



North Dakota State Capitol Capitol Complex Master Plan

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Prepared for The Capitol Grounds Planning
 Commission
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North Dakota State Capitol Capitol Complex Master Plan

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INTRODUCTION

Section One Physical Master Plan

This Master Plan represents a renewal and extension of earlier master plans for the North Dakota Capitol Grounds. Since the last plan was prepared in 1965, there have been dramatic changes in technology, societal needs, governmental services and organization, and transportation, among others. New buildings have been constructed on the Capitol Grounds for the Department of Transportation, Judicial Branch, Heritage Center, and Maintenance. An Arboretum Trail has been established, and parking lots, roadways, and landscaping have been added.

It is appropriate to newly examine the beauty, amenities, and major influences of the Capitol Grounds, to refresh the logic of its organization with appreciation for its heritage, and to decide how best to make future decisions about growth and enhancement.

Section Two Space Master Plan

The components of this Plan, Section One and Section Two, aim to confirm present-day planning goals for the Capitol Complex. It identifies logical locations for future growth as that may become desirable. It identifies an optimal long-range balance of buildings, parking, and amenities that will fulfill the potential of the 130-acre campus.

The Plan also examines space utilization for the effects of overcrowding, opportunities for the efficient consolidation of departments, a brief consideration of leased space returning to the Capitol Complex, and growth projections for the next twenty years.

The Master Plan synthesizes the physical planning potential (Section One) with the projected space needs (Section Two), envisioning the Grounds ten and twenty years from the present. While the Physical Master Plan is likely to remain effective and highly useful over its intended twenty year life, the Space Master Plan will, necessarily, have a shorter useful life due to the phenomenon of change. It is likely the space analysis will require updating within five years.

Planning priorities were established to guide the development of the Master Plan:

- Establish the Capitol Complex as a destination for governance, education, and recreation.
- Strengthen the Capitol Complex image to the public.
- Showcase the rich heritage of the State.
- Enhance the visual beauty.
- Enhance accessibility and wayfinding.
- Enhance security and safety.
- Optimize building expansion opportunities.
- Develop parking strategies that support the Capitol Complex.
- Reinforce the sustainability of the Capitol Complex.

The Master Plan offers a guide for decision-making about the location and quality of future buildings, roadways, parking, trails, monuments, signage, furnishings, and landscaping. It is expected to be useful for the next 20 years.

An Interim Master Plan is included to illustrate the effect of the initial recommendations, while the final Master Plan illustrates the effect at the conclusion of all implementation strategies (see Phasing and Implementation Strategies). In either case and with any master plan of this kind, the documents and their contents remain flexible to accommodate demand for change in the future.

CONCEPTUAL MASTER PLAN



- | Existing Buildings | | Site Features/Amenities | |
|--------------------|-----------------------------|-------------------------|---------------------|
| ① | Legislative Wing | ⑫ | Capitol Mall |
| ② | Capitol Tower | ⑬ | Capitol Plaza |
| ③ | Judicial Wing | ⑭ | Legislative Mall |
| ④ | DOT Building | ⑮ | Amphitheater |
| ⑤ | Liberty Memorial Library | ⑯ | Myron Atkinson Park |
| ⑥ | Heritage Center | ⑰ | Judicial Grove |
| ⑦ | Governor's Residence | | |
| Proposed Buildings | | | |
| ⑧ | Maintenance / Motor Pool | | |
| ⑨ | Proposed Building | | |
| ⑩ | Heritage Center Expansion | | |
| ⑪ | Historic Gardens / Pavilion | | |

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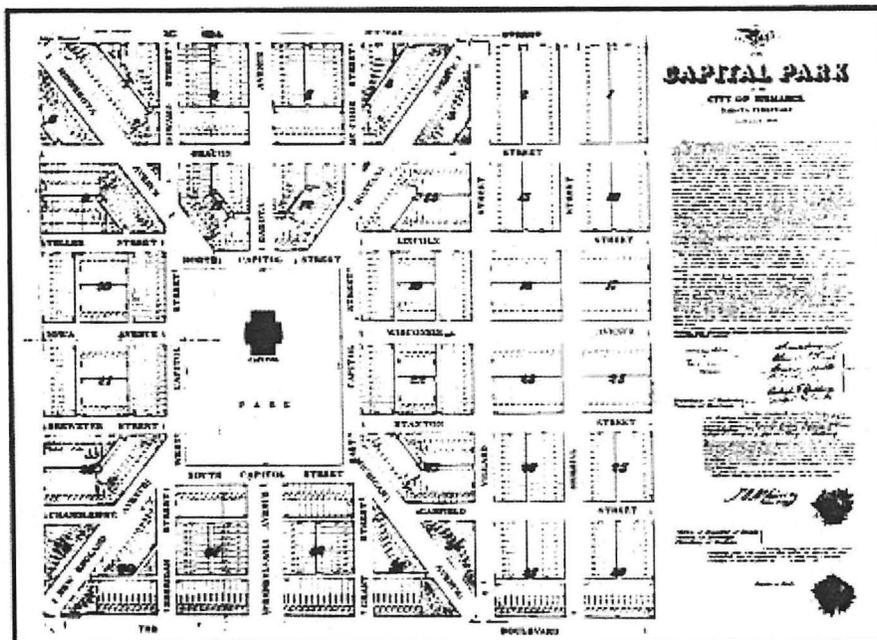
Native Prairie

HISTORICAL INFLUENCES

IN THE BEGINNING

The Dakota Territory was established by Congress in 1861 with its territorial capital at Yankton, then central to the settlements. In 1873, changes in technology (in this case, the Northern Pacific Railroad reaching Bismarck) established new settlement patterns. This led, in 1883, to Bismarck being named the new home for the capital.

160 acres of land were initially planned as the Capital Park Addition, with the layout modeled after the Wisconsin capitol grounds at Madison and another 160 acres platted for 1,000 homesites. But this forward looking idea, hoping to fund the new Capitol building with homesite sales, failed to find economic success and a less ambitious development plan saw the first State Capitol building constructed in 1884.



Approximately half of Bismarck's 320 acre land grant was platted as "Capital Park." Commissioners hoped that the sale of the nearly 1000 commercial and residential lots would raise the \$300,000 needed to construct the capitol building.

State Historical Society of North Dakota Collections

The red brick, Romanesque design for the first State Capitol building was the result of a design competition won by Minneapolis Architect Leroy Buffington, who had previously supervised the Minnesota State Capitol construction. However, due to limited funds, the winning design could only be partially implemented as the center section, without its dome, tower, and flanking wings.

In 1889, North Dakota became a state with Bismarck as its capital. Growth pressures required additions to the Capitol building in 1893, when an awkward south wing, limited by scarce funds, was added by the Hancock Brothers of Fargo.

Another addition added to the architectural chaos in 1903 when a north wing was designed by Milton Beebe of Fargo. Again, unable to afford to match the original structure, the three-part result was a curious mixture of diverse Romanesque and Classical character and materials.

HISTORICAL INFLUENCES

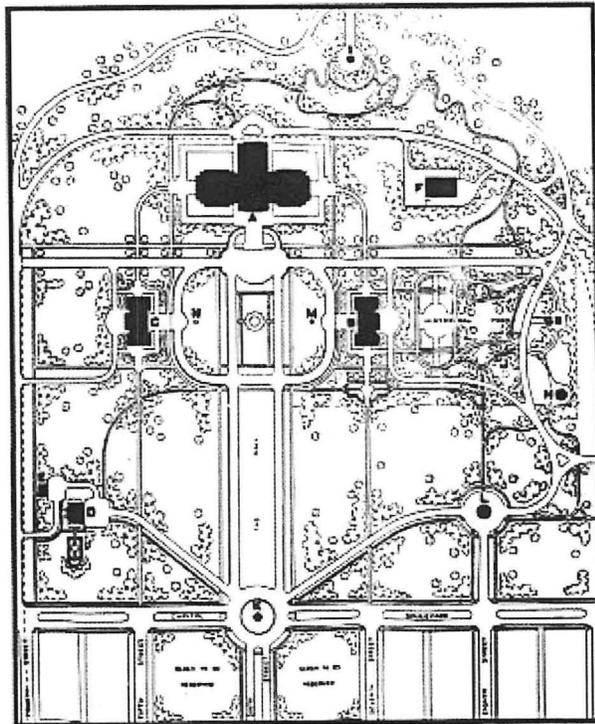
In 1910, the still-prominent statue of Sakakawea, by Leonard Crunelle, was added to the grounds, signifying a continuing interest in developing a place of delight that reflects its heritage.

In 1919, state government was significantly reformed, resulting in new agencies and a larger bureaucracy. This strained the capacity of the Capitol which was, by then, 35 years old. This resulted in the Legislature authorizing the construction of the Liberty Memorial building. This same legislation provided for the preparation of a landscaping plan, including the siting for a much-discussed, new State Capitol building, due to the poor condition of the first Capitol.

The overall theme set during these early years was one of a frontier area struggling with austere funding and grand ideas.

1920 MASTER PLAN

In 1920, in response to the 1919 legislation, the firm of Morrell and Nichols, Landscape Architects from Minneapolis, developed a master plan. The resulting "General Plan for Arrangement of Capitol Grounds and Historical Park" merged two important landscape themes, the Classical (symmetrical and geometric) and the Picturesque (organic, random).



General Plan for Arrangement of Capitol Grounds and Historical Park

Bismarck
North Dakota

MORELL & NICHOLS
LANDSCAPE ARCHITECTS
MINNEAPOLIS, MINN.

Legend

- A-Proposed State Capitol
- B-Historical Building
- C-Temple of Justice
- D-Governor's Mansion
- E-Garage
- F-Central Power Plant
- G-Roosevelt Cabin
- H-Indian Lodge
- I-Water Tower
- J-Turtle Effigy
- K-Monument
- L-Pavilion
- M-Statue of Sakakawea
- N-Statue of Justice

The Minneapolis architectural firm of Morell and Nichols developed the Capitol grounds plan in 1920.

State Historical Society of North Dakota Collections

HISTORICAL INFLUENCES

The Plan retained the north-south orientation of the original avenue, turning it into the tree-lined mall of today. It placed the Capitol at the north end of the mall, with a symmetrical placement of the new Liberty Memorial Building and a future Temple of Justice facing each other on the sides of the Mall. Further south, a proposed Governor's residence and pavilion similarly faced each other. These five major design elements formed a "heroic triangle", a classical framework of symmetry for development.

Asymmetrical and east of the Mall, the "picturesque" Historical Park was introduced. This rich blend of symmetrical and asymmetrical elements would continue importantly into future plans.

In 1924, the Liberty Memorial Building was an early implementation of the 1920 Master Plan. Designed by architects F. W. Keith and W. F. Kurke of Fargo, the new building exhibited an attractive civic Classical character. But, cost overruns drained state resources, setting a long-remembered lesson on concern for adherence to construction budgets. Due to the overruns, the desired landscaping was eliminated and this set a precedent for tough-minded cost oversight of future buildings.

On December 30, 1930, a devastating fire destroyed the first State Capitol building before its much-discussed replacement could be planned.

CAPITOL BUILDING RECONSTRUCTION

After the fire, the planning for a new State Capitol proceeded quickly. Goals for the new building were to be efficient and modern, monumental, and impressive, but within a strict construction budget. The austere budget would not allow the kind of embellished Classical monument that many other states had built. In the depths of the Great Depression, during the period of 1932 to 1934, and stung by previous cost overruns, the Legislature determined that the new building must be efficient and within budget.

Architects Joseph Bell DeRemer of Grand Forks and W. F. Kurke of Fargo joined with the famous Chicago architectural firm of Holabird & Root for the new design. Inspired by recent state capitols in Lincoln, Nebraska, and Baton Rouge, Louisiana, an unusual high-rise office tower was developed to meet the goal of efficiency.

The popular new public style of Art Deco was adopted as a design expression. The 19 story, elegant tower was skillfully joined to a 3 story Legislative wing by a handsome main entrance. While the overall arrangement of the building parts was decidedly asymmetrical and a substantial departure from the 1920 Morrell and Nichols Master Plan, a "rich blend" with symmetry was achieved by carefully placing the main entrance on axis with the Mall. As well, its rooms, laid out along axes, and classical ideas of proportions and ornament owed much to the Classical tradition.

Building materials of gray Indiana limestone, black Wisconsin granite, Belgium black marble, Montana Yellowstone travertine, and Tennessee marble floors established a strong precedent for quality. Woods of mahogany, rosewood, laurel, oak, teak, walnut, prima vera, maple, and chestnut brought similar quality to the interior.

However, the budget was strictly observed and some features were severely modified from the original elegant design. Much of the intended exterior ornament was eliminated to save costs, such as the thirty foot high central statue intended for the front steps, the decorative etching on the Legislative wing cornice, and tower metal spandrels and stone sculpture never completed. The result is a much more spartan exterior than designed.



Capitol Mall Construction



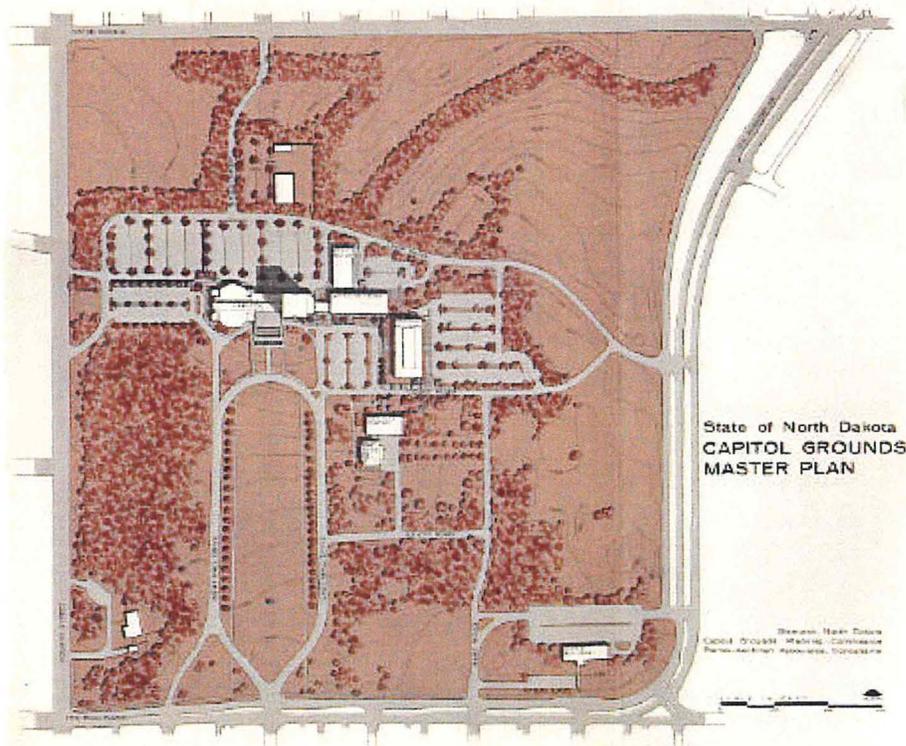
Capitol Fire of 1930

HISTORICAL INFLUENCES

In 1955, a major deviation to the Morrell and Nichols plan occurred when the Bismarck Junior College was built on the southeast corner of the Grounds. This may have been rationalized as appropriate due to the introduction of asymmetry by the 1934 Capitol design or it may simply have been an expedient and economical consideration. In any case, the unfortunate location resulted in a building that bears little relationship to the Capitol Complex and detracts from the natural beauty and sense of arrival that could otherwise have graced that important corner.

In 1960, the site selected for the construction of a new Governor's Residence, designed by the Ritterbush Brothers of Bismarck, generally followed the Morrell and Nichols Master Plan, although its visual relationship to the Mall was much less apparent than originally suggested.

1965 MASTER PLAN



In 1965, Barton & Aschman developed a new Master Plan which added landscaping and provided for buildings that harmonized well with the earlier, magnificent structures. The plan incorporated design elements from the 1920 Master Plan with the realities of the existing buildings and amenities as they had developed over the intervening years. This Master Plan oversaw the transition from a few lone buildings in a parkland of meadow and woods to a major civic complex with urban buildings, roadways, parking, and monuments.

The DOT building was built in 1967 as an early implementation of this plan, which also provided for a future building that was later implemented as the Judicial Wing. The dark metal and light colored stone of the State Capitol building influenced the choice of building materials for the DOT and Heritage Center. The controversial Judicial Wing, built in 1981, also reflected that influence of materials, although the dominant window forms of the "J-Wing" introduced an architectural character decidedly different from its predecessors.



Judicial Wing 1981

HISTORICAL INFLUENCES

The Heritage Center was built in 1981 to acknowledge and honor the site of the former Historical Park area, designed by the architectural firm of Anderson, Wade, Barsness, & Walter, located in Bismarck and Minot.

Barton & Aschman master-planned an arboretum south of the former Historical Park as a picturesque contrast to the strong geometry of the Mall. A variation on that idea established the Arboretum Trail in 1985.

All in all, the Capitol Grounds has benefited from an outstanding site with ample area, outstanding views across the Missouri River Valley, a rich historical tradition, good access from all directions, and being surrounded by handsome city neighborhoods, both residential and commercial.

PRINCIPLES DERIVED FROM THE PAST

Many planning principals are available from the earlier master plans to carry forward into the 2000 Master Plan.

- Celebrate the richness of the visual contrast between strong asymmetrical building forms and the Classical Liberty Memorial Building; and, between the Classical central Mall and the rolling natural landscape.
- Respect of the history and tradition of the state and of this site.
- Optimize the potential for beauty, dignity, and monumentality.
- The strongest design features of the grounds remain the central symmetrical mall and the dominant asymmetrical office tower.
- Maintain the general landscaping as a woods and meadow character, augmented by the Arboretum Trail.
- Locations for new buildings should respect and avoid areas with high groundwater, significant topographical changes, and sensitivity to protection of handsome views of the Capitol Complex.
- The land area across State Street will continue to serve as an east buffer to residential neighborhoods.
- Strive to return state departmental space that is currently located off of the Capitol Complex.
- Reduce overcrowding of space.
- Accommodate future growth of staff and services.
- Maintain relatively heavy landscaping on the west and east of the Complex.
- Strive to locate parking areas near the desired destination.
- Maintain an internal roadway system so vehicles are not required to travel public streets to move around the Complex.
- Provide alternative means of access so not all traffic uses the Mall roadways.
- Avoid conflicts between vehicles and pedestrians.
- Maintain the Mall as the principal organizing element.
- Strive for a compact arrangement of buildings to facilitate movement of staff and visitors and to minimize exposure to the harsh winter climate.
- Strive to link buildings by enclosed walkways, where practical.
- Assure that new buildings, in no way, detract from and, in fact, strengthen, the dominant character of the State Capitol and the Mall.
- Limit new buildings to a height of three to five stories.
- Assure that the architectural character of new buildings is subordinate to the State Capitol in color, scale, and detail.
- Strive for ease of wayfinding by visitors.

"Existing conditions, both natural and man-made, are most important in establishing the location of future buildings, roadways, and other features of the Capitol Grounds".

1965 Master Plan Quote

INVENTORY AND ANALYSIS

A thorough understanding of existing conditions is critical to the preparation of a comprehensive Master Plan for the Capitol Grounds. The following categories were reviewed, documented, and analyzed to develop strategic planning goals for the Master Plan.

- Community Context
- Neighborhood Context
- Visual Analysis
- Architectural Character
- Space Utilization
- Vehicular Circulation and Parking
- Pedestrian Circulation
- Infrastructure
- Environmental Factors
- Landscape Character
- Site Features/Amenities
- Summary of Existing Features

The following summary provides an overview of findings for each category. Detailed inventory, mapping, and data can be found in the Appendix.

COMMUNITY CONTEXT

The Capitol Grounds is a major cultural attraction for visitors from around the globe, as well as the State and City of Bismarck. Significant growth and development over the years requires an evaluation to confirm key relationships, access, and linkages within the community. Preservation and enhancement of view corridors and access, as well as consistent identification, are critical to the success of the Master Plan. The following planning goals provide community-based guidelines by which the Capitol can remain a vital component within the fabric of the city.

Planning Goals:

- Preserve and enhance long-range visual corridors to the Capitol Tower.
- Identify State Street/I-94 interchange as the primary vehicular access from the north and east.
- Enhance the user approach from the south to create a sense of arrival.
- Enhance the 6th Street corridor and intersection with Boulevard Avenue to take advantage of the powerful visual axis of the Capitol Mall, to mark the east/west path of travel with an appropriate level of importance, and to celebrate the impressive entrance vistas.
- Develop a "transit" connection to the Central Business District of Bismarck, if practical.
- Encourage development of a multipurpose trail connection to the Missouri River corridor.
- Develop trail/sidewalk links to significant, near-by facilities (schools, CBD, parks, etc.).
- Develop and/or enhance off-site identification and directional signage.

INVENTORY AND ANALYSIS (continued)

NEIGHBORHOOD CONTEXT

While a strong identity and "fit" is important within the community context, it is paramount that the Capitol Grounds remain a good neighbor to the surrounding residential areas. There are an unusually high number of educational facilities within walking distance of the grounds. These relationships present a unique opportunity to develop strong links between governmental and educational need; yet, demand a sensitive approach to the ultimate development of the Capitol Grounds.

Planning Goals:

- Develop strong relationships and linkages with adjacent education facilities.
- Create a sensitive approach to development that insures compatibility with adjacent residential use.
- Utilize state-owned parkland east of State Street to create additional amenities for neighborhood residents and Capitol Grounds visitors and employees.

VISUAL ANALYSIS

Protection of significant view corridors on-site and off-site is critical in maintaining a strong identity and relationship within the community. Cluttered views and poor visual access lead to safety and identity concerns, while enhanced visual corridors can maximize the educational value and beauty of the Capitol Grounds setting.

Planning Goals:

- Enhance visual access to the Governor's Residence, improving security and prominence.
- Improve views of the Capitol Grounds from the north and east approaches.
- Enhance the visual quality of the 9th Street and 6th Street approaches.
- Develop monument placement program to optimize visibility and a sense of continuity.
- Develop off-site view corridors.
- Utilize accent lighting to improve visual access of prominent features.



View to Missouri River Valley



Existing View to Governor's Residence

INVENTORY AND ANALYSIS (continued)

ARCHITECTURAL CHARACTER

The architectural character of the Capitol Complex is dominated by the power of the 19-story Capitol Tower, the beauty of the 3-story Legislative Wing, and the dark attraction of the glassy void of the major entrance which ties the two elements together. A subtle adaptation of Art Deco character offers an elegant level of detail, most beautifully expressed in the main entry and first floor Legislative areas. The predominant gray limestone walls of the State Capitol set a strong precedent for the major vocabulary of building materials which has been recalled in most of the other major buildings on the Complex.

The Judicial Building, DOT Building, and the Heritage Center complement the State Capitol buildings in their use of wall materials, window and door openings, and general building forms.

The Liberty Memorial Building is an elegant classical and traditional design. This is the only building surviving from the 1920 Morell & Nichols Master Plan that envisioned a highly symmetrical arrangement of buildings about the Capitol Mall.

Window patterns vary within these gray-wall systems, with a strong vertical character to the windows of the State Capitol and DOT contrasting with a strong horizontal character to the windows of the Judicial Building and the Heritage Center. Window and door finishes are often a medium to dark bronze tone, which serves to enhance wall openings. Most of the existing buildings have "flat" roofs that establish the main character, with the Liberty Memorial Building being the only building on the complex with a colonnade and a visible sloping roof.

The State Office Building is a much less dignified, adaptively reused building in the far southeast corner of the Complex. This building is reaching the end of its useful life and is recommended for removal by 2020.

Planning Goals:

- Design new buildings in scale with existing buildings, including their ratio of length to width and their height.
- Use compatible and harmonious building materials.
- Recognize the importance of window and door opening design in relating new buildings to existing architectural character.
- Locate new buildings to continue the development of a compact campus.
- Seek to enhance both the symmetry and the balanced asymmetry of the existing arrangement of buildings and site features.
- Improve building security.



Capitol Tower



Liberty Memorial Building



State Office Building



DOT Building

INVENTORY AND ANALYSIS (continued)

SPACE UTILIZATION

Buildings on the North Dakota State Capitol Complex are composed of office, legislative chambers and caucus rooms, museum and library space, as well as miscellaneous support space. In order to develop a master plan for the North Dakota State Capitol Complex, this space and the buildings that house it must be analyzed thoroughly for the following:

- Current size and projections of area.
- Shortfall of area.
- Quality of space.
- Capability of current buildings to provide the space needed.

Departmental projected sizes and necessary proximity are needed to make recommendations for campus growth and to develop current space deficiency corrections. This analysis has been conducted in the following buildings:

- State Capitol - Tower and Legislative Wing.
- Judicial Wing.
- North Dakota Department of Transportation.
- Heritage Center.
- Liberty Memorial Building.
- State Office Building.

Existing Conditions

The existing Capitol Grounds contain the following inventory of features (See the Appendix for more extensive information about space.):

- Six primary buildings containing office and special use space, with
 - 873,753 gross square feet of space, including:
 - 393,707 net square feet of usable office-type space
 - 157,340 net square feet of usable special use space, which includes museum, library, Legislative and Judicial use.
- One Governor's residence and one support building.
- Leased space located in other areas of the city totals 281,744 rental square feet. Of that amount, 86,944 square feet has been identified (See Section 2) as space that should be consolidated on the Capitol Grounds.

The Capitol Grounds currently support:

- 1,780 employees
- An estimated peak load of 400 visitors per day

Seasonally, during the biennial Legislative session, the Capitol Grounds also supports, for the January through April time period:

- An estimated 150 legislators.
- An estimated 105 legislative support staff.
- An estimated 75 lobbyists at any time.
- An estimated 75 adult visitors to the Legislature at any one time.
- Up to an estimated 150 school children visiting the Legislature at any one time.

Analysis of current conditions shows:

- Efficiency of the buildings' useable area averages 63% of the total gross building area (net to gross).
- Density of office-type space use is 221 net square feet per employee.

INVENTORY AND ANALYSIS (continued)

VEHICULAR CIRCULATION AND PARKING

Analysis of existing circulation patterns reveals a circuitous and potentially confusing experience for both state employees and visitors. Numerous vehicular and pedestrian conflicts, unsafe intersections, and aging pavement suggest a re-evaluation of the overall vehicular circulation system.

Parking conditions are complex due to peak load parking demands during the biennial Legislative Session. North Dakota's harsh winter climate creates challenges when considering parking distribution, walking distances to building entrances, snow removal and storage, and the difficulty in addressing the seasonal Legislative parking needs.

Existing Conditions

The Capitol Grounds currently provides the following parking capacity:

- 1,595 general employee parking spaces for staff and others.
- 113 designated visitor parking spaces.
- 33 "Permit Only" reserved parking spaces.
- 2 Capitol Security spaces, 2 TV Only spaces, 4 – 30 Minutes Parking spaces.
- Approximately 225 unauthorized and unmarked curbside parking spaces located along various internal roadways, used most intensively during the biennial Legislative session.

Analysis of current parking conditions shows:

- General employee and reserved parking spaces are provided at the ratio of 91.5% of all employees.

Planning Goals

- Provide a logical vehicular circulation system that offers clear and logical wayfinding.
- Minimize vehicular and pedestrian conflicts.
- Improve building and site security, especially for drop-off situations and parked vehicles.
- Create convenient, ceremonial entrances for visitors and dignitaries.
- Provide appropriate distribution of parking to reflect the location and population of Capitol Complex buildings.
- Minimize walking distances to primary building entrances.
- Develop pedestrian-friendly, attractive and inviting parking environments.
- Comply with accessibility standards.
- Provide for adequate snow storage areas and parking lot design standards for efficient snow removal.
- Develop signage standards for identification of visitor and employee parking.
- Develop lighting standards to improve security and an attractive, welcoming environment.



Aerial View of NW Parking Area



Aerial View of State Street Entrance



Aerial View of NE Parking Area

INVENTORY AND ANALYSIS (continued)

PEDESTRIAN CIRCULATION

Pedestrian circulation is an important factor in the overall success of a campus environment. The current system is fragmented and unsafe due to numerous road and parking lot conflicts. The Arboretum Trail is popular with lunch time walkers and local school education classes. However, this amenity is antiquated and random in its organization. A significant effort should be made to enhance the overall qualities of the pedestrian circulation system to optimize cultural, educational, and recreational opportunities.

Planning Goals:

- Develop a trail and walk system to highlight recreational, interpretive, and functional opportunities.
- Develop design standards to coordinate the overall system.
- Minimize walking distances from parking areas to building entrances.
- Minimize pedestrian and vehicular conflicts.
- Develop lighting standards for increased pedestrian safety and to extend the usable hours of use of the system.



Existing Arboretum Trail

INFRASTRUCTURE

Recent analysis of the existing mechanical, electrical, and civil systems by facility management staff suggests sufficient capacity to support current and future development. However, a location-specific engineering analysis, preceding each major development, will be prudent.

Lighting plays a significant role in the overall image of the Capitol Grounds. The existing system is inadequate in providing a secure, cohesive nighttime environment. Parking areas, pedestrian walkways, and the Capitol Mall are under lit and create security concerns for users and visitors.

Planning Goals:

- Define primary utility corridors for future development and ease of access for repair and maintenance.
- Strive to create a central maintenance and motor pool facility. Consider a central generation plant for electricity.
- Develop vehicular, pedestrian, and accent lighting standards.
- Develop storm water management guidelines.

ENVIRONMENTAL FACTORS

Environmental factors play an important role in the overall success of the Master Plan. Consideration should be given to unique topographic features, solar exposure and wind characteristics, as well as soil and groundwater conditions. Sustainable development principles should be considered to preserve the character and quality of the unique environmental features of the Capitol Grounds.

Planning Goals:

- Mitigate poor drainage areas to maximize environmental amenities.
- Utilize unique landforms.
- Optimize pedestrian protection from inclement weather.
- Site future buildings with consideration for solar orientation, energy efficiency, access, and use of existing topography.
- Identify and enhance potential habitat environments.
- Encourage alternative modes of transportation, such as carpooling, mass transit, bicycling, skating, and walking to minimize resource consumption.

INVENTORY AND ANALYSIS (continued)

LANDSCAPE CHARACTER

The North Dakota Capitol Grounds are unique when compared to other state capitols across the nation, due especially to a dynamic diversity of landscape character. However, several concerns are raised when evaluating the existing conditions of the site, including undesirable combinations of native and introduced plant species, high levels of maintenance, lack of year-round appeal, limited perimeter edge treatments, and the appropriateness and location of ceremonial groves and educational or interpretive components. This Master Plan intends to build upon the uniqueness of the Capitol Grounds setting by developing guidelines which will insure the preservation and celebration of the North Dakota landscape, appropriate implementation and maintenance standards, and comprehensive natural quality.

Planning Goals:

- Enhance and build upon unique qualities and diversity of landscape characters.
- Define appropriate plant species.
- Create year-round appeal.
- Define outdoor use areas.
- Reinforce significant processional experiences.
- Develop perimeter edge planting treatment which is sensitive to adjacent land uses and frames view corridors.
- Reinforce the historic nature of the Capitol Grounds.
- Develop and implement a landscape management and maintenance program.

SITE FEATURES AND AMENITIES

The Capitol Grounds provide exciting opportunities for amenities that enhance the overall campus experience, from large group gatherings to singular walks to educational and interpretive displays. Currently, the Arboretum Trail is the main outdoor amenity on the Complex and provides opportunities to view the monument and statue collection, explore different tree species, or enjoy a leisurely stroll. In addition, several open areas are currently utilized for community events or gathering. However, the overall framework for these amenities is underutilized and unorganized, thereby unnecessarily limiting the potential for outdoor features and amenities.



Existing Statues

Planning Goals:

- Develop additional recreational opportunities.
- Reorganize and re-align the Arboretum Trail to better utilize unrecognized areas of the site and enhance educational value of the native environment.
- Develop monument and statue location standards to increase visibility and importance.
- Recommend a strategic approach to location and implementation of the Judicial Grove.
- Increase the visibility and educational value of the Governor's Residence.
- Reintroduce the concept of the Historic Gardens to add to the historic value of the landscape.
- Enhance the main entrance to the Capitol by adding interpretive interest.
- Develop a west-central "Legislative Mall" to celebrate the importance of the Legislative Wing.

SUMMARY OF EXISTING FEATURES

A comprehensive and thorough understanding of the existing conditions provides insight and direction for developing a cohesive Master Plan for the Capitol Grounds. By identifying key planning goals through this analysis, the future of the Complex develops respect for its history, function, and opportunities.

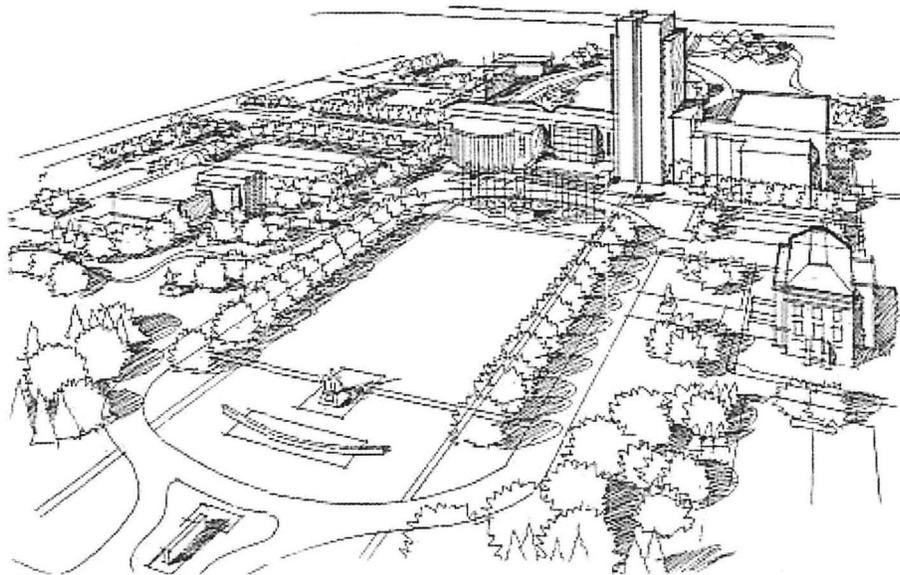
THE MASTER PLAN

The primary goal of the North Dakota Capitol Grounds Master Plan is to recommend a strategy to enhance the future development of the grounds while maintaining the diversity of the present campus character, the opportunities for future growth, and celebrating the historical significance of its past. It offers a practical and understandable guide to the future.

The Master Plan is broken down into the following components for convenience and organization; however, when combined together, they create a unified, comprehensive, and strategic document to aid in rational future planning decisions.

- Community and Neighborhood Context
- Architecture and Building Locations
- Space Utilization
- Vehicular Circulation and Parking
- Pedestrian Circulation
- Infrastructure
- Landscape Treatment
- Site Features and Amenities
- Signage Standards
- Lighting Standards
- Furnishings Standards

The vision for each category is briefly described, followed by key recommendations and strategies established by the Master Plan.



*Character Sketch
"The Capitol Mall"*

CONCEPTUAL MASTER PLAN



- | Existing Buildings | | Site Features/Amenities | |
|--------------------|-----------------------------|-------------------------|---------------------|
| ① | Legislative Wing | ⑫ | Capitol Mall |
| ② | Capitol Tower | ⑬ | Capitol Plaza |
| ③ | Judicial Wing | ⑭ | Legislative Mall |
| ④ | DOT Building | ⑮ | Amphitheater |
| ⑤ | Liberty Memorial Library | ⑯ | Myron Atkinson Park |
| ⑥ | Heritage Center | ⑰ | Judicial Grove |
| ⑦ | Governor's Residence | | |
| Proposed Buildings | | | |
| ⑧ | Maintenance / Motor Pool | | |
| ⑨ | Proposed Building | | |
| ⑩ | Heritage Center Expansion | | |
| ⑪ | Historic Gardens / Pavilion | | |

THE MASTER PLAN (community and neighborhood context)

COMMUNITY AND NEIGHBORHOOD CONTEXT

Enhancing and preserving view corridors, gateways, and significant approaches to the Capitol Grounds will insure successful relationships within the community. Physical linkages will improve the connectivity to neighboring residential areas, education facilities, and recreational and natural resources, while emphasizing the cultural and historic significance of the Capitol Grounds. The following recommendations will enhance the overall image of the Capitol and heighten the welcoming experience for visitors and users.

Recommendations:

- Advocate the desired Vision for the Capitol Grounds Master Plan by participating in local planning efforts.
- Improve identification and directional signage along Interstate 94. Develop and enhance the State Street interchange with Interstate 94 as the primary vehicular access from the north.
- Improve the sense of arrival for visitor traffic arriving from the south by redirecting traffic from 9th Street to 6th Street via E Avenue C.
- Coordinate with DOT regarding State Street and Boulevard Avenue reconstruction projects to improve vehicular access and circulation.
- Coordinate with DOT regarding implementation of a multipurpose trail along the east side of State Street and the north side of Boulevard Avenue.
- Collaborate with the City of Bismarck to develop streetscape standards for 9th and 6th Streets to enhance visual access and highlight the Arrival experience.
- Collaborate with the City of Bismarck to extend trail/sidewalk connections to the Missouri River corridor and to educational and recreational attractions.
- Implement perimeter landscape treatment to frame on-site and off-site views and enhance neighborhood relationships.
- Improve Myron Atkinson Memorial Park to enhance the State Street entrance, improve use of the park, and create a cohesive visual landscape character along both sides of State Street.

ARCHITECTURE AND BUILDING LOCATIONS

After the earlier State Capitol building was destroyed by fire in 1930, the current State Capitol features an aggressive asymmetry while still maintaining symmetrical elements such as the central main entrance aligned with the centerline of the Capitol Mall. The Tower and the Legislative chambers form a careful balance of diverse elements about the central axis. This approach influenced a change in thinking when further new buildings were located. These were gathered asymmetrically and compactly around the eastern base of the Tower, stretching southward toward the historic Liberty Memorial Building.

This Master Plan recommends a reconfirmation of both symmetry and asymmetry as a rich mixture for new buildings and landscape features. The location of the first new building to accommodate future growth is recommended to acknowledge the historic symmetry intended in the 1920 Morell & Nichols Plan by placing a building symmetrically opposite the historic Liberty Memorial Building. However, the new building area requirements are considerably larger than the size of the Liberty Building. As a result, the new building is modeled with an east wing projecting forward from a larger building, with that east projection reflecting the length and height of the Liberty Memorial Building.

THE MASTER PLAN (architecture and building locations)

Later, growth can be accommodated by two buildings symmetrically arranged along the east portion of the Capitol Grounds. These buildings, displacing some existing surface parking, would be served by a new multi-floor parking ramp that could include a climate-controlled pathway connecting to the existing east tunnel between the Judicial Building and the DOT Building.

A new Central Maintenance and Motor Pool Facility is proposed for the northwest portion of the site, replacing the maintenance and motor pool area currently located immediately north of the Capitol Tower. This less obtrusive location will offer the opportunity to consider the feasibility of a central heating and cooling plant in that location as well. Moving the facilities will serve to beautify the north entry area to the Grounds, aided by landscape screening of the service facility.

Recommendations:

- New buildings should be designed to harmonize in scale and major materials with the existing buildings.
- Window and door openings have a distinct influence on architectural character and should be considered in new designs for their compatibility with existing character.
- The principles of both symmetry and "balanced" asymmetry should be considered in the location and design of new buildings.
- Structured parking and parking decks should be considered in striving to locate parking in reasonable proximity to the locations of staff and visitors.
- The location and size of new buildings must respect the dignity and comparative privacy of the Governor's Residence, maintaining a respectful distance.
- Compactness in location of buildings is desirable to minimize walking distances between buildings and parking during the winter months.
- Elimination of the existing drive-through beneath the main south entry steps is important to reduce the threat of terrorist acts. Development of a new west drop-off area will replace this important feature. The old drop-off area can be altered to pedestrian entrance and staff lounge or other functions.

Construction of new buildings can vary in time with the evolution of space needs without affecting the overall continuous harmony of the Capitol Grounds. However, new parking demands must be satisfied in concert with new building expansion.

SPACE UTILIZATION

The final recommended planning scenario includes the following:

- Rightsizing of existing offices located on the Complex (230 S.F. per occupant).
- Consolidation of departments by relocation of leased offices to the Complex, including:
 - Human Services
 - Information Technology
 - Industrial Commission
 - Insurance (South Office)
 - OMB – Risk Management
- Expansion of Historical Society.
- New State Library.
- Construction of 156,000 Gross S.F. building to accommodate rightsizing and consolidation of departments.
- Construction of two additional 80,000 Gross S.F. buildings to accommodate future growth.

THE MASTER PLAN (vehicular circulation and parking)

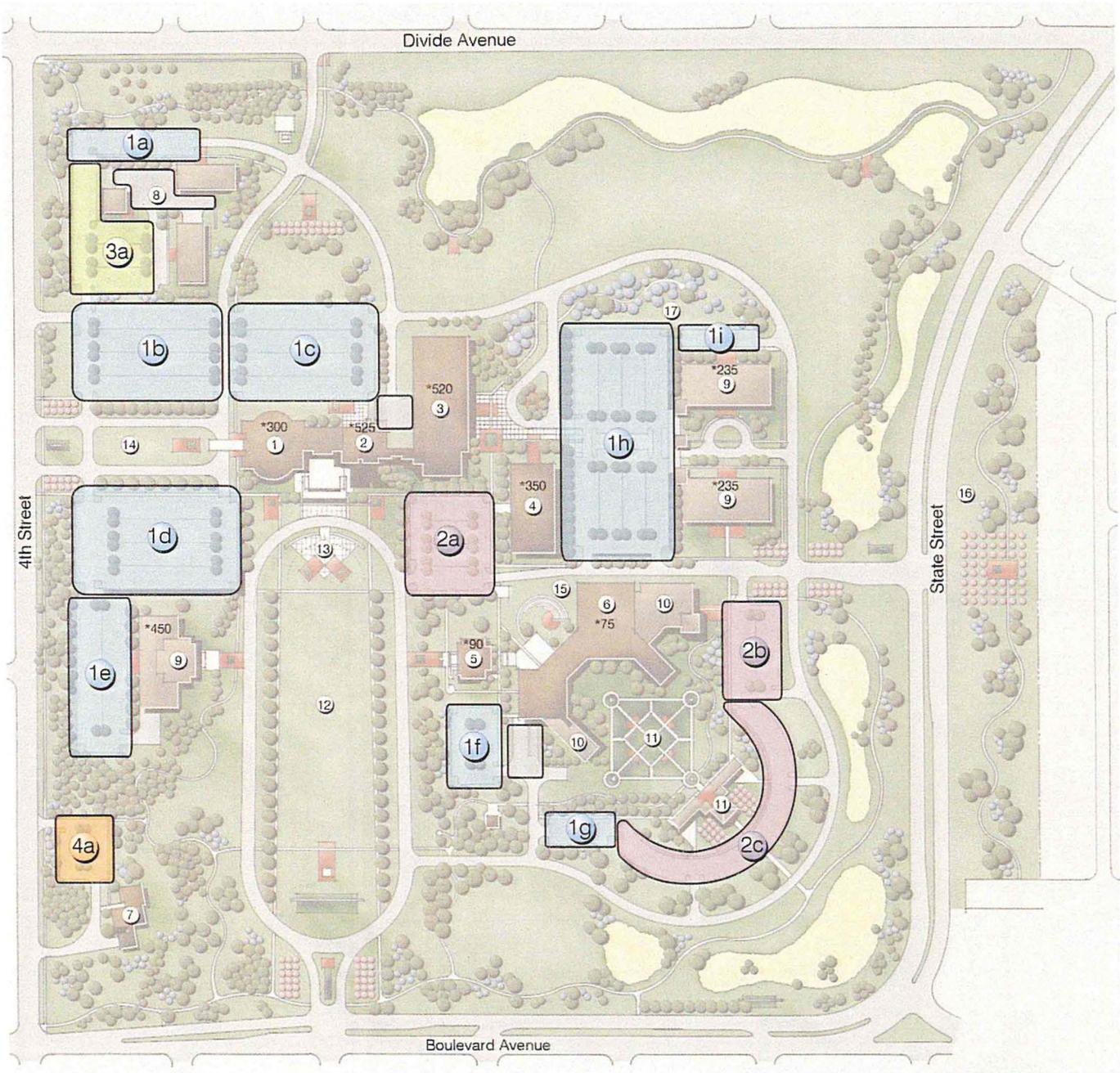
VEHICULAR CIRCULATION AND PARKING

Second only to buildings, roadways and parking strongly define and organize the environment of a campus setting, both visually and functionally. Entrances and drives should be located and aligned to provide the greatest convenience for staff and visitors. Parking areas should be located in the proximity of intended destinations to minimize walking distances, vehicular and pedestrian conflicts and confusion.

Recommendations:

- Develop a perimeter loop road system to minimize internal vehicular traffic.
- Access all parking and building entrance points from the perimeter loop road.
- Simplify the Boulevard Avenue entrance configuration to beautify and strengthen the main entrance to the Capitol Grounds and improve safety and wayfinding.
- Modify the State Street entrance, in conjunction with the reconstruction of State Street, and eliminate frontage roads. Shift the entrance location to the south to align with the main east/west roadway and eliminate the frontage road to Divide Avenue.
- Enhance the north entrance from Divide Avenue, after implementing the relocation of the Maintenance and Motor Pool to the northwest corner.
- Develop a "Legislative Mall" along 4th Street to celebrate and formalize the importance of the Legislative Wing and to create a more organized circulation and parking system for the west side of the Capitol Grounds.
- Create a covered drop-off area at the west entrance of the Legislative Wing prior to the elimination of the south drive-through.
- Eliminate the south vehicular drive-through below the main entrance steps for security purposes. This area should remain a pedestrian entrance and may also serve as an employee break area.
- Eliminate on-street parking, during most times, on all internal roadways except the Capitol Mall. Continue to allow on-street parking along appropriate roadways only during Legislative sessions as a means of absorbing the additional peak parking demands.
- Develop a two-level parking deck on the south side of the proposed west Legislative Mall. This deck will service both a new building on the west side of the Capitol Mall and the Legislative Wing. Utilize the existing topography to minimize the visual impact of the deck. Provide a pedestrian tunnel link to the west Legislative Wing entrance for convenience.
- Develop a multi-level parking structure on the east central area of the Capitol Grounds to serve the Judicial Wing, DOT Building, and future building sites.
- Provide secure bicycle parking areas within parking decks or structures.
- Increase the amount of visitor parking with consideration for visitor destination and enhance its quality and accessibility for persons with disabilities.
- Adopt a goal to provide employee parking at the ratio of 0.95 spaces per employee (95% of the on-site employee count).
- Provide reserved Legislative parking at one space for each legislator and legislative staff. This parking can be utilized by general staff during non-legislative periods.
- Align parking areas to optimize pedestrian movement and snow removal efficiency. Establish the minimum size of interior parking lot islands as the equivalent of four parking stalls and medians as a minimum of twelve feet wide to provide adequate snow storage area.
- Consider incentives for carpooling and use of alternative modes of transportation as a part of a comprehensive Transportation Management Plan.
- Consider fee-based parking for some areas to help offset parking structure operational costs and to encourage use of alternative modes of transportation.
- Implement signage standards to clearly identify employee and visitor parking areas and building entrances.
- Implement lighting standards to improve safety.

PARKING SUMMARY



Employee Parking	
1a	60
1b	280
1c	235
1d	560
1e	150
1f	65
1g	32
1h	1400
Total	2782

Visitor Parking	
2a	130
2b	60
2c	150
Total	340

Motor Pool Parking	
3a	150

Governor's Parking	
4a	50

□ Service Parking

- Existing Buildings**
- 1 Legislative Wing
 - 2 Capitol Tower
 - 3 Judicial Wing
 - 4 DOT Building
 - 5 Liberty Memorial Library
 - 6 Heritage Center
 - 7 Governor's Residence

- Proposed Buildings**
- 8 Maintenance / Motor Pool
 - 9 Proposed Building
 - 10 Heritage Center Expansion
 - 11 Historic Gardens / Pavilion

- Site Features/Ammenities**
- 12 Capitol Mall
 - 13 Capitol Plaza
 - 14 Legislative Mail
 - 15 Amphitheater
 - 16 Myron Atkinson Park
 - 17 Judicial Grove

*Indicates parking required per building

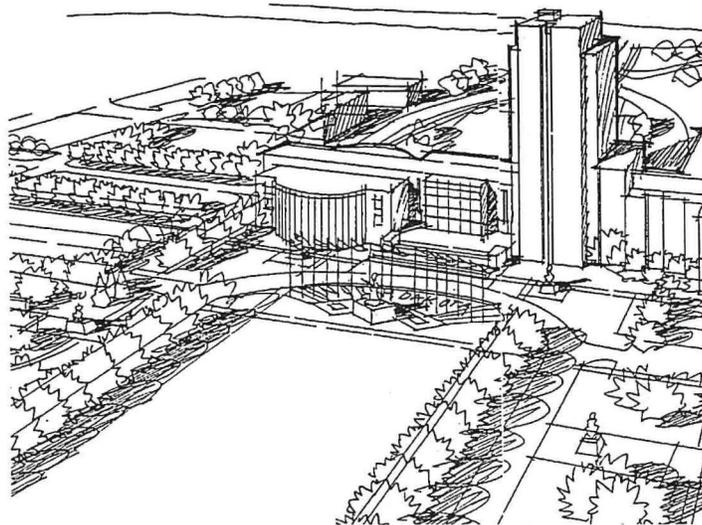
THE MASTER PLAN (pedestrian circulation and plazas)

PEDESTRIAN CIRCULATION AND PLAZAS

Growing trends in health, fitness, and environmental education provide unique opportunities to develop a comprehensive pedestrian circulation plan for the Capitol Grounds. Combining these opportunities with such challenges as the North Dakota climate, a viable monument placement policy, and providing ADA compliance becomes a daunting, but rewarding, task. The following recommendations will create a highly attractive and integrated pedestrian system.

Recommendations:

- Develop a meandering, multipurpose, recreational trail along State Street and Boulevard Avenue, in conjunction with the DOT reconstruction project. The trail should generally avoid being strictly parallel to the streets system in order to introduce a feeling of informality and personal exploration to the edge of the Capitol Grounds.
- Develop a meandering trail along the Divide Avenue and 4th Street sides of the Capitol Grounds. Create overlooks from the Divide Avenue trail which provide interpretive opportunities and off-site views to the town center and Missouri River Valley corridor.
- Reconfigure and expand the Arboretum Trail; thus, providing greater access to additional areas of the Capitol Grounds.
- Develop a "Capitol Plaza" around the base of the south main entry steps, creating a State "Welcome Mat" for visitors and a venue for civic activity.
- Enhance all primary building entrance plazas to consistently celebrate and identify main access points.
- Develop an outdoor amphitheater for public gathering at the northwest courtyard of the Heritage Center.
- All walks should consist of Portland cement concrete pavement. All plazas or accent areas should be highlighted with granite pavers to match pavers currently on the Complex. Accent color paving should be consistently introduced to border monuments, statues, and interpretive displays.
- Implement furnishings standards to unify the pedestrian system.
- Implement signage standards for interpretive display, building identification, and entrances.
- Implement lighting standards to improve safety and extend the useful hours of the trail and walk system.



View of Capitol Plaza at north end of the Capitol Mall

THE MASTER PLAN (infrastructure/landscape treatment)

INFRASTRUCTURE

Sanitary sewer, water, electricity, gas, fiber optics, telecommunications, and storm water collection are critical to the day-to-day operations of the Capitol Grounds. Capacity, longevity, maintenance, and serviceability become primary in determining planning recommendations for these elements. These systems have been recently evaluated by the Grounds and Maintenance Staff and appear to be in good working condition and are reported to have adequate capacity for growth. The following planning recommendations can assist in developing additional or modified systems in the future.

Recommendations:

- When funding expansion buildings, reconfirm by engineering analysis, at the outset of planning, the practicality of the new intended design loads on the various infrastructure systems.
- Replace the existing Maintenance/Motor Pool facilities with a new Central Maintenance and Motor Pool Facility at the northwest corner of the site.
- Consider a central electric plant, to be located within the Central Maintenance Facility area.
- Coordinate sewer systems with the City of Bismarck and DOT.
- Explore potential development of retention/detention basins that could be integral into the design of the Historic Gardens or perimeter edge treatment.

LANDSCAPE TREATMENT

The diversity of the outdoor areas on the Capitol Grounds provides numerous opportunities for enriched outdoor experiences. The "park-like" nature of the grounds is highly valued by the public and staff as a relaxing and aesthetic atmosphere. These values, combined with the rich heritage of the site, provide a framework for establishing recommendations and strategies for the landscape treatment of the Capitol Grounds.

Recommendations

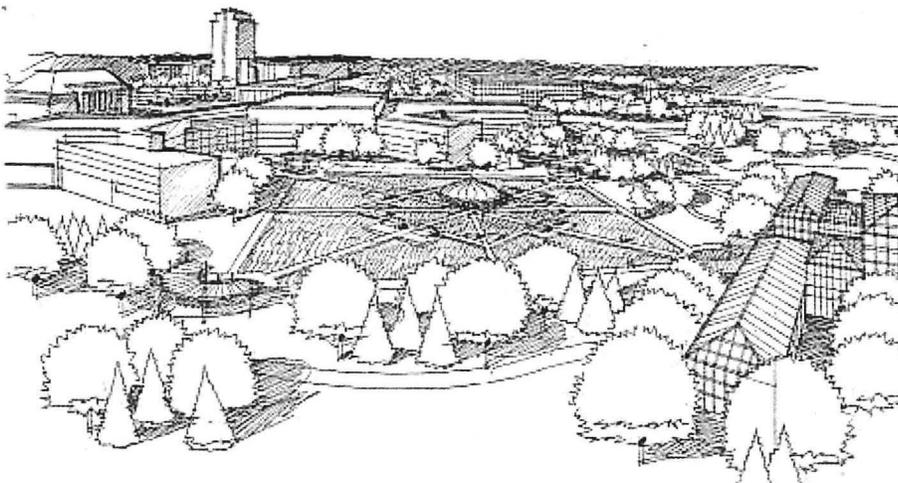
- Eliminate all undesirable plant material and begin a commitment to development of typical North Dakota plant environments.
- Develop suitable plant material list for selection of future installations (see Appendix for suggested suitable plant list).
- Enhance and expand the native prairie areas on the grounds.
- Implement perimeter edge plantings to highlight entrance points, frame on-site and off-site views, and define the Capitol Grounds.
- Implement uniform design standards and landscape design character for the development and redevelopment of the grounds surrounding various facilities.
- Add seasonal landscape variation throughout the campus.
- Implement a replacement program for existing elm trees lining the Capitol Mall.
- Develop historically significant plantings and interpretive displays in the Historic Gardens.
- Modify the Arboretum Trail landscape collection, based in part on realignment and expansion of the Trail.
- Further define outdoor use areas by emphasizing a "woods and meadow" theme for the grounds.
- Implement irrigation design standards (see – Appendix for suggested standards).

THE MASTER PLAN (site features and amenities)

SITE FEATURES AND AMENITIES

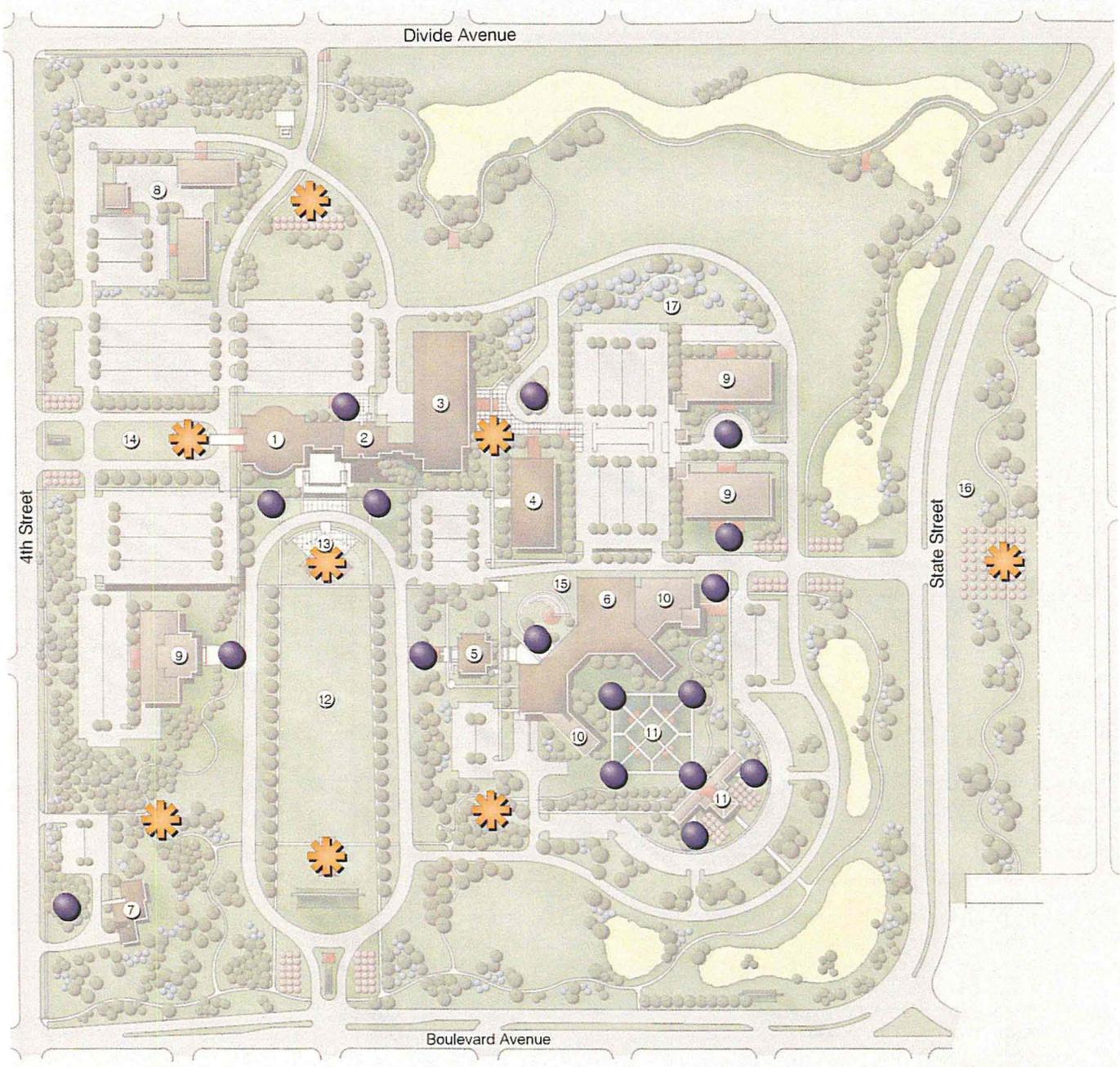
The opportunities to further enhance the North Dakota State Capitol Grounds are excellent. Major improvements in site features and amenities can optimize the use of the property, provide organization and unity of the grounds, and create additional recreational, cultural, and ceremonial experiences. The following recommendations build upon existing features, while adding new amenities and value to the campus.

- Create a "Legislative Mall" on the west side of the Capitol Complex.
- Develop the "Historic Gardens" southwest of the Heritage Center as a major visitor attraction.
- Develop a "Capitol Plaza" at the base of the south main steps as a major public gathering space and an icon for the Capitol Grounds.
- Develop an outdoor amphitheater for public gatherings, visitor tours, educational sessions, and special events.
- Relocate the "Judicial Grove" to the northeast side of the Judicial wing as a more fitting relationship to its mission. Adopt plant selection and location standards.
- Implement a monuments and statues location and selection plan and policy. The following plan suggests recommended locations for primary monuments and statues to better organize circulation systems and improve visibility for the features. A final plan and criteria for monuments and statue content, design, location, materials and process should be developed by the Capital Grounds Planning Commission.
- Implement building entrance design standards to uniquely identify these areas apart from typical pedestrian areas, including paving treatment, site furnishings, landscaping, signage, and lighting.



*Character Sketch
Historic Gardens looking North*

MONUMENTS



Monuments
 Memorial Monument
 Historical Monument

- Existing Buildings**
- ① Legislative Wing
 - ② Capitol Tower
 - ③ Judicial Wing
 - ④ DOT Building
 - ⑤ Liberty Memorial Library
 - ⑥ Heritage Center
 - ⑦ Governor's Residence

- Proposed Buildings**
- ⑧ Maintenance / Motor Pool
 - ⑨ Proposed Building
 - ⑩ Heritage Center Expansion
 - ⑪ Historic Gardens / Pavilion

- Site Features/Amenities**
- ⑫ Capitol Mall
 - ⑬ Capitol Plaza
 - ⑭ Legislative Mall
 - ⑮ Amphitheater
 - ⑯ Myron Atkinson Park
 - ⑰ Judicial Grove

THE MASTER PLAN (signage standards)

SIGNAGE STANDARDS

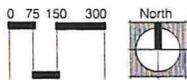
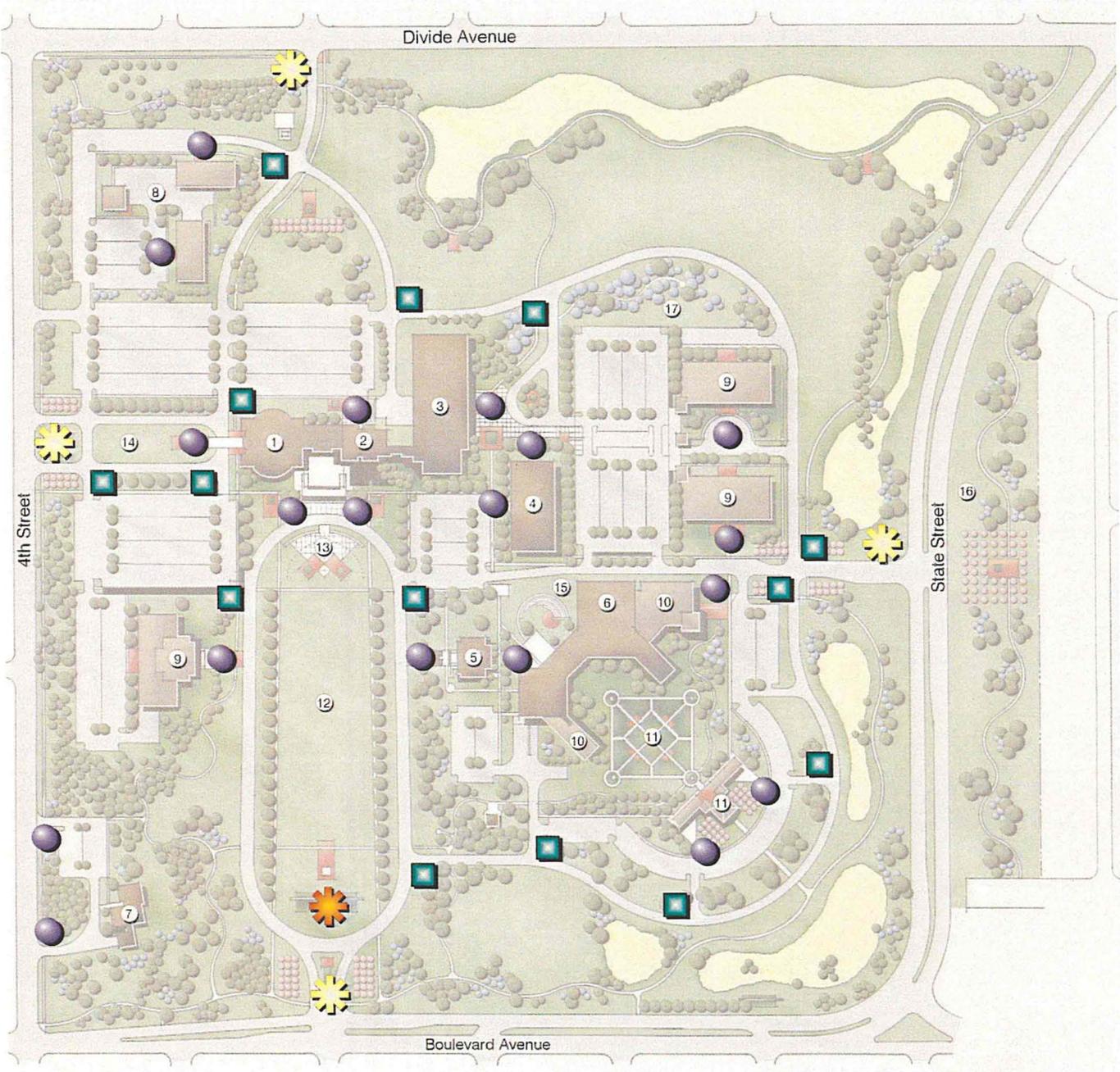
The quality and consistency of exterior signage has a significant impact, not only on the visual character, but also on the perceived organization of the Capitol Grounds. Signage should provide visitors with the proper orientation to find their destination. Consistent and appropriate materials can complement the architectural character and civic dignity of the Grounds. The Master Plan recommends a hierarchical system of strategically located identification, directional, informational, and interpretive signs. This signage will simplify wayfinding as it integrates with circulation patterns and the diversity of users of the system.

Recommendations:

- Develop a comprehensive signage master plan, including font styles, sign types, graphics, colors, materials, standard details and a master location plan.
- Eliminate inappropriate and confusing signs.
- The hierarchy of the signage system is recommended as:
 - Signature Identification Sign (optional)
 - Capitol Grounds Identification Signs
 - Directional Signs
 - Building Identification Signs
 - Interpretive Signs

The sign types and design concepts outlined below identify the primary sign categories and their design intent. The following illustration recommends locations for primary identification and directional signs. These prototypes and recommended locations, are intended to be used as a guide for the development of a comprehensive signage master plan. All signs should be rectangular, precast concrete monuments, mounted on cast-in-place concrete bases with appropriate foundations and footings. Signage and graphics for Signature and Capitol Grounds Identification Signs should be cut metal forms, surface mounted with vandal-resistant anchors to the precast monument and externally illuminated. Signage, graphics and background for building identification, directional and informational signage should be subsurface and integral with a matte finish, fiberglass panel mounted with vandal-resistant anchors to the precast monument. These signs may be externally or internally lighted.

SIGNAGE



- Signage**
- Signature Sign
 - Primary ID Sign
 - Building ID Sign
 - Directional Sign

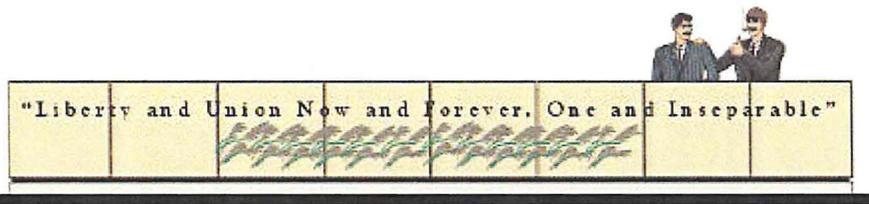
- Existing Buildings**
- ① Legislative Wing
 - ② Capitol Tower
 - ③ Judicial Wing
 - ④ DOT Building
 - ⑤ Liberty Memorial Library
 - ⑥ Heritage Center
 - ⑦ Governor's Residence

- Proposed Buildings**
- ⑧ Maintenance / Motor Pool
 - ⑨ Proposed Building
 - ⑩ Heritage Center Expansion
 - ⑪ Historic Gardens / Pavilion

- Site Features/Amenities**
- ⑫ Capitol Mall
 - ⑬ Capitol Plaza
 - ⑭ Legislative Mall
 - ⑮ Amphitheater
 - ⑯ Myron Atkinson Park
 - ⑰ Judicial Grove

THE MASTER PLAN (signage standards continued)

Signature Identification Sign (optional)



Although a signature identification sign would not be required to complete a comprehensive sign system, the natural beauty and dignity of the North Dakota Capitol Grounds provides a wonderful opportunity to incorporate such a sign at the south formal and symmetrical entry to the Capitol Mall.

Capitol Grounds Identification Signs



Capitol Grounds Identification signs should be located at each major vehicular point of access to the Grounds. These signs provide a powerful first impression and introduce a vocabulary of handsome materials consistent with other sign system components. Signs should be oriented perpendicular to perimeter traffic on public streets and double-sided to maximize the view potential.

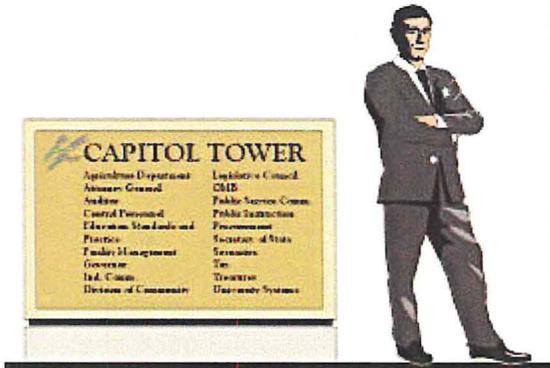
Directional Signs



Visitors and service providers unfamiliar with the Capitol Grounds will be the major beneficiaries of a well-designed directional signage system. Directional signs can efficiently guide users to designated parking areas, visitor entrances, information, buildings, and other services located on the Capitol Grounds. These signs should harmonize with the materials and graphics of the Identification Signs while incorporating clear, legible, and universally understood directional symbols.

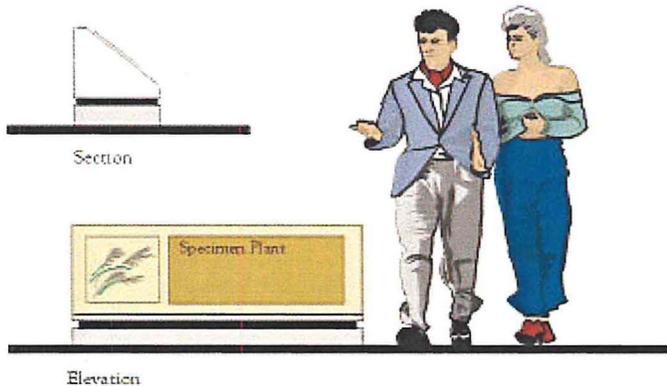
THE MASTER PLAN (signage standards continued)

Building Identification Signs



Building Identification Signs should be consistently located adjacent to primary building entrances. These signs are intended to clearly identify the primary agencies housed within each building.

Interpretive Signs



The North Dakota Capitol Grounds offers a diversity of educational and interpretive opportunities. This element of the signage system should be pedestrian oriented and provide flexibility for a variety of display options, yet maintain a theme of materials and character consistent with other sign system elements. This system would be utilized for the Arboretum Trail, Monument and Statues, and the Historic Gardens.

THE MASTER PLAN (lighting standards)

LIGHTING STANDARDS

Over time, a variety of lighting styles and types has been introduced to the Capitol Grounds. This has resulted in a high-maintenance system that lacks continuity and effectiveness. Lighting, like signage and other landscape elements, should work within an overall coherent system, rather than developed individually for each building project. It is important to distinguish between needs for pedestrian, vehicular, building, and accent lighting as well as to balance concerns for aesthetics and safety.

Recommendations:

- Develop lighting standards for roadway, pathway, and accent lighting.
- Select appropriate light fixtures that relate to the architectural character of the Capitol Grounds and "fit" with signage and furnishings standards.
- Encourage high quality, energy efficiency, and minimal maintenance in lighting selections.

Area Lighting



Manufacturer Kim Lighting
City of Industry, CA
626.968.5666
Style Archetype
Model AR

Area lighting should provide safe and efficient sources of light for major vehicular circulation areas. With the exception of the Capitol Mall and Legislative Mall, all roadways and parking areas should utilize area lighting. Due to the height of these poles (+/-25'), the fixture selected should minimize its visual impact.

Pedestrian Lighting



Manufacturer Lumec Lighting
Boisbriand, Quebec (Canada)
514.430.7040
Style Lantern Series
L82 Luminaire



Scale and aesthetic value become especially critical when selecting standard light poles and fixtures for pedestrian areas. All major pedestrian walks and trails should be lit with pedestrian poles that serve to extend the daily use of these amenities and relate to the architectural character of the campus.

THE MASTER PLAN (lighting/site furnishings standards)

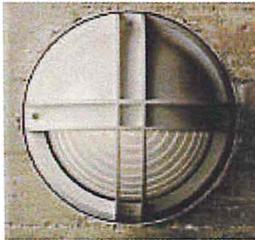
Bollard Lighting



Manufacturer Lumec Lighting
Boisbriand, Quebec (Canada)
450.430.7040
Style Traditional Bollard Series
BOR80

Low level bollard lighting can play an important role in distinguishing between vehicular and pedestrian zones and providing secondary light levels for safety and ambiance.

Accent Lighting



Manufacturer Kim Lighting
City of Industry, CA
626.968.5666
Style CFL
Compact Floodlight
Wall Forms

The Capitol Grounds offers many opportunities for accent lighting that can highlight special features of the campus. These include the dramatic lighting of building facades, the uplighting of trees and landscaping, and the accent lighting of monuments and special features.

SITE FURNISHINGS STANDARDS

A comprehensive site furnishings vocabulary can act as an important unifying element to bind the various aspects of the Capitol Grounds together. Seating, trash containers, bicycle parking stands, and related amenities should be coordinated to harmonize with the style and materials of the buildings and lighting and signage systems.

Recommendations:

Benches



Manufacturer DuMor, Inc.
Mifflintown, PA
800.598.4018



Models Bench 58 (w/back)
Bench 92 (w/o back)

THE MASTER PLAN (site furnishings standards continued)

Trash Receptacles/Ash Urns



Manufacturer DuMor, Inc.
Mifflintown, PA
800.598.4018



Models
Receptacle 84
Ash Urn 80

Planters



Manufacturer DuMor, Inc.
Mifflintown, PA
800.598.4018

Model Planter 114

Bicycle Racks



Manufacturer DuMor, Inc.
Mifflintown, PA
800.598.4018

Model Loop Bike Rack 83

PHASING AND IMPLEMENTATION STRATEGIES

MODEL TIMELINE

The recommendations of this Master Plan are flexible in their date of implementation, and, in many cases, in their order of implementation. Legislative considerations, the health of the State's economy, and space pressures that may result from new programs and staff growth will have a major influence on timing. This timeline suggests a general sequence of events that responds to both the problems and opportunities identified in the course of the preparation of this Master Plan.

The following projects, and their approximate boundaries, are identified by letter on the Phasing and Implementation Strategies Plan on page 1-33.

Phase One

- A. Construct a new building of approximately 150,000 gross square feet, located on the west side of the Mall. Construct related on-grade parking west of the new building. Project a portion of the building, equal in dimension to the west façade of the Liberty Memorial Building, forward and center the projection on the centerline of Liberty Memorial.
- B. Construct a two-level parking deck north of the new building, with the upper level approximately equal to existing grade and the lower level taking advantage of the natural drop in topography to be level with the grade and main entrance to new building. This parking will serve legislators and the new building. Develop a tunnel connection from the northeast corner of the lower level to the west entrance area of the Legislative wing.
- C. Develop a Legislative Mall centered on the west axis, extending from the Legislative wing. This Mall will dignify, beautify, and celebrate this important area of the Capitol Complex. Include related signage, lighting, furnishings, landscaping and irrigation. Include reconstruction of the existing parking to the north of the Mall to improve circulation and maximize parking efficiency. Develop a new west drop-off area with canopy, to include a stair/elevator lobby terminus for the parking deck tunnel. This drop-off area will replace the present drive-through area under the State Capitol's main south entrance steps.
- D. Close the existing drive-through under the State Capitol's main south entrance steps which represents a potential security risk. Convert this area to pedestrian entrance and other needed space by enclosing the area under the steps and removing the drives leading to this area.
- E. In cooperation with DOT, reconfigure the entrance roadway from State Street on the east side of the Capitol Complex, supplementing DOT funds available for the State Street reconstruction, including related signage, walks, lighting, and landscaping. Move the roadway south from its current location to enhance safety, improve space allocated for future building expansion and parking, and align with the existing roadway between the DOT building and the Heritage Center. Eliminate the existing frontage road between this entry and Divide Avenue.
- F. In cooperation with DOT, develop a multipurpose trail of informal character along State Street and Boulevard Avenue. Include related lighting, signage, furnishings, and landscaping.
- G. Reconfigure the entrance roadway, from Boulevard Avenue on the south side of the Capitol Complex, to enhance the dignity and beauty of the primary formal entrance to the Capitol Grounds. Include related signage, walks, lighting, landscaping and irrigation.

PHASING AND IMPLEMENTATION STRATEGIES

- H. Initiate a replacement program for the Elm trees along the Mall, including turf repair, irrigation upgrades, and furnishings. Add lighting to increase security and beautify the area.

Phase Two

- I. Develop the Capitol Plaza surrounding the south stair entrance to the Capitol building, including realigned Capitol Mall drive, pedestrian plazas south and north of entrance drive, monuments, interpretive displays, signage, furnishings, lighting, and landscaping.
- J. Reconstruction the existing visitor parking area to maximize parking, upgrade deterioration, and conform to the realigned Capitol Mall drive.
- K. Relocate and expand (if required) the Judicial Grove to the area east of the Judicial Wing.
- L. Develop visitor parking area at the Governor's Residence and re-evaluate the residence landscaping, lighting and signage. This project intends to improve security, visitor friendliness, and visual quality.
- M. Implement perimeter edge planting program to define the Capitol Grounds and frame on-site and off-site view corridors. This program could include trees, shrubs, prairie and wildflower areas, and/or perennials as well as turf areas. Although this program may be implemented over time, an early initiative will allow for greater success.
- N. Develop improvements to Myron Atkinson Park on the east side of State Street to complete the emphasis of the State Street entrance to the Capitol and create a higher quality open space for neighbors and Capitol employees and patrons.

Phase Three

- O. Construct an addition to the Heritage Center on its east side, with size currently estimated to be approximately 175,000 gross square feet. This will serve as its new main entrance. Construct supplementary parking and drop-off area east of the new addition, including related lighting, signage, furnishings, landscaping and irrigation. Construct an Amphitheater in the natural topographical bowl area north of the current main entrance, including related lighting, walks, signage, furnishings, landscaping and irrigation.
- P. Construct Historic Gardens and Pavilion in the area south of the Heritage Center, making interim use of the existing parking lot north of the State Office Building. Include related lighting, walks, signage, furnishings, landscaping and irrigation. Also, enhance and expand the Arboretum Trail.
- Q. Construct additional parking south of the Liberty Memorial Building to support the ongoing uses of that building. Include related lighting, walks, signage, landscaping and irrigation.

By the midpoint of the implementation of this Master Plan, the work completed as described above under this model timeline is illustrated in the Interim Master Plan on page 1-34.

PHASING AND IMPLEMENTATION STRATEGIES

Phase Four

- R. Construct a new building of approximately 80,000 to 100,000 gross square feet, located in the east central portion of the Capitol Grounds. Include related lighting, landscaping, irrigation, signage and furnishings.
- S. Construct the first half of a 1400 car parking ramp to serve the new building and replace displaced existing surface parking. Provide a protected pedestrian walkway that connects the new building with the existing tunnel between DOT and the Judicial Wing. Reconfigure the internal roadway north of the new building to maximize surface parking and to provide ample space for an additional future new building.

Phase Five

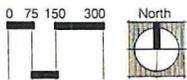
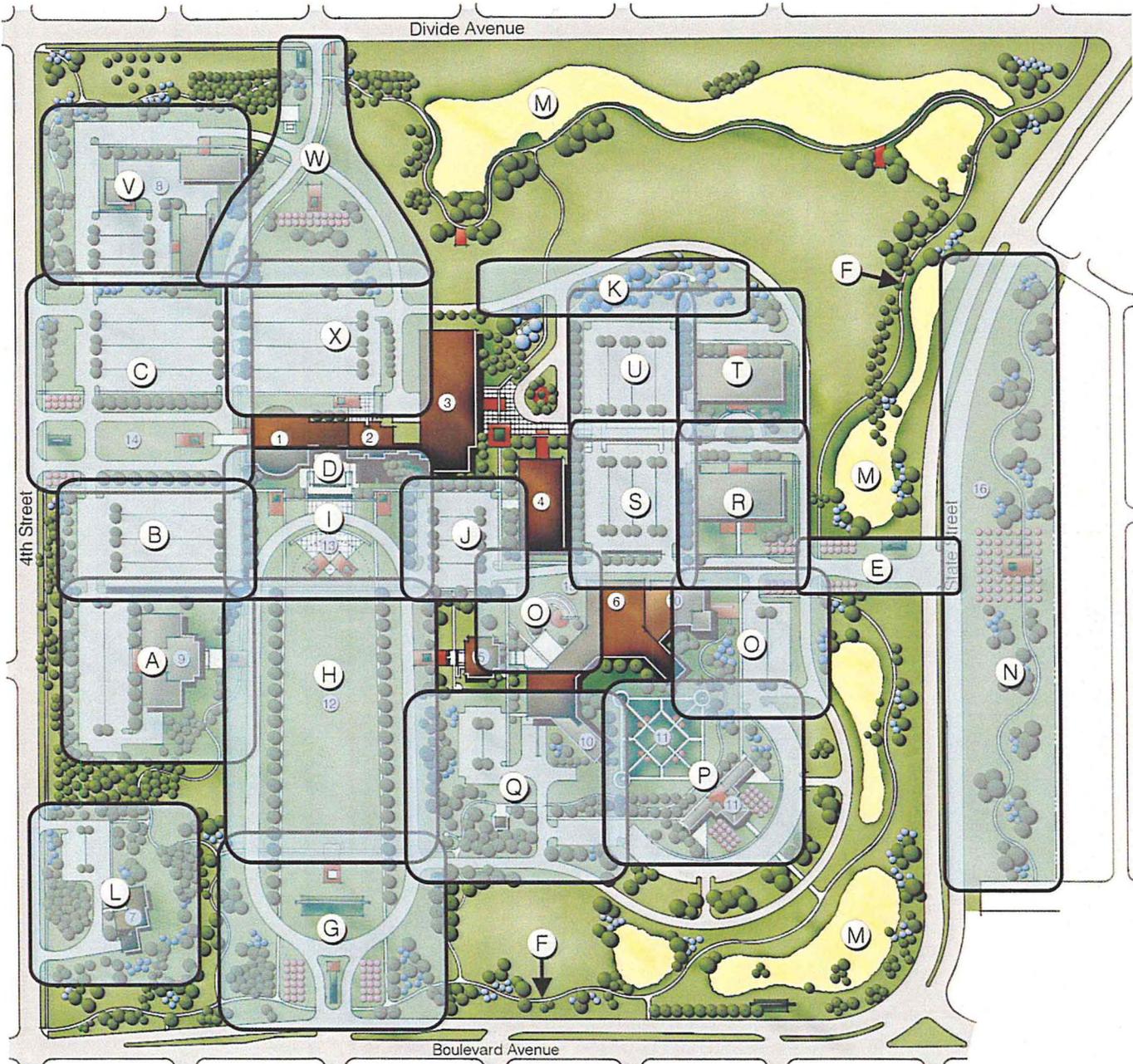
- T. Construct a new building of approximately 80,000 to 100,000 gross square feet, located parallel to the Phase 4 new building in the east central portion of the Capitol Grounds. Include related lighting, landscaping, irrigation, signage and furnishings.
- U. Construct the second half of a 1400 car parking ramp to serve the new building and replace displaced existing surface parking.

Phase Six

- V. Construct a new Maintenance and Motor Pool facility in the northwest area of the Capitol Grounds. Screen the area well to beautify the area and serve as a buffer for the residential areas to the north and west. Include related parking, landscaping, irrigation, lighting and signage.
- W. Reconfigure the north entrance drives at Divide Avenue to improve safety and circulation of vehicles while beautifying the area.
- X. Reconstruct the parking area north of the State Capitol to improve circulation, maximize parking efficiency and beautify the area. Construct a new north entrance to the Tower to improve the functional entrance and enhance the pedestrian environment. Include related lighting, signage, furnishings, landscaping and irrigation.
- Y. Demolish the State Office Building to beautify and enhance a major vehicular approach to the State Capitol and to transfer office space to a more convenient and compact location. Reconfigure the southeast roadway and parking to enhance the Historic Gardens and Pavilion. Include related landscaping, irrigation, lighting, signage and furnishings.

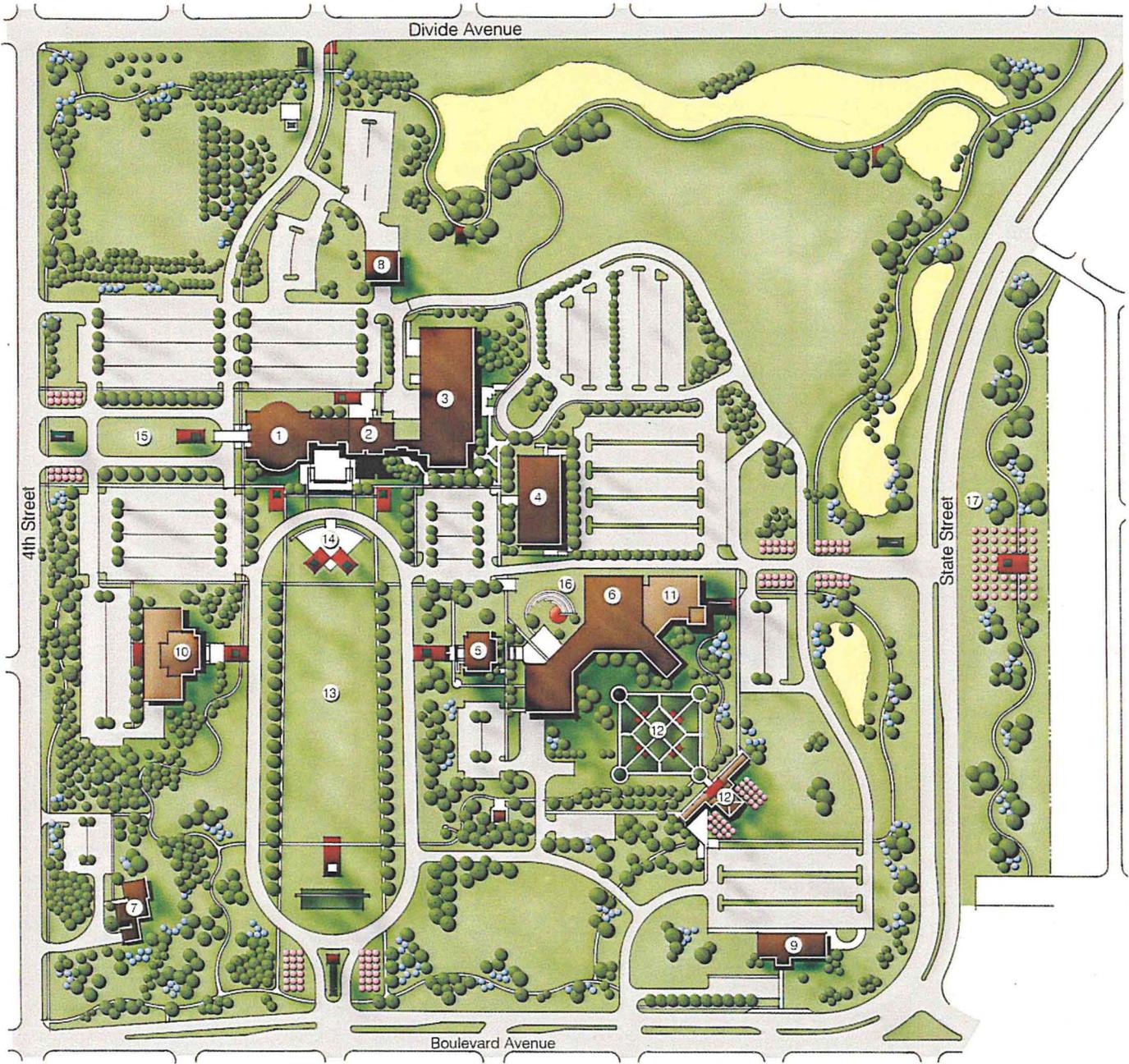
By the conclusion of the implementation of this Master Plan, the work completed as described above under this model timeline is illustrated in the Conceptual Master Plan on page 1-14.

PHASING AND IMPLEMENTATION STRATEGIES



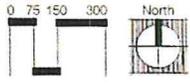
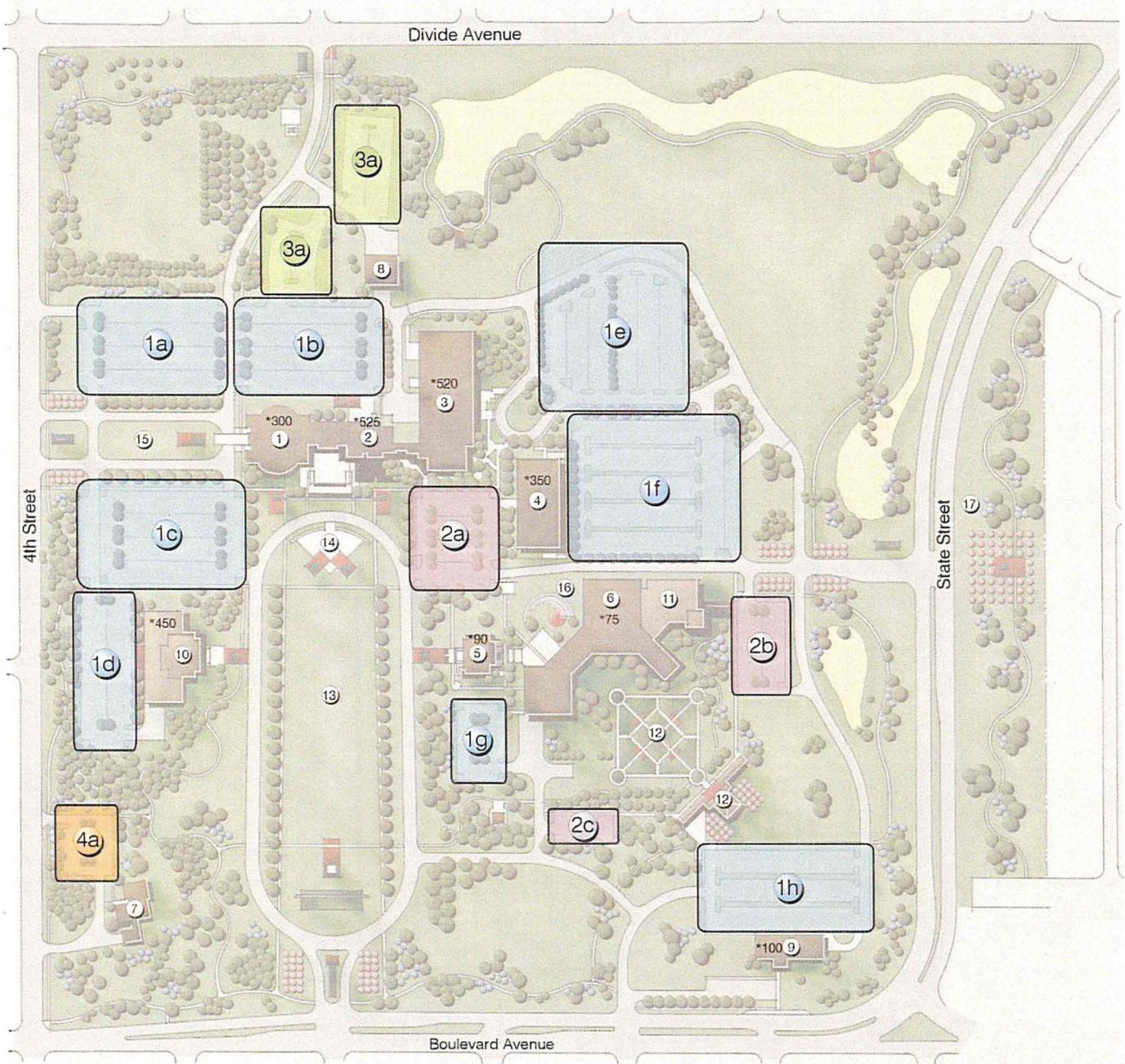
- | | |
|------------------------------|--|
| (A) Proposed Building | (N) Myron Atkinson Park |
| (B) Parking Deck | (O) Heritage Center Expansion |
| (C) Legislative Mall | (P) Historic Gardens |
| (D) Drive-Thru Drop-Off | (Q) Liberty Memorial Parking |
| (E) State Street Entrance | (R) Proposed Building |
| (F) Multi-purpose Trail | (S) Parking Structure |
| (G) Boulevard Ave. Entrance | (T) Proposed Building |
| (H) Capitol Mall | (U) Parking Structure |
| (I) Capitol Plaza | (V) Maintenance / Motor Pool |
| (J) Visitor Parking | (W) Divide Ave. Entrance |
| (K) Judicial Grove | (X) North Tower Plaza |
| (L) Governor's Residence | (Y) Elimination of State Office Building |
| (M) Perimeter Edge Plantings | |

INTERIM MASTER PLAN



- | Existing Buildings | Site Features/Armenities |
|-----------------------------|---------------------------------|
| ① Legislative Wing | ⑫ Historical Gardens / Pavilion |
| ② Capitol Tower | ⑬ Capitol Mall |
| ③ Judicial Wing | ⑭ Capitol Plaza |
| ④ DOT Building | ⑮ Legislative Mall |
| ⑤ Liberty Memorial Library | ⑯ Amphitheater |
| ⑥ Heritage Center | ⑰ Myron Atkinson Park |
| ⑦ Governor's Residence | |
| ⑧ Maintenance / Motor Pool | |
| ⑨ State Office Building | |
| <u>Proposed Buildings</u> | |
| ⑩ Proposed Building | |
| ⑪ Heritage Center Expansion | |

INTERIM MASTER PLAN PARKING SUMMARY



<input type="checkbox"/> Employee Parking	<input type="checkbox"/> Visitor Parking	<input type="checkbox"/> Existing Buildings	<input type="checkbox"/> Site Features/Amenities
1a.....280	2a.....130	1 Legislative Wing	12 Historical Gardens / Pavillion
1b.....235	2b.....60	2 Capitol Tower	13 Capitol Mall
1c.....560	2c.....150	3 Judicial Wing	14 Capitol Plaza
1d.....150	3.....340	4 DOT Building	15 Legislative Mall
1e.....300	<input type="checkbox"/> Motor Pool Parking	5 Liberty Memorial Library	16 Amphitheater
1f.....250	3a.....150	6 Heritage Center	17 Myron Atkinson Park
1g.....65	<input type="checkbox"/> Governor's Parking	7 Governor's Residence	
1h.....220	4a.....50	8 Maintenance / Motor Pool	
2060	<input type="checkbox"/> Service Parking	9 State Office Building	
		<input type="checkbox"/> Proposed Buildings	
		10 Proposed Building	
		11 Heritage Center Expansion	

*Indicates parking required per building

PHASING AND IMPLEMENTATION STRATEGIES

COST IMPLICATIONS

The recommendations of this Master Plan will require future funding. The amount of funding will vary with the particular project scope chosen and with the future value of dollars subject to inflation. Conceptual construction costs are identified in this section based on dollars in the value of the year 2000. These costs must be escalated to recognize the effect of annual inflation. According to R.S. Means 2000 Square Foot Costs manual which uses Fargo in its historical construction cost indexing, construction inflation in North Dakota has averaged a modest 1.34% annually over the past 10 years, with a low year of 0.6% and a high year of 3.8%. This analysis recommends that an inflation factor of 2% per year be applied to conceptual costs unless more specific information is available at the time of calculation.

Phase One

A.	New building approximately 156,000 GSF On-grade parking Related signage, lighting, furnishings, landscaping and irrigation	\$28,470,400
B.	Two-level parking deck Tunnel connection	\$3,452,400
C.	West Legislative Mall Related signage, lighting, furnishings, landscaping and irrigation Reconstruction of existing north parking New west drop-off area with canopy New stair/elevator lobby terminus for parking deck tunnel	\$4,214,860
D.	Close existing drive-through under main south entrance steps Convert to pedestrian entrance and other needed space	Unknown Scope
E.	Reconfigure entrance roadway from State Street Related signage, walks, lighting and landscaping Move roadway south from current location Eliminate existing frontage road between entry and Divide Avenue	\$100,360
F.	Multipurpose trail Related lighting, signage, furnishings and landscaping	\$477,100
G.	Reconfigure entrance roadway from Boulevard Avenue Related signage, walks, lighting, landscaping and irrigation	\$304,850
H.	Replacement program for the Elm trees along the Mall Mall Lighting	\$231,400

Phase Two

I.	Capitol Plaza Realign Capitol Mall drive Pedestrian plazas south and north of entrance drive Monuments, interpretive displays, signage, furnishings, lighting, and landscaping	\$1,627,600
J.	Reconstruct existing visitor parking area	\$445,900
K.	Relocate and expand Judicial Grove to area east of the Judicial Wing	\$74,750

PHASING AND IMPLEMENTATION STRATEGIES (continued)

L. Visitor parking at Governor's Residence Reevaluate landscaping, lighting and signage	\$244,400
M. Perimeter edge planting program	\$279,500
N. Improvements to Myron Atkinson Park	\$307,450

Phase Three

O. Addition to Heritage Center, approximately 175,000 g.s.f. Supplementary parking and drop-off area Related lighting, signage, furnishings, landscaping and irrigation Amphitheater	\$26,046,200
P. Heritage Gardens and Pavilion Related lighting, walks, signage, furnishings, landscaping and irrigation Arboretum Trail	\$1,749,475
Q. Additional parking south of the Liberty Memorial Library Related lighting, walks, signage, landscaping and irrigation.	\$345,800

Phase Four

R. New building approximately 80,000 GSF Related lighting, landscaping, irrigation, signage and furnishings	\$15,212,400
S. First half of 1400 car parking ramp Protected pedestrian walkway Reconfigure internal roadway north of new building	\$10,213,000

Phase Five

T. New building approximately 80,000 GSF Include related lighting, landscaping, irrigation, signage and furnishings.	\$15,107,400
U. Second half of 1400 car parking ramp	\$10,178,000

Phase Six

V. New Maintenance and Motor Pool facility Related parking, landscaping, irrigation, lighting and signage	\$5,366,900
W. Reconfigure north entrance at Divide Avenue	\$350,610
X. Reconstruct parking area north of State Capitol New north entrance to the Tower building Related lighting, signage, furnishings, landscaping and irrigation	\$1,428,700
Y. Demolish old State Office Building Reconfigure southeast roadway and parking Related landscaping, irrigation, lighting, signage and furnishings	\$1,287,650

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Legislative Chambers

SPACE ANALYSIS

To develop a comprehensive master plan for the North Dakota State Capitol Complex, building space must be thoroughly analyzed with regard to both quality and quantity.

Making compelling, cost-responsible master plan recommendations requires a thorough understanding of:

- Current locations and sizes of departments
- Historical trends of departmental growth in staff and area
- Accommodation of appropriate space in existing buildings
- The amount and purpose of off complex leased space
- Aspects of current space that work, or do not work, well.

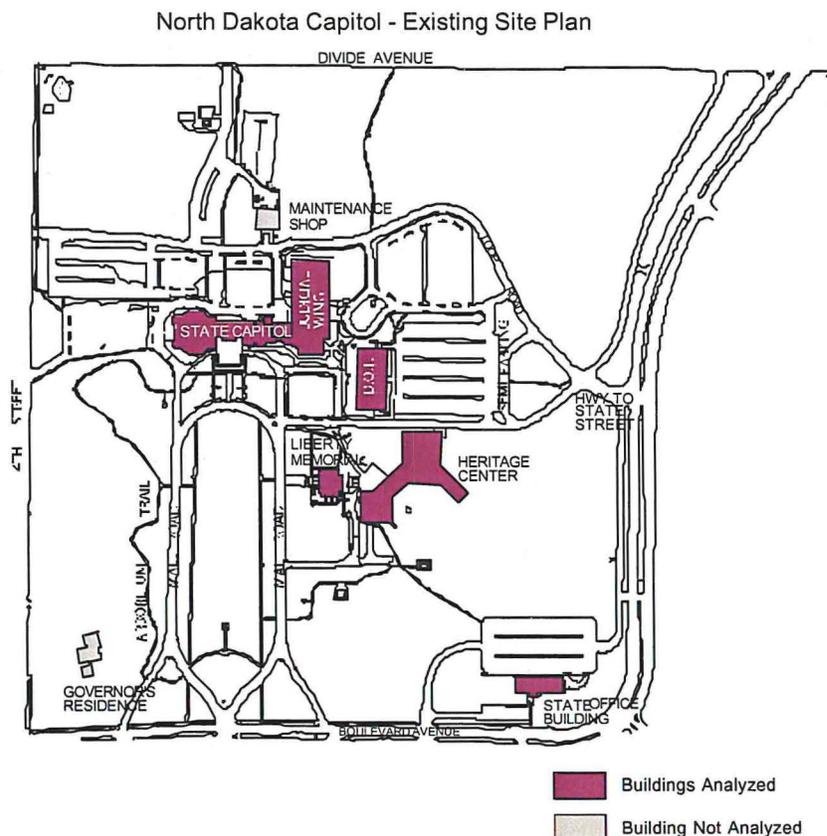
With these issues determined, projections of departmental sizes and proximities can be identified. This comprehensive approach provides insight for recommendations to accommodate growth needs and correction of current space deficiencies.

The following buildings were included in this space analysis:

- State Capitol, Tower and Legislative Wing
- Judicial Wing
- Department of Transportation
- Heritage Center
- Liberty Memorial Building
- State Office Building

The following buildings were not included in this space analysis:

- Governor's residence
- Maintenance Shop



SPACE ANALYSIS (continued)

Two phases of master planning services were authorized for the preparation of this Master Plan. Phase 1 consisted of the Physical Master Plan, addressing the site, its buildings, parking, landscaping and amenities. Phase 2 consisted of the analysis of space within the buildings located on the Capitol Complex.

A third phase of analysis was proposed, but not authorized, due to limitations in funding. The third phase would have included analysis of off complex leased and owned spaces. The information gained from the proposed third phase would have been very helpful to the completeness of the master planning process.

The planning team, feeling that some aspects of off complex areas were essential to the work of Phases 1 and 2, extended their scope of work to collect data available without analysis and include questions during interviews that provided general background. The resulting unverified and incomplete nature of information relating to off complex areas and staff require a caution that the conclusions and recommendations that pertain to these areas are approximate. The lease information used for off complex data is listed in the Appendix.

SPACE OBSERVATIONS

The existing buildings that stand on the North Dakota State Capitol Complex vary greatly in architectural style, size, floor plate, and age. Given these characteristics, each building exhibits a variable degree of space efficiency. The varying efficiency allows for opportunities, as well as, limitations in space configurations.

Like most buildings, the most common space deficiency in each building on the North Dakota State Capitol Complex is the lack of storage space. Locating office support functions such as break rooms, coffee bars, kitchenettes, and copy/fax/mail in areas intended for circulation, and locating filing cabinets and unused computer equipment within individual offices, creates cramped spaces. In some cases, building code violations occur.

CAPITOL BUILDING, BASEMENT THROUGH THIRD FLOORS:

- The basement contains archival storage and large mechanical rooms. Habitation by personnel on this level should be limited due to lack of natural light, fresh ventilation, and proper means of egress.
- The remaining floors include large multi-story, monumental public spaces used for a heavy flow of circulation for staff and visitors.
- The Legislative Branch's chambers, committee rooms and offices and the Governor's office occupy both the Ground and First floor.
- The mail operations of Central Services are housed on the Ground Floor.
- Remaining space is used for circulation, rest rooms, vending, or mechanical systems.

CAPITOL TOWER, FOURTH THROUGH EIGHTEENTH FLOORS:

- Center core area, including elevators, stairs, and floor-to-floor mechanical chases, consume a large portion of the floor area.
- The remaining floor area contains a single-loaded corridor to service the office areas.
- The office areas are typically twenty (20) feet deep and surround the core circulation area.
- The configuration of the floor plate limits the size of a department housed on a single floor.

The Capitol Tower contains the most evident code violations.

- Required building exits are narrower than permitted by building code.
- Maneuvering clearances established by the Americans with Disabilities Act (ADA) are below minimum requirements or completely missing at some doors and aisles.
- Location of storage materials in a required fire-rated area violates the building code. In some instances, such materials are located in the elevator lobbies in the Capitol tower.
- "Dead end" corridors, as defined by building code limitations, occur.
- In general it is good practice, even if not mandated by building code, to have two exits for office spaces. In some instances on Tower floors, departments share circulation to the lobby, and only one exit is available.



Accessibility violations



Support space deficiency creates egress violations



Support space deficiency



Storage deficiencies create egress violations



Storage deficiencies

SPACE OBSERVATIONS (continued)

JUDICIAL WING:

- This building is the newest addition to the Complex and has three zones: southern, core, and northern. The southern portion primarily houses the Judicial Branch. The core area, located between the other zones, consists mostly of circulation and a multi-story atrium. The northern zone is an efficient, open plan that supports a large department layout.
- The Ground floor houses a cafeteria, offices north and south of the atrium space, a large general use conference room, and the primary computer center for the complex.
- The Judicial area has a courtroom and large library on two of the three floors in the southern zone. The remaining areas are largely private offices.
- The northern zone is organized to support a double-loaded circulation system with sufficient floor area remaining on each side of the circulation to produce efficient office cubicle layout. This area is ideal for large departments.

DEPARTMENT OF TRANSPORTATION:

- The five floors of this building primarily house the Department of Transportation.
- This building is supported by two major entrances: one on the first floor serving the parking lot to the East, the other on the second floor serving parking to the West. There are no large circulation areas or atrium that decrease the efficiency of this building. Its core and primary circulation are compact.
- This building is the most efficient on the complex and serves as a model for comparison to the new building space proposed.

HERITAGE CENTER:

- Unlike any other building located on the North Dakota State Capitol Complex, this building was intended for large exhibit space and archival storage. The lower service level houses most of the office and curatorial spaces. The main public level contains several multi-story exhibit spaces, an auditorium that is the largest assembly space on the complex, a retail sales area, and other meeting spaces. The upper floor houses archival storage for the complex.
- Due to such unique types of space, this building is not suited for typical office functions, with the exception of the service level.
- Wheelchair seating is limited to the top of the auditorium unless an outside access is used to gain entry to the speakers' platform area.

LIBERTY MEMORIAL:

- This, the oldest building on the complex, houses the State Library and Tourism.
- The State Library has limited expansion possibilities within this building.
- Load-bearing masonry walls and a large monumental circulation core decrease the usability of this building.
- Wheelchair access required by the Americans with Disabilities Act (ADA) occurs only at the Ground floor. This level is not the perceived main entrance to this building, thus making accessibility confusing for visitors.
- The proper number of fire exits required by building code are lacking.

STATE OFFICE BUILDING:

- The size, width-to-depth ratio, and layout of this building are similar to the Department of Transportation building. However, since the State Office Building's depth is somewhat more narrow, the ability to create as efficient office layout is reduced.
- The basement level of this three-story building does not have windows along most of its exterior walls since it is below grade on three sides.

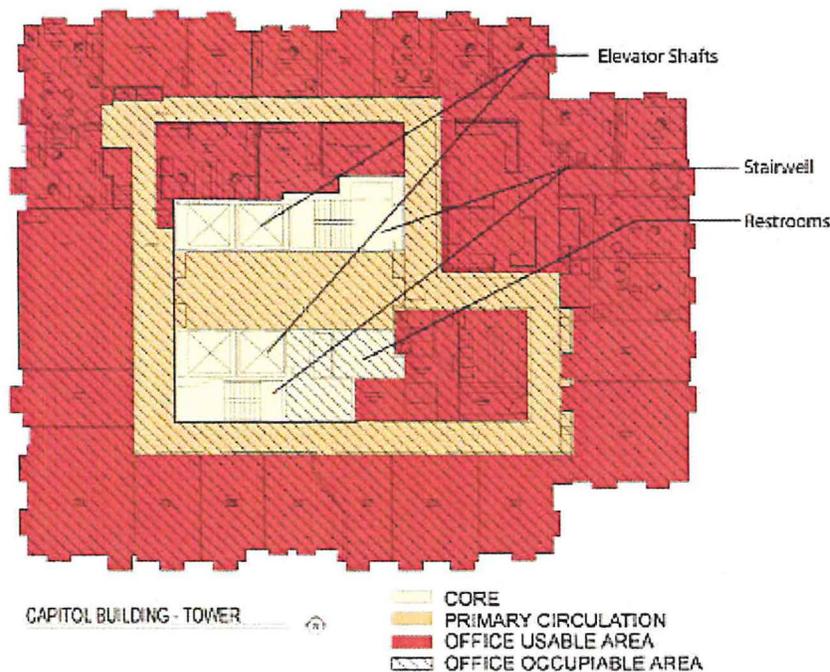
SPACE EFFICIENCIES

OFFICE EFFICIENCY

The amount of secondary circulation, the width-to-depth ratio, and the particular use of an area affect the "office efficiency" of the usable office floor area in a building. To determine office efficiency, a ratio of *office usable area* to *office occupiable area* is computed. To achieve a true comparison between buildings on the complex, large, non-office types of spaces were not considered in calculating the efficiency ratio. Thus, non-office areas have been omitted from the *office usable* and *office occupiable areas*. Examples of large non-office areas include the Legislative Chambers, museum exhibit halls, museum curatorial spaces, courtrooms and library stacks.

Office usable area is defined as the actual area utilized for office purposes. This includes private offices, cubicles, support spaces such as conference rooms, copy/print areas, and mailrooms, as well as the circulation required to move from space to space within these areas.

Office occupiable area is defined as the space within the exterior walls, less floor-to-floor penetrations such as elevator shafts, mechanical chases and stairwells.

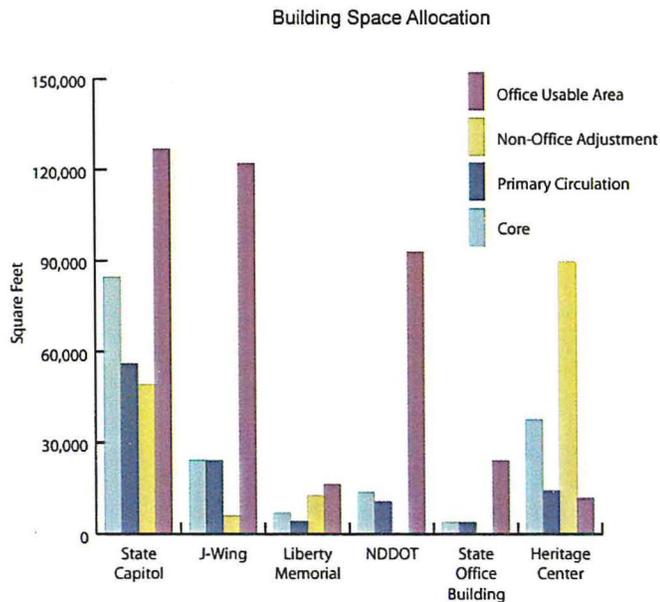


The "office efficiencies" for each North Dakota Capitol Complex building are:

- Department of Transportation – 82.3%
- State Office Building – 78.4%
- Judicial Wing – 77.6%
- Liberty Memorial – 69.8%
- State Capitol – 59.4%
- Heritage Center – 21.3%

SPACE EFFICIENCIES (continued)

In general, buildings on the Capitol Complex are within an expected range of efficiency, with the exception of Liberty Memorial, the State Capitol and the Heritage Center. These buildings can be efficiently planned for departmental operations, provided the proper location, amount, and type of spaces are maintained. The Heritage Center and the State Capitol are the least efficient buildings. This is understandable, considering the large amount of floor area dedicated to large non-office functions. The Capitol Tower is limited by a small floor plate that results in insufficient depth beyond the core elevator/stair area to produce an efficient office plan.



SPACE UTILIZATION

The office efficiency ratio does not determine the actual space utilization of the useable floor area in each building; rather the density of use governs. A common measurement for comparing space utilization is square footage per occupant. The square footage per occupant identifies the density of use for a given area.

Density is typically affected by the office space standards that are used within a department for specific personnel positions. "Space Standards" are acceptable sizes of offices, conference rooms and other supporting spaces that may be adopted by a governmental authority. Implementation of standards enhances an equitable allocation of quality and quantity of space; a ready means to efficiently accommodate needed change; and a convenient method for developing building budgets. The Facility Management Division needs to increase efforts to enforce adopted space standards.

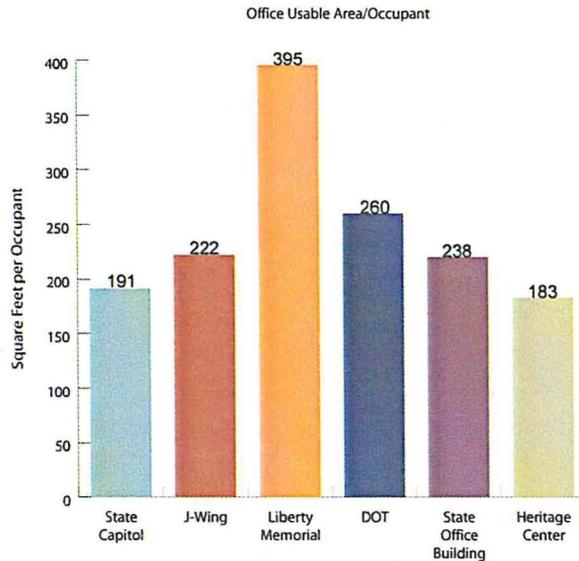
The physical dimensions of the office usable area affect the density of use. An area that does not have sufficient depth to support a circulation path flanked on both sides by usable area will result in a less efficient use of space. The Capitol Tower floor areas are an example of this.

The actual area-per-person ratio calculated for each building or department typically includes not only the office work space, but also a circulation path and support areas such as copier areas, coffee bars, storage, conference rooms, break rooms, cafeteria, etc. Thus, this ratio represents a larger number than simply the exact size of a person's work area.

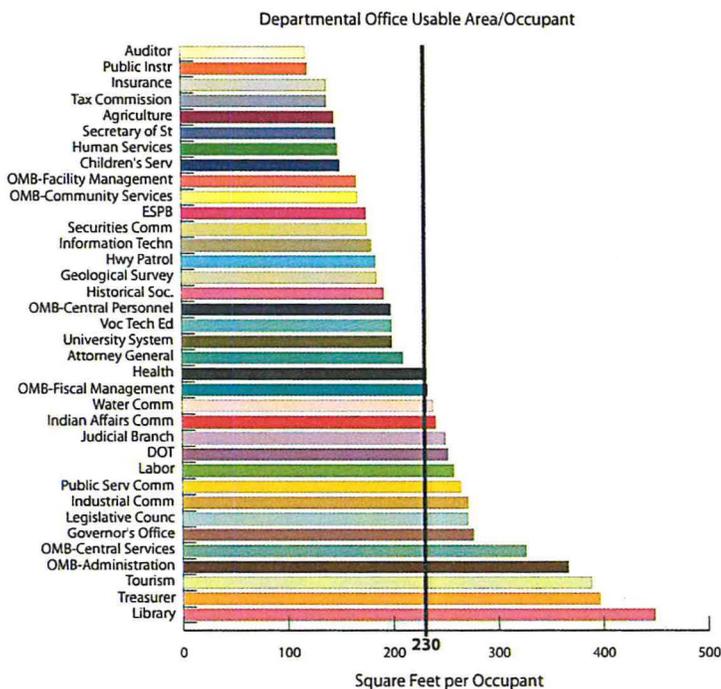
SPACE EFFICIENCIES (continued)

BUILDING DENSITY

- The following are building averages for office usable areas per person at the time the planning survey was completed. Note the averages do not include large, non-office areas and do include the large departmental file storage areas.



This information is broken down further to analyze how each department is utilizing its current space. There are many atypical situations that can skew the analysis. For example, the Facility Management Division has a number of personnel who do not occupy typical office accommodations. Tourism has considerable storage space within its offices for brochures and promotional items. The Library has a large area designated for sound booths.



SPACE PROJECTIONS

Projecting future space requirements requires a thorough prior analysis of existing space conditions. The analysis discussed in previous sections includes both space observations and analysis of existing space efficiency. The ultimate "barometer" for space need is the ratio of usable area per occupant. This ratio enables comparisons among departments, buildings, and peer groups.

RIGHTSIZING

Although the overall analysis of existing usable square feet per occupant for all buildings on the North Dakota State Capitol Complex, calculated at an average for the office space on the complex of 221 S.F. per occupant, falls within a rough range of acceptability, there are significant differences from department to department. The different configurations and floor plates of the buildings contribute to these differences. The lack of enforcement of consistent space standards, the impracticality of achieving compliant space standards in unusual configurations, and increases in staff, without corresponding available space to accommodate them, is largely responsible for differences between departments.

There are significant occurrences of storage in corridors and support space that often result in egress violations. These conditions should be rectified prior in concert with accommodation of new space projections.

National standards for square footage per occupant, published by the International Facility Management Association (IFMA), range from 217 to 444 square feet per occupant, depending on the type of space. For office facilities, the recommended range is narrower, from 280 to 327 square feet per occupant.

This analysis compares the buildings on the North Dakota State Capitol Complex to a similar building on the Iowa State Capitol Complex and to a private corporate office in Des Moines, Iowa. These buildings are roughly similar in overall size to the Department of Transportation. Many of their occupants have smaller cubicle sizes than those currently used on the North Dakota State Capitol Complex. The average square footage per person for each of those buildings is 163 and 168, respectively.

Space use within the DOT Building is generally considered acceptable for the functions that occur there. These functions are similar to those of most other departments on the Capitol Complex. Due to the wide range of comparative data, this Master Plan recommends the adoption of 230 square feet per occupant as a target ratio for all office related spaces on the complex. This ratio is similar to the DOT ratio of 231 square feet per occupant for general office floors 1 through 4. The DOT ratio excludes the storage- and mechanical- intensive Basement Level.

Due to the lack of detailed information on leased space, the planning team assumed that the leased area is sufficiently "rightsized" as leases are renewed. The efficiency of leased space was not analyzed, and any representation of staff in those locations is assumed.

Comparison of the usable area per occupiable area (UA/OA) ratio to other institutions can be helpful but should be treated lightly. Differences in space standards, use of space, such as high public access versus no public access, and large non-office spaces can skew areas and affect the ratio. Acknowledging these potential differences, the 230 square foot ratio is within the acceptable range similar to public and private institutions.

Adjustments from existing lesser departmental ratios to the target 230 square feet per occupant are referred to as "rightsizing." Rightsizing may either increase or decrease space. Rightsizing is usually not a separate action, but rather is an integral part of an expansion program that also accommodates growth.

SPACE PROJECTIONS (continued)

PROJECTIONS

During the planning process, a space questionnaire was sent out to representatives of each department. Information requested on this questionnaire included:

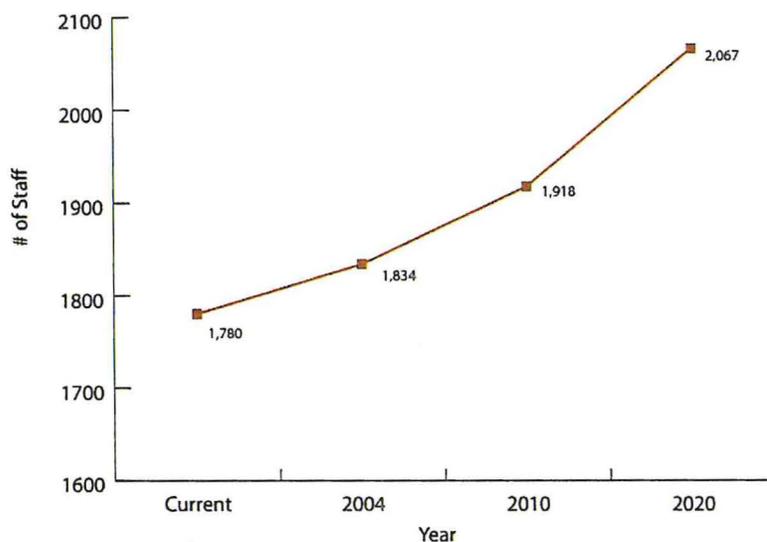
- Departmental function and location(s)
- Departmental organizational chart
- Number of current staff and assigned location
- Projections of staff to FY2002 and 2006
- Conference, ancillary (support space), and filing needs
- Functional relationships (that is, adjacency needs) with other departments
- Degree of public accessibility

The purpose of the questionnaire and the follow-up interviews with each departmental representative included:

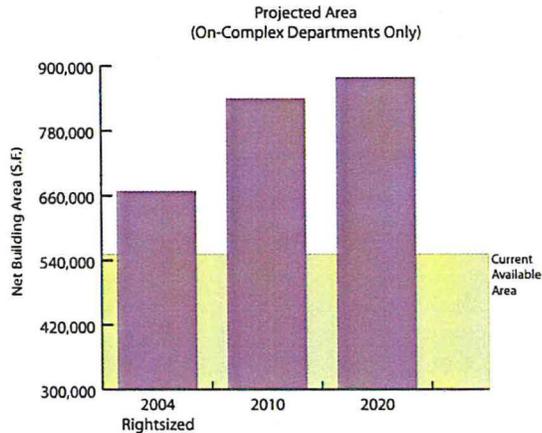
- Verification of departmental space allocation
- Broad-based participation in the planning process
- Establishment of staff growth trends
- Discovery of unusual and extraordinary space needs
- Understanding of departmental fragmentation (both within the complex and off complex)

Responses to the staff projection question ranged from "no growth", for the majority of the departments, to an 11% increase reported by the Historical Society (contingent upon their proposed building addition.) Since the space projection for the Historical Society is not typical for the complex, their staff growth was excluded from the annualized average staff growth calculated for the complex. The remaining departments' average staff growth is approximately $\frac{3}{4}$ of 1%. Together with the target rightsizing ratio of 230 square feet, this relatively flat rate of growth has been used to project the 2010 and 2020 office space needs.

Projected Staff Growth on Complex



SPACE PROJECTIONS (continued)



There is a considerable deficiency in conference and training space available on the North Dakota State Capitol Complex, especially during the Legislative session when Legislative committee rooms are occupied. Rightsizing to 230 square feet per occupant will accommodate conferencing needs of moderate size (up to a 16-person conference room). To accommodate needed larger conference spaces for more than 16 persons, an additional 7,500 square feet of conferencing space has been added to the programmatic need in the Space Master Plan. The demand for these spaces was identified by each of the departments. The additional conferencing area is considered "shared" and not specifically assigned to a single department. Additional conference / training needs have been allocated as:

- Ten 20-person conference/training areas
- One 40-person conference/training area
- One 60-person conference/training area

All non-office space projections were treated as follows:

- Legislative Chambers, support space, offices, and Committee Rooms – Space allocation to remain as current
- Judicial Courtroom – Space allocation to remain as current
- Historical Society - Utilize projected space program provided by department
- State Library - Utilize projected space program provided by department

SCENARIO DEVELOPMENT

Combining the data gained from the Space Observations, Space Efficiencies and Space Projection efforts, three scenarios were developed, ranging from most to least conservative. Detail regarding these scenarios may be found in the Appendix. The three scenarios are:

Scenario One (Most Conservative)

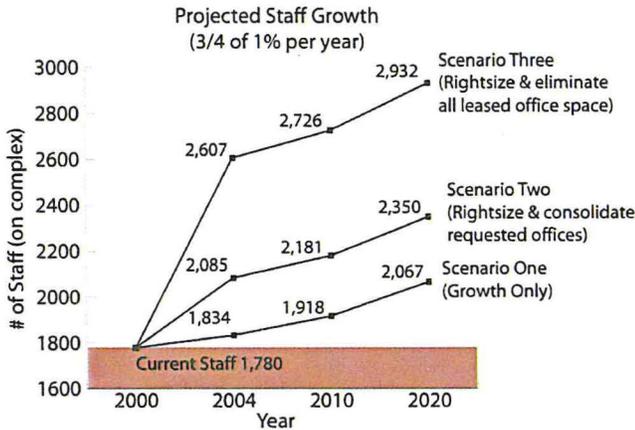
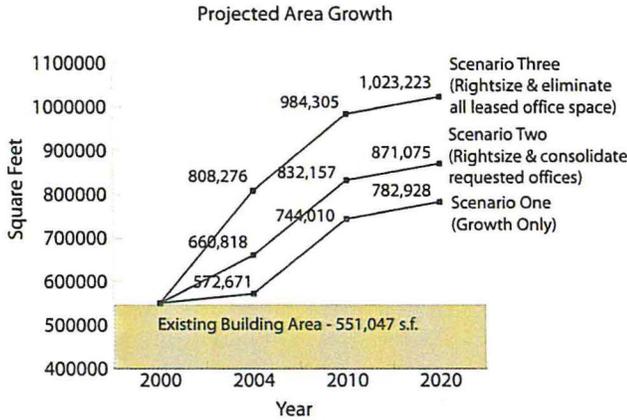
- Make no changes to total space allocation (either on or off complex)
- Make no changes to the number of buildings on complex

Scenario Two (Moderate)

- Rightsize all spaces on complex
- Consolidate off complex locations with on complex departments, as identified by greatest need
- Add new buildings on the complex to accommodate lease consolidation, new program services and staff growth
- Provide large-group conferencing needs

Scenario Three (Least Conservative)

- Rightsize all spaces on complex
- Move all off complex leased office locations on complex, except locations that must be off complex due to function
- Add new buildings on the complex to accommodate lease consolidation, new program services and staff growth
- Provide large-group conferencing needs



Scenario Two was selected to use as a basis for the Master Plan.

FINAL RECOMMENDATIONS

The planning team recommends Scenario Two (Moderate) for the following reasons:

- Addresses shortfall needs and overcrowding of current space on the complex
- Addresses life safety and ADA deficiencies of current space on the complex
- Increases efficiency of departmental operations by consolidating off complex locations with those on complex
- Accommodates practical growth and prudent use of state funds
- Develops change in an up to date manner that can enhance pride by citizens of North Dakota

SUMMARY OF RECOMMENDED SCENARIO

Early years: Construct a 156,000 gross square foot (117,000 net) building on the complex to accommodate:

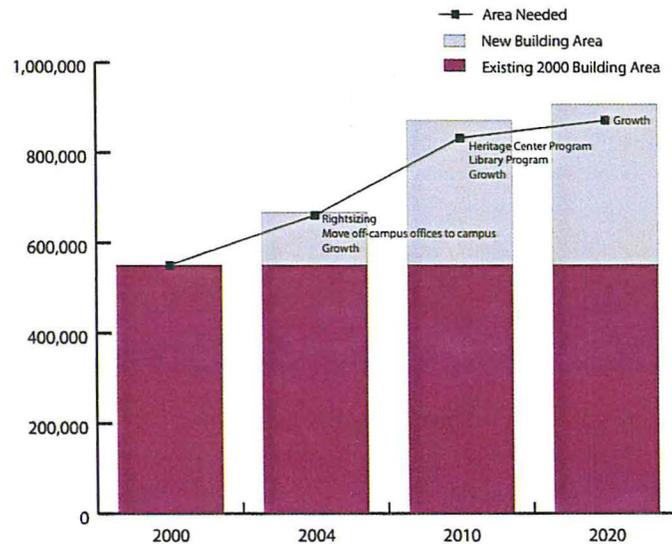
- Rightsizing of existing offices on complex
- Consolidation of departments by relocation of leased offices to complex
- Growth of departments
- Appropriate amount of large-group conferencing areas

Mid-years: Construct a 80,000 gross square foot (60,000 net) building on the complex and an addition to the Heritage Center to accommodate:

- Growth of departments
- Expansion of Historical Society program
- Expansion of State Library program

Later years: Construct a 80,000 gross square foot (60,000 net) building on the complex to accommodate:

- Growth of departments
- Departments requiring space due to demolition of the State Office Building (at the end of its useful life)



FINAL RECOMMENDATIONS (continued)

RELOCATION RECOMMENDATIONS

Stewardship of space (especially departmental locations) on the North Dakota State Capitol Complex has been consistent and sound. Departments that need to be near one another generally are. There are no major proximity issues that negatively affect governmental operational efficiencies.

Relocation of departments on the complex to alternative on-complex locations is needed in some instances (discussed below), but these are few in number. The primary issue for on complex departments is adjustment to the proper amount and type of space.

The following guidelines are established as parameters to govern the reconfiguration and relocation of departments as well as the proper utilization of buildings on the complex.

LOCATION ASSUMPTIONS

- Legislative areas will remain in State Capitol Building.
- Governor's Office will remain in State Capitol Building.
- Judicial Courtroom, offices, and library will remain in Judicial Wing.
- Department of Transportation will remain in the Department of Transportation Building.
- Cafeteria will remain in Judicial Wing.
- Historical Society and Geological Survey will remain in the Heritage Center.

GENERAL GUIDELINES

(Pertaining to all departments on the North Dakota State Capitol Complex):

- Immediately address and rectify all building and fire code conditions affecting means of egress, life safety, and ADA issues for all buildings on the Capitol Complex
- Establish rules that will effectively prevent future violations of means of egress, life safety, and ADA requirements
- Allocate space and enforce adopted space standards by the Facility Management Division
- Implement CADD documentation of all buildings, including architectural, mechanical, electrical, and furniture plans
- Evaluate the possibility of relocating federally or specially funded programs off complex in the event that new space is not made available through new building construction
- Consolidate all on complex departments
- Consolidate off complex departments currently in leased space to the complex where this objective is practical and desired by the department
- Provide area expansion for departments with high growth
- Review time requirements for record storage. Implement regular record purging and a statewide digital imaging program. No additional long-term storage should be located on the complex
- Review mail distribution and central printing operations and consolidate resources as needed.

State Capitol Building – Basement through 3rd Floor

- Basement should not be have people stationed there, but use as storage is appropriate.
- All legislative conference/committee rooms should be made available for general use during non-legislative sessions.
- Evaluate frequency of use and need for locker rooms located on the ground floor. If underutilized, convert to usable office space.

FINAL RECOMMENDATIONS (continued)

State Capitol Building – 4th through 18th Floors

- Maintain a continuous corridor around elevator and stair core accessible to all departments to achieve the exit requirement.
- Locate smaller departments on these floors to best utilize the small floor plate. Generally, maintain 230 square feet per staff member, utilizing established space standards. For example, 23 staff per floor will generally meet the desired square feet per staff ratio.
- Eliminate all existing vault areas in the Capitol Tower that decrease flexibility of use. Evaluate whether the Treasurer's Office still requires a vault.
- Determine appropriate use of the 18th floor. Relocate Lactation room and Employee Lounge to a less remote location. Evaluate the desire for an observation area.

Judicial Wing

- Due to the large floor plate on the North section, the Judicial Wing is an ideal location for large departments.

Department of Transportation Building (DOT) –

- Relocate non-DOT offices/functions to other state-owned complex buildings. Utilize this space for DOT growth needs.

Heritage Center

- Rectify accessibility issues. Resolve the limited wheelchair seating and access in the auditorium at the time a new addition is constructed.
- Maintain current occupants.

Liberty Memorial

- Rectify water infiltration problem.
- Basement should not be permanently occupied by people but use for archival storage is appropriate.
- Personnel who utilize an on complex office full-time should not occupy the Third floor. Instead, use this area for storage, display, or limited staff use. Limited use might include field personnel who need an office on complex but are not present on the complex more than 80% of the time.
- Office use on the Ground, First, and Second floors might include multiple, small, independent groups/departments which would benefit from central, shared secretarial services and copier/fax/printer area. These areas might be used as an interim office location for departments that are moving into another space or new building.
- The entire building could be used for historic displays, possibly accommodating some of the expansion needs of the Historical Society

State Office Building

- Maintain existing locations of departments until razed, then relocate those departments to new space.

DEPARTMENTAL LOCATION PARAMETERS

- Central Personnel – Remain centrally located.
- Mail Services - Remain centrally located.
- Highway Patrol –Remain in current location but provide expansion area on the same floor to the east.
- Governor's Office and support staff - Locate on same floor in single contiguous space.
- Secretary of State Office and support staff - Locate on single floor in contiguous space.
- Tax – Consolidate to a single floor or two adjacent floors in the Judicial Wing or new building. Include record storage currently housed in the Capitol basement.

FINAL RECOMMENDATIONS (continued)

- Health – Consolidate to single floor or two adjacent floors in Judicial Wing or new building. Maintain easy, public access to Vital Records.
- Information Technology Department – It is not necessary to consolidate this department but provide distributed dynamic growth space within each complex building.
- Tourism - Relocate to a high visibility area such as the State Capitol Building Ground floor, Heritage Center Lobby or an off complex facility near a major highway.
- State Library – Relocate to new building with ample stack space and easy, public access.