Acknowledgements

South Campus Master Plan Committee Members:
- Rosi C. Keller, Associate Vice President, Administration and Finance, Chair
- Marcia Bishop, Far Views/Pattee Canyon Neighborhood Council
- Teresa Branch, Vice President, Student Affairs
- Perry Brown, Dean, College of Forestry and Conservation
- Ron Brunell, Director, Residence Life
- Carol Buerman, Management Analyst, Administration and Finance
- Keith Glaes, Director, Campus Recreation
- Greg Gullickson, Lewis & Clark Neighborhood Council
- Andrea Helling, President, ASUM
- Dean Hendrix, Far Views/Pattee Canyon Neighborhood Council
- Marcia Holland, UM Alumni Association
- Cedric Jacobson, Vice President, ASUM
- Kevin Krebsbach, Associate Director for Planning and Construction, Facilities Services
- Mike Kress, Missoula Office of Planning and Grants
- Jim O’Day, Director, Intercollegiate Athletics
- Mike Panisko, Facilities Analyst, Facilities Services
- Don Potts, Faculty, College of Forestry and Conservation
- Steve Schultz, University Neighborhood Council
- Bob Tutskey, saltStudio, Inc.
- Bill Wilmot, The Collaboration Institute

Additional Constituents:
- Bob Duringer, Vice President, Administration and Finance
- Rick Hilmes, Project Manager, State of Montana
- Alan Mulkey, UM Facility Services, Project Manager
- Barry Good, UM College of Technology, Dean

Consultant Team:
- Mark Headley, StudioFORMA Architects
- Jeff Zimmermann, Design Workshop
- Carol Sperat, Design Workshop
- Tina Stenquist, Design Workshop
- Mark Bancale, WGM Group
- Woody Germany, WGM Group
- Dave Broquist, Gordon Prill Drapes
- Bucky Kempa, Gordon Prill Drapes
# Table of Contents

Acknowledgements .................................................................................................................................................................................................................. i  
Forward ...................................................................................................................................................................................................................................... 1

**Section One: Project Foundation**  
Guiding Principles .................................................................................................................................................................................................................... 4  
Land Use Plan .......................................................................................................................................................................................................................... 5  
Master Plan Recommendations ........................................................................................................................................................................................... 6

**Section Two: Evolution of Principles**  
Assessment of Planning Principles .................................................................................................................................................................................... 10  
Legacy Design .......................................................................................................................................................................................................................... 13  
Precedent Images .................................................................................................................................................................................................................... 16

**Section Three: Framework Studies**  
Campus Context .................................................................................................................................................................................................................... 20  
Framework & Systems Diagrams .................................................................................................................................................................................... 21  
Vehicular Circulation ............................................................................................................................................................................................................ 22  
Natural Systems ...................................................................................................................................................................................................................... 23  
Views & Monumentation ...................................................................................................................................................................................................... 24  
Open Space .............................................................................................................................................................................................................................. 25

**Section Four: Master Plan**  
Preferred Conceptual Master Plan .................................................................................................................................................................................... 27  
Preferred Conceptual Master Plan - Core Area ............................................................................................................................................................ 28  
Building Program .................................................................................................................................................................................................................... 29  
Pedestrian Circulation ............................................................................................................................................................................................................ 30  
Phasing .................................................................................................................................................................................................................................... 31  
Emergency Access ................................................................................................................................................................................................................... 32  
Plan Highlights .......................................................................................................................................................................................................................... 33  
Sections .............................................................................................................................................................................................................................. 36
Planning for the future growth of the University of Montana is an important element to the success of the University. As the University continues to build its reputation as one of the premier educational institutions of the West, expansion and growth is inevitable. The South Campus provides an important link to the future of the University of Montana and the City of Missoula. Located at the southeast corner of Higgins Avenue and South Avenue, the 205-acre area identified for the future South Campus offers inherent characteristics supportive of a campus setting.

The vision for the South Campus began in late 2006 with the formation of the South Campus Master Planning Committee. Tasked with establishing the foundation for planning and design efforts for the South Campus, the Committee completed the South Campus Master Plan and the plan gained approved by the Board of Regents of Higher Education in November 2007.

With this foundation in place, Design Workshop, in collaboration with StudioFORMA Architects, was retained by the University to begin the second phase of the master planning effort in April 2008. The primary goals of this pre-design phase were to further advance the framework behind the master planning for the South Campus and identify a location within the Master Plan for the first phase buildings. This document is a representation of these efforts.
Section One: Project Foundation
Guiding Principles

Planning efforts for the South Campus began with the formation of the South Campus Master Planning Committee. Through a multi-step process involving open and inclusive meetings, the Committee formed the South Campus Master Plan 2007 to establish a framework of guiding principles and recommendations regarding land-use zones and other integral elements. Focused on identity, community, natural environment, architecture and mobility, the South Campus Master Plan 2007 formed a foundation on which the consultant team could build. Provided in this section is information on the results of this process.

South Campus Master Plan 2007 Guiding Principles:

Integrate South Campus with Mountain Campus
The South Campus Master Plan will integrate with the Mountain Campus to the greatest extent possible to ensure maintaining and protecting the value of the University’s physical resources, character, history, and mission.

Maximize Flexibility
The South Campus Master Plan will provide the maximum amount of flexibility in order to accommodate future growth and unforeseen opportunities. The Plan will optimize campus land-use based on the range and character of existing and new University uses, while creating a living and learning environment that is interwoven into the Missoula community.

Preserve Open Space
The South Campus Master Plan will preserve, protect, and enhance open space, view sheds, and landscapes as a signature characteristic of the University.

Value Community Relations
The South Campus Master Plan will recognize the importance of relationships among the campus community, surrounding neighborhoods, and the City of Missoula and nurture these connections whenever possible.

Create a Safe Campus Environment
The South Campus Master Plan will promote a safe environment with personal and workplace safety considerations integral to planning and design of circulation, buildings, and open spaces.

Strengthen Transportation, Circulation, and Parking while Ensuring Accessibility
The South Campus Master Plan will develop comprehensive solutions for transportation, circulation and parking in order to minimize traffic impacts.
UM’s Original Land Use Plan
Master Plan Recommendations*

**Academics and Research**

Limit academic buildings to no more than three stories above ground.

Support the goal, to the extent feasible, that the units that occupy the South Campus represent interconnected disciplines to foster synergism and a sense of belonging (e.g. a natural science/natural resource/environmental theme).

Insure that a service infrastructure is included in the planning for functioning of the academic section and contains elements such as food service, bookstore annex, and IT services.

Consider use of appropriate design when building roofs such that they are attractive to people looking down on them from nearby homes and mountains.

Create a landscape that is as efficient and self-sustaining as possible.

Include the South Campus as a component of the State Arboretum of Montana.

Develop a phased design scenario so that one might be able to visualize how the academic portion of the project might be built over time.

Identify the round-about near the academic quadrant as the gateway to campus and include a clock or bell tower.

**Student Housing**

Design of South Campus housing should reflect the elements and functions of community/village living, parking and public transportation options, fit the character of the surrounding neighborhoods, and limit all structures to no more than three stories above ground to maintain vistas.

Demolish the Craighead/Sisson Apartment units and replace with appropriately designed apartments that meet the needs of students.

Development of student housing on the South Campus will require significant research to determine the target (i.e. COT students) and assure this targeted population’s needs are met.

*Not all master plan recommendations from the South Campus Master Plan 2007 are included. Recommendations listed here relate to physical impacts for the plan.*
Master Plan Recommendations*

**Campus Recreation**

Ensure that the biking and hiking trails on Mount Sentinel are well marked and have adequate access and parking. This will allow the public to use the area.

Design and develop playfield space so it can be used for a variety of activities.

**Plan for open space that enhances the great natural surroundings** and the academic undertaking.

The design should take into account sight lines, trees and shrub plantings, and access.

Determine if there is a need for a six to eight thousand square foot fitness center.

**Athletics**

Establish **mutually beneficial physical relationships** between the athletic facility and the surrounding community.

Appropriate building siting, massing/scale, setbacks, height, materials and color should be used to minimize the visual impact of a facility of this size.

Building design solutions **should enhance and further develop the existing circulation systems** and effective linkages within the campus and the community at large.

Vehicular traffic should be minimized to provide a pedestrian oriented campus, which provides the opportunity for interaction with each other on campus.

Buildings should be designed to adapt to the needs of an evolving athletic environment and to be responsive to change.

**Expansion opportunities** should be part of the original design planning so that growth of the building footprint is orderly.

*Not all master plan recommendations from the South Campus Master Plan 2007 are included. Recommendations listed here relate to physical impacts for the plan.*
**Master Plan Recommendations**

*Circulation, Transportation, and Parking*

Maintain the campus as pedestrian-oriented by directing general vehicular circulation to the campus periphery.

Minimize the need for more parking by promoting and giving priority to modes of transportation.

Improve the general aesthetics of the campus by screening parking lots and facilities with trees and shrubs in islands wherever possible.

Consider parking lots as major destinations for pedestrian walkways.

All walkways, essential to reaching a building or program, will be built to ADA standards.

Ensure that emergency and service vehicles will have appropriate access to all campus facilities.

Preserve current trail access now located on the South and East ends of South Campus property.

*Open Space*

Plan a campus that fosters a sense of community and interaction of people through a continuous network of planned and purposeful outdoor spaces.

These spaces should work hand-in-hand to provide the campus with a pleasing visual and spacious environment and augment new architectural buildings and features.

Ensure accessible passages throughout the campus corridor that have connecting landscapes to link key University destinations and maintain aesthetically pleasing landscaping with a smooth flow of pedestrian and bike traffic.

Link pedestrian circulation systems into the community and surrounding open space systems.

Protect the natural scenic quality of Mount Sentinel and insure views and vistas are enhanced and retained wherever possible.

Design solutions should provide the appropriate visibility and accessibility needed to create a secure environment that will increase safety and comfort in open spaces.

Preserve the South Campus assets where possible - trees, ponds, etc. when development occurs.

*Not all master plan recommendations from the South Campus Master Plan 2007 are included. Recommendations listed here relate to physical impacts for the plan.*
Section Two: Evolution of Principles
Design Workshop began the master planning effort with an assessment of the guiding principles established in the South Campus Master Plan 2007. With the goal of ensuring alignment between the guiding principles and the initial land use plan, the foundation of the South Campus Master Plan 2007 was challenged through a continuous cycling process. This process, presented below, identified areas of support and opportunities for advancement of the principles through suggested changes in the land use plan.

**Principle One: Integrate South Campus with Mountain Campus**

*Plan Alignment:*
- The layout/framework of the plan is borne from elements of the main campus, providing continuity between the two campuses.
- Campus green provides a common organizing element between the two campuses.

*Further Advancements:*
- The Main Campus is lush with beautiful mature trees. Protection of existing mature trees on the South Campus will enhance continuity between campuses.
- Creation of a greenway connection along the base of the mountain provides a pedestrian and bike connection between the two campuses.

**Principle Two: Maximize Flexibility**

*Plan Alignment:*
- In general, land uses designated throughout the plan optimize the value of the land.

*Further Advancements:*
- Modifications to road circulation allow for further flexibility with future growth of the campus and reduces the infrastructure needed for Phase I.
- Future value of land is optimized through enhanced open space connections that increase attractiveness of land and reserve important parcels (South Avenue and Higgins) for redevelopment opportunities.

Existing trees on site include a variety of deciduous and coniferous species such as Aspen, Blue Spruce, Ponderosa Pine, and Douglas Fir.
**Assessment of Planning Principles**

**Principle Three: Preserve Open Space**

*Plan Alignment:*

- Preservation of a significant green space element gives the campus an open feel.

*Further Advancements:*

- Further advancement of campus green design elements within the plan has tested the quality of the space and its ability to serve multiple user groups simultaneously.
- Current planning methodologies invite open space elements into the plan.
- Integration of intimate open space and plaza elements creates connections between the campus, neighborhoods and the mountain.
- Preservation of existing mature trees gives the campus a feeling of an established open space.

---

**Principle Four: Value Community Relations**

*Plan Alignment:*

- Park elements create a visual amenity between south hill residents and the campus.

*Further Advancements:*

- Additional connections into surrounding student housing creates connections for both residents of those neighborhoods and other surrounding neighbors.
- Re-routing of main circulation road to thoughtfully penetrate the campus invites the community to experience the campus.
- Additional consideration regarding the release of traffic onto South Avenue to mitigate potential congestion.
Assessment of Planning Principles

Principle Five: Create a Safe Campus Environment

Plan Alignment:

• Interior core area as pedestrian area creates a safe, walkable campus.

Further Advancements:

• Re-routing of circulation roads aims to reduce possible through-traffic situations.
• Replacement of buildings that back to circulation roads reduces potential unsafe, dead spaces.

Principle Six: Strengthen Transportation, Circulation, and Parking while Ensuring Accessibility

Plan Alignment:

• Access points to the campus distribute traffic among adjacent city streets.
• Placement of campus parking in perimeter areas provides easy identification and access to users.

Further Advancements:

• Re-routing of the main circulation road reduces potential through-traffic conflicts with north-east family housing pod.
• Further distribution of parking lots provide additional access to buildings and allows for more flexibility with phasing.
• Identification of bus stops along circulation routes does not require turn-arounds, reducing possible congestion during busy times.
Design Workshop has built our practice and reputation around important and complicated projects. As part of establishing focus for our practice, and in response to the times we live in, Design Workshop has established a philosophy for its work called DW Legacy Design® which is built from the mantra that a project’s true and lasting value is revealed at the synthesis of community, art, environmental and economic concerns. Our approach is to explore design synthetically and transparently within these Legacy realms, in collaboration with the best people in the business, in order to identify sustainable solutions.

In order to understand the greater impact of the South Campus project, a dilemma and thesis were established through rigorous review of the surrounding context relationships and inherent characteristics of the site as well as understanding of the importance of the project within the greater community and University of Montana educational system. Metrics, measurable outcomes, are then defined for the project based on the elements defined within the dilemma and thesis. These parameters are vetted through a rapid cycling process which incorporates various design reviews and solicitation of outside, objective feedback. The results of this process are articulated herein followed by a number of precedent images which offer examples of where these concepts have been implemented.

Image: Connectivity between the South Campus and Main Campus.
**Dilemma:**
Given the limited ability for expansion on the Main Campus, how can a new campus plan for the South Campus celebrate the natural systems of the site, encourage interaction, embody sustainable practices, and form a comfortable (size and scale) campus feel for first phase buildings in order to respond to the opportunity for future, unpredictable growth?

**Thesis:**
By addressing important components such as inherent topography, existing trees, solar exposure and access and circulation patterns, the South Campus Master Plan has the opportunity to build a flexible framework for future growth while becoming an asset for the greater community - through the creation of memorable gathering spaces connecting indoor and outdoor environments that are inviting to students, faculty/staff and area residents and visitors.

**COMMUNITY METRICS**
- Basic physical needs meet for all
- Social justice / equity (diverse population)
- General demographic characteristics (next generation student profile, attributes and desires)
- Social segments
- Traditions (the sacred cows)
- Social participation and connections
- Historic designed landscapes / architecture (technology)
- Landmarks / places of significance
- Childcare
- Roads
- Trails (hiking, community, campus paths)
- Transit
- Housing
- Employment
- Arts, culture and entertainment
- Recreation, open space and community activities
- Compact, complete and connected neighborhoods (town and 2 campuses, has to function as an independent town - food, employment- and then open at different times of day for events)
- Community interaction
- Community values / identity (influenced by landscape, identity generator)

**ENVIRONMENT METRICS**
- Land analysis
- Site selection
- Ecosystem protection
- Erosion and sedimentation control
- Alternative transportation
- Site design
- Stormwater management
- Heat island effect
- Noise pollution reduction
- Light pollution reduction
- Water efficient landscaping
- Innovative wastewater technology
- Water use reduction
- Buildings (green roof)
- Storage and collection of recyclables
- User education (where science of environment gets fostered and communicated, by what you do, as well as what you say)
- Landscape maintenance
**ECONOMIC METRICS**
- Campus appeal (next generation students and what appeals)
- Basic economics (supply vs. demand)
- Market interest and student profile
- Encourage new local enterprise
- Campus / community growth rate (growth potential)
- Families and children (flexible housing opportunities)
- Philanthropy (fund raising, No Alumni group)
- Community health (campus + small town, a place for everyone)
- Open space – improved (designed, connection between designed and natural open space)
- Campus, shared experience of open space
- (Multi-use breakout space)

**ART METRICS**
- Meaning
- Site specificity (soul = interplay between landscape and campus)
- Cultural context
- Environmental context
- Temporality
- Seasonality (protect from elements and take advantage of it)
- Variation
- Spatial definition (scale)
- Coherence (fundamental challenge of any campus.)
- Framework
- Form follows function
- Solar art (ex. Wholewater sculptures)
- Dilemma thesis resolution

*When environment, economics, art and community are combined in harmony with the dictates of the land and needs of society, magical places result. Places that lift the spirit. Sustainable places of timeless beauty, enduring quality and untold value - for our clients, for society and for the well being of our planet.*

*We call these extraordinary landscapes Legacy Projects. Our practice is dedicated to seeking solutions that move projects “Toward Legacy.”*
Precedent Images

The classic organization of building around a common green space. (University of Virginia)

Even small landscape features can create memorable places. (Boston College)

Architecture can create iconic entries into the campus. (Virginia Tech)
Cohesive landscape and architecture create opportunities for special places for all scales of campus life. (University of Arizona)
Precedent Images

The transition between indoor and outdoor space should feel seamless. Program elements should take advantage of natural landscape features. (Pima Community College)

Water features can serve as a transition between an active, energized campus and the natural edge. (Nike Corporate Campus, Beaverton, Oregon) Source: Google Earth
Section Three: Framework Studies
Image: Shows spatial relationship between the South Campus and the multiple campuses within the City of Missoula.
The framework concept focused on the idea of a campus experienced by a diverse community and incorporation of the natural hillside. Elements included:

- Logical entry sequence (entry to architecture, architecture to view)
- Easy to understand arrangement of program and circulation
- Build campus pride; legacy of main campus
- Connection to hillside organizes physical framework

This framework began to inform early plan sketches.
The campus plan utilizes a spine road configuration to move and distribute traffic. The main entrance is located on South Avenue and routes along the western edge of the campus core as the road travels south. Parking lots are located along the perimeter of the core. There is potential for parking lot expansion in numerous locations if needed.

A comprehensive transportation plan is required to effectively manage automobile traffic and parking concerns. To further sustainable initiatives, the University can plan for incentives related to alternative fuel vehicles, such as recharging stations and preferred parking for lower emission vehicles.
The campus plan is designed around a strong environmental framework. The structure of these elements will allow the University to implement a broad range of sustainable strategies, including:

- Many of the existing trees on the site will be preserved.
- There are numerous opportunities to implement a low impact stormwater strategy by utilizing the inherent slope of the site and the existing ponds.
- The sensitive hillside will be protected from development.
- The majority of the building program will be oriented for maximum solar gain.
The main entrance is designed to be park-like with its wide green portal on South Avenue. The views into the campus are orchestrated to first expose the visitor to the vibrant landscape with the new buildings in the background, closer views of the architecture of the campus give way to the hillside and open space surrounding the core area.

There are strategic locations for University identity monumentation at each of the entrances and the southeast corner of South and Higgins Avenues.

Throughout the campus there are multiple opportunities for public art installations, many along prominent view corridors and public gathering spaces.
The open space program is diverse and offers opportunity to engage the broader community. Elements include:

- A pocket park incorporating the existing pond in the northeast and serving as an amenity to the residential neighborhood.
- A larger community park on the south includes playfields, trails and access to the hillside.
- The hillside offers hiking, access to overlooks (tees from the former golf course), and the opportunity for the University to create a “greenway” connection from the South Campus to the Main Campus.
- The campus core has multiple green spaces and hardscape plazas.
- Numerous trails throughout the campus for hiking, walking and jogging.
- Athletics has room to incorporate various fields.
- A children’s playground will be relocated to serve existing residents (the existing playground will be removed to make way for the campus entrance).
Section Four: Master Plan
Preferred Conceptual Master Plan
Preferred Conceptual Master Plan - Core Area
The College of Technology will likely be one of the first buildings constructed on campus and will be sited closest to the main road. Other buildings will follow as the campus grows, but generally student services and offices will be located on the north side of the central green and classroom buildings will be to the south, closest to the transit station. A proposed visitor and orientation building is located on the west side of the access road for easy identification and access for visitors to the campus.

Auxiliary buildings are located to the north and away from the core area to further separate uses that are not complementary to the core.

Student housing occurs in two pods north and southwest of the core area. Both locations are adjacent to existing housing and help to transition to the new campus to the surrounding neighborhoods.
Pedestrian circulation is organized around a series of wide walkways that pass through the campus and link the vehicular circulation to the central green and the building program.

Bicycle traffic has been accommodated through use of dedicated bike lanes on the main spine road and easy access to bicycle storage.

Transit stops will be convenient for students and allow immediate access to facilities and classrooms.
The phasing plan is conceptual at this time but incorporates the following:

Phase 1 - The first phase includes the entrance road, the north parking areas, the COT building and a portion of the campus green.
Emergency Access

All buildings will have accessibility for emergency vehicles. The large pedestrian walkways will be constructed to accommodate fire trucks and other emergency vehicles.
Plan Highlights

The South Campus core is centered around a four-acre central green that is oriented to the hillside. The green is bordered to the north and south by wide pedestrian walkways lined with an alleé of shade trees. Many existing trees are incorporated into the large lawns.

Parking lots are sent to the perimeter of the campus core. Access is simple and direct but does not dominate the pedestrian-focused campus.

Large areas of the campus are preserved as open space for the pleasure of the students and the Missoula community. There will be areas dedicated for recreation such playfields, trails and children's playgrounds.
Plan Highlights

The plan incorporates a variety of courtyards and seating areas for students, faculty and the community. Locations take advantage of solar orientation, proximity to building entrances and building relationships.

Future programming for the campus could include an outdoor performing art venue and an adjacent arts building.

The large water feature that sits at the toe of the hillside will become a popular gathering spot. This feature ties an urban element of the campus to the natural hillside.
Plan Highlights

The phasing of the plan will allow for a flexible use of space as the building program grows.

Future residential can be accommodated on site and serve as a transition from the surrounding neighborhoods to the campus core.

Mass transit solutions are incorporated to serve the students.
Campus Southeast: Merging of the natural hillside edge with edge of campus forms a unique setting for possible special-purpose buildings.

Keymap