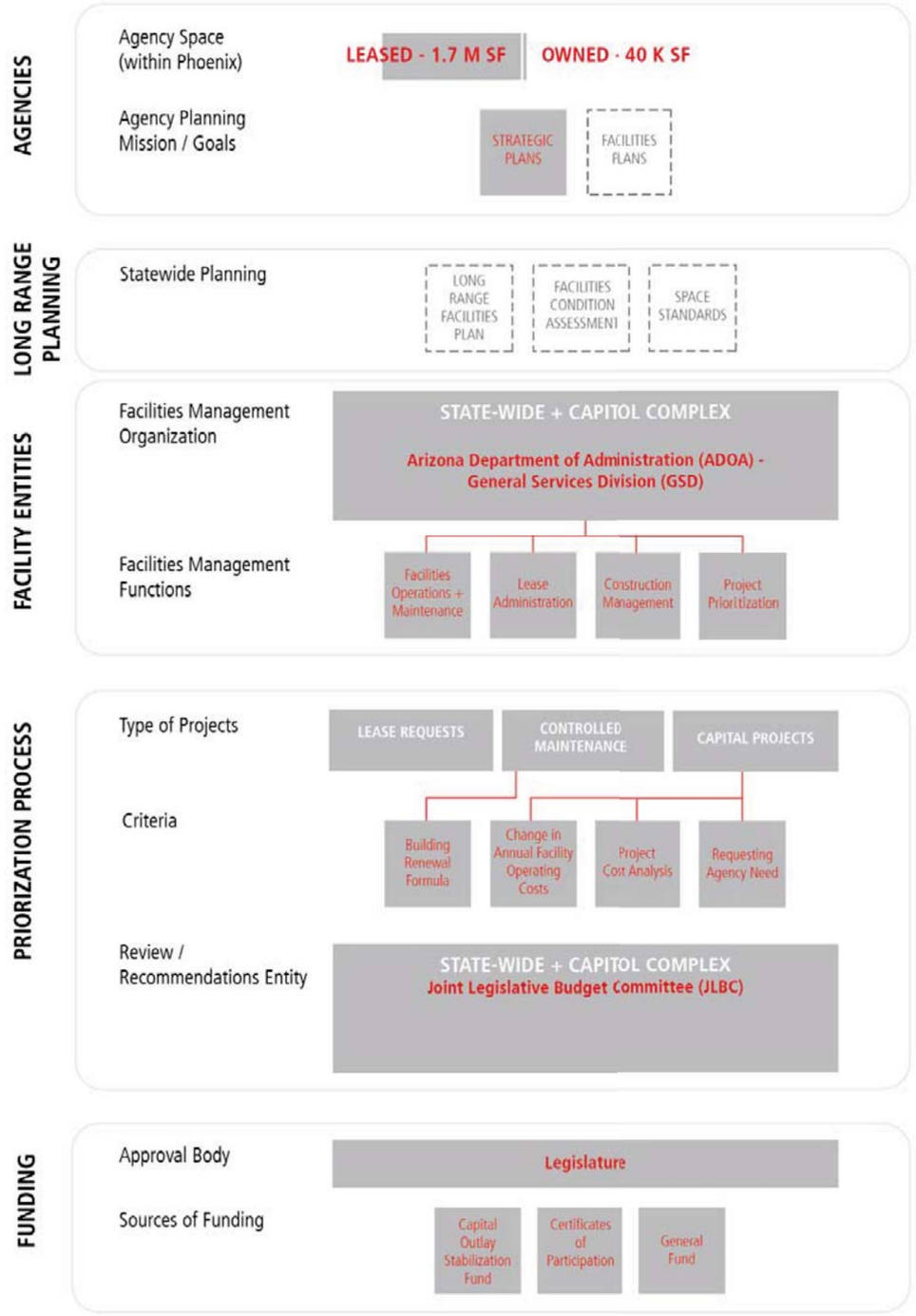
Legislative Governmental Mall Commission

Capitol Complex Master Plan: Last prepared in 1989

The Arizona Department of Administration (ADOA) / General Services Division (GSD) is one of the three (Arizona Board of Regents and Arizona Department of Transportation being the other two) major state building systems within Arizona. The lease-purchase agreements passed in 2010 have changed the ADOA system drastically. These agreements have resulted in increased private sector involvement in the provision of government services, ownership and administrative responsibilities which is currently debated. About 22 facilities were included in the lease –purchase agreements including the Executive Tower, the Legislative buildings, the Department of Public Safety Headquarters, various State prison facilities and other assets of the State. Under the terms of the lease purchase agreements, the lessee is responsible for the general upkeep and maintenance of the property. The lease purchase agreements did not include lease back of the Arizona Capitol Museum.

Building and Planning Services division within GSD provides facilities management services for the statewide real estate portfolio. Legislative Governmental Mall Commission (LGMC) has the statutory authority to provide a comprehensive general plan for the development of the governmental mall. Last Governmental Mall Plan was prepared in 1989 by LGMC. Also, Arizona State Capitol Centennial 2012 Plan/2020 Vision was prepared by Arizona Chapter of American Institute of Architects and Arizona State University recently.

The Office of Strategic Planning prioritizes agencies' five-year Strategic Plans. GSD uses a Capital Improvement Plan (CIP), Building System Inventory (conducted every four years), and a building renewal funding formula to prioritize projects. The CIP prioritization process is used for both Controlled Maintenance (CM) and Capital projects. Recommendations are reviewed by the Joint Legislature Budget Committee (JLBC) and Joint Committee of Capital Review (JCCR). It is notable that CM projects have a dedicated source of funding in Arizona. Major capital projects (land acquisition and new construction) and building renewal projects are funded from the Capital Outlay Stabilization Fund (COSF). A.R.S § 41-792.01 establishes the Capital Outlay Stabilization Fund (COSF) and allows ADOA to collect rents and tenant improvement charges from State agencies occupying State owned space. ADOA does not have a space standard policy.



Iowa

State Population: 3.0M

Capital City Population: Des Moines, 206,688

Facilities Management Organization: Centralized

Statutory Authority over Capitol Complex Planning:

Capitol Planning Commission

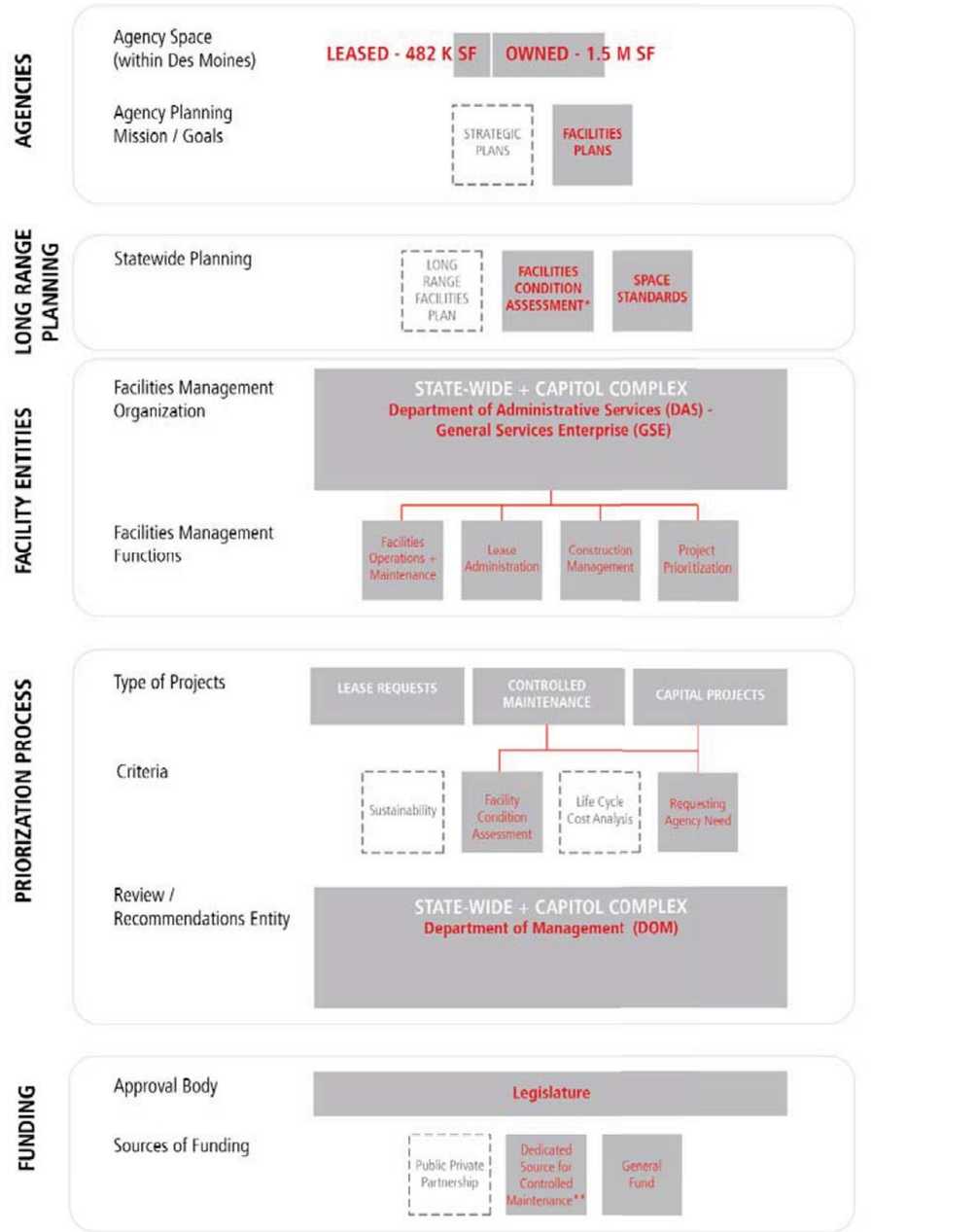
Capitol Complex Master Plan: Last prepared in 2010

Iowa has made an organizational shift in facility management that embraces an entrepreneurial management model. General Services Enterprise (GSE) was established under the Department of Administrative Services (DAS). DAS claims to be the first state government agency in the country to successfully implement entrepreneurial management as a business model. This model requires each state enterprise to operate as a business within state government focusing on customer satisfaction, streamlining operations, saving money, and resource use flexibility.

Central to running an efficient system, Iowa's approach to space management is maximizing the facilities under the State's control for state agencies with an explicitly stated goal of reducing their total leased space holdings to 15% of the State's total space inventory.

DAS / GSE do not prepare comprehensive long-range statewide facilities plans. All agencies submit five-year facilities plan to DAS. However DAS prepares five-year infrastructure plans that include capital construction and renovation funding requests for all state agencies with priorities and ranking of projects. The latest master plan for the Iowa State Capitol was completed in 2010 by the GSE and the Capitol Planning Commission (an update to 2000 Master Plan).

Iowa has established the Rebuild Iowa Infrastructure Fund, a dedicated funding source for Controlled Maintenance, to address the backlog of deferred maintenance that faces the State. Building Renewal funds are allocated on a per agency square footage basis. DAS prioritizes and ranks projects and then recommends them to the Joint Committee on State Building Construction. One of the tools that DAS relies on to help identify project prioritization is the Facility Inventory and Database. In regards to space standard allocations, Iowa uses a tiered space standard policy with guidelines provided per category of position.



* Iowa Vertical Infrastructure Program provides facility condition reports, however the associated Vertical Infrastructure Advisory Committee that provided actionable recommendations was disbanded due to Governor Branstad's Executive Order 79

** Only major maintenance is dedicated through the Rebuild Iowa Infrastructure Fund (RIIF), Tobacco Settlement Trust Fund (TSTF II), Revenue Bonds Capital Funds (RBCF and RBCF 2), regular maintenance is funded through RIIF.

Kansas

State Population: 2.8M

Capital City Population: Topeka, 127,473

Facilities Management Organization: Centralized

Statutory Authority over Capitol Complex Planning: Department of Administration and Capitol Preservation Committee

Capitol Complex Master Plan: No document found, Master Plan currently under development

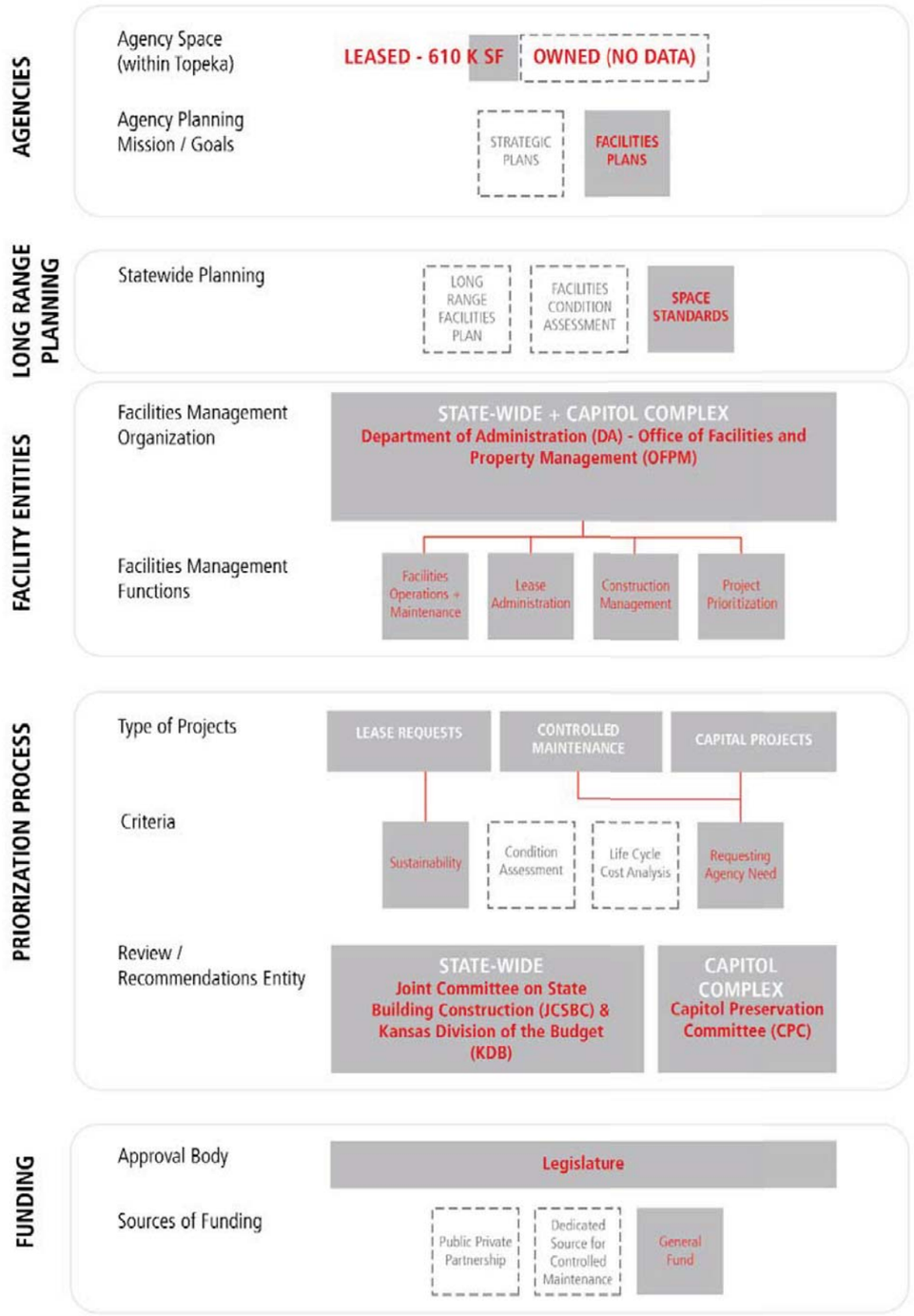
The Department of Administration's (DA) Office of Facilities and Property Management (OFPM) has statutory authority over the state's real estate portfolio and responsibility for the long-term planning for all state-owned or leased buildings and storage spaces. The DA has authority to maintain the Capitol Complex plan in a current state. The DA is currently preparing a new comprehensive Capitol Complex Master Plan. The Kansas Capitol building has undergone recent renovations.

Each agency prepares and submits separate five-year facility plans. Since there is no single State agency appointed to manage, vet, and prioritize proposals, this lack of organization presents an unclear process to seek approval, or establish criteria to aid in determining which projects are eligible and how to prioritize projects to help streamline budgeting and approval processes.

Building renewal budget is calculated based on actual need of agencies. Agencies submit budgets to the Joint Committee on State Building Construction for review as part of the five-year facility plans. Capital projects are reviewed by the Division of the Budget for development of the Governor's recommendations and by Joint Committee on State Building Construction. Office of Facilities and Property Management in the Department of Administration provides technical support to the State Building Advisory Commission.

Kansas has stated that they grant priority to maintaining existing facilities and each project is approved based on actual need. Most projects are funded through direct appropriations in the State General Fund, building funds, and special revenue funds.

Kansas uses a tiered space standard policy with guidelines provided per category of position.



OREGON

State Population: 3.8M

Capital City Population: Salem, 154,637

Facilities Management Organization: Modifi ed Decentralized

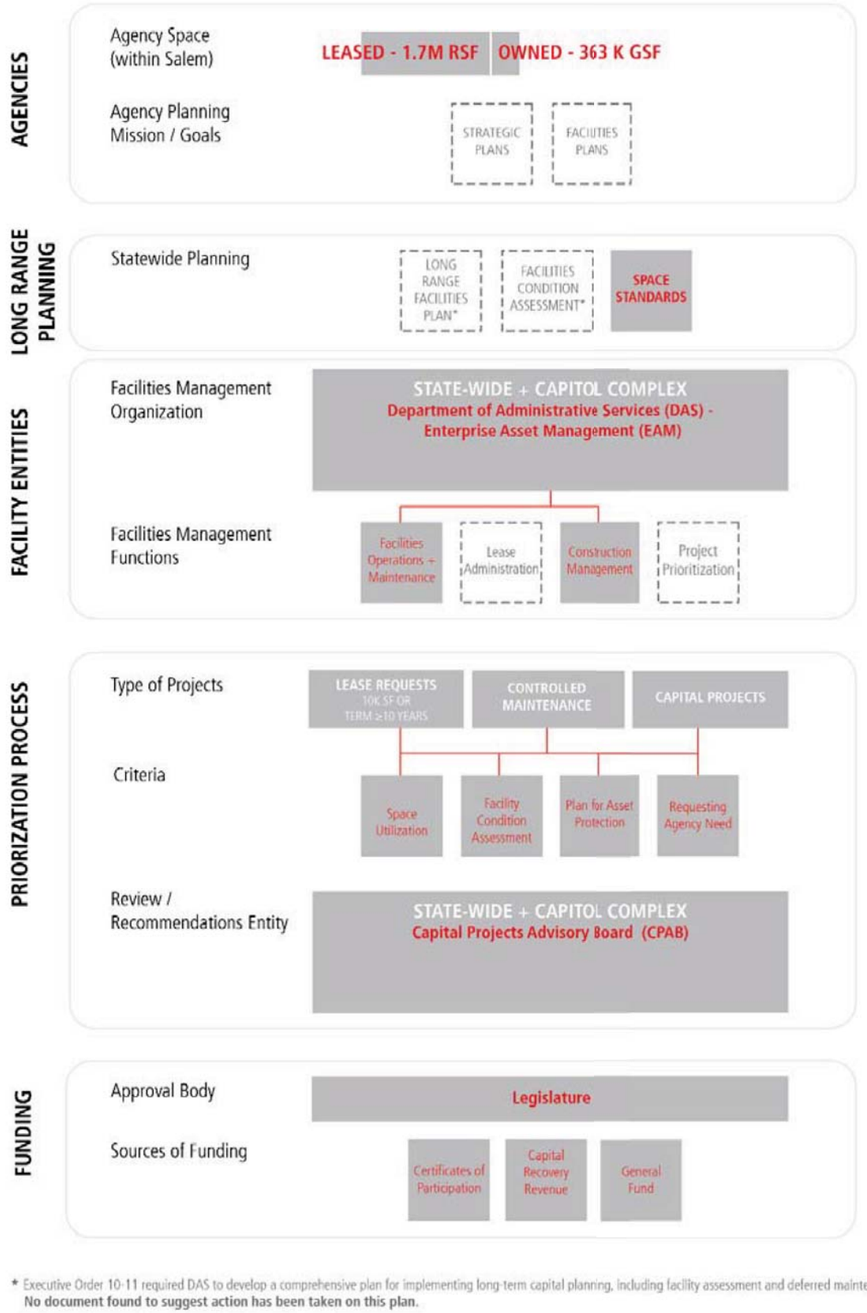
Statutory Authority over Capitol Complex Planning: Legislative Administration Committee

Capitol Complex Master Plan: Area Plan last prepared in 1992, Capitol Building Plan last prepared in 2009

The Department of Administrative Services (DAS) was given a legislative mandate in 1997 to plan, finance, acquire, construct, manage, and maintain state government facilities and to establish a statewide facility management process. The Capital Projects Advisory Board (CPAB) was created at the same time to establish a public review process for the proposed major (above $1 million) capital projects, major deferred maintenance projects, and significant leases (10,000 SF or more) of all state agencies. DAS established State Facilities Planning Process Manual in January 2012 that establishes guidelines and policy framework for the state facilities planning process. The manual provides creation of State Facilities Plan by each agency consisting of an agency's respective space needs, leasing, building maintenance needs, and construction plans to be submitted to CPAB. Due to relatively recent adoption of the Facilities Process Manual, the consultant was not able to access copy of the State Facility Plan to ascertain if the guidelines are in the process of implementation as mandated by legislature.

The Capital Planning Commission (CPC), was re-established in 2009 to review and make a recommendation before a state agency to a proposal for the purchase, construction, or significant change of use of a state building (more than $1 million), within the cities of Salem and Keizer. Additional duties of the CPC include adopting Area Plans and Capitol Mall Area Master Plan. CPC advises DAS on planning and location of state buildings in Salem and Keizer.

Recent Capitol Master Plan was completed in 2009 by SRG Partnership, and was solely focused on the Capitol building. Capitol Mall Area Plan was completed by the Capitol Planning Commission in 1992 by the Capitol Planning Commission.



* Executive Order 10-11 required DAS to develop a comprehensive plan for implementing long-term capital planning, including facility assessment and deferred maintenance. **No document found to suggest action has been taken on this plan.**

Texas

State Population: 26.0M

Capital City Population: Austin, 842,592

Facilities Management Organization: Modified Centralized

Statutory Authority over Capitol Complex Planning:

Texas Facilities Commission and Preservation Board

Capitol Complex Master Plan: Last prepared in 1989, currently a detailed Capitol Complex Master Plan document has been proposed

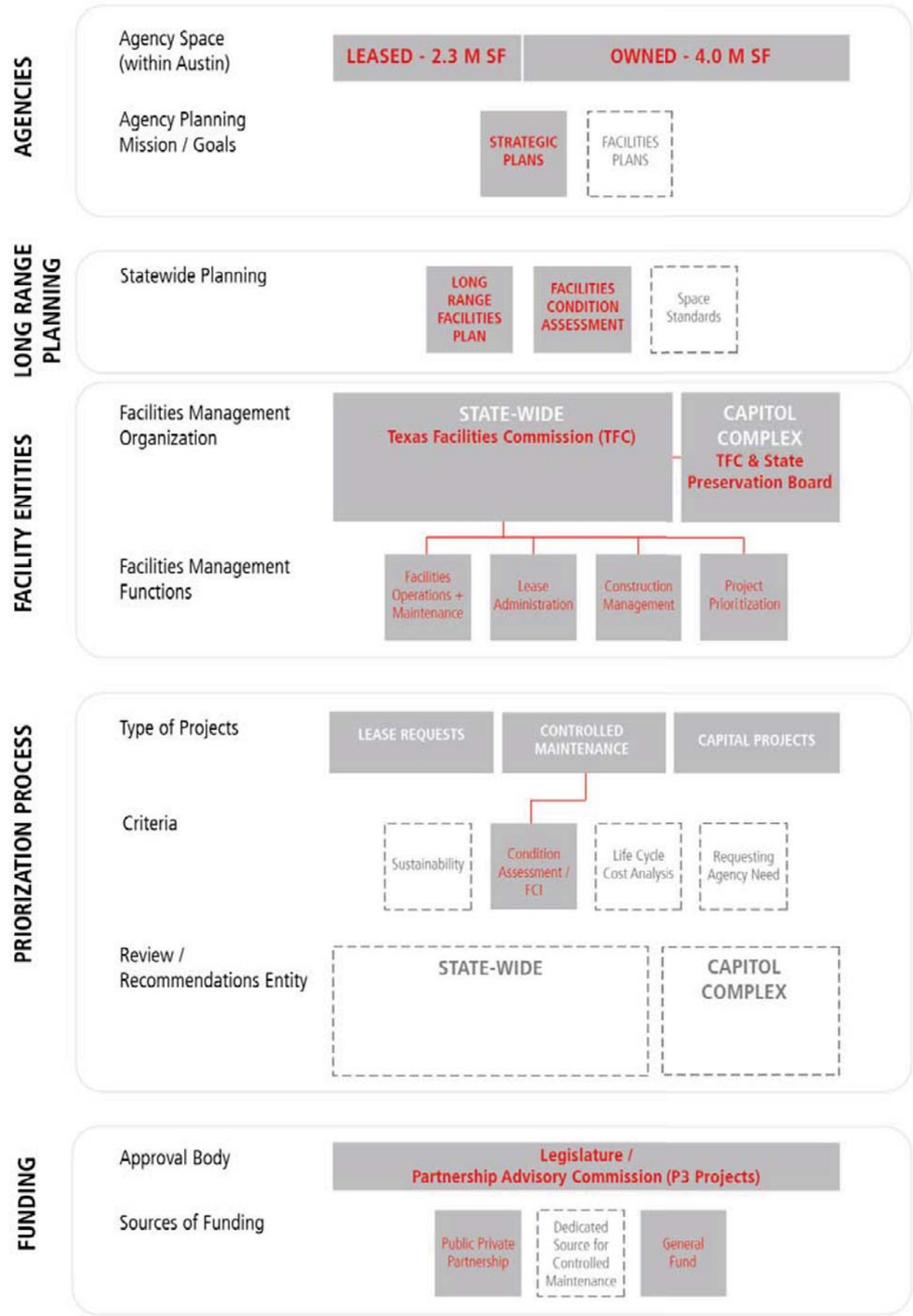
The Texas Facilities Commission (TFC) is a state-wide entity that oversees facilities planning, development, management, and operations. The goal of the TFC is to advance statewide planning by engaging state agencies for long-range planning and facilities condition assessment. The TFC prepares a biennial Statewide Facility Master Plan which assesses and directs long-term asset management and development strategies for state-wide assets.

The TFC relies on robust database and Facilities Condition Index (FCI) information to help prioritize projects for consideration that they submit to the Legislature for approval. State agencies have direct input in the Facilities MP process. TFC issues a Request for Information (RFI) to each agency to which they are required by law to respond. In 2006, TFC performed a comprehensive facility condition assessment that identified an extensive backlog of repairs and renovations for all state-owned office buildings maintained by the agency.

A new building – the Capitol Extension located on the north side of the Capitol, is a four-level underground structure (667,000 GSF) which was completed in 1993 by the State Preservation Board. It was built to provide the Capitol with much-needed additional space. It is connected to the Capitol by three pedestrian tunnels.

General obligation bond funding is usually requested by TFC to fund backlog of deferred maintenance projects. TFC has been at the forefront of Public Private Partnership (P3) land monetization strategy to consolidate leases to the Capitol Complex and at other under-developed state-owned locations within Austin. The Public and Private Facilities and Infrastructure Act, was passed to encourage redevelopment of underdeveloped and underutilized state owned properties.

In the State's Sunset Advisory Commission (2013) Report, TFC has been criticized for lack of coordinated, transparent approach to planning future development of the Capitol Complex, and for its current approach to P3's for its need for additional safeguards to avoid exposing the state to significant risks. TFC does not have space standards.



VIRGINIA

State Population: 8.0M

Capital City Population: Richmond, 204,214

Facilities Management Organization: Centralized

Statutory Authority over Capitol Complex Planning: Department of General Services and Bureau of Facilities Management

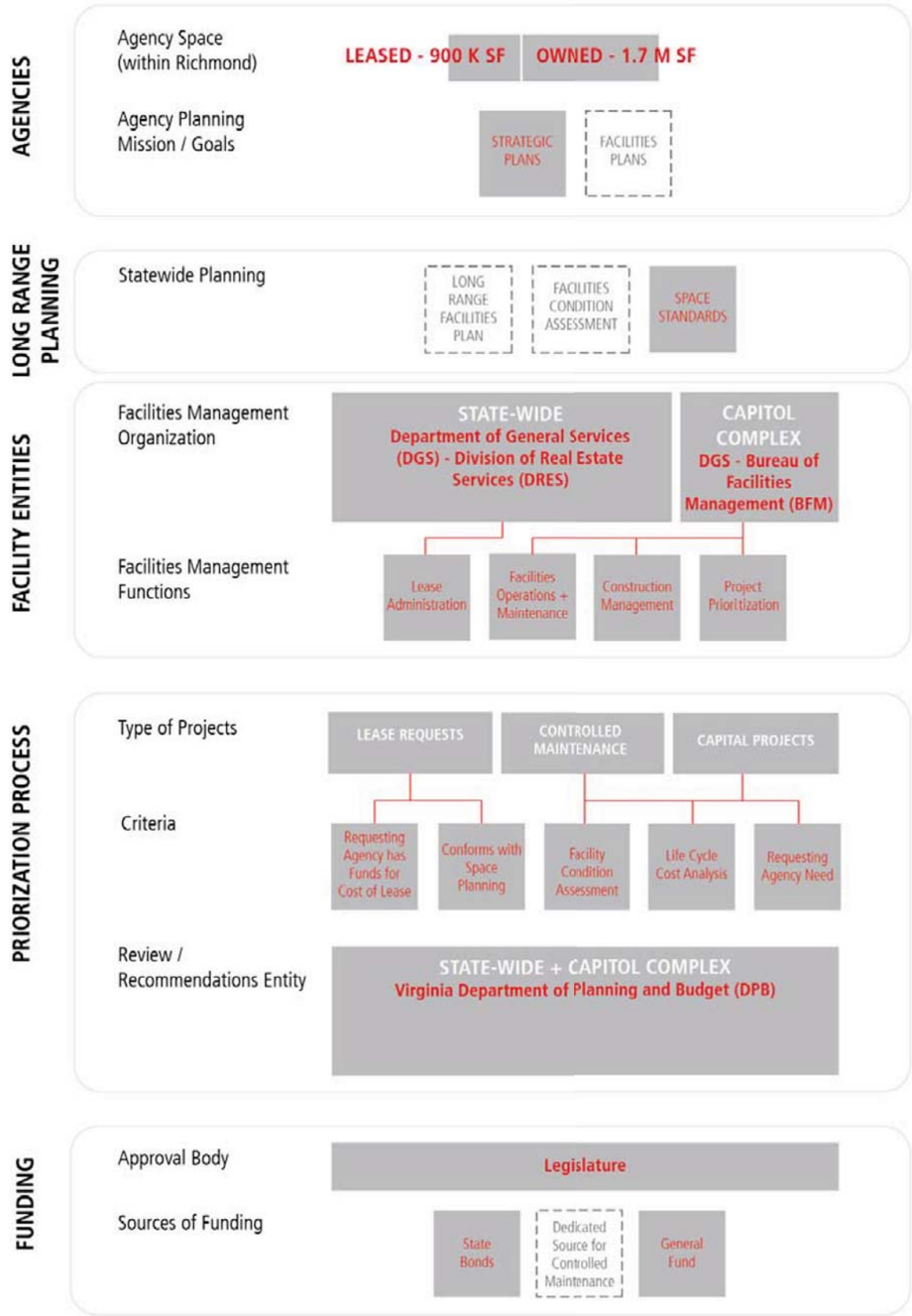
Capitol Complex Master Plan: Last prepared in 2005

The Commonwealth of Virginia's Department of General Services (DGS) – Division of Real Estate Management focuses on State-wide facilities management; this division was created in 2005 to supplement the DGS's Bureau of Facilities Management (BFM) work which is now solely focused on the Capitol Complex and greater Richmond metro area.

DGS or DRES do not prepare statewide plans. Statewide real estate strategic planning was outsourced to CBRE in 2003. Initial statewide plan was prepared by CBRE that included review of agency missions and needs. DRES was formed in 2005 as result of CBRE recommendations. DRES works with agencies to prepare real estate strategic plans since 2008. DGS / BFM prepare comprehensive Capitol Complex Master Plans every five years.

DGS maintains a Facilities Inventory Conditions & Assessment System (FICAS). FICAS is a centralized database with building condition assessment information that provides agencies, the Governor, and General Assembly with an effective capital planning tool. A list of maintenance reserve projects is prepared for the six year plan by the DGS and submitted to the Department of Planning and Budget (DPB) for capital projects and maintenance reserve budgetary purposes. DGS and DPB use FICAS to manage and prioritize capital project and maintenance reserve requests in consultation with agencies.

Controlled maintenance and capital projects must consider facilities condition assessment, life-cycle cost analysis, and requesting agency's need. DPB then submits prioritized list to the Legislature for their review and approval. Central Capital Outlay serves as a capital maintenance, construction, and renovation 'holding account' to better manage state resources including general fund and non-general fund cash, tax-supported debt, and revenue bonds. Budgetary process requires agencies to provide a Master Plan and multi-year Capital Development Plan in a biennial budget capital outlay request to the General Assembly. Approval by the State Division of Engineering and Buildings is required before a project can proceed from one design stage to another.



Wisconsin

State Population: 5.7M

Capital City Population: Madison, 233,209

Facilities Management Organization: Centralized

Capitol Complex Master Plan: No document found

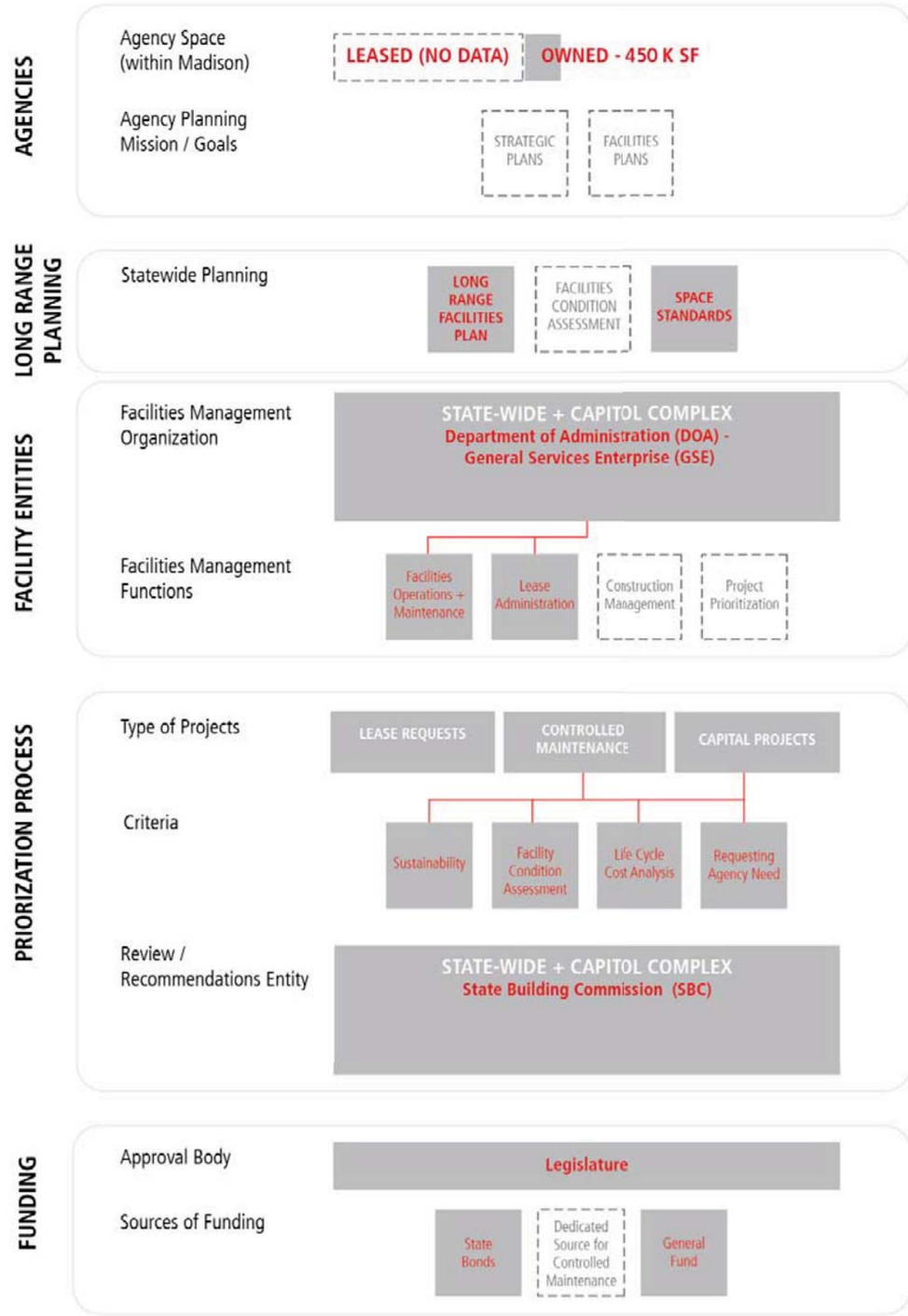
Wisconsin's Department of Administration (DOA), Division of State Facilities (DSF) is divided into two functional units: the Division of Facilities Development (DFD) and the Division of Facilities Management (DFM).

DFD oversees all aspects of planning, facility management, and capital investment for the State's real estate portfolio, but requires Wisconsin Building Commission approval for all projects greater than $185,000. DFM assists tenants, customers, and vendors in state facilities by providing building management, custodial services, craftwork, heating and power plant operations, energy conservation, LEED EB, sustainability, and emergency planning. DSF's purview includes both state-wide and Capitol Complex facilities.

The State of Wisconsin Building Commission (WBC) oversees the planning, improvement, major maintenance, and renovation of state facilities. WBC is an eight-member body consisting of the governor, three state senators, three state representatives, one citizen member and three non-voting advisory members from the DOA.

The Administrative Affairs Subcommittee of the WBC is responsible for reviewing building program requests of all non-higher education state agencies. The powers and responsibilities of the Commission were enlarged in 1969 to include the supervision of all matters relating to the contracting of public debt. The DOA's Division of State Facilities provides technical and administrative staff support to the WBC, while the WBC provides criteria for capital projects, building renewal, and controlled maintenance for agencies.

WBC prioritizes capital projects and then submits them to the Legislature for their consideration and approval. The criteria for controlled maintenance and capital projects include: sustainability, facilities conditions assessment, life-cycle cost analysis, and requesting agency's need. DSF uses a tiered space standard where space per FTE employee is allocated by virtue of position.



6.7 - Best Practices States

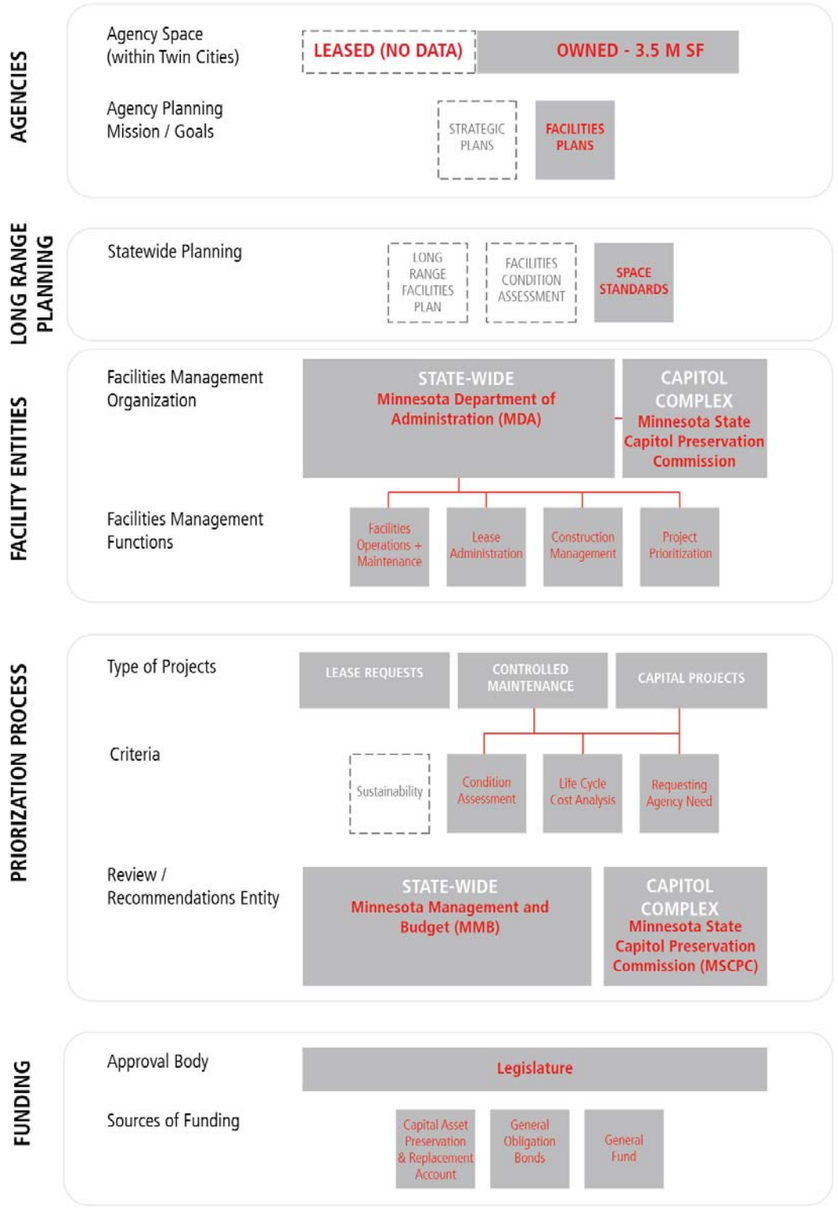
Based on the research and comparative analysis of the peer states, interviews with the respective state facility management officials of the three best practice states – Minnesota, Utah and Washington – were conducted following the preliminary benchmarking research. These interviews helped confirm the research findings and provided an understanding of how these states manage and operate their respective facilities portfolio, particularly within the Capitol Complex, prioritize future capital construction, building renewal and controlled maintenance projects, and plan for future space needs.

A brief summary of each best practice state highlighting its key aspects of state-wide and capitol complex organizational structure, legislative process, and funding is provided below. In addition, key aspects of each state's facilities management structure including owned and leased space at the Capitol Complex, presence of statewide long-range planning facility condition assessment, space standards, facility management entities, capital and controlled maintenance prioritization processes, and funding methods are highlighted in a diagrammatic form.

Minnesota

Utah

Washington



MINNESOTA

State Population: 5.3M

Capital City Population: St. Paul, 285,068

Facilities Management Organization: Modified Centralized

Statutory Authority over Capitol Complex Planning: Plant Management Division

Capitol Complex Master Plan: Prepared in 2013, focused on capitol building

State of Minnesota is comparable in population to the State of Colorado thus providing an interesting comparative analysis. The Minnesota Department of Administration (MDA) and the Plant Management and Real Estate and Construction Services (RECS) teams maintain, operate, and manage all State real estate assets and construction projects.

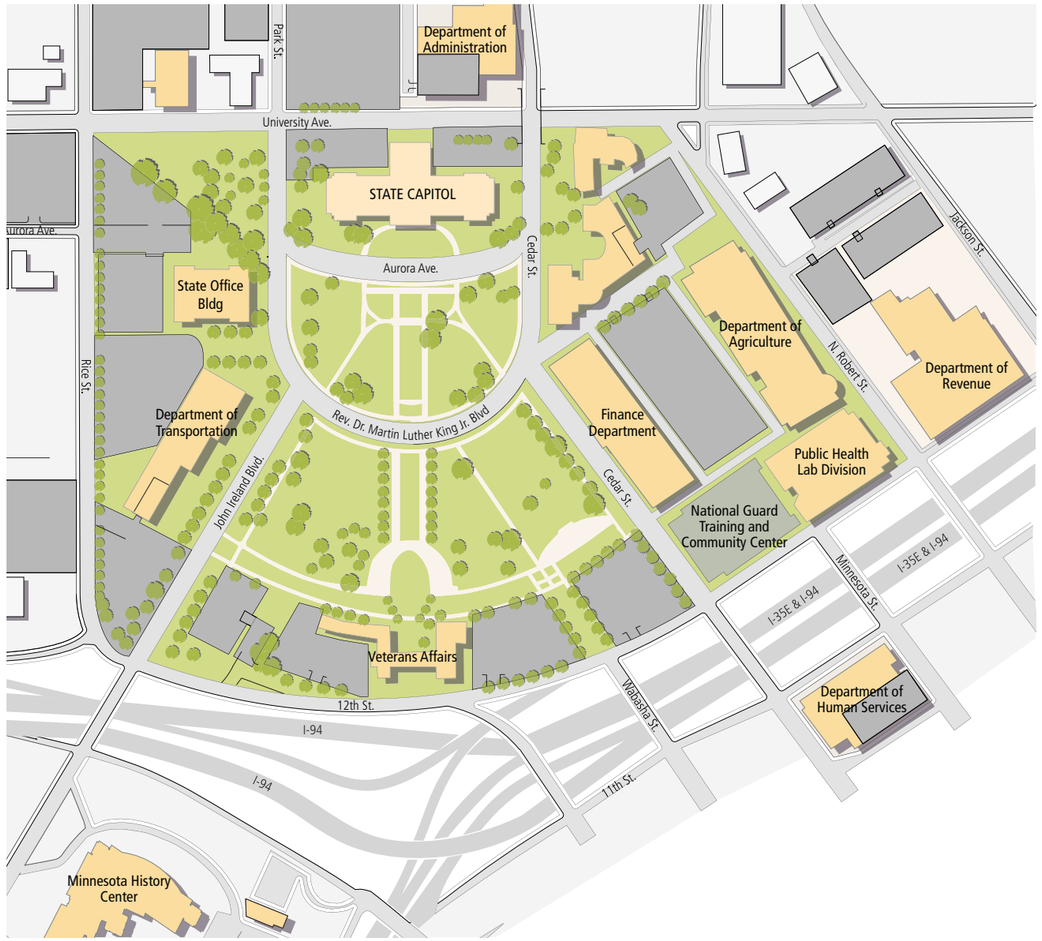
Planning at the Capitol Complex is conducted by either the Capitol Area Architectural and Planning Board (CAAPB) or Minnesota State Capitol Preservation Commission (CPC). The CAAPB is mandated to develop a comprehensive use plan for the Capitol Complex. The 1998 Comprehensive Plan for the Capitol Complex was updated in 2003 by the Planning Board. The CPC is mandated to develop a comprehensive plan for the restoration of the Capitol building. Capitol report was prepared by the CPC in 2013 that identifies maintenance obligations and space requirements.

Despite the lack of state-wide facilities planning, a one-time State Facility Audit was prepared. Minnesota links agency strategic plans with budget process and requires agencies to include controlled maintenance requests as part of their budget planning consideration. Agencies are expected to submit long-term plans for capital budget requests to the Minnesota Management and Budget (MMB). Long term plans are then linked to capital budget process by MMB. A backlog of Controlled Maintenance is funded by a dedicated funding source utilizing primarily general obligation bond funding; by statute this is set at 1% of current replacement value. MDA provides criteria for approval in the form of a comprehensive checklist which includes project impacts as a criterion. MMB applies these criteria to state-wide efforts. MMB expects agencies to identify, for each capital request, the project's impact on the agency's operating budget over the next six-years.

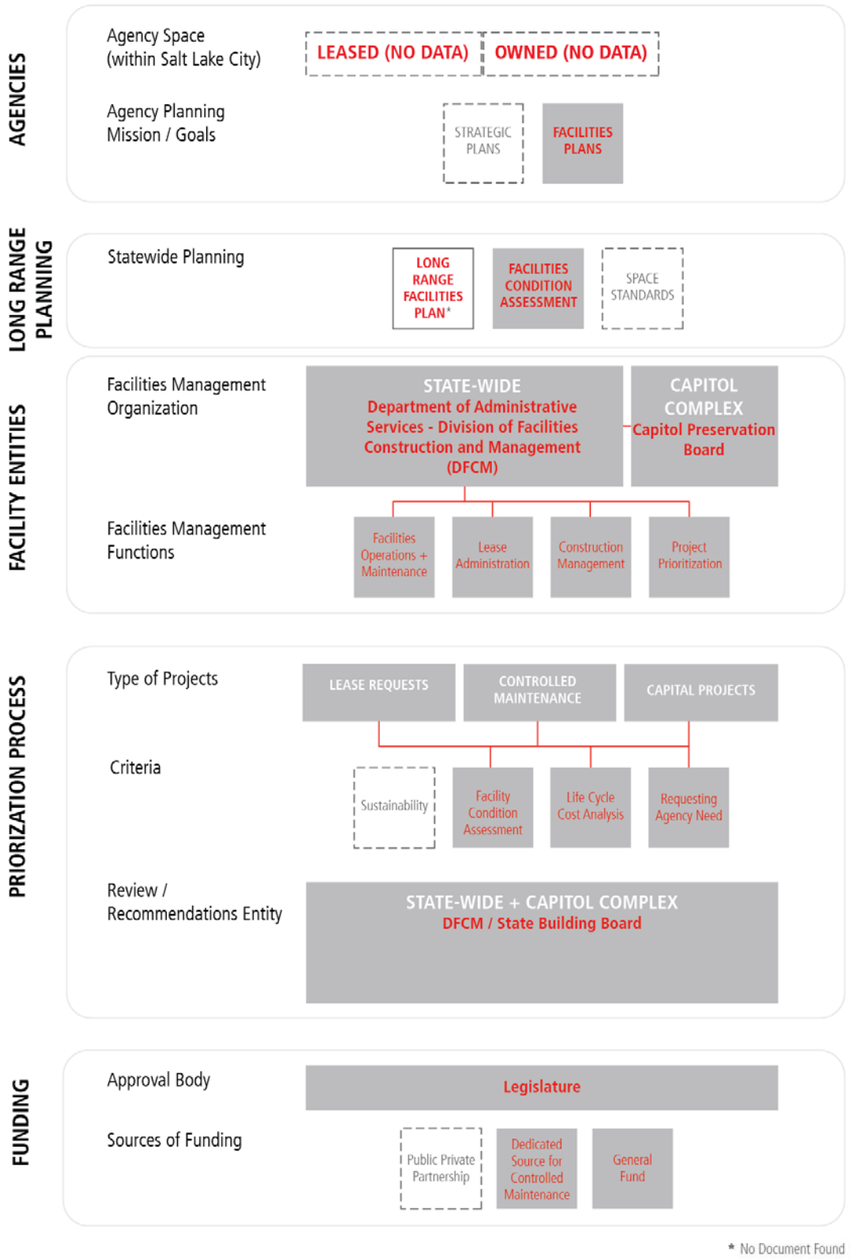
Minnesota has established innovative space standards that acknowledge and embrace the evolution of the workplace. These standards anticipate the shifts in workforce and work place which include designation of spaces for "resident" and "mobile" employees. The space standards assign space based on the specific need, promotes flexibility and adaptability, while economizing space need by driving up space utilization rates.

Additional details about Minnesota's facilities management organization were collected from the interviews with the Minnesota Department of Administration (MDA) and Real Estate and Construction Services (RECS) divisions. The Following aspects of Minnesota's facility management structure were identified as best practices relevant for the State of Colorado:

- Modified centralized organization structure of the Minnesota DAS.
- Linking of long range plans to the capital budget process by the MMB.
- Streamlined process set by the MMB for approving capital budget requests with a comprehensive checklist to be submitted by the requesting agency.
- Application of innovative space standards based on need and flexibility.
- Use of Enterprise Real Property System (Archibus) – A facility management system is being used by Minnesota that has helped standardize the Facility Conditions Assessment process throughout the state. All agencies are required to prepare FCA through Archibus System.



Minnesota Capitol Complex Site Plan



* No Document Found

UTAH

State Population: 2.85M

Capital City Population: Salt Lake City, 189,314

Facilities Management Organization: Centralized

Statutory Authority over Capitol Complex Planning: State Capitol Preservation Board

Capitol Complex Master Plan: No document found, however State Capitol Board is obligated to prepare a long-range plan of the complex annually

Utah's Department of Administrative Services (DAS) - Division of Facilities Construction and Management (DFCM), State Building Board, and Capitol Preservation Board work in concert to develop a plan and budget in a streamlined fashion. The Division of Facilities and Construction Management have statutory authority over the allocation of appropriations for the State's real estate capital expenditures, asset portfolio, and responsibility for the annual maintenance of a five-year capital development plan.

Utah State Building Board is required to develop and maintain a five-year plan that includes a priority list of capital development with additional detail for projects within the first two years. State Capitol Preservation Board is required to prepare and submit "long range master plan for the capitol hill complex, capitol hill facilities, and capitol grounds annually."

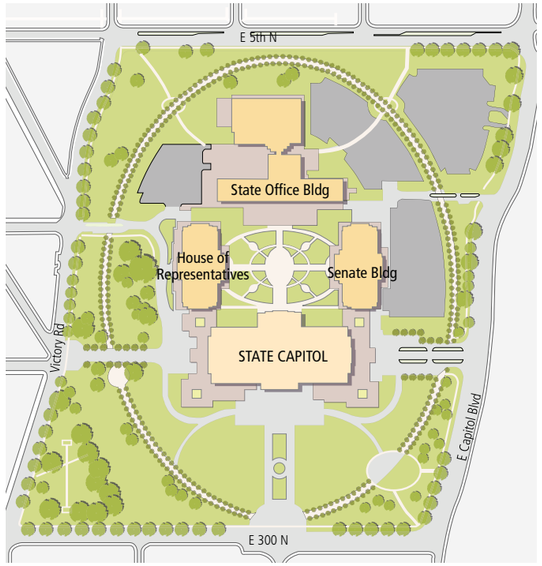
Utah has developed a robust list of criteria for capital projects, building renewal, and controlled maintenance projects. They include: the requesting agency's need; facility condition assessment that is performed by a third party; and life cycle cost analysis. DFCM and the State Building Board apply the criteria to the projects under review to help prioritize projects that are recommended to the Legislature for their budgetary approval.

Utah is also proactive in regards to controlled maintenance by allocating 1.1% (although some national studies indicate that higher levels of funding in the range of 2-4% are more realistic) of the replacement value of its existing building assets to address the building maintenance backlog and funding. State statute sets annual funding at 1.1 percent of the replacement value of state-owned buildings for the capital improvement program. This equates to approximately $95 million.

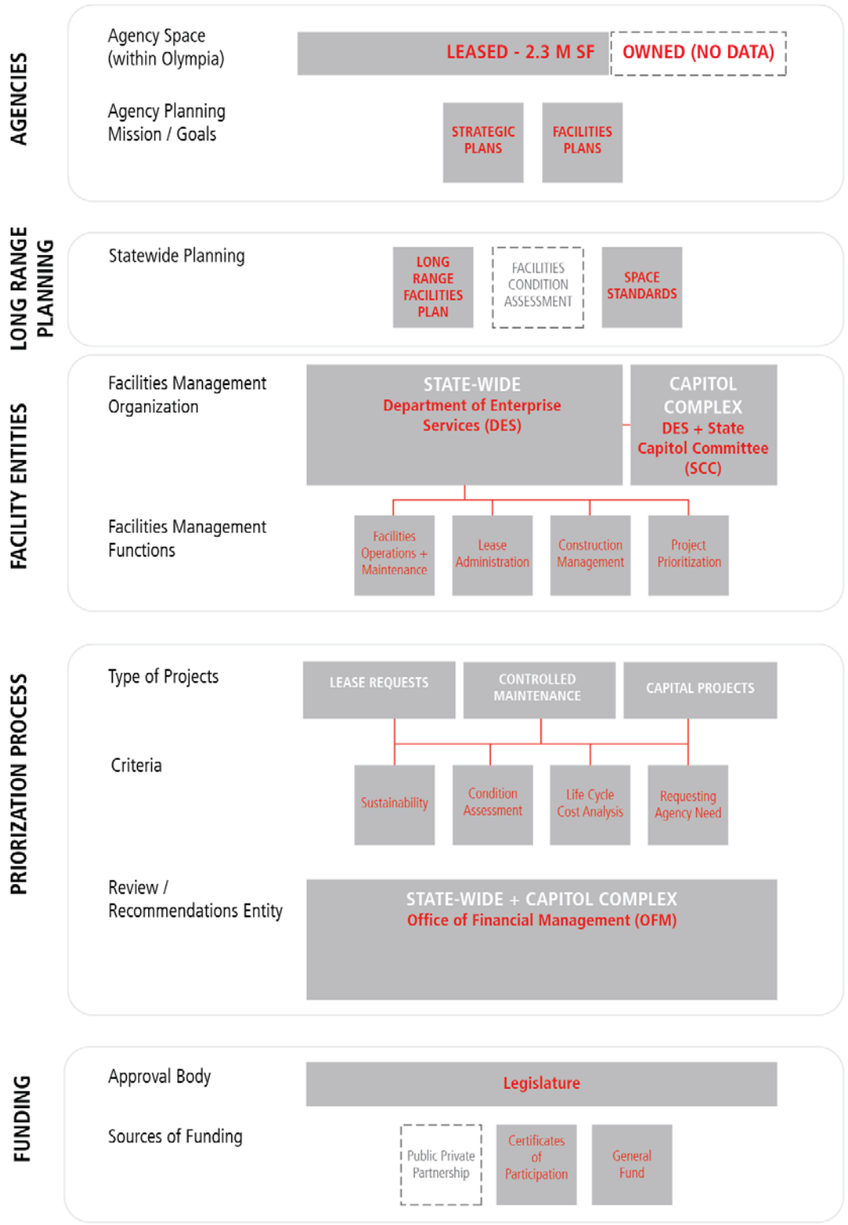
annually; however, the legislature has not always appropriated the full amount needed to address all of the immediate repairs that are needed. DFCM does not have space standards.

Additional details about Utah's facilities management organization were collected from the interviews with Utah's Department of Administrative Services (DAS) Division of Facilities Construction and Management (DFCM). The following aspects of Utah's facility management structure were identified as best practices relevant for the State of Colorado:

- Centralized facility management structure with Utah State Building Board and DFCM working in tandem. The State Building Board provides guidance on facilities use, maintenance standards, and design standards and oversees Facility Condition Assessment process.
- Utah has a dedicated source of revenue to fund controlled maintenance projects (1.1% of the replacement value of existing buildings).
- Utah has succeeded in integration of Facility Condition Assessment process (FCA) with the five year planning process and with the capital budget approval process for identifying project priorities and decision making process. FCA program is funded by the Utah legislature.
- Use of Facility Management System (AIM through Assetworks) to produce and monitor facility data and metrics.
- Utah is currently in the process of updating statewide space standards.
- Each agency prepares a facility master plan and capital budgets with assistance from DFCM.



Utah Capitol Complex Site Plan (additional state-owned office buildings in adjacent downtown Salt Lake City)



WASHINGTON

State Population: 6.73M

Capital City Population: Olympia, 46,478

Facilities Management Organization: Centralized

Statutory Authority over Capitol Complex Planning: Department of Enterprise Services, with input from State Capitol Committee and Capital Campus Design Advisory Committee

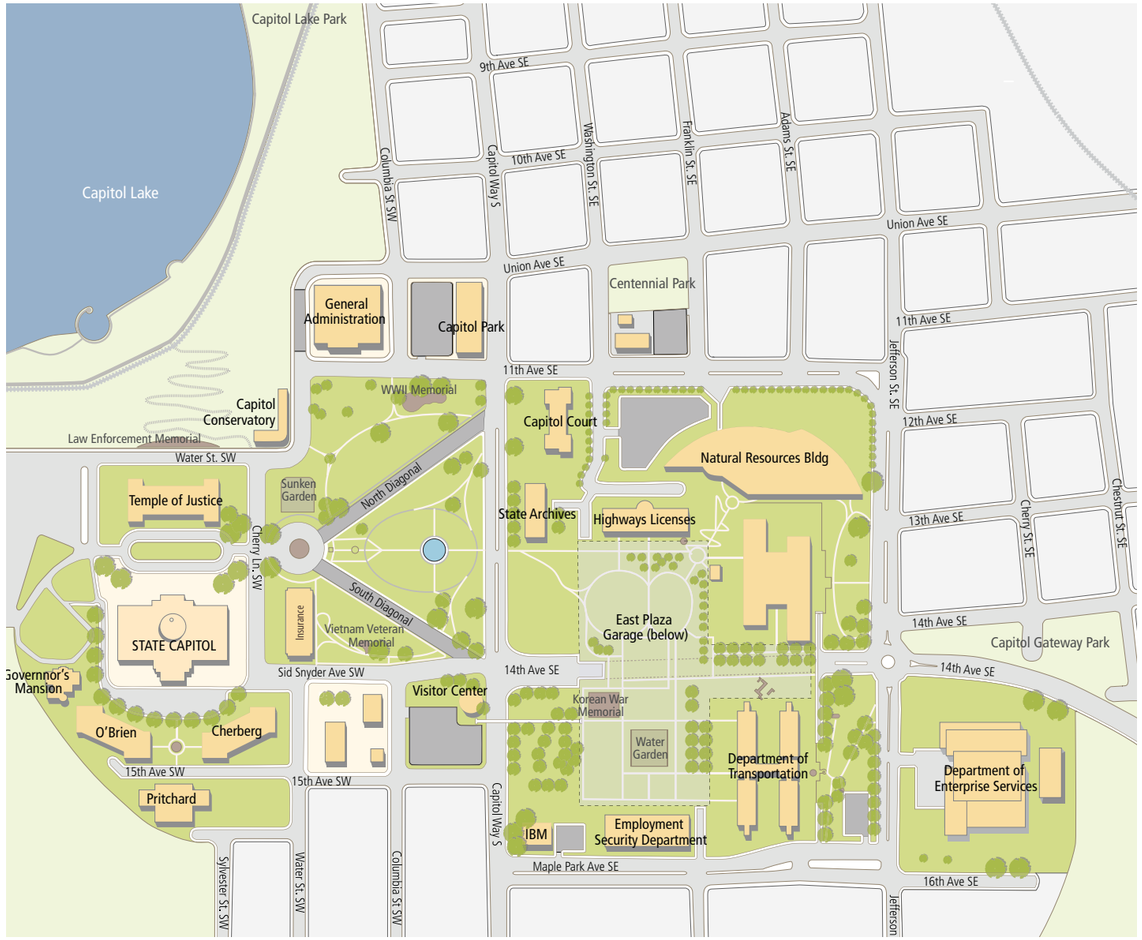
Capitol Complex Master Plan: Last prepared in 2006, ostensibly updated biennially

The State of Washington has developed a series of concerted planning initiatives to manage the State's portfolio of building assets. Agencies are required to submit a strategic plan and facilities plan every two years. In 2011, the State created the Department of Enterprise Services (DES) to manage the process of folding these plans into a long range state-wide facilities plan. For facilities that are part of the Capitol Complex, DES works in conjunction with State Capitol Committee (SCC) to determine its needs.

DES centralizes and streamlines all facility related functions such as: facilities operation and maintenance, lease administration, construction management, and project prioritization. The Office of Financial Management Facilities Oversight Unit (OFM) prioritizes the list of projects that are submitted to the Legislature for their consideration and approval. The OFM then applies a set of criteria including but not limited to: sustainability, condition assessment, life-cycle cost analysis, and requesting agency's need. This set of criteria is often considered by peers and industry analysts to be an example of best practice. DES uses uniform space standard per FTE employee.

The following aspects of Washington's facility management structure were identified as best practices relevant for the State of Colorado:

- Capitol Complex Master Plans used to prioritize and help in the decision making process (2006 master plan is currently being updated).
- Centralized facility management structure with DES and Office of Financial Management Facilities Oversight Unit working in tandem. OFM oversight unit was created by the Legislature to strengthen OFM's oversight role.
- Washington is using an alternative financing structure under Internal Revenue Service (IRS) 63-20 rule. This alternative method of financing government and nonprofit construction projects uses tax exempt debt. Created under IRS ruling #20 from 1963, it was revised by a new IRS procedure (82-26) in 1982. It allows for a nonprofit corporation to be set up for the sole purpose of issuing tax exempt bonds and to enter into a development agreement to construct a facility, for a tax exempt purpose, for the government.



Washington Capitol Complex Site Plan

Table Comparing Facility Management Organization and Other Relevant Facts of Minnesota, Washington and Utah

CATEGORY	MINNESOTA	UTAH	WASHINGTON
LEASED AND OWNED FACILITIES (STATEWIDE)			
Leased Space	30%	10%	40%
Owned Space	70%	90%	60%
FACILITIES CONDITIONS ASSESSMENT PROCESS			
Purpose	Asset preservation/ Condition rating	Used as a baseline for the five-year plan	Strategic Improvements
Facilities Conditions Assessment	Contracted- Facility Engineering Associates (FEA)	Contracted- Faithful and Gould	In Progress (2013)
FACILITY MANAGEMENT SYSTEM			
	All facility management functions and data is tracked	To produce and monitor facility data and metrics	N/A
Facilities Management Software	State of Minnesota Enterprise Real Property System (Archibus)	AiM Capital Project Management (Assetworks)	N/A
SPACE STANDARDS			
	Innovative space standards that embrace the evolution of workplace	Utah State Space Standards (1994) in the process of updating	GA's Space Allocation Standards Policy Manual
FACILITIES MANAGEMENT ORGANIZATION STRUCTURE			
Management of State Facilities	Modified Centralized	Centralized	Centralized
State Facilities Commission / or Board / Agency	Minnesota Department of Administration (MDA) - Real Estate and Construction Services Division	Department of Administrative Services - Division of Facilities Construction and Management (DFCM) - Construction Division - Energy Office - Land and Real Estate - Facilities Management	Department of Enterprise Services (DES) - Capitol Campus - Real Estate Services - Maintenance & Operations - Construction & Public Works - Energy Services - Washington State Building Code Council
Entity Managing Facilities within Capitol Complex	Plant Management Division - Buildings and Grounds/ Parking	State Capitol Preservation Board	State Capitol Committee (SCC) Capitol Campus Design Advisory Committee (CCDAC)
Agency with Statutory Authority to Oversee Planning and Development of Capitol or Capitol Complex	Capitol Area Architectural and Planning Board (Capitol Complex) Minnesota State Capitol Preservation Commission (Capitol)	State Capitol Preservation Board Utah State Building Board	Department of Enterprise Services (DES) with advice from SCC and CCDAC
FACILITIES OPERATIONS AND MAINTENANCE			
	Lease rate is different for each building because debt service is included	Lease rate charged by DFCM varies building by building - Average $8/SF	Lease rate currently $12.16 (includes capital budget surcharge for major maintenance of $2.39 which funds building operations among other issues)
PLANNING			
	Capitol Area Architectural and Planning Board (CAAPB)	Each institution	Department of Enterprise Services (DES)
Statewide Plans	N/A	N/A	2013-19 Six-Year Facilities Plan (2013)
Capitol Complex Plans	The Minnesota State Capitol Building Comprehensive 20 Year Master Plan (2012)	N/A	Master plan for the Capitol of the State of Washington (2006) - Currently being updated
Plans or Reports from State Facilities Commission / or Board / Agency	Capitol Area Architectural and Planning Board Biennial Report 2014-2015 The Zoning and Design Rules (2010)	2013-2017 Five-Year Building Program For State Agencies and Institutions (2012) A Performance Audit of State Buildings and Land (2014)	Facilities Inventory System Report(2013)
Agency Master Plans are Linked to Strategic Plans	Yes - Capital Budget Process	Yes - for the Project Requests	Yes - The Strategic Business Process Map

CATEGORY	MINNESOTA	UTAH	WASHINGTON
PROJECT PRIORITIZATION, FUNDING and FINANCING			
Funding for Capital Development Projects	General obligation bonds	General fund (Tax Revenues)	General obligation bonds and other dedicated revenues
Funding for Controlled Maintenance	Minnesota utilizes general obligation bonds for Asset Preservation projects with the amount set annually at 1% of current replacement value. Capital Asset Preservation and Replacement Account (CAPRA) is used for emergency funding	Utah has a dedicated source of revenue from the general fund to fund controlled maintenance projects set at 1.1% of the current replacement value	General obligation bonds and other dedicated revenues
Public Private Partnerships	None	None	Yes- using certificates of participation (COP) and lease purchase or lease development etc. Washington is using an alternative financing structure under Internal Revenue Service (IRS) 63-20 rule
Who Prioritizes (State Capital Budget Board or any other)	Minnesota Management and Budget (MMB)	Utah State Building Board	Office of Financial Management (OFM)
Board / Commission Composition	Commissioner of Minnesota Management & Budget is appointed by the Governor. MMB has about 250 employees	Composed of eight members, seven of which are private citizens appointed by the Governor, and the eighth being the ex-officio member from the Director of the Governor's Office of Planning and Budget. Staff assistance to the Board is provided by the Division of Facilities Construction and Management (DFCM)	OFM director is appointed by the Governor. OFM assesses the performance of state agencies, provides tools and technical assistance to agencies to help improve performance, and manages the Priorities of Government (POG) budget process
Who Initiates Capital Budget Requests (All Agencies or Single Agency)	Agencies are expected to submit long-term plans for capital budget requests to MMB	Division of Facilities Construction and Management (DFCM) submits priority projects to Building Board	All agencies submit request to OFM
Criteria to Approve Capital Projects (Statewide and/or Within Capitol Complex)	A comprehensive checklist (See State of Minnesota Capital Grants Manual, 2012 for the full list)	Weighted Criteria (See Building Board - Capital Development Request Evaluation Guide, 2004)	Capital Plan Instructions
Policies / Criteria to Monitor Approved Capital Projects	Yes - Minn. Stat. Sec. 16A.695, subd. 5	No	Yes- Capital budget requests are required to include operating budget impacts. Once budgets are approved, OFM monitors
Capital Budget Requests Provide Life Cycle Costs	Minnesota Management & Budget expects agencies to identify, for each capital request, the project's impact on the agency's operating budget over the next six years	Guiding Principle - from the highest priority projects listed in DFCM's Condition Assessment reports	No

6.8 - State Capitols Case Studies

For this Capitol Complex Master Plan, the consultant team evaluated state capitol buildings in the eleven states to determine among other data the extent of renovation and/or restoration, examples of utilization of “found space” within the building, and whether or not the Capitol Complex had a legislative office building in addition to the Capitol.

CAPITOLS CASE STUDIES


Colorado


Texas


Iowa


Utah


Kansas


Minnesota


Oregon


Arizona


Virginia


Washington


Wisconsin

COLORADO STATE CAPITOL

CAPITOL COMPLEX

Location: Denver, CO

Area: 52 Acres

CAPITOL

Built: 1886-1898

Area: 220,000 SF

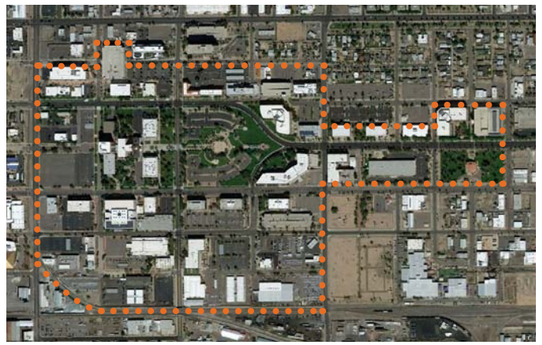
Architect(s): Elijah E. Myers

Renovated: 2006 - 2015 (ongoing)

Renovation of Capitol includes following projects:

- The Life Safety Renovation project (complete fire sprinkler and smoke detection system and exit stair extensions) was completed in 2006 for a total cost of $27 million.
- The Dome Restoration project was completed in 2014 for a total cost of $17 million.
- Currently the House and Senate chambers are being restored for a total of $6.2 million to be completed in 2015.
- A large committee hearing room is being constructed on the second floor for $1.6 million with completion in 2014.
- Starting in January 2015, 44 House and Senate members will office in 1525 Sherman Building - an office building that they share with the Department of Personnel & Administration and the State Auditor’s Office.
- Six members of the Joint Budget Committee office in the Legislative Services Building and the other 50 members office in the Capitol.

ARIZONA STATE CAPITOL



Arizona Capitol Complex

CAPITOL COMPLEX

Location: Phoenix, AZ

Area: 164 Acres

CAPITOL

Built: 1900

Area: 123,000 SF

Architect(s): James Riely Gordon

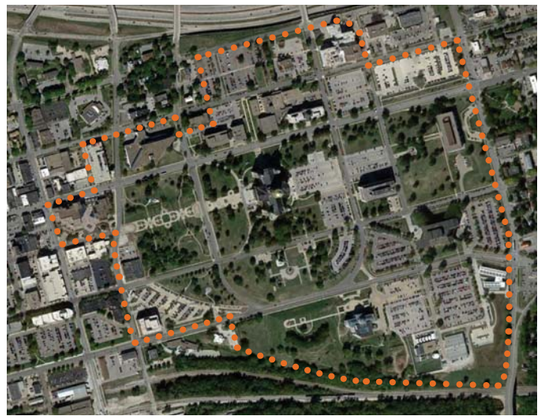
Renovated: 1990s

Renov. Cost: $3 million

Aerial view of Capitol Museum and adjacent House of Representatives and Senate Buildings

- Four legislative buildings are located adjacent to the Capitol Museum. They include the State Capitol West Wing, Capitol Building (1918-38 addition), Senate Building and House of Representatives Building.
- The Senate Building and House of Representatives Building located close to the Capitol Museum house respective legislature offices.
- Other legislative support offices are located within the Capitol Mall in vicinity of the Capitol Museum. They include the Joint Legislative Budget Office Building at 1716 W. Adams Street and two State Office Buildings (1624 W. Adams and 1616 West Adams).
- The Capitol Museum (1700 West Washington Street) has been used primarily as a museum for more than thirty years.
- A conceptual plan for the Arizona state capitol restoration was submitted to the Legislative Council in 2012 that proposed re-introduction of the legislative functions within the Capitol Museum and connecting the Capitol Museum with other three adjacent modern buildings with an estimated cost of $40 million.

IOWA STATE CAPITOL



Iowa Capitol Complex

CAPITOL COMPLEX

Location: Des Moines, Iowa

Area: 170 Acres

CAPITOL

Built: 1871-1886

Area: 330,000 SF

Architect(s): John C. Cochrane / Alfred H. Piquenard

Renovated: 1983-2001

Renov. Cost: $41 million

- The Capitol Building houses the Iowa Senate, House of Representatives, Office of the Governor, and Offices of the Attorney General, Auditor, Treasurer, and Secretary of State. The building also includes a chamber for the Iowa Supreme Court.
- Three other office buildings are located within the Capitol Complex. In addition to the Capitol, the Old Babcock Miller Building and Lucas Building adjacent to the Capitol house legislative support offices.
- Exterior restoration of the Capitol was completed in 2001 at an estimated cost of $41 million. Interior renovation of Capitol is planned.
- A new Judicial Building of 123,800 SF was completed in 2003 within the Capitol Complex at an estimated cost of $27 million.

KANSAS STATE CAPITOL

Kansas Capitol Complex

CAPITOL COMPLEX

Location: Topeka, KS

Area: 74 Acres

CAPITOL

Built: 1866-1903

Area: 300,000 SF

Architect(s): Edward Townsend Mix (Master)
John G. Haskell (Wing)

Renovated: 2001-2013

Renov. Cost: $285 million

- The legislature offices are located within the Kansas Statehouse (Capitol) Building.
- A 13 year multi-phase plan to renovate the Kansas Statehouse was completed in 2013 at an estimated cost of $285 million. It included construction of an underground two-story parking structure with a visitors center and ground floor office space (118,000 SF).
- The new visitors center was constructed on top of the garage and provides a connection between visitor parking and the Statehouse north wing ground floor.

Rendering of New Visitors Center and Office Extension to the Capitol (Image credit: Treanor Architects)

MINNESOTA STATE CAPITOL

Minnesota Capitol Complex

CAPITOL COMPLEX

Location: St Paul, MN

Area: 97 Acres

CAPITOL

Built: 1905

Area: 378,825 SF

Architect(s): Cass Gilbert

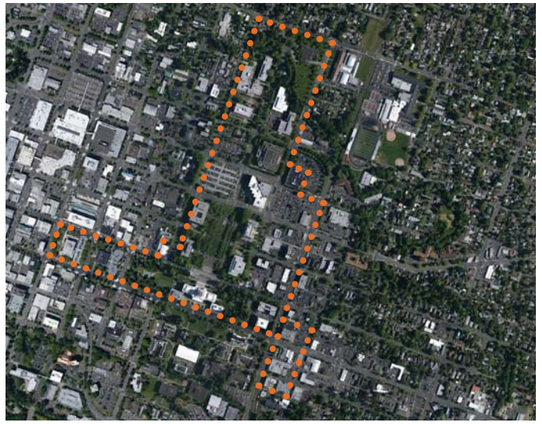
Renovated: Phase I - 2006-11/ Phase II - 2013-17 (ongoing)

Renov. Cost: $241 million

- The legislature offices are located within the Capitol.
- Full renovation of the Capitol Building is planned at an estimated cost of $241 million to be completed by December 2017.
- Renovation of the Capitol Building will require the Senate to lose 23,000 SF of office space for bathrooms, elevators and other improvements to the Capitol building.
- A new Senate Legislative Office Building of approximately 160,000 GSF north of the Capitol is proposed to provide new office space for the Senate at an estimated cost of $76.8 million. It is proposed to house all 67 senator offices as well as three hearing rooms and additional space for the Legislative Reference Library.
- The House of Representatives members are temporarily relocated to the State Office Building at 100 Dr. Martin Luther King Jr. Boulevard. The Senate members are temporarily relocated to the Centennial Office Building (378,825 SF) at 658 Cedar Street. The House of Representatives members will be relocated to Capitol after its renovation.

Artist's rendering of proposed legislative office building to be built just north of the Capitol
(Image courtesy of the State of Minnesota)

OREGON STATE CAPITOL



Oregon Capitol Complex

CAPITOL COMPLEX

Location: Salem, OR

Area: 88 Acres

CAPITOL

Built: 1938

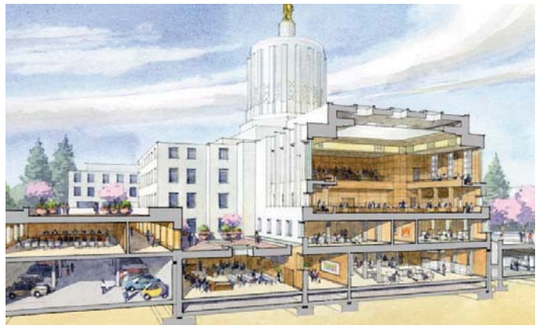
Area: 233,750 SF

Architect(s): Trowbridge & Livingston

Renovated: 2007-2008

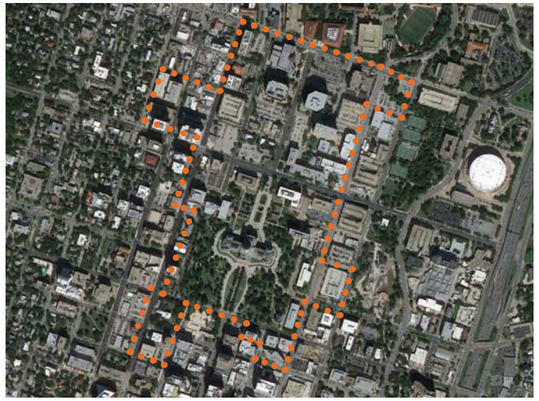
Renov. Cost: $34 million

- The Capitol houses the State Legislature, and the offices of the Governor, Secretary of State, and Treasurer in the original 1938 portion of the building. The Capitol Wings house legislative offices, hearing rooms, support services, a first floor Galleria and underground parking.
- The Capitol Master Plan completed in 2009 identified additional space needs of 19,200 SF to be provided by a single story infill at the existing courtyard within the Capitol (existing area 174,250 SF).
- The Capitol is currently undergoing seismic upgrade and renovation following the completion of the Master Plan in 2009.



Section through capitol proposed concourse level and additional hearing rooms
(Image Credit: Oregon State Capitol Master Plan 2009)

TEXAS STATE CAPITOL



Texas Capitol Complex

CAPITOL COMPLEX

Location: Austin, TX

Area: 50 Acres

CAPITOL

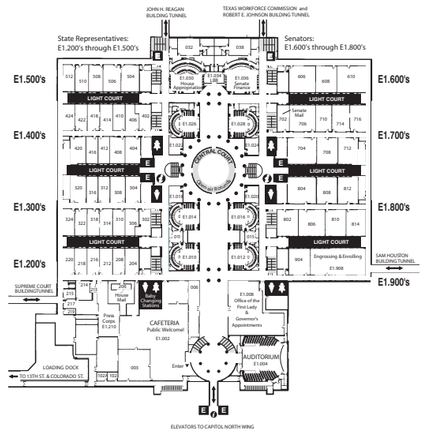
Built: 1882-1888

Area: 360,000 SF

Architect(s): Elijah E. Myers

Renovated: 1995-1997

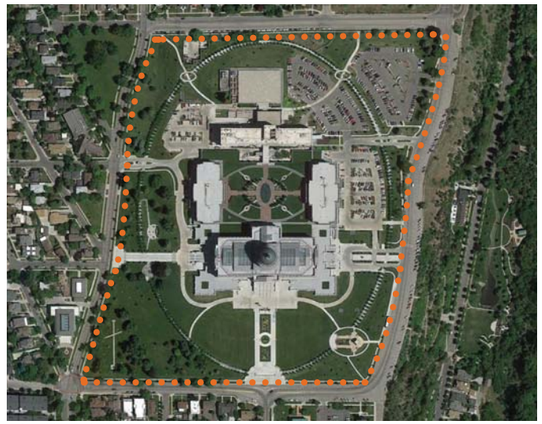
Renov. Cost: $98 million



First Floor Plan of the Capitol Extension

- The Capitol Extension - an underground addition to the main Capitol with 667,000 GSF was completed in 1993 at an estimated cost of $75 million. It is connected to the Capitol and four other state buildings by tunnels. It contains 16 committee hearing rooms, 8 conference rooms, a large auditorium, cafeteria, and a bookstore.
- The Capitol Extension also includes office spaces for Senate and House of Representatives members and two levels of parking for the Capitol staff.
- In 1995, a comprehensive interior and exterior restoration of the Capitol was completed at a cost of approximately $98 million.
- The Capitol includes Agricultural Museum, Treasurer's Business Office, Secretary of State's Private Office, Senate Chamber, Governor's Public Reception Room, House of Representatives Chamber, Legislative Reference Library, Supreme Court Courtroom, and Court of Criminal Appeals Courtroom.

UTAH STATE CAPITOL



Utah Capitol Complex

Aerial view of Utah Capitol Complex
(Image courtesy of Utah Governor's office of Economic Development)

CAPITOL COMPLEX

Location: Salt Lake City, UT

Area: 144 Acres

CAPITOL

Built: 1912-1916

Area: 320,000 SF

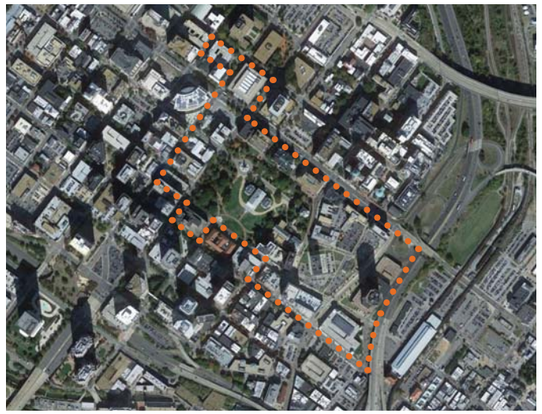
Architect(s): Richard K.A. Kletting

Renovated: 2000-2008

Renov. Cost: $260 million - Seismic Upgrade and Restoration

- Two identical 92,500 SF new office buildings - House and Senate Buildings, were constructed under a design / build contract as the first phase of a comprehensive capitol complex restoration and construction project completed in 2004. These new buildings provided temporary space for the legislature during renovation of the Capitol. The project also included a parking structure with 316 spaces and landscaped plaza over an existing parking garage.
- The new House and Senate Buildings have offices of lower ranking House and Senate legislative members respectively. The two buildings also have offices for legislative staff and executive staff offices. Higher ranking members have offices in the Capitol. Multiple committee rooms exist in both the buildings.
- A $260 million seismic retrofit and restoration of the Capitol was completed in 2008. Capitol houses the Assembly and Senate Chambers, and the State Supreme Court.
- The Capitol Complex also includes State Office Building that was built in the 1950s. It was modernized recently. The building houses about 150 to 250 employees.

VIRGINIA STATE CAPITOL



Virginia Capitol Complex

Photos of new Visitors Center / Capitol Extension
(Image courtesy of Commonwealth of Virginia)

CAPITOL COMPLEX

Location: Richmond, VA

Area: 48 Acres

CAPITOL

Built: 1785-88 / 1904 (East and West Wings)

Area: 180,000 SF

Architect(s): Thomas Jefferson / Charles-Louis Clérisseau

Renovated: 2004-2007

Renov. Cost: $104.5 million - Restoration and new Visitors Center

- The legislature offices are located in the General Assembly Building within the Capitol Complex.
- As part of the 2007 Capitol Restoration and Renovation project, a 27,000 SF underground extension was added to the Capitol in 2006 at a cost of $104.5 million to provide a new visitors center, reception, meeting, media, and multi-purpose conference space for the legislators.

WASHINGTON STATE CAPITOL

Washington Capitol Complex

CAPITOL COMPLEX

Location: Olympia, WA

Area: 80 Acres

CAPITOL

Built: 1922-28

Area: 230,400 SF

Architect(s): Walter R. Wilder, Harry K. White

Renovated: 2001-2004

Renov. Cost: $120 million

- The Senate and House of Representatives majority and minority leadership offices are located within the Legislative (Capitol) Building.
- The Legislative Building houses both chambers of the legislature and Office of the Governor.
- Senators' offices are located at Cherberg and Newhouse buildings located adjacent to the Legislative Building.
- House of Representatives' offices are located at John L. O'Brien Building adjacent to the Legislative Building.
- A three-year rehabilitation and seismic repair of the Legislative Building was completed in 2004 at a cost of $120 million.

WISCONSIN STATE CAPITOL

Wisconsin Capitol Complex

CAPITOL COMPLEX

Location: Madison, WI

Area: 48 Acres

CAPITOL

Built: 1906

Area: 448,297 SF

Architect(s): George B. Post

Renovated: 1988-2002

Renov. Cost: $155 million
Restoration + Renovation

- The Wisconsin Capitol underwent a 14 year multi-phase renovation / restoration starting in 1988 and was completed in 2002 at an estimated cost of $155 million. Each phase focused on one of the four wings or the central portion of the Capitol.
- The legislature offices are located in the Capitol Building.
- The Capitol houses both chambers of the legislature along with the Supreme Court and Office of the Governor.

6.9 - Potential Organizational Alternatives for Colorado

Within the context of this master plan, the following three potential organizational scenarios are suggested for the State's consideration and further evaluation based on the findings of the benchmarking study. Further review and discussion of the existing facilities organizational structure is recommended to narrow down suitable options.

BASELINE SCENARIO

This scenario recommends implementation of the November 2012 Audit of State of Colorado Capital Asset Management and Lease Administration Practices. The scenario will include the following recommendations illustrated in the adjoining diagram:

- Enforce agencies to have an approved Facilities Plan or Master Plan;
- Establish a statutory requirement to prepare state-wide long range Facilities Master Plan linking to all agency facilities plans:
  - Potential legislation to require all real estate related capital requests to be evaluated against an existing approved master plan.
- No major change in the decentralized facilities management organization structure;
- Continue to implement 2012 Audit recommendations for capital construction and lease administration including:
  - Establish formal policies for the construction and administration phase of capital construction projects to ensure State agencies prepare project monitoring reports and thorough project closeout evaluations, including a written assessment of lessons learned upon completion; and
  - Legislation to outline criteria for monitoring capital construction projects, length of reporting term, and capital construction close outs and when independent third party consultants should be engaged.
- Major capital construction, controlled maintenance and building renewal project prioritization based on approved agency master plan, state-wide facilities plan and capitol complex master plan:
  - Improve the completeness and comprehensiveness of the information used to prepare capital project justifications and support decision making;
  - Revise capital budget instructions to include total life-cycle cost for the projects;
  - Include adequate and complete supporting documentation;
  - Create a repository for future use to capture major project assumptions; and
  - Create a pool of specialists to oversee capital construction project justifications and funding requests.
- Implement lease surcharge (for agencies) and funding mechanism for controlled maintenance as part of approved operating budgets:
  - Requiring all new capital construction projects to include a funding mechanism for controlled maintenance as part of the approved operating budgets.

HYBRID ALTERNATIVE

This scenario combines recommendations of the 2012 Audit with other best practices from other states.

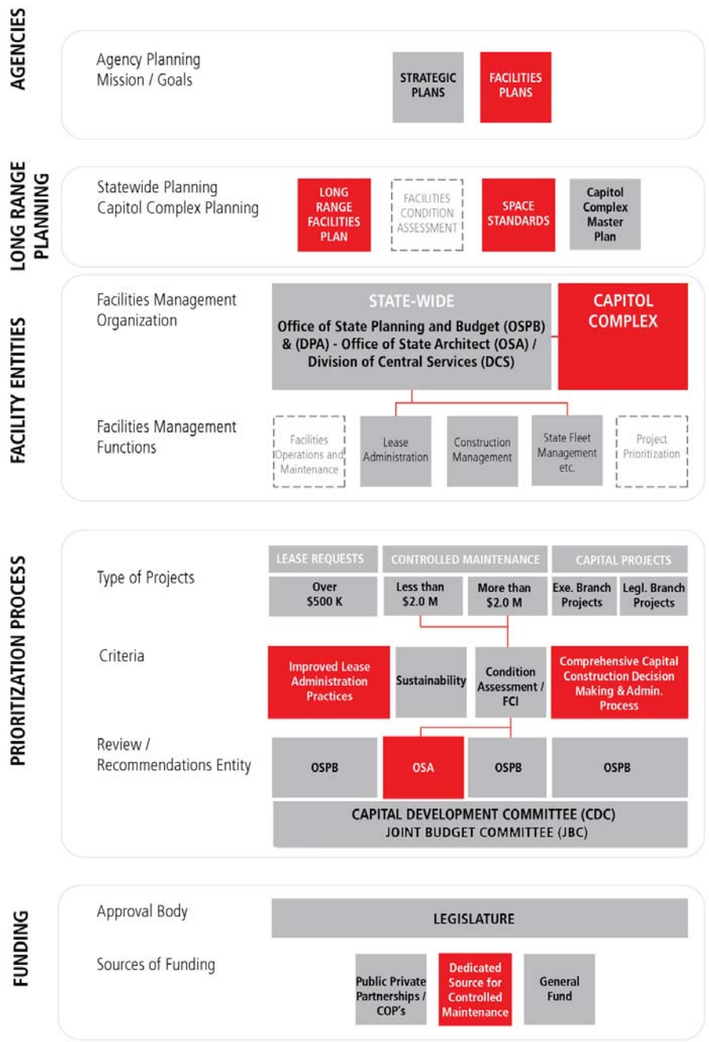
- Linking of agency capital planning and strategic planning and regular plan updates;
- Comprehensive facilities assessment of State's real estate portfolio including the Capitol Complex. The results of such assessment will result in a long range plan that encompasses owned and leased facilities;
- Facilities conditions evaluated by independent third party;
- Centralized ownership, planning, and management of state facilities with added staff and capacity;
- Centralized leasing and coordination (authority to acquire, use, maintain, and dispose);
- Major capital construction, controlled maintenance and building renewal project prioritization by an agency or commission for legislative approval;
- Develop and adopt prioritization criteria / uniform maintenance standards;
- Potential oversight by an review agency; and
- Identify a dedicated source of revenue for capital facilities renewal linked to facilities condition assessments.

MODEL SCENARIO

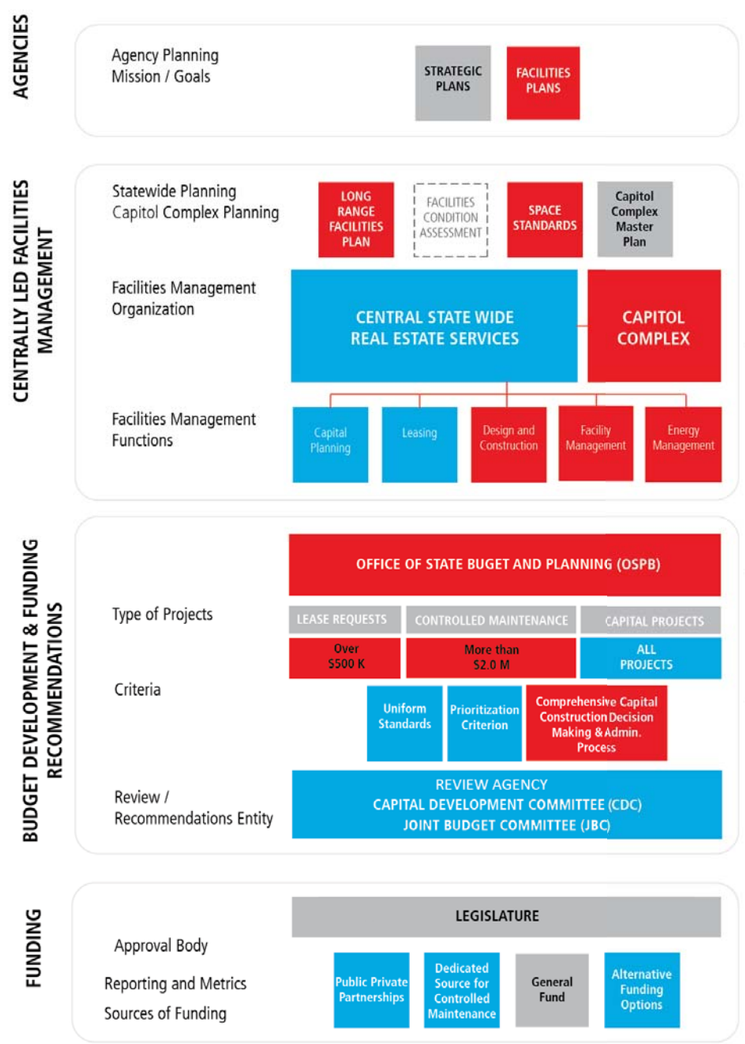
This scenario recommends adoption of best practices in facility management with following salient features:

- Strategic Asset Management Program;
- Linking of agency capital planning and strategic planning and regular plan updates;
- Inventory and database, comprehensive assessment, long range plan that encompasses owned and leased facilities;
- Centralized ownership and management of state facilities with added staff and capacity;
- Centralized leasing and coordination (authority to acquire, use, maintain, and dispose);
- Major capital construction, controlled maintenance and building renewal project prioritization by an agency or commission for legislative approval;
- Adopt prioritization criteria / uniform maintenance standards;
- Independent recommendations / review agency;
- Identify a dedicated source of revenue for capital facilities renewal; and
- Adopt best practices for uniform or tiered space standards.

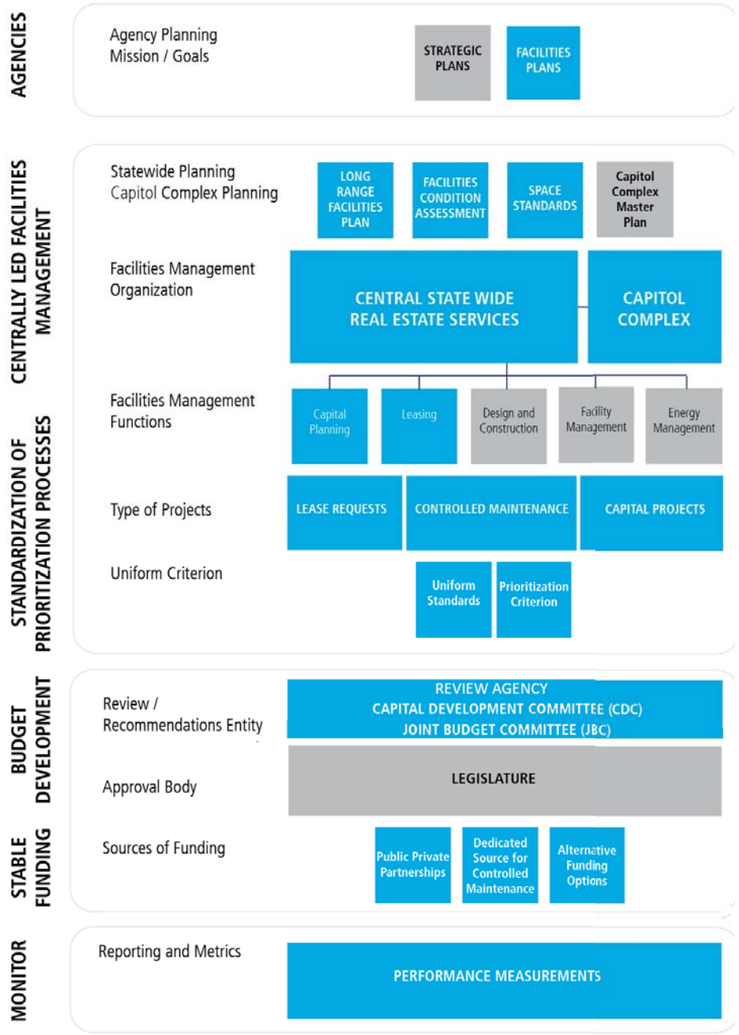
BASELINE SCENARIO



HYBRID SCENARIO



MODEL SCENARIO

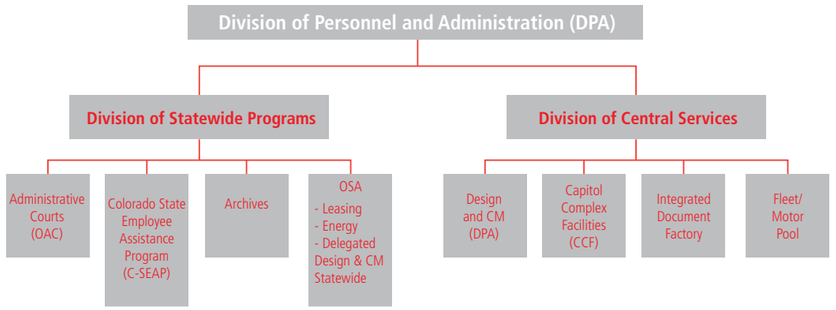


Suggested Area of Improvement | Existing Functions | Potential Functions | Best Practice Function

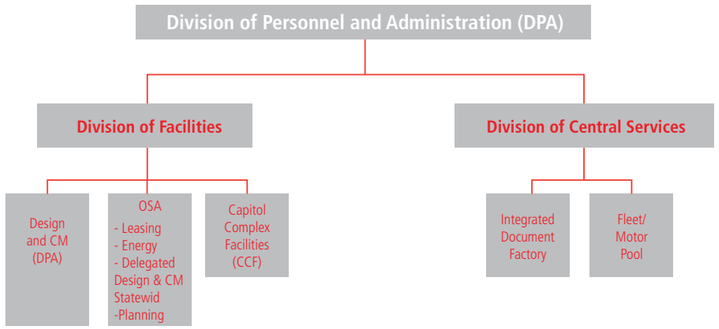
6.10 - Key Recommendations

A single coordinated group that combines the existing functions of the OSA and CCF (both design and construction management and property management) with or without an oversight agency can be considered by the Department of Personnel & Administration. This single group could address all facilities planning and management issues relative to DPA owned/CCF managed buildings. In addition, the planning function could provide support to the Office of State Planning and Budgeting relative to the development and review of planning documents and capital construction requests.

Many states that were reviewed as part the benchmarking study provide similar alternative models that can be considered including the neighboring State of Utah (centralized) and State of Washington (where a recent such restructuring was conducted). In addition to the potential changes to the governing or organizational structure related to facilities management and the need for long range facilities planning, the following additional changes should be considered by the state:



Existing Facilities Organization within DPA



Recommended Facilities Management Organization within DPA

CHAPTER 6.0 - BENCHMARKING KEY RECOMMENDATIONS

- A MINIMUM OF ONE FULL-TIME FACILITIES PLANNING FTE SHOULD BE ADDED TO THE STAFF OF THE OFFICE OF THE STATE ARCHITECT (OSA) TO MAINTAIN AND COORDINATE THE IMPLEMENTATION OF THE CAPITOL COMPLEX MASTER PLAN.
- A NEW STATUTORY REQUIREMENT SHOULD BE CONSIDERED TO INCLUDE STATEWIDE PLANNING WITHIN THE RECOMMENDED SINGLE COORDINATED GROUP WITH CAPACITY AND STAFF TO PREPARE AND REGULARLY UPDATE THE STATEWIDE LONG RANGE FACILITIES PLANS. THE REVIEW PROCESS COULD ALSO BE LINKED TO AGENCY STRATEGIC PLANS AND THE CAPITOL COMPLEX MASTER PLAN. THESE AGENCY PLANS WOULD REQUIRE REGULAR UPDATES.
- DEDICATED ANNUAL SOURCE OF FUNDING FOR CONTROLLED MAINTENANCE TO 1.5% TO 2% OF THE REPLACEMENT VALUE OF EXISTING ASSETS. SUCH A PROPOSAL WAS CONSIDERED BY THE STATE BUT HAS NOT BEEN ADOPTED.
- REVIEW AND UPGRADE OF THE EXISTING FACILITIES MANAGEMENT SYSTEM IS NEEDED IN ORDER TO HELP IMPROVE TRACKING AND MONITORING IN FACILITIES OPERATIONS AND MAINTENANCE BUDGETS AND HELP IN PLANNING FUTURE NEEDS. MANY STATES REVIEWED IN THE BENCHMARKING STUDY ARE INCREASINGLY RELYING ON SUCH SYSTEMS. IN ADDITION, THE STATE COULD SOLICIT INPUT FROM A CONSULTANT TO DOCUMENT OVERALL CCF NEEDS AND PRACTICES PRIOR TO CONSTRUCTION OF A NEW BUILDING AND/OR SOLICIT PEER REVIEW ASSISTANCE FROM OTHER STATE AGENCIES RESPONSIBLE FOR FACILITIES MAINTENANCE.
- BENCHMARKING OF THE EXISTING LEASE RATES FOR AGENCIES FOR OPERATIONS AND MAINTENANCE COULD BE CONSIDERED USING THE STANDARDS PUBLISHED BY BOMA.
- CONTINUED USE OF ALTERNATIVE FINANCING STRUCTURES (ALSO USED BY THE STATE OF WASHINGTON) USING THE INTERNAL REVENUE SERVICE (IRS) RULING #20 THAT ALLOWS FOR A NON-PROFIT CORPORATION TO BE SET UP FOR THE SOLE PURPOSE OF ISSUING TAX EXEMPT BONDS AND TO ENTER INTO A DEVELOPMENT AGREEMENT TO CONSTRUCT A FACILITY, FOR A TAX EXEMPT PURPOSE, FOR THE GOVERNMENT.

CAPITOL COMPLEX MASTERPLAN | DENVER, COLORADO

07

MASTER PLAN RECOMMENDATIONS

7.1 - Introduction

Overview

As part of the overall master plan, the team conducted an assessment of existing agency locations and space utilization. One outcome of this study determined that approximately 700,000 square feet of State agencies are currently located in leased office space in the downtown area nearby the Capitol Complex.

The master plan team undertook a build/buy/lease analysis to determine the costs and benefits of different scenarios for placing the agencies in leased or State owned space. This study referenced interviews with the agency directors and deputy directors. It took into consideration the individual agencies space needs and growth requirements based upon their program needs as well as historical expansion and reduction of agencies size.

It is significant to note that entire agencies such as the Department of Regulatory Agencies and the Department of Higher Education and half of the Department of Labor and Employment are located in leased space. The Secretary of State and the Unclaimed Property Office of the Department of Treasury are in leased rather than owned space. And finally, several of the organizational units of the Governor's Office, which have been in existence for over a quarter of a century, including the Office of the Governor's Economic Development and International Trade and Energy Office as well as more recently created Office of Information Technology, are in leased space as well. All of these entities perform on-going functions of State government. These agencies were recommended to be consolidated in State-owned space while agencies having expanding needs are recommended to be consolidated in leased space.

Additional areas of the analysis included facility renovations, urban design recommendations, and benchmarking recommendations with a focus on organizational structure. The recommendations that resulted from this master planning process are listed in section 7.6 (page 7-15) along with estimated costs and project duration.

7.2 - Build/Buy/Lease Analysis

Methodology

The Build/Buy/Lease analysis conducted for the master plan is a comparison of the options that the State has regarding how its office space requirements are structured based on real market alternatives: leased space (status quo), build to suit office space or purchase of existing office space. The analysis was conducted by the master plan team in the fall of 2013 and then updated in August 2014. It compares costs both on a short term and long term basis.

It is important to note that the Denver commercial real estate office market is dynamic and fluid and therefore inherently fluctuating as are construction costs. The findings of this analysis are a point in time comparison of the opportunities available at the time of the study.

Assumptions

These assumptions were applied to the three options:

- The analysis evaluated the approximately 700,000 rentable square feet (RSF) of office space that is leased in downtown Denver and the surrounding metropolitan area.
- Market based assumptions for lease rates were provided for the Lease scenario. Estimated purchase prices for available market properties (1560 Broadway and 101 W Colfax) were calculated for the Buy scenarios. (Note: Due to the changing market, these properties are no longer viable purchase scenarios. At the time of the analysis, these buildings had adequate available space for State agency needs. At the time of publication of the Master Plan, non-State entities had occupied much of the available space, making the properties less efficient and desirable for purchase). Parking income assumptions, operating expense assumptions based on privately held buildings in downtown Denver, third-party tenant rental revenue (based on landlord provided rent rolls) and renewal fund assumptions (for purchase scenarios with third-party private sector tenants) were evaluated.
- COP financing assumptions for the Build scenario are based on input from the State Treasurer's Office.
- Cost estimating was provided for all construction and fit-up assumptions and annual capital renewal reserves.
- The alternatives were evaluated over short term and long term scenarios for costs and returns (3 and 30 years).
- The status quo (leasing scenario) contemplates that the various State tenants currently in leased space (approximately 700,000 RSF) continue to lease, and the market increases at 3% per year (based on full service gross rates, before the property tax reduction is deducted).
- The purchase scenario used 1560 Broadway and 101 W Colfax as potential options for purchase. 1560 Broadway is a building totaling approximately 598,000 RSF and is proximate to the Capitol Complex. 101 W Colfax is a building totaling 305,000 RSF and is located proximate to the Capitol Complex. COP financing was assumed based on an estimated market purchase price and the income from the various existing private tenants was included. This scenario also assumes that a $8.6M parking garage is constructed to meet parking demand.
- The build scenario contemplates that the Colfax and Lincoln site is developed with a 493,000 RSF/ 567,000 GSF office building. Construction pricing was based on an evaluation by the cost estimating team.
- The analysis received ongoing input from the Office of the State Architect.

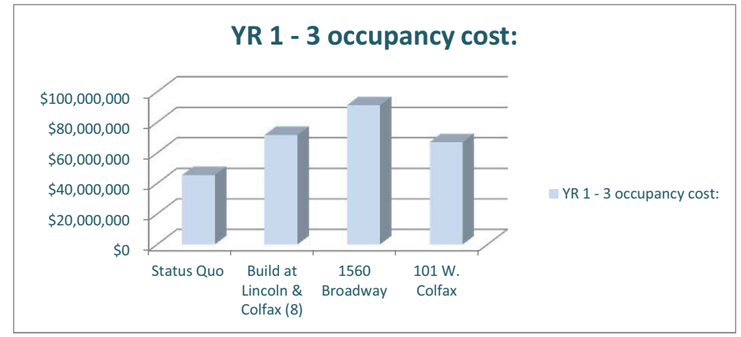
7.2.1 - FINANCIAL EVALUATION

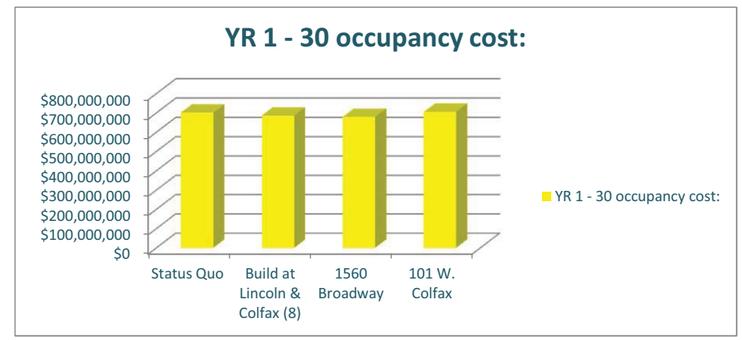
Line		Status Quo	Build at Lincoln & Colfax (8)	1560 Broadway	101 W. Colfax
1	Owned building RSF:	0	493,000	598,592	305,667
2	Continued 3rd party leased space (after 3rd parties vacate):	704,221	211,221	105,629	398,554
3	Total tenant pool:	704,221	704,221	704,221	704,221
4					
5	**Financed Costs**				
6	Assumed closing /start date: **(1)**	7/1/2016	7/1/2016	7/1/2014	7/1/2014
7	Purchase / build price / RSF (w/ parking):	N/A	$315.65	$250.00	$385.00
8	Purchase / build price (w/ parking):	N/A	$155,615,450	$149,648,000	$117,681,795
9	Space fit-up / RSF: **(2)**	N/A	$55.00	$45.00	$25.00
10	Space fit-up: **(2)**	N/A	$27,115,000	$26,936,640	$7,641,675
11	Total amount financed:	N/A	$182,730,450	$176,584,640	$125,323,470
12	Annual debt service , COP or other bond financing:	N/A	$15,709,652	$15,181,286	$10,774,275
13					
14	YR 1 - 3 debt service:	N/A	$47,128,957	$45,543,859	$32,322,825
15	YR 1 - 20 debt service (debt is fully amortized after 20 years):	N/A	$314,193,047	$303,625,729	$215,485,503
16					
17	**Operating Expenses:**				
18	YR 1 - 3 building opex: **(3)**	N/A	$12,130,265	$16,822,530	$8,520,981
19	YR 1 - 30 building opex: **(3)**	N/A	$173,152,261	$213,953,657	$110,690,343
20	Annual capital renewal reserve:	N/A	$1.75	$3.00	$2.75
21	Total annual capital renewal reserve:	N/A	$862,750	$1,795,776	$840,584
22	YR 1 - 3 capital renewal reserve:	N/A	$2,588,250	$5,387,328	$2,521,753
23	YR 1 - 30 capital renewal reserve:	N/A	$25,882,500	$53,873,280	$25,217,528
24					
25	**Third Party Tenant Income:**				
26	Duration of third party income: **(4)**	N/A	N/A	Through 6/30/20	Through 4/30/23
27	YR 1 - 3 estimated third party income:	N/A	N/A	($13,874,380)	($4,156,211)
28	YR 1 - 30 estimated third party income:	N/A	N/A	($27,247,882)	($16,159,544)
29					
30	**Parking:**				
31	Garage Construction @ 1555 Sherman (1560 Broadway scenario only):	N/A	N/A	$8,600,000	N/A
32	YR 1 - 3 Parking Income: **(5)**	N/A	($3,776,220)	($517,260)	($4,329,000)
33	YR 1 - 30 Parking Income: **(5)**	N/A	($37,762,200)	($14,483,280)	($43,290,000)
34					
35	**Up Front Cash Funded Items:**				
36	3rd party lease cost reserve fund: **(6)**	N/A	$0.00	$13.53	$7.44
37	Total 3rd party lease cost reserve fund: **(6)**	N/A	$0	$8,101,450	$2,275,000
38					
39	**Continued 3rd Party Leased Space in Denver CBD:**				
40	Continued 3rd party leased space (AVG over 30 Years):	704,221	211,221	146,363	418,054
41	YR 1 - 3 blended average lease rate: **(7)**	$21.50	$21.50	$21.50	$21.50
42	YR 1 - 3 blended average lease cost: **(7)**	$45,420,927	$13,623,356	$21,192,199	$29,898,359
43	YR 1 - 30 blended average lease rate: **(7)**	$33.14	$33.14	$33.14	$33.14
44	YR 1 - 30 blended average lease cost: **(7)**	$700,062,723	$209,973,784	$132,282,191	$409,831,293
45					
46	**YR 1 - 3 occupancy cost:**	**$45,420,927**	**$71,694,608**	**$91,255,727**	**$67,053,708**
47	**YR 1 - 30 occupancy cost:**	**$700,062,723**	**$685,439,393**	**$678,705,145**	**$704,050,122**
48	**YR 1- 30 NPV (6.0%) occupancy cost:**	**$281,722,360**	**$330,768,342**	**$340,290,405**	**$322,081,793**
49					
50	**If General Fund funded (no COP financing):**				
51	**Initial appropriation (build/purchase price plus fit up+1560 garage):**	**N/A**	**$182,730,450**	**$185,184,640**	**$125,323,470**
52	**YR 1 - 30 occupancy cost if 100% cash funded:**	**$700,062,723**	**$553,976,796**	**$551,664,055**	**$613,888,089**
53					
54	**Residual Value (est. 75% of purchase price + fit up):**	**$0**	**($137,047,838)**	**($132,438,480)**	**($93,992,603)**

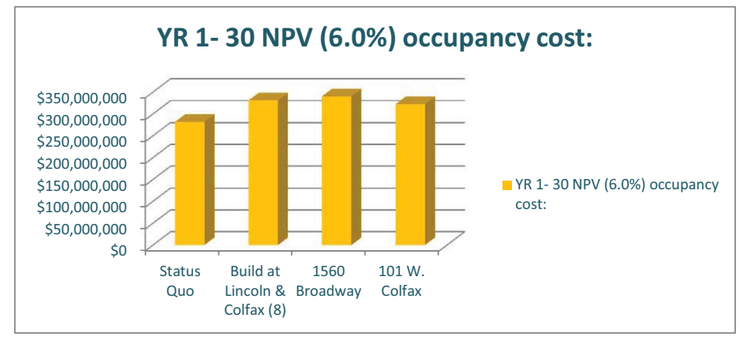
Financing Assumptions:

COP amortization schedule: *20* *years*

COP interest rate: *6.00%*







= Costs applicable to both YR 1 - 3 and YR 1 - 30 scenarios

= Cost amounts applicable to YR 1 - 3 scenario

= Cost amounts applicable to YR 1 - 30 scenario

Notes

- (1) Anticipates a new building at Colfax Avenue and Lincoln Street would be complete 7/1/16 and therefore the consultant team structured the status quo option beginning 7/1/16. Both existing buildings are assumed to close 7/1/14.
- (2) For all scenarios (except for Status Quo), includes architectural design, tenant improvements and information technology. Does not include furniture (new or used), move management, or escalation. Assumes comparatively less fit up costs would be required at 101 W Colfax (estimate of $25.00 / RSF) as the building is relatively new and the furniture would potentially be available.
- (3) Assumes $8.00 / RSF net of taxes for all scenarios, 2.5% annual increases. For 1560 Broadway, assumes $3.22 / RSF current property taxes, State occupancy at 100% by 2020 (no property taxes paid after that date). For 101 W Colfax, assumes $5.12 / RSF current property taxes, State occupancy at 100% by 2024 (no property taxes paid after that date).
- (4) Date of last expiring third party leases. Assumes all existing leases expire at scheduled dates; renewal options in third party leases are not exercised.
- (5) For 101 W Colfax, assumes $185 per space per month, 650 spaces. For Colfax & Lincoln, assumes $185 per month, 567 spaces. For 1560 Broadway, assumes construction of a new garage for $8.6M (incurred in 2015). Assumes $185 per month, 233 spaces (assumes no income until 2016 to allow for construction time).
- (6) Reserve fund to cover transaction costs should third party tenants exercise their renewal options. Assumes worst case, i.e. all third-party tenants (231,470 RSF @ 1560 Broadway and 65,000 RSF @ 101 W Colfax) exercise their renewal options at an average of $35.00 / RSF in required transaction costs (conservative estimate).
- (7) Blended average lease rate projections for all 704,221 RSF of leased space starting 7/1/16. Includes existing rents through expirations as applicable, future projections, and annual gross rate increases (property tax reduction) of 3.0% through the analysis term.
- (8) Assumes Colfax and Lincoln new building would be 567,000 GSF, 493,000 RSF.
- NOTE: 1290 Broadway (Security Life / ING Building) was contemplated for this analysis. However, only 66,000 RSF of vacancy exists in the building and the seller is very unmotivated which would result in comparatively expensive economics.

7.2.2 - LEASE OFFICE SPACE

Status Quo - Leased Space

Leasing in the Denver CBD market and surrounding areas is a viable alternative and is the “Status Quo” scenario in the analysis given the approximately 700,000 RSF of leased space contemplated in the analysis. Lease rates fluctuate as the market phases through cycles. These cycles are driven by supply and demand and are impacted by national and local economies, vacancy rates, absorption rates and development activity. Currently these factors are producing upwards pressure on lease rates and Denver is in a “rising market” phase office market cycle which is driving up lease rates.

Because the Denver office market is inherently cyclical, pricing reductions will almost certainly occur when the market enters a “falling market” phase at some time in the future. However, since the state of Colorado’s outlook is long term we have conservatively assumed a 3% annual increase based on 2016 pre-property tax reduction lease rates (contractual or forecasted) over the full 30 year analysis term.

Required Steps

1. Negotiate lease renewals for agencies located at 1560 Broadway.
2. Maintain existing downtown leases and expand as needed into additional leased space when necessary.

PROS	CONS
• Requires least amount of up-front cash investment; lease costs are included in agencies’ annual lease line budget appropriation • Space flexibility – easier to expand or contract leased space vs. owned space • Preserves the Colfax and Lincoln site as the last large State owned development site in the Capitol Complex for future development • Less disruption to agencies’ operations	• Subject to market lease rate cycles – significant potential for lease rates to substantially increase in a short period of time • Unpredictable long range budgeting for leasing terms beyond 10 years • No residual value • Agencies are not collocated with resulting inefficiency • Higher cost to the State after approximately 30 years based on stated assumptions

7.2.3 - BUILD AT LINCOLN AND COLFAX

New State Office Building

The Build option proposes a new State office building located at the Lincoln and Colfax site. Preliminary studies estimate that an building located on this site could yield approximately 567,000 GSF/493,000 RSF with structured parking and ground level retail uses. The building would have long term financial advantages over a 30 year period and allows the State to consolidate agencies which are currently located in multiple locations into a single location, which promotes operational efficiency, proximate to the Capitol.

Required Steps

1. Obtain short term lease renewals for functions ultimately moving into new construction.
2. Begin design and construction of new building at the Lincoln and Colfax site.

Financing Options

The Lease vs. Buy vs. Build analysis contemplates essentially 100% COP financing and is based on assumptions provided by the State Treasurer's Office. This form of financing would likely be the more cost effective alternative when compared to traditional financing. Alternative financing exists primarily in the form of various public / private partnership ("P3") structures.

PROS	CONS
• High quality office building located within Capitol Complex • Fixes long term occupancy costs (except for operating expenses) • Avoids exposure to current and future lease rate market increase • Tangible asset owned free and clear once the debt is exhausted • Potential to accommodate most of the existing State downtown tenants currently in leased space • Collocation efficiencies • New building can include structured parking to address parking shortage	• Comparatively high development costs; less of a concern given the State's long term (30+ year) outlook • Some upfront investment is required

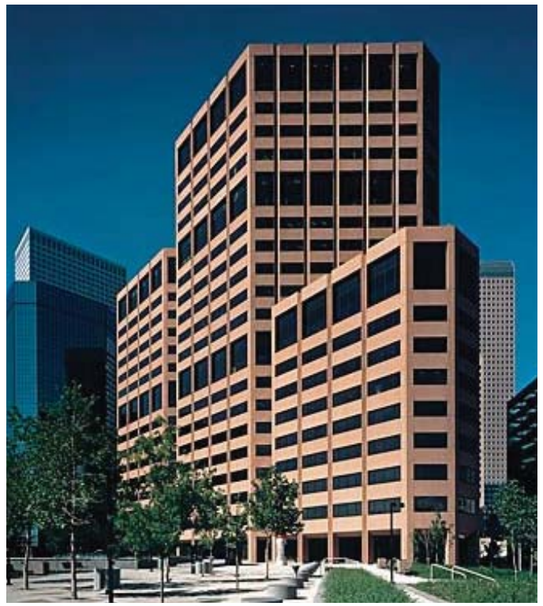
7.2.4 - BUY 1560 BROADWAY

1560 Broadway

The acquisition of 1560 Broadway, an existing location nearby the Capitol Complex and one that is currently home to several agencies occupying leased space, would solve many of the State's needs for space. Multiple State agencies currently lease space within the building; however, complicating the purchase, several private sector tenants have long term leases in the building which would require the State to become a landlord until these leases expire. The building is over twenty-five years old and may require ongoing maintenance in the future. Additionally, the building does not include parking. Parking for agencies at this location would have to be accommodated elsewhere.

Required Steps

1. Get short term lease renewals for all functions ultimately going into 1560 Broadway.
2. Move agencies into 1560 Broadway as space becomes available through tenant vacancies.
3. 1555 Sherman Street - Construct proposed parking garage to create 233 additional spaces to meet the need for additional parking in the downtown campus.



1560 Broadway Identified as a Potential Buy/Lease Option

NOTE: Due to the change in available space within this building and changing market conditions this property is no longer a viable purchase option.

PROS	CONS
• Quality (Class B) office building is located adjacent to the Capitol Complex	• Existing tenant renewal rights out to 2025 - would phase in State tenancy subject to existing third party tenants vacating the building at lease expiration
• Building could be purchased for less than replacement cost	• Some upfront investment is required
• State of Colorado already occupies approximately 257,000 SF (43%) of the building	• No parking (although this scenario includes the construction of a parking garage at 1555 Sherman with 233 spaces)
• Approximately 60,000 SF (10%) is vacant	
• Could provide swing space – temporary space for State agencies to occupy if State owned space is being renovated	
• Fixes long term occupancy costs (except for operating expenses)	
• Avoids exposure to current and future lease rate market increases	
• Tangible asset owned free and clear once the debt is exhausted	
• Preserves the Colfax and Lincoln site as the last State owned development site in the Capitol Complex for future development	
• One-time opportunity within the Capitol Complex – willing seller	
• Building large enough to house downtown State tenants currently in leased space	

7.2.5 - BUY 101 W COLFAX

101 W Colfax

101 W Colfax would present several of the same challenges as 1560 Broadway with further complications. The Denver Post master leases the facility through September 2029 (a buyout would need to be negotiated) and has two (2) long term subtenants in approximately 100,000 RSF. The building totals approximately 305,000 RSF. The State would be required to manage these leases until their expiration.

Required Steps

1. Get short term lease renewals for all functions ultimately going into 1560 Broadway.
2. Move agencies into 101 W Colfax as space becomes available through tenant vacancies.

101 W Colfax Ave Identified as a Potential Buy/Lease Option

NOTE: Due to the change in available space within this building and changing market conditions this property is no longer a viable purchase option.

PROS	CONS
• High quality (Class A) headquarters type office building located near the Capitol Complex	• Smaller building (305,000 SF) vs. Colfax & Lincoln or 1560 Broadway (approximately 598,000 SF)
• If Denver Post vacates, approximately 200,000 SF available	• Open floor plans not compatible with typical State uses
• Could provide swing space – temporary space for State agencies to occupy if State owned space is being renovated	• Relatively high estimated purchase price
• Fixes long term occupancy costs (except for operating expenses)	• Acquisition complexity – Denver Post would need to negotiate a buy-out with the current owner (American Properties) – American Properties may be unrealistic about the market value of the property
• Tangible asset owned free and clear once the debt is exhausted	• Some upfront investment is required
• Preserves the Colfax and Lincoln site as the last State owned development site in the Capitol Complex for future development	
• Includes 650 parking spaces	

7.3 - Overall Recommendations

Outcome of Build/Buy/Lease Analysis

This analysis indicated that, in the short term, the leasing of office space has certain financial advantages. However, the master plan took into consideration the history of agencies located in the downtown and found that many of the agencies located in leased space perform on-going (not short-term) functions of State government and have been located in leased space for long durations. It is the recommendation of the analysis that based upon the rising demand for leased space and the rising market costs that the State would realize long term savings if these agencies were to be relocated in owned space. The findings of the analysis also concluded that it would be advantageous for the State to build space suited for its needs rather than to purchase office space which was not specific to the requirements of the State and which would entail the State having to manage multiple private sector leases.

Formulation of the Recommendations

The recommendations were built upon the examination of agencies' space requirements, building assessments, urban design analysis of the downtown Capitol Complex, benchmarking of comparable states, and the outcomes of the build/buy/lease analysis. The hierarchy of the recommendations addresses the State's needs as identified in the master planning effort and seeks to create greater levels of efficiency and effectiveness within state agencies by organizing them in right sized facilities which are economical, reflective of the agency's needs, and which better serve the public. Recommendations addressing the urban design seek to create an active and user friendly campus within the downtown Capitol Complex that has a distinct identity but which is also interwoven with the surrounding urban fabric.

AGENCY RECOMMENDATIONS

Through the analysis of existing space usage and the projection of future space needs, several recommendations were formulated for the distribution and relocation of State agencies and their employees. Leased space was found to be advantageous for the few agencies experiencing changes in levels of employment and programming in order to better address the fluctuations they experience. Conversely, entire departments and programs are recommended to be located in State-owned facilities.

As a result of this analysis and the increased need for State-owned space located in the downtown Capitol Complex, a new building of approximately 567,000 gross square feet is recommended for consideration. This new facility would accommodate a large portion of the space needs of agencies currently located in leased space. In addition recommendations for the right-sizing of employee work spaces and space standards have been suggested based on employee position and need.

FACILITY RECOMMENDATIONS

Due to a history of deferred maintenance and a backlog of capital improvement needs, many of the Capitol Complex buildings are in need of upgrades and, in certain cases, comprehensive renovations. Though all buildings under the purview of Capitol Complex Facilities group have maintenance needs to return them to efficient operating condition, several buildings in particular require immediate, critical upgrades.

The master plan recommendations list the buildings which require systems and facility maintenance; eight buildings require immediate attention. The issues facing these facilities have potential impact on the life safety of visitors and tenants, loss of use of the facility, and the functionality of the facility. In order to address the current and ongoing maintenance and renovation needs of the Capitol Complex , the State should consider a dedicated source of funding. It is recommended that an amount equal to 1.5 to 2% of the replacement value of existing assets be allocated for maintenance purposes.

URBAN DESIGN RECOMMENDATIONS

The Capitol Complex currently functions as a single-use district. The cumulative effect of the State-owned buildings and the other public institutions in the area create a district that is active during weekday work hours and comparatively vacant during evenings and weekends. Several recommendations were formulated with the goal of activating the campus; these include the integration of retail and residential uses within the Complex.

The ease and clarity of access and mobility around the district is another issue facing the downtown campus. The location of the Capitol adjacent to busy arterial streets and the lack of signage and wayfinding make pedestrian access among State-owned and surrounding districts difficult. To address these issues, recommendations for the creation of a pedestrian-oriented, multi-modal (vehicle, bicycle, and pedestrian) mall along Sherman Street, the installation of a comprehensive wayfinding and signage package, and the improved crossings over Colfax Avenue are recommended for consideration by the State.

BENCHMARKING RECOMMENDATIONS

Through research, interviews and benchmarking of facility management, best practices of other states were studied.

This benchmarking exercise has been compiled into a series of recommendations intended to refine efficiency and organization of the current structure. These suggestions include the integration of the Office of the State Architect with a dedicated planning function and the Capitol Complex Facilities group into a single division which would coordinate capital planning and maintenance. The planning function could also provide support to OSPB.

Additional considerations would include a statutory requirement for the preparation and updating of a State-wide long range facilities plan, tracking and monitoring facilities operations and maintenance budgets to aid in planning for future needs, using BOMA (Building Owners and Managers) published standards for the benchmarking of lease rates and maintenance cost, and the use of alternative financing structures allowing for tax-exempt bonds for development.

7.4 - Priority Recommendations

NEW BUILDING AT COLFAX & LINCOLN

Currently a number of entire State agencies and offices are located in leased office space. Relocating these agencies into owned space would save the State money over the long term and remove agencies from the rising costs of the private lease market in downtown. The construction of a new facility on the State-owned site on the northeast corner of Lincoln Street and Colfax Avenue would provide an opportunity to consolidate entire State agencies and offices from private leased space into efficiently configured owned space. Additionally, this would provide an efficient and easily accessible location for agencies that require convenient access to the Capitol Building. As an urban design element, this proposed building would create a strong gateway between downtown Denver and the Capitol Complex and improve the pedestrian experience on Colfax Avenue. The proposed building would be approximately 567,000 gross square feet and cost approximately $189 million in 2014 dollars.

CAPITOL MALL

The purpose of the Capitol Mall is the creation of a central unifying element that will act as a connective feature in tying the downtown Capitol Complex Facilities-managed properties together and the creation of a more cohesive campus environment with enhanced pedestrian accessibility and an improved experience for visitors and daily users. The Sherman Street mall would be an identifiable central element featuring landscape, lighting, hardscape, building signage and pedestrian wayfinding improvements as well as improved pedestrian crossings at key intersections on Colfax Avenue. State-owned, underused or vacant sites along Sherman Street provide future opportunities for mixed-use development, including a State-occupied building at Lincoln and Colfax with ground floor retail/restaurant use.

CAPITOL ANNEX RENOVATION

The Capitol Annex, at 1375 Sherman Street, is in extremely poor condition. Maintenance has been deferred and the building is in urgent need of renovation. The main concerns are related to an almost non-functioning HVAC system, the presence of asbestos, a deteriorated roof, single glazed windows,and handicapped accessibility, building code compliance and energy efficiency issues and the near failure of exterior and some interior finishes in this historic 1937 structure. The energy upgrades would generate significant cost savings in future years. The new HVAC system along with space planning based on the recommended space standard would allow better utilization of the building. Due to the asbestos, the Department of Revenue (DOR), the building's tenant, would need to vacate the building for the duration of the renovation. After the renovation is complete, DOR would return to the building to be the sole long term occupant. The spaces will be right-sized to accommodate the department's needs. Renovations for this building would cost approximately $31 million in 2014 dollars.

CENTENNIAL BUILDING RENOVATION

Similar to the Capitol Annex, the Centennial Building, located at 1313 Sherman Street, has not experienced a complete renovation since its construction in 1976. The significant issues include a poorly functioning HVAC system with limited controls, unsafe electrical distribution system, outdated fire alarm system, lack of accessibility for the disabled, building code compliance and energy efficiency issues and the deteriorated condition of the exterior and some interior finishes. Another major concern is the age and condition of the automatic sprinkler system throughout the building. The energy upgrades would generate significant cost savings in future years. The new HVAC system and utilization of the new space standard of 220 square feet per FTE would allow additional employees to be housed in this building. Following the relocation of the Department of Local Affairs (DOLA) to the 1570 Grant Building, the Department of Natural Resources (DNR) would relocate to temporary space in order to complete a full renovation of the Centennial Building. Upon completion, DNR will backfill the vacated spaces allowing for the consolidation of administrative groups of DNR coming from other locations. The renovation for this building would cost approximately $41 million in 2014 dollars.

1570 GRANT BUILDING RENOVATION

The 1570 Grant Building is in poor to fair condition with issues related to building systems, code compliance, accessibility and asbestos. Two significant issues are the age and condition of the windows and the absence of a fully automatic sprinkler system. Energy upgrades would generate significant cost savings in future years.

The Department of Health Care Policy and Financing (HCPF) will vacate 1570 Grant and move into leased space. The building will then be renovated for use by the Department of Local Affairs (DOLA). This renovation should occur prior to the renovation of the Centennial Building at 1313 Sherman. The cost of agency relocation and renovation is approximately $6.8 million in 2014 dollars.

KIPLING CAMPUS RENOVATION

The two State buildings on the Kipling Campus, 690 and 700 Kipling Street, present issues related to fire alarm systems, elevator modernization, repair and replacement of window systems, HVAC upgrades in 700 and electrical upgrades in 690. With the recent relocation of several departments, there is available space for backfill and growth for the Department of Public Safety (DPS) to expand into the vacant space in a phased renovation.

The Office of Information Technology (OIT) data center will remain at this location for the near future and may reduce in size. DPS has submitted a formal request to fund this project in 2015. The cost of renovation is approximately $21 million in 2014 dollars.

The purchase of the 2.5 acre parcel directly to the east of the campus was considered for expanded fleet parking and site access, but was deemed unecessary at this time. If additional parking is needed in the future, the State may consider purchasing this site.

DIVESTMENT OF 1881 PIERCE

The Department of Revenue has indicated that it is very inefficient to have the department spread out among several buildings in several locations - in two owned buildings and six leased locations. DOR would like to be co-located or, at least, have the functions that are currently housed in the 1881 Pierce building relocated to a facility closer to the downtown departmental location at 1375 Sherman Street. This co-location or relocation should also allow for easier transit access to meet the needs of its customers. It is estimated that the sale of 1881 Pierce would generate revenue of $7.9 million.

If that does not occur and the building is renovated system-by-system, the following deficiencies need to be addressed: addition of a fire sprinkler system, limited asbestos abatement, HVAC system upgrades, handicap accessibility modifications, and site and parking lot improvements in this high public-use facility.

NORTH CAMPUS

The North Campus has three metal buildings that house DPA's Division of Central Services operations - printing, mail processing, design services and fleet. Two of the buildings are currently unoccupied except for use as storage and the third building has significant building code compliance issues. The Division of Central Services would like to move its mail operations closer to the U.S. Post Office general mail facility; this would save significant dollars because pick up and delivery costs would not be charged. It would also be possible to evaluate the construction of a two story building within the west parking lot at the North Campus and subsequent demolition of the three buildings. If neither option is chosen, the renovation of the three buildings would cost almost $10 million in 2014 dollars.

7.5 - Recommended System Remodels

SYSTEM REMODELS

Though all buildings within the Capitol Complex have certain system upgrade needs, several buildings stand out as having more immediate and pressing upgrade requirements. The needed upgrades vary from building to building, but each issue has an adverse impact on life safety, loss of use/reliability, finishes, or overall energy efficiency. Issues include, but are not exclusive to, roof replacements, elevator replacements, fire safety upgrades, electrical system renovations, handicapped accessibility and building code compliance. Unlike buildings that require comprehensive renovations, these buildings in need of systems upgrades will have phased renovations done with the existing occupants in place. The cost for these combined upgrades and renovations is $129 million in 2014 dollars. The State Capitol building accounts for nearly half of this total at $62 million. The buildings in need of systems upgrades are as follows:

Legislative Services Building

Executive Residence

State Office Building

Human Services Building

State Services Building

Power Plant

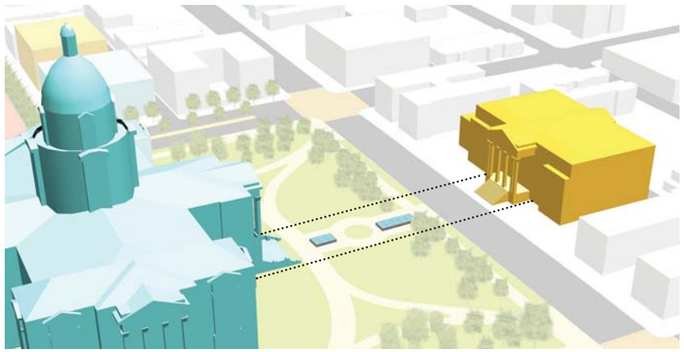
Grand Junction State Services Building

State Capitol Building

7.6 - Opportunities

In addition to the larger recommendations laid out in previous sections, several other development options could be considered as Capitol Complex improvements. Some offer growth opportunities for State agencies beyond the timeline of this study. Others provide dramatic changes to the circulation, parking and civic landscape and illustrate the future potential of the Capitol Complex. These opportunities could be implemented over time to provide for future departmental growth, parking needs, urban design improvements, and overall flexibility.

Grant Street Office Building



The purchase of a privately-owned parcel directly east of the Capitol Building across Grant Street represents an opportunity to secure a strategic and important site within the campus for future use. In the short term, the site may be utilized as surface parking for State employees and provide revenue to the State. In the longer term, the site is envisioned as a site for a Legislative Services Building with a secure, sky-lit underground link to the Capitol Building to provide legislators and their service agency staff office space within close proximity to the Capitol and secure underground parking. This additional parking would allow for the removal of surface parking around the Capitol building. The building could include amenities appropriate for user functions such as a dining facility and a work out space. This project of 150,000 square feet would cost approximately $44.6 million in 2014 dollars exclusive of land. As an interim parking lot, it would yield approximately 125 spaces and the land would cost approximately $11 million in 2014 dollars.

West Lawn Project

The proposed West Lawn concept consists of a landscape cover that would extend the west lawn of the Capitol into Lincoln Park directly west across Lincoln Street from the Capitol Building. The project could benefit the Capitol Complex and the larger Civic Center by providing additional space for activities and programming, and potentially relocating parking from the Capitol circle to a parking structure located beneath the elevated west lawn. The entire scope of the project would cost approximately $69 million in 2014 dollars.

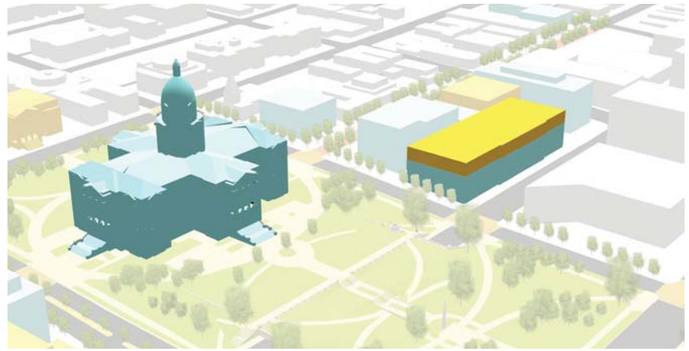
Addition to State Office Building

The surface parking lot located at 1530 Sherman Street north of the State Office Building, provides another opportunity for future expansion office space for State agency uses by constructing an addition to the State Office Building. The additional office space could be used to accommodate the needs of growing agencies or the transition of agencies from leased to owned space. The structure could be approximately 105,000 gross square feet at a cost of approximately $29 million in 2014 dollars.

Addition to Centennial Building

The surface parking lot at 1325 Sherman Street directly north of the Centennial Building, provides an opportunity for future State-occupied office space within the Capitol Complex. In the short term, the site can be used in its current function as employee parking. In the long term, the site can be developed into an attached office structure to the Centennial Building to accomodate expanding State agencies or further consolidation of leased space. The structure could be approximately 82,800 gross square feet at a cost of approximately $19 million in 2014 dollars.

Addition to Merrick Parking Structure

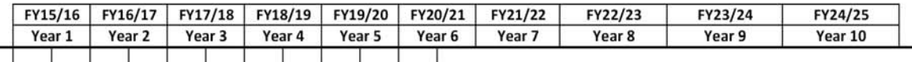


The Merrick Parking Structure, built in 2006, is approximately 200,000 square feet and has 660 parking spaces. Despite the relatively large size of this facility, the need for increased State employee parking spaces persists. The structure of the garage was designed to expand in the future to accommodate the growing needs of the Capitol Complex. Two stories could be added to the structure, adding approximately 282 spaces, at the cost of approximately $8.5 million in 2014 dollars.

7.7 - Cost and Timeline

Capitol Complex Master Plan

Estimated Costs and Project Durations



	Project #	Location	Construction Cost or Purchase Price	FF&E Note: E	Swing Space	Additional Lease Cost	Project Total	Cum. Total
Priority Recommendations	1	**Negotiate Short Term Lease for DORA,** prior to announcement of state plans for a new building 12/31/2014						
	2	New Building at Lincoln & Colfax (493,000 RSF / 567,000 GSF)	$156,000,000	$27,000,000			$183,000,000	$183,000,000
	3	Capitol Mall and Urban Design **Note: A**	$3,014,800				$3,014,800	$186,014,800
	4	Renovate 1375 Sherman	$22,688,430	$1,900,000	$6,600,000	$2,570,130	$33,758,560	$219,773,360
	5	Renovate 1313 Sherman	$34,212,015	$4,000,000	$4,400,000	$6,159,450	$48,771,465	$268,544,825
	6	Relocate HCPF to Lease Space & Renovate 1570 Grant & Relocate DOLA	$5,643,711	$1,250,000		$716,235	$7,609,946	$276,154,771
	7	Renovate 690 & 700 Kipling (Expand Public Safety)	$18,278,799	$2,700,000			$20,978,799	$297,133,570
	8	Relocate DOR and Build New Facility for DOR & DMV; Sell 1881 Pierce **Note: B & C**	$44,000,000	$4,000,000			$48,000,000	$345,133,570
		Resale Value of 1881 Pierce	($7,900,000)				(7,900,000)	$337,233,570
	9	Relocate Central Services to New Facility; Secure Fleet Parking & Fleet Mgmt to remain at North Campus **Note: C**	$12,900,000	$2,100,000			$15,000,000	$352,233,570
System Remodels	10	200 East 14th Ave; Legislative Services	$4,609,638	$500,000			$5,109,638	$357,343,208
	11	400 East 8th Ave; Executive Residence	$8,540,832				$8,540,832	$365,884,040
	12	Camp George West	$14,697,457				$14,697,457	$380,581,497
	13	201 East Colfax; State Office Building	$5,724,206	$1,074,700			$6,798,906	$387,380,403
	14	1575 Sherman; Human Services	$16,500,000	$2,500,000			$19,000,000	$406,380,403
	15	1525 Sherman; State Services	$10,438,019	$2,700,000			$13,138,019	$419,518,422
	16	1341 Sherman; Power Plant	$5,000,000	$62,350			$5,062,350	$424,580,772
	17	Grand Junction	$7,064,335	$951,250			$8,015,585	$432,596,357
	18	State Capitol Renovation	$61,845,759	$1,300,000			$63,145,759	$495,742,116
Opportunities		**Other Considerations**						
	19	SLB Development of 13th & Sherman						$495,742,116
	20	DHS Potential to Vacate 1575 Sherman & Relocate to Ft. Logan **Note: D**	$62,500,000	$8,750,000			$71,250,000	$566,992,116
	21	Add Two Floors of Parking (282 Spaces) to 1359 Lincoln Parking Garage	$8,500,000				$8,500,000	$575,492,116
	22	Purchase the Grant Street Site East of the Capitol for Future Development Annual Parking Income Potential $202,500 / Year (125 Spaces)	$11,000,000				$11,000,000	$586,492,116
	23	Addition to 201 East Colfax (94,300 RSF / 105,000 GSF)	$26,643,561	$2,400,000			$29,043,561	$615,535,677
	24	Addition to 1313 Sherman (72,000 RSF / 82,800 GSF)	$17,231,945	$1,800,000			$19,031,945	$634,567,622
	25	West Lawn	$56,141,210				$56,141,210	$690,708,832
		Total Master Plan	**$605,274,717**	**$64,988,300**	**$11,000,000**		**$690,708,832**	
			$176,584,640	$10,500,000				
			$8,600,000					

Note:

A. Assumes the City of Denver and Private Developers will fund the balance ($2.5M)

B. DOR Could vacate 1881 Pierce and occupy 1575 Sherman if DHS vacates Capitol Complex and relocates to Ft. Logan

C. Building a new building is assumed for both the new DOR location and the new Central Services location; leasing or purchasing in the scenarios could result in the costs below in lieu of the $48 million:

Acquire a Class B Building for DOR Estimated Cost:	$7,200,000
Leasing a new DOR Location Estimated Cost:	$1.6M / Year 10 Year Effective Rate
Buying a New Central Services Location Estimated Cost:	$7,000,000
Leasing a New Central Services Location Estimated Cost:	$1.4M / Year 10 Year Effective Rate

D. Construction cost assumed based on existing 1575 Sherman square footage

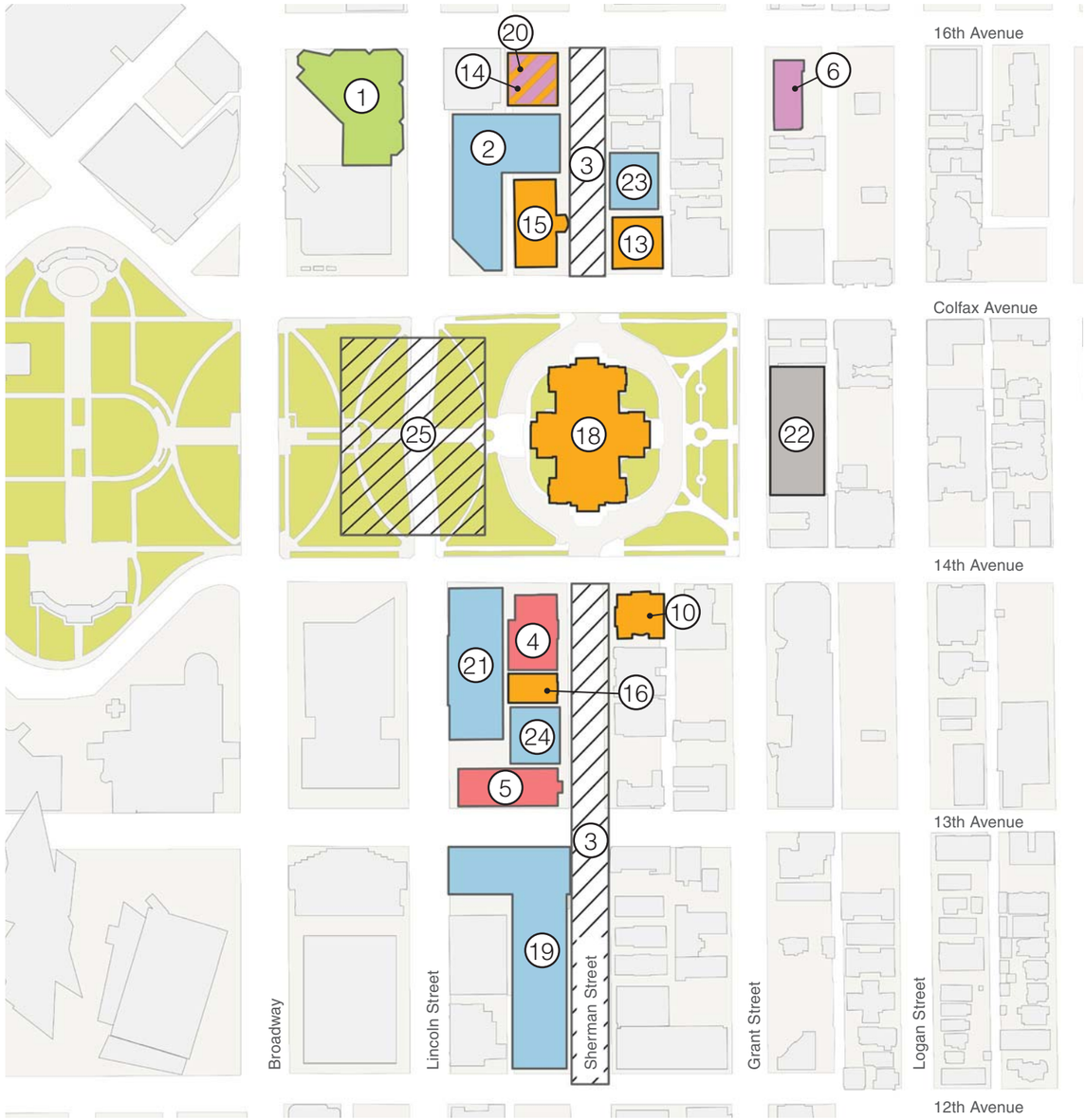
E. The FF&E Costs represent new furniture which is required to achieve the proposed goal of 220 SF/FTE

NOTE: All of the above costs are in 2014 dollars and should be escalated to the year construction will occur.

- Complete Renovation
- Systems Renovation
- New Construction
- Urban Design/Landscape
- Relocation of Agency
- DORA Lease
- Purchase Property

The recommendations outlined within this chapter, as well as others found in more detail throughout the master plan, have been given an assumed cost estimate (in 2014 dollars) to help define the scale and priority of each item. Additionally, each item has an associated time frame that is an estimate of the completion time in months from their respective beginning dates. Due to the variability of project initiation, exact dates for project completion are not supplied.

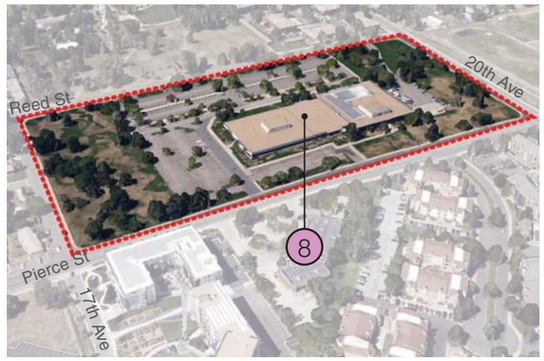
Capitol Complex



Kipling Campus

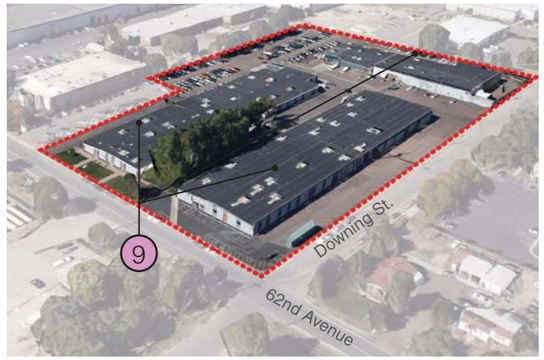
Executive Residence

Pierce Campus

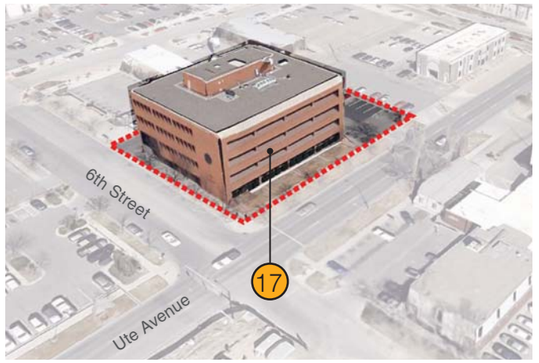


Camp George West

North Campus



Grand Junction State Services Bldg



Project numbers correspond to those on the Cost and Timeline summary on the previous page

CAPITOL COMPLEX MASTERPLAN

DENVER, COLORADO

08

IMPLEMENTATION / FINANCING OPTIONS

8.1 - Implementation / Financing Options

8.1.1 IMPLEMENTATION / FINANCING OPTIONS

Capital Acquisition and Construction Financing

In Colorado financing for capital acquisition, construction, and controlled maintenance projects can be a complex process. It is significant that there is no dedicated revenue stream for capital construction; it is funded only when excess funds are available. Typically capital projects are funded by:

- State Funds—which are primarily general funds transferred to the Capital Construction Fund and allocated to specific projects.
- Cash funds—which are funds derived from private donors and public sources, including fees collected for specific services performed by State or local agencies.
- Federal funds—which are funds provided by the federal government for specific grants and programs.

Executive Branch agencies receive funding for capital projects by submitting their requests to the OSPB (the Governor's Office of State Planning and Budgeting) which prioritizes the projects for review by the CDC (Capital Development Committee). The CDC makes recommendations for project prioritization and submits its recommendations for funding to the JBC (Joint Budget Committee) for appropriation through the Long Bill. During the past five years (Fiscal Years 2009 through 2013), the funds appropriated for capital projects have decreased significantly due to the economic recession as well as State budget-balancing measures. State agencies also use a variety of methods to fund capital projects, including debt financing, Certificates of Participation, lease-purchase agreements, and fees.

Certificates of Participation

Certificates of Participation ("COPs") are a type of financing vehicle which differs from a bond in that the participation certificates are secured by lease revenues where an investor purchases a portion of the lease revenues and the proceeds of the purchase are used by the government agency to pay for construction costs. In Colorado statute requires all lease-purchase agreements for real property in excess of $500,000 over the term of the agreement, regardless of whether financed by COPs or "rent-to-own" agreements, to be specifically authorized by a separate bill enacted by the General Assembly other than by the Long Bill or a supplemental appropriations bill. Subsequent lease payments are then annually appropriated in the operating or capital budget. The lease agreement itself is renewed each year through the Long Bill appropriations process. Over the years, Colorado has financed a number of projects with COPs - primarily at institutions of higher education, though DOT and DOC projects have also utilized COP financing.

63-20 Process

These are tax-exempt bonds issued by nonprofit corporations on behalf of state and municipal entities by following the requirements outlined in Revenue Procedure 82-26 of the U.S. Treasury. These bonds are commonly referred to as 63-20 bonds in reference to IRS Ruling 63-20. Public entities typically use 63-20 bonds to achieve capital projects while preserving the benefits of tax-exempt financing and maintaining governmental control of the facility being financed. 63-20 bonds do not offer advantages from the tax-exempt financing perspective; however they deliver the benefit of transferring the financing, development and potentially operation of the facility to a private development team managed by the nonprofit issuer. The state of Washington has utilized this process on several projects.

Recent Related Projects

Recently the Judicial Center/History Museum project was financed through Build America Bonds using a private non-profit entity controlled by the State. Currently, the Colorado Department of Public Safety / Colorado Bureau of Investigation (CBI) Pueblo lab acquisition project has been financed with COP's issued directly by the State Treasurer's office.

In 2006, another CBI lab project in Grand Junction was financed with bonds issued by a public non-profit entity formed by Mesa County and then leased on a lease/purchase option to the CBI for a period of approximately 28 years. If the CBI exercises its option at the end of the lease, it can receive fee title to the property.

History Colorado Center

Carr Judicial Center

8.1.2 ALTERNATIVE DELIVERY THOUGH PUBLIC-PRIVATE PARTNERSHIPS

For the past decade there has been a fundamental shift in public sector real estate and building projects from the traditional project - in which the project solely utilizes public funds and the public sector bears all the risk - to pubic private partnerships (P3's) that involve a sharing of the decision making, investment and risk. These P3 structures, which have become a standard form of project delivery in the UK, Australia and Canada, have recently gained momentum in the U.S. across a wide spectrum of product types including, roads, buildings, bridges and railways.

P3's usually are intended to address one or more of the following needs of the public sector:

- Transfer some, or all, design, construction, operations, maintenance and schedule risk to the private sector
- Leverage private sector expertise and capital to unlock value in public assets
- Leverage private sector innovation through performance based design
- Provide resources and expertise that may be unavailable to the public sector under traditional project delivery methods
- Avoid policy encumbrances that add time and cost to public sector projects

There are many forms of P3's and every procurement should be structured to reflect the unique goals and requirements of a project. In most P3's , the public entity owns the underlying real estate and looks to the private sector to provide the know-how and capital to bring the desired development to fruition. In addition, the private partner often helps determine the project scope, remains in the project for a long period of time and may share in some of the returns if the project is successful or compensate the public partner if the project does not perform as specified.

In all cases where a P3 is considered, it should be compared against the public sector's typical way of delivering projects. A common practice is to build an initial business case that compares the merits of all structures contemplated against their ability to meet the project's overall goals on a risk adjusted basis. This process is referred to as "Value for Money" analysis, which considers each project structure on a life cycle cost basis that incorporates estimates of all project costs (design, construction, operations, maintenance, financing, etc.). It also uses subject matter experts to value the various risks that are retained or transferred under each methodology. The goal is to objectively analyze the benefits and costs for each project delivery structure over the life of the investment prior to making a decision to move forward.

The examples of P3's below help to illustrate some of the various ways P3's are currently being deployed on public building development in the US. Although each project is technically a P3, none of the projects are structured in exactly the same manner. This is because each project had different goals and objectives and programmatic needs. However, each project did invest in extensive up front due diligence comparing the merits of the P3 structure contemplated against the pros and cons of traditional public sector development structures. In each case, development, financial and legal advisors were engaged to help guide the public entity through the process.

University of California at Merced

The University of California, Merced is utilizing a P3 structure to design, build, operate and maintain a $1.5 billion dollar campus expansion. The expansion includes infrastructure, site planning, and multiple building types including recreation facilities. The main driver for the project is to ensure the substantial completion of all development by the fall of 2020, which would not have been possible to achieve under the UC system's typical project delivery process. Other drivers include providing alternative sources of financing and transferring the operations and maintenance risk for the facilities to the private sector.

Long Beach Courthouse

The Administrative Office of the Courts (AOC) for the State of California utilized a P3 structure to build a new courthouse in the City of Long Beach. This courthouse is the first major civic building in the U.S. to be delivered by a public-private partnership, in which the developer makes a substantial equity investment, and the public sector makes availability payments, allowing for deductions if the infrastructure does not perform to set standards. The project, completed under budget and ahead of schedule, provides for the Superior Court of Los Angeles County's high volume of criminal, traffic, civil, and family judicial proceedings. It houses 31 courtrooms, court administrative space, detention facilities, offices of related county justice agencies, and compatible retail space.

The drivers for this project included: the need for alternative financing, the guarantee of a date certain for delivery, the risk transfer for building maintenance to the private sector and the ability to offset a portion of the costs by allowing for private sector revenue generation within the development

The Unified Port District of San Diego

The Port has engaged in a P3 process to redevelop 830 plus acres of reclaimed industrial waterfront property on San Diego Bay. Its objective is to partner with large scale private sector developers to create a large resort and convention center, retail, entertainment, and housing on the site in order to stimulate long term economic development and activate this underutilized land to the benefit of residences and visitors. The P3 structure involves the shared public/private partnership development of infrastructure and the convention center to support private development on public land under a long term lease structure. The main driver for this project is economic development by leveraging public land in partnership with private sector developers who have the capital and expertise to do the development

Center for Urban Waters, Tacoma, WA

This project is an example of a 63-20 model which involves the development of a project-specific non-profit entity. After several years of planning, the $38 million project was designed and built in a short 18 months. It was completed in March 2010, financed in the leanest of economic times, and delivered on time and on budget.

The City's vision: a 51,000 square foot state-of-the-art laboratory and research facility, to be constructed using environmentally sensitive building practices, housing the City's Environmental Services Division, the University of Washington Tacoma's research labs, and the Puget Sound Partnership. To get the project financed, Tacoma Environmental Services (TES) Properties, a single-purpose, non-profit corporation, was created to sell tax-exempt 63-20 bonds. With financing in hand, TES Properties partnered with private developer Lorig Associates to design and construct the facility using its streamlined private sector development timeline.

The City not only preserved its scarce financial resources but also saved staff time and reduced its risk of exposure through its partnership with TES Properties and Lorig. TES Properties owns and manages the facility, leasing the building to the City for the length of the financing term. Upon retirement of the bonds, the Center reverts to the City's ownership at no additional cost.

Public Private Partnerships are not a magic solution for all projects, but they can often provide distinct advantages over traditional public procurement in some cases. As such, they should be a consideration in any large project where there is the need for innovation, speed, risk transfer and alternative sources of capital. The state needs identified in this Master Plan which might be ideal candidates for some form of P3 delivery are the State Office Building at Lincoln and Colfax and a new, more easily accessible Department of Revenue Building for the public access portion of the agency.

When the State determines the scope and schedule of implementing this Master Plan's recommendations, it should conduct the "Value for Money" analysis as described above as a component of the decision making process.

Master Plan Team

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Tacito Design, Signage and Wayfinding

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