2 The Planning Process

Introduction

A university's buildings and landscape reflect the ideals of the institution and influence the process of learning and discovery. A campus development plan provides planning principles and guidelines designed to help guide and shape the physical environment in a well-conceived and designed manner. MSU engaged campus constituents, the surrounding community and statewide constituent groups in a participatory planning process. The resulting Long Range Campus Development Plan (Plan), also referred to as *MSU Tomorrow*, is a culmination of two years of those participatory efforts. It represents an important shift toward comprehensive, long-term planning that will honor and preserve the university's history, while striving to support and advance its future aspirations.

Why a Long Range Campus Development Plan?

The primary purpose of the long range campus planning effort is to establish a shared vision for the physical development of the campus environment that is comprehensive, creative, useful, and most importantly, inspiring. Successful comprehensive planning recognizes attributes that create the area's unique sense of place and formulates guiding principles and goals to protect physical assets and accomplish the expectations of the university's mission.

The process of formalizing a long term shared vision fit into the emerging culture of planning at MSU. Individuals throughout the campus and local community were engaged in open-forum planning of the future campus. Throughout the participatory process, stakeholders transformed their sense of ownership into ideas that shaped stewardship of the final plan. Inclusive planning efforts that culminate in an adopted formal development plan ensures that the physical development of the campus will be guided by a set of wide-ranging principles that are aligned with the priority interests of academic, research and service missions. The Plan will help guide campus growth and future decisions related to the physical environment of the campus.

MSU continuously changes, which necessitates renovation and adaptation of existing facilities as well as planning new facilities, while maintaining the architectural character of the campus, embracing historic elements, and preparing for technological innovations and demands. It is a tool to achieve a successful balance between preservation and the need to accommodate growth and maintain the desirable quality of life on campus.

The Plan identifies potential building sites that promote rational build-out of the core campus while preserving critical open space. The building sites suggest building orientation for connectivity, as well as views and proximate parking. The Plan illustrates the alternatives the university has for future use of its land and facilities.

Looking across the valley at town and campus with the Spanish Peaks in the background.

Purpose

In recent years, a culture of planning emerged through the recognition that unintended consequences occur when land and facility assets are developed without the guidance of a long-range comprehensive plan. The purpose of a formal development plan is to reflect and nurture the diversity of the university environment.

The Plan strives to create a collegial environment that supports the university's mission. It envisions an attractive and well-conceived campus that emphasizes its unique northern Rocky Mountain location and the extraordinary natural resources and community setting. As a plan for the future, it establishes an order for the interrelated parts of the campus, such as architecture, landscape, circulation, and continued concentration of development within the historic core for an integrated and efficient, yet beautiful and unique campus.

Implementation

The Plan is a living document and the result of a dynamic process that addressed the existing conditions and anticipated needs to accommodate appropriate growth. The intent is for Facilities Planning, Design and Construction to periodically lead the effort to systematically gather and assess data and to refine criteria to accommodate change, provide permanence and allow the university to evolve.

Fall foliage in front of the Plant Bioscience building.

Planning Process

The objective of the planning process was to maintain an open process, to encourage an exchange of ideas, and to synthesize constituents' concerns into a collective vision. Originally, the task was to produce a 20-year build out plan of campus, but early in the process it evolved into a more inclusive plan of the entire 950 acres and development over the next 75 years. The eventual long term build out will depend on the goals achieved in the 10- and 25-year profiles.

A broad cross-section of the local and campus communities, including participants from City of Bozeman and Gallatin County Planning departments, the College of Agriculture, Montana Agricultural Experiment Station, Auxiliaries, Associated Students of Montana State University (ASMSU), and State Architecture and Engineering (State A&E) came together through a series of public forums and internal discussions. The process was a coordinated team approach with executive oversight. Participants met regularly, both formally and informally, guided by a planning team made up of staff from Facilities Planning, Design and Construction, the School of Architecture, the Executive Oversight Committee, and Ayers Saint Gross Architects and Planners. Together these stakeholders assessed campus historical context, inventoried existing conditions, established planning principles and overarching development strategies, evaluated design options, and refined proposed solutions. The process built a strong and inclusive long range development plan.

As part of the comprehensive inclusion of campus constituency, the stakeholders were surveyed for their anticipated future square footage needs in order to meet anticipated department program and expansion needs. Results of the survey were used to identify probable building sites in the 10-year, 25-year, and long term projected build out profiles. Appropriate building sites were selected by matching square footage needs in appropriate neighborhood locations, and also preserving critical open spaces, creating green corridors, defining borders and entries, and addressing connectivity throughout the overall campus.

Community meeting forums.


Terry Sutherland


Terry Sutherland

Planning Principles

Early in the planning process, eight planning principles were established. These principles represent the university's ideals and commitment to excellence in teaching, research and outreach, and helped develop a plan that will sustain and strengthen MSU's position in higher education. The Planning Principles represent the administration's formal commitment and conviction in governing the planning process and development of the campus. The Planning Principles link the planning process and the resulting physical development of the campus to the university's vision and mission. They are to:

1. Promote the commitment of Montana State University to the contemporary mission of a Land Grant institution through the physical integration of teaching, research and outreach.
2. Coordinate college and departmental goals and physical developments with the strategic vision of the university.
3. Recognize the critical relationship of the physical environment to excellence in teaching, learning, research, public relations, and the quality of life.
4. Develop the physical environment of the university through collaborative relationships with the larger community.
5. Build on our unique heritage, sense of place and strategic vision of the future as a model of planning and design excellence.
6. Develop a campus environment that enhances the personal experience of the university community through a spatial network that promotes human interaction.
7. Be exemplary stewards of our physical resources.
8. Continue a comprehensive approach to campus planning to guide future development of the university.

Spring flowers bloom near Montana Hall.

Goals and Objectives

General

Premise	Goal(s)
University-owned land is a finite and diminishing resource, which represents an increasingly valuable and irreplaceable asset.	Responsibly manage the increasingly valuable and irreplaceable land asset. Act as exemplary stewards of the university's resources. Actual planning outcomes may be seasoned by financial realities, but sound planning principles will not be abandoned to financial expediencies.
Land use devoted to academic, instructional and student-oriented functions will expand beyond the current developed campus, and at the same time the historic core will not be displaced or abandoned over the next 25 years.	Use planning principles and approved plans to build on the unique heritage and sense of place, and coordinate the physical development of the campus with the university's strategic vision.
It is assumed that over the next 25 years, the university's student enrollment will grow at a steady but marginal rate to approximately 15,000 FTEs.	Implement the master planning process as a dynamic and cyclical method to guide the university's future development.

The entire campus is a classroom. Here survey students utilize campus green space for surveying class work.

Land Use

Premise	Goal(s)
University-owned land is a finite and diminishing resource, which represents an increasingly valuable and irreplaceable asset.	Cluster together in the vicinity of Kagy Boulevard those facilities that present a high public interface (e.g. sports events facilities and Museum of the Rockies). Establish enterprise zones that accommodate public and private commercial partnerships. Develop the South 19th Avenue corridor as a pleasant, institutional frontage, with academic and commercial uses and outreach activities, as opposed to residential uses.
Adjacent, non-university property will continue to develop according to the Bozeman 2020 Community Plan, which will include a mix of commercial, professional, high-tech, and residential uses.	Work cooperatively with the City of Bozeman, Gallatin County and other respective jurisdictional agencies when their decision involves land adjacent to the university. Also, the university should link the campus physically with the many assets and amenities in adjacent neighborhoods, parks and other properties.
The university's planning and land-use projections recognize that the land west of South 19th Avenue is an institutional resource available for all appropriate uses.	Evolve agricultural activities west of South 19th Avenue and transition to land uses that are compatible with the evolving development of the surrounding City of Bozeman. Continue agricultural field use of land west of South 19th Avenue over the next 25 years. Create an agricultural endowment to support the evolution of agricultural programs. Continue the demonstrated stewardship of the agricultural property.
Properties adjacent to the north and east side of the campus core will continue to be too expensive in the foreseeable future to seriously consider any major land acquisition program to accommodate future growth.	Research what land is suitable for acquisition or explore ways to make university-owned land more appropriate for development.

Land Use continued

Premise	Goal(s)
The university expects to continue to rely on leasing private-sector facilities off campus and temporary facilities in appropriately designated campus areas to cover variable space surge needs.	Focus on building new structures to accommodate a stable base of increasing space requirements over time.
Residential development is not typically connected to campus central utilities; therefore, the southeast area of campus is best suited for development of academic facilities that benefit from central utility connection. An exception might be to consider housing with direct access to Greek Way.	
The southeast area of campus has remnants of previous uses and contains the Physical Plant operations; however, it is generally under-utilized or under-built based on its proximity to both the Heating Plant and the campus academic core.	Encourage migration of the Physical Plant operations from their current area to provide room to develop new academic uses near the Heating Plant and within the campus core. Relocate Facilities Services west of South 19th Avenue.
Athletics is an integral element of the current developed campus and will remain and expand in its present location.	Prepare for growth in the athletic program, which may necessitate additional lands for new facilities. Improve vehicular and pedestrian connections to these areas and facilities.
The State Fish, Wildlife and Parks (FWP) building will occupy its site on the east side of South 19th Avenue for at least the next 25 years.	Provide for retaining this property in a condition suitable for the State Fish, Wildlife and Parks (FWP) facility, while developing long range campus development plan elements around it. Design new projects to respect existing FWP facilities and needs.
It is expected that the USDA Forestry Lab will occupy its site on South 7th Avenue for the remainder of existing lease (approximately 50 years) unless an alternate site is negotiated.	Provide for retaining this property in condition suitable for the USDA Forestry Lab, while developing long range campus development plan elements around it. Design new projects to respect existing facilities.

Premise	Goal(s)
If the USDA-ARS facility is constructed on its approved site west of the Plant Bioscience building, it will occupy that site for at least the next 50 years.	Provide for retaining this property in a condition suitable for the USDA-ARS facility, while developing long range campus development plan elements around it. Design new projects to respect existing facilities.
The Duck Pond open space along South 11th Avenue is a campus feature that will remain for the foreseeable future.	Responsibly maintain and improve this special feature.
Campus edges should be defined yet porous.	Improve gateways to the campus to create a sense of arrival, and enhance the university's visual image with signage, landscaping, lighting, roadways and pedestrian walkways.

Constructed in 2008, the Chemistry and Biochemistry Building was created to house state-of-the-art research endeavors. It is situated in the heart of campus.

Victoria Drummond

Architecture

Premise	Goal(s)
University-owned land is a finite and diminishing resource, which represents an increasingly valuable and irreplaceable asset.	Plan, design and develop campus support infrastructure prior to building development. Construct new future-landmark architecture on significant sites. Siting new buildings will be crucial to the future formation of defined exterior spaces on the campus. Continue to view athletic facilities as one of the academic neighborhoods and encourage growth in balance with university growth. Encourage new buildings to comply with the evolving campus architectural fabric and enhance the campus unity with central open spaces and pedestrian corridors.
Historic campus buildings and structures represent a unique opportunity to strengthen the university's sense of place and tradition. Adaptive re-use planning will increase the development potential and importance of preserving existing campus historic structures.	Identify, preserve and improve significant historic buildings and structures, which represent components of the campus heritage, through the use of sound historic preservation and adaptive re-use principles. Set project budgets to accommodate and promote quality project planning, design and construction that includes sustainable practices and appropriate ancillary features such as landscaping and infrastructure.

Detail of the front facade of the Marga Hosaeus Fitness Center, completed in 2008.

Architecture continued

Premise	Goal(s)
Increasing the building density in the campus core will result in a more defined environment in which quality pedestrian-oriented and interconnected open spaces are established by building placement.	Direct scale-appropriate academic and civic institution density to the campus core to enhance the character and add vitality to the campus. Encourage area densities as follows: · Campus core will accommodate approximately 250,000 to 300,000 gross square feet of new facilities. · Areas immediately adjacent to the west of the campus core will accommodate approximately 250,000 gross square feet of new facilities. · South and southeast of the campus core will accommodate approximately 1 million gross square feet of new facilities. Establish a three-tiered classroom improvements plan that categorizes the classroom use and needs (e.g. furnishings, lighting, layout and technological equipment).
The central Heating Plant has sufficient capacity to support a significant amount of additional building area in the campus core, can be expanded to increase capacity further, and will remain in its present location.	Long range campus development plan goals call for expanding the academic land uses in the current facilities area of campus. As this happens, sensitive design will need to be implemented to properly integrate new non-utilitarian uses with operations-based uses.
Building gross square footage has increased at a faster rate than enrollment growth over the last 25 years, due in part to increasing demands for student activity and living spaces, research requirements, technological needs, and academic programs. This national and local trend is expected to continue.	Plan student activity, living spaces and auxiliary uses to be flexible for multiple uses and to be located in areas where they are accessible from residence halls and student housing, and other campus areas via a network of well-planned pedestrian and vehicular corridors.
Langford Hall, Johnstone Hall, Hannon Hall, Hapner Hall and the Atkinson Quads have limited access to convenient and sufficient nearby parking facilities.	Retire some residential uses in the northeast area of campus and encourage future development of integrated institutional, commercial, residential and parking uses to create a dynamic mixed-use neighborhood.

Architecture continued

Premise	Goal(s)
The national trends and the evolving campus culture will continue to increase focus on socially responsible design, sustainable development practices, energy conservation and efficiency, and recycling.	Establish and implement a standard of sustainable building practices that are nationally established and supported by the design industry. Require that campus development continue its commitment to accommodate persons with disabilities by adopting ADA-specific design guidelines and signage.
The campus has evolved into a series of connected academic neighborhoods.	Continue to develop the campus core with appropriate development in the neighborhood concept that compliments the unique features of the designated area.

Three eras of architecture. Engineering and Physical Sciences Building (1996) in the foreground, Cobleigh Hall (1970) in the center, and Roberts Hall (1922) back left, connect to create an engineering complex.

Open Space

Premise	Goal(s)
University-owned land is a finite and diminishing resource, which represents an increasingly valuable and irreplaceable asset.	Identify and designate those campus open spaces to be maintained, enhanced and protected. Continue to develop unified green corridors connecting campus elements and the main pedestrian axis within the campus core as the campus develops beyond Grant Street and South 11th Avenue. Site and scale new facilities to create an interconnecting network of green corridors and open spaces that accommodate and promote human interaction, both within the existing campus core and as the developed campus expands to the west. Construct new facilities that enhance the value and character of premier open spaces (Centennial Mall and Romney Oval), the evolving open spaces and pedestrian network extensions. Manage long-term expansion of the campus west of South 11th Avenue in a manner which produces new campus open spaces that are the qualitative equivalent to the Centennial Mall and Romney Oval. Develop campus landscapes with local indigenous species and materials with proven climatic and sustainability factors.
Surface water features on university property may be enhanced as necessary, but will continue to exist in roughly their present locations. The university and the surrounding community will consider re-establishing historical watercourses that are culverted.	Remove some culverts and restore surface water features to a natural state and appearance. Incorporate restored surface water features in green corridors and open space areas.

Landscape

Premise	Goal(s)
The natural elements and spaces of the landscape are valuable assets of the campus character and will be maintained, enhanced and protected.	Create a memorable landscape of indigenous vegetation that celebrates the region's climatic diversity and supports a natural viewscape for each of the seasons. On campus continue the tree-lined streetscapes of the historic south side residential neighborhood of Bozeman. Promote sustainable, efficient landscape and stewardship of the natural resources.

Site and landscape amenities are as important for visual aesthetics as they are for functionality.

Stephen Hunts

Circulation

Premise	Goal(s)
The campus core is pedestrian-oriented.	Limit vehicle intrusion into the campus core and retain and protect the pedestrian-oriented circulation. Provide safe access choices for pedestrians as well as motorized and non-motorized vehicle use. Actively employ parking demand management techniques to encourage alternative modes of transportation. Provide service corridors and service access to all buildings.

Parking

Premise	Goal(s)
The university has the second-highest ratio of parking spaces among its peer institutions group. The university cannot continue to provide an ever-increasing amount of parking. The parking-space-per-FTE ratio will decline over the next 25 years.	Increase alternative modes of transportation using the University's FTEs and pertinent ratios. Plan, site and construct parking facilities to accommodate future university needs, which include collaborative and enterprise zone uses. Continue to encourage bicycle use as part of traffic and parking demand management.
Public transit will develop significantly over the next 25 years.	Integrate public transit to serve a series of strategic university destinations serving all areas of the campus.
Traffic travels along South 11th Avenue through the campus academic area. This situation will continue to present special challenges to the expansion of the campus pedestrian network west of South 11th Avenue.	Develop traffic calming measures to improve pedestrian safety.
Kagy Boulevard separates the Stadium and Museum of the Rockies properties from the core campus. Kagy Boulevard will likely be widened to its full traffic configuration in the next 25 years.	Use pedestrian corridors, continuous landscaping and shared parking to integrate university facilities south of Kagy Boulevard into the campus fabric.

Parking continued

Premise	Goal(s)
The arterial character of South 19th Avenue represents a significant challenge to the westward growth of the campus and connectivity between the east and west elements of the university's properties. Portions of South 19th Avenue will be widened to five lanes and will continue to carry an increasing amount of traffic over the next 25 years. This situation will continue to present special challenges and require unique solutions to accommodate the expanding campus pedestrian network west of South19th Avenue.	Connect the University's circulation networks (vehicle, bicycle lanes, pedestrian trails, etc.) to similar networks within the surrounding community.
The intersection of South 19th Avenue and College Street is becoming more congested. Planned improvements of the intersection will relieve some congestion and accommodate a greater traffic volume. The intersection also will become increasingly important as a regional and local arrival point, or gateway, to the university.	Develop the South 19th Avenue and College Street intersection as a distinct campus gateway, creating a sense of arrival that is inviting, significant and well defined.
The university granted an easement to the City of Bozeman for underground city infrastructure along the future route of Fowler Lane. It is highly probable that Fowler Lane will be constructed through the university's property (agricultural land) in the next 25 years.	Coordinate with the City of Bozeman and Montana Department of Transportation on any infrastructure through university property to ensure that MSU's needs are met.
Existing campus service drive areas are insufficient and must be improved.	Construct adequate service drive, loading and temporary parking areas for service access to existing and new campus facilities.

Victoria Drummond

Parking at the South Fieldhouse parking lot, with Bobcat Stadium in the background.

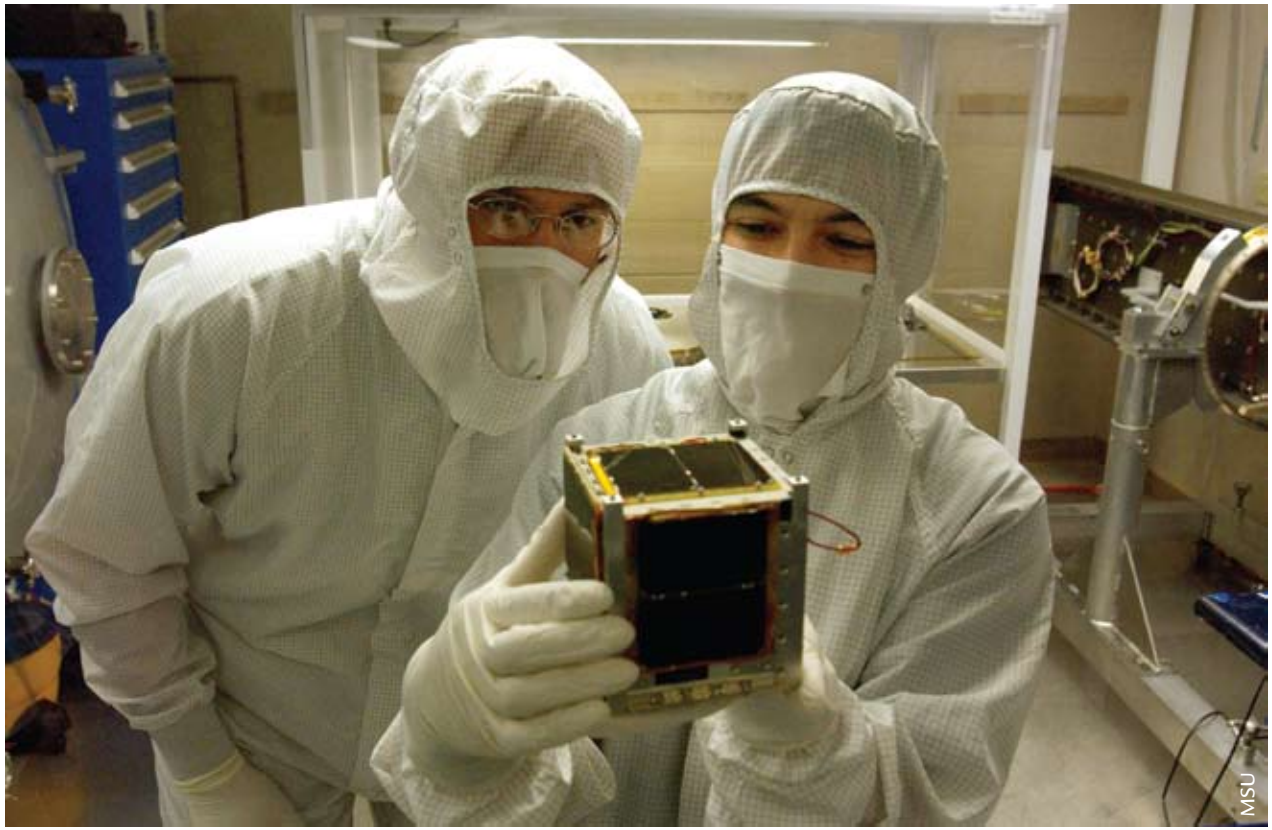
Housing

Premise	Goal(s)
Academic growth is expected to expand west along College Street between South 11th and South 19th avenues.	Retire existing housing units in this area and construct new academic buildings. Construct some of the campus residential housing closer to commercial and residential development adjacent to Garfield Street. Integrate a variety of housing opportunities within various zones in order to create dynamic and interactive communities.
The cost of living in the Bozeman community, particularly housing costs, is high and expected to continue to rise. The consequent shortage of affordable housing in the community will continue to be a problem for the university's faculty, staff and students.	Explore the possibility of providing some type of affordable living environment for faculty and staff.
On-campus housing provides certain intrinsic characteristics that are not present in private sector housing in the surrounding community.	Continue to provide housing for students on an as-needed basis. Construct a pedestrian corridor linkage between outdoor recreational activity spaces and campus residence facilities.
Demand for housing units for nontraditional occupants is marginally decreasing; however, overall demand for these apartment-style units remains steady, partially due to their perceived attractiveness to other student populations.	Provide student apartment-style housing alternatives in addition to traditional residence options.

Research

Premise	Goal(s)
In 1980, the university's research enterprise was negligible. The university's annual Sponsored Programs' expenditures reached $100 million in 2006, elevating it to one of the Carnegie Top 95 Research Universities in the country.	Continue to increase the research enterprise and remain a leading research university. Promote university research enterprise and support increased directly sponsored university research and collaborative research partnerships with non-university entities. Integrate university research with instructional functions and aggregate public/private research-park partnerships and associated activities away from the campus core.

Research is a vital part of the university. Investment in new technologies is a growing field and is an integral part of the Plan.



Signage

Premise	Goal(s)
The present signage system is inadequate.	Establish a hierarchical system of wayfinding within the buildings and throughout campus. Incorporate the university's branding policy in campus signage. Provide signage that aesthetically conveys necessary and functional information. Locate signage that provides sufficient safety, directions and location information to regular users and visitors to the campus. Surpass ADA mandatory requirements with a more friendly approach to accessibility signage.

Gateway signage and informational kiosks welcome visitors at key entries into campus. They also help establish the contextual relationship of the university within the surrounding community.

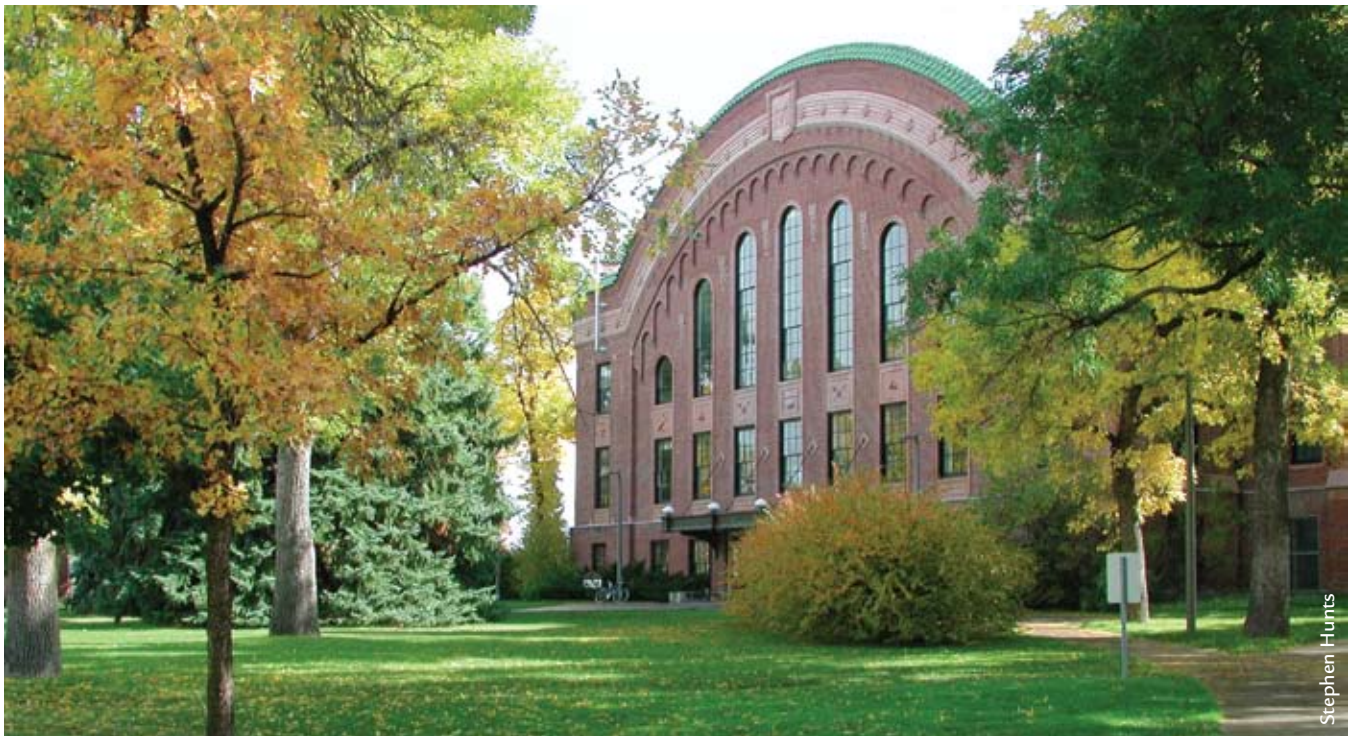
Victoria Drummond

Candace Mastel

Sustainability

Premise	Goal(s)
Wise stewardship of resources includes sustainable development practices.	Develop the campus using practices that avoid irreversible damage to natural resources by encouraging development projects that include utilization of green technologies and renewable materials. Demonstrate a unified commitment for stewardship of resources through meaningful assessment and public accountability. Continue to advance the opportunity to utilize LEED® (U.S. Green Building Council - Leadership in Energy and Environmental Design) or similar sustainable construction practices in buildings on campus to attract research and grant-funded opportunities that match acquired capital.

Romney Gymnasium has historically been used for recreation and athletics. This building, like many other historically significant buildings, can eventually be renovated and updated for modern needs and users, thereby utilizing existing building stock.



Stephen Hunts