

**CENTRAL MICHIGAN UNIVERSITY 2013 CAMPUS IDENTITY PROJECT CAMPUS LANDSCAPE PLAN**

NOVEMBER 2014

# Acknowledgments

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Central Michigan University

## STAKEHOLDERS

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- Thousands of students
- Faculty
- Staff
- Alumni
- The Community
- Saginaw Chippewa Indian Tribe

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## 01 Executive Summary

### SUMMARY | EXERCISE PURPOSE

In 2013-2014, Central Michigan University (CMU) implemented a collaborative, inclusive discussion regarding opportunities to enhance the image and appearance of the exterior campus environment. The work was completed in two separate, but related documents: A Wayfinding /Sign Implementation Manual, and this Campus Landscape Plan.

This report includes integrated ideas that were developed inclusively over 6 months, including 4 week-long interactive campus workshops that included the input and review of over 400 participants across a broad base of representative stakeholders. The presentation of those ideas in this document is organized into the following categories:

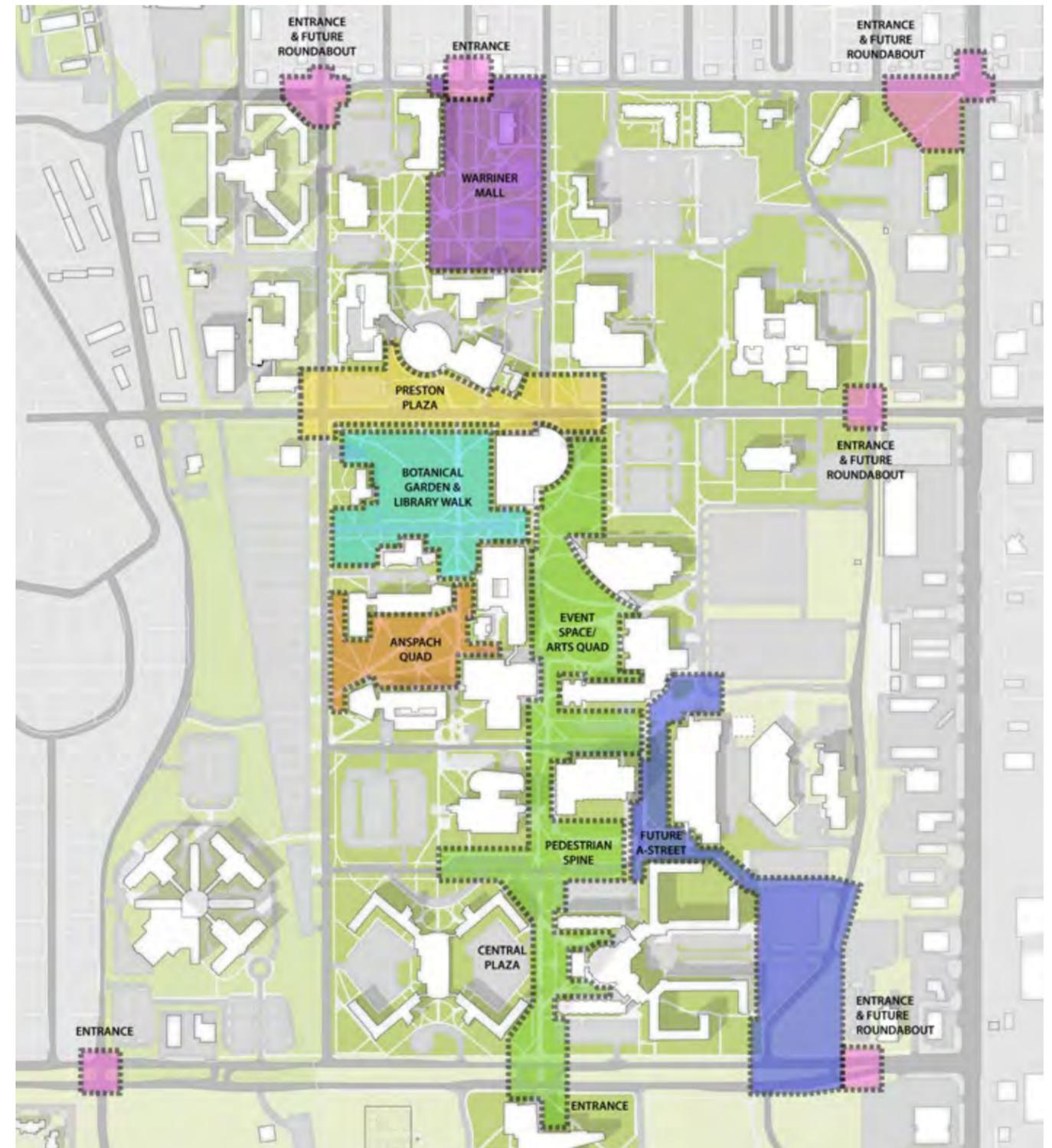
- Introduction – the Background
- Inventory and Analysis – Listening and Learning
- Campus Landscapes – Composition and Frameworks
- Feature Places - Conceptual Designs
- Materials - Guidelines for Selection of Plants, Hardscape & Furnishings

The objective of the Campus Landscape Plan is to build upon issues and opportunities identified in the 2013 Campus Master Plan. Specifically, this relates to the recognition that the organization, appearance, functionality and resource efficiency of the campus environment is supportive of the academic and social development of students. This is manifested in the ability to attract and retain the best students and educators by having a place that is well organized, attractive, and positioned to support a diversity of activities, while providing an outward expression of CMU's school spirit, sense of place - past, present and future. The campus image also has a bearing on the safety, orientation and efficiency of use that allows the campus to better serve a changing student population today, while identifying and preserving opportunities for future investment and growth.

The Campus Landscape Plan is driven by conceptual planning of several specific locations in the core campus. These locations are closely aligned to the 'Admissions Walk', but also touch the heart of many of the academic, residential and student life facilities that are central to the CMU experience. The manner of working was to develop a broad based dialogue with many campus stakeholders that could inform not only specific program and design ideas for the key spaces, but to also define and articulate broader sensibilities and values about the campus that could inform more comprehensive thinking about enhancing and managing the overall character of the exterior environment.

As a result of this work, the specific design of spaces is informed and supported by broad Guiding Principles, Compositional Frameworks and Material Guidelines. This wider structure both informs and guides some of the programming and design recommendations of the focus locations, but also provides context as to how they fit into a larger framework of the campus landscape character and image. One of the tools developed as part of this larger framework was the notion of Feature, Fabric and Functional places on campus. This concept acknowledges that all areas of the campus must attain a basic level of quality and character, but that certain areas should be prioritized over others relative to level of complexity, intensity and maintenance. It is acceptable for simple solutions to be considered 'beautiful', if they add consistency of appearance and service to the campus. As a complex environment, the notion of Functional and Fabric Places allows a heightened, but simplified general perception of campus appearance, while framing Feature Places which can be celebrated as the true 'centers of attention'.

Therefore, this Campus Landscape Plan works to provide a way of thinking that can assist and inform incremental enhancements, investments, design and construction on campus. This is accomplished through the documentation of campus master planning background, stakeholder values, discussion of basic compositional ideas for the general campus landscape, specific design concepts and materials guidelines. The hope is not to prescriptively design each individual opportunity, or limit future creativity or response to opportunity. Rather, it is hoped that the ideas in this image document will provide a meaningful starting point, a guide, for how to think about the campus landscape and make thoughtful, value based and context driven decisions – project by project – in order to attain a more memorable, beautiful and active Central Michigan University Campus.



Central Michigan University Defined Feature Places

## 02 Introduction | Central Michigan University

### 2.1 CMU CAMPUS MASTER PLAN

The 2013 Campus Master Plan established specific guidance for changes over the next 5-10 years while providing the framework for orderly growth for years to come. The Master Plan was adopted in 2013.

The campus master plan process was inclusive involving thousands of students, faculty, staff, alumni, community, and the Saginaw Chippewa Indian tribe stakeholders. They provided a myriad of input that included what was happening on and off campus, a description of trouble spots, things about the campus that they liked and wished to preserve, things that about the campus that they disliked and wished to change, and things that were missing on campus that they would like to exist. All of the input helped inform the direction and content of the Master Plan.

The Campus Master Plan described several goals, objectives and desirable attributes. These are summarized as:

#### Comfortable

Comfort is created by a combination of factors, including “natural surveillance” provided by legitimate activity, doors and windows looking over outdoor spaces, the right mix of enclosure and views, a human scale, and protection from harsh elements such as wind, rain and shielded views from servicing areas.

#### Engaging

For people to walk happily for long distances, it helps if the environment sustains their interest. Engaging environments are created by fronting the A-spaces with buildings correctly, having interesting facades along the entire length of the buildings, having features to look at along the way, and nice landscaping.

#### Accessible

Keeping the core of the campus compact, maximizing barrier-free environments, and organizing paths, doors, and venues to increase convenience are important to accessibility.

#### Convenient

The idea of a convenient campus is that it provides what is routinely needed in reasonably close proximity. This speaks to the idea of compactness as well as mixing the uses and good connections.

#### Connected

The campus needs to be well connected internally and externally, to the city and neighborhoods, particularly for pedestrians and cyclists. The idea is to provide multiple routing options, to spread traffic loads, and increase comfort.

Open spaces such as quads need to be connected (i.e. permeable) in order to provide value for the campus while, at the same time provide a sense of enclosure/territory with the various buildings holding their edges.

#### Vibrant

The term vibrant, on a campus, pertains to places where people can go and find other people in social environments. At the student center, athletics area, and various food venues, the design of the spaces should encourage social exchange.

#### Legible

Legibility is important so that new students can easily learn and navigate the campus. The idea of legibility relates to comfort, accessibility, and connectedness. Legibility can be increased with prominent landmarks, architectural differentiation, preservation of views, definite characters for quads and other outdoor spaces through landscape, and through context-sensitive streetscapes.

#### Safe

Safe is a statistic measurement that shows a low number of incidents, collisions, injuries, etc. “Safe” and the feeling of safety can be aided by achieving many of the above characteristics as well as the provisions and programs that the campus is already employing. The design of the entire campus should evolve towards a calm, friendly, and attractive place where the context encourages people to feel unstressed, sense mutual respect, and exhibit cordial behavior.

#### Interview Questions & most used response words from the Campus Master Plan Workshop.

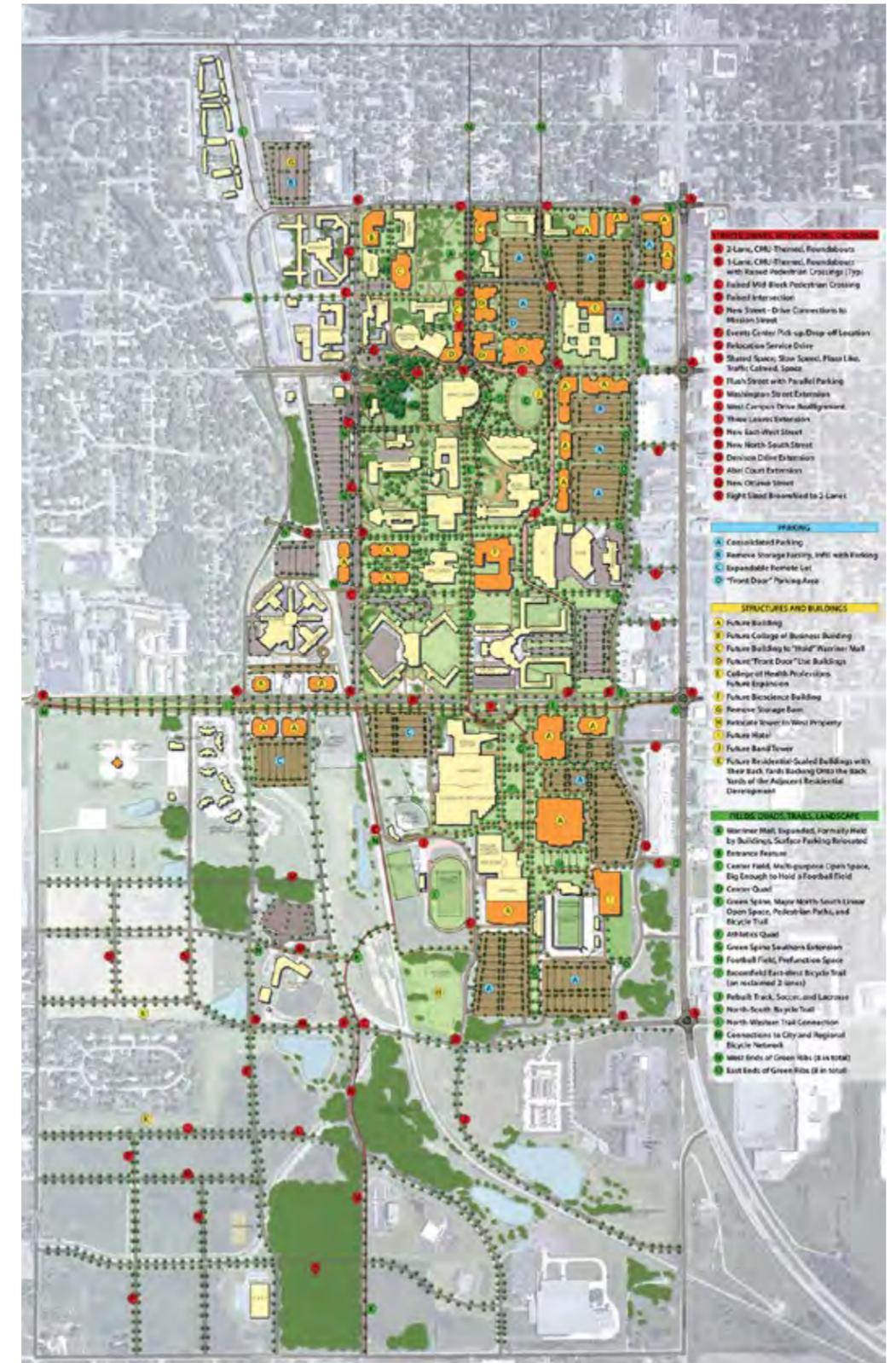
1. WHAT DO YOU LIKE MOST ABOUT THE CAMPUS THAT YOU WOULD LIKE TO SEE PRESERVED?



2. IS THERE SOMETHING MISSING ON CAMPUS THAT YOU WOULD LIKE TO EXIST IN THE FUTURE?



3. WHAT DO YOU DISLIKE ABOUT THE CAMPUS THAT YOU WOULD LIKE TO SEE CHANGED?



2013 Campus Master Plan

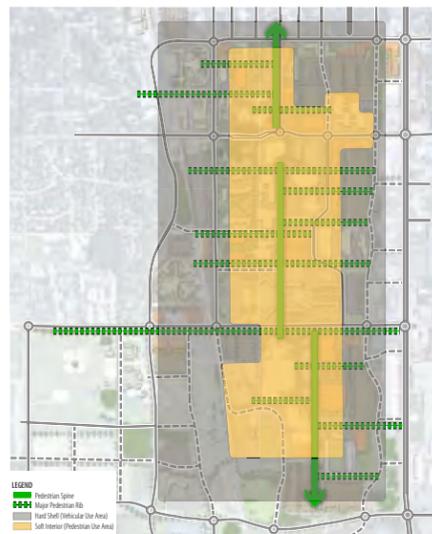
## 2.2 CAMPUS MASTER PLAN 'BIG IDEAS'

In addition to the goals, objectives and desirable attributes, several additional 'Big' Ideas evolved.

### THE COCONUT THEORY

Coconuts have two components: the hard outer shell and the soft inside. The soft inside is protected by the hard cover. The Campus Master Plan in its simplest form represents the coconut. The hard outer shell is considered all of the roadways, parking lots and vehicular use areas. This leaves the soft interior (quadrangles, sidewalks and paths) as pedestrian and bicycle use areas.

This theory creates distinctive zones for vehicular use areas and pedestrian use areas. By separating these zones we can help to eliminate vehicular and pedestrian conflicts. The major component to the center, is the north/south linear spine. East/west ribs intersect the spine creating a well connected open spaces that link the outer shell uses to the interior.



### PRESTON STREET "SHARED SPACE"

The concept is to restructure Preston Street to function as a 'shared space' through the campus core. Framed by new roundabouts at Washington Street and Franklin Street, Preston Street would become "Preston Plaza" turning into a shared space where only changes in the paving, bollards, street trees, and lighting define the space. The curbs would be eliminated, creating a flush street condition, allowing barrier free movement through the space. In this condition, the driver must yield to the pedestrian and therefore it creates a safer environment for pedestrians. This space would also directly connect the University Center and the Library/Botanical Garden together and create a central gathering place at the core of the campus.



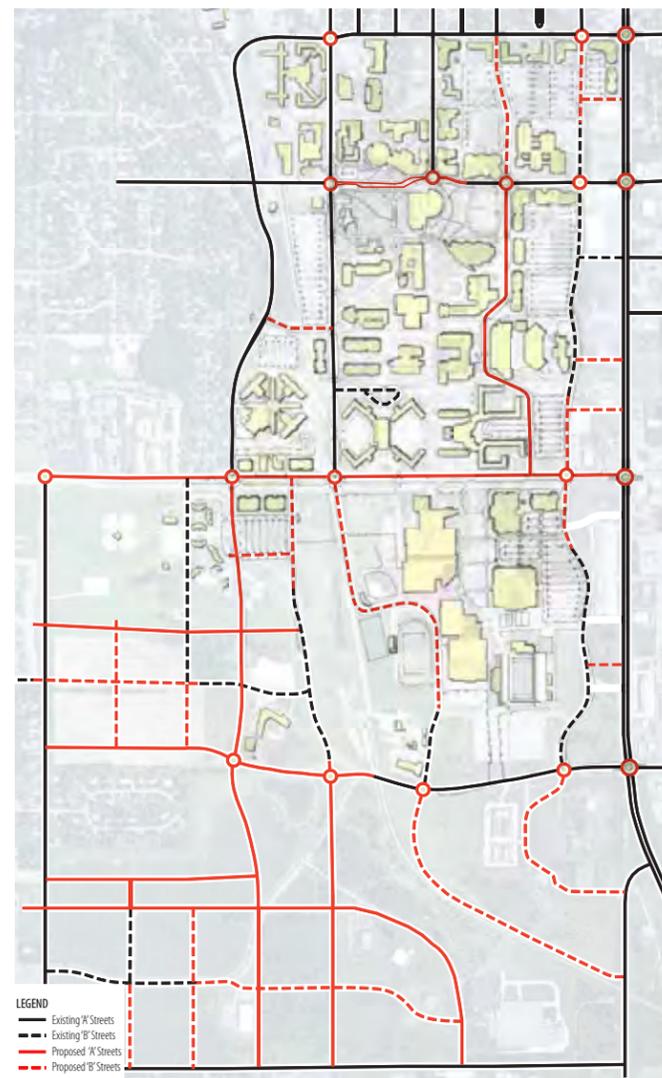
### STREET HIERARCHY & CIRCULATION

The campus needs to be well connected internally and externally, to the city and neighborhoods. The idea is to provide multiple routing options, to spread traffic loads, and increase comfort. This was done by the creation of north/south and east/west parallel routes. A hierarchy of A & B Streets was developed.

A-Streets are highly walkable streets. They provide uninterrupted sidewalks and great addresses for buildings.

B-Streets provide access to parking lots and service areas.

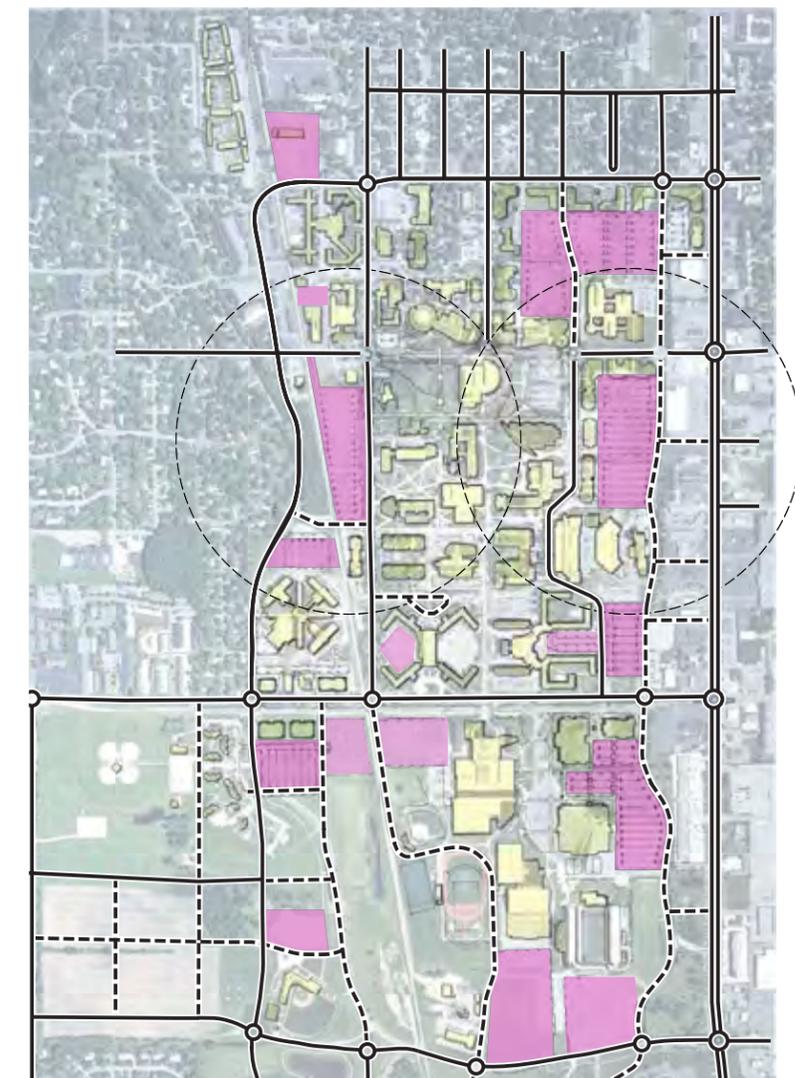
The street network in the graphic below shows the existing and proposed street network depicted in the Campus Master Plan. The black lines (dashed and solid) are existing streets and the red lines (dashed and solid) are proposed streets. A-streets being the solid lines, the B-streets being the dashed lines. The A-streets, quads, and Pedestrian Spine provide the addresses for future buildings.



### PARKING AGGREGATION

Currently, there is a perception of insufficient parking on campus (even though the parking ratio of spaces to students is high in comparison to other campuses of this size). However, there are numerous parking lots, many of them small, around campus. Typically some parking lots fill up while others do not. What is happening is that the most convenient parking lots fill up first. Then, when the next motorist is looking for a parking space, their first choice of parking lot is full and perhaps the second. After circulating through three parking lots, the motorist's perception is a shortage of parking spaces. Besides creating a negative perception, this also results in extra driving around campus. Had the three parking lots been aggregated, the motorist would have found a parking space on the first try.

Different land uses on campus generate their peak parking at different times. For example, residences may peak at night, theaters may peak during the evenings, and academic building may peak during the day. With separate parking lots, one parking lot may fill up and create a perception of a shortage, even though another may have plenty of spaces. By combining the parking lots, the likelihood of finding a space increases.



## 2.3 REGIONAL CONTEXT

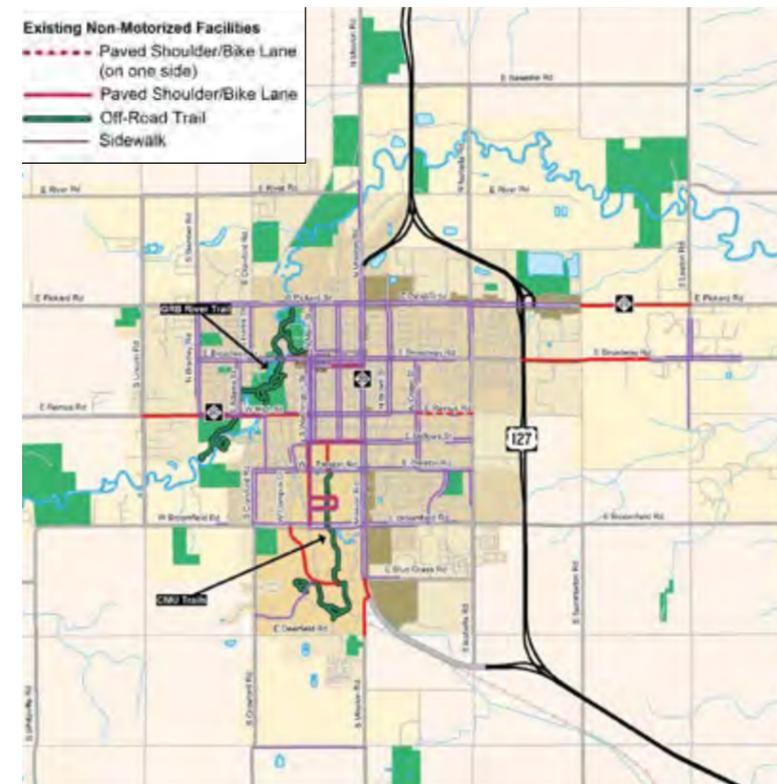
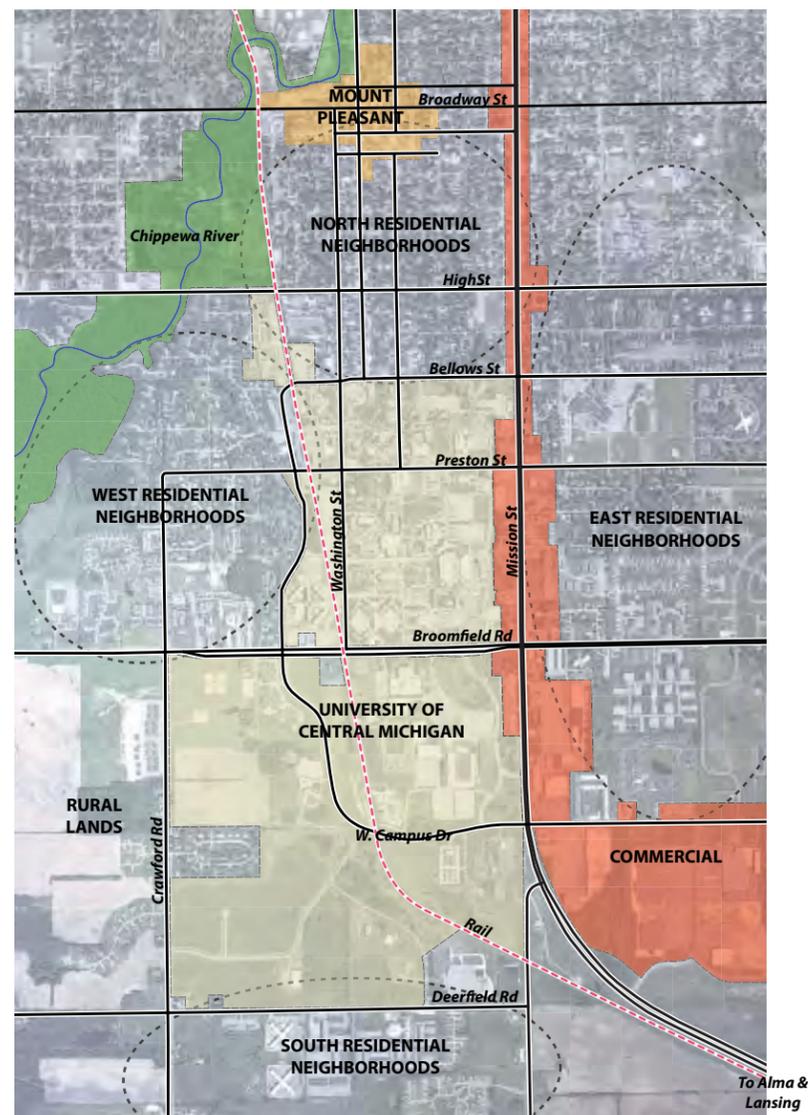
### Study Area Description

The University of Central Michigan is located in Mount Pleasant Michigan and is framed by Bellows Street (north), Deerfield Road (south), West Campus Drive (west) and Mission Street (east).

North of the campus are several older neighborhoods and the City of Mount Pleasants' downtown. The campus is well connected to the north with several streets. To the west are a few neighborhoods and rural land. The western connections are limited due to the north-south railroad. To the south are a few sporadic developments and rural land. There are two connections to the south; Three Leaves Drive and Denison Drive. To the east is Mission Street (Business Route 127), a retail and commercial corridor. East of Mission Street are several neighborhoods.

Mission Street is the primary street for visitors, students, staff, and faculty to access the campus. Despite the strong relationship between Mission Street and the campus, the campus addresses Mission Street in only two locations (south of Bellows Street and north of Campus Drive.) Other connections to Mission Street occur at Preston Street and Broomfield Road.

Within close proximity to the campus and downtown Mt. Pleasant are several parks and the Chippewa River. The GRB RiverWalk is located along the Chippewa River and provides regional recreation opportunities and connections to several large parks.



Greater Mount Pleasant Area Non-Motorized Plan. November 30, 2011.

## MOBILITY

In November of 2011 The Greater Mount Pleasant Non-Motorized Plan was adopted. The Township of Union, Isabella County Michigan, received a grant from the Saginaw Chippewa Indian Tribe to produce an area wide non motorized transportation plan. The steering committee for the plan represented a diversity of interests with participants from local government, agencies, education institutions and citizens for the greater Mount Pleasant area and Isabella County. The plan presents a clear vision of the how the City of Mt. Pleasant, Union Township, Central Michigan University and the Saginaw Chippewa Indian Tribe may improve the non motorized connections and links to surrounding communities and regional trail resources.

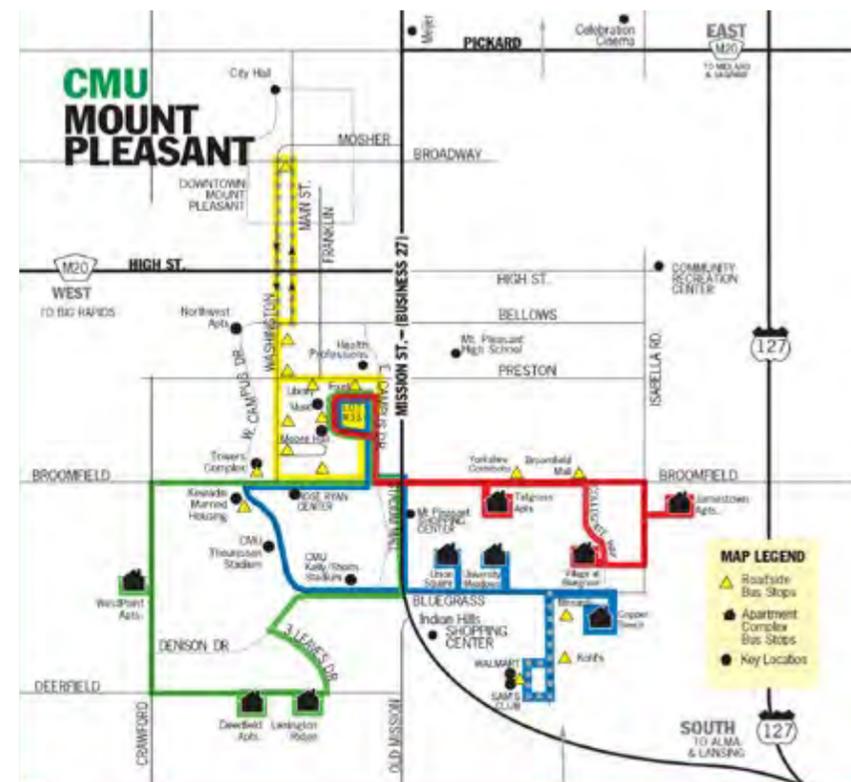
The following bicycle and bus circulation routes are exhibits from this document. Some the improvements recommended have been implemented.

### MOUNT PLEASANT BICYCLE PLAN

There area approximately 7 miles of existing bike lanes and 5 miles of existing off-road trails in the Greater Mount Pleasant Area. The bicycle facilities connect the campus to downtown Mount Pleasant and the surrounding parks and RiverWalk.

### MOUNT PLEASANT BUS ROUTES

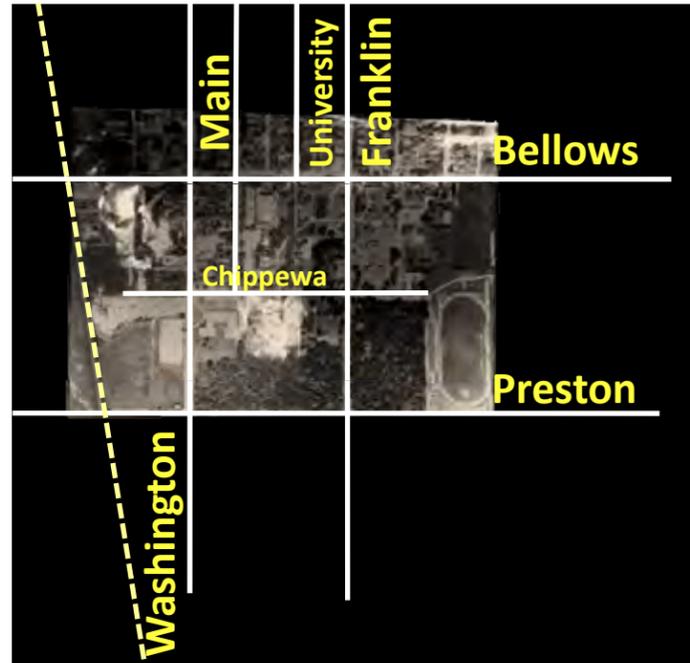
The Isabella County Transportation Commission (ICTC) or Iride for short provides four routes from the University to the Greater Mount Pleasant Area. The yellow route is the main Downtown/Campus Connector. These routes connect the campus to resident halls, surrounding apartment complexes, the athletic and recreation area as well as downtown Mount Pleasant. Service is provided on weekdays 7 am to 7 pm with shortened hours on Friday (1pm).



## 2.4 CAMPUS HISTORY

Central Michigan University was founded in 1892 as a Teacher's College on the south edge of the City of Mount Pleasant, Michigan. Over the next 120 years, the campus grew into a large university offering over 350 academic programs to approximately 27,000 student.

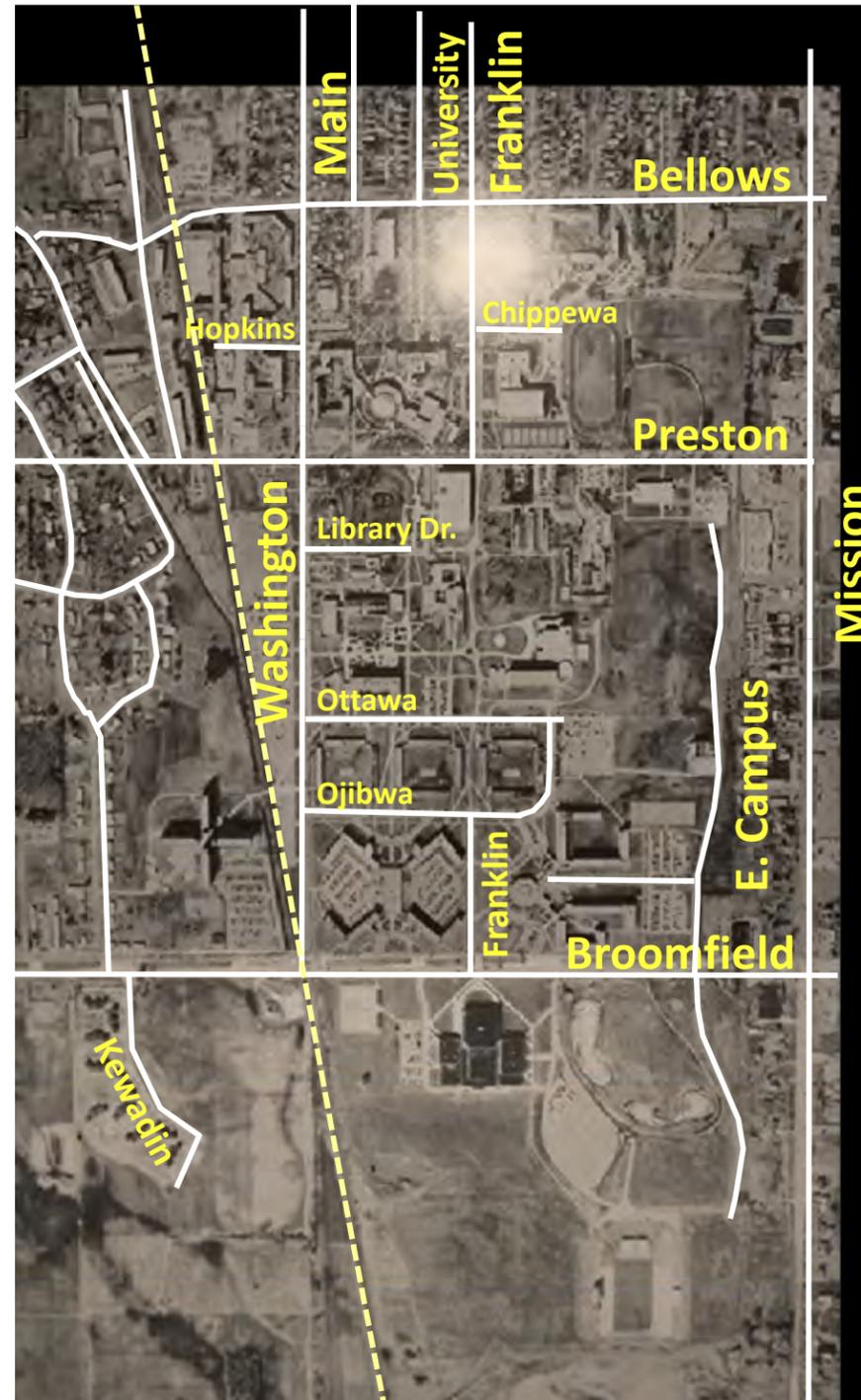
The following aerial pictures show the growth of the campus over time. The original campus at Warriner Mall was organized a highly traditional, pedestrian-scaled quadrangle. With the expanded use of the automobile and available land, the campus rapidly began to 'spread out' and became more suburban in form. Today, a single land use or building such as the residential towers is larger than the traditional campus core at Warriner Mall. The campus master plan and framework will help to knit together the traditional elements of the campus with the new.



1930 - Central Michigan Normal School



1942 - Central State Teacher's College



1974 - Central Michigan University



2013 Aerial - Central Michigan University

## 2.5 GETTING STARTED

### PROJECT OBJECTIVES

The CMU Campus Landscape Plan vision creates a rich and meaningful place, where students, faculty and visitors can engage in residential life, academics and recreation. In keeping with the master plan vision, CMU contains a variety of natural areas, historic quads, key pedestrian linkages and recreational venues providing unique and valuable experiences to users. These spaces have been identified as ‘Feature Spaces’ to the campus and help to define the Campus Landscape Plan. They were identified because they are significant outdoor spaces in the campus core and are therefore part of the ‘Admissions walk’.

- Gateways
- Warriner Mall
- The Library Walk & Botanical Garden
- Anspach Quad
- The Pedestrian Spine
- A Redefined Calumet Court (A-Street)
- Outdoor Events Space
- Central Plaza

The sense of place comes to life in the vitality of these spaces, the beauty of the vistas and the significant design considerations that have been carefully executed throughout the campus. Many factors contribute to the sense of place, from the design of the streets and public spaces, to the mix of land uses and the scale of development. It is the distinct variety in building uses and public spaces, the implementation of conscious design, and the natural beauty of the land that makes CMU a unique and memorable place.

To achieve the vision of the feature spaces, the AECOM team collaborated with students, faculty, staff, alumni, community, and the Saginaw Chippewa Indian Tribe. A series of charrette workshops were conducted to discover strengths and opportunities, develop programming and input objectives as well as to establish a vision for each space.

The assignment was to gain a composite understanding of the Campus Landscape places such as campus streets, edge streets, arrival and open systems. This understanding was tested with a vision plan for each of the key feature spaces defined.

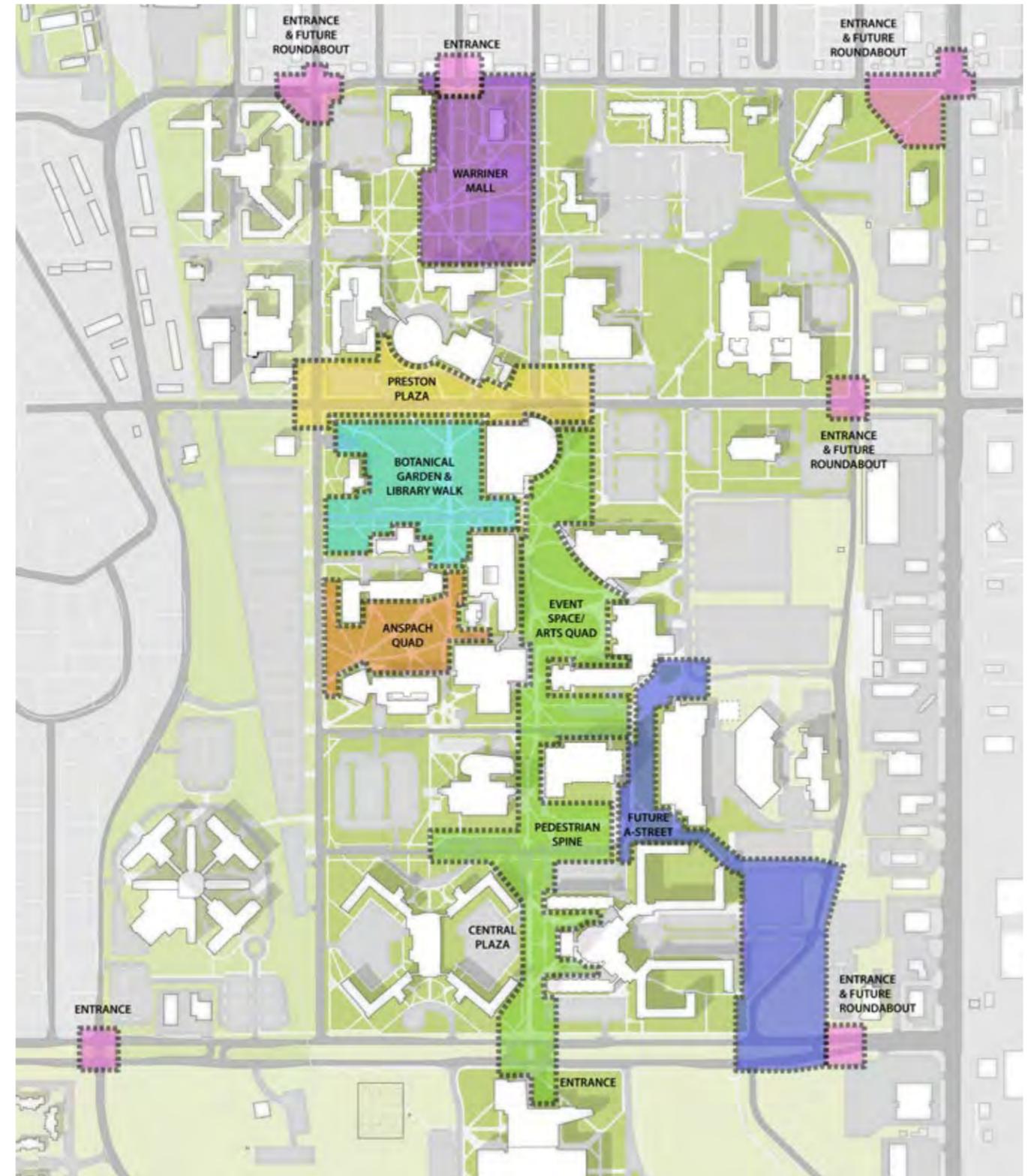
The specific design of the spaces is informed and supported by broad Guiding Principles, Compositional Frameworks and Material Guidelines.

### THE PRESTON PLAZA ‘SHARED SPACE’

The Preston Plaza feature space was not part of the concept development as studied in section 5: Feature Places. This was a campus master plan ‘Big Idea’ and will be further defined and developed as a separate project. (Refer to page 7.)

### THE PEDESTRIAN SPINE

The Pedestrian Spine is an interior multi-modal pedestrian and bicycle promenade that will also provide interior emergency access to campus. The spine is envisioned as not only a vital circulation signature, but also a branding and placemaking component of the campus. As a result, the final name for the spine will be developed by CMU and coordinated with banner and signage graphics during implementation.



Feature Spaces

FEATURE SPACES



*Warriner Mall*



*Botanical Garden/Library Walk*



*Anspach Quad*



*The Pedestrian Spine*



*Event Space*



*A-Street / Campus Street*



*Central Plaza*

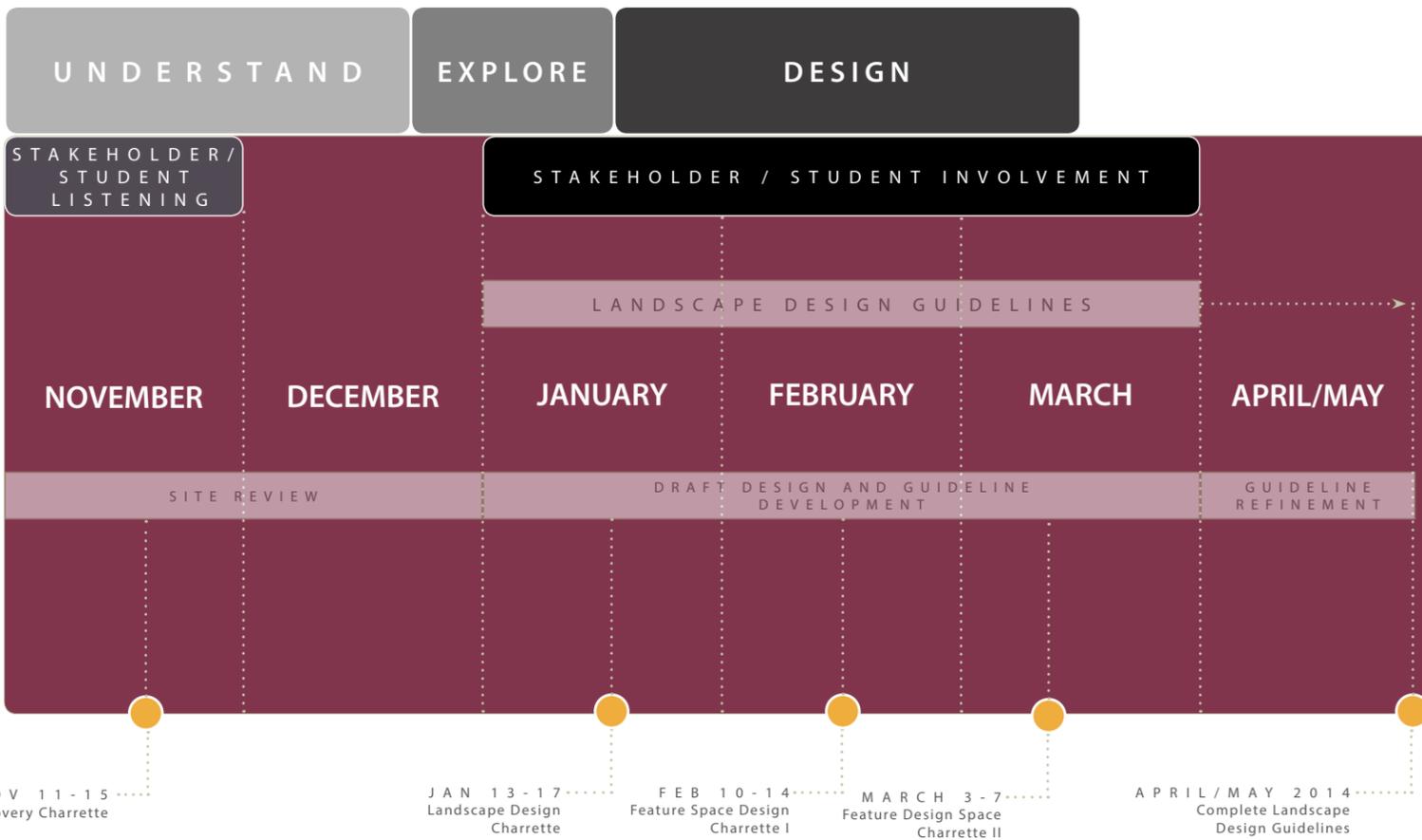
Existing Views of the Identified Feature Spaces defined in the Campus Landscape Plan

## 03 Inventory and Analysis | Listening and Learning

### 3.1 INTRODUCTION: APPROACH AND TEAM

The process of developing the Campus Landscape Plan for Central Michigan University was designed to be highly interactive, inclusive and incremental in the approach. The majority of the design work was done on-campus, with dynamic interaction with students, faculty, staff and alumni, as well as key user groups with the design team. The work was organized around 4 week-long workshop events. Each event included an opening and closing public presentation and discussion, open house and stakeholder meetings, as well as cabinet briefings. Altogether, the process included meetings with over 35 stakeholder groups, numerous small group briefings and creative meetings and more than 400 participants who attended at least one event.

The opportunity presented by this approach was to incrementally define objectives, test ideas, validate, revisit and refine the ideas with many constituents. As a result, the plan ideas were strongly supported at the conclusion of each workshop.



### NOVEMBER WORKSHOP: DISCOVERY AND GUIDING IDEAS

#### Workshop Tasks Week of November 11, 2013

Comparable University Campus Visits:

- Grand Valley State University
- Saginaw Valley State University
- Oakland University

Research:

- 34 scheduled Stakeholder Interviews
- CMU Campus and City of Mount Pleasant history
- Saginaw-Chippewa Indian Tribe, traditions and local history

Site Tours:

- Successful areas of campus, use of plant and site furnishings
- Materials preferences – landscape, hardscape, parking, drives

Presentation / Discussions:

- Opening Kickoff Public Presentation
- Open House Sessions

Comparative / Preferences exercises

- Closing Presentations: Cabinet and Public

The purpose of the November workshop was to learn about the campus through the eyes and input of many stakeholder groups. Over 30 meetings were conducted with stakeholder groups ranging from 4 to 10 participants (not counting the consultants). We were also able to conduct walking tours of the campus with staff, observe student activities and experience the campus. The results of the work included a deeper understanding of the Values and Goals for the Campus Planning work – as articulated in **8 Guiding Ideas** discussed in detail in section 3.2 of this document. This work was done in parallel with our Wayfinding and Signage design team so that landscape and graphic ideas could be unified.



November

JANUARY WORKSHOP: COMPOSITION AND FRAMEWORKS

Workshop Tasks Week of January 14, 2014

- Frameworks:
  - Feature, Fabric and Functional Places
  - Landscape Typologies
- Landscape Composition:
  - Circulation Spaces
  - Open Spaces
  - Materials Standards
- Test Site Concepts:
  - Biosciences Building
  - Warriner Mall
- Presentation / Discussions:
  - Opening Kickoff Public Presentation
  - BioSciences Design Team review session
  - Saginaw-Chippewa Indian Tribe Meeting
  - 3 Open House Sessions
  - Closing Presentations: Cabinet and Public

The purpose of the January workshop was to advance and develop the **Guiding Ideas** into design principles that could inform shared ideas about landscape **Composition and Frameworks**. The work included an articulated structure of the varied types of landscape places on campus, principles of composition and initial thoughts about the history of the campus, town, and Saginaw-Chippewa Indian Tribe as they might inform landscape design ideas. Preliminary ideas were presented for landscape and site furnishings.

The ‘language’ of the composition and standards ideas were ‘tested’ through some preliminary conceptual design was completed for the upcoming BioScience Building and the historic Warriner Mall, and were positively received. This workshop was also conducted in parallel with the Wayfinding team, which identified top destinations, a structure for wayfinding hierarchy and preliminary graphic concepts for signage iconography.



January

FEBRUARY WORKSHOP: DESIGN PLACES I

Workshop Tasks Week of February 10, 2014

- Design Concepts:
  - Central Plaza
  - Maroon Spine
  - Outdoor Events Space
  - ‘A’ Street concept
  - Warriner Mall
- Landscape Materials Discussion:
  - Signage / Gateway Materials Review
  - Lighting and Banners
- Presentation / Discussions:
  - Opening Kickoff Public Presentation
  - 2 Stakeholder / User Group Meetings
  - 2 Open House Sessions
  - Closing Presentations: Cabinet and Public

The February, 2014 workshop was designed to apply the **Guiding Ideas** and **Compositional Frameworks** to four specific design areas, as well as advancing the Warriner Mall concept. Locations included the Central Plaza (adjacent to Woldt Dining), the Pedestrian Spine (referred in early workshops as ‘green spine’), Bush Outdoor Events Space (also referred as Arts Quad) and the planned ‘A’ Street adjacent to the future Biosciences Building. The workshop included specific user group meetings with stakeholders specific to each of the spaces, student interview, site tours and open house opportunities.



February

MARCH WORKSHOP: DESIGN PLACES II

Workshop Tasks Week of February 10, 2014

- Design Concepts:
  - Gateways
  - Anspach Quad
  - Botanical Gardens & Library Walk
  - Admissions Walk
  - Veteran’s Memorial at Warriner Mall
- Landscape Materials Discussion:
  - Additional / Special Signage Elements
  - Materials Approach
- Presentation / Discussions:
  - 5 Stakeholder / User Group Meetings
  - Special Presentation / Open House & Input Workshop
  - 1 Open House Session
  - Closing Presentations: Cabinet and Public

The March, 2014 workshop was designed to apply the **Guiding Ideas** and **Compositional Frameworks** to three specific design areas, as well as identifying additional insights and ideas regarding the character of the admissions walk. Locations included the campus Gateways (focusing on prototypes at a few locations), the Anspach Quad, and the Fabiano Botanical Gardens and Library Walk (focusing on the area immediately west of the Library). Finally, the work also included some additional discussion regarding the best opportunity to relocate and reinterpret the Veteran’s Peace Memorial in the southern area of campus. The result was a refinement to a new ceremonial location within the redesigned Warriner Mall concept.

The workshop included specific user group meetings (including ROTC) with stakeholders specific to each of the spaces (including ROTC relative to the memorial), a 2 hour evening open house workshop in the Rotunda that included a comprehensive project presentation and ‘stations’ to review concepts for each of the study sites and signage. The design week concluded with review presentations to the Cabinet and the Public.



March

### 3.2 GUIDING PRINCIPLES

Central Michigan University is a diverse and dynamic place within the character 'town-gown' setting of Mt. Pleasant. The campus places are used and perceived by a wide variety of people. The campus is seen as a place of learning, culture and personal growth. It is also a place of significant facilities, property, management, and economic activity. Most importantly, it is a defining center of place for the community, the region and the nation for alumni and a wide array of allied peers.

The key purpose of the 'Discovery' workshop (November, 2014) was to understand the values and sense of place through the eyes and imagination of as many points of view as possible. Over 35 Stakeholder Groups were interviewed as well as several one on one interviews, public discussion meetings and review with the Cabinet. A unifying theme was the desire for a stronger expression of spirit, accomplishment and personality of CMU's people through the activity, function and visual appearance of the campus.

At the conclusion of the work, a vast array of mutually supportive input was organized into eight big-picture **Guiding Ideas** that summarize both the perception and aspirational goals for CMU's campus experience. These ideas were stated in the form of forward-looking, value-based statements of anticipated success: **"Central Michigan University's Campus is..."**



Stakeholder Groups

### 1. A LEADING COLLEGIATE ENVIRONMENT

- A Place of Learning and Discovery
- Balance of Forward Movement, History + Permanence
- A Sustainable Place for 21st Century Leaders
- A Healthy Place for a Successful Life
- Redefine Personal Horizons
- A Clear 'Cognitive Place'

### 2. A CELEBRATION OF SPIRIT

- Visible Points of Pride
- Accentuated 'Wow' Views
- Iconic Places or Objects
- Recognized People, Places & Accomplishments
- Outside Art and Interpretive Learning

### 3. AN AUTHENTIC PLACE

- 120 Years of History at CMU
  - "I feel like a Real College Student at Warriner Mall"
  - Accomplishments and Traditions
  - Diverse Student Body
  - Donor Opportunities
- An Integrated Town/Gown relationship
  - The NW Quadrant of Campus is 'Home'
  - Events and Activities
  - Physical Linkage
- The Saginaw-Chippewa Indian Tribe is reflected in the campus
  - Medicine Wheel + Talking Circle
  - Resilient, Independent and Self Sufficient
  - Sustainable Relationship to Earth
  - 7 Generations Future Looking
  - Materials – Birch Bark, Cedar Root, Water, Stone, Sweetgrass

### 4. A WELL DEFINED GEOGRAPHY

- Consistent Design Treatments
- Easily to Maintained Designs in Most Places
- Simpler Landscape / Diverse Buildings
- Regular use of graphics and logos
- Feature, Fabric and Functional Areas
  - Limited but Special Feature Places
  - Legible and Manageable Campus Fabric
  - Screened Back of House Functional Areas



Campus Corridors



Niche places of respite

## 5. A UNIFIED CAMPUS EXPERIENCE

- Consistent Design Treatments
- Easily Maintained Designs in Most Places
- Simpler Landscape / Diverse Buildings
- Regular use of graphics and logos
- Feature, Fabric and Functional Areas
  - Limited but Special Feature Places
  - Legible and Manageable Campus Fabric
  - Screened Back of House Functional Areas

## 6. A CONNECTED CAMPUS

- A Walking Campus where Peds and Bikes Rule
- Celebrated Promenades that lead to Known Places
- Visual Alignments
- Inclusive Pathways
  - Shared Access
  - Multiple Use
  - Flush Conditions wherever feasible
- Dedicated Space and Route for Pedestrians and Cyclists
- 'Tactical' design (roundabouts, intersection tables, bike paths, etc)
- Consolidated Parking

## 7. A PLACE OF YEAR ROUND ACTIVITY

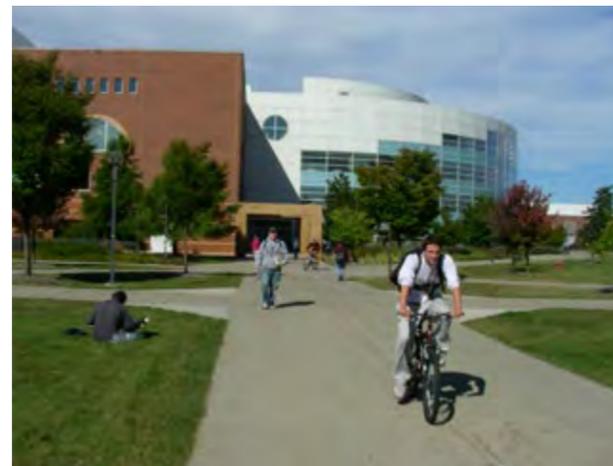
- Outdoor Places that invite multiple planned and unplanned social and learning activities
- Places that invite social activity – food, activity, events, Wi-Fi, outdoor play and pick up
- Flexible for all seasons and various users & uses
- Campus Traditions, Ceremony and Places
  - Botanical Garden & Pond
  - Warriner Mall
  - Old Track site next to Finch
  - Band, Tailgating, Athletics

## 8. INSTILLS A SENSE OF HOME

- Comfort – Shade, Seating, Enjoying
- Ownership – You can use it!
- Safe – Ped Friendly, Well Lit, Clear Site Lines
- Scale - Big Enough, Small Enough
- Branded – Colors, People, Accomplishments, Activity



*Dramatic quads source of history*



*Heels and wheels internal circulation*



*New facilities and leading-edge education*

### 3.3 CAMPUS SUSTAINABILITY

Sustainable practices are a foundational principle to all planning and campus development work. Resource efficiency, self-sufficiency, local materials and consideration of future needs are integral to the Central Michigan University approach to campus, as well as ingrained in the cultural traditions of the Saginaw-Chippewa Indian Tribe.

- A Campus Sustainability Advisory Committee (CSAC) was established in January, 2008. The committee was charged with developing a sustainability program.
- CSAC's mission: *The mission of CSAC shall be to institute practices and create a culture of sustainability at Central Michigan University to assure that the economic, environmental and social concerns of the university community are managed in a sustainable manner to ensure that we have the resources to meet the current needs of students, faculty and staff while assuring that future needs of the university and local community will also be met. In carrying out the mission, we will focus on the following areas to improve sustainability.*

#### Focus Areas

1. Energy Conservation and Management
2. Water Conservation and Management
3. Green Purchasing Programs
4. Recycling and Waste Management
5. Sustainable Transportation
6. Reduction of Greenhouse Gas Emission
7. Green Building and Remodeling
8. Curriculum and Instruction in Sustainability
9. Develop a Culture of Sustainability at CMU
10. Build a Sustainable Community and Society

#### Awards

- Named as one of the Princeton Review's "green colleges" in 2013.
- Awarded an Honorable Mentions for the American School and University's Green Cleaning Award in 2010.
- In 2011, CMU won the Grand Award in the Colleges/Universitys category of the Green Cleaning Award.
- Recognized by the Association for the Advancement of Sustainability in Higher Education in 2010 for the Campus Grow project, a campus food gardens and compost food waste effort.
- Recognized by Consumer's Energy for its efforts in energy efficiency in 2012.
- 6 LEED certified buildings - 2 silver, 2 gold, 2 platinum.

## INSTITUTIONAL PLAN ACTION GOALS

**01 Reduce campus energy consumption.**

**02 Reduce water consumption.**

**03 Purchasing protocols and practices.**

**04 Increase recycling on campus; achieve 0% growth in total MSW.**

**05 Encourage use of mass transit, carpool, and human-powered transportation.**

**06 Reduce carbon footprint.**

**07 Impliment LEED practices.**

**08 Incorporate principles of sustainability into academics and service learning opportunities.**

**09 Increase awareness of sustainability.**

**10 Encourage community leaders and private industry to cooperate with CMU's sustainability initiatives.**

**11 Improve campus storm water management.**

**12 Encourage visitors to participate in sustainability efforts.**

SUSTAINABILITY IN THE PLAN

This focus on sustainable practices manifests itself in several ways in the campus landscapes. In terms of behavior, efficiency and energy consumption, the campus is moving to more strongly support a high walk/bike environment, calmed traffic and a well-organized ‘park once’ environment for automobiles. The new wayfinding will also assist in more efficient automobile movements and behaviors as parking opportunities will be more directly understandable. The plan also speaks to campus places that are more ‘multi-functional’ – allowing the benefit of investments to positively impact more people, in more ways.

Resource conservation and recycling practices will continue. Energy needs for lighting will be made even more efficient through the use of refined lighting standards and the incorporation of LED fixtures. Water for planting will be conserved through the use of adapted plant material, expanded tree canopy and simplified practices for landscape maintenance. Site furnishings materials are selected for simplicity and durability of maintenance and management.

The proposed ‘typical’ landscape plant list is more concise for most of the campus, with a greater emphasis on native or locally adapted plants that have demonstrated good performance on the CMU campus, particularly relative to survivability and irrigation needs. The use of plants will also be simplified in many areas, allowing for less energy in clipping, manicuring and frequent replenishment of complex planting areas across the campus. The botanical garden area and other areas of campus will contain more educational components to build an appreciation and understanding of native and culturally significant materials.

Finally, innovative practices such as low impact design, rain gardens, bio-detention and pervious pavement have recently been successfully integrated into new campus areas, and these practices are expected in future development.



A Campus of walking, biking and re-purposing



Pervious asphalt



A walking environment



Bioswale



Low maintenance simple landscape



High maintenance complex landscape application

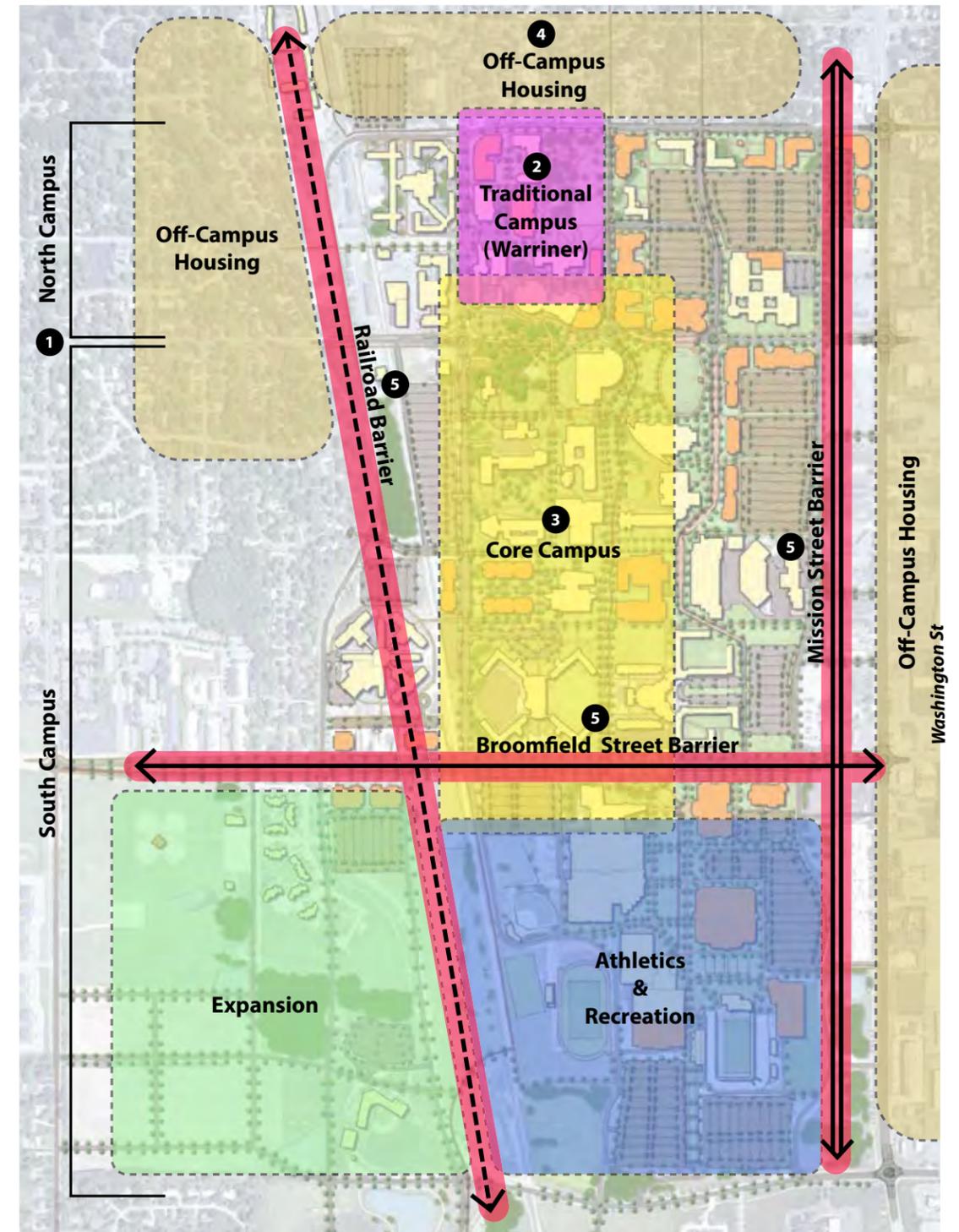
### 3.4 CAMPUS FRAMEWORKS

In the discovery phase of the planning process, the design team was able to see the exterior campus environment from many points of view. Input ranged from Students, Faculty, Senior Administration, Facilities and various stakeholders from the broad community. The broad input provided the design team with a deeper understanding of how the campus is both perceived and utilized, and these insights inform the work throughout this Landscape Plan document.

As an introduction to this and diverse input, several conceptual diagrams were developed which describe basic campus organizational Frameworks for both the perception and reality of the campus form. One of the most interesting was the notion of the 'cognitive map' of the campus for students, particularly as they recalled their early experiences on campus. The notion of a cognitive map does not necessarily adhere to well-articulated geographic boundaries or dimensions. Rather, they have to do with intuitive understanding of physical space as a result of how it is perceived. In most cases, this relates directly to how physical space is configured and the experience of circulating through an area.

Cognitive insights were varied, and don't necessarily represent a statistically valid survey of all perspectives, but there were a number of interesting notions shared by multiple stakeholder participants that allowed the design team to understand the campus in a new way:

1. *"Preston Street is the demarcation between North Campus and South Campus"*. Intuitively, one might think that a North-South boundary might be somewhere closer to the geographic center of the campus. However, the comment is indicating the way in which the campus is perceived. The tight grain of buildings, well defined quadrangles, traditional streets and generally externalized parking make a strong visual imprint. South of campus, the larger scale of buildings, less intimate open spaces, larger parking lots and crossing driveways create a different pattern that reads as 'the same', and distinctly different from North Campus. A goal of the plan might be to build in some of the grain of the North Campus image into the Southern areas of Campus.
2. *When I was first in Warriner Mall, I felt like a real college student.* The visual iconography of the traditional orientation, view lines and architectural form speak strongly to a remembered 'typology of University' that speaks to history. We also heard representatives of the growing online-distance learning programs note that Warriner Mall is the most frequent spot for photographs, because off-campus students want to show their families they have a degree from a 'real university'. We do not believe this input rules out modern forms of architectural expression, but rather the importance and psychological power of strong view orientations and memorable.
3. *The Core Campus is from the University Center to the Student Activity Center.* This insight seems reasonable, because the centerline between these two facilities touches the majority of the academic, residential and student life facilities. A lot of 'student time' is spent in this geography. This is therefore an important location for strong campus identity and branding.
4. *The weekend social events are in the Northwest Neighborhoods.* We took this input to emphasize not only the concentration of CMU, Greek and privately owned residential, but the fine grain nature and proximity to both the Campus, the UC as well as the traditional downtown area of Mt. Pleasant. Housing to east of Mission St is considered 'off-campus'.
5. *Mission and Broomfield are barriers.* The need to humanize and calm these roadway corridors was noted in the previous master plan efforts, but it is important to continue to recognize the perceptual divide these streets present to students. A representative of the campus tours group noted that in inclement weather, tours to the Student Activity Center were often deleted from the route due to the nature of Broomfield and the distances involved. The perception of these barriers should be addressed.

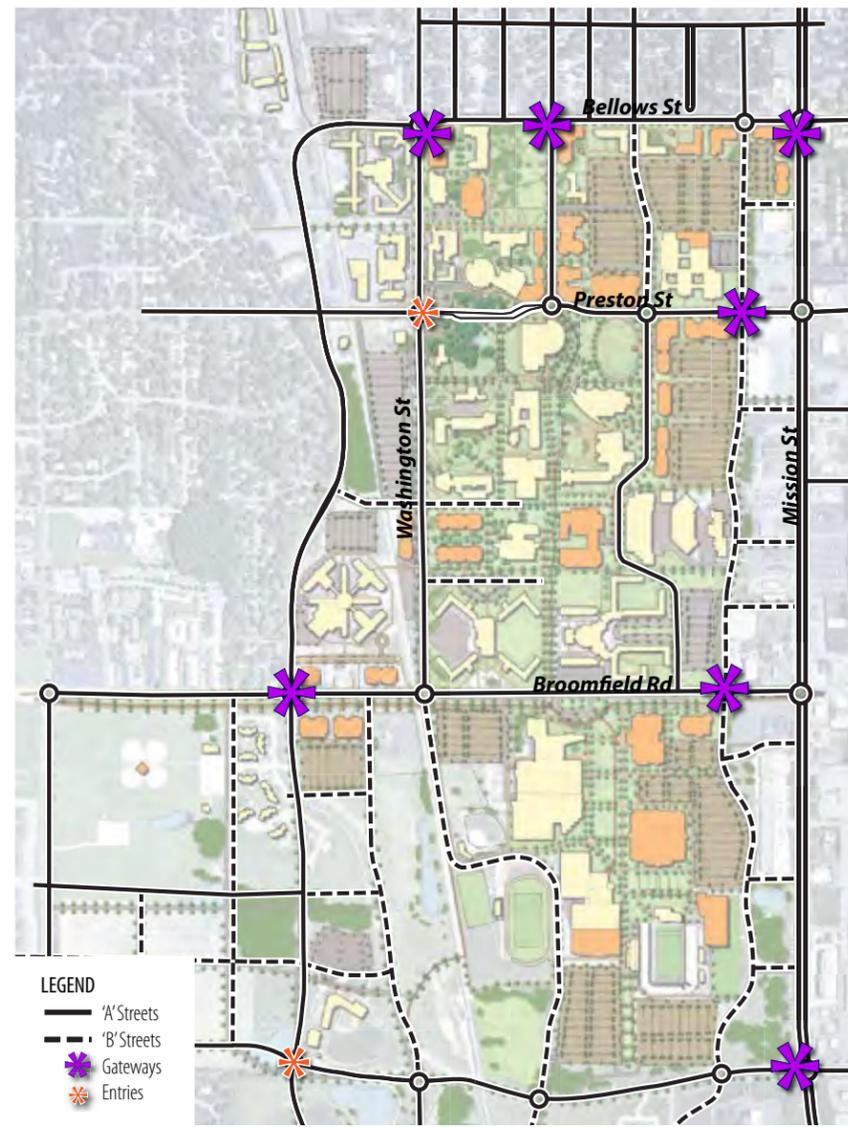


Cognitive Map

### VEHICULAR CIRCULATION AND ARRIVAL HIERARCHY

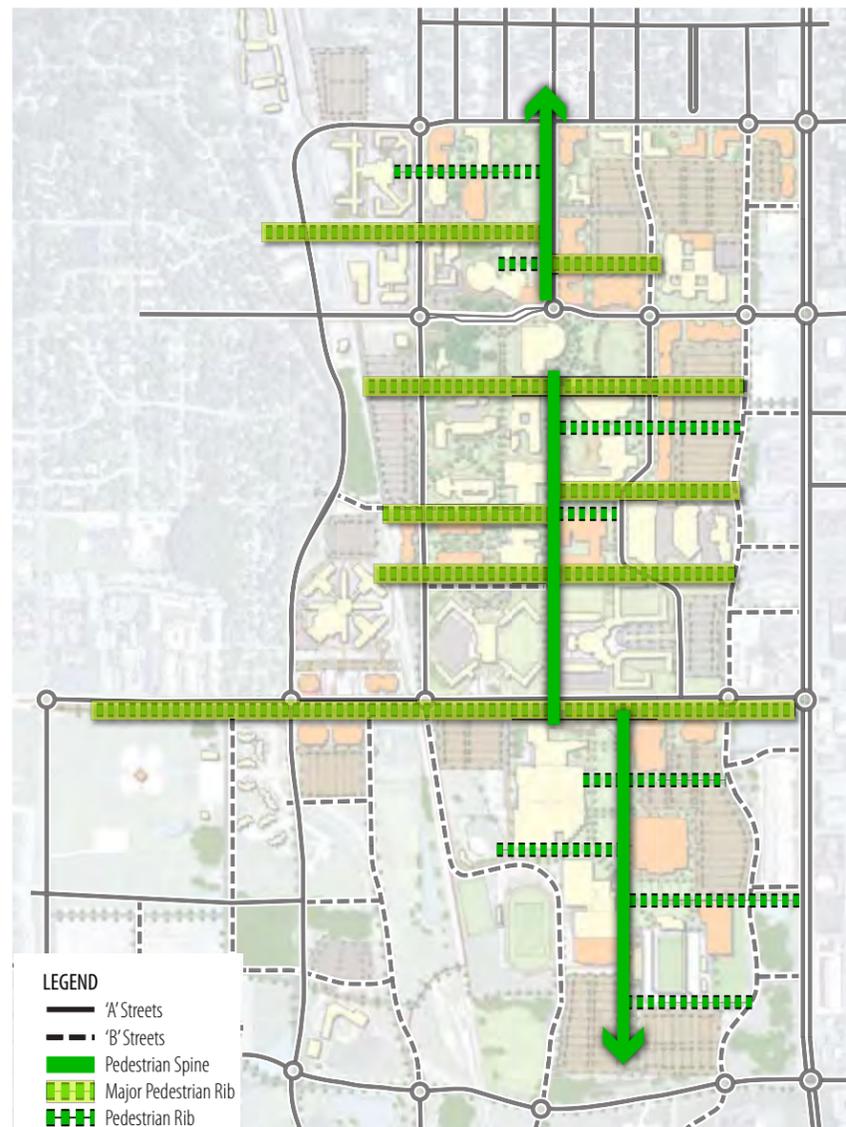
A hierarchy was developed in the 2013 Master Plan for basic circulation, describing priority 'A' streets and supportive 'B' Streets. Both types need to have a balanced basic level of service for all modes of vehicular and non-vehicular traffic, as well as campus imagery. However, it is acknowledged that 'A' Streets command a stronger front door imagery and therefore warrant consideration for enhanced pedestrian and cycle treatments, spirit banners and graphics, street trees and edges, special crossings and other features associated with campus image. Other 'B' streets are more utilitarian in nature and provide service access, internal connectivity and other secondary circulation functions.

Similarly, the hierarchy of arrival gateways can be expressed in strong relation to the A and B street concept. This basic arrangement begins to classify both the priority and emphasis of certain arrival points and circulation routes for future investment or enhancement efforts.



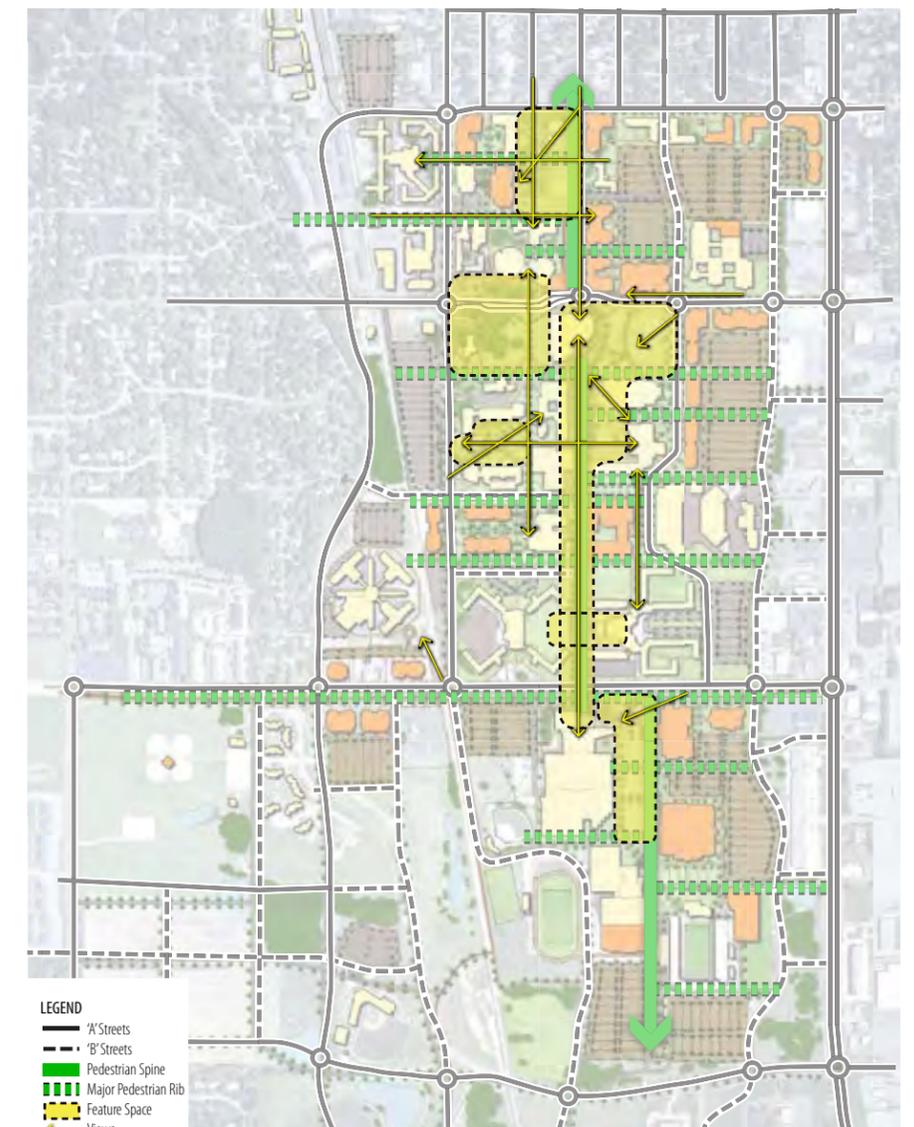
### PEDESTRIAN AND CYCLING HIERARCHY

Non-vehicular circulation is related to auto and transit vehicular routes in any campus environment. Streets and parking lots need to be made safe and inviting to pedestrians and bikes. However, in addition to 'calming the streets', the Master Plan aims to set up a highly understandable framework of East-West 'ribs' (referred to later in the document as 'paths') a multi-use North-South Spine. The Ribs and Spine approach links the need for clear orientation from external parking to the internal campus, while accommodating pedestrians, bikes and fire access in a 'shared space' environment strongly oriented to campus non-motorized 'heels and wheels' traffic.



### PRIMARY CAMPUS PLACES AND VISTAS

As noted in the 'cognitive map', certain views are strongly compelling to both the psychological perception of campus, as well as orientation and wayfinding. Together, having well defined outdoor spaces and well defined views to iconic buildings or locations is a fundamental idea to building a strong campus image with intuitive orientation. Today, many of these outdoor places are not designed to meet their potential use, and views to key buildings are not emphasized or framed from adjacent visual distractions. The plan addresses this topic in several locations.



## 04 Campus Landscapes

### 4.1 COMPOSITION AND DESIGN DRIVERS / SYNTHESIS AND RESPONSE TO CURRENT CAMPUS PLACES

#### COMPOSITE UNDERSTANDING

Taken together, the campus Frameworks provide a useful abstraction of the 'bones of the campus' from an open space and circulation point of view. As incremental investments are made, there are clearly certain streets, gateways and outdoor places which can be prioritized for investment, complexity and priority;

**'Feature'** locations that warrant consideration for enhanced treatment both for image and function. These areas require a heightened level of design, materials and maintenance.

**'Fabric'** landscapes form the connective tissue and 'background image' of the campus. These areas should be treated more simply, but with a more consistent palette of materials and management so that they recede into a pleasant experience, without creating a maintenance burden that is not sustainable and thereby drawing attention to areas such as building foundations or parking lot edges which should not be visually competing with Iconic Views or Feature Places.

**'Functional'** areas include parking lots, service courts and back of house areas. Parking lots can be scaled and humanized with simple applications of shade trees and border hedges, which service areas can be screened with masonry walls or hedges of single, dense shrub material.

#### CAMPUS LANDSCAPE PLACES

In addition to the understanding of imagery 'priority' areas, it is also important to understand the related types of campus landscape 'places'. These are summarized on the opposite page, and discussed in more detail as both design and guideline concepts presented throughout this document.

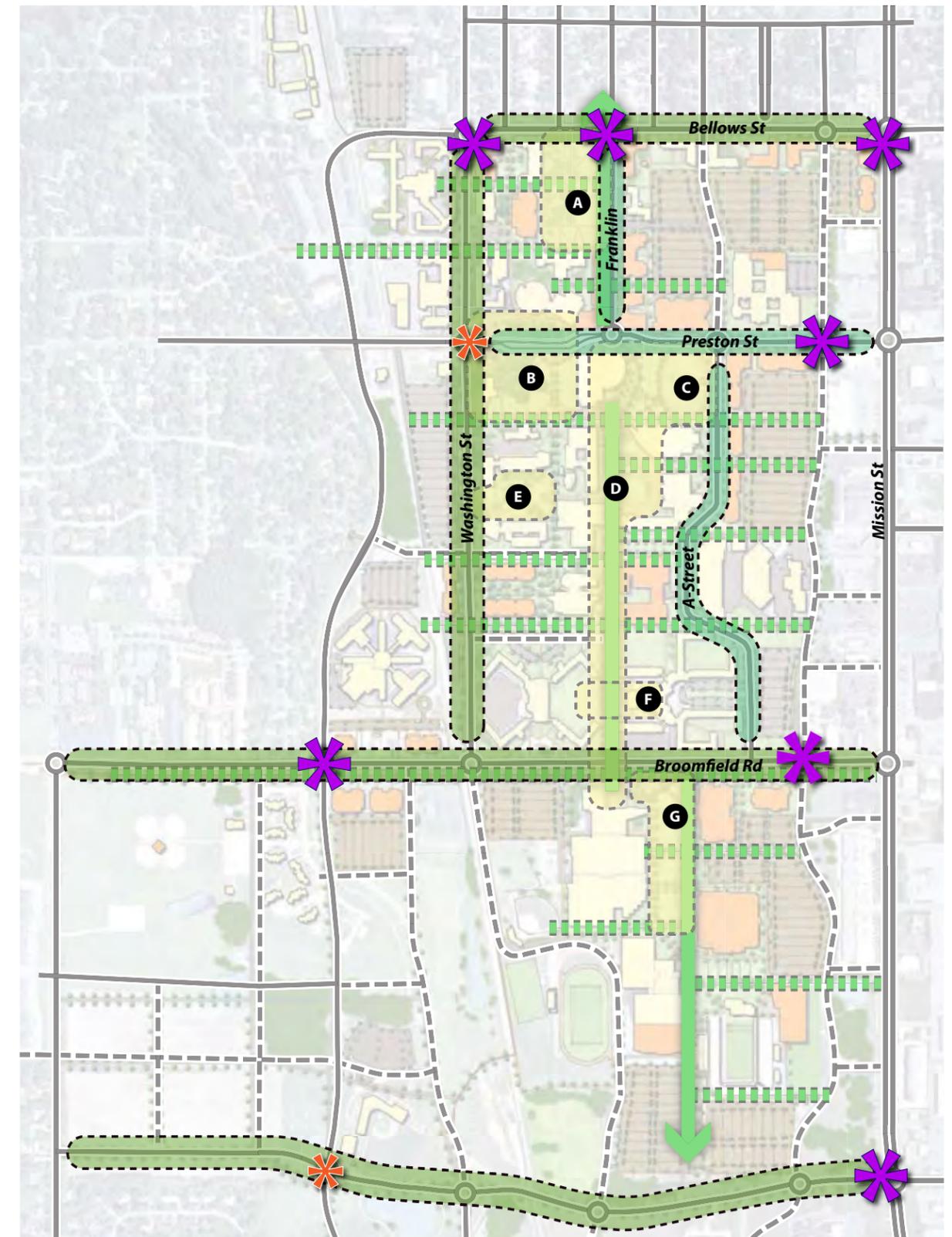
**Feature Spaces** The feature spaces are defined by the Campus Identity Project. These spaces are signature addresses along the Admissions walk. **A: Warriner Mall, B: Botanical Garden/Library Walk, C: Events Space, D: Pedestrian Spine, E: Anspach Quad, F: Central Plaza and G: Athletics plaza.**

**Campus Streets** Because of the established framework from the Campus Master Plan, these streets are rare. The campus streets are A-Streets that help to define signature places. Preston Street, Broomfield Road and the new A-Street are considered campus streets. These streets will be highly walkable and pedestrian friendly.

**Edge Streets** Transition space between the Campus edges and surrounding land uses. The edge streets are the first address to the campus. A clear vocabulary of streetscape elements should be introduced and carried into the campus.

**Arrival** The entry intersections and arrival gateways are the first impression of the campus. They help to define a place and should be an inviting experience, whether it is the first time on campus or someone returning as an Alumni.

**Open Space System** The overall composition of the Feature spaces, Campus Streets, Edge Streets and arrival gateways creates a legible campus open system.



Composite Map of Campus Frameworks

OPEN SPACE



Quads

**Quads** – Large open spaces, framed by a combination of buildings and trees to define a large ‘outdoor room’. Usable for passive open space, light recreation and student events. Desirable for view orientation towards key buildings and vistas. Important to the orientation of the campus landscape as well as memorable ‘photo opportunities’.



Plazas

**Plazas** – Small hardscape areas, typically associated with a building use area. Usable for seating and informal gathering, outdoor study, and regularly programmed events. Most effective when developed at a ‘hub’ or ‘crossroads’ location for student activity or circulation. Important to the social life of the campus.



Gardens

**Gardens** – Small landscape areas which may include higher maintenance, specialty planting. Usable for quiet seating, small group gathering, study and horticultural education. Typically designed at an intimate scale, low enclosure and smaller / detailed plant species and hardscape materials. May be desirable for special small group ceremony or photography.



Environment

**Environment** – Man-made or natural areas of extended open space which may include water, significant stands of trees or prairie landscapes. Opportunity for a low impact landscape that facilitates ‘respite’ as well as environmental education. Important to maintain a sense of security along pathways in these areas that may be less well traveled.

CIRCULATION



Streets

**Streets** – circulation for auto and transit, as well as pedestrians, bikes and boards (heels and wheels). Primary ‘A’ streets are important to the arrival sequence, image and orientation of the campus, as well as front door addressing for key buildings. Important that all streets enhance their multi-modal character as well as campus image contribution.



Trails

**Trails** – significant high capacity routes for pedestrians and cyclists, most notably the north-south ‘spine’ concept. May double as emergency/fire access. High image routes, with significant opportunity for branding, campus image and school spirit. Trails may extend beyond the campus edges into the surrounding community to facilitate broader linkages.



Paths

**Paths** – smaller routes (such as the east-west ‘ribs’) that are primarily geared towards pedestrians but accommodate low speed cyclists. Important to the orientation from parking to the interior campus and between buildings. Secondary opportunity for branding and image. Eight feet wide is a desired minimum guideline in order to facilitate student movement and allow easy snow plowing.



Parking

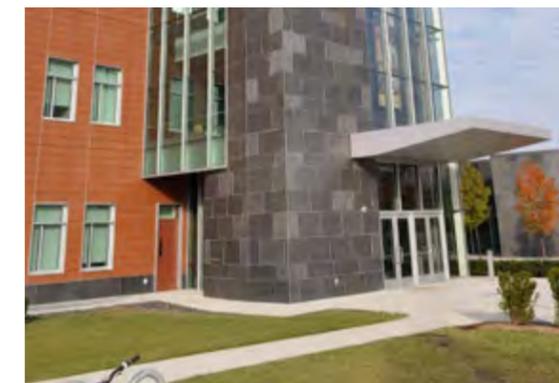
**Parking** – functional areas that can be humanized and scaled with moderate applications of island and edge tree plantings, and clear orientation to pathway routes to the interior campus. Parking areas will be closely coordinated with the wayfinding system to allow campus circulation and parking to be easily navigable.

ARRIVAL AND FACILITIES



Gateways

**Gateways** – gateways are the point of arrival, clearly marking the edge / interface between the campus and the surrounding community. These are important points of campus imagery, as well as wayfinding. The campus has a variety of primary and secondary gateways.



Building Entry

**Building Entry** – entrances to buildings are important points of orientation and image, as well as circulation and gathering. They should provide clearly framed views, as well as proximate areas for seating, site furnishings and bike storage.



Building Foundation

**Building Foundation** – the edges of buildings are one of the most prominent applications of plantings, particularly shrubs. They should be treated simply, in order to conserve resources and allow entries and campus vistas to be the primary focus and orientation for the campus landscape.



Service Area

**Service Areas** – necessary activities near most buildings and some campus edges. They should be discretely screened from view, preferably with a masonry enclosure or a simple, evergreen hedge.

## 4.2 LANDSCAPE FORM

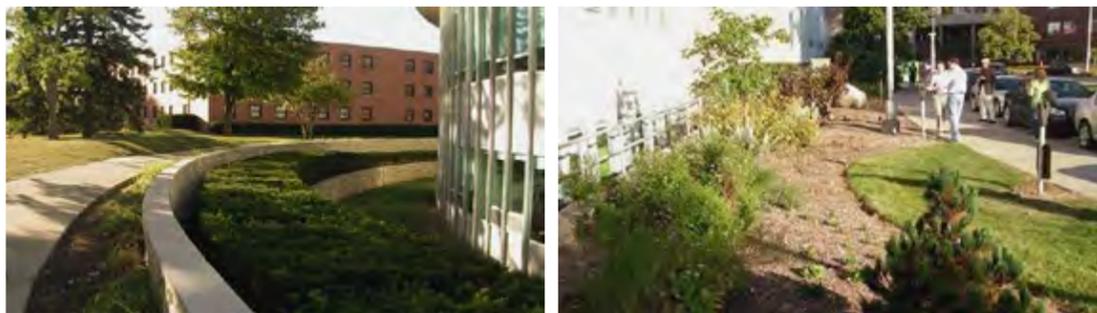


*The perception and views of the campus are vital to the image of place to the community, students, faculty, staff and alumni.*

Landscape materials are used in conjunction with buildings, circulation features and environmental areas to define the campus experience. Looking at the campus and in discussion with the stakeholders, general consensus was reached on several key ideas:

1. The campus is generally well maintained and is kept very clean.
2. The campus did not have a consistent 'look' in terms of materials or application.
3. Certain views or spaces are not displayed to their full potential.
4. The use of outdoor space by students and others could be increased through design and programming.
5. The campus is a 'Four Season' place – landscape design must acknowledge the opportunities and challenges associated with the seasonal changes.
6. Pedestrian / Bicycle access and safety is a high priority in balance with auto access and parking.

Recognizing that all design applications are somewhat subjective, the planning team outlined several compositional concepts regarding landscape and open space in the general campus landscape settings as well as the specific landscape conceptual design study spaces (Section 5). The purpose of this document is not to rigidly dictate final design solutions or planting applications for every area of campus in a way that precludes creativity and adaptation to new conditions. However, it is important to have some generally shared ideas about the application of materials in the campus setting to assist in guiding decisions toward a more consistent campus appearance, favorable views, special places in order to enhance the overall image, character and function of Central Michigan University.



*The Bovee University Center is one example of a complex planting and simple planting that can be seen side by side.*

## VIEWS AND SITE LINES

The majority of the CMU campus landscape can be generally defined as an informal 'pastoral' landscape of open lawn and shade trees with specific areas of evergreens, shrub and groundcover material. As an overarching aesthetic, this look can be quite pleasing and consistent with the image of 'campus' that might reside in the "mind's eye" of the campus community. However, on closer inspection, the arrangement of the informal landscape can result in 'accidental' views which may miss memorable opportunities, or expose unattractive areas. One of the most memorable buildings on campus is Warriner Hall, yet it is very difficult to capture a clear view of the building, or photograph friends and family in front of the building in a manner that shows the architecture and one of the prevailing images of CMU in its best manner. However, it is important to have some generally shared ideas about the application of materials in the campus setting to assist in guiding decisions toward a more consistent campus appearance, favorable views, special places in order to enhance the overall image, character and function of Central Michigan University.



*Warriner Hall 'photo moments' obstruct a clear view of the beautifully detailed and impressive front edifice.*



The Street Trees at University Avenue provide an example of a 'full enclosure' proportion.

### SCALE, PROPORTION AND ENCLOSURE

Defining outdoor 'rooms' is one of the oldest concepts of landscape design. Spatial definition is described in part by the volumetric proportion of height to width in a given space. A space with a 1:1 ratio between width and perceive 'ceiling' can be said to have 'full enclosure'. This is the proportion at which a vista is typically perceived as a 3 dimensional 'outdoor room' type of space. (Narrower widths, with higher ceiling will be perceived as a 'tunnel' or linear space).



Even large open spaces can be proportionally 'scaled' with buildings and trees that remain within some relationship to the size of the space. For example, the current CMU practice football field is roughly 160' wide, but the 30'-40' evergreen trees provide a nearly 1:4 height to width proportion. As a result the space maintains a minimal level of 'enclosure'. If the trees were not as tall, or the area is a bit wider, as seen adjacent to Finch, the space begins to lose enclosure, despite the size of Health Sciences to the east. This principle of proportion and enclosure holds true for both small and large spaces.



A large tree with high canopy creates a 'ceiling' space that is in proportion with the building.

### OBJECT AND SPACE

As another aspect of spatial definition, plant material may be used as 'objects', or to define 'space' in the landscape. A tall tree, with a high clear trunk can frame open space or entry ways and create 3 dimensional space underneath its canopy. Smaller trees or evergreens that are opaque (with no clear trunk) are 'objects'.

Similarly, 3'-5' shrub material can be seen as an 'object' in the landscape. In some cases, placement of 'objects' in the landscape can provide a picturesque view or add interest to the informal campus landscape. In addition, these plants, even if smaller, can be used in ordered clusters (such as hedges or understory tree edging) to define space horizontally, while other, taller plant material can create the vertical 'ceiling'.

However, when placed ad-hoc, these object plants can easily create a sense of blocked views, inconsistent appearance and visual clutter.



Canopy trees can be pruned to create a 'ceiling' that defines a 3 dimensional of space. Understory trees with lower clear trunks can be used effectively to create edges. Evergreen trees are typically 'objects' for use as singular specimens to define a screened edge.



Ad-Hoc placement of object plants can create a visually cluttered campus appearance.

## BUILDING MASSING

Development of planting around buildings should respond to the massing and organization of the building as an architectural edifice. Often times, buildings have primary and secondary volumes – with primary volumes typically organized around either entries or unique program elements. In related terms, buildings may have areas of more or less detail (and glass / glazing) in relation to those volumes.

The placement of landscape, particularly trees, should be complimentary to the organization of this massing, and how the building will be viewed. Entry areas or areas with special glazing might be framed with trees to enhance site lines, while secondary areas with less windows or detail may be ‘massed’ with trees to both provide landscape interest over the less animated areas of the building, and also allow the key features or entries to visually ‘pop out’ to the pedestrian. In some cases, the rhythm of buildings columns or windows can be extended with trees. In other cases, special trees may want to be placed in a picturesque / asymmetrical arrangement adjacent to a significant feature, such as a large area of glazing. The key is to incorporate a compositional idea about the landscape and buildings together, particularly as they are viewed from key vistas.



*Grawn Hall has a distinct massing that recesses and provides additional detail around the central entry. However, the tree and shrub placement does not respond to the opportunity to frame the important entry while providing additional tree and shrub mass around other volumes of the building.*

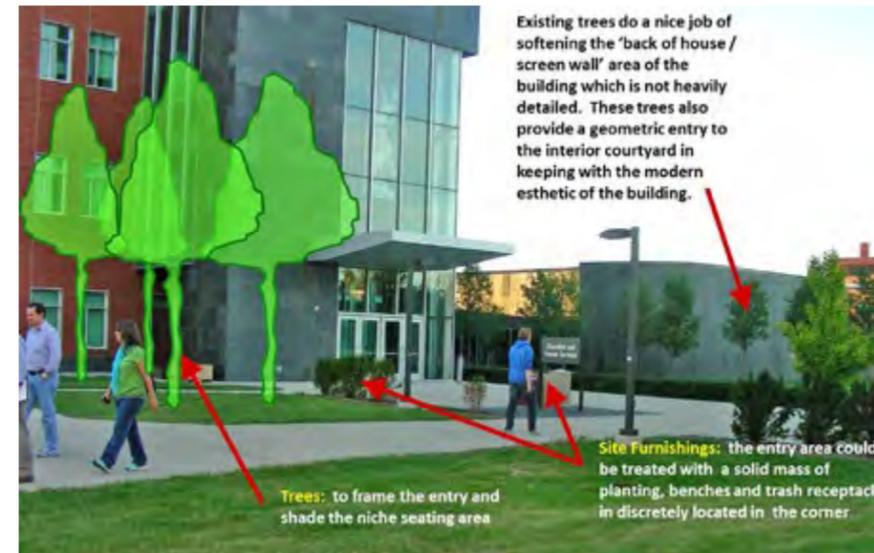
## BUILDING ENTRIES

In terms of character, the actual entry to a building is one of strong impression. This is the point at which one slows down to open the door, walk next to other people, throw away trash on the way in, or perhaps wait at a bench before or after a class. The symbolism of passing from one space, through an entry to an interior space cannot be understated. It is a point at which details are observed and noticed.

Entry ways should generally be treated in a manner that highlights the entry. This can be done with trees with enough clear trunk ‘ceiling’ to frame the doorway and threshold area. Entries are also ideal points for small splashes of color, in the form of annuals, flowering trees (if tall enough) or species with interesting fall foliage or winter bark. Proximate (but not immediately adjacent) site furnishings are also appropriate.



*Dark, ‘heavy’ or aged trees such as cedar or arborvitae can be replaced with lighter species such as Dogwood and used in conjunction with annuals backed by the simple yew border hedge to create a framed entry that is in scale with the delicate portico detailing.*



*At important, but understated entries such as the path to admissions, a second canopy tree would further frame the entry with fall color and compliment the successful application of annuals.*

## FOUNDATION PLANTING

Perhaps the single biggest opportunity to bring cohesion to the campus appearance while reducing maintenance cost is by taking a more simple approach to border and foundation plantings. Building edges make up the single greatest linear distance of landscaping (more so than streets). Currently, many of these areas are treated with complex arrangements that at best are difficult to maintain and risk providing a noticeable negative image to areas that would not normally be a focus of attention.

As a related topic to the notion of providing simple highlights to entry areas and framing important views, it is important that non-focus areas build a legible campus fabric that maintains a basic level of consistency without trying to visually 'compete' with entries, gardens, plazas or other features. Within the context of 'Feature, Fabric and Functional' levels of landscape application, foundations and borders can be treated as simple background fabric that is easy to maintain, visually consistent while allowing the Feature areas to shine.



*Examples of successful arrangements of singular species that blanket the area, provide a consistent look and a low maintenance application.*



*Complex arrangements of individual plants and sculpted 'topiary' treatments are difficult to maintain as a 'garden' level application. This level of treatment and maintenance should be reserved for Feature areas such as entries, gardens, plazas and special use places. Foundation and Border plantings as recommended as simple applications of hedge and groundcover – large applications of singular plant species that will fill in areas completely and become a visually consistent background treatment.*



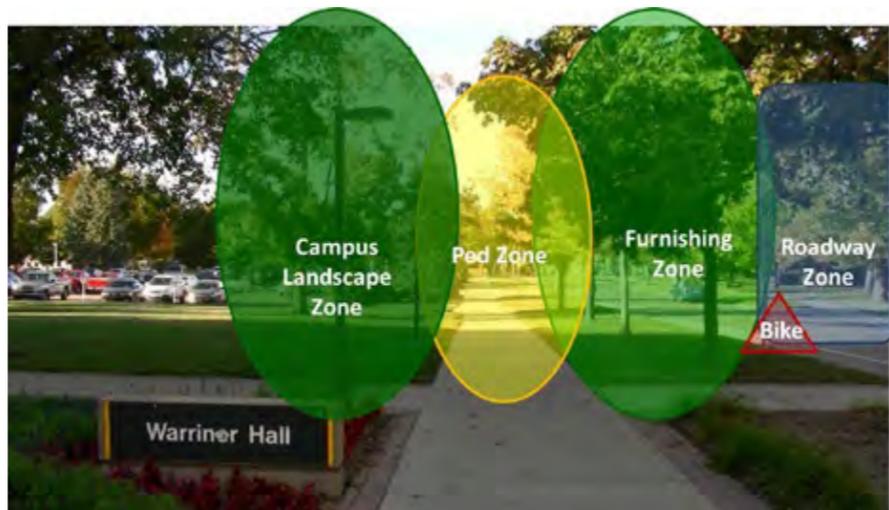
*Successful splashes of seasonal color at key nodes and entries.*

*Foundations adjacent to important functions such as Admissions should have a simplified look, with accent color at the door.*

## STREETS AND CIRCULATION

Campus streets have discrete zones associated with pedestrian, bicycle and vehicular movement. Ideally, these zones would be specifically delineated with 8' minimum sidewalks, and a tree lawn area sufficient street trees, lighting, and site furnishings to clearly define and visually enclose both the pedestrian space and the roadway space.

In some cases on campus, the sidewalks are directly back of curb, or otherwise too narrow (5'-6') for the amount of pedestrians they serve. For the pedestrian, this creates a sense of 'exposure' to automobile traffic. The incorporation of the canopy trees, lighting and even banners greatly enhances the pedestrian sense of safety as well as psychologically encourages cars to drive more slowly because the view-shed of the roadway is narrowed. Together, this enhances the sense of a pedestrian-oriented campus character. Most roadways are 'fabric' spaces, with a few designated 'A' streets being candidates for a 'feature' level of treatment. However, with a basic set of enhancements, all the campus streets can be made part of an enhanced CMU image.



Franklin Street provides an example of a traditional street with clearly delineated zones for pedestrians, bicycles and vehicles in conjunction with street trees and furnishings.



Important campus edges, such as Washington Street can be enhanced with wider sidewalks, street trees, lighting and banners to create a higher level of service for students.

*Without a tree lawn, pedestrians are psychologically exposed to the street. Conversely, the 'paved and clear' view-shed for vehicles widened, which is not conducive to established concepts of traffic calming.*



*A Low Knee Wall and Canopy Street Tree installation on the south side of Bellows would provide ceremony to the campus edge, a functional seat wall, and a defined, shaded pedestrian zone.*



*Raised Pedestrian Crossings emphasize the priority of the walking environment and remind vehicles that the 'campus zone' is distinct from the surrounding community.*



## PARKING AREAS



*A large parking lot has some scaled proportion due to perimeter canopy trees and buildings. However, the full expanse of the space (which is difficult to capture in one photo) could be greatly reduced with intermediate parking islands and canopy trees.*

In terms of campus character, parking lots are one of the most challenging, and least emphasized areas of focus. They are functional places. Fortunately, most users understand the functional aspect of parking lots, so the level of expectation is not as high as it would be for an interior campus place. That said, for many, the parking lot is the first point of arrival within the CMU experience. Parking lots that are poorly signed, poorly lit, or overly extensive expanses of asphalt and cars can appear overwhelming and out of human scale.

As discussed in the *Scale and Proportion*, outdoor rooms can be defined and created with some basic understanding of horizontal and vertical relationships. Parking lots with aligned tree islands every 200'-250' can maintain parking efficiency and be functional in the winter for snow removal. However, at this proportion, the parking can be scaled to a 1:4 or 1:5 enclosure if the planters are of sufficient size and planted with canopy trees which can achieve a 40'-60' height. In order to achieve mature size, island planters need to be at least 9' wide in each direction, with all parking lot sub-base removed and replaced with clean planting mix within a planter area that drains. (Understory trees, such as Crabapple, simply will never be large enough to scale a space the size of a parking lot).

Additionally, the edges parking lots can typically be treated with a low hedge (24"-36") placed 5' off the edge of parking. This simple edging will de-emphasize the visual presence of extended length of car bumpers. Recognizing that there may be service or other functional areas that may not be appropriate for a perimeter hedge, CMU should work to make insure that the 'A' sides of the lot (the sides most visible to streets or greenspaces) are treated. Other 'back areas' can be left without the hedge, but where possible, planted with perimeter canopy trees to scale the overall space.

CMU has several examples of successful plantings, as well as many opportunities for enhancement. The island tree planting, in conjunction with a perimeter tree and hedge planting can truly define the parking lot as a scaled, outdoor room – with an inviting orientation towards a circulation 'Rib' with signage, banners, lighting or other identification.



*Examples of canopy tree applications in islands and at perimeter, that when mature' will scale the parking lot space as a humanized outdoor room.*



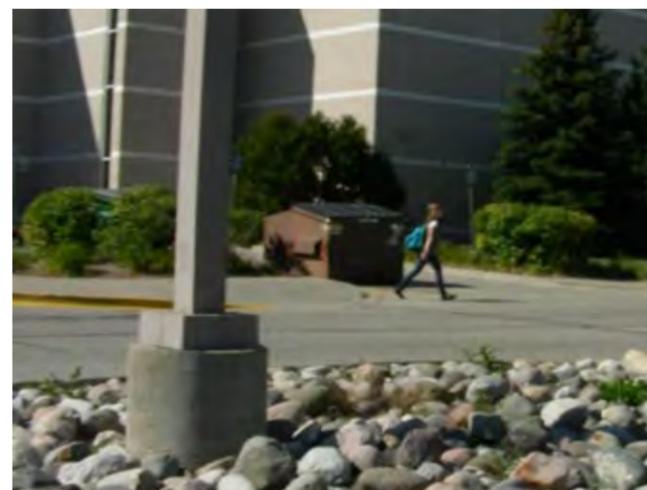
*The use of a low yew hedge conceals car bumpers. The existence of the parking lot is perceptible, but its visual impact is de-emphasized.*



## SERVICE AREAS

Services areas, loading and dumpster pads are a necessary part of the campus and building support system. As with parking lots, these can be viewed as 'functional' elements. The elements will occur in the landscape, but they can be lightly de-emphasized with the use of low hedges and rows of trees. CMU has adopted an attractive masonry screening detail for newer dumpster pads. This detail should be retrofitted wherever feasible throughout the campus.

*Exposed dumpsters at arrival points, such as the interface between a parking lot and a prominent walkway can create an unnecessary focus on a negative campus image. These facilities are easily de-emphasized with low, evergreen hedges or masonry enclosures.*



## 05 Feature Places

### 5.1 FEATURE PLACES

#### OVERVIEW

The 2013 Campus Master Plan creates a vision for the campus that contains a variety of natural areas, outdoor activities and recreational venues providing unique and valuable experiences to students, faculty and visitors, known as key addresses or feature spaces.

The campus identity plan defines nine feature spaces that create identity, framework connections and economic investment opportunity for the university. These spaces are highlighted throughout this section of the document.

- Gateways
- Warriner Mall
- Library Walk (& Botanical Garden)
- Anspach Quad
- The Pedestrian Spine
- A-Street (& influences on the new Bio Sciences Building)
- Events Space /Arts Quad
- Central Plaza
- Admissions Walk



Feature Spaces



The AECOM design team collaborated with students, faculty, staff, alumni, community, and the Saginaw Chippewa Indian Tribe to develop the feature places. Ideas were discussed, tested and presented to both the university cabinet and general public.

## 5.2 GATEWAYS

### CURRENT CONDITIONS

Gateways provide identity to a place. They give a sense of arrival and first impressions to the campus. Gateways can be Architecture features, public art, lighting as well as landscaping and signage elements.

The current gateways for Central Michigan University are defined at the intersections of Bellows Street and Mission Street as well as East Campus Drive and Mission Street. These two intersections are key frontages along Mission Street that the University has ownership to. These entries are denoted with small monument signs, displaying the university seal. A low horizontal wall sign displays the name of the university. A variety of evergreen and deciduous trees provide a backdrop for the signs.

Other important street intersections are Preston Street and Broomfield Road with East Campus Drive. These intersections have a slightly raised horizontal sign (black background with gold lettering) with the university name and seal. During the winter season, the sign is often blocked by snow drifts that blow across and through the intersection.



*Preston and East Campus Drive*

Review of the current conditions reveals a number of strengths and opportunities to transform each of the gateway areas into a space that gives the campus an identity. There are opportunities to preserve and incorporate the mature shade trees. They offer character and create a sense of scale to pedestrians and vehicles arriving onto campus. Due to the large intersections at each of the mentioned gateways, there are opportunities to create changes to vehicle use areas to help control speeds coming into the campus. Roundabouts, bulb-outs at intersections and marked crosswalks can be incorporated. This creates a pedestrian friendly atmosphere.

The development pattern around the gateway areas is suburban. With redevelopment and development of the surrounding open space, and the influence that the gateways can have on traffic circulation and street network, there is the potential to accommodate a higher density of future uses and campus expansion.

The 2013 Campus Master Plan defines seven gateway opportunities: The two described at Bellows St. and East Campus Drive with Mission Street; The two described at Preston St. and Broomfield Rd. at East Campus Dr.; two additional gateways along Bellows St. at Franklin Street and Washington Street; and finally one located at Broomfield Road and West Campus Drive.

### PROGRAMMING: INPUT AND OBJECTIVES

#### Feedback:

- Sense of arrival
- Campus Identity
- Opportunity to display history and culture.
- Photograph destinations
- There is desire to have both traditional and contemporary materials in the design of the gateways.

#### Objectives:

- Organize the quad to celebrate the views and vistas to the historic Warriner Hall.
- Showcase features such as the University Seal and Circle of Stones that give meaning and sense of pride and place to the university.

#### Discovery

- Circulation and movement can be improved through the use of gateway elements.
- The gateways are not just oriented to vehicular circulation. Of equal importance is pedestrian circulation.
- Gateway structure can vary at different locations as long as there are materials that share a common vocabulary.
- Symbology is important such as the University Seal and the Flying 'C'.

### INSPIRATION

The following images represent inspiring images for campus gateways. The scale, character and materials selected form a composition that identifies each place.



*Pedestrian entry*



*Vehicular entry with horizontal and vertical features*



*Vertical elements for vehicular and pedestrian entry*



*Pedestrian entry with arch feature at Purdue*

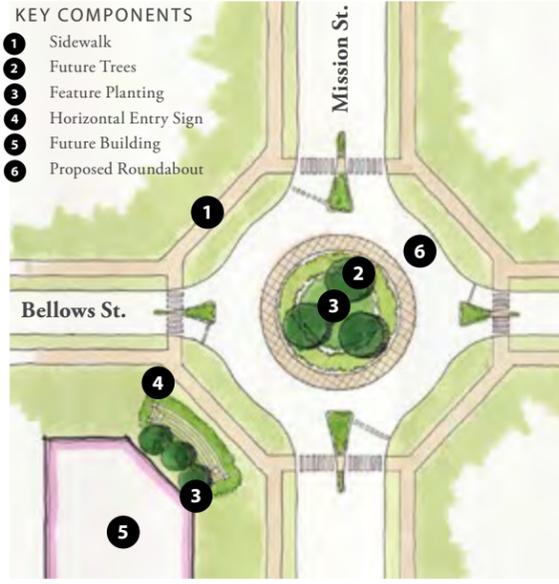


An optional gateway treatment as shown in the 2014 Sign Implementation Manual (refer to section 5, Materials, for details.)



2013 Campus Master Plan showing primary gateways (purple asterisk) and defined entires (red asterisk)

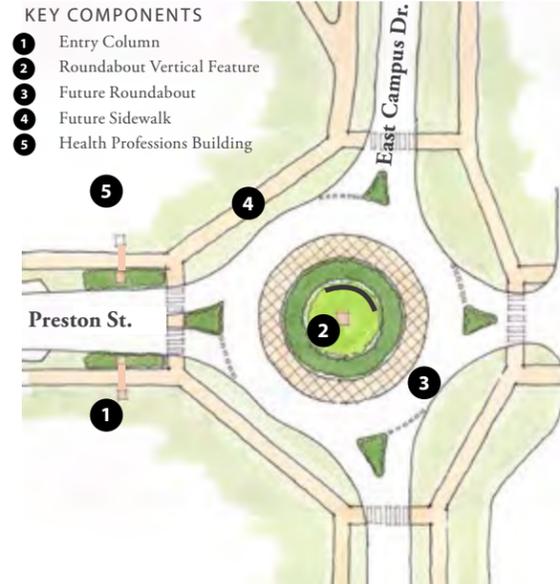
### A NEW GATEWAY AT MISSION STREET AND BELLOWS STREET



- Designed so that entry features could be implemented before the implementation of the roundabout.
- Entry feature is raised two feet from ground, with a four feet tall wall to ensure visibility year round.
- Trees in roundabout allow for focal point that helps users process roundabout.



### A NEW GATEWAY AT PRESTON STREET AND EAST CAMPUS DRIVE



- Designed so that entry features could be implemented before the implementation of the roundabout.
- Gateway will be at both vehicular and pedestrian scale.
- Central vertical feature in roundabout allows for focal point that helps users process roundabout.



## 5.3 WARRINER MALL

### CURRENT CONDITIONS

Warriner Mall is the Traditional quad of the campus. Its history dates back to when the campus began as a teachers college in 1892 and has strong connections to downtown Mt. Pleasant. University Avenue connects the downtown core and terminates into Warriner Mall.

Warriner Mall is framed by Bellows Street (north), Grawn Hall (west), Franklin Street (east) and is anchored by Warriner Hall (south). Bellows Street and Franklin Street create a great public address for the space.



*View from Bellows Street looking south toward Warriner Hall*

Review of the current conditions reveals a number of strengths and opportunities to transforming the open space into an events space. There are several rich and meaningful elements that are inclusive to the Warriner Mall experience. The University Seal and the Circle of Stones are some of these. They are popular photography opportunities for students and returning Alumni and should be more prominent in the landscape. The Warriner Mall is a popular space for campus events and weddings. There is a lack of continuity in the landscape planting and hardscape elements throughout the space. Large Shade trees block views of the historic Warriner Hall Building.

### PROGRAMMING: INPUT AND OBJECTIVES

#### Feedback:

- Blocked views
- Historic space
- Excessive pedestrian paths
- A destination: Weddings, Alumni reunion & events.
- Photograph destination

#### Objectives:

- Organize the quad to celebrate the views and vistas to the historic Warriner Hall.
- Showcase features such as the University Seal and Circle of Stones that give meaning and sense of pride and place to the university.

#### Discovery

- Topography
- Circulation and movement through the space
- Address from Bellows Street and the relationship from Downtown Mount Pleasant.
- Formality of the space in front of Warriner Hall.
- Connections from Warriner Mall to other uses such as resident halls, student unions, dining facilities and academics.

### INSPIRATION

The following images represent ideas for Warriner Mall showing flexible use opportunities within historic campus quads.



*Bloomsberg University's Formal Garden*



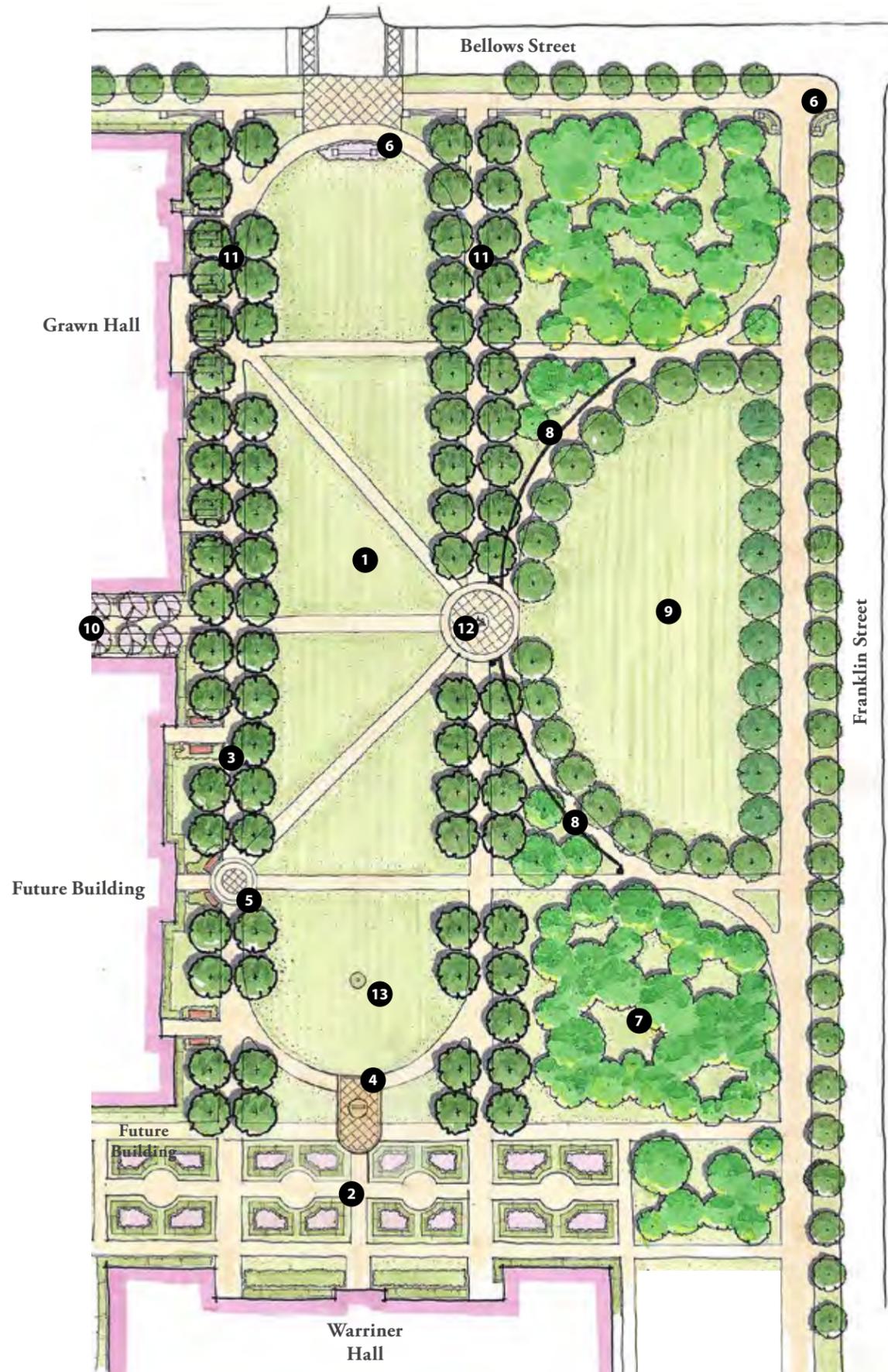
*Tree lined walk at Colorado State University*



*Movable furniture at the Harvard Yard*



*Students in the Luxembourg Gardens in Paris*



Warriner Mall Vision Plan

### A NEW WARRINER MALL

The proposed vision for Warriner Mall creates a variety of open spaces for different uses. The spaces are designed for many different types of users so they feel comfortable and welcoming. Because the space is framed by Bellows and Franklin Street, the community address, views and vistas become critical to celebrating and embracing the space.

The most historic and traditional building on campus is Warriner Hall. The design celebrates this iconic university building by creating an unobstructed traditional linear green quad in front of the building. The quad or view is framed with a double row of shade trees, providing shade for pedestrians walking through the space. Directly in front of the building, a formal garden was designed, providing seat walls for seating. The height of the plant material selected for the garden should be low and colorful to complement the building and not obstruct the architectural features on axis with the quad. Central to the space, with the long green view, is the University Seal. This site celebrates the iconic piece and provides a great backdrop for photograph opportunities with Warriner Mall and the formal garden. Walkways cross the long formal green to connect feature spaces within the quad to front doors of the building. The entries to the buildings are enhanced with landscape and hardscape space, giving them a prominent address onto the quad.

Outside of the traditional quad space, there are a variety of less formal feature spaces ranging in size for individual seating to larger group activities. The spaces are designed for both passive and active outdoor activities. A large informal open space transitions the formal quad to Franklin Street. Adjacent to Franklin Street, the informal open space is enclosed by a widened sidewalk and a row of street trees. The informal open space can be used for a variety of recreational activities such as pick-up games of soccer and Frisbee. On the north and south side of the space, small mounds were created with a shade canopy for overlooking and viewing the events in the space. A seat wall helps in the transition of the spaces.

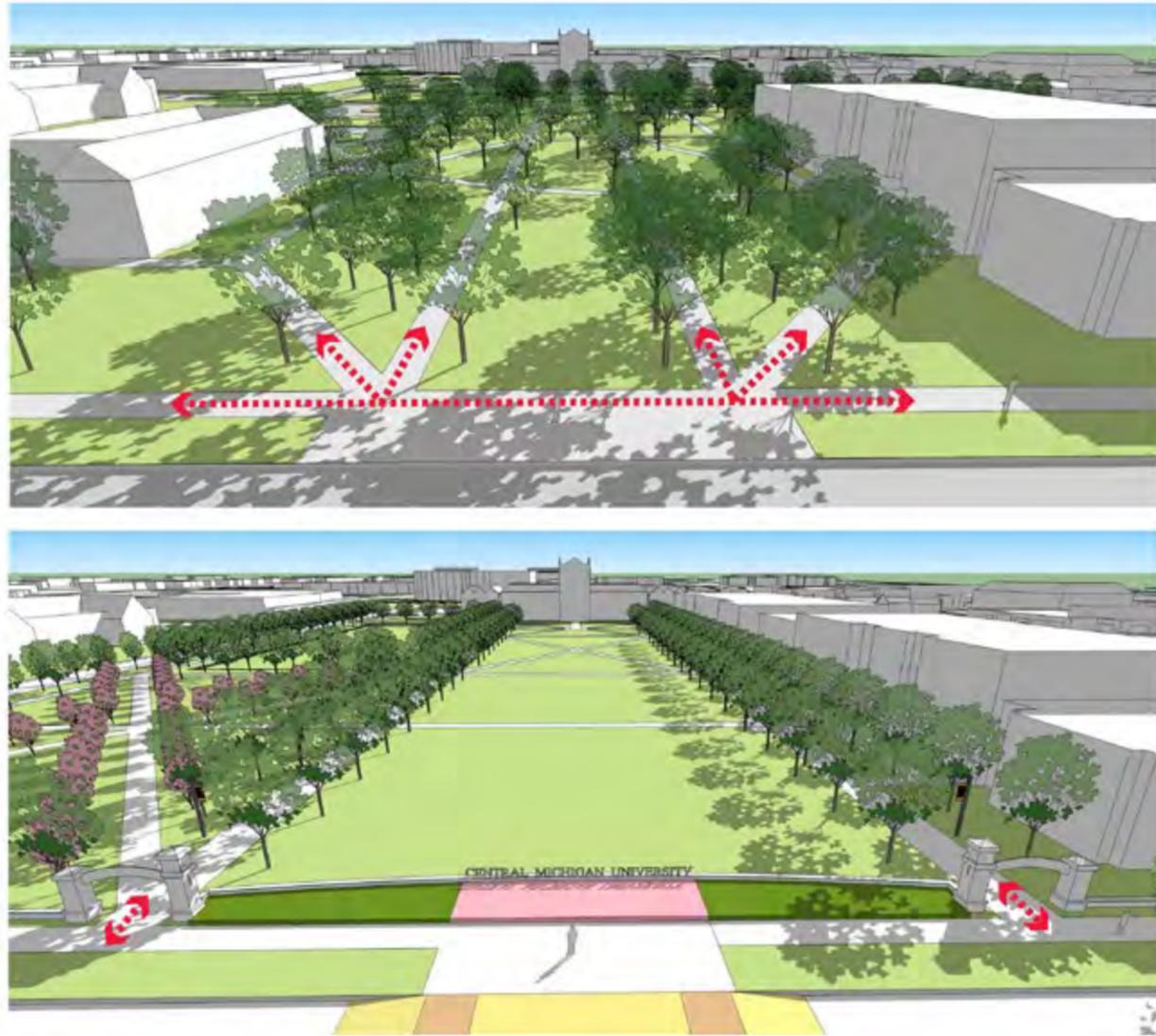
### KEY COMPONENTS

- 1 Formal Lawn
- 2 Formal Garden
- 3 Seating
- 4 University Seal
- 5 Circle of Stones
- 6 Entry Feature and Columns
- 7 Canopy with Movable Seating
- 8 Seatwall
- 9 Informal Open Space
- 10 Connection to Student Housing
- 11 Canopy Walk
- 12 Armed Services Memorial
- 13 United States Flag & State of Michigan Flag Pole

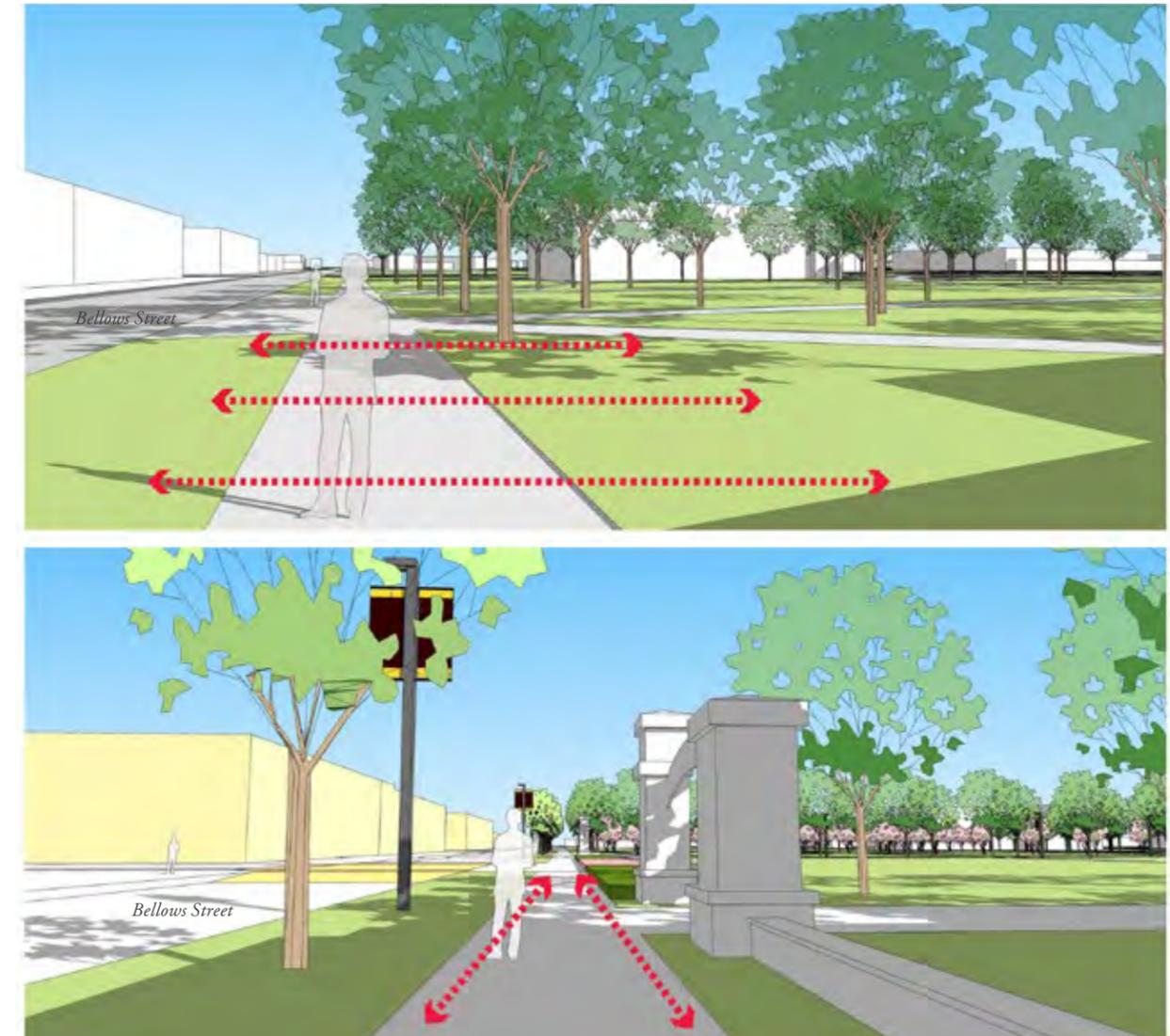
### SITE LOCATION



### A NEW WARRINER MALL VISION



*An early rendering of how landscape and entry features open up views into the space.*



*Gateway features create separation between campus and surrounding areas along Bellows Street.*

### WARRINER MALL VIEWS

- Clearing views to Warriner Hall strengthens connection to downtown and reinforces historical organization of the space.
- Tree lined streets create experience when walking on paths. Trees also create outdoor room and make site users more comfortable in the space.
- Opening up the lawn north of Warriner Hall makes space more flexible for events and other uses.

### WARRINER MALL GATEWAY

- Gateway features create a visual and physical separation between campus and surrounding businesses and neighborhoods.
- Gateways provide a clear entrance into campus.
- Planting (street trees) and lighting and with banners enhance borders of campus.

**ARMED SERVICES MEMORIAL (EXISTING CONDITION)**

Today, The Armed Services Memorial is located in the southeast quadrant of campus, south of Broomfield Road between East Campus Drive and Mission Street. This site is away from the core campus and is rarely visited due to its distance from the major campus life activities (dining, recreation, academics and resident life).

From East Campus Drive, the Armed Services Memorial is marked with a monument road sign and is hidden behind a stand of evergreens, nestled into a small depression (hill). There are opportunities for reflection and small ornamental tree is the center piece to the site.

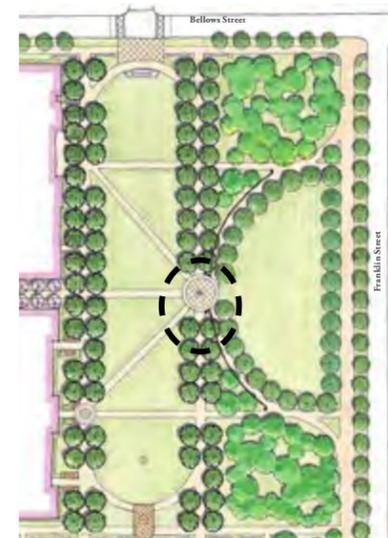


Existing Veteran Memorial Peace Grove

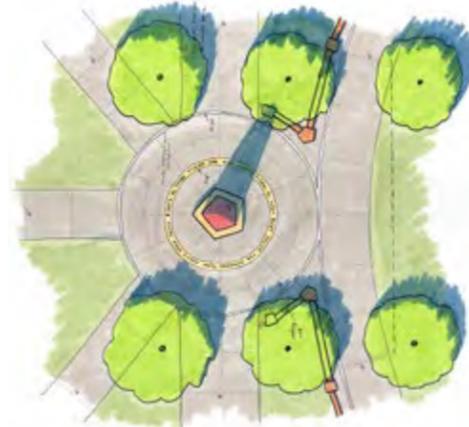
**A NEW ARMED SERVICES MEMORIAL AT WARRINER MALL**

The Armed Services Memorial is re-located between the formal quad and informal open space at Warriner Mall. This memorial is dedicated to the five branches of the military that protect us. A 5 sided obelisk is envisioned to represent each of the branches. Each of the sides would have the seal, a short message imprinted on the side and a timeless statement imprinted in the hardscape in front of the obelisk.

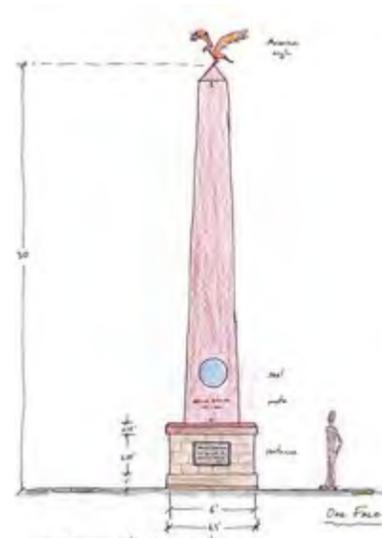
- A prominent space in the Warriner Mall would be a fitting location for relocation.
- Location allows for events to take place close to ROTC building and design of space is conducive to ceremonies.
- Seating for reflection
- Honor five armed services within the seal, a short message imprinted on statue and a timeless statement imprinted in the hardscape.



Proposed location of the Armed Services Memorial



A detailed plan of the memorial



Elevation of the memorial structure

**UPDATING THE CAMPUS SEAL**

One of the most visited attractions in the Warriner Mall is the University Seal. It currently sits within the formal quad space in front of Warriner Hall on a concrete pedestal. The large trees behind the seal, screen views to Warriner Hall.

The vision plan proposes to relocate the seal directly in front of Warriner Hall. This will allow uninterrupted views through the space and provide a signature anchor space at the base of Warriner Hall to the quad/mall space. The seal is placed in a pedestrian plaza, providing easy access for viewing. The base pedestal would be enhanced to match the historic, traditional architecture of Warriner Hall.

- Relocation of seal would allow for greater visibility of Warriner Hall and easier accessibility from multiple directions.
- Location allows for events to take place in front of the seal in a flexible space.
- Updating the platform/base with new materials give the seal a more classic, long-lasting look and allows students to stand in-front of or behind the seal when taking photographs.



Existing University Seal



Existing Warriner Mall view to the University Seal



Elevation of the proposed pedestal improvements



Proposed location of the University Seal

## 5.4 LIBRARY WALK / BOTANICAL GARDEN

### CURRENT CONDITIONS

The Library walk is a key circulation walk to the campus that parallels the pedestrian spine. Starting at the University Center (north), the walk crosses Preston Street adjacent to the west side of the library. There is an underutilized open space between the walk and the library. The west side of the walk forms the edge to the botanical garden space and eventually the walk transitions into the Anspach quad and residential halls to the south. The Botanical Garden is a destination for students, faculty and visitors. There are opportunities to take a stroll and the pond, read a book on a bench or host small passive group activities. This amenity provides the community with an opportunity to connect with nature, while being informed of the natural systems and landscape within the garden.



*Library Walk (Current Condition)*

Review of the current conditions reveals a number of strengths and opportunities to transforming the library walk into more than just a corridor for pedestrian movement. The connection between the university center (north) and the resident halls (south) make this a highly used pedestrian-only route. This creates a lot of activity in the space and a great sense of safety and security with so many users. There is also a significant open space to the north side of the library that has strong connections to Preston Street and the University Center.

There are several opportunities to enhance the space. The walk is very straight and linear, creating flexibility in design for open spaces on either side. The west side is pre-programmed with the Botanical Gardens, but remains incomplete currently and therefore capable of adapting to new or future design ideas. The east side is a nearly blank slate, save a handful of young but established trees and commanding views from the library windows on several levels. At the south end, loading and servicing to the library occurs from one of the pedestrian ribs. The screened loading area is very small and not presently capable of providing enough screened space for the dumpsters and service vehicles. There are opportunities to better screen and enhance the south side of the library so the service area and the pedestrian circulation areas can function together.

### PROGRAMMING: INPUT AND OBJECTIVES

#### Feedback

- Unify both sides of the walk
- Activate the east side
- Maintain Student Group activity
- Maintain great views from the library
- More seating! More tables! Shade structures.
- New Outdoor Wi-Fi
- Increase access and accessible parking

#### Objectives

- Activate the large open space adjacent to the library on the east side of the walk.
- Accommodate a variety of spaces that have the flexibility to host small festivals and intimate social gatherings.

#### Discovery

- Loading issues/fire access
- Access to parking
- Views to parking and service area

### INSPIRATION

The following images represent ideas for library walk and the interplay between the natural and built environments.



*Building Transition*



*Education & Learning*



*Iconic Features*



*Flexible open space*

SITE ANALYSIS



A NEW LIBRARY WALK

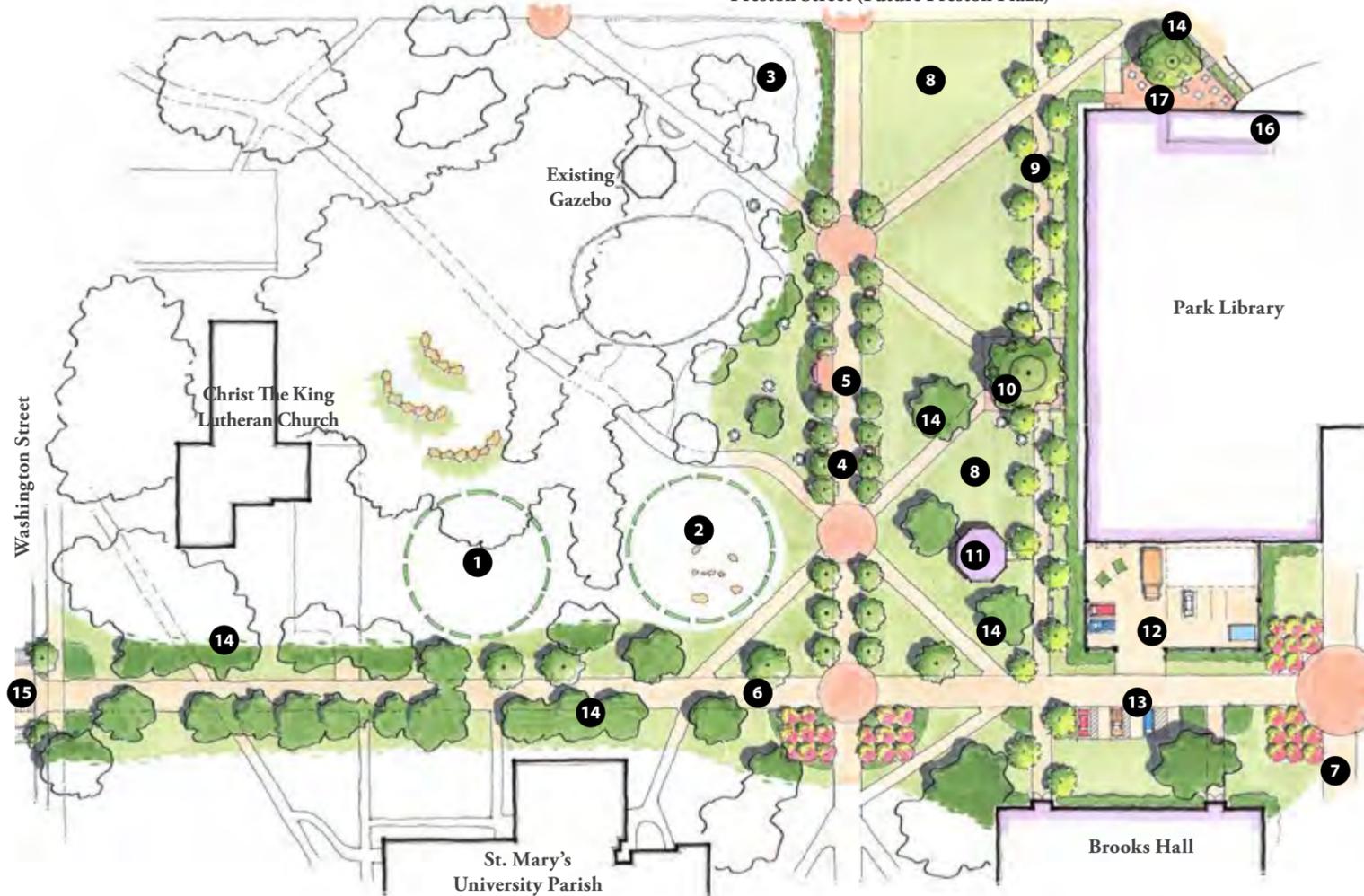
Open spaces should correlate with their surroundings, taking on the shape and feel of the surrounding context. The Library Walk design centers around the interplay of the natural and built environments. Human beings flourish both socially and creatively in places where they can connect spiritually and harmoniously with nature on a regular basis. The effects of these natural connections are intensified when water is present, and especially when the edges between the natural and built environments come together to form distinctive places. Many factors contribute to the sense of place created by this interplay. Three spaces identified are the east and west side of the Library Walk, the North side of the Library and University Center across Preston Street, and the south side of the library service area with the green rib.

The new design focuses on creating a seamless transition between the Botanical Garden and the open space in front of the east side of the library. Views from the library to the Botanical Garden with its reflection pond, small lawns and meandering walks create visual interest. Similar elements should be created and be accessible on the library side of the walk. The design for the space against the library is to create a formal passive space to complement the Botanical Garden. A parallel walk to the main walk, frames a quad space that is accessible from many sides. This accessibility gives users circulation options through the space without depending on the main walk. This gives less emphasis to the main walk, helping to tie the whole space together. A variety of flexible spaces can be created such as small lawns, study areas and places for small event spaces. Both of these walks connect into the campus wide open space framework plan.

The north side of library sits across Preston Street from the University Center activities. This point at Preston Street is one of the major pedestrian crossings on campus. The relationship should be enhanced. The design creates an outdoor café that is an extension of the library's coffee shop space. This space could be used for studies, WiFi access and an opportunity to view the activities along Preston Street. The café is accessible from Preston Street, the library walk, botanical garden, the new open space and the Library.

The south side of the library is the service and loading area. The goal is to screen this area of the site visually from passer-by while maintaining function for service uses. The design shows a new service courtyard that doubles the size of the current use area. All of the dumpsters, vehicle loading areas and service vehicle parking spaces will be co-located to one space. The service courtyard has a surrounding wall, which is an extension off of the current library to look as if it has been placed and planned for from the beginning. The parallel walk in front of the library and the variety of spaces created will distract from the wall visually to make the whole space memorable to users.

Preston Street (Future Preston Plaza)



Library Walk Vision Plan

KEY COMPONENTS

- 1 Future Plants and Society Garden (Summer 2014)
- 2 Future Demonstration Garden
- 3 Existing Native Plant Communities Garden
- 4 Library Walk w/ reorganized seating and tree layout
- 5 Enhanced Alma Mater Memorial
- 6 Enhanced Pedestrian-Oriented 'Path'
- 7 Pedestrian Spine
- 8 Flexible Open Green Space
- 9 Birch-lined Secondary Sidewalk with Seating
- 10 Quiet Shaded Study Plaza
- 11 Gazebo
- 12 Fully-Enclosed Service Yard
- 13 Relocated Accessible Parking
- 14 Maintained Existing Tree Canopy
- 15 Enhanced Pedestrian Crosswalk
- 16 Existing Coffee Shop
- 17 Dining Patio

SITE LOCATION



## 5.5 ANSPACH QUAD

### CURRENT CONDITIONS

The Anspach Quad is a large open space framed by Washington Street (east), Anspach Building (North), Pearce Building (south) and the Dow and Brooks Buildings East. It is a key address to the campus because it becomes a transition space to the core campus and pedestrian spine from the western neighborhoods, commuter parking lot and residence halls. The buildings enclosing the space are used for all core education courses.



*Anspach quad (current conditions)*

Review of the existing conditions reveals a number of strengths and opportunities to transforming the study area into a social gathering and learning environment. All of the buildings that frame out the quad have an address / front door onto the space except for the Dow Building. The Dow building anchors the east end of the quad. With no entry into the space, there is an opportunity to create an iconic element adjacent to or on the building that gives it an address to the space.

Improved pedestrian walks, upgraded landscapes (particularly shade trees), Seating, and a variety of spaces for small, medium and large functions will create an attractive setting for a variety of events and not just be a transient space for students and faculty to get from point A to B as quickly as possible.

### PROGRAMMING: INPUT AND OBJECTIVES

#### Feedback

- Significant amount of on-campus residence units
- Market and commons
- On green spine
- Summer residents
- Move-in weekend festival

#### Objectives

- Create an outdoor marketplace for students, faculty and visitors to use year round.
- Accommodate a variety of spaces that have the flexibility to host large festivals, intimate social gatherings and everything between.

#### Discovery

- Loading issues/fire access
- Access to parking
- Views to parking
- Pond is circulation 'object'
- Underground steam tunnel
- Anspach Quad is framed by many buildings that have freshmen and sophomore humanities and math/science classes.

### INSPIRATION

The following images represent ideas for the Central Plaza that demonstrate flexibility of space. Note that each space is designed to accommodate a variety of uses from performance uses, seating areas and circulation.



*Outdoor Classroom / education*



*Iconic Feature*

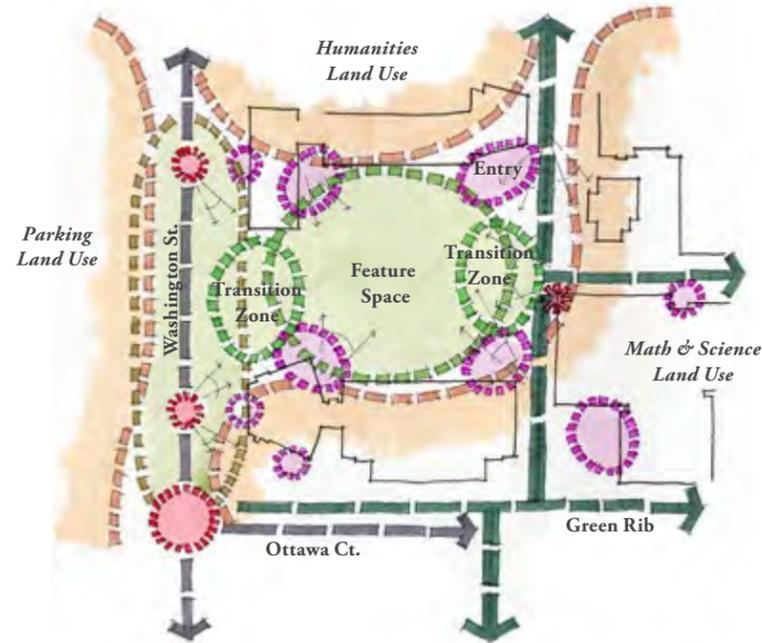


*Multi-purpose recreation field*



*Festival / Market / Vending opportunities*

SITE ANALYSIS



A NEW ANSPACH QUAD: INNOVATION SQUARE

The University is transitioning into an 'Active' learning campus. Spaces for outdoor classrooms can create a hands-on learning environment, critical for this type of learning function. A variety of open spaces are envisioned to provide different experiences to the most people on the most days. Anspach Quad is surrounded by many of the buildings in which freshman (in particular) will take introductory courses in both humanities and sciences. In effect, Anspach is a place where students will not only spend a lot of time, but it comprises many of the buildings where students will 'learn how to learn' as a lifelong skill. They will be stretching their minds in areas of language and philosophy as well as math and science.

With this thought in mind, a new type of 'Innovation Quad' was envisioned to both represent, and facilitate intuitive and investigative forms of learning: two distinctly different forms of edge gathering garden spaces unified by a central common greenspace. The North edge forms are intuitive, natural and 'discovery' based, while the South side is more geometric and rectilinear. Both sides provide interest and opportunity for individual study, small group gathering, food and events.

Many linkages are important to the community, and several of them converge at the Anspach Quad and Washington Street. Multi-modes of traffic such as bus service, automobiles, bicycles and safe pedestrian environments are all important to the vitality of the space. Raised pedestrian crossings and intersection improvements at Washington Street and Ottawa Court will help to create safer, legible crossing from the adjacent neighborhood and parking lot to the quad. The primary pedestrian route through the space has been re-aligned so the view terminates on the Brooks' building planetarium. The new alignment of the walk extends off of Pearce's auditorium and is shifted to the south to allow for a larger multi-purpose open space areas for events and recreation. Walkways have been aligned to terminate views to the entry of buildings. Building entries have been enhanced by creating plaza areas, giving front experience and sense of arrival.

A large plaza area was created along the pedestrian corridor that runs from the University Center to Sweeney Hall as a gateway (transitional space) into the quad. The plaza provides opportunities for student gatherings, small events, and a space for students to cross in a free-flow way to get to multiple destinations. At the center of the plaza, an Iconic tower feature was placed to help provide an identity for the quad. It will become a landmark for the Anspach Quad, being visible throughout the campus. The plaza area is designed to accommodate large service vehicles to Brooks Hall and the Dow building.



KEY COMPONENTS

- 1 Neighborhood Connection
- 2 West Campus Drive Connection
- 3 Commuter Parking Lot
- 4 Raised Pedestrian Crossing
- 5 On-Street Parking
- 6 Intersection Improvements
- 7 Re-located Bus Shelter to Intersection of Street and Rib
- 8 Major Pedestrian Rib
- 9 Washington Street Building Address (Entry Plaza)
- 10 Major Building Access Points
- 11 Seating Areas
- 12 Multi-purpose open space
- 13 Enhanced Tree Canopy for Shade
- 14 Raised Seating Area with Food Kiosk/Vendors
- 15 Building Service Areas
- 16 Rock Garden (Geology)
- 17 Events Plaza
- 18 Tower Feature / Iconic Element
- 19 Primary Pedestrian Route
- 20 Planetarium (Significant Landmark)

Anspach Quad Vision Plan

## 5.6 THE PEDESTRIAN SPINE

### CURRENT CONDITIONS

The pedestrian spine is envisioned as the signature north/south campus corridor for students. The spine connects iconic buildings such as the Park Library (north) to the Student Activity Center (south). It is the major pedestrian corridor within the academic part of campus. It crosses several roads, creating the opportunity for pedestrian vehicular conflicts and accidents. The Pedestrian Spine connects the land uses together providing bicycle and pedestrian mobility through the campus.



Review of the current condition reveals a number of strengths and opportunities for transforming this pedestrian and bicycle alignment into a signature campus linear park system. The imagined spine connects buildings (academic, resident halls and food venues), open space (quads and courtyard) and streets (Preston and Broomfield) to students, faculty and visitors. It is a safe, secure way for users to quickly get through the campus core. There are opportunities to enhance the spine by creating interest and movement through the addition of open space, shade, topography, art, and seating areas, so it becomes more than just a mean to get across campus.

### PROGRAMMING: INPUT AND OBJECTIVES

#### Feedback

- Pedestrian movement
- Bicycle facility
- Campus character
- Core campus connector
- Part of the campus wide open space system.

#### Objectives

- Capture interest and create legibility to campus elements through movement as well as key views and vistas.
- Provide mobility for pedestrians, bicycles and emergency vehicles.
- Create a front door experience and building address to each building that is along the spine.
- Eliminate or Reduce pedestrian and vehicular conflicts
- Create a campus-wide open space system.

#### Discovery

- Connects to a variety of land uses
- Provides mobility through the campus
- Campus Core definition
- Opportunity to strengthen desired views and vistas.

### INSPIRATION

The following images represent a vision for the pedestrian spine. Note that the vision for the spine is not just a linear pathway system. It becomes part of the larger open space system and flexible spaces for a variety of uses.



*Designated Bicycle Parking*



*Banners add color, interest and spirit*

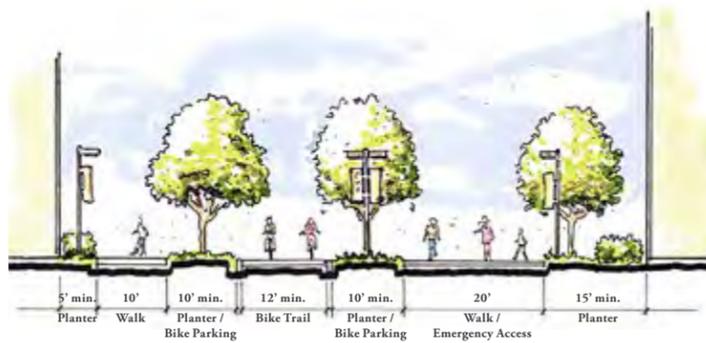


*Vending opportunity and trail material/texture*



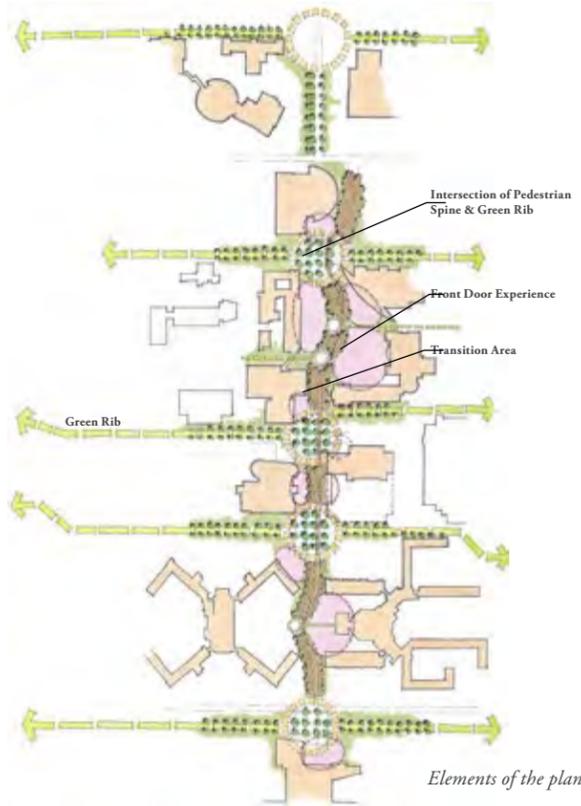
*Separate Circulation for Pedestrians & Bicyclists*

### PEDESTRIAN SPINE COMPONENTS



*Pedestrian Spine: Typical Section*

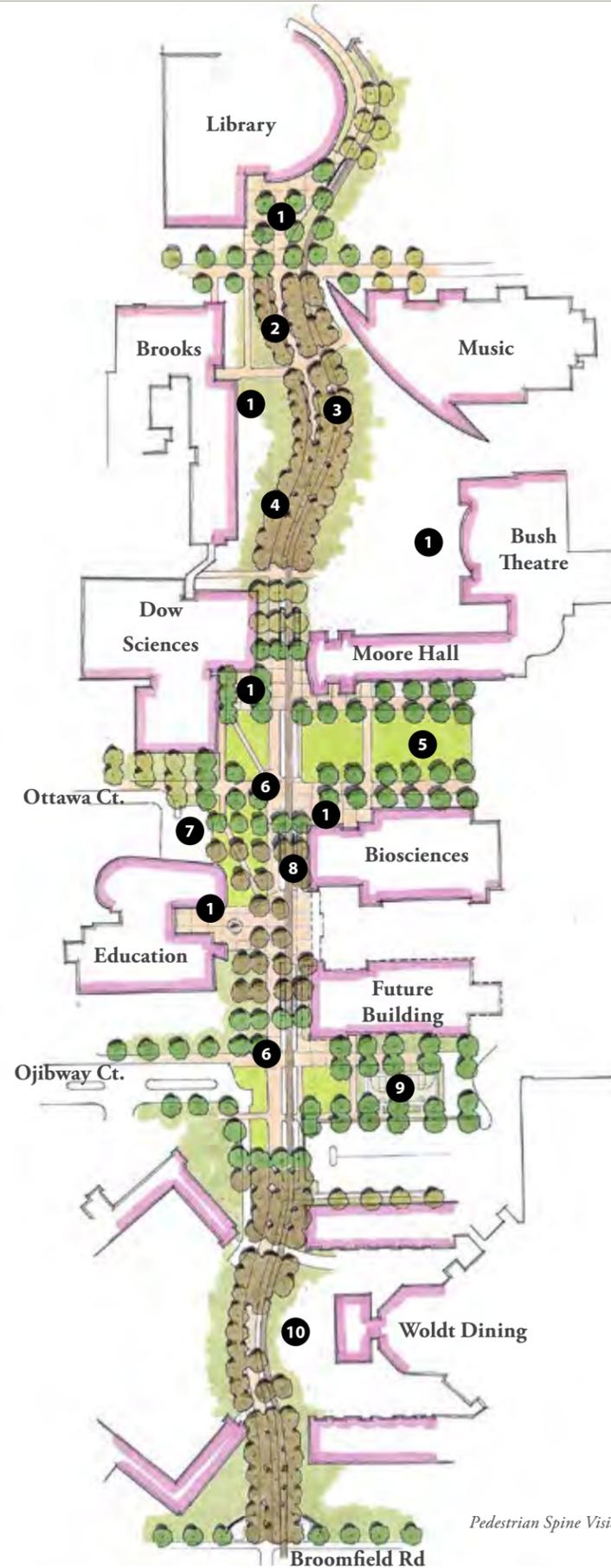
### PEDESTRIAN SPINE FRAMEWORK



*Elements of the plan*

Crossing the pedestrian spine is a series of 'Green Ribs' that connect the campus east/west to the neighborhoods, Mission Street, resident halls and perimeter parking areas. Five key 'green ribs' were identified for emergency and servicing routes into the core area of the campus. The idea is to never sever any of these connections with a building or other structure. The crossings should be legible and provide a sense of direction and defined place. Each building should have an address or front door experience to the spine. Areas between the ribs are transition areas.

This campus framework should be preserved and strengthened over time.



*Pedestrian Spine Vision Plan*

### THE PEDESTRIAN SPINE

Within the campus core, the pedestrian spine serves as the gathering space, uniting students, faculty and visitors, creating excitement and allowing users to feel connected to the campus. With the introduction of the Green Ribs and the Campus Open Space Framework plan (developed during the master plan process), the spine is accessible to the entire campus and community. A variety of multi-purpose green spaces, have been incorporated, providing an attractive setting for both organized and informal outdoor recreation and campus functions. Site views into green spaces have been established and enhanced. Building addresses along the spine have been enhanced to highlight architectural features. The enhancements include plazas to transition onto the spine, seating areas for informal gatherings and opportunities for art and sculpture elements.

The alignment of the pedestrian spine has been re-configured to maximize views and site lines to building and open spaces as well as to create the opportunities for larger transition areas between the fronts of buildings to the spine. The walkways have been sized appropriately to accommodate emergency vehicles such as fire trucks. The bicycle trail should have precedent over pedestrian walks. Where feasible, pedestrian walks should cross the bicycle trail at 90 degrees, and yield to the cyclists. Facilities such as bike racks should be located adjacent to the bike trail and not next to the entrance of a building. Once a cyclist parks their bicycle they will cross over or onto the pedestrian walks as a pedestrian to get to their destination. This eliminates any pedestrian and bicyclists conflicts at building entries.

### KEY COMPONENTS

- 1 Front Door Address
- 2 Pedestrian Walk / Spine
- 3 Bicycle Trail
- 4 Tree canopy
- 5 Flexible open space
- 6 Intersection of spine and rib
- 7 Service areas
- 8 Bike racks
- 9 Basketball courts
- 10 Central Plaza

### SITE LOCATION



*Section of the Green Spine path system*

## 5.7 THE A-STREET & BIOSCIENCES BUILDING

### CURRENT CONDITIONS

The A-Street (now envisioned as a new “Calumet Court”) as a whole does not exist today. It was discovered during the campus master planning process that there was a need for additional north/south street network through the campus to help alleviate the congestion along East Campus Drive. The campus master plan defined A streets and spaces as well as B-Streets and spaces. A-spaces are the quads, formal areas and are generally framed by significant architecture. A-streets connect these spaces and are highly walkable streets, providing uninterrupted sidewalks and great addresses for buildings. The new A-Street aligns with Fancher Street, a north/south street that extends to the campus through downtown Mount Pleasant and terminates at Bellows Street.

The Biosciences building is a new planned and programmed building. The Campus Master Plan Framework helped to inform the placement of the building to align with uses of the pedestrian spine, the green ribs and the A-Street. The site is east of the education building, west of the Engineering and technology building and south of Moore Hall. Today, the site is framed on 3 sides by a ring road formed by Ojibway Court, Calumet Court and Ottawa Court. Ojibway Court and Ottawa Court cross the pedestrian spine. Small parking lots are located along the ring road as well as just south of Moore Hall and north of Fabiano.



Existing drive aisle east of Bush Theater. (To be incorporated into the A-Street alignment)

Review of the current conditions reveals a number of strengths and opportunities to transforming this part of the campus into an A-space. The alignment for the A-street uses several existing streets, drive aisles and open spaces such as the space between the Grad housing to the North, the use of the existing drive aisle to the parking lot on the east side of the Music and Bush Theater buildings, the plaza area to the south side of the Bush Theater and Calumet Court in front of the Engineering Technology building. The large tree canopy adjacent to the Engineering and Technology building provides a great address for a pedestrian sidewalk along the building.

The Bio Sciences building site is within the core academic area of the campus and is sited between two of the major east/west ribs and is along the pedestrian spine. This creates great access and circulation to and around the site. There are opportunities for the small, inefficient parking lots to be relocated so the spaces can transition into small open quads that give the new building an address at each entry point.

### PROGRAMMING: INPUT AND OBJECTIVES

#### Feedback

- Connectivity = better street network = less traffic congestion
- Street alignment
- Parking
- Service and emergency access for buildings to be accessible by a street.
- Pedestrian and Bicycle safety.
- Site the new programmed Bio Science building

#### Objectives

- Develop an alternative north/south street parallel to East Campus Drive to help alleviate some of the congestion and traffic problems that occur along the street.
- Create a street through campus that gives each of the potential new and long range plan buildings a formal address.
- Use the A-Street to create formal quad spaces that are accessible to the public and are not buried into the campus.
- Create views and vistas with movement to the street to celebrate architectural features or significant open spaces.
- Site the Biosciences building in a way that future phases can be easily added without compromising the Campus Master Plan open space framework.

#### Discovery

- Parking relationships and ADA parking relocation
- Loading and servicing issues
- The need to eliminate the pedestrian conflict of crossing Ojibway Court and Ottawa Court.
- Steam tunnel crossing between Emmons Hall and the Powerhouse building.
- Once the A-Street is in place, access to the resident hall parking lots.

### INSPIRATION

The following images represent ideas inspirational images for the A-Street and influencing factors for locating the Bio Sciences building.



Safety Parking and wide sidewalks



Seating areas / extension of the sidewalk

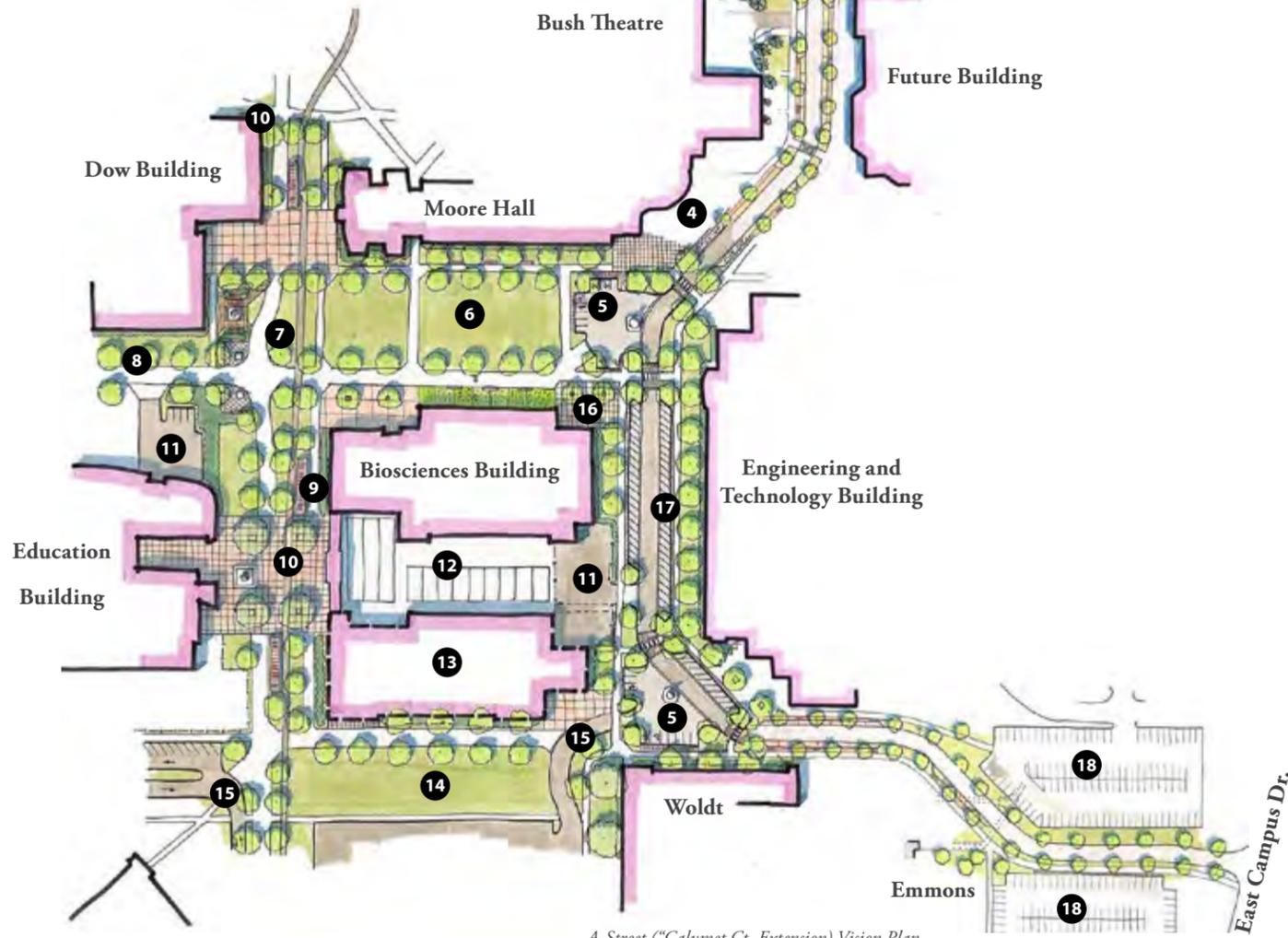
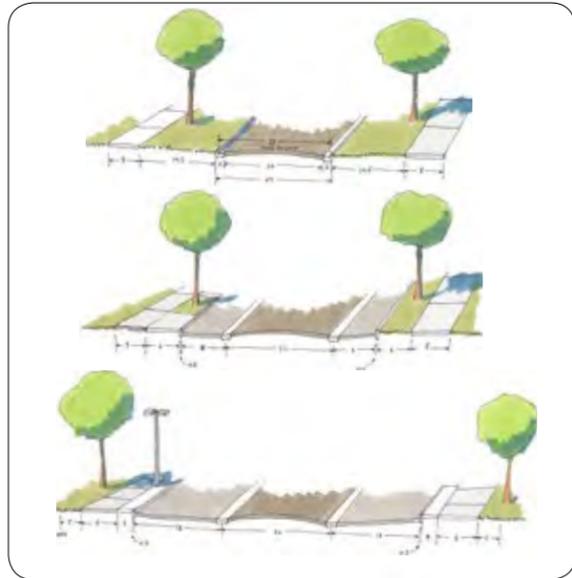


Shared Spaces



Flush Street & pedestrian crosswalk

PROPOSED STREET SECTIONS



A-Street ("Calumet Ct. Extension) Vision Plan

A NEW A-STREET: A REDEFINED "CALUMET COURT"

The A-Street is designed to provide an address for future buildings as well as the buildings that front on the pedestrian spine. The alignment of the street provides a parallel route to East Campus Drive, starting at Bellows St, crossing Preston St. and eventually transitioning to Broomfield Road. The variation and movement in the alignment creates opportunities to celebrate views and vistas into key spaces as well as toward iconic Architectural features. Setbacks should be utilized to provide seating areas, plantings and pedestrian amenities, creating a vibrancy and energy on the sidewalk. A pedestrian friendly atmosphere is created through the use of smaller lane widths, on-street parking, pedestrian scale lighting and large canopy street trees which give the sidewalks shade and comfort. Other amenities, such as benches, trash receptacles and bike racks, are provided at appropriate intervals. Curbless streets allow flexibility for pedestrian crossing and loading opportunities. This allows accessible drop-off locations to buildings such as the Bush Theater.

Careful consideration went into the location of the Biosciences Building. There are many circulation components that the building must address: The pedestrian spine, green ribs, emergency routes and the A-Street. Building entries were enhanced by creating formal open spaces out of the former small parking lots. The parking in these locations were single-loaded parking areas that were very inefficient for the amount of space that they uses. These parking spaces were incorporated into the design of the A-Street. The open spaces can be used for a variety of events ranging in recreation, outdoor education and experimental landscapes for classroom use. The building was sited keeping future phases in mind. The placement allows the flexibility for future expansions. The service area is accessed from the A-Street and is large enough that loading vehicles are able to pull off the road into a service court without interrupting the flow or character along the A-Street.

One of the main objectives in siting the Biosciences Building and A-Street is to eliminate the pedestrian spine crossing of Ojibway and Ottawa Court. Once these streets are removed, access to parking lots and service area must be provided. The A-Street creates access and service opportunity to Fabiano and Woldt Halls. Ojibway court provides access to the resident halls on the west side of the pedestrian spine. This creates a distinguished separation between vehicular and non-motorized use areas.

KEY COMPONENTS

- 1 Round-a-bout at Preston St.
- 2 Plaza in front of future building
- 3 Re-located bus stop
- 4 Drop-off area for Bush Theater
- 5 Turn-a-round area and parking
- 6 Flexible open space
- 7 Pedestrian Spine and Bike Trail
- 8 Green Rib
- 9 Bike Racks
- 10 Plaza along the spine
- 11 Service areas
- 12 Rain Gardens / Bioswales
- 13 Future Building
- 14 Flexible open space
- 15 Parking lot access
- 16 Enhanced building entry
- 17 Angled parking
- 18 Re-configured parking lots

SITE LOCATION



## 5.8 OUTDOOR EVENT SPACE

### CURRENT CONDITIONS

The events space is centrally located in the core of the academic campus. The space is defined by the Music Building (north), Bush Theater (east), Moore Hall (south) and the Dow Science Building and Brooks Hall (west). The pedestrian spine travels through the space along the west edge, connecting it to the various components of campus life such as recreation, residence halls and academic buildings. While the space has a comfortably quiet and serene atmosphere, (reminiscent of classic pastoral landscapes) an evaluation of the uses reveals a need for heightened programming and increased scenarios for activity.



*The existing amphitheater consists of a seldom-used concrete patio and a grassy slope*

Review of the current conditions reveals a number of strengths and opportunities to transforming the open space into an events space. The adjacency to Moore Hall, Bush Auditorium and Music Building creates an opportunity to define a 'fine arts' space, strengthening the relationship of the buildings through the use of an outdoor flexible space that is capable of hosting a variety of events.

The amphitheater constructed outside the front doors of Bush Theatre in the late 1960's sits isolated today and largely ignored by both general student traffic and potential scheduled performances. Further, the doors are visually and physically separated from the amphitheater by a large hedge and evergreen trees.

### PROGRAMMING: INPUT AND OBJECTIVES

#### Feedback

- Outdoor performance venue
- Fine arts display opportunities
- Performing Art programming
- Multi-purpose open space

#### Objectives

- Create an outdoor performance venue that can extend / transition the arts programs outside in a meaningful way.
- Develop spaces for classroom use as well as everyday use.
- Integrate the Pedestrian spine into the design of the Events Space.

#### Discovery

- Topography
- Circulation and movement through the space
- Connection of the space to the pedestrian spine and green ribs.
- Saginaw Chippewa Indian Tribe Culture.

### INSPIRATION

The following images represent ideas for Events Space showing the ability to introduce local and cultural influences in the design.



*Flexible amphitheater viewing and tensile-structure example*



*Teared Forest*



*Amphitheater seating and trees at Swarthmore College*



*Multi-purpose Flex Space*



### A NEW EVENTS SPACE

The Events Space design is inspired by the Saginaw Chippewa Indian Tribe Culture. Significant forms from the tribal culture such as talking circles, the meeting lodge (with its strong axial characteristics) and the turtle form can be interpreted from the design. This is evident in the flexible open space that connects the Music Building, Bush Auditorium and Moore Hall. The space is designed to take advantage of the natural topography as a large amphitheater. At the same time, the space can be divided for intimate performances or displaying art and significant sculpture pieces. Landscape materials such as the Birch Tree, maple and Willow are integrated, defining the edges of smaller spaces, and contributing to the design as a whole. The pedestrian spine is integrated into the design, providing movement and vistas to prominent architectural features and views into the various spaces created.

### KEY COMPONENTS

- 1 Pedestrian Spine
- 2 Bicycle Trail
- 3 Birch Forest for texture and enclosure
- 4 Covered Performance Venue
- 5 Open Base or Platform - seating or performance
- 6 Meeting Spaces / "talking circles"
- 7 Viewing Lawn - lowered elevation
- 8 Viewing Knoll - raised elevation
- 9 Aesthetic Berming with sculpture garden locations
- 10 Bike Parking

### SITE LOCATION



## 5.9 CENTRAL PLAZA

### CURRENT CONDITIONS

The Central Plaza is located along the south end of the pedestrian spine, just north of Broomfield Road and the Recreation Center. It sits adjacent to the Woldt Dining facility and is surrounded by neighboring residence halls (Sweeney, Thorpe, Fabiana and Celani Halls). A large water feature is incorporated into the plaza. Across the pedestrian spine from the plaza is the parking lot for Sweeney and Thorpe Residence Halls. A small planting of trees offers some relief from the views from the plaza into the parking lot.



*Title*

Review of the current conditions reveals a number of strengths and opportunities to transform the plaza into an envisioned “town square” marketplace. The proximity to Residence Halls, the Recreation center across Broomfield Street and adjacency to the Pedestrian Spine promotes year-round activity for the space. The Woldt Dining facility is one of the newer food venues on campus, providing a variety of food choices to residents, faculty and visitors. The outdoor space of the central plaza can help to strengthen the desire to dine at this location, increasing visibility, use and service.

There are several opportunities to enhance the space. Today, loading and servicing occur from the pedestrian spine. When trucks enter the space, they not only block the movement along the spine, but become a visual element that should be screened from plaza and dining users. The fountain creates a circulation barrier for pedestrians to enter the space from nearby resident halls and the pedestrian spine. The circulation should have a ‘free flowing’ movement to it to fully engage the space. Visibility into the space is limited and should be enhanced from Broomfield Street and the Pedestrian Spine to give the users a feeling of comfort and safety.

### PROGRAMMING: INPUT AND OBJECTIVES

#### Feedback

- Lots of residence units
- Market and commons
- On green spine
- Summer residents
- Move-in weekend festival

#### Objectives

- Create an outdoor marketplace for students, faculty and visitors to use year round.
- Accommodate a variety of spaces that have the flexibility to host large festivals, intimate social gatherings and everything between.

#### Discovery

- Loading issues/fire access
- Access to parking
- Views to parking
- Pond is circulation ‘object’
- Underground steam tunnel

### INSPIRATION

The following images represent ideas for the Central Plaza that demonstrate flexibility of space. Note that each space is designed to accommodate a variety of uses from performance uses, seating areas and circulation.



*Opportunities for year-round celebrations*



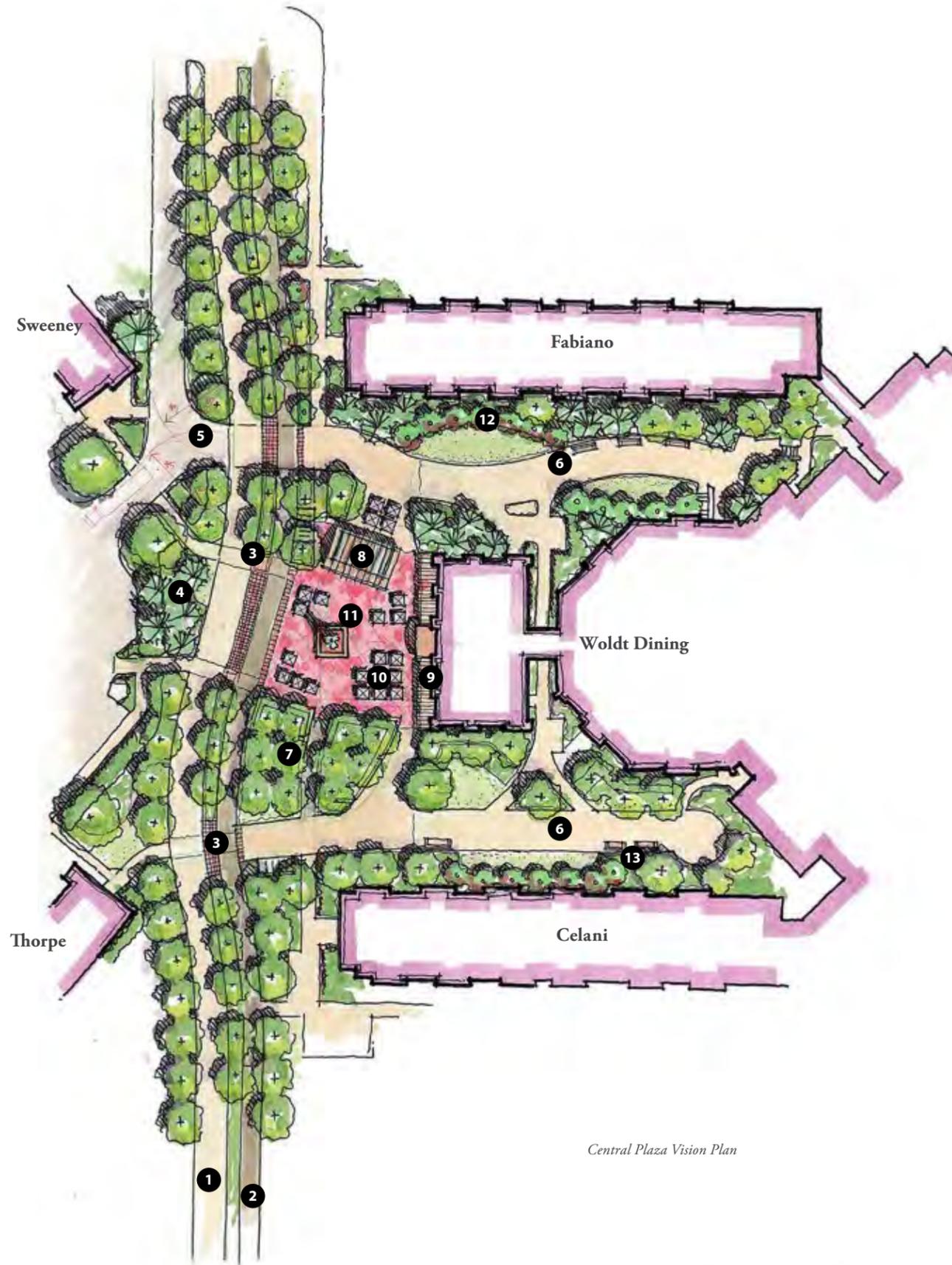
*Outdoor cafe seating*



*Flexible Plaza Space utilized for pavilions, seating and circulation*



*Festivals*



Central Plaza Vision Plan

### A NEW CENTRAL PLAZA

The Central Plaza or Market Square is a key address on campus and along the pedestrian spine. The design for the space resembles a Town Center Piazza, offering the opportunity for a variety of uses and programming capabilities for different events. Multi-use pavilions, step seating, market umbrellas and enhanced views make this a destination. The movement of the pedestrian spine at the plaza offers views into the space and creates a seamless transition between the two as if they have organically grown together. The loading and servicing conflict to the space has been addressed by having vehicles use the current drive to the Sweeney/Thorpe parking lot. Loading vehicles can then cross the pedestrian spine perpendicular and access a screened space, eliminating the blockage of the pedestrian spine movement. Bicycle racks are located adjacent to the bike trail so that once one enters the plaza they become a pedestrian and bicycles are not scattered through the space.

The Vision for the new Central Plaza is a place of diverse activity for Students that takes advantage of the critical mass of nearby residents, address on the Spine and proximity to the recreation and student services facilities to the South. Additionally, the significant summer population of students that are centered at the adjacent resident halls means that the new Central Plaza can be their 'activity plaza' for movies, music, performances, events and activities, food vendors and other celebrations while at CMU for week long camps or Summer Term studies. This spirit of activity can be extended deep into the fall and renewed early in the spring with the placement of space heaters and use of sun angles to maximize sun exposure in the winter and shade in the summer.

### KEY COMPONENTS

- 1 Pedestrian Spine (Walkway)
- 2 Bicycle Trail
- 3 Connection across the Spine to resident halls.
- 4 Enhanced Landscape / screening of parking lot
- 5 Service Access
- 6 Emergency Access
- 7 Tree Canopy
- 8 Multi-use Pavilion
- 9 Covered Market Entry
- 10 Market seating and umbrellas
- 11 School spirit feature
- 12 Enhanced Landscape
- 13 Seating areas

### SITE LOCATION



## 5.10 ADMISSIONS WALK

### CURRENT CONDITIONS

There is only one chance to make a first impression. As part of the Campus Image review, the designated current Admissions Walk was reviewed and discussed in terms of overall quality and opportunities for incremental enhancement. Stakeholder meetings revealed specific problematic areas where tour guides indicated that there was an experience ‘let down’ or there was a need to direct attention ‘the other way’. As CMU advances the ideas within this document for Feature, Fabric and Functional places, many of these smaller, more incidental issues will be addressed.



*Arrival at the Admissions Office in Warriner Hall, One of the most beautiful buildings on campus.*

However, because Admissions is such a critical piece of any campus enhancement strategy, and because ‘first impressions count’, it is important to call attention to a few of the challenge items that were specifically noted by Admissions Tour Leaders. It is important to note that ‘levels of expectations’ need to be realistic – it is reasonable to assume that in a complex campus environment, there will be areas that are less pristine, or areas that are more service oriented. Hence the Feature, Fabric and Functional model as a way of thinking about level of finish and maintenance effort. The key is to not let perception and experience un-necessarily drop as a result of a view that could be easily screened or improved. And it is important to recognize more significant and consistent challenges for visitors so those areas can be prioritized for improvement.

### PROGRAMMING: INPUT AND OBJECTIVES

- Arrival sequence (Mission: Preston and Bellows)
- The route
- Goals: Eat, Sleep, Workout, Academic Buildings
- The “Feeling”/Intangibles: Best response, ‘image busters’
- Key Branding Points: Intersections at Mission, ECD and Preston, Parking Lots

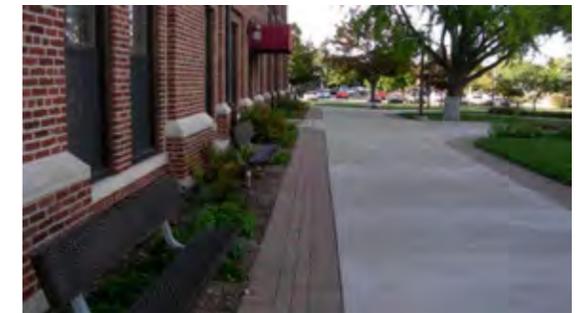
### KEY PLACES TO START

There are many opportunities to simplify and fill out planting, incorporate banners graphics, enclose service areas and address key crossings to dramatically raise the perception of the campus by bringing small areas of negative image up to a level that is ‘not noticeable’, and therefore views are not drawn un-necessarily to an area that should not be a focus of attention.

1. Gateways/Banners
2. Warriner Civic Space
3. Anspach - Academics
4. Central Plaza - Res Life
5. Basic Standards (Screening)
6. Basic Standards
7. Southern Pedestrian Spine key crossings (Biotech to Broomfield Crossing)



*Walkway conditions adjacent to Warriner Hall Admissions office include inconsistent planning and unrefined materials that are inconsistent with CMU’s desired image.*

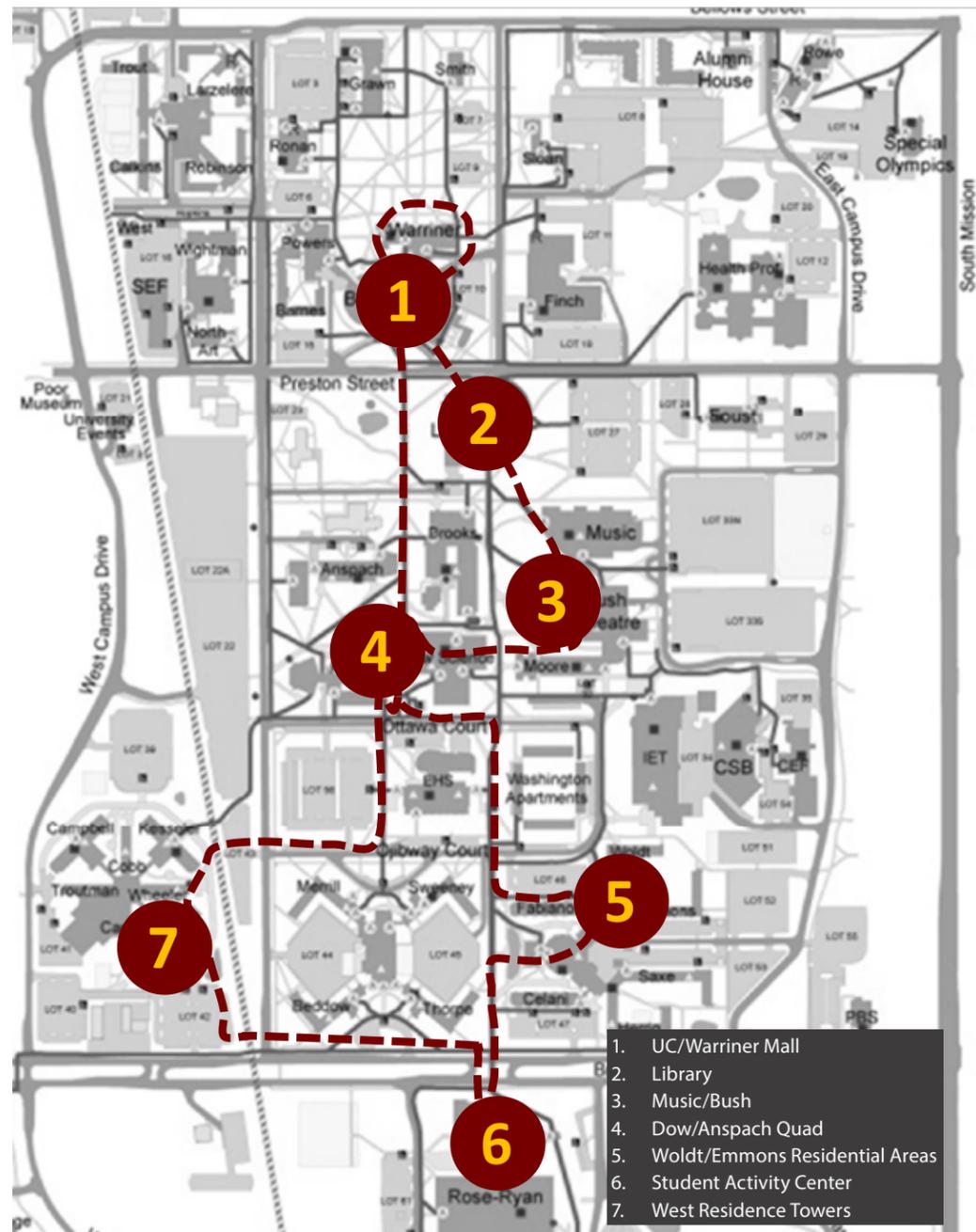


*Along the North-South Spine, un-necessary views to service facilities can be screened or adjusted. Banners, Fresh pavement and trees can animate the linkage to residence halls and student activity areas.*



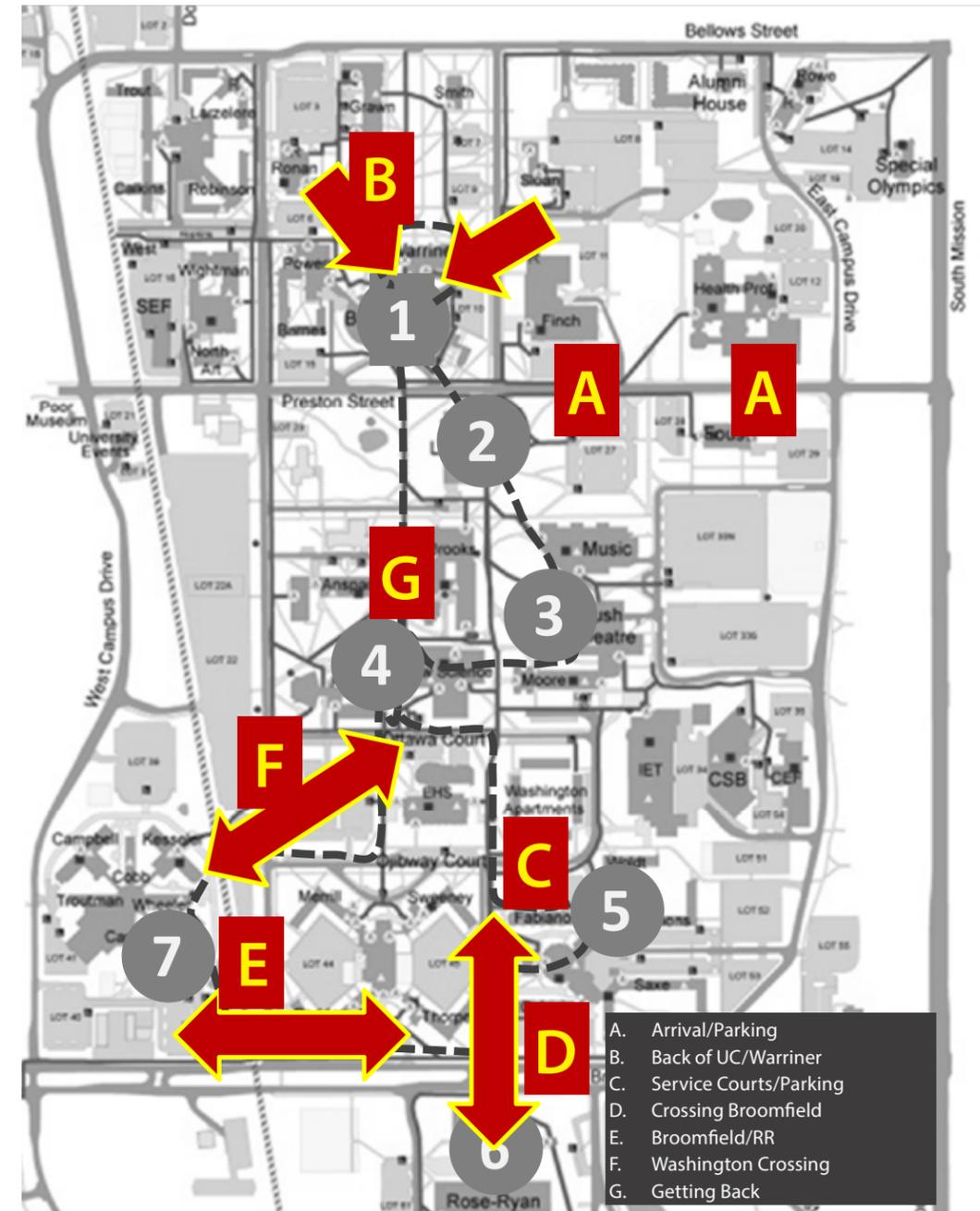
EXISTING ADMISSIONS WALK

The current admissions walk begins at Warriner Hall and circulates through the heart of the campus, touching on key facilities for education, residential services, student life and recreation. Many of these areas are specifically targeted for enhancement with focused projects - as noted through the conceptual designs earlier in this Section 5.



ADMISSIONS WALK CONFLICTS

In review of the Admissions Route with experienced Tour Leaders, there were several specific locations that they report the 'experience or quality level drops' to a noticeable level for prospective students and families. Many of these areas will be improved through the gradual application of Composition and Materials Guidelines found within this document. However, there are specific locations, particularly roadway and parking lot crossings which present significant drops in the perceived quality and character of the campus.



Title

### A. ARRIVAL/PARKING

Arriving on campus can be an intimidating experience for unfamiliar visitors. New signage and banner graphics will assist in orientation. However, over time, incorporation of other design treatments such as gateways, street trees and parking lot screening will better organize visual information, de-emphasizing functional areas and focusing views on attractive vistas and nodes.

- Arrival parking
- Clear signage
- Banners/gateways
- Trees or hedging
- Clear paths and walks



*Entry Gateways are complex environments, with many forms of positive and negative visual information.*

### B. BACK OF UC/WARRINER

Many small areas of planting are not fully covered, and left with exposed mulch and irrigation lines. By acknowledging the challenges of maintaining a detailed 'garden' application, many areas (particularly foundation plantings) can be massed with one or two plants, in order to visually 'recede' and allow the eye to focus on the next destination. Doorways or entry portals can then be more easily treated with small splashes of seasonal color or detail, which CMU has successfully implemented.

- Apply simple landscape
- Layering green
- Accent entries
- Clear views
- Screen Service Areas and Equipment
- Banners and school spirit



*Fill in planting*



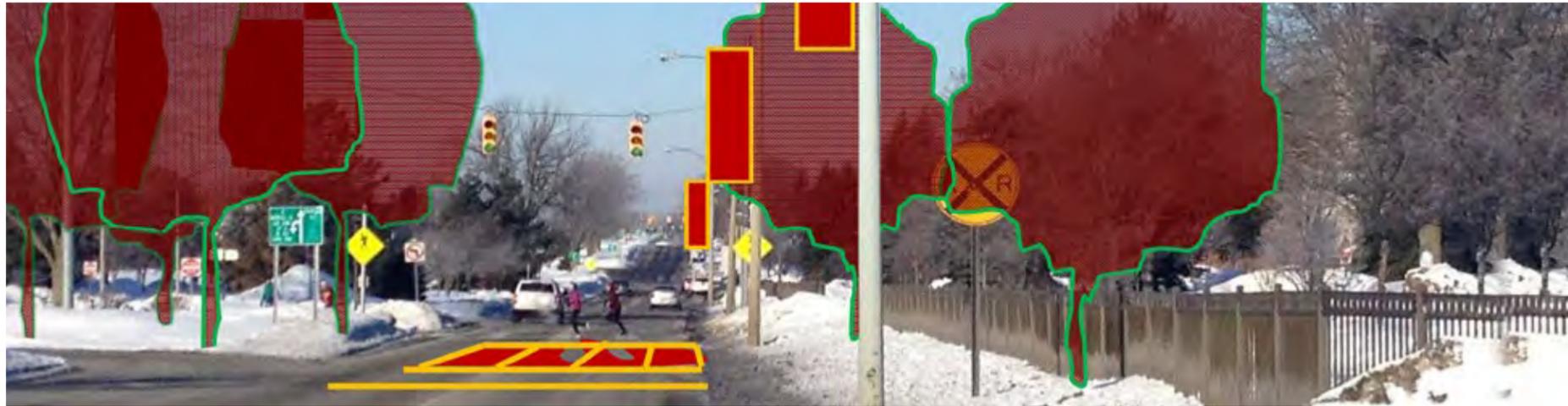
*Banners and Parking screen*



*Service area screening*

### C. SERVICE COURTS/PARKING

Parking, service and equipment can be subtly masked within a larger body of plant material. Visitors know these elements are part of the campus, but by incorporating planting lines that are 'longer than the offending element', the visual presence of the functional element is perceptually reduced. Restated: a long simple line of evergreen material will be more effective than a small application of plants that 'stick up' immediately around a piece of equipment.



Title

#### D. CROSSING BROOMFIELD

Perhaps the most pronounced area of negative experience noted by tour guides is the crossing and routing along Broomfield. This is particularly unfortunate, because Broomfield is an important community road that travels through the campus, and is also the address of a number of new Residence Halls and the hallmark Student Activity Center. Broomfield is currently a high speed roadway, with limited pedestrian or bicycle facilities. It also is relatively untreated with campus identity elements. Banners, parking lot hedging, marked crossings and canopy street trees with deep red fall color can better mark the corridor, as well as highlight pedestrian crossing areas for automobiles.



Title

#### E. BROOMFIELD AND RAILROAD CROSSING

Walking along Broomfield Street is an 'exposed' feeling for pedestrians. This feeling is most pronounced at the intersection Broomfield and Washington, where expanded roadway, rail line and the expansive parking lot makes the trip toward Residence Halls feel very bleak. By incorporating signage / gateway features, crossings, street trees and banners – a basic structure can be put in place, wide viewsheds can be narrowed and a general sense of campus safety and pedestrianism can be enhanced.



Title



Title

#### F. CROSSING WASHINGTON STREET

The crossing of Washington Street to the south is a necessary part of the 'return trip' on the way back to the core campus. By enhancing the key crossing points, incorporating new lighting and banners, and eventually redeveloping Anspach Quad (which is a center of Freshman academic life) - this described 'uneventful ending' to the tour can be made into a high point of the entire CMU visit.

## 06 Material Guidelines

The materials outlined in Section 6.0 include the following topics: plant material, hardscape, gateway elements, lighting and site furnishings. This document is intended to be a guideline for use by CMU in the implementation of specific campus enhancements. It is not intended to replace the CMU Facilities Management Design Standards Specification Manual. Each project will have its own requirements and objectives for design. The objective of this Campus Landscape Identify Landscape Plan document is to provide guidance regarding unifying principles, organizing elements and develop experience based conceptual design opportunities. The materials noted below are intended to be a 'starting place' for most of the campus development locations – but not proscriptively eliminate other options for consideration if appropriate.

### 6.1 PLANT MATERIAL

#### OVERVIEW

Landscape material is a defining component of the campus experience. As discussed in sections 3 and 4 of this document, the use of plant material is central to concepts of sustainability, spatial definition, campus character and experience. The use of plant material has a direct impact on the legibility, safety (CPTED), and focus of campus places.

#### CONSISTENCY

A central theme discussed throughout this campus identity plan is the need for consistency. This is accomplished through a recognition of simplicity as a valuable technique to allow landscape and buildings to read as a 'campus composite'. This approach also clarifies decisions and allocation of resources. The model presented is to work largely from a unified plant list that is largely native and locally successful at CMU's campus. The approach to a specific planting can be informed by its context and the recognition of a *level of focus* that can inform the appropriate level of design complexity and associated maintenance:

'Feature' places are gardens, unique quads, gateways, or special purpose locations that warrant consideration for enhanced treatment both for image and function. These areas require a high level of design, detailed materials, and corresponding maintenance.

'Fabric' places are landscapes that form the connective tissue (streets and paths) and 'background image' of campus open space. These areas should be treated more simply, and with a generally consistent palette of materials and management so that they recede into a pleasant experience without creating a maintenance burden that is not sustainable and thereby drawing attention to areas such as building foundations or fractured spatial edges. Fabric landscapes should set a general tone of comfort and quality and spatial definition without competing with Iconic Views or Feature Places.

'Functional' areas include parking lots, service courts and other back of house areas. Parking lots can be scaled and humanized with simple applications of shade trees and border hedges. Service areas can be screened with masonry walls or hedges of a single, dense shrub material.

#### SPATIAL DEFINITION

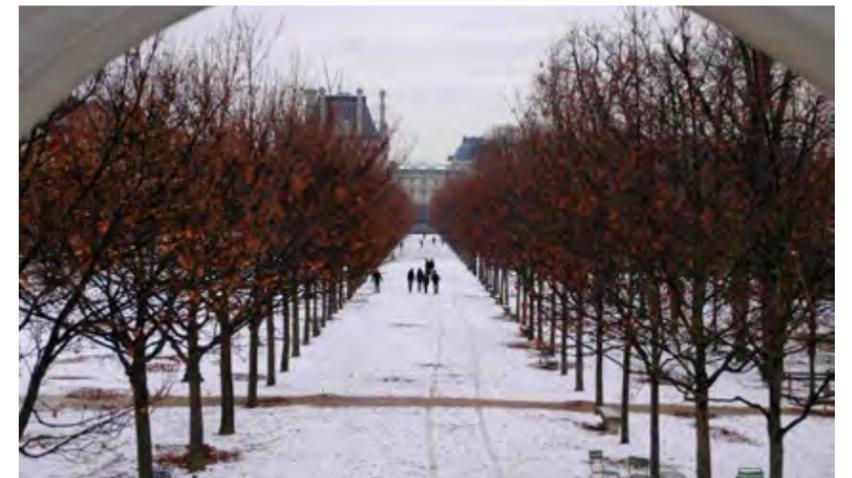
As described in Section 4 Composition, plant material can be used to horizontally and vertically define space, in the form of 'outdoor rooms', focused view corridors, while also subtly screening back of house areas in order to de-emphasize their perceptual presence. Some amount of background 'fabric' landscape that is informally placed is an inherent quality of many campuses, including CMU. However, at each application of planting, the designer should consider the application and maximize opportunities to create understandable horizontal and vertical space; taking advantage of key viewing, sun/shade, and landscape use opportunities.

#### FOUR SEASONS | COLOR + TEXTURE

The spirit and image of the campus is highly dynamic through four distinct seasons. As such, the quality of landscape compositions should be designed not only the 3 spatial dimensions, but also in the 4th dimension of time. Opportunities for groves that provide unique fall color (*perhaps highlighting the school colors in certain locations*), winter bark, spring blooms and summer shade should be taken advantage of. Within the general plant list, there are a variety of materials to take advantage of the seasons while accomplishing the goals of individual spatial definition objectives. Mt. Pleasant, MI is located within USDA Plant Hardiness zone 6a / 5b.



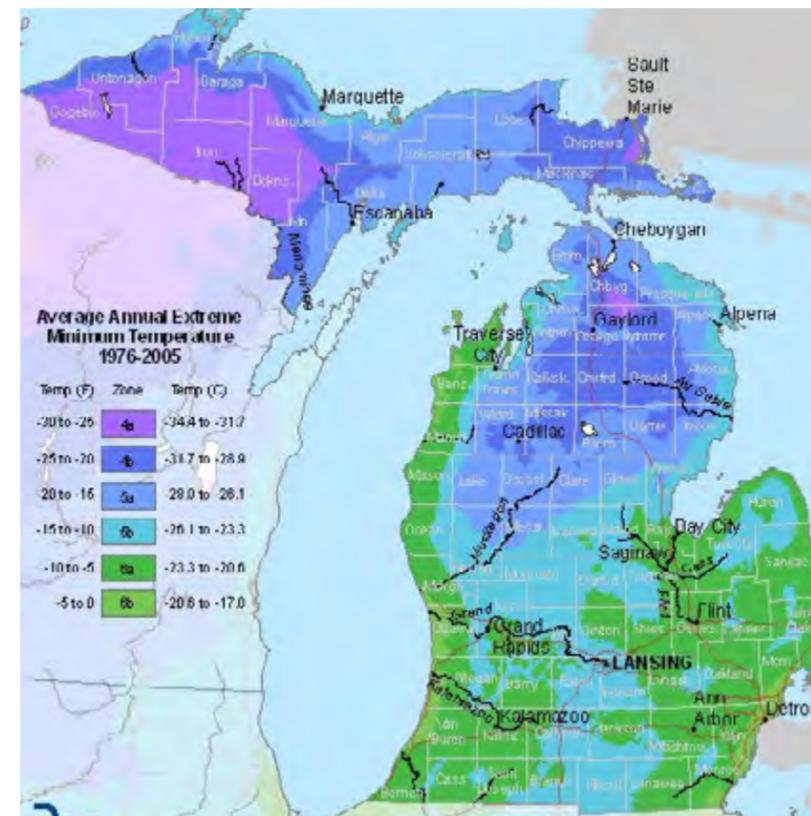
Fall



Winter



Spring/Summer



USDA Plant Hardiness Zones

## GENERAL PLANT LIST

Botanical Name	Common Name	Height x Width	Sun / Shade	Characteristics	Websites
<b>Groundcovers</b>					
<i>Aegopodium podagraria</i>	Snow on the Mountain	1x1	Full Sun / Part Shade	Solid variegated cover	<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=b17">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=b17</a>
<i>Convallaria majalis</i>	Lily of the Valley	1x1	Part to Full Shade	Deep green texture, white flowers, fragrant	<a href="http://plants.usda.gov/core/profile?symbol=CQMA7">http://plants.usda.gov/core/profile?symbol=CQMA7</a>
<i>Hosta</i>	Plantain Lily	30" x 6'	Part Sun to Full Shade	Many varieties, Good bedding plant or in small groups or pots	<a href="http://plants.usda.gov/core/profile?symbol=HGSTA">http://plants.usda.gov/core/profile?symbol=HGSTA</a>
<i>Pachysandra procumbens</i>	Allegheny Spurge	6"x2'	Part to Full Shade	Lower spreading, US native	<a href="http://plants.usda.gov/core/profile?symbol=PAPR7">http://plants.usda.gov/core/profile?symbol=PAPR7</a>
<i>Pachysandra terminalis</i>	Japanese Spurge	1x1	Part to Full Shade	Non-native	<a href="http://plants.usda.gov/core/profile?symbol=PATE11">http://plants.usda.gov/core/profile?symbol=PATE11</a>
<i>Parthenocissus tricuspidata</i>	Boston Ivy	30-50x10-15	Full Sun / Part Shade	Aggressive climbing vine	<a href="http://plants.usda.gov/core/profile?symbol=PATB6">http://plants.usda.gov/core/profile?symbol=PATB6</a>
<i>Vinca minor</i>	Common periwinkle	6"x1'	Full Sun / Part Shade		<a href="http://plants.usda.gov/core/profile?symbol=VIM12">http://plants.usda.gov/core/profile?symbol=VIM12</a>
<b>Shrubs</b>					
<i>Berberis x mentorensis</i>	Mentor Barberry	5-8x5-7	Full Sun / Part Shade	Hybrid of evergreen and deciduous	<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2639138">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2639138</a>
<i>Berberis thunbergii</i>	Japanese Barberry	3-6'x4-7'	Full Sun / Part Shade	Rock solid, good multi-season color, many cultivars	<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2777818">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2777818</a>
<i>Cornus sericea</i>	Redosier & Ruby Red Dogwood	7-9'x10'	Full Sun	Looselow hedge/screen; branch color in winter	<a href="http://www.arborday.org/treeguide/TreeDetail.cfm?ID=218">http://www.arborday.org/treeguide/TreeDetail.cfm?ID=218</a>
<i>Euonymus alatus 'Compactus'</i>	Dwarf Winged Burning Bush	9-11'x9-11'	Full Sun / Part Shade	Good screen or feature large shrub, fall color	<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2456598">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2456598</a>
<i>Forsythia</i>	Forsythia	Varies - 1-8'	Full Sun / Part Shade	Shrub/weeping/groundcover species; many cultivars of shrub	<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderListResults.aspx?letter=F">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderListResults.aspx?letter=F</a>
<i>Juniperus</i>	Other Junipers	Varies - horizo	Full Sun	Multiple species, many varieties and cultivars	<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderListResults.aspx?letter=J">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderListResults.aspx?letter=J</a>
<i>Juniperus x pfitzeriana</i> Cultivars	Gold Juniper	2-4'x2-5'	Full Sun	Saybrook Gold', 'Old Gold', & 'Gold Coast' are a few	<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2565618">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2565618</a>
<i>Pinus mugo</i> - dwarf varieties	Dwarf Mugo Pine	3-5'x5'	Full Sun	Multiple varieties	<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2849788">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2849788</a>
<i>Spirea</i>	Spirea	Varies - 3-8'	Full Sun / Part Shade	Many cultivars	<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderListResults.aspx?letter=S">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderListResults.aspx?letter=S</a>
<i>Taxus x media 'Brownii'</i>	Brown's Yew	8x8	Full Sun / Part Shade	Large hedge	<a href="http://www.bhg.com/gardening/plant-dictionary/shrub/yew/">http://www.bhg.com/gardening/plant-dictionary/shrub/yew/</a>
<i>Taxus x media 'Densiformis'</i>	Dense Yew	4x4	Full Sun / Part Shade	Small/low hedge	<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=186">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=186</a>
<i>Viburnum</i> (all kinds)	Viburnum (all kinds)	Varies widely	Varies	Many species and cultivars	<a href="http://www.missouribotanicalgarden.org/gardens-gardening/our-garden/notable-plant-collectio">http://www.missouribotanicalgarden.org/gardens-gardening/our-garden/notable-plant-collectio</a>
<b>Perennials</b>					
<i>Hemerocallis</i>	Daylilies				
<i>Rudbeckia</i>	Coneflowers				
<i>Rudbeckia hirta</i>	Black-eyed Susans				
<i>Leucanthemum superbum</i>	Shasta Daisies				
<i>Hosta</i>	Hostas				
<i>Sedum</i>	Sedum				
<i>Iris</i>	Iris (different colors)				
<i>Dianthus</i>	Dianthus				
<b>Grasses (Native)</b>					
<i>Andropogon gerardii</i> Vitman	Big Bluestem	4-6'	Full Sun	Clumping, dry-mesic soil	<a href="http://www.nativeplant.com/plants/search/input">http://www.nativeplant.com/plants/search/input</a>
<i>Bouteloua curtipendula</i>	Side Oats	3'	Full Sun	Clumping, grows well mixed with other grasses	<a href="http://plants.usda.gov/core/profile?symbol=BDCU">http://plants.usda.gov/core/profile?symbol=BDCU</a>
<i>Calamagrostis canadensis</i>	Blue-Joint Grass	3-5'	Full Sun	Clumping, mesic-wet soil	<a href="http://www.nativeplant.com/plants/search/input">http://www.nativeplant.com/plants/search/input</a>
<i>Eragrostis spectabilis</i>	Purple Love Grass	1'	Full Sun	Clumping, dry-mesic soil, purple haze of seed heads in fall	<a href="http://www.nativeplant.com/plants/search/input">http://www.nativeplant.com/plants/search/input</a>
<i>Panicum virgatum</i>	Switchgrass	3-5'	Full Sun	Clumping, dry-mesic/dry soil, airy seedheads late summer, yellow in fall	<a href="http://www.nativeplant.com/plants/search/input">http://www.nativeplant.com/plants/search/input</a>
<i>Schizachyrium scoparium</i>	Little Bluestem Grass	2-4'	Full Sun	Clumping, dry-mesic/dry soil, milky seeds on upper stems, leaves turn	<a href="http://www.nativeplant.com/plants/search/input">http://www.nativeplant.com/plants/search/input</a>
<i>Sorghastrum nutans</i>	Indian Grass	4-6'	Full Sun	Clumping, mesic/dry-mesic soil; yellow-orange leaves in fall	<a href="http://www.nativeplant.com/plants/search/input">http://www.nativeplant.com/plants/search/input</a>
<b>Understory Trees</b>					
<i>Cercis canadensis</i>	Eastern Redbud	30x10	Full Sun / Part Shade		<a href="http://ohiodnr.com/forestry/trees/redbud/tabid/5414/Default.aspx">http://ohiodnr.com/forestry/trees/redbud/tabid/5414/Default.aspx</a>
<i>Celtis</i>	Hackberry	30x10	Full Sun / Part Shade		<a href="http://ohiodnr.com/forestry/trees/redbud/tabid/5414/Default.aspx">http://ohiodnr.com/forestry/trees/redbud/tabid/5414/Default.aspx</a>
<i>Cornus</i>	Dogwood	Varies, 15-35'	Part Sun to Part Shade	Several species, many cultivars	<a href="http://www.arborday.org/treeguide/TreeDetail.cfm?ID=238">http://www.arborday.org/treeguide/TreeDetail.cfm?ID=238</a>
<i>Acer griseum</i>	Paperbark Maple	30x20	Full Sun / Part Shade		<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=g11">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=g11</a>
<i>Acer palmatum</i>	Japanese Maple	15-20x5-15	Part Shade	Many cultivars	<a href="http://plants.usda.gov/core/profile?symbol=ACPA2">http://plants.usda.gov/core/profile?symbol=ACPA2</a>
<i>Betula nigra</i> 'Heritage' or 'Cully' Heritage	Heritage River Birch	50x40	Sun	Better than species	<a href="http://plants.plymouthnursery.net/12130003/Plant/631/Heritage_River_Birch">http://plants.plymouthnursery.net/12130003/Plant/631/Heritage_River_Birch</a>
<i>Magnolia x soulangiana</i>	Saucer Magnolia	30x25	Full Sun		<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2615578">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2615578</a>
<i>Magnolia stellata</i>	Star Magnolia	20x15	Full Sun / Part Shade		<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2825318">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2825318</a>
<i>Amelanchier laevis</i>	Serviceberry	30x20	Full Sun / Part Shade		<a href="http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2863778">http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?taxonid=2863778</a>
<i>Thuja occidentalis</i>	Arborvitae	40x10-15	Full Sun / Part Shade	Many cultivars	<a href="http://www.arborday.org/treeguide/TreeDetail.cfm?ID=78">http://www.arborday.org/treeguide/TreeDetail.cfm?ID=78</a>
<i>Hamamelis virginiana</i>	American/Common Witchhazel	30x20	Full Sun	Many cultivars	<a href="http://www.arborday.org/treeguide/TreeDetail.cfm?ID=242">http://www.arborday.org/treeguide/TreeDetail.cfm?ID=242</a>
<i>Malus sargentii</i>	Sargent Crabapple	10x10	Full Sun	Many cultivars, 'Snowdrift' is particularly appealing	<a href="http://www.arborday.org/treeguide/TreeDetail.cfm?ID=450">http://www.arborday.org/treeguide/TreeDetail.cfm?ID=450</a>
<i>Pyrus Calleryana</i>	Callery Pear	30x10	Full /Partial Sun	Many Cultivars, 'Cleveland' is successful	
<b>Evergreen Trees</b>					
<i>Tsuga canadensis</i>	Eastern Hemlock	70x35	Sun		<a href="http://ohiodnr.com/forestry/trees/hemlock_est/tabid/5372/Default.aspx">http://ohiodnr.com/forestry/trees/hemlock_est/tabid/5372/Default.aspx</a>
<i>Pinus strobus</i>	White pine	80x40	Sun		<a href="http://ohiodnr.com/forestry/trees/pine_white/tabid/5412/Default.aspx">http://ohiodnr.com/forestry/trees/pine_white/tabid/5412/Default.aspx</a>
<i>Abies balsamea</i>	Balsam Fir	70x20	Sun		<a href="http://ohiodnr.com/forestry/trees/fir_bal/tabid/5367/Default.aspx">http://ohiodnr.com/forestry/trees/fir_bal/tabid/5367/Default.aspx</a>
<i>Picea abies</i>	Norway Spruce	80x40	Sun		<a href="http://ohiodnr.com/forestry/trees/spruce_norway/tabid/5421/Default.aspx">http://ohiodnr.com/forestry/trees/spruce_norway/tabid/5421/Default.aspx</a>
<b>Canopy Trees</b>					
<i>Acer platanoides</i>	Norway Maple	65'x50'	Sun	Many cultivars, tolerant of poor soils	<a href="http://ohiodnr.com/forestry/trees/maple_red/tabid/5385/Default.aspx">http://ohiodnr.com/forestry/trees/maple_red/tabid/5385/Default.aspx</a>
<i>Acer rubrum</i>	Red Maple	70x40	Sun	Many cultivars	<a href="http://ohiodnr.com/forestry/trees/maple_red/tabid/5385/Default.aspx">http://ohiodnr.com/forestry/trees/maple_red/tabid/5385/Default.aspx</a>
<i>Acer saccharum</i>	Sugar Maple	80x40	Sun		<a href="http://ohiodnr.com/forestry/trees/maple_sugar/tabid/5387/Default.aspx">http://ohiodnr.com/forestry/trees/maple_sugar/tabid/5387/Default.aspx</a>
<i>Betula alleghaniensis</i>	Yellow Birch	70x50	Full Sun	Sag/Chip Tribe influence	<a href="http://ohiodnr.com/forestry/trees/birch_ylw/tabid/5340/Default.aspx">http://ohiodnr.com/forestry/trees/birch_ylw/tabid/5340/Default.aspx</a>
<i>Betula papyrifera</i>	White Birch	60x35	Full Sun	Sag/Chip Tribe influence	<a href="http://www.arborday.org/treeguide/TreeDetail.cfm?ID=23">http://www.arborday.org/treeguide/TreeDetail.cfm?ID=23</a>
<i>Fagus grandifolia</i>	American Beech	80x70	Full Sun	Best year-round bark	<a href="http://ohiodnr.com/forestry/trees/beech_amer/tabid/5336/Default.aspx">http://ohiodnr.com/forestry/trees/beech_amer/tabid/5336/Default.aspx</a>
<i>Ginkgo biloba</i>	Ginkgo	60x30	Sun	Male Only	
<i>Liriodendron tulipifera</i>	Tuliptree / Tulip Poplar	80x40	Full Sun / Part Shade		<a href="http://ohiodnr.com/forestry/trees/tuliptree/tabid/5428/Default.aspx">http://ohiodnr.com/forestry/trees/tuliptree/tabid/5428/Default.aspx</a>
<i>Platanus occidentalis</i>	Sycamore	80x60	Full Sun	Good winter look	<a href="http://ohiodnr.com/forestry/trees/sycamore_amer/tabid/5424/Default.aspx">http://ohiodnr.com/forestry/trees/sycamore_amer/tabid/5424/Default.aspx</a>
<i>Quercus alba</i>	White Oak	70x70	Full Sun		<a href="http://ohiodnr.com/forestry/trees/oak_white/tabid/5401/Default.aspx">http://ohiodnr.com/forestry/trees/oak_white/tabid/5401/Default.aspx</a>
<i>Quercus coccinea</i>	Scarlet Oak	60x30	Sun	Bright red fall color	
<i>Quercus macrocarpa</i>	Bur Oak	90x80	Sun		<a href="http://ohiodnr.com/forestry/trees/oak_bur/tabid/5390/Default.aspx">http://ohiodnr.com/forestry/trees/oak_bur/tabid/5390/Default.aspx</a>
<i>Quercus muhlenbergii</i>	Chinquapin Oak	60x80	Sun		<a href="http://ohiodnr.com/forestry/trees/oak_ching/tabid/5392/Default.aspx">http://ohiodnr.com/forestry/trees/oak_ching/tabid/5392/Default.aspx</a>
<i>Quercus palustris</i>	Pin Oak	70x40	Sun		<a href="http://ohiodnr.com/forestry/trees/oak_pin/tabid/5394/Default.aspx">http://ohiodnr.com/forestry/trees/oak_pin/tabid/5394/Default.aspx</a>
<i>Quercus rubra</i>	Red Oak	60x70	Sun		<a href="http://ohiodnr.com/forestry/trees/oak_red/tabid/5395/Default.aspx">http://ohiodnr.com/forestry/trees/oak_red/tabid/5395/Default.aspx</a>
<i>Robinia pseudoacacia</i>	Black Locust 'Thornless Varieties'	50x25	Sun		<a href="http://ohiodnr.com/forestry/trees/hocust_black/tabid/5380/Default.aspx">http://ohiodnr.com/forestry/trees/hocust_black/tabid/5380/Default.aspx</a>
<i>Tilia americana</i>	American Basswood	80x40	Full Sun / Part Shade	Sag/Chip Tribe influence	<a href="http://ohiodnr.com/forestry/trees/bass_amer/tabid/5335/Default.aspx">http://ohiodnr.com/forestry/trees/bass_amer/tabid/5335/Default.aspx</a>
<i>Liquidambar styraciflua</i>	Sweetgum	75x50	Full Sun / Part Shade		

The following plant list was developed in collaboration with the CMU facilities maintenance team. These plants are intended to comprise much of the future landscape, but do not preclude individual and specialized choices at feature locations where design intent and maintenance commitment support such a decision.

CMU is committed to the long-term survivability of its campus landscape material based on sustainable best practices and reasonable application of maintenance and management practices. The plant materials shown represent species that have proven to be highly adapted to the central Michigan environment and successful on the CMU campus. These plants indicate a commitment to locally adapted plants with a general preference for native species."

PLANTS



AEGOPODIUM PODAGRARIA

Common Name: Snow on the Mountain  
 Type: Groundcover  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 1' x 1'



CONVALLARIA MAJALIS

Common Name: Lily of the Valley  
 Type: Groundcover  
 Dormancy: Herbaceous  
 Light Requirements: Part to Full Shade  
 Mature Size: 1' x 1'



HOSTA

Common Name: Plantain Lily  
 Type: Groundcover  
 Dormancy: Herbaceous  
 Light Requirements: Part Sun to Full Shade  
 Mature Height: 30 inches



PACHYSANDRA PROCUMBENS

Common Name: Allegheny Spurge  
 Type: Groundcover  
 Dormancy: Semi-evergreen  
 Light Requirements: Part to Full Shade  
 Mature Size: 6' x 2'



PACHYSANDRA TERMINALIS

Common Name: Japanese Spurge  
 Type: Groundcover  
 Dormancy: Evergreen  
 Light Requirements: Part to Full Shade  
 Mature Size: 1' x 1'



PARTHENOCISSUS TRICUSPIDATA

Common Name: Boston Ivy  
 Type: Groundcover  
 Dormancy: Evergreen  
 Light Requirements: Full Sun to Part Shade  
 Mature Spread: 30' to 45'



VINCA MINOR

Common Name: Common Periwinkle  
 Type: Groundcover  
 Dormancy: Evergreen  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 1' Height x 6' Spread



BERBERIS X MENTORENSIS

Common Name: Mentor Barberry  
 Type: Shrubs  
 Dormancy: Deciduous/Evergreen Hybrid  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 5' to 8' x 5'-7'



BERBERIS THUNBERGII

Common Name: Japanese Barberry  
 Type: Shrub  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 3' to 6' x 4' to 7'



CORNUS SERICEA

Common Name: Redosier & Ruby Red Dogwood  
 Type: Shrub  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 7' to 9' x 10'



ENONYMUS ALATUS 'COMPACTUS'

Common Name: Dwarf Winged Burning Bush  
 Type: Shrub  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 9' to 11' x 9' to 11'



FORSYTHIA

Common Name: Forsythia  
 Type: Shrub  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Part Shade  
 Mature Height: Varies x 1' to 8'



JUNIPERUS

Common Name: Other Junipers  
 Type: Shrub  
 Dormancy: Evergreen  
 Light Requirements: Full Sun  
 Mature Height: Varies



JUNIPERUS X PFITZERIANA CULTIVARS

Common Name: Gold Juniper  
 Type: Shrub  
 Dormancy: Evergreen  
 Light Requirements: Full Sun  
 Mature Size: 2' to 4' x 2' to 5'



PINUS MUGO

Common Name: Dwarf Mugo Pine  
 Type: Shrub  
 Dormancy: Evergreen  
 Light Requirements: Full Sun  
 Mature Size: 2' to 4' x 2' to 5'



SPIREA

Common Name: Spirea  
 Type: Shrub  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: Varies x 3' to 8'



TAXUS X MEDIA 'BROWNII'

Common Name: Brown's Yew  
 Type: Shrub  
 Dormancy: Evergreen  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 8' x 8'



TAXUS X MEDIA 'DENSIFORMIS'

Common Name: Dense Yew  
 Type: Shrub  
 Dormancy: Evergreen  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 4' x 4'



VIBURNUM

Common Name: Viburnum (all kinds)  
 Type: Shrub  
 Dormancy: Evergreen  
 Light Requirements: Varies  
 Mature Size: Varies



HEMEROCALIS

Common Name: Daylily  
 Type: Perennial  
 Dormancy: Herbaceous  
 Light Requirements: Partial to Full Sun  
 Mature Height: 2' to 3'



RUDBECKIA

Common Name: Coneflower  
 Type: Perennial  
 Dormancy: Herbaceous  
 Light Requirements: Full Sun  
 Mature Size: 2' to 3' x 1' to 2'



RUDBECKIA HIRTA

Common Name: Black-eyed Susan  
 Type: Perennial  
 Dormancy: Herbaceous  
 Light Requirements: Full Sun  
 Mature Size: 2' to 3' x 1' to 2'



LEUCANTEMUM SUPERBUM

Common Name: Shasta Daisy  
 Type: Perennial  
 Dormancy: Herbaceous  
 Light Requirements: Full Sun  
 Mature Size: 1' to 3' x 2'



SEDUM

Common Name: Sedum  
 Type: Perennial  
 Dormancy: Herbaceous  
 Light Requirements: Partial to Full Sun  
 Mature Height: Varies



IRIS

Common Name: Iris  
 Type: Perennial  
 Dormancy: Herbaceous  
 Light Requirements: Partial to Full Sun  
 Mature Size: Varies



DIANTHUS

Common Name: Dianthus  
 Type: Perennial  
 Dormancy: Herbaceous  
 Light Requirements: Partial to Full Sun  
 Mature Size: Varies



ANDROPOGO GERARDII VITMAN

Common Name: Big Bluestem  
 Type: Native Grass  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Height: 4' to 6'



BOUTELLOUA CURTIPENDULA

Common Name: Site Oats  
 Type: Native Grass  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Height: 3' to 5'



CALAMAGROSTIS CANADENSIS

Common Name: Blue Joint Grass  
 Type: Native Grass  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Height: 3' to 5'



ERAGROSTIS SPECTABILIS

Common Name: Purple Love Grass  
 Type: Native Grass  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Height: 1' to 2'



PANICUM VIRGATUM

Common Name: Switchgrass  
 Type: Native Grass  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Height: 3' to 5'



SCHIZACHYRIUM SCOPARIUS

Common Name: Little Bluestem Grass  
 Type: Native Grass  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Height: 2' to 4'



**SORGHASTRUM NUTANS**

Common Name: Indian Grass  
 Type: Native Grass  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Height: 4' to 6'



**CERCIS CANADENSIS**

Common Name: Eastern Redbud  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 30' x 10'



**CORNUS SPP.**

Common Name: Dogwood  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Part Sun to Part Shade  
 Mature Height: 15' to 35'



**ACER GRISEUM**

Common Name: Paperback Maple  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Part Shade  
 Mature Height: 30' x 20'



**ACER PALMATUM**

Common Name: Japanese Maple  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Part Shade  
 Mature Size: 15' to 20' x 5' to 15'



**BETULA NIGRA 'HERITAGE' OR 'CULLY HERITAGE'**

Common Name: Heritage River Birch  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 50' x 40'



**MAGNOLIA X SOULANGIANA**

Common Name: Saucer Magnolia  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 30' x 25'



**MAGNOLIA STELLATA**

Common Name: Star Magnolia  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 20' x 15'



AMELANCHIER STELLATA

Common Name: Serviceberry  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Partial Shade  
 Mature Size: 30' x 20'



THUJA OCCIDENTALIS

Common Name: Arborvitae  
 Type: Understory Tree  
 Dormancy: Evergreen  
 Light Requirements: Full Sun to Partial Shade  
 Mature Size: 40' x 10' to 15'



HAMAMELIS VIRGINIANA

Common Name: American/Common Witchhazel  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 30' x 20'



MALUS SARGENTII

Common Name: Sargent Crabapple  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 10' x 10'



TILIA CORDATA

Common Name: Littleleaf Linden  
 Type: Understory Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 50' to 60' x 40'



TSUGA CANADENSIS

Common Name: Eastern Hemlock  
 Type: Evergreen Tree  
 Dormancy: Evergreen  
 Light Requirements: Full Sun  
 Mature Size: 70' x 35'



PINUS STROBUS

Common Name: White Pine  
 Type: Evergreen Tree  
 Dormancy: Evergreen  
 Light Requirements: Full Sun  
 Mature Size: 80' x 40'



ABIES BALSAMEA

Common Name: Balsam Fir  
 Type: Evergreen Tree  
 Dormancy: Evergreen  
 Light Requirements: Full Sun  
 Mature Size: 70' x 20'



PICEA ABIES

Common Name: Norway Spruce  
 Type: Evergreen Tree  
 Dormancy: Evergreen  
 Light Requirements: Full Sun  
 Mature Size: 80' x 40'



ACER RUBRUM

Common Name: Red Maple  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 70' x 40'



ACER SACCHARUM

Common Name: Sugar Maple  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 80' x 40'



BETULA ALLEGHANIENSIS

Common Name: Yellow Birch  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 70' x 50'



BETULA Papyrifera

Common Name: White Birch  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 65' X 35'



FAGUS GRANDIFOLIA

Common Name: American Beech  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 80' x 70'



LIRIODENDRON TULIPIFERA

Common Name: Tulip Tree/Tulip Poplar  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 80' x 40'



PLATANUS OCCIDENTALIS

Common Name: Sycamore  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 80' x 60'



QUERCUS ALBA

Common Name: White Oak  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 70' x 70'



QUERCUS MACROCARPA

Common Name: Bur Oak  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 90' x 80'



QUERCUS MUHLENBERGII

Common Name: Chinquapin Oak  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 60' x 80'



QUERCUS PALUSTRIS

Common Name: Pin Oak  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 70' x 40'



QUERCUS RUBRA

Common Name: Red Oak  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 60' x 70'



ROBINIA PSEUDOACACIA

Common Name: Black Locust  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun  
 Mature Size: 50' x 25'



TILIA AMERICANA

Common Name: American Basswood  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 80' x 40'



LIQUIDAMBAR STYRACIFLUA

Common Name: Sweetgum  
 Type: Canopy Tree  
 Dormancy: Deciduous  
 Light Requirements: Full Sun to Part Shade  
 Mature Size: 75' x 50'

## 6.2 HARDSCAPE

Central Michigan University has worked to develop comprehensive technical specifications in the Facilities Management Design Standards Specification Manual. The purpose of this narrative is to highlight a few key aspects of the hardscape intent and details which relate to unifying and enhancing campus image.

### WALKWAYS AND PAVEMENTS

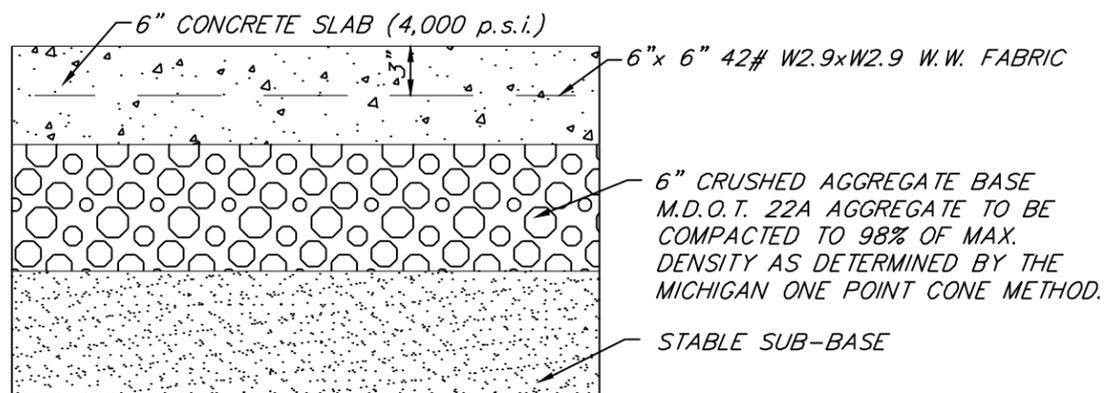
As a general rule, Central Michigan University shall utilize concrete for all walkways and outdoor pedestrian areas. The intent is to provide a uniform look across campus that is easy to maintain year round and inexpensive and simple to repair while maintaining consistency. Walkways shall be light broom with asphalt expansion joints and saw cut control joints. Exposed aggregate finish is acceptable for special areas or edges.

Colored concrete is generally not desired as it is difficult to maintain uniformity over time with harsh weather, and maintenance, patch & repair will be visible because of the difficulty in matching colors over time.

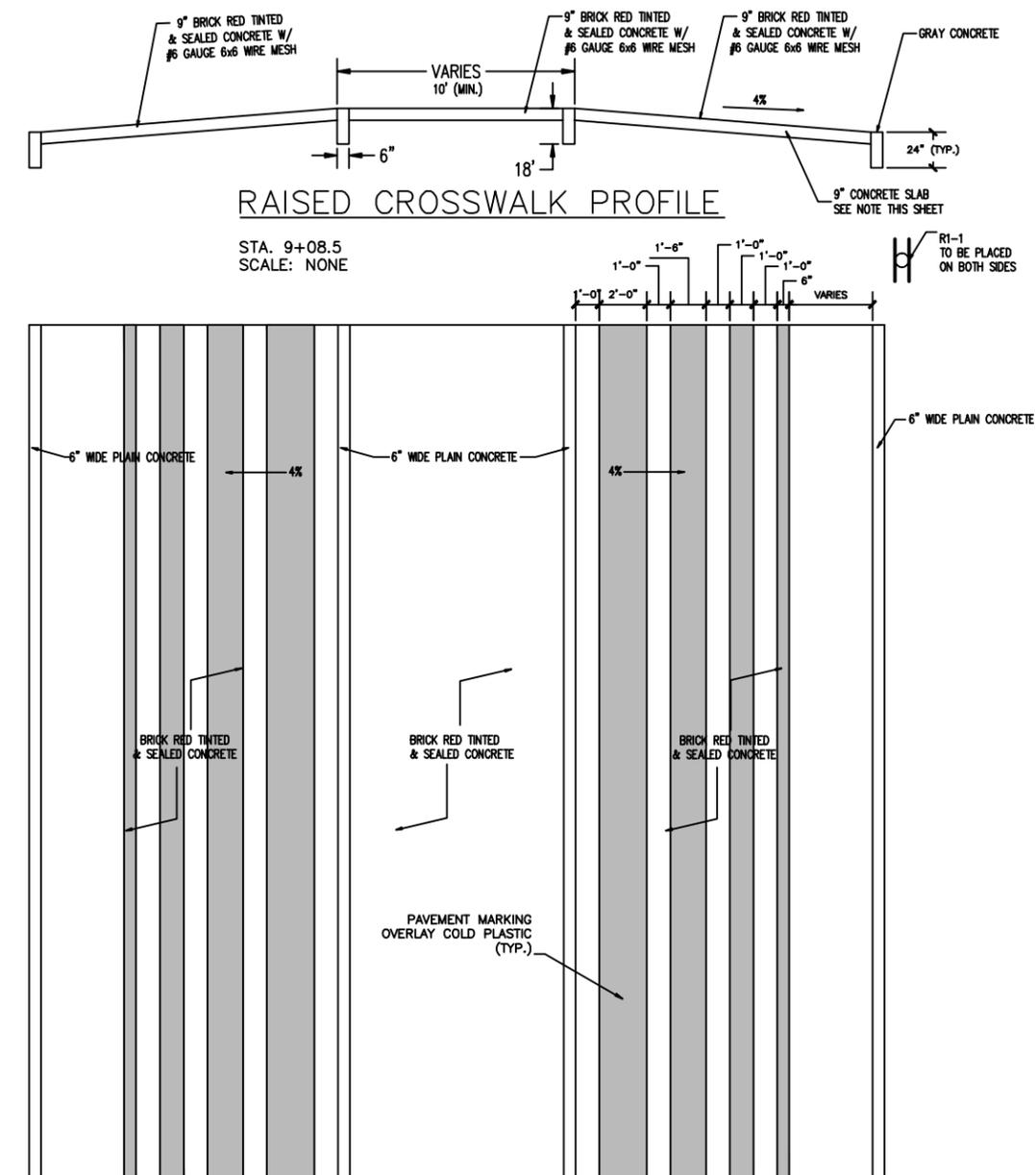
CMU has been successful with highly durable, raised pedestrian crosswalks which both calm traffic while emphasizing a pedestrian priority for the campus. This is the one instance where colored concrete (brick red) is used as a campus standard, to assist in visually highlighting these crossings.

Bricks or donation pavers shall be acceptable in controlled / special locations as approved by CMU. If used, they shall be placed on a concrete or dura-rock (crushed concrete) setting bed (as opposed to limerock or compacted soil) over a sand setting bed. Bricks shall have a 'secured edge' of concrete or mortar to insure they do not shift horizontally.

Walkway dimensions for the campus are 8' minimum as a campus standard. The East-West Green 'ribs' shall be 12' where possible. The Pedestrian trail (spine) also doubles as part of the fire access route. This is designed per code to 20' wide. It may be possible for CMU to negotiate an interpretation of the local codes that would allow a 16' paved surface with a 2' clear and stabilize sod/softscape edge (to total 20'). While this negotiation has not taken place between CMU and the local Fire Marshall, this type of slightly reduced concrete dimension would be seen as a positive impact on campus image for those locations.



CMU Std sidewalk section



Crosswalk standard



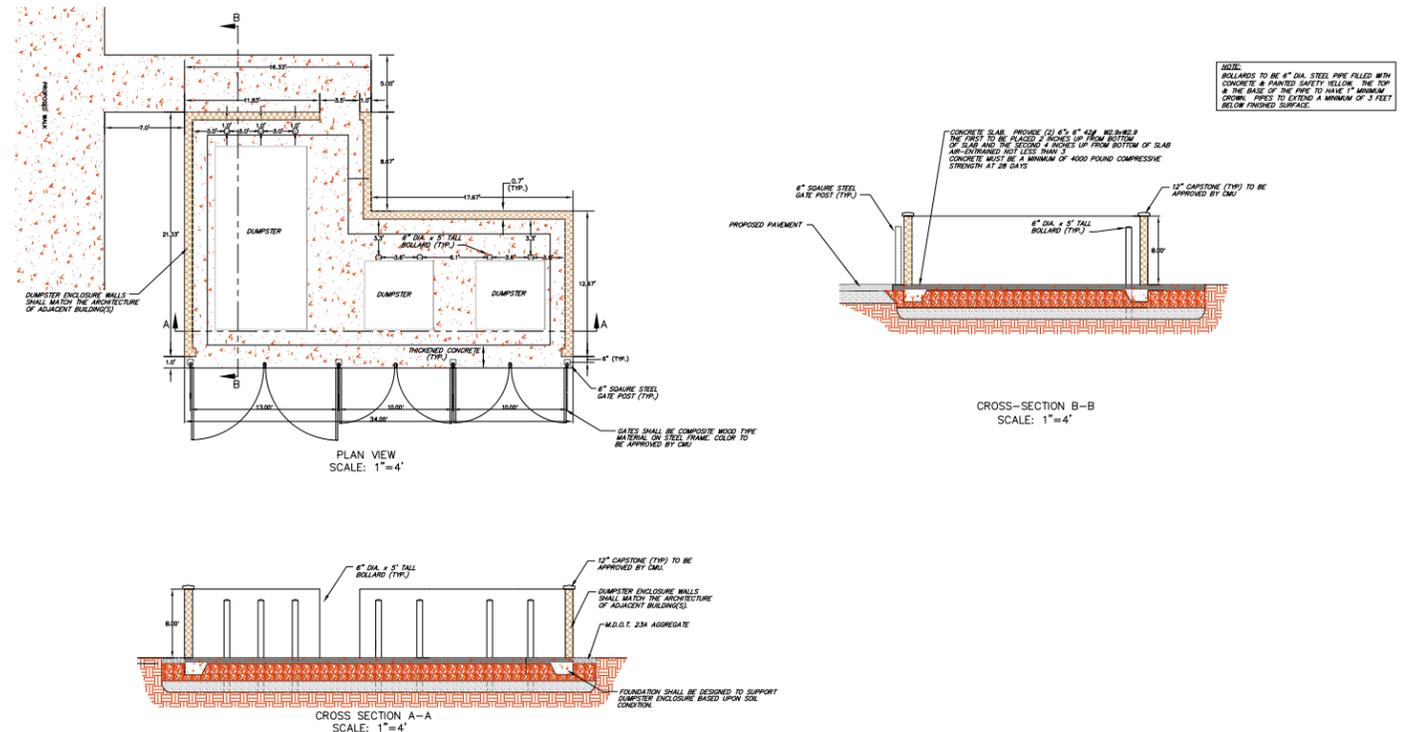
Example successful raised pedestrian crossing detail.



Eight feet is considered the minimum walkway width on the active CMU campus. Over time, key east-west Ribs (as shown in this image) and the north-south multi-purpose Spine will be retrofitted to larger dimensions.

### Dumpster Enclosures

For the most up to date information regarding dumpster enclosures please refer to the Central Michigan Design Standards Webpage: <https://www.cmich.edu/fas/fmgt/pep/Pages/standards.aspx>



### 6.3 GATEWAY VERTICAL ELEMENTS

During the early stakeholder interviews, one of the most common comments regarding the campus image was the need to more effectively ‘mark the edges’ of the campus and of key locations. This issue has been addressed through a multiplicity of recommendations in this Landscape Plan, as well as the companion *Wayfinding* master plan. Recommendations regarding signage, street trees, crosswalks, banners, lighting and feature roundabouts will all contribute to a more legible edges and gateways as opportunities for image enhancement.

In addition to these collected ideas, a ‘family’ of small architectural elements was developed to provide further design vocabulary across a wide array of campus locations and contexts. This includes a large and small column and low wall. These elements can be used together or individually as appropriate in varied areas of the campus, depending on size, scale, available land, site lines and other site specific criteria. Additionally, these vertical elements accommodate a lettered archway, and locations for the university seal or other branding graphic.

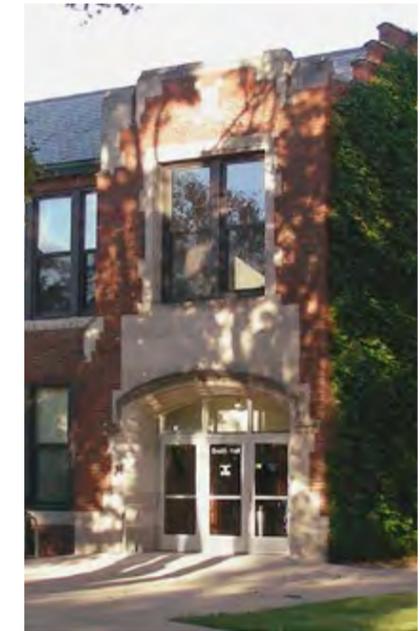
Central Michigan University is a place of diverse architecture and materials spanning over 100 years of history and numerous styles and forms. However, there were several unifying themes that stakeholders identified as being important to the architectural character and appearance of the campus. These include the traditional Warriner Hall and Mall imagery and the use of Red Brick, Limestone and Concrete – whether in traditional or modern buildings.

The materials shown in the vertical architectural studies work together as a family of elements that can accommodate different variations of the brick, concrete and limestone materials – depending on context and adjacent architecture. The final specification of the materials will be identified by CMU at the time of detail design / implementation. (It is important to note that the ‘Limestone’ material may be a ‘cultured stone’/ concrete product of a type, color mix and light sandblast or chiseled finish according to CMU’s preference at time of implementation.

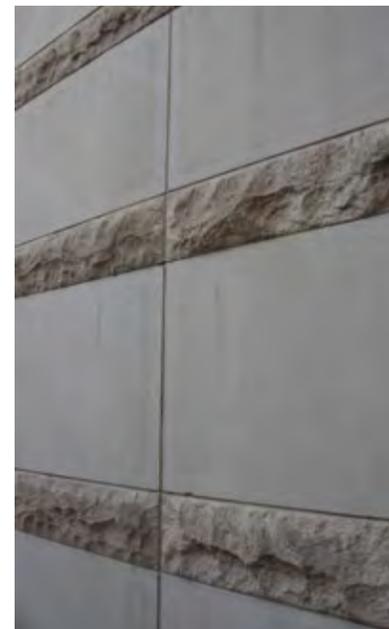
The composition of forms is influenced by the traditional forms and details of some of the buildings near Warriner Mall. Specifically, the use of limerock base, watertable, chamfered ledge and cornice details. Additionally, the proportion and materials used are intended to blend with planned base materials for the larger signage elements. Finally, the use of the materials is intended to be timeless – and flexible for placement near modern or traditional architecture / forms and rough or refined interpretations of materials.



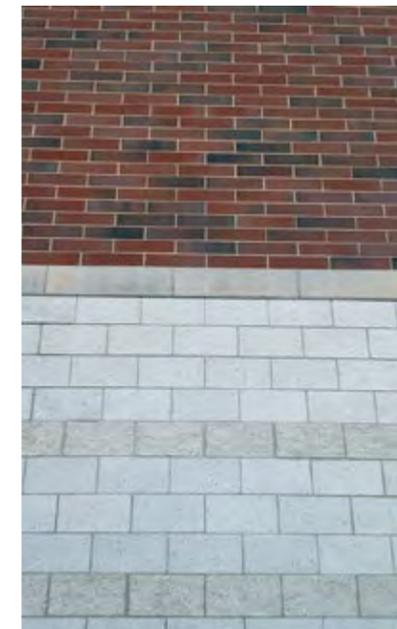
*Buildings on Warriner Mall show the use of limestone base, water-table, chamfered ledge, brick and concrete.*

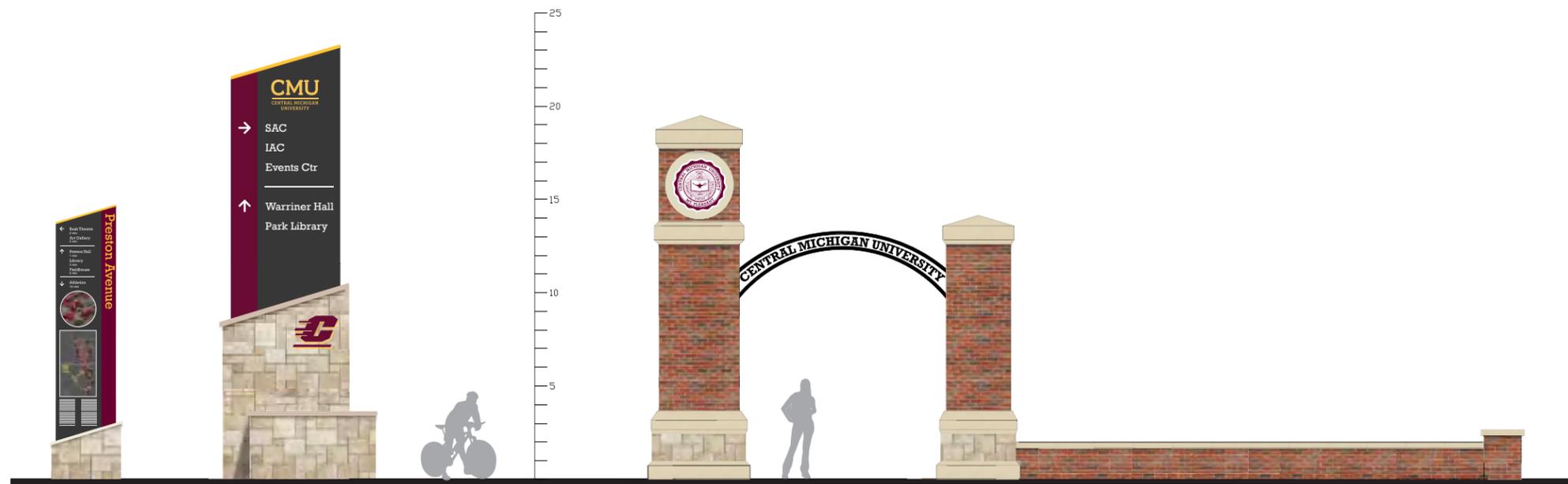
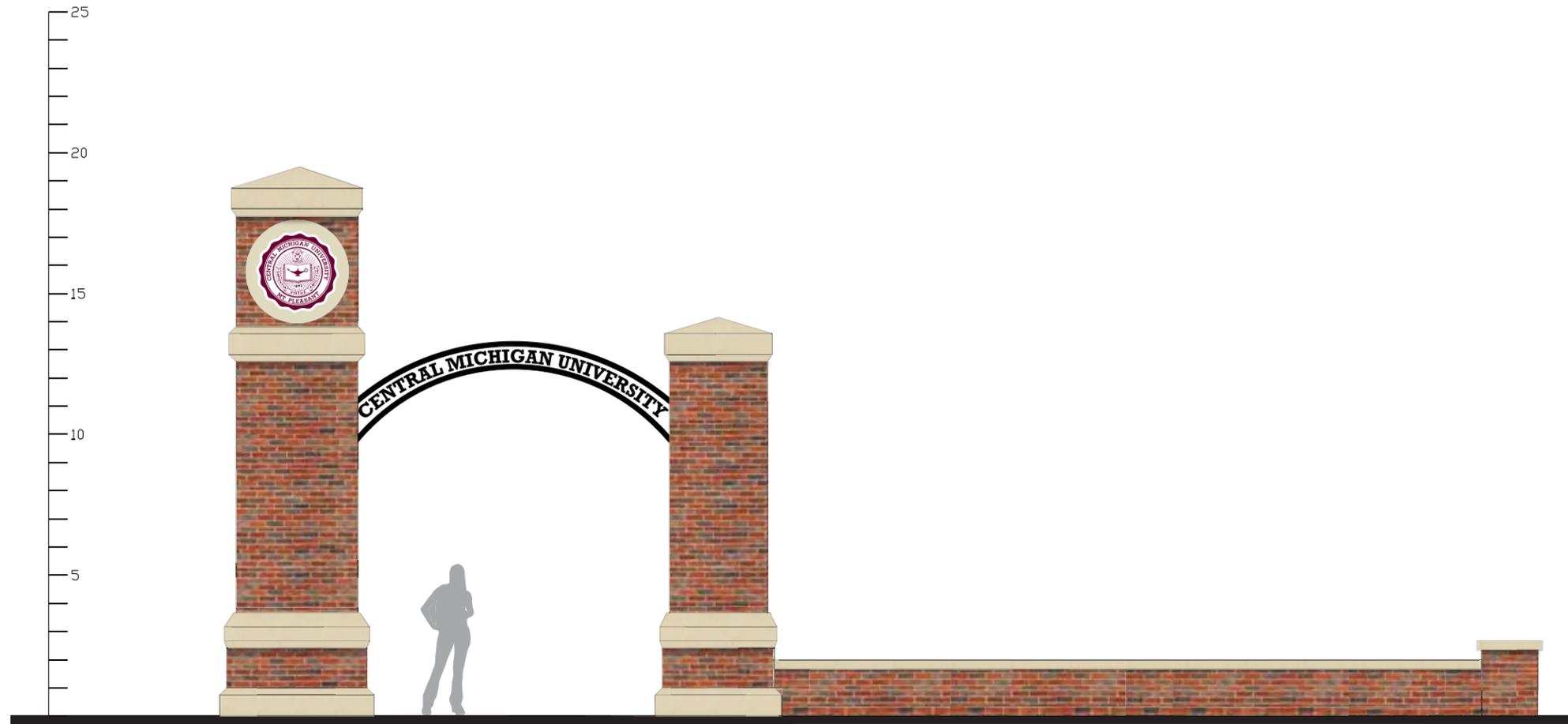


*Rough cut limestone, chamfered concrete cap, new brick and concrete frame application.*



*New construction at CMU with chisel and light sandblast finish limestone, brick and special finish concrete masonry unit, off site application of high finish ‘concrete’ limestone.*





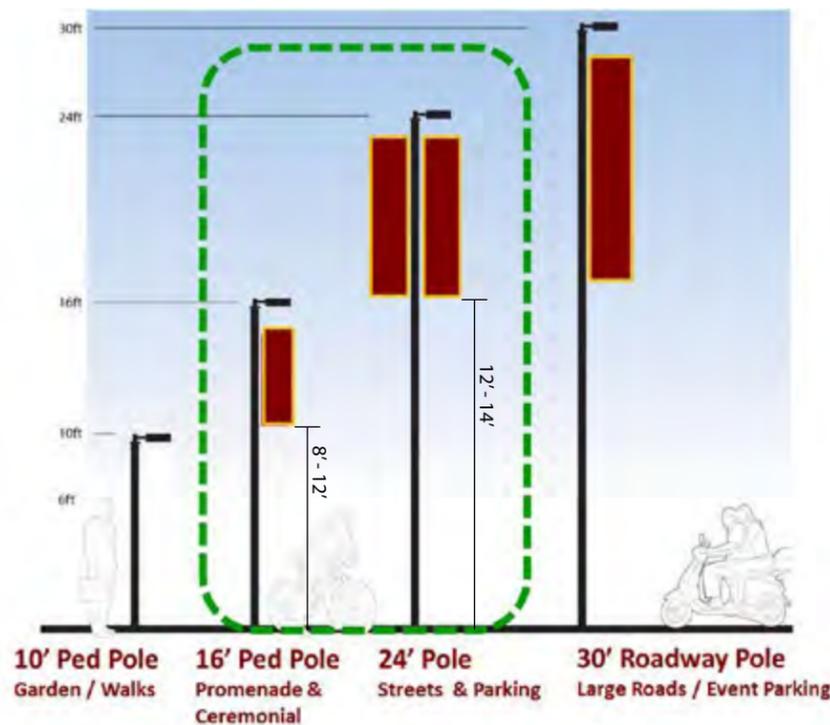
All the columns / elevations – within a general framework of proportion and scale, CMU can select from a family of elements to enhance gateways and edges with large or small columns, knee-walls, and flexible use of materials, archways or university emblems.

## 6.4 LIGHTING

As with many campus settings, Central Michigan University has a wide variety of legacy lighting fixtures on campus, including a variety of pedestrian scale fixtures, as well as utilitarian 'cobra-head' sodium fixtures on 30'-36' poles. In recent years, CMU has successfully implemented a new, attractive lighting fixture (Kim, Archetype, MH, 10' Steel Pole) on many of the interior campus walkways. As part of the campus identity planning effort, a comprehensive discussion about lighting, energy efficiency and campus graphics led to several linked conclusions about lighting.

1. CMU is highly satisfied with the new Archetype fixture on 10' pole in many of the new locations along minor walkways.
2. The 10' poles have to be placed quite frequently to attain photometric requirements, particularly in larger street or open space settings.
3. The alternative of the 'cobra-head' fixture does not provide desirable lighting performance or image character for key areas, and the 30'-36' pole high is 'out of scale' with pedestrians.
4. A 16' pole (same fixture spec), and 24' pole (slightly larger fixture size) would allow for several advantages in certain key locations, including 'A Streets', Ped/Bike Spine & Ribs promenades, Feature Open Spaces and Plazas, other 'front door' locations:
  - a. More 'even' photometrics with a broader 100'-110' staggered spacing,
  - b. LED for 16', 24', and 30' pole application MH for 10' pole application,
  - c. Vertical clearance height and structural strength sufficient to support up to (2) 2' wide x 5' tall school spirit banners on poles
  - d. Attractive and unified look to lighting and banners for feature, fabric and functional places.
  - e. Ability to place banners on pole where lighting is not yet retrofitted / replaced.

As a result of these collaborative discussions, CMU comprehensively restructured the Lighting specifications within the Facilities Management Design Standards Specification Manual. Excerpts of the revised language and performance standards table are shown on the opposite page. As new projects are developed, a lighting photometric performance study shall be performed to document the appropriate footcandle coverage on a 10' grid spacing according to the updated lighting standards included in the Table under Part 9, Lighting Levels, shown on opposite page.



### Lighting + Banners

#### Priority Campus Streets

(Mixed Ped, Bike, Auto, Transit & Image)  
These are potential streets for 24' Poles and Banners. Some streets (such as Bellows and Preston) have OHP lines on the North side of street which may prevent new lighting on that side. In these cases, it may be possible to install freestanding Banner Poles without light fixtures attached.

### Lighting + Banners

#### Priority Campus Paths

Spine and Priority Ribs :  
16' light poles with banners

### Lighting + Banners

#### Priority Sidewalks Through Feature Spaces

Key Open Spaces that could be treated with Banners integrated with 16' Poles to evenly light with fewer fixtures, thus 'opening up' the utility of the space while providing more even area lighting for outdoor space

### Banners (Lgt as needed)

#### Priority Nodes

These areas may be resolved through the natural confluence of gateway design treatments in conjunction with street enhancements

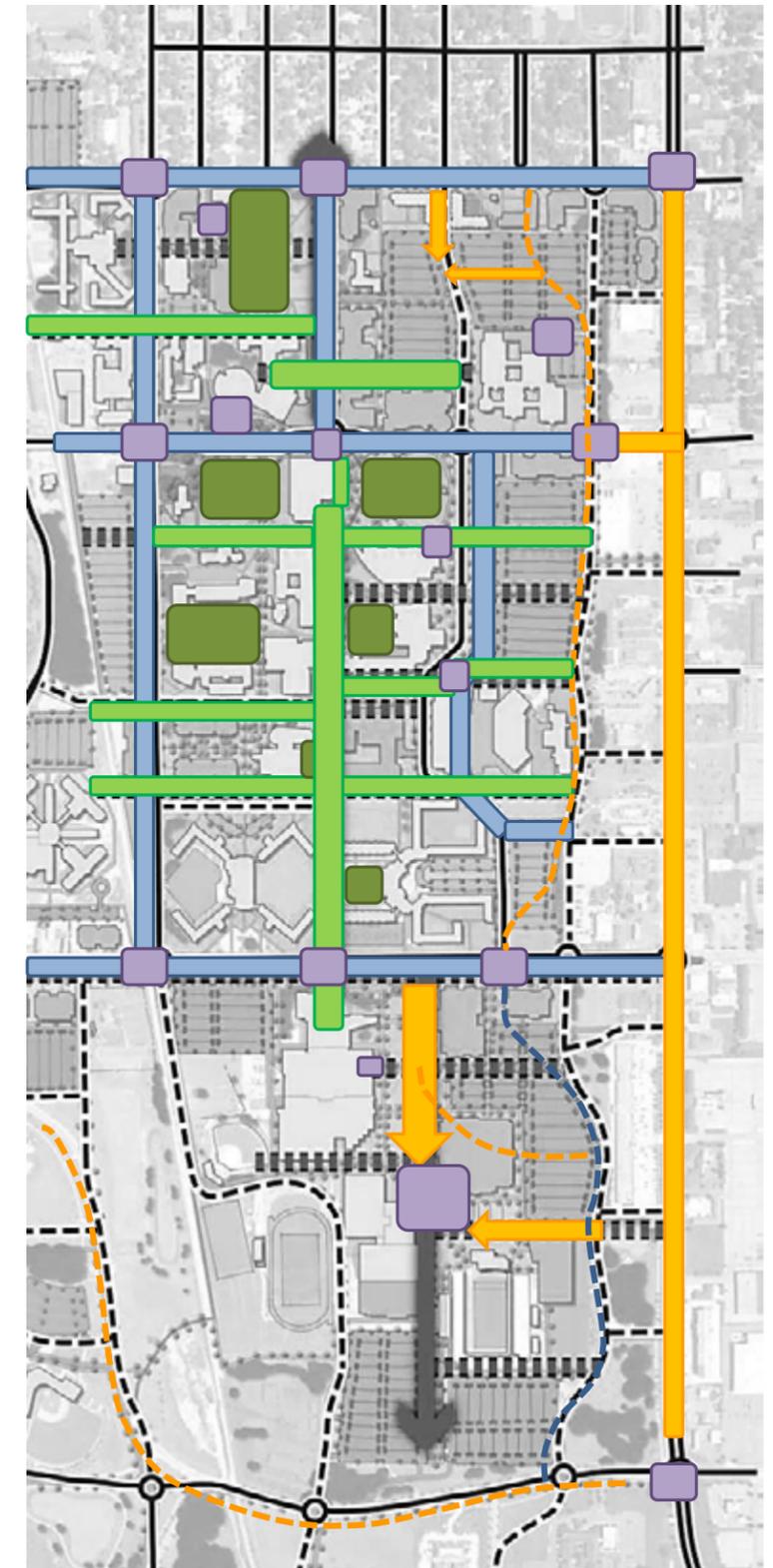
### Banners

#### Other Freestanding Banner Opportunities

There may be some streets which for practical purposes are expensive or difficult to implement new lighting and poles with Banners.

In these areas, CMU may investigate attaching banners to existing Poles (as they are currently placed), or developing a separate but parallel plan to implement CMU owned freestanding poles (no light) with final and CMU banner graphics as 'banner poles'.

East Campus Drive and West Campus Drive are important streets to mark as part of the CMU Campus. But they may not warrant near term lighting investment. Already have lighting



AECOM Recommendations for Implementation

**EXTERIOR CAMPUS LIGHTING**

For the most up to date information regarding Campus Lighting please refer to the Central Michigan Design Standards Webpage: Division 26 Standards.  
<https://www.cmich.edu/fas/fmgt/pep/Pages/standards.aspx>

**Lighting Fixtures:**

1. Exterior lighting to comply with the latest edition of the Illuminating Engineering Society’s minimum recommendations, ASHRAE requirements, and LEED requirements.
2. ASHRAE/IESNA Standard 90.1-2004 Exterior Lighting section will be used to establish lighting power densities. Central Michigan University, located in Mount Pleasant, MI, is categorized by RP-33-99 of IESNA as Lighting Zone 3, Medium Ambient Brightness.
3. Light trespass from campus onto neighboring properties shall be minimized as described in these standards. CMU will also meet the intent of the City of Mt Pleasant Light Pollution Ordinance. Refer to the City of Mt. Pleasant Light Pollution Ordinance.
4. To ensure comfort and security, on-campus lighting shall provide uniform lighting levels along walkways, parking lots and building entrances as identified in the Site Lighting Levels table below

**Building Mounted Site Lighting Fixtures:**

1. Exterior entrance lighting shall be LED type. Recessed soffit or wall bracket type fixtures to be used where applicable. At least one fixture shall be powered on emergency generator.

**Pole Mounted Site Lighting Fixtures:**

1. CMU campus standard for walkway and parking lighting is KIM Lighting Archetype AR/SAR series. At least one fixture near emergency exit shall be powered on emergency generator. The location of fixtures shall be coordinated with the Director of Plant Engineering and Planning.
2. Standardization
  - a. Refer to “Site Lighting Details” Sheet E-1, E-2, E-3, E-4 at the following web address <http://fmgt.cmich.edu/standards.html>
  - b. Any deviations from the standard fixture will have to be specifically approved through the standards waiver process.
3. Lamp Type
  - a. CMU will standardize on the Pulse Start Metal Halide lamp type.
  - b. LED lighting source shall be specified for pole mounted exterior lighting 16’ above grade and higher.
4. Light Levels - Refer to site lighting levels
5. City of Mt Pleasant Light Pollution Ordinance
  - a. Refer to the City of Mt. Pleasant Light Pollution Ordinance.
  - b. Exterior up lighting is prohibited
6. Control
  - a. Photo-electric control shall be provided for all exterior lighting. One control shall control all lights. A means shall also be provided in the control circuit to allow for the main campus Energy Management Control System (EMCS) to override the photoelectric control. The control circuit shall have a hand-off-auto switch of reselecting the mode of control with the EMCS wire to the auto position.

7. Bollard Lighting
  - a. Is prohibited on the Campus of CMU.
8. Site Lighting Purchasing Procedures
 

KIM Lighting and CMU have a purchasing agreement in place. The following purchasing procedures are to be used:

  - a. Third party design
    - i. CMU PEP project manager advises distributor, CMU purchasing and KIM representative of upcoming project. Include scope of work with tentative schedule.
    - ii. Third party design professional shall work with KIM rep during design for photometrics and applications.
    - iii. KIM creates project specific purchasing authorization number. This number is forwarded to CMU project manager, third party design professional, CMU purchasing and distributor.
    - iv. This authorization number is communicated to successful electrical contractor by the Project Manager, and then to the distributor by the successful electrical contractor for the specific project at the time of order placement.
    - v. Contractor purchases product with pre-determined pricing.
    - vi. Delivery to the contractor for installation, check, test, and start and Warranty.
  - b. In-house design
    - i. CMU PEP project manager advises distributor, CMU purchasing and KIM representative of upcoming project. Include scope of work with tentative schedule.
    - ii. CMU PEP project manager shall work with KIM rep during design for photometrics and applications.
    - iii. KIM creates project specific purchasing authorization number. This number is forwarded to CMU project manager, CMU purchasing and distributor.
    - iv. This authorization number is communicated to successful electrical contractor by the Project Manager, and then to the distributor by the successful electrical contractor for the specific project at the time of order placement.
    - v. Contractor purchases product with pre-determined pricing.
    - vi. Delivery to the contractor for installation, check, test, and start and Warranty.
  - c. Facilities Operations
    - i. Facilities Operations manager advises distributor, CMU purchasing (and University Stores) and KIM representative of required maintenance purchases.
    - ii. Facilities Operations manager work with KIM rep for applications.
    - iii. KIM creates project specific purchasing authorization number. This number is forwarded to Facilities operations manager, CMU purchasing and distributor.
    - iv. This authorization number is used for discrete Facilities Operations purchases for maintenance and repair.
    - v. Facilities Operations with University Stores purchases product with pre-determined pricing.
    - vi. Delivery to the Facilities Operations for maintenance and repair or stock.
  - d. Accounting/Reporting
    - i. KIM rep shall create CMU purchasing log to track quantity and CMU cost
    - ii. Purchasing log would be submitted to CMU purchasing to verify pricing and good practices
    - iii. Semiannual meeting with CMU purchasing to review purchasing log

9. Site Lighting Levels:

	DESIGN LEVEL AVG FC	RATIO	LIGHT SOURCE	MIN FC	POLE HEIGHT
Parking Lots - Medium (1)	0.4	20:1 Max/Min	LED	0.1	30’
Walkways	0.3	4:1 Avg/Min	M.H.	0.1	10’
Walkways w/ Campus ID (at Maroon Spine and Ribs)	0.4	4:1 Avg/Min	LED	0.1	16’
‘A’ Streets	0.4	4:1 Avg/Min	LED	0.1	24’
‘A’ Street Parking	0.3	4:1 Avg/Min	LED	0.1	24’
‘B’ Streets	0.4	10:1 Max/Min	LED	0.1	24’
Roadways - Medium (4)	0.25	20:1 Max/Min	LED	0.1	24’ or 30’
Bldg Entrances - Active	1.0	25’ from door or under canopy	LED		
Bldg Entrances - Inactive	0.4	10’ from door to under canopy	LED		

10. Other related requirements
  - a. All exterior area and security lighting shall be powered from one location within the building, preferably from the main electric room.
11. Temporary Construction Site Lighting:
  - a. Specifications shall include temporary exterior security lighting of the construction area. Temporary exterior lighting fixtures shall be equipped with metal halide lamp type and shall be shielded so that light does not spill off of the construction site.
  - b. Contractor shall maintain all temporary exterior lighting and provide for repairs as necessary.
  - c. Permanent building exterior lighting may be utilized during construction, as long as it does not spill off the construction site.
  - d. Contractor shall maintain site walkway exterior lighting, on both temporary and permanent walkways at levels indicated in the CMU Design Standards.
  - e. Any permanent exterior fixtures used during construction shall be thoroughly cleaned and new lamps installed at final acceptance.
12. Temporary Construction Interior lighting
  - a. Contractor shall provide and maintain temporary interior lighting as necessary to complete the work in a safe manner and as required by state and safety codes
  - b. Permanent building interior lighting may be utilized during construction if lighting controls are in place and operational to on-off cycle permanent fixtures.
  - c. Any permanent interior fixtures used during construction shall be thoroughly cleaned and new lamps installed at final acceptance.

## 6.5 SITE FURNISHINGS

Unified site furnishings materials will unify the appearance of the campus, enhance function and comfort for people, and also simplify maintenance, repair and replacement procedures. In review of site furniture on campus with stakeholder and facilities management, a new set of fixtures, largely available through one manufacturer was identified. Color for all furniture is black.



Victor Stanley, *Framer's Modern bench with Back: FMBF-324*. Steel straps, horizontal arrangement, with arms, surface mount. Lengths available: 4', 6', 8', 12' and 16' with center arms. Black.



Victor Stanley *Production chairs and tables together*.



Victor Stanley, *Production table: PRSCT-36R & 42R*. 3' diameter or 4' diameter solid table with umbrella hole, 4 legs, movable. Black.



Victor Stanley, *Production table: PRSCT-36R & 42R*. 3' diameter or 4' diameter solid table with umbrella hole, 4 legs, movable. Black.



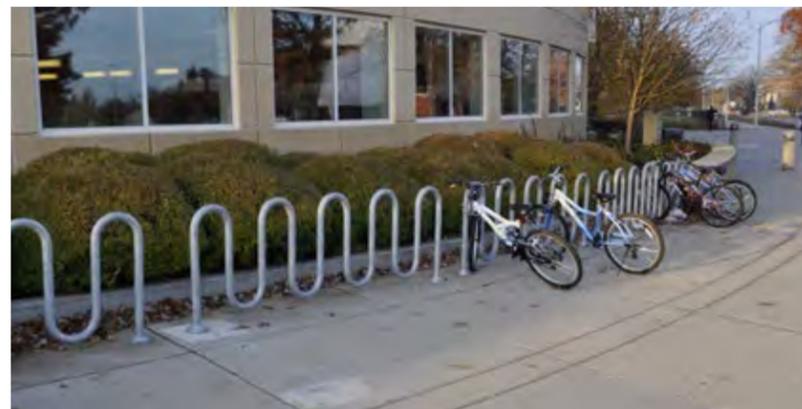
Victor Stanley, *Production chair: PRSCA-8, 'option 1'*. Steel straps, vertical arrangement, movable. Black.



Victor Stanley Parsons picnic table: PT-2. 6' long, freestanding (moveable) or surface mount. Option with Recycled Plastic Slats. Frame color: Black.



Victor Stanley Steelsites trash receptacle: A-36. 36 gallon capacity, vertical steel straps, side door hinged, integral domed lid, surface mount. 24 and 48 gallon capacity options. Black.



Central Michigan University will continue to use the successful galvanized frame RJ Thomas Manufacturing Company model SRE/G-9/C linear bike racks.

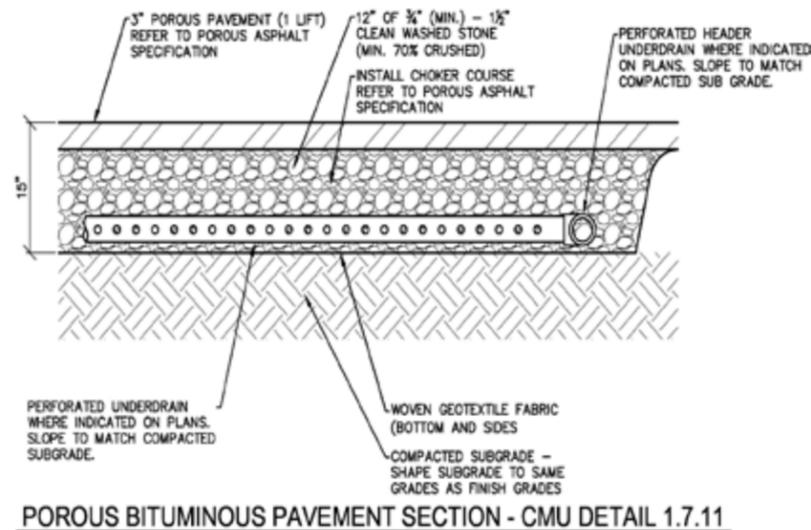
## 6.6 SERVICE AND PARKING

As discussed in sections 3 and 4, parking lots and service yards, although merely 'functional' areas, are a campus necessity and a frequent part of the campus experience. In fact, it may be more appropriate, at least in the case of parking lots to consider them as part of the campus 'fabric'. As such, it is important to take advantage of basic composition concepts regarding the scale of large parking lots, and screening service areas and dumpsters.

Addressing regularly spaces tree planters in a parking lot requires a balance between establishment of cooling tree canopy and vertical scale with functional issues such as snow plowing in the winters. For existing (retrofitted) and future parking lots, a goal is established of no more than 200 linear feet of car parks in a given aisle without a 'break' for a tree planter. Tree planters can be arranged in rows such that efficient alignments (either with traffic, or across parking spaces, can be maintained for off-peak snow removal activities.

Hedge buffers (30") and canopy trees (40-50' oc) can be planted along the perimeter as appropriate. Due to winter snow removal / storage, it is recognized that not all sides of a parking lot will be easily treated with buffer hedging. Each parking lot can be identified with one or two, outward facing primary 'A' sides that have a principal frontage towards an important view or exterior, public area. Other sides could be considered 'B' sides and would not necessarily require a hedge. Any hedge planted would be located 5-7 feet from edge of parking.

Tree selections should be of a 'canopy' tree nature, with the ability for high clear trunks (10' or more) at maturity to maintain site lines to buildings, and high vertical form (40' or more) in order to scale the size of parking lot environments. Planter areas within parking lots should be carefully cleaned out at the time of parking construction, to insure the largest possible aerable planting environment in parking lot conditions – insuring the removal of all parking lot/roadway sub-based within the planter, replaced with clean planting mix in order to insure viable horizontal rooting conditions with a planter with confirmed vertical drainage.



POROUS BITUMINOUS PAVEMENT SECTION - CMU DETAIL 1.7.11

Porous pavement has recently been implemented at CMU. This is viewed as positive application both for drainage and water quality purposes, but to also provide some limited supplemental water and aeration within the vicinity of tree planter rooting areas.



Service and dumpster enclosures are an important visual enhancement to the campus because they conceal negative imagery.



Shade trees can assist in scaling large parking lot environments as well as provide humanize texture, color and form.







